[The text is not legible enough to be transcribed accurately.]
remain. Nevertheless, like all large, multi-authored projects, this one has long outlived the time
scheduled for its preparation and it is time to send it out into the world, admittedly a little startled
and not quite properly dressed for the occasion. As George Philip Krapp was wont to say on
similar occasions: one must leave something for the reviewers to say. It is our hope that users will
be indulgent with its imperfections and suggest improvements for a (still hypothetical) second
edition.

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HOW TO USE THIS ENCYCLOPEDIA

The Encyclopedia of Indo-European Culture is alphabetically arranged and provides coverage of the major Indo-European language stocks and their origins, the conceptual range of the reconstructed Proto-Indo-European language, selected archaeological cultures with some relationship to the origin and dispersal of Indo-European groups, and some of the major issues of Indo-European cultural studies.

Finding an Entry

Broadly speaking there are two sorts of articles in the Encyclopedia: those that do not have as their goal the reconstruction of specific Proto-Indo-European lexical items, i.e., those that are devoted to archaeological, cultural topics, or the various Indo-European languages and stocks, and those that are devoted to the reconstruction of Proto-Indo-European words. The former group we think to be relatively straightforward but the latter group may not be, and thus may be worth a few words of orientation.

Attributing a root-meaning to a series of cognate words is frequently a hazardous business where a half-dozen Indo-European stocks, for example, may yield related words that mean ‘bright’, ‘shining’, ‘silver’, ‘white’, etc., and the linguist must decide which if any of these definitions was the ‘original’ meaning. This problem is compounded when the editors of this Encyclopedia are required to arrange a series of conceptually related roots under appropriate headings. To assure that the reader can find what he or she is seeking (or abandon hope that the semantic sphere can be reconstructed for Proto-Indo-European), the following guidelines may be useful:

a) A list of all entries arranged in alphabetical order is provided in the “List of Entries” section. b) As various headwords may be ‘buried’ under the name of a more general entry, e.g., “comb” is to be found under “Textile Preparation”, the reader is also offered a thematic list of all individual reconstructed head-forms (with cross-references to their entry titles). c) If the term is still not found, the reader is directed to the “General Index” at the end of the book. d) If the reader still can’t find the entry required but knows the word for the concept in any of the major Indo-European languages, then reference may be made to the “Language Index” at the end of the book.

Lexical Entries

The basic lexical-semantic entry normally consists of five parts: the reconstructed form, a gloss to the word, sources indicated in brackets, the IE language data, and a discussion.

a) The reconstructed form (in bold) presents as much evidence as we have about the actual form of the PIE word. Sometimes we are able to reconstruct only a root but, where possible, we give a complete word, the nominative singular in the case of a noun or adjective (and in some cases the genitive singular, or even the genitive and accusative singulars so as to show more fully complicated morphological alternations) or the third person present in the case of a verb.

b) The gloss is usually short, though often some attempt is made to distinguish the meaning of the particular entry from other similar ones. Often further semantic clues are brought out in the discussion.

c) The source or sources (within square brackets) are our attempt to direct the reader to certain larger and more general discussions of the word or root in question. Typically included are references to Julius Pokorny’s Indo-germanisches Etymologisches Wörterbuch (IFW), the standard though somewhat dated, etymological compendium of Indo-European languages, to Calvert Watkins’ The American Heritage Dictionary of Indo-European Roots (Watkins), an etymological overview of Proto-Indo-European from the point of view of English, to Tomas Gamkrelidze and Vjačeslav Ivanov’s Indo-European and the Indo-Europeans (GI), an encyclopedic, though somewhat idiosyncratic, review of Proto-Indo-European language and culture, and to Carl Darling Buck’s A Dictionary of Selected Synonyms in the Principal Indo-European Languages (Buck), a dictionary organized under semantic rather than root headings which illustrate how various Indo-European languages have treated certain concepts. Where words do not appear in one or the other of these works, references to discussions in standard
ABBREVIATIONS AND TECHNICAL TERMINOLOGY

a-vocalism = having the vowel *-a- in PIE, rather than the more usual *-e- or *-o-.
Abkhaz = language of the (non-IE) Northwest Caucasian group of languages.
abl. = ablative, the nominal case expressing origin or source of movement
(e.g., more or less equivalent to English prepositional phrases with from),
e.g., Olind vit ‘settlement’, abl. visid ‘from the settlement’.
albaut = alternation of vowels within the paradigm of a word, e.g., as in
English sing, sang, sung. PIE distinguished a full grade with e or o, a
zero-grade (the absence of a vowel), and a lengthened grade with ẹ or ọ. acc. = accusative case, the IE case marking the direct object of a verb, e.g.,
‘he saw me’, or the object of certain prepositions, particularly those
invoking motion toward some goal, e.g., “he went to the field” and Lat
domum venit ‘he/she goes home’.
acrostatic = a PIE inflectional type where the accent is fixed on the root
syllable, e.g., *bhrehatēr ‘brother’ (nominative) and *bhrehatēfs ‘brothers’
genitive).
active = in transitive verbs where the subject is the agent and the direct
object the undergoer of the activity, e.g., “the boy hit the ball”. Opposed
to the passive where subject and direct object have the opposite semantic
specifications, e.g., “the ball was hit by the boy”.
adj. = adjective, a word modifying a noun, e.g., “the green grass and the
colorful flowers”.
adstrate = (elements of) a language (presumed) responsible for change in a
neighboring language when they are in contact with one another.
adv = adverb, a word modifying a verb or an adjective, e.g., “they went
carefully” or “the exceedingly colorful flowers”.
Aeolic = a Greek dialect group that spread to the western border of Anatolia,
e.g., Lesbos, before c 1000 BC, it is one of the constituent elements of the
Homeric dialect. It consists of Boeotian, Thesalian and Lesbian.
Æsir = major division of Old Norse gods led by Óðinn who are contrasted with
the Vanir. In the Dumezilian model of comparative mythology, they are
identified with the First (priest) and Second (warrior) aspects of society.
affective = meaning that arouses emotional as well as rational response. The
emotional response can either be negative, as in the famous “four-letter words”
of contemporary English, or it can be positive, as with endearments. The emotional response may interfere
with normal rules of sound change.
avoartic = a consonant that begins as a stop but ends as a fricative, e.g., the
initial and final consonants of NE church or judge, or the initial consonant of
NHG zeit ‘time’.
Afro-Asiatic = formerly known as Hamito-Semitic, this is the language family
of southwest Asia and northern Africa which comprised Ancient Egyptian
(associated with Egyptian), the Semitic languages (Hebrew, Arabic,
Akkadian, Assyrian, etc.), Berber, Chadic (in Chad, Nigeria, Cameroon,
etc.) and the Cushitic languages of the Sudan, Ethiopia, Somalia and
Tanzania.
Agul = Northeast Caucasian (non-IE) language of the Lezgin subgroup.

Akkad = ancient Afro-Asiatic, more specifically East Semitic language,
written in the cuneiform script, that was spoken from the Mediterranean
to the Persian Gulf. It flourished in the third millennium BC but by the
second it was being replaced by constituent dialects of Assyrian and
Babylonian.

Akkadogram = (in a Hittite text) an Akkadian word written instead of the
responding Hittite word, presumably intended to be pronounced as
Hittite (see also Sumerogram). Cf. the similar situation in NE lb (< Lat
libra) which is read as ‘pound’.

Alb = Albanian, language of Albania, attested from the sixteenth century in
two main dialects, Gheg and Tosk.
allophone = a predictable variant of a phoneme, e.g., English k is predictably
aspirated in word initial position (as in kit) but unaspirated when
preceded by an s (as in skis), or PIE *h which was voiced before a voiced
stop but voiceless elsewhere.

Altaic = a possible (non-IE) language family composed of the Turkish,
Mongolian, and Tungus language groups.
alveolar = sounds made by the tip of the tongue touching, or almost touching,
the alveolar ridge (the bony ridge behind the upper teeth), e.g., NE t, d,
and z.
alveolaris = a palatal fricative.

Ancient Chinese = the (Middle) Chinese language attested during the period
from c 200 BC to c 900 AD.
appellative = descriptive name or designation, e.g., the all-knowing gods.
approximant = a frictionless continuant sound, e.g., English y, w, r, l
Arabic = Afro-Asiatic, specifically West Semitic (non-IE) language
Arcadian = a dialect of classical Greece spoken in Arcadia, or the north central
corresponding part of the Peloponnesus, and most closely related to Cypriot, spoken
on Cyprus, and the by then extinct Mycenaean spoken, and written,
several centuries earlier throughout the south of the Peloponnesus and
on Crete.

Armenian = the language of the Armenians, of eastern Anatolia and the
south Caucasus, attested from about the fifth century AD to the present.
Ashkun = Nuristani language of Nuristan province of Afghanistan
Asianic = designating a hypothetical language or languages of Asia Minor or
the Levant, elements of which are believed traceable through the words
of various east Mediterranean languages otherwise without etymologies.
ABBREVIATIONS AND TECHNICAL TERMINOLOGY

aspectual = pertaining to aspect, or the manner in which the speaker views the action of a verb (as on-going, momentary, having continuing relevance, etc.), e.g., "he eats meat" (i.e., is not a vegetarian) versus "he eats up the meat" (i.e., a single act of eating).

aspiration = strong, breathy, release of a consonant, e.g., the initial p in English pit as opposed to the unaspirated variety when the p is preceded by a s in spite.

assimilation = the change of a stop consonant such as t or k into an s-like sound or one that ends in a s-like sound, e.g., t > ts.

assimilation = the change of one sound in a word so as to make it more like another sound in the same word, e.g., ts > possible impossible where the n shifts its place of articulation to become more like the following p.

Assyrian = pertaining to ancient Assyria or its (non-IE) language (a variety of Akkadian).

attic = refers to events with no built-in goal or endpoint, e.g., "they rode horses", "the birds were flying around", as opposed to telic events where there is a natural goal or endpoint to the activity, e.g., "he built a house".

athematic = nouns and verbs in PIE, and the various daughter stocks, whose stem does not end in -o-s, e.g., *gʷo-s-s'cow' as opposed to the thematic *taur-o-s 'aurochs, bull'.

Attic = the variety of Greek spoken in classical Athens and the surrounding Attica. It was the dominant literary variety of Greek in classical times and became, somewhat influenced by the neighboring Ionic, the ancestor of almost all post-classical varieties of Greek.

Attic-Ionic = a closely related group of classical Greek dialects including the Attic of Athens and the rest of Attica and the various Ionic dialects of the Cyrenaics and the Greeks-speaking coastal strip of Anatolia.

augment = a prefix (*s-ye- in certain varieties of late PIE and their descendants (Greek, Armenian, Indo-Iranian, Phrygian) that indicated past time in verbs, e.g., Ol'dh bharat 'he carries' but s-bharat 'he carried'.

Av = Avestan, the Iranian language of the ancient and sacred scripture of Zoroastranism, traditionally dated c 600-400 BC, but probably earlier.

backformation = word derivation by subtraction, e.g., English orientation (itself regularly derived from orient) > orient since orientation would be a regular derivative of orientate, if the latter had existed.


Baju = a dialect of Shqiponje, an Eastern Albanian language.

Bakhthari = a Southwest Iranian language spoken in the province of Luristan.

Balkan-Danubian complex = hypothetical grouping of various cultures of Balkans and central Europe (e.g., Baden, Eezoro, Ustavato) that date to c 3000 BC on the basis of shared architectural, ceramic and metallurgical forms. In the "Kurgan theory", the similarities are attributed to a common superstrate of steppe intruders.

Baltic-Slavic = a possible IE superstock composed of Baltic and Slavic.

Baluchi = an Iranian language belonging linguistically to the Northwestern Iranian languages and spoken in southwestern Pakistan and adjacent parts of Iran and Afghanistan.

barytone = a word with non-final accent, e.g., Greek τραγος 'slice' (< "thing cut off"), as opposed to oxytone, a word with final accent, e.g., Greek τρώκ 'cutting, sharp'.

Basque = non-Indo-European language of northern Spain and southern France, usually regarded as a residual language of western Europe that has survived the incursions of the Indo-Europeans.

Berber = major subdivision of the Afro-Asiatic language phylum spoken in North Africa.

bilabial = a sound formed with both lips, e.g., NE p and b.


BMAC = Bactrian-Margiana Archaeological Complex, major archaeological culture of Central Asia c 2200-1700 BC. It has been identified as a likely candidate for early Indo-Iranians prior to their expansion southwards into Iran and northern India.

Boeotian = Greek dialect belonging to the Aeolic group that was spoken in Boeotia.

Breton = a Celtic dialect of Brittany, primarily derived from the language of early British immigrants of the fifth and sixth centuries AD, and closely related to Cornish and Welsh.

Brit = Old British, the P-Celtic Insular Celtic language spoken in Britain and attested in the last centuries BC and first centuries AD.


Bulgarian = a south Slavic language closely related to (Slavic) Macedonian. Old Bulgarian (ninth-twelfth century BC) is close to Old Church Slavonic but after the eleventh century Bulgarian saw considerable restructuring such as the loss of most of its case forms.

Burgundian = Germanic language, related to Gothic, which spread from Thrungia to Gaul in the fifth century, some lexical items have been preserved in French.

Burmese = the (non-IE) Sino-Tibetan language which is the major language of Burma (Myanmar).

Byzantine = medieval Greek as spoken in the Byzantine Empire.

Calabrian = pertaining to the peninsula (Italian and Greek spoken there) that forms the toe of Italy.


causative, a verb indicating causation, e.g., "to fell a tree" where fell = cause to fall.

Celtic = the major IE stock of western Europe, where it was spoken in the British Isles, Gaul, northern Italy, Iberia, southern Germany and Switzerland, and was carried as far east as Anatolia (Galatian) centum = those descendants of PIE in which the PIE dorso-palatals did not assimilate. Designated by the Latin word for 'hundred', centum (pronounced in Classical Latin as cemnum) Opposed to satem.

Chechen = language of the Northeast (Chechen-Ingush) group of (non-IE) Caucasian languages.

Chuvash = a (non-IE) Turkic language spoken along the middle Volga where their ancestors settled about the fourth century AD.

cist = stone-built box-like construction which served as a receptacle for a burial.

cognate = related by origin, as two words in related languages descended from the same word in the language ancestral to both languages, words may be non-cognate if they have not been descended from a common word in their mutual proto-language or if they reflect a borrowing from one language to another, e.g., NE the element man is not cognate with Lat vir 'man' as they both derive from a common ancestral PIE word, on the other hand NE man is not cognate with Lat vir 'man' which is a borrowing (via French) from Lat viris 'manly'.

coll. = collective, a noun that designates a collection of persons or things taken as a unit, e.g., NE hair when it means 'mass of hair' (and opposed to hair 'a single hair').

com. = common, designation of the animate (i.e., non-neuter) gender of Hittite and other Anatolian languages.

conj. = conjunction, a word, such as and, but, because, etc., that connects other words, phrases, clauses, or sentences.

consonant stem = a type of PIE noun which ended in a consonant, e.g., *men-es 'thought' and opposed to those nouns whose stem ended in some sort of vowel, e.g., *pru-u 'passage' or *u(k) *-or-wolf.

continuant = a consonant, such as s, f, that can be prolonged at will without change in quality, opposed to a stop.

Cornish = Cornish, Celtic language of the Brittonic group (and closely related to Welsh) spoken in Cornwall.
correlative = a grammatical construction involving two words which correspond to one another in some fashion and which are used together, e.g., correlative clauses, "when we need you, then we'll call you".
Cretan = that variety of ancient Greek spoken on Crete.
CrescGoth = Crimean Gothic, a variety of eastern Gothic spoken in the Crimea, extinct by the eighteenth century, attested by a fragmentary wordlist collected in the sixteenth century.
Cypriot = a dialect of classical Greece spoken on the island of Cyprus, closely related to classical Arcadian and Mycenaean.
Czech = Czech, the western Slavic language of Bohemia and Moravia, first attested to the eleventh century AD.
Dan = Danish, Scandinavian language of the Germanic stock. The earliest Danish, attested from about 1300 AD is an East Norse language (along with Swedish).
Dan = a southwestern subgroup of the modern Indic languages whose most important member is Kshmiri.
dat = dative, that form of the noun which characteristically refers to the recipient of an action, e.g., him in the English sentence "I gave the book to him".
deaspiration = loss of aspiration, e.g., *bh > b, *dh > d, etc.
delictic = a word specifying place or time, e.g., here, there, this, that, then.
delocalization = alternate name for unrounding, e.g., kʷ > k.
Delphic = that variety of ancient Greek spoken in Delphi.
demonstrative = specifying or singling out a particular noun. This, these, that, those are demonstrative adjectives, e.g., "the wool of these sheep is to be shorn".
denatalization = loss of nasal resonance in a sound, e.g., m > b, n > d, etc.
dendrochronology = the dating of events and environmental changes by the analysis of the corresponding patterns of growth rings on trees and wooden remains from archaeological sites.
densome = a derived verb derived from a noun, e.g., Latin piscare 'to fish' derived from piscis 'fish'.
dental = a sound made with the tip of the tongue against the back of the upper teeth, e.g., NE th in think.
desiderative = designating a derived verb which expresses a desire to do the act denoted, e.g., Lat edere 'to eat' underlies a desiderative esurire 'to be hungry, to want to go and eat'.
descence = grammatical suffix.
devata-dvandva = compound form in Indic that unites the names of two (or more) deities into a single word where both elements were originally in the dual, e.g., Olinda Mitra-varana Mitra and Varana or Indra-yai Indra and Yaiu.
deverbal = a word derived from a verb, e.g., NE worker from (to) work.
devocalization = the making of a sound voiceless, e.g., d > t or b > p.
dial. = dialectal, a form of the language not regarded as standard (at least in dictionaries).
diminutive = a word meaning a suffix denoting smallness, youth, familiarity, or affection, e.g., booklet from book or words in -to or -to in Spanish such as muchachito 'dear little boy' from muchacho 'boy'.
dissimilation = a phonological process whereby two sounds within a word become less alike, e.g., the dissimilation of r.r > l.l in Late Latin pelegarius 'piggin' from earlier peregrinus.
diyclic = having two syllables.
Doric = one of the principal groups of the West Greek dialects which presumably did not enter Greece until after the Mycenaean inscriptions.
Doric is found in northern Greece, the Peloponnesus and the Aegean.
dorsal = a sound made with the back of the tongue against the root of the mouth, e.g., NE k.
dorso-palatal = a sound involving the back part of the tongue and the hard palate, e.g., PIE *ŝ and *k̂.
dorso-velar = a sound involving the back part of the tongue and the soft palate, e.g., NE k, g.
Dravidian = a non-IE language family of central and southern India which includes Tamil, Telugu, Kannada and Malayalam.
dual = designating a number category that indicates two persons or things, e.g., Greek óxos 'two wolves', and opposed to the singular, denoting one person or thing (Greek óxos 'wolf') and plural, denoting (in languages without a dual) more than one person or thing (in languages with a dual) more that two persons or things (Greek óxos [three or more wolves]).
Dutch = West German language spoken primarily in the Netherlands, Belgium (where it is known as Flemish) and in a sufficiently changed form to rank as a separate language, in South Africa (Afrikaans).
ed- or -e-grade = in an ablauting paradigm, having the vowel *e>r (less commonly *e>s) rather than *e>o or no vowel.
Egyptian = a major branch of the (non-IE) Afro-Asiatic languages that also include Semitic and Berber.
EIE = Etudes Indo-europeennes.
ejective = a stop produced by closing the vocal cords and raising the larynx, thus compressing the air in the upper throat and mouth which is released by the opening of the lips and/or tongue which have been closed as for a regular voiceless stop, e.g., the initial consonant of Osset k'illaw 'hernia'.
Elamite = the non-IE language in Elam in what is now southwestern Iran.
emphatic = in phonology, a sound produced with more than ordinary articulatory energy, e.g., the boi NE bolisht when emphatically spoken.
enclitic = a word that has no independent accent in a sentence, forming a single phonological unit with the preceding or following word, e.g., Latin -que and in Senatus POPULUSQUE ROMANUS the Senate and People of Rome.
enlargement = addition of consonant extension to PIE root, e.g., *ten-s- or *ten-gh: beside *ten-, all 'stretch'. Presumably the remnant of some early PIE derivational process but one without much or any semantic consequence in reconstructible PIE.
Enneolithic = the so-called 'copper-stone' age, i.e., the cultural and chronological period where copper metallurgy existed alongside the production of stone tools but before the early Bronze Age (although there is often an overlap between this term and both Neolithic and early Bronze Age in various regions of Eurasia). In Eastern Europe, the period generally comprises the late 5th and 4th millennium BC.
egophonic = pertaining to or using an eponym, a person whose name has given rise (by fact or repute) to the name of a people, place, institution, etc., e.g., Constantinople from the name of the emperor Constantine ergative = the name given to a morphological and syntactic situation whereby the morphological shape of the subject of an intransitive verb and the object of a transitive verb is the same while the shape of the subject of a transitive verb is different.
Estonian = along with Finnish, the major Baltic-Finnic language of the Uralic language family; spoken as the national language of Estonia.
etymology = designation of an ethnonym, e.g., English, German.
Etruscan = a probably non-IE language (certainly non-Italic) anciently spoken in Tuscany in Italy.
etymon = the original form of a word.
ethnemic = the process whereby gods develop out of deified heroes or, to the contrary, where mythological stories once attributed to gods are reassigned to human heroes.
earactive = describing verbs that reflect events, e.g., "He stood up", as opposed to states, e.g., "He was standing".
excentric = designating a compound noun or noun derivation whose distribution is different than that of any of its constituents (e.g., NE redcoat beside red and coat).
factive = a verb derived from a noun or adjective which expresses the creation of the quality of the underlying noun or adjective (e.g., NE whiten from white).
familiar = a word whose normal use is restricted to the family or other intimate associates, e.g., daddy as opposed to the more general father.
fem. = feminine, one of the divisions which PIE nouns, and the nouns of many IE languages, are divided, opposed to “masculine” and “neuter”. Feminine nouns do not necessarily refer to females, e.g., Lat mensa (km.) ‘table’, though nouns whose referent is an adult female human being are, almost always, feminine in gender.
feminization = creation of a feminine noun from a masculine or neuter, e.g., Lat porta ‘female pig, sow’ from porcus ‘hog, pig’.
Finnish = the major representative of the Balto-Finnic subgroup of the Uralic languages.
Finno-Ugric = the major western group of the Uralic language family that includes some fifteen languages (Finnish, Estonian, Hungarian, etc.) today, the eastern branch comprises the Samoyedic languages.
First Function = the ideological conceptualization of the religious and juridical components of Indo-European society reflected in the system of comparative mythology championed by Georges Dumézil and others. In crude social terms, the “priest class” and its attendant ideology.
first person = the speaker, i.e., ‘I or we’, in a conversation.
Fomorians = otherworld enemies of the Tátharth De Danann in Irish cosmological and eschatological myth.
formal = a word whose normal use is restricted to more formal situations, e.g., NE transport as opposed to carry.
formant = grammatical suffix (alternate designation for desinenve).
fortis = referring to a stop consonant pronounced with more than ordinary articulatory energy, e.g., the t in NE tumbled.
Franconian = designating a group of West Germanic dialects spoken near or on the middle and lower Rhine, roughly the varieties of West Germanic spoken by the Franks (Old Low Franconian is the ancestor of Dutch).
Frisian, a West Germanc language closely related to English and spoken in the Dutch province of Friesland.
full-grade = referring to a PIE formation where the vowel is either -e- or -o- (usually accented), e.g., PIE *dor-u (nom.-acc.) ‘tree’ where the root syllable shows a full-grade -o-. Compare *dr-uts (gen.) ‘wood’ where the root syllable has zero-grade while the inflectional syllable has full-grade.
Galatian = adjective referring to the Celtic immigrants found in central Anatolia in classical times and to their language. The Celtic Galatians formed the nucleus of a larger Roman province to certain congregations of which Paul wrote an epistle.
Gallo-Lat = Gallo-Latin, see Gallo-Roman.
Gallo-Roman = referring to the Latin spoken in Gaul after the Roman conquest, a Latin which had borrowed a number of words from the Celtic language (Gaulish) originally spoken there.
Galic = Galic, designating the oldest variety of Avestan, in its original form the language of Zarathustra.
Gaul see Gaulish.
Gaulish = the Continental Celtic language of ancient Gaul, generally attested during the period from the third century to first centuries BC.
Gavarbati = Dardic (i.e., northwestern Indic) language spoken in Afghanistan near the Pakistan frontier, where the Bashtal and Chitral rivers merge to form the Kunar.
germination = the doubling of a consonant, e.g., in Lat lernum ‘iron’ or sagitta ‘arrow’.
generalizing particle = a small uninflected word (or suffix) that serves to make a pronoun or verb general in its application (e.g., NE -ever in whoever).
Germanic = one of the twelve major branches of Indo-European, spoken originally in northwestern Europe. It includes English, Frisian, Dutch, German, Yiddish, Danish, Swedish, Norwegian, Icelandic, Faeroese, and various other extinct languages.
Gheg = the northern variety of Albanian, opposed to Tosk, the southern variety. It formed the basis of the pre-War standard language. (The current standard is based on Tosk.)
glide = in phonology a synonym for approximant, e.g., NE y and w.
Gmc = see Germanic.
Gortyn = ancient city of central Crete, known for its early, well-preserved law code which forms one of the earliest long inscriptions in the Doric variety of Greek.
Goth = Gothic, the sole example of eastern Germanic, attested by a fourth century AD translation of the Bible; fragmentarily attested in the Crimean (Crimean Gothic) in the sixteenth century before becoming extinct by the eighteenth century.
Grammarians Law = a rule in both Greek and Old Indic phonology that prohibits two aspirated consonants in adjacent syllables, where two aspirated consonants would be expected, the first is deaspirated (thus Greek *tithēmeni 'I put' > *tithēmeni and Old *dadhām 'I put' > *dadhami). Named after Hermann Grässmann (1809-1877) who recognized the law in 1863.
Grimm's Law = designation of the systematic phonological change in the prehistory of Germanic whereby PIE voiced aspirated stops were deaspirated, voiced stops became voiceless, and voiceless stops became continuants (e.g., *dh, d, t > d, t, b). Named after Jacob Grimm (1785-1863) who recognized the relationship in 1822. See also Verner's Law.
Grek = Greek, the major IE stock of Greece and its ancient colonies, attested as Mycenaean from about the fourteenth century BC, and as Homeric Greek (c800 BC) then Classical Greek from c600 BC until the beginning of the Christian era.
hapax = a short form of hapax legomenon, meaning a word that occurs only once in the recorded attestation of a given language, consequently, a hapax may often be very uncertain with respect to both form and meaning.
Hattusa = a non-IE language spoken at Hattusa, prior to its domination by the Hittites. The surviving texts, found in the Hittite archives, are largely liturgical and Hattic loanwords are found in Hittite.
Hausa = an Afro-Asiatic language (a group which also contains Semitic) spoken in Niger and northern Nigeria.
Hebrew = a Semitic (Afro-Asiatic) language spoken in ancient Judea and Samaria and, in a revived form, in modern Israel.
Hesychas = Hesychius of Alexandria, a fifth century AD Greek scholar who compiled an extensive dictionary of the Greek language; he is sometimes the only source for Greek cognates with other IE words.
heteroclisis = the name for a morphological situation in Proto-Indo-European and many of its daughter languages whereby a given noun is formed from two stems, one for the nominative and accusative and the other for the rest of the cases. The most common type involved a nominative and accusative with -r (e.g., PIE *udr-r ‘water’) and the rest of the cases in -n, e.g., *ad-n-m-r ‘of water’.
HierLuv = Hieroglyphic Luvian, an Anatolian language closely related to (Cuneiform) Luvian and attested in a hieroglyphic script, devised in Anatolia, during the period c1300-700 BC.
hieroglyph = pertaining to sacred writing.
hippomorph = having the shape of a horse.
Hirt's Law = designation of two laws discovered by Herman Hirt (1865-1936); the first recognizes the leftward retraction of PIE accent in Balto-Slavic from a final syllable to a preceding one, provided the latter contained a laryngeal (e.g., PIE *dhruhapsas > Lith dtumas), the second recognizes the leftward shift of PIE accent in Greek from the middle
ABBREVIATIONS AND TECHNICAL TERMINOLOGY

syllable of three short syllables to the first (e. g., PIE *veliutoro > Grk E2Evtop). Both rules were discovered in 1895.

Hittite, best attested language of the Anatolian stock, the official court language, attested in over 25,000 clay tablets, of the Hittites of central Anatolia (Turkey) which flourished during the period c 1650-1190 BC.

Holocene = the current period since the last (Ice Age or Pleistocene, beginning about 10,000 years ago.

Holokinetic = a nominal accent pattern in PIE where the accent falls on the root syllable in the nominative and accusative but on the last suffixed syllable in the other cases, e. g., *panti-dh2-woy, gen. *pita-h2-os.

Homerice = the Greek dialect of the Homeric poems and epics dated to c 800 BC, it was an artificial dialect derived primarily from the Ionic and Aeolic dialects.

Homonymous = words having the same sound, e. g., NE right and write.

Hungarian = major representative of the Ugaric branch of the Finno-Ugric languages, the western division of the Uralic language family.

Huri = the major non-IE language of eastern Anatolia and the upper reaches of the Tigris and Euphrates. The Hittites influenced greatly the religious development of the Hittites and Luwians in the period after 1400 BC. Hurrian is closely related to Urtarian.

Hydronymy = (the system of) names given to rivers, lakes, and other bodies of water in a particular area.

Hystero Kinetic = a nominal accent pattern in PIE where the accent falls on the second to last suffixed syllable in the nominative and accusative but on the last suffixed syllable in the other cases, e. g., PIE *muste-ti-sxs, gen. *must-e-s.

I-stem = a variety of noun or adjective in Proto-Indo-European or many of its daughter languages that is derived by the addition of an -i-, e. g., PIE *k2w-e-ti-sheep.

Ibero-Celtic = the variety of Celtic spoken in classical times in Iberia, known only from a few, mostly short, inscriptions, also known as Hispano-Celtic.

Idiolect = the variety of a language spoken by an individual speaker.

IE = Indo-European.


IF = Indogermanische Forschungen.


Ilyrian = the ancient IE language spoken in classical times in Illyria (the equivalent of the old Yugoslavia and adjacent parts of Albanian). It is known almost exclusively from proper names recorded by Latin authors.

Imperspective = referring to a special form of the verb that expresses a command or plea, e. g., NE "Speak!" or "Be gone!"

Imperfect = referring to a special form of the PIE verb, or of many of its daughter languages, that refers to a past activity as an on-going one, much as the New English past progressive, "she was working on her thesis".

Indefinite article = a word modifying a noun that introduces to a conversation, e. g., "there once was a king.

Indic = IE stock found largely in India, including Sanskrit (Old Indic) and its modern descendants such as Hindi, Panjabi, Bengali, etc.

Indicative = designation of a verbal mood that expresses a command or a direct object, e. g., "they moved", as opposed to transitive verbs which do take direct objects, e. g., "they built a house.

Iraqi = major dialect grouping of ancient Greek, spoken in Euboea, the northern Cyclades, and southwestern Anatolia and with Attic (Attic-Ionic), it provided the basis of much of classical Greek writing and modern Greek.

Ishakshirni = a Southeast Iranian language spoken in northeastern Afghanistan and adjacent portions of Tajikistan. Attested only in modern times.

Isogloss = boundary of the area where a significant linguistic feature (such as a particular pronunciation, morphological feature, or vocabulary item) occurs.

Italo-Celtic = a possible IE subgroup composed of Italic and Celtic.

Iterative = a derived verb which emphasizes the repetition of the act denoted, e. g., Grk noro-xnai, hover, fly about.

JIES = Journal of Indo-European Studies.

Kalasha = Dardic (i.e., northwestern Indic) language of the Chirtal Valley of northwestern Pakistan.

Karakalpak = a Turkic ethnic and linguistic group located along the lower Amu Darya and along the southern edge of the Aral Sea in Uzbekistan.

Kartvelian = the (non-IE) South Caucasian language group among which Georgian is the best known.

Kashmir = dominant Indic language of the Indian state of Kashmir; attested from the fourteenth century AD.

Kashubian = a West Slavic language, closely related to Polish, and spoken in Pomorania between the Oder and Vistula.

Khit = Nûrsî language of Afghanistan, spoken in two discontinuous areas of the Hindu Kush with some speakers also settled in the Chital area of Pakistan.

Khoir = a ring of stones set to reinforce the earth at the base of a mound.

Khotan = Khotanese, an Eastern Iranian language spoken along the southern rim of the Tarim Basin in Xinjiang.

Khowar = Dardic (i.e., northwestern Indic) language of the Chirtal area of Pakistan.

Kuli = dialect of Roshani, a Southeast Iranian language.

Khwazehman = East Iranian language attested (not always continuously) from the third to fourteenth centuries AD in the area of Central Asia centered on Khiva.

Kluger’s Law = the phonological process in Proto-Germanic whereby an obstruent of any sort plus a following -n- gave a geminate voiceless stop, e. g., PIE *pp-, *pp- > *dnd- > Proto-Gmc. *np-.

Konon = a language or dialect common to a wide area in which different languages or dialects are used locally, particularly the common Greek literary language from the close of the classical Attic period to the Byzantine era.

Komi = also known as Zyryan, Komi belongs to the Finnic branch of the Uralic language family and is spoken in the north of Russia (in the Komi Autonomous Region).

Kurdish = a Northwest Iranian language spoken in southeastern Turkey, northern Iraq, and northwest Iran, and by scattered groups in Syria, and Central Asia. Attested only in modern times.

Kurgan = blanket term for a series of archaeological cultures of the Copper and early Bronze ages in the steppelands and forest-steppe of the Ukraine and south Russia. It derives its name from the Russian kurgan (a Turkish loanword) which designates a tumulus or barrow which typically covered the burials of the steppe.

Indo-Urartian = a major ‘superstock’ of the Indo-European languages comprising Iranian, Indo-Aryan and the Nûrsî languages, also used to describe the reconstructed ancestor of these languages.

Infinitive = an infinitival, a verbal form that does not specify person and shares certain characteristics with nouns; in NE preceded by to, e. g., "to sleep when one is tired is natural." Attested infinitives are largely the result of independent creation in those IE languages that have them.

Infix = an affix inserted in the middle of a word (e. g., the n in NE stand vs. stood).

Lingush = a Northeast Caucasian language, related closely to Chechen.

Injunctive = designation of a verbal mood that expresses a command or a direct order, e. g., NE "you should eat the mouthily bread.

Insular = instrumental, the designation of a nominal case that indicates means or instrument, Olnd gr bio 'pressing stone', ins. gravi. 'with the pressing stone'.

Intensive = a derived verb which emphasizes the act denoted, e. g., OE findan 'find' compared to the intensive findan 'seek out, explore, investigate'.

Intravocalic = situation between vowels, e. g., the -t- in NE pity.

Intransitiv = intransitive, the designation of a verb which does not take a direct object, e. g., "they moved", as opposed to transitive verbs which do take direct objects, e. g., "they built a house.

Ionic = major dialect grouping of ancient Greek, spoken in Euboea, the northern Cyclades, and southwestern Anatolia and with Attic (Attic-Ionic), it provided the basis of much of classical Greek writing and modern Greek.

Islandic = a Southeast Iranian language spoken in northeastern Afghanistan and adjacent portions of Tajikistan. Attested only in modern times.

Kashmiri = dominant Indic language of the Indian state of Kashmir, attested from the fourteenth century AD.

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Kurgan theory — a model of Indo-European origins, championed in particular
by Marija Gimbutas, that the Indo-Europeans originated and dispersed
from Copper and early Bronze Age cultures of the Ukraine and southern
Russia.

Kurgan tradition — a composite of Neolithic, Eneolithic and early Bronze
Age cultures of the steppe and forest-steppe north of the Black and
Caspian seas. These cultures are united by the predominance of burial
under a kurgan 'mound'.

KZ — one of the major journals of Indo-European research; officially known
as Zeitschrift für vergleichende Sprachforschung in the period 1852–
1887 (vols. 1–100) and since 1988 as Historische Sprachforschung. It
is known popularly (irrespective of its proper name) as Kuhn's Zeitschrift,
hence the abbreviation, after Adalbert Kuhn, one of its founders.

labial — a sound involving upper and lower lips, e.g., NE p, b.

labialization — addition of lip-rounding to the pronunciation of a vowel or
consonant, e.g., PIE *kʰ, *gʰ, *gʰh.

Laconian — designating a variety of ancient Greek spoken in Laconia (the
region surrounding Sparta).

lamino-palatal glide — the sound of English j as in you.

laryngeal — a sound produced in or near the larynx, e.g., English h. In this
encyclopedia, PIE laryngeals whose exact pronunciation is unknown
(indeed not everyone believes that they were all phonetically laryngeal)
are designated as h₁, h₂, h₃, h₄, h₅ (when either h₂ or h₄) or h₅, when
the nature of the particular laryngeal is unknown.

Lat = Latin, the major Italic language of Italy from which the modern Romance
languages are derived.

Latv = Latvian, the northernmost of the surviving Baltic languages; attested
since the sixteenth century. The national language of Latvia.

lengthened-grade — in an ablauting paradigm, having an *e- or *o- rather
than *e, *o, or no vowel.

lentit = having become lentis (especially with reference to the Celtic languages
where, under certain circumstances, stops may develop into the
corresponding continuants, e.g., p > f, b > v).

Lesbian = designating a variety of ancient Greek spoken on the island of
Lesbos, the language of the Greek poet Sappho.

Lex Salisca = medieval law code, written in Latin, of the Salian Franks.

lexicalization = creation of a word in the formal sense where it is subject to
the usual paradigmatic rules, e.g., NE moe > "the cow moosed", "we
could hear the mooning of the cows".

Ligurian — an ancient (presumably) Celtic language of northwestern Italy
and southeastern France.

Lindeman variant = a phonological variant of a PIE word caused by Lindeman's
Law whereby a monosyllabic word beginning with two consonants may
dhave a dissyllabic variant if the second consonant is a resonant, e.g.,
*djeus > *djitus 'sky-god'.

Lith = Lithuanian, the most conservative of the two surviving Baltic languages; attested
since the sixteenth century. The national language of Lithuania.

lithic = literally 'of stone' but employed in archaeology to designate implements made of stone (often flint, chert, obsidian).

loc = locative, the designation of a nominal case which indicates location,
not having undergone the High German consonant shift (p > d, p, t, k >
pl, ts, ch, b, d > p, t, k).

LowGerman = that variety of German (also known as Plattdeutsch) spoken in the
northern (and generally lower) parts of Germany, characterized by
not having undergone the High German consonant shift (p > d, p, t, k, k >
pl, ts, ch, b, d > p, t, k).

LowSorb = Lower Sorbian, variety of (West Slavic) Sorbian spoken in the
area of Cottbus in eastern Germany.

Luvian = an ancient Anatolian language spoken in southeastern Anatolia.

Lycian = ancient Anatolian language of southwestern Asia Minor.

Lydian = ancient Anatolian language of western central Asia Minor.

Macedonian = Macedonian. Catagrams in this encyclopedia refer to the ancient IE
language of Macedonia, a language closely related to Greek. Macedonian
is also the designation of a South Slavic language, closely related to
Bulgarian, spoken in the Republic of Macedonia.

Maldivian = an Indic language, the official language of the Republic of the
Maldives in the Arabian Sea, and most closely related to Sinhalese.

Manichaean Sogd = that variety of Sogdian in which Manichaean religious
literature was written (opposed to Buddhist Sogdian and Christian Sogdian).

Mannerbund = a warband consisting of young men grouped around a leader;
such units have frequently been postulated for various Indo-European
(ant-IE) traditions.

Marathi = an Indic language, the official language of the Indian state of
Maharashtra, attested since the eleventh century AD.

Man = earlier designated Cheremis, this is a subgroup of the Finnish branch
of the Uralic languages; it is spoken east of Gorki between the Volga
and Kama rivers.

MArm = Middle Armenian, Armenian from roughly the ninth century AD to
the thirteenth, particularly the chancery language of the Armenian
kingdom of Cilicia in the twelfth and thirteenth centuries.

mas = masculine, one of the three genders of (PIE) nouns, the others being
feminine and neuter. Masculine nouns do not necessarily refer to males,
e.g., Lat portus (mas.) 'harbor, port', though nouns whose referent is
an adult male human being are almost always masculine.

MBret = Middle Breton, the Celtic (Brittonic) language attested in Brittany
during the period 1000–1600 AD.

MBulg = Middle Bulgarian, the Bulgarian language of the twelfth to sixteenth
centuries.

MCorn = Middle Cornish, the Celtic language of Cornwall, closely related to
Welsh, which is attested from the period c 1200–1575 AD. As the most
abundantly attested variety of Cornish, this has served as the template for
the modern (revived) Cornish language.

MDutch = West (Low) Germanic language spoken in the Netherlands in the
period c 1300 to 1390.

ME = Middle English, the English language attested from the twelfth through
fifteenth centuries.

medio-passive = designating the voice of the verb which expresses middle
and passive (as a designation often used interchangeably with "middle").

Meillet's Law = the change in Slavic of certain Balto-Slavic acute intonations

Mesolithic = the cultural stage of hunting-gathering economies following the
last Ice Age and preceding the advent of farming (Neolithic) economies;
generally set, depending on geographical area, to c 10,000–
4000 BC.

Mesopotamian = an ancient, non-Italic, IE language of southeastern Italy.

metathesis = the transposition or reversal of sounds, e.g., OE bridd and ME
brid by a process of metathesis have given NE bird.

metonymy = figure of speech whereby a word denoting an attribute or adjunct
of a thing is substituted for the word denoting the thing itself, e.g., NE
(British) crown for ('royal government').

MHG = Middle High German, the High German language attested from the
period c 1050–1500.

middle = designating the voice of the verb which expresses reflexive or
reciprocal action or action which otherwise includes the subject (as a
designation often used interchangeably with the " medio-passive"), e.g.
active: "I wash the car", middle: "I wash myself". The middle is indicated
by different endings in most IE verbal paradigms, e.g., Olnd habban=1
carry (active) but bihbrat=1 carry (middle).

Miyvan = a dialect of the Anatolian language Lycian (or a language very closely
related to Lycian).

Mind = Middle Indic, designating the languages of the Indic branch of IE
from approximately 600 BC to 100 AD, in the early part of this period
contemporary with Old Indic which was still in use as a language of
liturgy, culture, and scholarship but no longer regularly a spoken
language.

Mlr = Middle Irish, Celtic language spoken in Ireland and recorded during
the period c 900–1200 AD.

Miran = Middle Iranian, designating Iranian languages from approximately
300 BC to 1000 AD.
Neut = neuter, one of the three genders of (P)IE nouns, the others being masculine and feminine. Neuter nouns usually refer to inanimate objects, though not all inanimate objects are designated by neuter nouns, e.g., Lat mēnsa (fem.) 'table' or portus (masc.) 'harbor, port'. In some IE stocks any noun characterized as a diminutive is a neuter, whether animate or not, e.g., NHG kindlein (neut.) 'small child', madchen (neut.) 'girl, miss' or Grk maschôn (neut.) 'child'.

NGrk = modern Greek, the Greek language attested since the fall of Constantinople and the collapse of the Byzantine state and language, i.e., since about the fifteenth century.

NHG = New High German, the modern Germanic language attested from the thirteenth century to the end of the sixteenth century.

Nl= modern Dutch, the Western Germanic language of the Low Countries, attested from about 800 AD onwards.

Nfr = Old French, the ancient language of France until about the sixteenth century AD.

Nfrs = Old Frisian, the ancient language of the Frisian people of the Low Countries, attested since c 1600.
Ogham = Ogham Irish, the earliest inscriptive evidence of this Celtic language, recorded from about the fourth through the seventh centuries AD. The inscriptions, generally brief memorials, are in an archaic form of Irish that still retained its original case endings.

Old Germanic = Old High German, the Germanic language of the southern German uplands (southern Germany, Switzerland, Austria) from about 750 to 1050; High German is marked by the Second (Germanic) Sound Shift where, for example, Proto-Germanic *p, t, and k > pl, z, and ch (kk) respectively.

Old Irish = Old Irish, also known as Sanskrit, the oldest attested stage of the Indic branch of IE, from roughly 1500 BC to 600 BC.

Old Persian = Old Persian, the Southwestern Iranian language that was the official language of the Achaemenid Persian Empire of the sixth and fifth centuries BC. It was subsequently replaced by Latin.

Old Norse = Old Norse (also known as Old Icelandic) from the middle of the twelfth century to the middle of the sixteenth century.

Old Ormn = Old Ormn, the West Baltic language of the original Prussians known from the sixteenth to the eighteenth centuries.

Old Patristic = Old Patristic, an ancient Anatolian language of north central Anatolia. Old Persian, the Southwestern Iranian language that was the official language of the Achaemenid Persian Empire of the sixth and fifth centuries BC. It was subsequently replaced by Latin.

Old Prussian = Old Prussian, the West Baltic language of the original Prussians known from the sixteenth to the eighteenth centuries.

Old Serbian = Old Serbian, Serbian (largely mixed with Serbian Church Slavonic) before the nineteenth century AD.

Old Slavic = Old Slavic, closely related to Roshani and Shughni. Attested only in modern times.

Orcadian = Orcadian, a dialect of Gaelic spoken in the Orkney Islands.

Orkney = Orkney, a group of islands in the North Atlantic Ocean north of Scotland.

Ortelian = Ortelian, a type of map projection developed by Gerardus Mercator.

Orthographic = Orthographic, a system of writing in which the letters are not pronounced in the same way as they are written.

Orthography = Orthography, the study of writing systems and their conventions.

Ostrobothnian = Ostrobothnian, a dialect of Finnish spoken in northern Finland.

Ottoman = Ottoman, the official language of the Ottoman Empire from its establishment in the thirteenth century to the fall of Constantinople in 1453.

Ottoman empire = Ottoman empire, an empire that spanned central, southeastern Europe, Western Asia, and North Africa.

Ottoman Turkish = Ottoman Turkish, the official language of the Ottoman Empire.

Oxbridge colleges = Oxbridge colleges, a term used to refer to the seven universities in Oxford and Cambridge.

Oxford = Oxford, a city in southern England known for its university.

Oxford press = Oxford press, a term used to refer to the printers and publishers associated with the University of Oxford.

Oxymoron = Oxymoron, a figure of speech that uses two contradictory terms in a single expression.

Palladian = Palladian, a style of architecture that was popular in the 16th century and named after the Venetian architect Andrea Palladio.

Palaeolithic = Palaeolithic, a period of human prehistory that is characterized by the use of stone tools.

Palaeography = Palaeography, the study of writing and handwriting.

Paleography = Paleography, the study of writing and handwriting.

Palentology = Palentology, the study of fossils and their history.

Pamphylian = Pamphylian, an ancient Greek dialect spoken in Pamphylia in southwest Anatolia.

Panjabi = Panjabi, an Indian language spoken in the Punjab region.

Papiamenta = Papiamenta, a creole language spoken in the Caribbean.

Parthian = Parthian, a Northwest Iranian language spoken in what is now northeastern Iran and in Central Asia, and attested during the last three centuries of the pre-Christian Era, in the inscriptions of the Sassanian Empire and in Manichaean religious texts.

Parthian Empire = Parthian Empire, an ancient Persian empire that ruled over a vast territory from the Indus Valley to the Euphrates.

Parsi = Parsi, a dialect of Persian spoken in Iran.

Parthia = Parthia, a region of ancient Persia.

Parthian = Parthian, an ancient Iranian language spoken in Parthia.

Parsi = Parsi, a dialect of Persian spoken in Iran.

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Parsian = Parsian, a dialect of Persian spoken in Iran.

Parsian = Parsian, a dialect of Persian spoken in Iran.

Persian = Persian, the official language of Iran.

Persian language = Persian language, the official language of Iran.

Persian literature = Persian literature, the literary tradition of Iran.

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postposition = the equivalent of a preposition but placed after the noun it governs rather than before, e.g., NHG *Bremen gegenüber 'opposite Bremen'.

Praenesteine = pertaining to ancient Praeneste (modern Palestreina) near Rome.
Prakrit = vernacular Indian languages (as opposed to the concurrently found, but no longer vernacular, Sanskrit or Old Indic) of the Middle Indic period.

Prasun = a Nuristani language of the Prasun Valley of the central Hindu Kush in Afghanistan. Spoken between the two discontinuous sections of Kati.

present = either a (PIE) tense whose reference includes the present time (e.g., NE "water freezes at 32 degrees Fahrenheit" or "They're walking to school now") or a (PIE) aspect that expresses the ongoing nature of the activity.

preverb = a particle or prefix placed in front of the verb root, e.g., Otir do-bei 'gives' < do to + bei 'carries'.

productive = frequently or actively used in word formation, e.g., in NE plurals formed in -s are highly productive while those in -en (cf. children, oxen) are no longer productive.

progressive tense = in English, those tenses formed with be and the present participle (in -ing) indicating on-going activity, e.g., "they were walking the dog" or "we are making dinner [right now]' .

proterodynamic = alternative name for proterokinetic.
proterokinetic = an accent pattern in PIE where the accent was on the root syllable in the nominative and accusative of the noun or the singular of the verb and on the syllable immediately following the root elsewhere, e.g., *da-ur 'tree', gen. *da-ur-s.

proto- = in Greek or Armenian, designating a word-initial vowel without a counterpart in other IE stocks, generally supposed to reflect a vocalized initial laryngeal, e.g., Grk ̀άεων 'name', Arm anum 'name' from PIE *r̥nam.

Proto-Anatolian = the reconstructed proto-language, itself a descendant of PIE, ancestral to Hittite, Palaic, Luvian, Lydian, Lycian, and some other scantily attested languages once spoken in western Anatolia.

Proto-Baltic = the reconstructed proto-language, descended from PIE, that is ancestral to both West Baltic, i.e., Old Prussian, and East Baltic, i.e., Latvian and Lithuanian. Particularly closely related within IE to Proto-Slavic.

Proto-Gmc = Proto-Germanic, the reconstructed proto-language, descended from PIE, that is ancestral to the various Germanic languages. The earliest Runic inscriptions dating from the third century AD are either a late form of Proto-Germanic or a form of northwest Germanic only little changed from Proto-Germanic.

Proto-Indo-Iranian = the reconstructed proto-language, itself a descendant of PIE, ancestral to Indic, Iranian, and Nuristani.

Proto-Nuristani = reconstructed proto-language, itself probably an immediate descendant of Proto-Indo-Iranian, ancestral to the several Nuristani languages spoken in east central Afghanistan in the area of the Hindu Kush (Ashkun, Gowerabi, Prasun, Tregami, and Waigali), all of whom are first attested only in modern times.

Proto-Semitic = the reconstructed language ancestral to the Semitic languages.

Proto-Slavic = the reconstructed proto-language, descended from PIE, ancestral to the various Slavic languages (divided into East, West, and South Slavic). Within IE Proto-Slavic is very closely related to Proto-Baltic. Old Church Slavonic is a South Slavic language very little changed from Proto-Slavic.

Psilosis = is in Greek the substitution of the smooth breathing for the rough breathing, i.e., the loss of h, e.g., Attic = ἰητήθη 'day' but East Ionic ἰηθήθη.

psychopomp = one who escorts the deceased to the afterlife.

ptcp. = participle.

Punjabi = alternate spelling of Panjabi.

QSem = Quaderni semantica: Rivista Internazionale di Semantica Teorica e Applicata.

Rae = ancient IE language of Raetia (= southeastern Switzerland, the Austrian Vorarlberg and both Austrian and Italian Tyrol).
Redup = reduplication, the repetition of the initial sound or syllable in certain (PIE) noun and verb formations, e.g., PIE *dh₁dh₁eh₂mi₁ 'put' (< *dh₁eh₂) or *kʷ₁h₁h₁-th₁- 'wheel' (< *kʷ₁h₁₁).

reflexive pronoun = a pronoun which refers back to the subject, e.g., *I saw myself in the mirror.'

regressive assimilation = assimilation of one sound to another working backward from the second to the first, e.g., contemporary NE tóbit from older NE aúbit.

resonant = an alternate name for soronant.

Rhotacism = the change of some other sound (usually -s-) into -r-, e.g., OLat ausom (ausomum) 'gold' > Lat aurum.

RHR = Revue de l'Histoire des Religions.

Rom = Romanian, modern Romance language of Romania.

root noun = a (PIE) noun with no derivational suffixes.

Roshana = a Southeastern Iranian language, closely related to Shugnuni, spoken in eastern Tajikistan and adjacent parts of Afghanistan. Attested only in modern times.

rule-of-yellow = the phonological change in Indo-Iranian and Balto-Slavic whereby PIE *-ₐ-s- became -ₐ- (or the like) after PIE *-ₐ-r-; *-ₐ-t-, *ₐ-k-.

Runic = the name of a non-Latin alphabet used by speakers of North and West Germanic for usually short inscriptions, in Scandinavia down to the Middle Ages. By extension the language of the earliest of these inscriptions, a variety of Germanic very close to Proto-Germanic itself, if, indeed, it is not a late form of Proto-Germanic.

rus = Russian, major representative of the East Slavic languages.

RusCS = Russian variety of Church Slavonic, the liturgical language of Eastern Orthodox Slav.

RV = (found in the) Ægredo, the oldest attested text in Old Indic.

Sabine = the Italic language, closely related to Oscan, anciently spoken in part of central Italy.

Saka = a designation for various Northeastern Iranian tribal groups of the first millennium AD. Linguistically attested in Khotanese Saka and Tunshuq Saka in the southwestern portion of the Tarim Basin. No longer attested, possibly extinct by about 1000 AD.

Samoyed = the eastern branch of the Uralic family that occupies the region of northwestern Siberia; the western branch is Finno-Ugric.

sandhi = modification of the form of a word under the influence of a following or preceding sound, e.g., NE 'did you' for did you.

Sangachi = a Southeastern Indian language spoken in northeastern Afghanistan. Attested only in modern times.

Sarikoli = a Southeastern Iranian language spoken in the extreme southwest of Xinjiang (Chinese Turkestan) and closely related to Shuguni. Attested only in modern times.

satmar = pertaining to a group of eastern IE languages (Indo-Iranian, Balto-Slavic, Greek, Armenian) where the PIE dorso-palatal stops have become sibilants and the labio-velars have lost their labialization and fallen together with the plain dorso-velars, named after the Avestan word for '100', saram.

satamization = process whereby PIE dorso-palatal sibilants become sibilants, e.g., PIE *kt̥am 'hundred' > Old Indic satam or Av satam.

SC = Serbo-Croatian, a South Slavic language, one of the major languages of the former Yugoslavia; the language was standardized in the nineteenth century.


Scots = modern Celtic language spoken in western Scotland, descended from Old Irish and closely related to the Modern Irish of Ireland.

Scyth = Scythian, the designation of various Iranian tribal groups, closely related to the Saka, from the eighth through third centuries BC in what is now the Ukraine. Their linguistic descendants are the Ossetes.

Second Function = the ideological construct proposed for Indo-European society that concerns the maintenance of offensive and defensive war; it is reflected in the social roles of the various Indo-European war gods.

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ABBREVIATIONS AND TECHNICAL TERMINOLOGY

second person = denoting or indicating the person addressed in the speech act, e.g., NE you.
sememe = a unit of meaning.
Serb = Serbian, major South Slavic language, usually grouped with Croatian.
SerbCS = the Serbian variety of Church Slavonic, the liturgical language of the Eastern Orthodox Slavs.
sg. = singular.
Shughni = a Southeast Iranian language of eastern Tadzhikistan, closely related to Roshani, Oroshori, and Sarikol. Only attested in modern times.
Sievers' Law = describes the change of sonorants to sequences of (corresponding) vowels and sonorants, in PIE and still in Old Indic, after a long syllable (one containing a long vowel or any vowel and two consonants), thus *ke-si > *keCs-o. Named after Eduard Sievers (1850-1932) who discovered the law in 1878.
Sindhi = a modern Indic language spoken in southern Pakistan.
singulative = a nominal derivative indicating a single individual or thing, e.g., Wels derven 'oaktree' (< *a single oaktree*), historically a derivative of the plural derw 'oaktrees'.
Sino-Tibetan = a non-IE language family of Central Asia and the Far East including Chinese, Tibetan, Burman, etc.
slow = Slovene, a South Slavic language spoken in Slovenia.
sogd = Sogdian, a Northeast Iranian language spoken in what is now Uzbekistan and by merchant colonies in Central Asia, attested from the fourth through eighth centuries AD. Its modern descendant is Yaghnobi.
sonorant = a consonant produced with the vocal cords so placed that spontaneous voicing is possible, e.g., NE m, n, l, r, y, w.
spiritus asper = alternate name for the rough breathing (i.e., h-) in Greek.
static = designating a verb expressing a state or condition.
stop = a consonant involving complete closure of the vocal tract, e.g., NE p, t, k.
strong-grade = in an ablauting paradigm having *-e-, or *-o-, or less commonly, *-e- or *-o-.
subjective = designating a verbal mood which expresses a relation wished for or thought of by the speaker as existing between subject and predicate, frequently found in subordinate clauses, e.g., "If I were rich", "He insisted that I be here".
substantivization = the creation of a noun from an adjective or a verb, e.g., poor > the poor.
substratal = pertaining to elements in a language identified as being relics or borrowings from an earlier language now extinct but once spoken in the same location as the attested language, e.g., the presumed impact of Dravidian on the Indo-Aryan languages of northwest India.
suffix = an element attached at the end of a word to form an inflectional form of the word or a derivation of the word, e.g., NE -s, -ed, -ing, -ion, etc.
sumerian = ancient language of southern Mesopotamia, written in the cuneiform script. It flourished from c 3100 BC until 2000 BC by which time it had been replaced as a chancery language by Akkadian but it continued to serve as a vehicle for liturgical literature.
sumerogram = (in a Hittite text) a Sumerian word written instead of the corresponding Hittite word, presumably intended to be pronounced as the Hittite word (see also Akkadogram).
suppletive present = a present tense formation from a different root than found in other tenses (somewhat like the relationship of NE go to went).
Swed = Swedish, modern North Germanic language.
syncope = a shortening of a word by the omission of one or more syllables, e.g., NE (adj) separate, pronounced separate.
synecdoche = a figure of speech in which a more inclusive term is used for a less inclusive one or vice versa, e.g., farm-hand (for farm laborer) or "he sets a good table" (where table = meal).
tartarpusa = designating a kind of noun compound where the first member qualifies in some way the second, e.g., NE red deer.
tectal = designating a sound which involves the back of the tongue and any part of the roof of the mouth, e.g., dorso-palatal, dorso-velar, uvular. References to events which have a natural goal or endpoint, e.g., "he built a house", "she reached the top of the mountain", as opposed to atelic where there is no built-in closure to the activity, e.g., "they rode a horse around".
themacy = nouns and verbs in PIE, and the various daughter stocks, whose stems end in *-o-, e.g., *tār-o-s- 'bull, aurochs' as opposed to *sā-u- 'cow', or *bher-e-i 'he carries' but *es-i 'he is'. In both nouns and verbs the thematic types were productive in PIE and its descendants whereas athematic types were increasingly less so.
Thessalian = the classical Greek dialect of Thessaly.
Third Function = in Indo-European mythology, the Third Function relates to the deities and elements concerned with fertility and productivity in society. This contrasts with the First Function (religion and law), and Second (warfare). The social expression of the Third Function is seen to be herder-cultivators and female deities.
third person = denoting or indicating the person referred to in a speech act, i.e., in NE he, she, it, they.
thracian = the little known IE language of ancient Thrace, i.e., modern Bulgaria, northeastern Greece and European Turkey.
tischler = Johann Tischler (1977-). Hethitisches etymologisches Glossar. Innsbruck, Institut für Sprachwissenschaft der Universität Innsbruck.
Toch = Tocharian A, an IE language spoken in the Turfan Depression and adjacent areas of Chinese Turkestan and closely related to Tocharian B spoken immediately to the west; it was extinct by the close of the first Christian millennium. Also called East Tocharian or Agnean.
TochB = Tocharian B, an IE language spoken along the northern rim of the Tarim Basin in Chinese Turkestan and closely related to Tocharian A spoken immediately to the east. Extinct sometime around the close of the first Christian millennium. Also called West Tocharian or Kucheian, the latter being the native designation for the language.
Turvali = Dardic language of the Swat Valley in northwestern Pakistan.
Tosk = The southern of the two groups of Albanian dialects, as opposed to the northern Gheg. Standard Albanian is based on a variety of northern Tosk.
trans = transitive, the designation of a verb which takes a direct object, e.g., "they saw a deer", as opposed to intransitive verbs which do not take direct objects, e.g., "they went".
transfunctional = in IE comparative mythology, a deity or human figure that encompasses all three of the canonical functions (religion and law, warfare, fertility) attributed to IE society by Georges Dumézil.
TRB = Funnel Necked Beaker culture (German Trichterbecherkultur), the Neolithc culture of the north European plain which extended from the Netherlands eastwards to Poland and the Ukraine.
Tregami = a Nuristani language of three villages (tre gam) situated in a small valley west of the Kunar in Afghanistan.
tripartition = the division of IE society and ideology into three components or functions: religion/law, warfare and fertility.
Tsakonian = modern Greek dialect spoken in the eastern Peloponnesus which descended from the ancient Peloponnesian Doric.
Tuatha Dé Danann = major mythical race of Ireland who were important in both Irish cosmological and eschatological myths, in native tradition they were driven underground (into the fairy mounds) by the legendary ancestors of the Irish.
Turkic = a non-IE language family of central and southwestern Asia including Turkish, Uzbek, Kazakh, etc.
Udmurt = formerly known as Votyak, with Komi, this is a language of the Permian sub-group of the Finnic branch of the Uralic languages, it is spoken west of the river Kama in Russia in the Udmurtia Republic of Russia.
Ugnt = a Central Semitic language, closely related to Hebrew and Phoenician, which is found in documents from northern Syria during the period from the fifteenth to thirteenth centuries BC.

Ukr = Ukrainian, an East Slavic language spoken in the Ukraine.

Umb = Umbrian, ancient Italic language spoken in central Italy and most closely related to Osco. Replaced by the somewhat more distant related Latin in the early centuries of the Christian era.

Ungar = uncontracted: a sound that is not accompanied by a marked flow of breath, e.g., NE h as opposed to p.

Urartian = a Central Semitic language, closely related to Hebrew and Phoenician.

Vanir = a group of gods particularly associated with fertility and contrasted with the Æsir.

Vedic = language of the Vedas, the earliest attested form of Old Indic.

velar = a sound produced by the back of the tongue and the soft palate, e.g., NE k or g (as in ghost).

Venetic = an ancient IE language spoken in the Veneto and adjacent areas of northeastern Italy.

Veps = a Balto-Finnic language of the Uralic language family spoken in the vicinities of St Petersburg, Russia.

Verner's Law = a refinement of Grimm's Law, which recognizes that PIE voiceless stops become voiceless continuants when in initial position or immediately after the PIE accent but become voiced continuants (later voiced stops) when preceding the PIE accent (thus PIE *ph₂aître > Proto-Gmc *fader but PIE *bhīrghaître > Proto-Gmc *bërper). Named after Karl Verner (1846-1896) who discovered this law in 1876.

vn. = verbal noun, distinctive form of the verb found in the Celtic languages that resembles the infinitive, e.g., OE suide (a sitting) beside saidig 'sits' or dithle 'taking away' beside dolw 'takes away'.

voc. = vocative, the nominal case used in direct address.

vocativ = a vowel sound or articulation.

voiceless = refers to a sound that is accompanied by vibration of the vocal cords, e.g., NE h or z, as opposed to the corresponding voiceless sounds p or s, as opposed to any vibration of the vocal cords.

voiceless = refers to a sound that is not accompanied by any vibration of the vocal cords, NE p or s, as opposed to the corresponding voiced sounds b or z which are accompanied by vibration of the vocal cords.

vphth = alternative name for the PIE lengthened grade, the word is derived from Sanskrit grammarians of ancient India.

Vulg. Latin = Vulgar Latin, the designation of the non-standard variety of spoken Latin, and opposed to the classical written variety of Latin, of the last century or so of the pre-Christian era and the first centuries of the Christian era that is the actual ancestor (rather than classical Latin) of the various Romance languages.

PHONETIC DEFINITIONS

a a low, unrounded, vowel, usually central but may be fronter or backer than central as well; in Indic a mid central unrounded vowel.

ã a long, low, unrounded central vowel.

ä a stressed a; in Lithuanian a long a with falling pitch.

à in Lithuanian a long a with rising pitch; in Latvian a long a with sustained (or rising) pitch; in Lycian and Lydian a nasalized a.

ö in Lithuanian a short a with falling pitch; in Latvian an a with falling pitch.

û in Lithuanian a long low central vowel with rising pitch; in Latvian an a with sustained (or rising) pitch; in Lycian and Lydian a nasalized a.

ö in Lithuanian a long a with broken (or laryngealized) pitch.

ä in Polish a mid back rounded nasal vowel; in Lithuanian a long a (formerly nasalized); in Avestan a mid low unrounded nasal vowel.

æ a low front unrounded vowel; in Old Norse a long low front unrounded vowel.

å in Germanic a low front unrounded vowel; in Tocharian a mid central unrounded vowel [= ɔ]; in Khotanese a high central unrounded vowel.

ä in Romanian a mid central unrounded vowel [= ɔ].

ai in Gothic a lower mid front unrounded vowel [= ɔ].

au in Gothic a lower mid back rounded vowel [= ɔ].

b a voiced bilabial stop; in Hittite, Palaiic, and Lydian a voiceless bilabial stop [= p] (in Lydian voiced after a nasal); in Lycian a voiced bilabial continuant.

bh a voiced aspirated bilabial stop; in Middle and New Irish a voiced labio-dental continuant [= v].

c in Italian (Latin, Oscan, Umbrian, and Paelignian), Celtic (Irish and Welsh), and Old English a voiceless dorso-velar stop [= k]; in Old Indic a voiceless, apico-alveo-palatal affricate [= c]; in Russian, Serbo-Croatian, Albanian, Armenian and Iranian, a voiceless apico-dental affricate [= ts].

c' in Armenian an aspirated voiceless apico-dental affricate.

ch in Welsh, German, Polish, and Czech a voiceless dorso-velar continuant [= x]; in Indic an aspirated voiceless apico-alveo-palatal affricate.

c in Albanian a voiceless alveo-palatal affricate [= ç]; in Old Persian probably a voiceless apico-dental affricate [= ts].

č in Polish a voiceless corono-alveo-palatal affricate.

ć a voiceless apico-alveo-palatal affricate.

ć in Albanian an aspirated voiceless apico-alveo-palatal affricate.

cz in Polish a voiceless alveo-palatal affricate.

d a voiced apico-dental or apico-alveolar stop; in Hittite, Palaiic, and Luvian a voiceless apico-dental or apico-alveolar stop (= t); in Lycian and Lydian a voiced apico-dental or apico-alveolar continuant (= ð).

dh a voiced aspirated apico-dental or apico-alveolar stop; in Middle Irish and Albanian a voiced apico-dental continuant (= ɣ), in New Irish a voiced dorso-velar continuant (= γ).

dd in Welsh a voiced apico-dental continuant [= ð].

d a voiced apico-retroflex stop.

dh an aspirated voiced apico-retroflex stop.

ð a voiced apico-dental continuant

ð a voiced apico-dental continuant [= ɣ].

e a mid front unrounded vowel; in Lithuanian a low front unrounded vowel.

ě a long mid front unrounded vowel.

e in Lithuanian a long mid front vowel.

ĕ a stressed ę; in Lithuanian a long low front vowel with falling pitch.

ę in Lithuanian a short low front vowel with a falling pitch; in Latvian an e with falling pitch.

ě in Lithuanian a long low front vowel with rising pitch; in Latvian an e with sustained (or rising) pitch; in Lycian and Lydian a nasalized e.

ě in Latvian an e with broken (or laryngealized) pitch.

e in Polish a mid front unrounded nasal vowel.

ě in Albanian a mid central unrounded vowel [= ɔ]; in Russian a stressed mid back rounded vowel with palatalization of a preceding consonant.

ě in Old Church Slavonic a long low to mid unrounded front vowel.

ə a mid central unrounded vowel.

ei in Gothic and Umbrian a long high front unrounded vowel [= i].

f a voiceless labio-dental continuant; in Welsh a voiced labio-dental continuant [= v], except in word final position where it is voiceless.

ff in Welsh a voiceless labio-dental continuant [= v].

g a voiced dorso-velar stop; in Hittite, Palaiic, and Luvian a voiceless dorso-velar stop [= k]; in Gothic, when before a k or another g, a voiced dorso-velar nasal stop; in Lycian a voiced dorso-velar continuant [= ɣ].

gh a voiced aspirated dorso-velar stop; in Middle and New Irish a voiced dorso-velar continuant [= γ].

gi in Albanian a voiced dorso-palatal stop.
PHONETIC DEFINITIONS

\[ g \] in PIE a voiced dorso-palatal stop.
\[ gh \] in PIE an aspirated voiced dorso-palatal stop.
\[ gw \] a voiced labialized dorso-velar stop.
\[ gw' \] an aspirated voiced labialized dorso-velar stop.

\[ \gamma \] a voiced dorso-velar continuant; in Iranian a voiced dorso-uvular continuant.

\[ \eta \] in Iranian a voiced front dorso-velar continuant.

\[ \eta \] a voiceless laryngeal continuant; in Proto-Germanic, Old High German, English and Gothic (when before a consonant) Polish, Slovenian, and Serbo-Croatian a voiceless dorso-velar continuant \(= x \); in Old Indic a voiced laryngeal continuant.

\[ h \] in Old Indic a voiceless laryngeal continuant.

\[ rv \] in Gothic a voiceless labialized dorso-velar continuant.

\[ h_1 \] in PIE a “laryngeal” that has no effect on an adjacent vowel.

\[ h_2 \] in PIE a “laryngeal” that changes an adjacent -e- to -a-.  
\[ h_3 \] in PIE a “laryngeal” that changes an adjacent -e- to -o-.  
\[ h_4 \] in PIE a “laryngeal” that changes an adjacent -e- to -a- (either \( h_2 \) or \( h_4 \)).

\[ h_x \] in PIE an indeterminant “laryngeal”.

\[ i \] a high front unrounded vowel; in Polish also a mark of palatalization for the preceding consonant; in Irish also a mark of palatalization on the preceding or following consonant.

\[ i \] a long high front unrounded vowel.

\[ i \] a stressed vowel \( i \); in Lithuanian a long \( i \) with falling pitch; in Oscan and Umbrian a lower high front vowel \( = i \).

\[ i \] in Lithuanian a short \( i \) with falling pitch; in Latvian an \( i \) with falling pitch.

\[ i \] in Lithuanian a short \( i \) with rising pitch; in Latvian an \( i \) with sustained (or rising) pitch.

\[ j \] in Latvian an \( j \) with broken (or laryngealed) pitch; in Romanian a high central unrounded vowel.

\[ j \] in Lithuanian a long \( j \) (formerly a nasalized \( i \)).

\[ j \] in Old Church Slavonic a short high front vowel; in Russian a mark of palatalization of the preceding consonant.

\[ j \] a lower high front unrounded vowel (as in NE pit).

\[ j \] a voiced palatal approximant \( = y \).

\[ j \] a voiced palatal approximant \( = y \); in Armenian and Iranian a voiced apico-dental affricate \( = dz \); in Middle and New English and Indic a voiced alveo-palatal affricate.

\[ j \] a voiced alveo-palatal affricate.

\[ jh \] an aspirated voiced alveo-palatal affricate.

\[ k \] a voiceless dorso-velar stop; in Umbrian indifferently voiced or voiceless; in Mycenaean Greek indifferently as to voicing or aspiration; in Lydian voiced after nasals; in Lycian a voiced front dorso-velar (or dorso-palatal?) stop (voiced after a nasal).

\[ kh \] a voiceless aspirated dorso-velar stop; in Russian a voiceless dorso-velar continuant.

\[ k' \] in Armenian an aspirated voiceless dorso-velar stop.

\[ k \] in Latvian a palatalized \( k \).

\[ k \] in PIE a palatalized \( k \).

\[ kw \] a voiceless labialized dorso-velar stop.

\[ l \] a voiced apico-dental or apico-alveolar lateral approximant.

\[ ll \] in Albanian a voiced apico-alveolar velarized lateral approximant; in Welsh a voiceless apico-alveolar lateral continuant.

\[ lly \] in Tocharian a voiced alveo-palatal lateral approximant.

\[ l \] in Latvian a palatalized \( l \).

\[ lj \] in Serbo-Croatian a palatalized \( l \).

\[ l \] in Armenian a voiced apico-alveolar velarized lateral approximant; in Polish a voiced bilabial approximant (formerly a voiced apico-alveolar velarized lateral approximant).

\[ l \] a vocalic \( l \).

\[ m \] a voiced bilabial nasal stop.

\[ m \] in Tocharian a voiced nasal stop, usually apico-dental (except when before a labial when it too is a labial); in Old Indic a nasal continuant of some sort or the indication of nasalization on the preceding vowel; in later Indic a voiced nasal stop agreeing in place of articulation with the following consonant.

\[ m \] in Lycian an unreleased voiced bilabial nasal stop.

\[ n \] a voiceless apico-dental or apico-alveolar nasal stop.

\[ nj \] in Serbo-Croatian, Slovenian, and Albanian a voiceless apico-alveopalatal nasal stop.

\[ n \] in Czech a voiced apico-alveo-palatal nasal stop.

\[ n \] in Latvian a voiced apico-alveo-palatal nasal stop.

\[ n \] a voiced apico-retroflex nasal stop.

\[ n \] a voiced dorso-velar nasal stop.

\[ n \] in Indic and Tocharian a voiced dorso-velar nasal stop.

\[ n \] a vocalic \( n \).

\[ n \] in Lycian an unreleased voiced apico-dental nasal stop.

\[ o \] a mid back rounded vowel.

\[ o \] a long mid back rounded vowel.

\[ o \] a stressed \( o \); in Lithuanian a long \( o \) with falling pitch; in Polish a long high back vowel \( = o \).

\[ o \] in Lithuanian a short \( o \) with falling pitch; in Latvian an \( o \) with falling pitch.

\[ o \] in Lithuanian a long mid back rounded vowel with rising pitch; in Latvian an \( u \) with sustained (or rising) pitch.

\[ o \] in Latvian an \( o \) with broken (or laryngealed) pitch.

\[ o \] a mid front rounded vowel.

\[ ð \] in Old Norse a long mid front rounded vowel.

\[ ð \] a low back rounded vowel.

\[ p \] a voiceless bilabial stop; in Mycenaean Greek indifferent as to voicing or aspiration; in Lycian voiced after a nasal.

\[ ph \] an aspirated voiceless bilabial stop; in Welsh a labiodental voiceless continuant.

\[ p' \] in Armenian an aspirated voiceless bilabial stop.

\[ q \] in Albanian a voiceless dorso-palatal stop; in Gothic and Lydian a rounded voiceless dorso-velar stop \( = k' \); in Mycenaean Greek a rounded dorso-velar stop (indifferent as to voicing or aspiration); in Latin, Oscan, and Umbrian a variant of \( k \) used before \( u \); in Lycian a rounded (?) dorso-(mid-) velar stop.

\[ r \] a voiceless alveolar tap (or sometimes a trill).

\[ rr \] in Albanian and Spanish a voiceless apico-alveolar trill.

\[ f \] in Czech and probably also in Umbrian a voiced apico-alveolar fricative trill.

\[ r \] in Latvian a palatalized \( r \).

\[ r \] in Armenian a voiced apico-alveolar trill.

\[ r \] an apico-retroflex flap or trill.

\[ rz \] in Polish a voiced apico-alveopalatal continuant \( = z \).
rh in Welsh a voiceless apico-alveolar trill.

\( r \) a vocalic \( r \).

\( s \) a voiceless apico-alveolar groove continuant, in Lydian a voiceless apico-alveopalatal groove continuant \( [= s] \).

\( sh \) a voiceless coronal玥nbio-alveopalatal continuant, in Lydian a voiceless apico-alveopalatal groove continuant \( [= s] \).

\( s \) a voiceless alveopalatal groove continuant.

\( t \) a voiceless apico-dental or apico-alveolar stop; in Umbrian indirectly voiced or voiceless, in Mycenaean Greek indirectly aspirated or unaspirated; in Lydian and Lycian voiced after a nasal.

\( th \) an aspirated voiceless apico-dental or apico-alveolar stop; in Old and Middle Irish, Welsh, Middle and New English, and Albanian a voiceless apico-dental continuant \( [= \theta] \).

\( t' \) in Armenian an aspirated voiceless apico-dental stop.

\( t \) a voiceless apico-retroflex stop.

\( th \) an aspirated voiceless apico-retroflex stop.

\( \partial \) a voiceless apico-dental continuant \( [= \partial] \).

\( \tau \) a high back rounded vowel; in Welsh a high back unrounded vowel.

\( u \) a long high back rounded vowel.

\( û \) in Czech a long high back rounded vowel; in Iranian a back rounded vowel midway between \( u \) and \( o \).

\( ù \) a stressed \( u \); in Lithuanian a long \( u \) with falling pitch; in Oscan and Umbrian a mid back rounded vowel \( [= o] \).

\( ù \) in Lithuanian a short \( u \) with falling pitch.

\( û \) in Lithuanian a long high back rounded vowel with rising pitch; in Latvian an \( u \) with sustained (or rising) pitch.

\( u \) in Lithuanian a long \( u \) (formerly nasalized \( u \)).

\( û \) in Old Church Slavonic a short high back rounded vowel.

\( v \) a voiced bilabial approximant \( [= w] \).

\( v \) a voiced labio-dental approximant.

\( vh \) in Venetic a voiceless labio-dental continuant \( [= f] \).

\( w \) a voiced labial approximant; in German and Dutch a voiced labio-dental approximant \( [= v] \); in Welsh, when between consonants, a high back rounded vowel (otherwise \( = u \)).

\( x \) a voiceless dorso-velar continuant; in Iranian a voiceless dorso-uvular continuant; in Latin, Old Norse and English the cluster \( ks \); in Albanian a voiced apico-dental affricate \( [= dz] \); in Lydian a voiceless back dorso-velar (dorso-uvular?) stop.

\( y \) in Latin, Old English, German, and Albanian a high front rounded vowel; in Russian and Welsh a high back unrounded vowel (also in Welsh a mid central unrounded vowel \( [= \partial] \), in Polish a lower high front unrounded vowel \( [= i] \), in Czech a high front unrounded vowel \( [= i] \); in Lithuanian a long high front vowel \( [= i] \); in Armenian, Anatolian, Iranian, Indic, and Tocharian a voiced palatal approximant.

\( z \) a voiced apico-alveolar groove continuant; in Oscan, Umbrian, German, Hittite, Palaiic, Luvian, and Lycian a voiceless apico-alveolar affricate \( [= ts] \).
ALPHABETICAL LIST OF ENTRIES

| Abashevo Culture | Abdomen | Able | Abundant | Accomplish | Accustom | Across | Adhere | Adpreps | Afanasevo Culture | Against | Age Set | Agriculture | Albanian Language | Alder | Alone | Anatolian Languages | Anatomy | Ancestor God | And | Andronovo Culture | Angelica | Anger | Animal | Animal Cry | Anoint | Ant | Anus | Apart | Appear | Apple | Arm | Armenian Language | Army | Around | Ash \(^1\) (tree) | Ash \(^2\) (burn) | Ask | Aspen, Poplar | Ass | Assembly | Attain | Attempt | Auger | Aunt | Awake | Away | Awl | Ax | Axe | Baalberge Group | Babble | Back \(^1\) (body) | Back \(^2\) (behind) | Bad | Baden Culture | Badger | Bag | Bald | Baltic Languages | Bark \(^1\) (of a tree) | Bark \(^2\) (of a dog) | Barley | Barren | Basin | Basket | Be | Beaker Culture | Bean | Bear \(^1\) (animal) | Bear \(^2\) (young) | Beautiful | Beaver | Bed | Bee | Beech | Beer | Before | Begin | Behind | Belch | Belief | Bend | Berry | Between | Beyond | Bind | Binder-God | Birken | Birch | Bird | Bird Cry | Birds | Bishkent Culture | Bite | Bitter | Black | Blackbird | Bladder | Blame | Bleat | Blind | Blood | Blow | BMAC | Boat | Bodrogkeresztur Culture | Body | Boil | Bone | Booty | Border | Bow and Arrow | Brain | Branch | Brave | Break | Breast | Breathe | Bride-price | Bright | Broad | Broth | Brother | Brotherhood | Brother-in-law | Brown | Bug-Dniester Culture | Build | Burden | Burn | Butterfly | Buttocks | Call | Captive | Carp | Carry | Case | Castrate | Cat | Catacomb Culture | Catal Huyuk | Cavity | Celtic Languages | Cemetery H Culture | Centaur | Cernavoda Culture | Chaff | Charcoal | Chernoise Culture | Chernyakovo Culture | Cherry | Chick-pea | Child | Chin | Chust Culture | Circle | Clay | Clean | Close (the eyes) | Cloth (oneself) | Clothing | Cloud | Club | Cock | Cold | Color | Come | Companion | Comparative Mythology | Compensation | Complain | Concubine | Conquer | Consort Goddess | Contend | Cook | Coot | Copper Hoard Culture | Corded Ware Culture | Cosmogony | Cosmology | Cotofeni Culture |
ALPHABETICAL LIST OF ENTRIES

Cough
Country
Cousin
Cover
Cow
Craft, Craftsman
Craft God
Crane
Crawl
Creator
Crime
Crooked
Crow
Crush
Cuckoo
Curve
Custom
Cut

Dacian Language
Dark
Daughter
Daughter-in-law
Dawn
Dawn Goddess
Day
Deaf
Death
Death Beliefs
Deceive
Deep
Deer
Defect
Degrees of Descent
Descendant
Desire
Destroy
Dew
Dig
Direction
Dirt
Dive
Divide
Divine Twins
Djeitun Culture
Dnieper-Donets Culture
Dog
Door
Dove
Down
Dragon
Draw (water)
Dream
Dregs
Drive
Dry
Duck
Dwell

Eagle
Ear
Early
Earth
Earth Goddess
East
Eat and Drink
Eel
Egg
Elbow
Elephant
Elf
Elk (American moose)
Elm
Empty
Enemy
Entrainls
Eschatology
Este Culture
Evening
Exchange
Excrement
Extend
Extinguish
Eye
Ezero Culture

Face
Falcon
Fall
Fame
Family
Far
Fart
Fast
Fat
Father
Father-in-law
Fatyanovo-Balanovo Culture

Favor
Fear
Feed
Fence
Ferment
Field
Few
Fire
Fight
Fill
Finch
Find
Find One's Way
Fir
Fire
Fire Cult
Fire in Water
Firm
Fish
Flat
Flax

Flea
Flee
Floor
Flotsam
Flow
Flower
Fly (insect)
Fly (verb)
Foam
Follow
Food
Foot
Force
Forehead
Forget
Fork (of a tree)
Fort
Fortune
Fox
Framework
Freeman
Fresh
Friend
Frighten
Frog
Full
Furrow
Further

Gall
Gamebird
Gather
Gaudo Culture
Germanic Languages
Gird
Give
Gland
Glasiinac Culture
Glide
Globular Amphora Culture
Go
Goat
God
Goddesses
Goddesses (misc.)
Golasecca Culture
Gold
Good
Goose
Grain
Grandaughter
Grandfather
Grandmother
Grandson
Grass
Gray
Greek Language
Green
Grieve
Grind

Ground
Grove
Grow
Grunt
Guest
Gull
Gullet
Hair
Half
Hallstatt Culture
Hand
Handle
Hang
Happy
Harappan Culture
Hare
Harm
Harvest
Hasanlu
Hate
Haunch
Hawthorn
Hazel
Head
Headband
Heal
Healthy
Heap
Hear
Heart
Heath
Heat
Hedgehog
Heel
Hell
Helibore
Helli-Hound
Help
Hemp
Hen
Hembane
Herd
Herdsmen
Hernia
Heron
Hide (conceal)
Hide (skin)
High
High-one
Hill
Hock
Hold
Honey
Honor
Hoof
Hoopoe
Horn
Hornbeam
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<td>La Tène Culture</td>
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<td>Hum</td>
<td>Lead¹ (verb)</td>
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<td>Humble</td>
<td>Lead² (metal)</td>
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<td>Interjections</td>
<td>Lie² (deceive)</td>
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<td>Soft</td>
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<td>Year</td>
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<td>Wind^2 (wrap)</td>
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<td>Wing</td>
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<td>Vegetables</td>
<td>Way</td>
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<td>Yoke</td>
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---

Yawn

Yay

Yellow

Zarubintsy Culture
### THEMATIC LIST OF ENTRIES

**Activities**

- Able
- Accomplish
- Adhere \([\text{Adhere}; \text{Smear}]\)
- Anoint
- Attempt
- Bathe \([\text{Clean}]\)
- Be
- Bend
- Bind
- Blow
- Braid \([\text{Bind}]\)
- Break \([\text{Break}; \text{Tear}^2]\)
- Build \([\text{Work}]\)
- Burrow \([\text{Dig}]\)
- Burst \([\text{Break}]\)
- Carve \([\text{Cut}]\)
- Compress \([\text{Press}]\)
- Crush
- Cut
- Dig
- Do \([\text{Make}]\)
- Enjoy \([\text{Use}]\)

**Anatomy and Natural Functions**

- Activities
- Anatomy and Natural Functions
- Animals
- Archaeological Sites and Cultures
- Architecture and Dwellings
- Clothing and Textiles
- Emotions
- Food and Drink
- Languages and Linguistics
- Law
- Marriage and Kinship
- Material Culture
- Mind

**Miscellaneous Grammatical Categories**

- Activities
- Miscellaneou...
### Anatomy and Natural Functions

<table>
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<tr>
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<th>Kidney</th>
<th>Tongue</th>
<th>Infertile [Barren]</th>
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<td>Knee</td>
<td>Tooth</td>
<td>Lame [Defect]</td>
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<td>Leather [Hide²]</td>
<td>Udder [Breast]</td>
<td>Leprosy [Skin Disease]</td>
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<td>Leg</td>
<td>Vagina</td>
<td>Life</td>
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<td>Lip [Lip; Mouth]</td>
<td>Uterus</td>
<td>Limp [Defect]</td>
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<td>Arm</td>
<td>Liver</td>
<td>Vulva [Sexual Organs]</td>
<td>Live</td>
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<td>Loins</td>
<td>Wing</td>
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<td>Lung</td>
<td>Womb [Abdomen; Uterus]</td>
<td>Mature [Grow]</td>
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<td>Navel [Navel]</td>
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<td>Neck</td>
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<td>Pimple [Skin Disease]</td>
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<td>Nipple [Breast]</td>
<td>Barren</td>
<td>Powerful [Powerful; Strength]</td>
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<td>Nose</td>
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<td>Pelt [Hide², Skin]</td>
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<td>Pelt [Skin]</td>
<td>Copulates [Sexual Organs]</td>
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<td>Penis [Sexual Organs]</td>
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<td>Strength [Force, Strength]</td>
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<td>Deaf</td>
<td>Strong</td>
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<td>Skin</td>
<td>Death</td>
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<td>Shoulder</td>
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<td>Sweat</td>
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<td>Tear¹</td>
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<td>Dung [Excrement]</td>
<td>Ulcer [Skin Disease]</td>
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<td>Excrement</td>
<td>Urintate</td>
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<td>Foul [Rot]</td>
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### Animals

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<td>Bull [Cow]</td>
<td>Donkey [Ass]</td>
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Archaeological Sites and Cultures

Abashevo Culture
Afanasevo Culture
Andronovo Culture
Baalberge Group
Baden Culture
Beaker Culture
Biskhent Culture
BMAC
Bodrogkeresztur Culture
Bug-Dniester Culture
Catacomb Culture
Çatal Hüyük
Cemetery H Culture
Cernavoda Culture
Chernoles Culture
Chernyakovo Culture
Chust Culture
Copper Hoard Culture
Corded Ware Culture
Goioleni Culture
Derewka
Djeitun Culture
Dnieper-Donets Culture
Dniester Culture
Durostorum Culture
Ezero Culture
Este Culture
Fatyanovo-Balanovo Culture
Gaudo Culture
Glasinac Culture
Globular Amphora Culture
Golasecca Culture
Hallstatt Culture
Harappan Culture
Hasanlu
Jastorf Culture
Junazite
Karasuk Culture
Keteminar Culture
Kemi Oba Culture
Khvalynsk Culture
Kolochin Culture
Komarov Culture
Kurgan Tradition
Kuro-Araxes Culture
La Tène Culture
Lengyel Culture
Linear Ware Culture
Lower Mikhaylovka Group
Marlik
Maykop Culture
Mehrgarh
Middle Dnieper Culture
Namaqz
Novodanilovka Group
Novotitorovka Culture
Painted Gray Ware Culture
Penkov Culture
Pit-Comb Ware Culture
Poltavka Culture
Potapovka Culture
Prague Culture
Przeworsk Culture
Qawrighul Culture
Remedello Culture
Rinaldone Culture
Rosien Culture
Samara Culture
Sintashta
Sredny Stog Culture
Sruba Culture
Suvoirovo Culture
Swat Culture
Tartaria Tablets
Tazabagyab Culture
Terramare Culture
Tiszapolgar Culture
TRB Culture
Tripolye Culture
Troy
Trzciniec Culture
Urnfield Culture
Usatovo Culture
Vakhsh Culture
Varna
Villanovan Culture
Yamna Culture
Yaz Culture
Zarubintsy Culture

Insects, Etc

Arab
Bee
Beetle [Insects]
Butterfly
Crab [Shellfish]
Crayfish [Shellfish]
Drone [Bee]
Flea
Fly
Gnat [Fly; Insects]
Hornet
Insect [Worm]
Insect stinger [Insects]
Insects
Leech
Louse
Maggot [Worm]
Midge [Fly]
Mosquito [Fly]
Mussel [Shellfish]
Nit [Louse]
Shellfish
Slug [Snail]
Snail
Tick [Louse]
Wasp
Weevil [Insects]
Worm

THEMATIC LIST OF ENTRIES
### Architecture and Dwellings

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<td>Floor [Floor; Ground]</td>
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### Clothing and Textiles

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<td>Plait [Textile Preparation]</td>
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<td>Band [Headband]</td>
<td>Dress [Clothe]</td>
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<tr>
<td>Basket</td>
<td>Dye [Textile Preparation]</td>
<td>Ring [Pin; Ring]</td>
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<td>Braid [Textile Preparation]</td>
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<td>Shoe</td>
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<tr>
<td>Cloak [Clothing]</td>
<td>Headband</td>
<td>Sinew [Textile]</td>
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<td>Cloth [Textile]</td>
<td>Knot</td>
<td>Sling</td>
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<td>Clothe (oneself)</td>
<td>Necklace</td>
<td>Spin [Textile Preparation]</td>
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### Emotions

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---
Food and Drink

Bake [Cook]
Beer
Boil [Boil; Cook]
Brew [Ferment]
Broth
Bubble [Boil]
Butter [Milk]
Buttermilk [Milk]
Chew [Eat and Drink]
Cook
Cream [Milk]
Curds [Milk]
Draw (water)
Dregs

Drink [Eat and Drink]
Eat and Drink
Fat
Fatten [Feed]
Feed
Ferment
Food
Gnaw [Eat and Drink]
Graze [Feed]
Gulp [Eat and Drink]
Honey
Hunger
Intoxicator

Juice
Liberation
Lick [Eat and Drink]
Mash [Broth]
Meat [Honey]
Meal [Eat and Drink; Sacrifice]
Meat
Milk
Mix
Nourishment [Food]
Oil [Fat]
Poison
Porridge

Raw
Roast [Cook]
Sacred Drink
Sacrifice
Salt
Sop [Boil]
Suck [Eat and Drink]
Swallow [Eat and Drink]
Sweet
Taste
Tasty [Sweet; Taste]
Whey [Milk]
Wine

Languages and Linguistics

Albanian Language
Anatolian Languages
Armenian Language
Baltic Languages
Celtic Languages
Dacian Language
Germanic Languages
Greek Language
Illyrian Language
Indo-European Homeland
Indo-European Languages
Indo-Iranian Languages
Italic Languages
Macedonian Language
Messapic Language
Phrygian Language
Punic Languages
Proto-Indo-European
Reconstruction
Schleicher's Tale
Slavic Languages
Subgrouping
Thraco-Celtic Language
Time-Depth
Tocharian Languages
Venetic Language

Law

Blame
Guilt
Oath
Shame
Crime
Law
Order
Swear

Marriage and Kinship

Aunt
Bride-price
Brother
Brotherhood
Brother-in-law
Child
Clan [Family]
Concubine
Cousin
Daughter
Daughter-in-law
Degrees of Descent
Descendant
Family
Father
Father-in-law
Friend
Granddaughter
Grandfather [Grandfather; Uncle]
Grandmother
Grandson [Grandson; Nephew]
Heir [Orphan]
Household [Family]
Husband [Man; Master, Mistress]
Kinship
Kinsman
Lady [Master, Mistress]
Lineage
Male
Marriage
Marry [Marriage]
Master
Mistress [Master, Mistress]
Mortal [Man]
Mother
Mother-in-law
Nephew
Niece
Offspring [Child]
Old Man
Orphan
Relation [Father-in-law]
Sister
Sister-in-law
Son
Son-in-law
Twin
Uncle
Widow
Wife
Woman
Young Man [Young]
Young Woman [Young]
Young
# Material Culture

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# Mind

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<td>Know</td>
<td>Sleepy [Sleep]</td>
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<td>Teach</td>
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# Miscellaneous Grammatical Categories

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# Motion and Transport

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<td>Leave</td>
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<td>Carry</td>
<td>Fall</td>
<td>Move [Flow; Hurry; Move]</td>
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<td>Come</td>
<td>Fall</td>
<td>Nave</td>
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<tr>
<td>Crawl</td>
<td>Fall</td>
<td>Oar</td>
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<td>Dip [Dive]</td>
<td>Fall</td>
<td>Ooze [Flow]</td>
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<td>Fall</td>
<td>Pass [Go]</td>
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<tr>
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<td>Fall</td>
<td>Passage [Road]</td>
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<td>Pour</td>
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<td>Raise [Lift]</td>
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<td>Return Home</td>
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<td>Ride [Carry; Ride]</td>
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**Physical World**


**Possession, Occupation and Commerce**


**Quantity and Number**

THEMATIC LIST OF ENTRIES

Religion and Comparative Mythology

Ancestor God  Fire Cult  Manu  Spell [Magic]
Binder-God  Fire in Water  Medical God  Spirit
Centaur  God  Pastoral God  Stelae
Comparative Mythology  Goddesses  Phantom [Spirit]  Sun Goddess
Consecrate [Sacred]  Goddesses (misc.)  Pray  Taboo [Sacred]
Consort Goddess  Holy [Sacred]  Priest  Threefold Death
Cosmogony  Horse Goddess  River Goddess  Thunder God
Cosmology  Horse Sacrifice [Horse]  Sacred  Transfunctional Goddess
Craft God  Impeller  Sacred Drink  Trickster
Creator  Inspiration  Sacrifice  Underworld
Curse [Pray]  Intoxicator  Sea God  War God
Dawn Goddess  King and Virgin Theme  Seer [Poet]  War of the Foundation
Death Beliefs  Libation  Sky Daughter [God]  Wild (God)
Earth Goddess  Magic  Smith God  Worship
Elf  Manu  Sons Death
Eschatology  Medical God  Sorcery [Magic]

Sense Perception

Appear  Glance [See]  Point out [Show]  Spongy
Beautiful  Gray  Pure  Spotted [Speckled]
Bitter  Green  Red  Sticky [Slimy]
Black  Hear  Rough  Stiff
Blue [Green]  Heat  See  Striped [Speckled]
Bright  Heavy  Shade [Shadow]  Suffer [Pain]
Brown [Black; Brown]  Honey  Shadow  Sweet
Clean  Hot [Heat]  Shine  Taste
Clear [Bright]  Light¹  Show  Touch
Close (the eyes)  Light²  Sign  Variegated [Speckled]
Cold  Long  Silver [Silver; White]  Visible
Color  Madder [Green]  Shadow  Warm [Heat]
Dark  Mark [Paint] Shine  Watch
Defile [Dirt]  Observe [See]  Show  Wet
Difficult [Heavy]  Obvious [Visible]  Smell  White
Dirty [Dirt]  Pain  Smooth  Yellow
Dry  Paint  Soft  —xliv—
Firm  Perceive  Sour [Bitter]  Speckled

Social and Political Relations

Accustom  Craft  Friend  Residence
Age Set  Craftsman [Craft]  Guest  Rule
Allow [Release]  Crime  King  Servant
Assembly  Custom  Land [Country]  Social Organization
Brotherhood  Enemy [Enemy; Guest]  Leader [King; Leader]  Stranger [Guest]
Companion  Follower [Companion]  Meet  Troop [Companion]
Country  Freeman  People  Village
Spatial Relations

About [Through]
Above [Across]
Across
Adpreps
After [Back²]
Against
Ahead [Before]
Among [Middle]
Apart
Around
Arrange [Put in Order]
Asunder [Apart]
Away
Back²
Before
Behind [Back; Behind]
Between
Beyond
Border
Broad
Circle
Compact [Shrink]
Conceal [Cover]
Conner [Curve]
Cover
Crooked
Curve
Deep
Direction
Divide
Down
East
Far
Flank [Side]
Flat
Further
Hide¹ (conceal)
High
Into [Between; In]
Large
Lean
Left
Lie¹
Limit [Border]
Line [Border; Line]
Low [Under]
Middle
Narrow
Near
On [Near]
Out
Over [Over, Through]
Peak
Place [Place; Put, Set]
Point
Pointed [Sharp]
Position [Place]
Put [Put; Set]
Put in Order
Quiet
Remain
Remains
Rest [Quiet]
Right
Row [Line]
Separate [Divide]
Series [Line]
Set
Sharp
Short
Side
Sit
Slack
Slant
Small
Space
Stand
Surround [Cover]
Thick [Shrink; Thick]
Thin
Through [Across, Through]
To
Toward [To]
Under
Up
Upright [High]
Wide [Broad]
With
Without
Wrap [Cover]
Wrinkle [Shrink]
Yonder [Beyond]

Speech

Animal Cry
Argue [Contend]
Ask [Ask, Pray]
Beg [Ask]
Assert [Contend]
Babble
Bark [Animal Cry; Bark²]
Bird Cry
Beat
Cackle [Laugh]
Call
Caw [Bird Cry]
Complain
Contend
Crack [Sound]
Crackle [Noise]
Cry [Animal Cry; Call]
Curse [Pray]
declare [Speak]
Dron [Noise]
Express [Speak]
Grieve
Groan [Sigh]
Growl [Bark², Noise]
Grunt
Hiss [Noise]
Hoot [Bird Cry]
Howl [Bark², Bird Cry; Howl, Noise, Roar]
Hum
Hush [Silent]
Insult
Invoke [Call]
Invoke [Call]
Lament [Grieve]
Laugh
Lie²
Low [Animal Cry]
Moan
Mourn [Grieve]
Murmur
Mutter [Noise]
Name
Nod
Noise
Persuade
Poet
Poetry
Praise
Pray
Quarrel [Contend]
Rattle [Noise]
Recite [Speak]
Resound [Sound]
Revile [Insult]
Roar
Rumble [Noise]
Say [Speak]
Scream [Bird Cry]
Shout [Call]
Shout [Noise]
Sigh
Silent
Sing
Smile [Laugh]
Snore
Song [Sing]
Sound
Speak [Call; Praise, Speak]
Sputter [Noise]
Stammer
Swear
Threaten
Thunder
Voice [Sound, Voice]
Yelp [Bark²]
THEMATIC LIST OF ENTRIES

Time

Already [Now] 
Autumn [Seasons]
Before
Begin
Dawn
Day
Early
Evening
Fast
Morning [Early]
New
Night
Now
Old
Quick [Fast]
Seasons
Soon
Spring [Seasons]
Summer [Seasons]
Time
Today
Winter [Seasons]
Year
Yesterday
Young

Vegetation and Agriculture

Trees
Acorn [Oak]
Alder
Apple
Ash¹
Aspen
Bark¹
Bast [Bark¹]
Beech
Berry
Birch
Birdlime [Mistletoe]
Blackthorn [Sloe tree]
Branch [Branch; Fork]
Cherry
Conifer [Pine]
Elm
Fir
Forest [Tree]
Fork
Fruit [Berry]
Grove
Hawthorn
Hazel
Horntbeam
Juniper
Knot²
Leaf

Agriculture and Plants
Linden
Maple
Mistletoe
Mulberry
Needle [Branch]
Nut
Oak
Pine
Pitch [Sap]
Poplar [Aspen, Poplar]
Resin [Sap]
Root [Branch]
Sap
Sloe tree
Sprout [Leaf]
Thorn [Branch]
Tree
Trees
Willow
Wood [Tree]
Yew

Warfare

Age Set
Army
Arrow [Bow and Arrow]
Ax
Booty
Bow and Arrow
Brotherhood
Captive
Club

Agriculture
Companion
Conquer
Cudgel [Club]
Dagger [Sword]
Destroy
Enemy
Fight
Fighter [Army]
Force

Fort
Harm
Hostile
Injure
Knife
Leader
Overcome [Conquer]
People
Shield

Sling
Spear
Strike
Sword
Troop [Companion]
Warband [Army]
Warfare
War God
Warriors

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Encyclopedia of

INDO-EUROPEAN CULTURE
ABASHEVO CULTURE

The Abashevo culture, named from a cemetery in the Chuvash Republic, is a Late Bronze Age culture (c seventeenth-sixteenth centuries BC) that spans the forest-steppe from the area of Kazan to the southern Urals. It is divided into three variants: Don-Volga, middle Volga and a southern Ural variant that extends eastwards to the river Tobol. More than two hundred settlements are known consisting of a series of rectangular dwellings with large floor areas of about 150 to 200 m².

Settlements have left remains indicative of a mixed agricultural economy. Metal sickles and stone grinders suggest agriculture while the animal remains are almost exclusively those of domestic animals. Cattle predominate, then sheep/goat, while pig and horse are found in smaller amounts. Cheek-pieces, typical of neighboring steppe cultures (and also of the Mycenaeans), reveal the use of the horse and (probably) chariot.

Burial was inhumation on the back with the legs flexed. Several burials might be placed either under a kurgan or inserted into an earlier kurgan of the region and, in general, the Abashevo culture continues the earlier mortuary tradition of the Yamna culture. Some graves show evidence of a birch-bark floor and a timber construction might form the walls and roof of the burial chamber. In some instances there was either a stone kerb or a series of wooden uprights set about the circumference of the kurgan. The graves are poor with respect to artifacts: usually a pot made with crushed-shell temper (another typical feature of the steppe cultures), animal bones, and rarely metal objects. On those few occasions where metal objects have been uncovered, they have included crucibles for smelting copper and moulds for casting. Such burials are normally attributed to bronzesmiths. One of the more spectacular mortuary finds is the kurgan at Pepkino which yielded the collective burial of twenty-eight men who had apparently died violent deaths (at least some by ax-blows
ABASHEVO CULTURE

to the head). Other cemeteries have produced evidence of burials lacking skulls. The Abashevo culture was an important center of metal­
lurgy as the southern Urals provided a major source of local copper. High in arsenic, this provided a fonn of bronze. Axes,
spearheads and sickles are typical of the Abashevo range of
implements while metal appliques, associated with women’s
headdresses, are regarded as a distinctive ethnic marker. In
addition, silver-bearing ores were also exploited and silver
ornaments were manufactured. The Abashevo culture was later assimilated into the territory of the Srubna culture which replaced it. The ethno-linguistic identity of the Abashevo culture can only be a subject of
speculation. On the one hand, it appears to reflect a non-iranian
penetration of the earlier steppe cultures which, during the
mid-second millennium BC, would have presumably been
Iranian and hence it offers one of a number of convenient
contact zones between the Indo-European and Uralic families
where loanwords passed northwards. On the other hand, it
also may be seen as an extension of the Fatyanovo-Balanovo
phenomenon to the southeast.

See also FATYANOVO-BALANOVO CULTURE; SRUBNA CULTURE;
YAMNA CULTURE. [J.P.M.]

ABDOMEN

*udero- ‘abdomen, stomach’. [IEW 1104–1105
(*udero-); Wat 72 (*udero-); Buck 4.46; BK 496 (*wat-/*wat-)]. Lat
uteros ‘abdomen; womb’, Grk ὑδέρος ‘dropsy’ (< *swollen stomach’), Av udara- ‘stomach’, OInd udara- ‘stomach’. With new full-grades: OPrus weders ‘belly’, Lith vėdaras ‘intestines; abdomen’, Latv vēdars ‘stomach’, Grk (Hesychius) ὑδέρος (< wōderos) ‘stomach’. From *ud’out, up’ + *-ero- a suffix showing contrast; thus originally ‘the outer or superficial abdomen’ (cf. *hjen-teros ‘entrails’). The wide distribution would seem to be a good guarantee of PIE status.

*uḍeɾeɾeχər- ‘abdomen, stomach’. [IEW 1104–1105
(*udero-); Wat 72 (*udero-); BK 496 (*wat-/*wat-)]. Grk ὑστέρα ‘womb’, (Hesychius) ὑστροφός ‘stomach’, TochB wäftarye (< *ūstṛʊ̀-) ‘± liver’. A variant of *udero- with
*-tero- rather than *-ero-.

*ēnVst(t)- (ab)omasum’. [IEW 1105 (*udero-)]. Lat
venter ‘belly’ (if crossed with uterus), Nice vinstr ‘omasum’
(third stomach of ruminants) and Norw (dialect) winstr
‘abomasum (fourth stomach of ruminants)’. OInd vanisthu-
‘part of entrails of sacrificial animal’; with new vowel-grades:
OHG wan(a)st – wenist ‘belly, omasum’, Grk ἱννυστροφόν
‘abomasum’. Though subject to phonological deformation, a
strong candidate for PIE status.

*reum- (*roumn-) ‘rumen’. [IEW 873 (*reu-snen-)].
Lat rumen ‘gullet, rumen (first stomach of ruminants)’, Baluchi rōmās (< *roumāp-ta-) ‘rumination’, OInd romanatha-
‘rumination’. The geographical spread strongly suggests PIE
status.

*pant- ‘stomach, paunch’. [IEW 789 (*pank-)]. Lat
pantex ‘belly, paunch, guts’, Hit u̮ṣinda- ‘stomach’. Though not widely preserved, the geographical distribution and presence in Anatolian are a strong argument for PIE status.

*ǵe̞tus ‘stomach, womb’ (in derivatives also more
generally ‘innards, entrails’). [IEW 481 (*g̞et-)]. Wat 25
(*g̞e̞t-). On kvird ‘belly, womb’, OE wōp ‘belly, womb’,
OHG quiiti ‘vulva’, Goth gipus ‘belly’, Lat botulus (from Osco-
Umbrian?) ‘intestines, sausage’, MHG kutel ‘intestines’, (<
*ǵo̞t(ul)olo-), TochA kats ‘belly, womb’, TochB katsu ‘belly,
womb’ (< *ǵo̞t(ul)eh-y-). Not derived from any attested
verbal root in PIE; at least regionally present in late PIE.

Within the sphere of Indo-Iranian cosmology where the
universe, both physical and social, is partitioned from a
primeval body, the belly is homologous with the earth and
socially an alloform (along with the genitals) for the class of
commoners, the Third Function.

The emphasis on the omasum, abomasum and rumen of
ruminants may have been sustained by their importance in a number of activities. In various societies they serve as containers, e.g., the storage of offal to make sausages or haggis, containers for holding butter (as in Tibet) or manufacturing rennet for cheese processing; the rumen can also be used as a cooking vessel. The stomachs of ruminants also play a prominent role in blood sacrifices among various early IE groups as the abundance of fatty tissue provided an exceptional blaze.

See also Anatomy, Body, Cosmogony, Entrails. [D.Q.A.]

ABLE

*magha- 'be able'. [IEW 695 (*magh-); Wat 38 (*magh-); Buck 9.95]. ON magha 'be able' (> NE mag), OGH magha 'be able', Lith mageta 'to please, be agreeable', OCS magha 'be able'. Grk μηχανος (Doric μιχανος) (with lengthened-grade) 'means, expedient', μηχανη 'machine' (borrowed > Lat machina), Arm mart'ank (< *mag-thra-) 'means'. Possibly related is OInd magha- 'gift, abundance', the form may, however, be better related to OInd manha- 'give'. The forms Av moya- 'magician', OPers magu 'magician', OInd magha-'magician' probably are derived from this root ('magician' < 'one who has power'); the etymology, however, is uncertain. Forms with the meaning 'great', e.g., Lith magulas, Grk μεγάλος, OInd maha- 'have been cited in connection with this root, but the relationship is very dubious. In spite of the uncertain status of the Indo-Iranian data, the reasonably broad distribution of the forms suggests that the word is solidly reconstructible to PIE.

*gal- 'be physically able'. [IEW 351 (*gal- - *ghal-); Wat 18 (*gal-); Buck 9.95]. OIr gal 'value, fighting, Wels gallu 'is able', Lith galu 'am able'. Possibly related is OCS golyemo 'much'. The limited geographical spread suggests a late, northwestern dialectal status.

See also Attain. [M.N.]

ABUNDANT

*bhanghaus (gen. *bhaghous) 'thick, abundant'. [IEW 127-128 (*bhangh-); GI 684, 746-747 (*bhengh-); Wat 7 (*bhangh-); BK 28 (*bun/*bon-)]. Lat pinguis (with not well understood p- rather than expected *l- 'fat', ON bingr 'heap', OHG bungo 'lump', Latv biezis 'thick', Grk παχύς (< *phakhw- 'thick, compact', Hit panku- 'total, entire, general', pankur- (< *bhenghu- 'thick, compact'), Hit panku- 'total, entire, general', pankur- (< bhenghu- 'thick, compact' en masse'), OInd bahu- 'much, many, numerous, compact; abounding in, rich in'. The Hittite words are sometimes taken (e.g., by GI 746-747) to be related to *penku- 'five in the latter's putative meaning 'a totality, i.e., a full hand'. That the latter meaning is nowhere attested save in the preserved Hittite derivative and that Hit panku-agrees morphologically with Grk παχύς and OInd bahu-, both favor the equation given here. From *bhangh- 'draw together, be thick', attested as a verb only in OInd bāmha 'increases', bāṃhayate 'strengthens'. Widespread and old in IE.

*pelhous (gen. *phlous) 'much'. [IEW 800 (*pelh), GI 177 (*plwh/*plwH); Wat 48 (*pelh-); Buc 13.15; BK 54 (*pl[/?]/*pl[/?]al/*pl[/?]al-). OIr il 'much', ON hyl- 'much', OE fела 'much', OHG filu 'much', Goth fulu 'much', very, Grk πολύς 'much', Av pouru- 'much', OInd purū- 'much'. Cf. the comparative *pelhous- in OIr lia (DIL il) 'more', Lat plūs 'more', ON flei 'more', OIr frāyha- 'more, OInd práyā- mostly, commonly and the derived *phlous-ку 'increasingly' in OInd purūcāt 'increasingly' and, somewhat rebuilt, Grk πολλάκις 'abundantly'. Cf. OInd piparti 'fills' and PIE *phlous 'full'. Widespread and old in IE.

*g'honos 'thick, sufficient'. [IEW 491 (*'ghono-s); Wat 25 ('gh'hen-); Buc 13.18; BK 313 ('gh'an/*gh'an-). Lith gana 'enough', Latv gana 'enough', OCS goni 'sufficient', perhaps Grk ευδείαν 'flourish', ευδείας 'richly' (otherwise possibly from *h1su-dihi-enos 'well-placed'), perhaps Arm y-oog 'much', OPers agnosis 'full', OInd gana- 'thick'. If all these words belong together, we have evidence for a word that was widespread and old in IE.

*menegh- 'abundant'. [IEW 730 (*men(e)gh-); Wat 41-42 (*menegh-); Buc 13.15]. OIr meinc 'abundant, frequent', Wels mynch 'frequent', ON mengi 'multitude', mang 'many', OCS mengi 'multitude', manig 'many' (> NE many), OHG magen 'crowd', mang 'many', Goth manegi 'people', mang 'sufficient, many', man agon 'make abundant'. OCS mūnog 'abundant, mūnokiti 'increase, make to be more', Rus mno 'abundant', perhaps OInd magha- 'gift, reward, wealth', maniha- 'give'. At least a word of the west and center of the IE world; if the Old Indic words belong here then it would be a stronger candidate for PIE status.

*spbridos 'fat, rich'. [IEW 983 (*spbo-ro-); Wat 63 (*spe-), Buc 16.63]. Lat prosper 'lucky', ON sparr 'sparing', OE spær 'sparing' (> NE spare), OHG spar 'sparing', OCS spführ 'rich'. OInd spūra- (<ph- rather than the expected *p- must be because of the affective meaning of the word) 'fat'. Sufficiently widespread to be a likely PIE term. From *spēh₁ (l-) 'flourish'. Cf. Lat spēs 'hope', OE spōwan 'thrive', OHG spuon 'thrive, prosper', Lith spėti 'predict, foretell; be on time', Lat spēt 'be able', OCS spēr 'thrive, prosper', Hit ispā- 'get filled, be sated', OInd sphyate 'grows fat, increases'. See also Heap. Wealth. [D.Q.A.]

ACCOMPISH

*senhwi- 'seek, accomplish' (pres. *senhwa, *sp-néu-ti). [IEW 906 (*senh-); GI 170 (*senh-)]. OIr do-seinn 'pursues, strines, con-snit fights (for something), wins', Wels cynyddaf 'overrun, win', Grk ἀνασκοινίαν ἀναφέρει 'accomplish, get (something, somewhere)', Hit sanhza 'seeks, plans, demands', Av han 'gain, obtain', OInd sanati 'wins; gets; grants'. Widely enough attested to guarantee PIE status.

*kob- 'fit, suit, accomplish'. [IEW 610 (*kob-), Wat 32 (*kob-)]. OIr cób 'victory', ON hopp 'chance, luck', OE gehesp (adj.) 'fit', OCS kobi 'divination'. A west IE dialectal form, probably nominal rather than verbal. See also Attain. Fortune. [M.N.; D.Q.A.]
ACORN see OAK

**ACROSS**

*terh₂- 'across, through, above'. [IEW 1075 (*ter-); Wat 70 (*ter-); GI 367 (*tʰerH-); BK 149 (*tʰ]ar-/tʰʃ]ar-)]. OIr tar (< *tares) 'across, above', Lat trāns 'across', OE þæru (> NE through and thorough) ~ þerh 'through', OHG durh 'through', Goth þairh 'through' (Gmc (*terH-); Rus *tare 'glue', Thorough) ~ jerh 'thorough', Lat aèreō 'hang, stick'. Lith gaištū 'shrink, hesitate' has been rejected is RusCS *k/hri-?). See also **ADPREPS, THROUGH**. [D.Q.A.]

**ADHERE**

*kol- 'glue'. [IEW 612 (*kol(e)-)]. MLG/MDutch hēlen (< *haljan) 'to stick', Grk κόλλα (< *kol-ia) 'glue'. To be ruled out is Ruskſ klejtj 'glue', Rus klejtj 'glue', if from *kulejtj- (< *kulejtj-e-). A word of the west and center of the IE world. ?*ghais- 'stick'. [IEW 410 (*ghais-); Wat 20 (*ghais-)]. Lat haereo 'hang, stick'. Lith gaištū 'shrink, hesitate' has been connected with the Latin form but the etymology is very uncertain and, as Ernout-Meillet note, Latin forms with the diphthong -ae- are generally without IE etymology. See also **SMEAR**. [M.N.]

**ADPREPS**

The primary use of the adverb/preposition (adpreps) in PIE was to make spatial relationships more precise, by specifying 'above', 'below', etc., and simultaneously to relate a noun to the verb of the sentence. The adverb/preposition and noun together formed an adverbial phrase as in, 'he ran behind the tree'. Or the adprep might be used alone, 'he ran ahead'. Finally, the adpreps were syntactically connected with the verb also, often with aspectual meaning, e.g., to show completion of an action, 'he ate it all up'. One might note that English preserves much of the PIE uses of the adpreps. These adpreps could appear before or after their attendant nouns or verbs. When located before a verb there was a strong tendency in various IE stocks for the adprep + verb combination to fuse into a single unit, e.g., NE understand. It is often the case that a PIE adprep survives in a particular stock only as a verbal prefix. Many, perhaps most, of the PIE adpreps were originally case forms of nouns, e.g., *h₂entj- in front' < *h₂entj- 'face', though more often than not the noun itself does not survive outside of these frozen forms. With some frequency they show an extension *-t(ær-), originally suggesting an (implied) contrast with its semantic opposite. Thus we have *h₂en- in' but *h₂ent-jer- 'within' (as opposed to 'outside').

See also ACROSS, AGAINST, APART, AROUND, AWAY, BACK, BEFORE, BEHIND, BETWEEN, BEYOND, IN, NEAR, OUT, OVER, THROUGH, TO, UNDER, UP, WITH, WITHOUT. [D.Q.A.]

Further Reading


ADVANCE see GO

**AFANASEVO CULTURE**

The Afanasevo culture is a south Siberian Copper/Bronze Age culture dating to c. 3500–2500 BC that occupied the Minusinsk Basin on the Yenisei river and the Altai mountains. Approximately ten settlements and fifty cemeteries are known from both the river valleys and open steppe. The domestic economy included cattle, and sheep/goat; horse remains, either wild or domestic, are also recovered. Tools were manufactured from stone (axes, arrowheads), bone (fishhooks, points) and antler. Among the antler pieces are some objects that have been identified as possible cheek-pieces for horses. Among the ornaments are earrings made from copper, silver and gold. The culture is primarily known from its cemeteries which generally include both single and small collective burials with the deceased usually flexed on his or her back in a pit. The burial pits are arranged in rectangular, occasionally circular, enclosures marked by stone walls and it is argued that they represent family burial plots with four or five enclosures (families) constituting the local social group. Artistic representations of wheeled vehicles engraved on stone have been found within the region and have been attributed by some to the Afanasevo culture (alternatively to the later Okunevo culture).

Although far from the European steppe, the Afanasevo culture shares a considerable number of traits with its (distant) European neighbors. These comprise burials in the supine flexed position, the use of ocher, animal remains in graves, pointed-based pots, censers (circular bowls on legs) and a Europoid physical type along with both horses and the suspected presence of wheeled vehicles. In the western steppe the use of kurgans (tumuli) is general while Afanasevo tombs may have been covered by a very low mound. These characteristics have often served to link the Afanasevo with cultures of the Black Sea-Caspian region, specifically the Sredny Stog, Yamna, Catacomb and Poltavka cultures. Consequently, some see the Afanasevo culture as the easternmost extension of the European steppe cultures.

The existence of an early metal-using culture with a number of traits attributed to the early Indo-Europeans (horse, silver, wheeled vehicles) and distant cultural relations with European...
Afanasevo a. Distribution of the Afanasevo culture in the Altai-Yenisei region.

AFANASEVO CULTURE

steppe cultures have all suggested that the Afanasevans were Indo-Europeans. Their geographical location could accommodate their identification with the linguistic ancestors of either eastern Iranian- or Tocharian-speaking peoples, particularly the latter as the Afanasevans appear to be so far removed from the main line of steppe cultures that are traditionally assigned to the Indo-Iranians, i.e., the Andronovo culture. Afanasevan sites have also been claimed for Mongolia and western China and a possible association between them and the Europoid mummies of Xinjiang has been proposed. The Afanasevo territory was later occupied by the Okunevo culture which is generally regarded as an extension of the local (non-Indo-European) forest culture into the region.

See also ANDRONOVO CULTURE; CATACOMB CULTURE; KURGAN TRADITION; POLTAVKA CULTURE; QAWIRGHUL CULTURE; SREDNY STOG CULTURE; TOCHARIAN LANGUAGES; YAMNA CULTURE.

Further Readings


AGE SET

Age set is a familiar concept in anthropology and refers to divisions within societies based on age where, for example, a person may pass through a series of “stages” in his or her life that may be reflected in initiations, status, duties, names, place of residence, or any other culturally relevant marker. Such practices have been widely observed, especially over Africa and the New World, and traces of them are also evident in the societies of the earliest attested IE traditions.

In a number of IE societies there is evidence for several age sets which pertained, in particular, to males and their relationship with warfare. At some time, generally twelve to fourteen years, a male child would take up arms, e.g., in Ireland a youth would literally ‘take gaisced’, i.e., ‘spear and shield’ as was also the case for a youth in ancient Germany who would receive scutum frameaque ‘shield and lance’ from his father, leader of the clan or war-band. According to
Xenophon (Kyropedia 2. 2–15), the Persians of the court of Cyrus the Great moved from child (naïs) to marriageable age (épénbòc) at the age of sixteen or seventeen while native Iranian sources indicate that one moved from ‘schoolboy’ at about fifteen to become a ‘youth’ (yuvan mara) until one was twenty and then an adult after that. In ancient India one similarly moved from ‘youth’ to ‘adult’ about the age of twenty. Roman legal tradition, and hence western European tradition in general, set adulthood at age twenty-one. In all these cases there was also a class of ‘elders’ who were relieved of the responsibility for participating in war and were rather called upon to give advice.

Kim McCone has posited a similar age set system for PIE where a child first moved into the category of a (armed) youth’ (and was known under such terms as *h₂jēh₁-s-0-Ro-youth’), i.e., took up arms as a member of the war-band (*körjos) of unmarried and landless young men who engaged in predatory wolf-like behavior, living off hunting and raiding. Then at about the age of twenty they entered into the tribe proper (*te̞ut-e₂h₂-) as married adults (*uí(h₁)-ró̞s or *h₂nêres) in which they acquired their wealth through labor and/or were incorporated into the more prestigious regular military units of chariots or cavalry. The leadership of the tribe was, according to McCone, ascribed to the ‘king’ (*h₂rê̞gas). Finally, (should they have lived so long) they became ‘elders’ (*senós or *gerh₂̞ontes) and were excused from military duties and occupied positions as advisers.

See also Army; King; Leader; People; Social Organization; Warriors. [J.P.M.]

Further Reading

Agriculture
The overall pattern of agricultural terms has been a persistent topic in IE studies, much of which has been stimulated by the observation that while stockbreeding terms appear to be widespread across the entire range of IE stocks, agricultural terms tend to be confined more closely among the European stocks and are, from a traditional point of view at least, scarce in the Indo-Iranian languages. This pattern has engendered different models of IE dispersions that variously saw the homeland set in Europe among farmers who spread across the steppe where the Asiatic IE-speakers lost their agricultural vocabulary while maintaining those terms pertaining to the keeping of livestock. Alternatively, the homeland was placed on the east European or Kazakh steppe and the earliest IE-speakers were regarded as primarily pastoralists who only adopted their agricultural terminology when they settled among the farming communities of Europe, hence the vocabulary of agriculture was confined to the European stocks. Finally, a middle ground could be held by those who envisaged a homeland large enough to promote both a mixed economy in the west and a pastoral one in the east which might explain the discrepancy between the Asiatic stocks and the rest of the IE world. But all three of these models are to some extent defined too sharply as there is no regime of stockbreeding known at the time prior to or during IE dispersals where there was not some agriculture and hence the dichotomization between the “steppe” and the “sown” may suggest differences in the primary emphasis of subsistence pursuits but cannot be used to characterize the entire range of the subsistence strategies of either region.

The nature of our earliest reconstructible PIE agriculture includes a series of terms for cereals which are strongly reconstructed to PIE although the actual semantic range tends to be frustratingly vague, where we must be uncertain as to the precise species involved. Perhaps the most specific of the solidly reconstructed terms is *te̞usos ‘grain (particularly barley)’. barley belongs to the oldest known of the domestic cereals, recorded in the Near East and Anatolia from at least the ninth millennium BC and it appears in Europe by the eighth or seventh millennium. The term *meig(h)- also appears to indicate ‘barley’ in the Baltic languages although in the language of its only Asian cognate, Khotanese, a derivative means ‘field’ < *barley-field’. There are other terms for ‘barley’ (*gʰeresd̠h₁, *h₂elḥbit, *bhars) but these are all restricted to European stocks. Other terms for grain in general include *ses(i)ós, *gʰenom, *d̠hoh₂̞nes₂̞ and *d̠ph₂̞u₂̞hes₂̞. Conspicuous by its absence is a certain term for the most prized of the cereals, wheat, which as *pu₇₇₁₀tos is attested only in Balto-Slavic and Greek and *sept₁ is known only in Anatolian. There is no early agricultural regime known in any of the relevant parts of Eurasia in which barley might have been known to the exclusion of wheat. The original word may have been *pu₇₇₁₀tos, or it may be concealed in any one of a number of terms that have undergone so much semantic change that we can only reconstruct their meaning as ‘grain’ (cf. NE corn which means ‘wheat’ in Britain but ‘maize’ in America). Possibly the ‘awn’ (*h₂ekst₁-) and ‘ear’ (*h₂ekes₂̞-) of the cereal grain are also known. In addition to the actual cultivated cereals we have a word for weed/ryegrass (*h₂et₁he₂̞r₁) whose semantic field might have been predicted, as ryegrass was one of the primary ‘weeds’ known in the earliest cereal assemblages of the Neolithic before rye was intentionally cultivated. A word for ‘oats’ (*h₂e₁u₁s₁os), which is not only found in the European languages but also Iranian, may well have originally referred to the wild cereal. It was known since the early Neolithic where, like rye, it accompanied cultigens such as wheat and barley as a weed. The only other plants certainly cultivated or gathered were an ‘esculent root’ (*alu-) and ‘edible greens’ (*re₂̞h₂̞kom̠). In addition to the specific names of plants we also can securely reconstruct terms associated with the technology and processes of cultivation. The old argument that the ancestors of the Indo-Iranians either did not know agriculture or had abandoned it in their movements across the steppe rested to some extent on the reconstruction of a word for ‘field’
Agriculture

(*h2egros) which regularly indicated a cultivated parcel of land in the European languages but only an uncultivated ‘plain’ in Old Indic. But such a hypothesis is harder to sustain when we also have a term *Rapos- that indicates cultivated land in both the European stocks and in Iranian. Moreover, we have fundamental terms for breaking the soil either by ‘plowing’ (*h2ezech3w-), or by a ‘harrow’ (*h2eketeh3w-), ‘sowing’ grain (*seh1-), employing a ‘sickle’ (*spho/eh3-) for harvesting and ‘threshing’ the grain (*yers-); and if an Anatolian cognate is sufficient for Asia, *h2eh42-er-, which produces the ‘chaff’ (*pe1o/eh3p-). There are also several words for ‘grind’ (*melh2-, *peis-). From this we can see that there is no case whatsoever for assuming that the ancestors of all the European Indo-Euroans did not know cereal agriculture. While there may have been speculation in the past as to whether some terms might have applied originally to the gathering and processing of wild plants, terms for the plow, cultivated field, and techniques appropriate to the processing of domesticated cereals whose home range lay outside of most of Europe, suggest that all the earliest Indo-Europeans knew agriculture before their dispersals.

The terminology concerning agriculture can also shed some light on the timing of IE dispersals. The earliest agricultural “package”, developed in the Near East and introduced into Europe, consisted of wheat, barley, flax, pea, and chick-pea plus a series of weeds that only later, at the end of the Neolithic or during the Bronze Age, was demonstrably domesticated. As we have seen, it is difficult to specify the precise word for either ‘wheat’ or ‘barley’ in PIE. The other terms for the earliest domesticated plants are geographically confined. A word for ‘flax’ (*linom), for example, is limited to European stocks while the terms for ‘pea’ (*h1ereg3w-0-) and ‘chick-pea, garbanzo’ (*rik4r-4-) are confined to Italic-Germanic-Greek (with inter-dialectal borrowing) and Italic-Macedonian-Armenian and, in both cases, may be Mediterranean loanwords. In the case of the ‘pea’ this does not demonstrate that the earliest Indo-European were not familiar with it as the pea occurs in the earliest Neolithic plant assemblages over most of Europe but this is not the case for the chick-pea which is generally absent from Neolithic assemblages outside of the Mediterranean and suggests the possibility that IE stocks only came into contact with it when they entered the Mediterranean region from somewhere else. Finally, the plow is the most significant reconstruction as there is no evidence for its use until about the fourth millennium BC, about three thousand years after the initial dispersal of agricultural communities through Europe. From all of this, one may conclude that: 1) the Proto-Indo-Europeans knew the sowing, harvesting and processing of domesticated cereals; 2) they possessed an agricultural technology (the plow) that only appeared (at least according to current archaeological evidence) about the fourth millennium BC; and 3) there are a number of items associated with the initial agricultural dispersions—flax, pea, chick-pea—which we are unable to reconstruct at the level of PIE status although we can reconstruct these at more geographically confined (i.e., temporally later?) horizons.

The most recent phases of IE agriculture are also reflected in terms that are severely confined to a certain geographical region, most specifically that of the northwest stocks running from Celtic and Italic on the west across Germanic and ending with Balto-Slavic. Some of these words refer to flora that is generally found over most if not all of Europe, e.g., ‘angelica’ (*ruendhr-), ‘henbane’ (*bhel-), ‘(wild) turnip’ (*repeh3-which was borrowed into Greek). In some cases the terms are associated with agricultural systems or field technology, e.g., ‘waste land’ (*lendh- and ‘fallow’ (*polkeh3-). The latter attests some form of crop rotation among the late IE speakers antecedent to Celtic, Germanic and Slavic. Concepts associated with the application of plow-agriculture are also geographically confined, e.g., ‘furrow’ (*pkeheh3-) which was built on a PIE root to yield a term in Celtic, Italic and Germanic and another term for ‘furrow’ (*loiseh3-) in Italic, Germanic, and Balto-Slavic. Given the geographical distribution of these terms, they may have been created as early as the TRB culture of c 4300 BC or at any time subsequent, e.g., the Corded Ware horizon of c 3300 BC or later during the Bronze Age. That the probable horizon for these words was later rather than earlier is suggested by several of the domestic cereals found across the northwest languages. Although ‘flax’ (*linom), for example, is known from the earliest Neolithic in southeast Europe, it only appears in the peripheral areas of Europe much later, e.g., in Ireland by c 2200 BC. More importantly, the term for ‘rye’ (*rug4h-) indicates a plant known only as a weed during the early Neolithic but which appears as a domesticate first in the Bronze Age, c 2000 BC. In short we have a series of terms that are associated with the northwest IE stocks whose ancestor was sufficiently uniform to permit the spread of terms in the late Neolithic or early Bronze Age.


Further Readings


ALBANIAN LANGUAGE

Albanian is an Indo-European stock composed of a single language whose historical location has been centered on modern Albania and the adjacent parts of Yugoslavia (Kosovo-
Metohija, Montenegro) and Macedonia, with outlying enclaves in central and southern Greece (initiated in the fourteenth century) and in Italy (colonized in the fifteenth and sixteenth centuries AD). The first explicit reference to Albanian comes only in 1332 when it was already apparently a written language. The earliest preserved (sentence length) texts of the language are datable to roughly 1480 and the earliest book in Albanian was published in 1555. That Albanian was an Indo-European language was first recognized in 1854 by Franz Bopp. Its Indo-European nature had been obscured to early investigators by the heavy lexical borrowing that had taken place in Albanian from Greek, Latin, Slavic, and Turkish. The earliest identifiable loanwords are from Greek, e.g., moker 'millstone' (< West Grk [Doric] μύκανοι or draper 'sickle' (< West Grk ξαράκανος). As in these two cases, the evidence suggests that Greek influence came from western Greece, more particularly from Greek colonies on the Adriatic coast. Much more extensive was the later influence of Latin. Even very common words such as mlk 'friend' (< Lat amicus) or këndoj 'I sing; read' (< Lat cantäre) come from Latin and attest to a widespread intermingling of pre-Albanian and Balkan Latin speakers during the Roman period, roughly from the second century BC to the fifth century AD. The Greek and Latin loans have undergone most of the far-reaching phonological changes which have so altered the shape of inherited IE words while Slavic and Turkish words do not show these changes. Thus Albanian must have acquired much of its present form by the time the Slavs entered into the Balkans in the fifth and sixth centuries AD.

Since Albanian would appear to be autochthonous in the Balkans it is natural to suppose that it is the medieval and modern descendant of one of the IE groups inhabiting the Balkan Peninsula in classical times. These IE groups include the Illyrians inhabiting Albania, Bosnia and Croatia, the Thracians in the southeast quarter of the Balkans, and the Dacians inhabiting modern Romania. Albanian has indeed been derived from each of these groups (or even taken as a mixture of two of them) but the evidence for doing so is essentially non-existent. The linguistic records of the Illyrians, Thracians, and Dacians are just sufficient to make it reasonably certain that they were all Indo-European. Nothing in what is known of them so far shows any particular connection with what we know of Albanian.

The dialects of Albanian are divided into two major groups, Gheg (in the center and north of Albania and in the adjacent parts of Serbia and Macedonia) and Tosk (in southern Albania and in the outlying enclaves of Greece and Italy). Gheg dialects are characterized by the preservation of Proto-Albanian single *-n- between vowels and a full set of phonemically distinct nasalized vowels. Tosk dialects, on the other hand, show a change of single intervocalic *-n- to *-r- and the merger of nasalized and non-nasalized vowels. In these two respects Tosk varieties are innovative vis-à-vis Gheg. However, Tosk preserves far better Proto-Albanian unstressed -e- and thus also preserves Proto-Albanian syllable structure better than does Gheg. Albanian as a standardized literary language dates back only to the beginning of the twentieth century. The standard before World War II was a variety of southern Gheg while the post-war standard has been a northern variety of Tosk (all examples given here are in the contemporary standard).

**Description**

The Albanian language that is first attested to us in the late Middle Ages is moderately conservative from the point of view of morphology. It preserves three genders and two numbers, and four cases in the noun. The dual is lost and the neuter is, even at the time of the language's earliest attestation, being merged with the masculine—a process almost completed in the current standard language. The verb preserves the distinction between active and middle (e.g., quaj 'I call; consider', quhem 'I am called, am named'), between the present and aorist, and among the indicative, subjunctive, and imperative moods. Phonologically Albanian is not so conservative. Like many IE stocks it has merged the two series of voiced stops (thus both *d and *dh become d, etc.). In addition the voiced stops tend to disappear when between vowels. There is the almost complete loss of final syllables and the very widespread loss of other unstressed syllables (compare mlk 'friend' from Lat amicus). PIE *a and *o appear as a (as e when a high front vowel follows) while *e and *a become o and PIE *o appears as e. Perhaps most remarkable is the fate of the tectals: the palatals, velars and labio-velars all remain distinct before front vowels, a conservatism found otherwise only in Luvian and related Anatolian languages. Thus PIE *k, *k, and *kw become th, q, and s respectively (before back vowels *k becomes th while *k and *kw merge as k). Another remarkable conservatism is the preservation of initial *h as Alb h (all other laryngeals disappear completely).
### Proto-Indo-European and Albanian Phonological Correspondences

<table>
<thead>
<tr>
<th>PIE</th>
<th>Albanian</th>
<th>PIE</th>
<th>Albanian</th>
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<tbody>
<tr>
<td><em>p</em></td>
<td>p</td>
<td><em>pek</em> /o/</td>
<td>‘cook’</td>
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<tr>
<td><em>b</em></td>
<td>b</td>
<td><em>sorbe</em> /o/</td>
<td>‘drink, slurp’</td>
</tr>
<tr>
<td><em>bh</em></td>
<td>b</td>
<td><em>bhakeh</em></td>
<td>‘bean’</td>
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<tr>
<td><em>t</em></td>
<td>t</td>
<td><em>tuh</em> /i/</td>
<td>‘thou’</td>
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<tr>
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<td>d</td>
<td><em>dih</em> /i/</td>
<td>‘day’</td>
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<tr>
<td><em>dh</em></td>
<td>d</td>
<td><em>dheg</em> /e/</td>
<td>‘burn’</td>
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<tr>
<td><em>k</em></td>
<td>th</td>
<td><em>keh</em> /i/</td>
<td>‘I say’</td>
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<tr>
<td><em>g</em></td>
<td>dh</td>
<td><em>ghed</em> /e/</td>
<td>‘burn’</td>
</tr>
<tr>
<td><em>gh</em></td>
<td>g ~ gh</td>
<td><em>gjed</em> /e/</td>
<td>‘enclosure’</td>
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<tr>
<td><em>k</em></td>
<td>k</td>
<td><em>kem</em> /e/</td>
<td>‘I take’</td>
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<td>g</td>
<td>g</td>
<td><em>gjem</em> /e/</td>
<td>‘find’</td>
</tr>
<tr>
<td><em>gh</em></td>
<td>g ~ gh</td>
<td><em>gjhem</em> /e/</td>
<td>‘cough’</td>
</tr>
<tr>
<td><em>s</em></td>
<td>gj ~ sh ~ ø ~ d</td>
<td><em>gjes</em> /e/</td>
<td>‘branch’</td>
</tr>
<tr>
<td><em>l</em></td>
<td>l ~ ll</td>
<td><em>lig</em> /i/</td>
<td>‘light’</td>
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<tr>
<td><em>r</em></td>
<td>r</td>
<td><em>rem</em> /e/</td>
<td>‘name’</td>
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<tr>
<td><em>m</em></td>
<td>m</td>
<td><em>meh</em> /e/</td>
<td>‘maternal’</td>
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<tr>
<td><em>n</em></td>
<td>n</td>
<td><em>nom</em> /e/</td>
<td>‘we’</td>
</tr>
<tr>
<td><em>l</em></td>
<td>l ~ ll</td>
<td><em>ligos</em> /i/</td>
<td>‘sick’</td>
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<td><em>t</em></td>
<td>ri</td>
<td><em>rij</em> /i/</td>
<td>‘fence’</td>
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<tr>
<td><em>i</em></td>
<td>i ~ e</td>
<td><em>rjih</em> /i/</td>
<td>‘bear’</td>
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<td><em>l</em></td>
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<td><em>lig</em> /i/</td>
<td>‘light’</td>
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<td><em>e</em></td>
<td>je ~ ja</td>
<td><em>gel</em> /i/</td>
<td>‘year’</td>
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<tr>
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<td>o</td>
<td><em>gelos</em> /i/</td>
<td>‘fat’</td>
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<tr>
<td><em>a</em></td>
<td>a ~ e</td>
<td><em>balak</em> /i/</td>
<td>‘bean’</td>
</tr>
<tr>
<td><em>o</em></td>
<td>a ~ e</td>
<td><em>balak</em> /i/</td>
<td>‘barley’</td>
</tr>
<tr>
<td><em>ţ</em></td>
<td>e</td>
<td><em>tse</em> /i/</td>
<td>‘eight’</td>
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<tr>
<td><em>u</em></td>
<td>u</td>
<td><em>gume</em> /i/</td>
<td>‘sleep’</td>
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<tr>
<td><em>ţ</em></td>
<td>y ~ i</td>
<td><em>suth</em> /s/</td>
<td>‘grandfather’</td>
</tr>
<tr>
<td><em>h</em></td>
<td>ţ</td>
<td><em>logue</em> /i/</td>
<td>‘mouse’</td>
</tr>
<tr>
<td><em>h</em></td>
<td>ţ</td>
<td><em>logue</em> /i/</td>
<td>‘grandfather’</td>
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<tr>
<td><em>h</em></td>
<td>ţ</td>
<td><em>logue</em> /i/</td>
<td>‘grandfather’</td>
</tr>
</tbody>
</table>

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- **PIE**: The Proto-Indo-European (PIE) sounds and their corresponding Albanian sounds.
- **Albanian**: The Albanian sounds that correspond to the PIE sounds.

This table illustrates the phonological correspondences between Proto-Indo-European (PIE) and Albanian.
Origins

The origins of the Albanians cannot be separated from the problem of assigning their linguistic ancestors to one of the three main groups of the Balkans: Dacians, Thracians or Illyrians. Although there are some lexical items that appear to be shared between Romanian (and by extension Dacian) and Albanian, by far the strongest connections can be argued between Albanian and Illyrian. The latter was at least attested in what is historically regarded as Albanian territory and there is no evidence of any major migration into Albanian territory since our records of Illyrian occupation. The loan words from Greek and Latin date back to before the Christian era and suggest that the ancestors of the Albanians must have occupied Albania by then to have absorbed such loans from their historical neighbors. As the Illyrians occupied Albanian territory at this time, they are the most likely recipients of such loans. Finally, as Shaban Demiraj argues, the ancient Illyrian place-names of the region have achieved their current form through the natural application of the phonetic rules governing Albanian, e.g., Durrësch > Alb Durrës (with Albanian initial accent) or Illyrian Aulona > Alb Vlora – Vlora (with rotacism in Tosk). Demiraj suggests that the transition from Illyrian to Albanian began during the fifth and sixth centuries AD and was clearly completed before the immigration of Albanian-speakers to Greece and Italy in the fourteenth–sixteenth centuries. See also Illyrian Language; Messapic Language.

Further Readings


Dictionaries


ALDER

*ยerno/εη - ‘alder’. [IEW 1169 (*yer-εηά); Gl 546 (*yer-n); Fried 149; BK 493 (*wer-/*wer-)]. Mfr ferm ‘alder’, Wels gwern ‘alder’, French verne – vergne ‘alder’ (borrowed from Gaulish), Alb verr – verri – verte ‘alder’, Arm geran ‘alder’. Olnd varana – Crataeva roxburghii (used in medicine and supposedly containing magical virtues). The distribution, which includes the periphery of the IE world, suggests PIE status for this word.

*ηελισο/εη - ‘alder’ (Alnus barbata); [IEW 302–303 (*ελ-); Wat 16-17 (*ελ-); Gl 546 (*ελισο – *ελισο; Fried 70-73]. From *ηελισο or the originally adjectival *ηελινσο Gaul Alisano (if ‘Alder God’), OHG eltra – erita ‘alder’, Goth *altis- (attested by the Spanish borrowing aliso ‘alder’), Lith alksnis ‘alder’, Rus олха ‘alder’, Maced (Hesychius) алица ‘white-polar’, possibly also Grk ὀλίζων ‘place of alders’ (and home of the Iliadic Philoctetes); from *ηελινσο- Lat alnus ‘alder’, OPrus *alskende (for abskande) ‘alder’, Lith alksnis ‘alder’, Latv elksnis, Latv elksns, both ‘alder’ have secondary *s. If they belong with this etymon Alb hale ‘black pine’ and Hit alanza(n) (a type of tree) are also from *ηελινσο (the Hittite with metathesis to *ηελισο). The Hittite and Albanian, presuming they belong, both argue for an initial *h-. On qr ‘alder’ and OE aler ‘alder’ (> NE alder) appear to reflect a Proto-Gmc *aluz-. Without the Anatolian form, this would appear to be a word of the west and center of the IE world. If the Hittite word is accepted, then this etymon could claim PIE status; however, there are also linguists who propose that *ηελισο is a non-IE substratal term of north (central) Europe which may derive from a non-IE proto-form *α-λη-σα which is argued to underlie the Celtic, Germanic, Slavic and Macedonian forms.

*kleh_dhreha - ‘alder’ [IEW 599 (*klădhră); Fried 149]. NHG (diaZ) Durer ‘dwarf birch, mountain alder’, Grk κληθρα ‘sticky alder’ (cf. Homerik kλθημα for the alders before Calypso’s cave and the dried alders employed by Odysseus for his raft). The correspondence is sound and points to some antiquity in Indo-European.

The alder, a usually shrubby tree marked by woody cones (which may help to explain the possible semantic shift in Alb halе from ‘alder’ to ‘black pine’) and male catkins, flourished throughout most of Europe: the grey alder (Alnus incana) to the north, the bearded alder (Alnus barbata) toward the Caucasus, the mountain alder (Alnus viridis) in many highland areas, the black alder (Alnus glutinosa) throughout the central zones. While alder forests sometimes form, this tree is usually an understory in deciduous forests, or an ecological pioneer, or even dominant in ecological niches such as river bottoms or along river banks, where early Indo-Europeans presumably preferred to dwell. The archaeological context for alder finds on prehistoric sites ranges from implements to structural posts in the construction of houses.

During the period c 6000–3000 BC, the alder is only absent in pollen diagrams from the southernmost region of the Mediterranean, i.e., southern Spain, Italy and Greece, but even here it is present in the northern halves of these countries. Alder is also known from this period from southwest Anatolia, the forest-steppe region of the Pontic-Caspi and in the Caucasus but it appears to have been absent from south
Central Asia. Thus, although at least one term for ‘alder’ can be reconstructed to PIE, the wide distribution of this tree prevents it from being diagnostic of the earlier location of the Indo-Europeans.

See also Trees. [PF]

**ALONE**


*sem-go-(lo)s* ‘single one’. [IEW 902 (*sem-); BK 184 (*sem/-sam-)]. Lat *singult* ‘single, individual, singularis ‘single, alone; unique’; in compound: Grk *μουντος ‘with one (unclenched) hoof’ (*spm- + *h3nog‘horn’); without *-go-(-lo)-: *μουντος ‘alone’ (perhaps not < *men- small’ [IEW 728–729 (*men-)], but possibly *sm-on-os ‘one’); other formations in Arm *melkin ‘single’ (< *mea- *miya- *smiya-), TochA *snak’ ‘alone’, TochB seska ‘alone’, sesketsase ‘quite alone’. Independent innovations on both *oino- and *sem- with suffixes *ko-/-go- and *-lo-.

*kai-jeulos* ‘alone’. [IEW 519 (*kai-); BK 252 (*kli lay-)]. Lat *caebles (< *kaiejulo-lib(h)’ living alone, celibate’; Latv *kails ‘barren, childless’, Olnd kēvala ‘alone’.

See also Numerals (One); Some. [C.F.J.]

**ANATOLIAN LANGUAGES**

The archaeological discovery of the extensive archives of the Hittite empire in the Turkish village of Bogazköy (ancient Hattusa) in the early years of this century, and the linguistic discovery that some of the languages represented there (Hittite, Palaic, Cuneiform Luvian, but not Hittic or Hattic) were Indo-European, caused something of a sensation among historians and linguists alike. Their discovery forced a re-evaluation of Near Eastern history and Proto-Indo-European linguistics that has not yet come to an end. Historians now have evidence of another major Near Eastern power, the Hittite empire, that treated even with Egypt as an equal: linguists had evidence for a group of Indo-European languages where no such languages had been known before or even suspected. Hittite, Palaic, and Cuneiform Luvian were in the age of their attestation earlier by almost a thousand years than any other IE language (though the discovery of Mycenaean Greek in the 1950s has shortened the gap a good deal). Later evidence from other parts of Anatolia has added to the list of Anatolian languages Hieroglyphic Luvian (at first thought to be a form of Hittite written in hieroglyphs and therefore formerly called “Hieroglyphic Hittite”), and the previously known but not well-understood Lycian, and Lydian. Even more recently the sparsely attested Sidetic, Pistidian, and Carian languages have been joined to this group. Palaic, Hittite, and Cuneiform Luvian are written in the cuneiform syllabary originally developed for Sumerian and transferred to the Anatolian languages via the Akkadians. Hieroglyphic Luvian, as its designation presupposes, is written in hieroglyphic symbols while the other languages are all written in alphabetic scripts similar in many respects to the various Greek alphabets of Asia Minor.

Hittite, Palaic, and Cuneiform Luvian are all attested in the archives of Hattusa, the capital of the Hittite empire. Hittite was by far the most common language attested there, being the administrative language of the Hittites and probably the native language of the Hittite elite and of a substantial portion of the inhabitants of central Anatolia. However, the Hittite pantheon was an eclectic one and included Palaic and Luvian gods and thus the archives of Hattusa also contain ritual texts in those languages as well. Though all three languages are attested in the same place, it would appear that natively they were spoken (or at least had been spoken) north of the Halys River in the case of Palaic, in central Anatolia in the case of Hittite (both Palaic and Hittite coexisting with the non-IE Hattic) and in south-central Anatolia in the case of Cuneiform Luvian. Hieroglyphic Luvian is closely related to Cuneiform Luvian but is not identical with it and is attested somewhat later and then in south-central Anatolia and extending into adjacent southern Syria. To the west of Luvian country we
find Sidetic (in the city of Side), Pisidian, Lycian (and its dialect Milyan, both in extreme southwestern coastal Anatolia), and then moving north along the Aegean coast to Carian and finally Lydian. While adjacent languages in this chain (Palaic, Hittite, Luvian, Sidetic, Pisidian, Lycian/Milyan, Carian, Lydian) tend to share linguistic features with their neighbors that they do not share with their more distant kin, it is possible to see two major divisions of the Anatolian stock: Hittite-Palaic and "South/West-Anatolian" (i.e., the reasonably well-known Luvian, Lycian, and Lydian, along with Sidetic, Pisidian, and Carian).

Hittite-Palaic

Hittite is overwhelmingly the best attested Anatolian language, with some 25,000 written tablets and fragments of tablets, and thus the best known. So much better known that the other Anatolian languages was Hittite that for most of this century the knowledge of Hittite and the knowledge of Anatolian languages has been essentially synonymous. The primary subject of our Hittite texts concerns the administration of the state religion and mythology. The latter has borrowed very extensively from non-IE traditions; however, the core vocabulary is still very solidly of Indo-European derivation. We can distinguish Old Hittite (1570–1450 BC), Middle Hittite (1450–1380) and New Hittite (1380–1220). Palaic, the language of Pala, is known only from a relatively few tablets in the Hattusa archives; it may have already been extinct by the time of our earliest written testimony and by the thirteenth century BC it is presumed that the language was long dead. Hittite and Palaic are characterized by the change of PIE *eh₁ to -e-, *e- to -i-, and of *-r- to -k-.

South/West-Anatolian

It has been argued that the earliest evidence for Anatolian, personal names recorded in Assyrian texts in the centuries around 2000 BC, tend to appear already as differentiated Luvian. The main evidence for Luvian comes from Cuneiform Luvian which is attested from 1600 to 1200 BC. Hieroglyphic Luvian, which was written in a hieroglyphic script apparently devised in Anatolia, is attested from 1300 to 700 BC. The hieroglyphic script is primarily found in the form of inscriptions on stone which include both material of a dedicatory nature and also historical texts. Lycian/Milyan, Carian, and Lydian are all attested from about 500 to 300 BC while Sidetic and Pisidian are attested later yet (Sidetic from 200–100 BC and Pisidian from 100–200 AD). None of these languages has left anywhere near as extensive a record as Hittite and some have left very meager remains indeed. Lycian is attested by some two hundred inscriptions, almost exclusively found on tombs. Lydian, known from over a hundred inscriptions, is primarily attested in the form of funerary memorials from the fifth and fourth centuries although some coin inscriptions may be several centuries earlier. Uniquely, some of the Lydian inscriptions are also in verse. Carian is known from both Anatolia and in the form of graffiti from Egypt which absorbed Carian immigrants from the seventh to fourth centuries BC. Pisidian is known from about thirty mortuary inscriptions of the type 'X [son] of Y'. Sidetic, known only from a half-dozen inscriptions, derives from third century BC contexts. On the basis of the moderately well-known Luvian, Lycian, and Lydian, this subgroup of Anatolian is characterized by the change of *eh₁ to -a-, of *e- to -i-, and of *-k- to *-ts- (the evidence, one way or another, for the last is lacking in Lydian).

Relationship of Anatolian to Proto-Indo-European

It is clear that the Anatolian languages are remarkably conservative in some respects but they also show clear differences from other Indo-European languages. Thus, on the one hand, Hittite and the other Anatolian languages preserve at least one PIE laryngeal, *h₂, as a regular phoneme, written 'h' or 'hh', and traces of a second laryngeal, *h₃, also written 'h'. Most Anatolian languages have reorganized the inherited three-way distinction of stops, e.g., *r, *d, *dr, into a single series whereby they all show as a voiceless stop in word initial position and as voiced in word final position. Within a word the originally voiceless stops are geminate or long (and coincidentally voiceless) while the other two series are single or short (and coincidentally voiced?). Thus the apparent orthographic distinction between b/p, d/t, g/k (where the difference between 'b' and 'p', for instance, reflects a phonological difference in Sumerian and Akkadian) is not real: in Hittite and other Anatolian languages written in cuneiform script 'b' and 'p' can be used interchangeably, though one or the other may be preferred, even strongly so, in a given word. On the other hand, the orthographic distinction, say, k/kk in the middle of words, is real. This rearrangement, however, seems to have affected all the Anatolian languages after the period of Anatolian unity. In the accompanying table Proto-Indo-European developments in Anatolian are exemplified by Hittite.

Turning to morphology we may note that Anatolian has numerous examples of neuter nouns that have their nominative/accusative shapes ending in -n while the other cases have -en instead. This heteroclitic is a very old pattern in Indo-European but nowhere else is it preserved so commonly. On the other hand, Anatolian shows no traces of a separate dual number, having only singular and plural, and its verb has only two moods (indicative and imperative, but no subjunctive or optative) and two tenses (present and past—and in the past no distinction of imperfect and aorist, and no perfects indicating states that result from some prior action). In these respects Anatolian seems to have a simpler morphological system than most of the other anciently attested IE groups. It might be noted that the absence of a feminine gender, which has often been cited as a further example of the simplicity of the Anatolian morphological system, may be a mirage and the presence of an a-vocalism in Lycian animate nouns...
suggests that Common Anatolian may have inherited the three genders of PIE and then merged the masculine and feminine together.

Two general explanations for these differences between Anatolian on the one hand and the rest of the IE stocks on the other have been advanced. The first explanation assumes that pre-Anatolian had all the categories and distinctions that are traditionally reconstructed for PIE and the absence of the dual, feminine, perfect, etc., represent losses, either induced by the influence of the languages which existed in Anatolia before the IE Anatolian groups arrived (e.g., Hattic in central Anatolia) or because Anatolian was employed as a "trade language" among a variety of different peoples and therefore experienced brusque simplification to facilitate communication between linguistically diverse populations.

The second explanation assumes that the common ancestor of Anatolian and the other IE stocks did not have these features either and thus that Anatolian is conservative in not having them and the other IE stocks underwent a significant period of common development after the Anatolian group had lost contact with the rest. It was during this period of common development that the dual, aorist, etc., came into being. Proponents of the latter explanation see Hittite and the other Anatolian languages as a group co-ordinate with all the other
IE groups also taken as a single group. The label given to this hypothesis is that of “Indo-Hittite”. While not going so far proponents of the first hypothesis also tend to think that the Anatolian group may well have been the first IE group to have separated itself from the rest and that some of the differences distinguishing Anatolian from the rest of IE may be attributed to late features developing only in the remaining PIE after that separation but that most of the differences that set Anatolian apart are the result of purely Anatolian innovations. Certainly belonging in the class of Anatolian innovations is the special (“ergative”) case-form in *-ants that neuter nouns take when they are the subject of transitive verbs.

**Anatolian Origins**

The search for Anatolian origins is complicated by the fact that when they first enter the historical or written record, the Hittites are already occupants of late Bronze Age urban centers. These towns were already literate, cosmopolitan and included a variety of ethno-linguistic groups. These factors render it nearly impossible to isolate out a particular IE Anatolian “identity” in either material culture or behavior that may be traced to earlier periods of prehistory or to foreign sources. The Hittites, for example, referred to themselves as Nesa and their ethnonym derives from the Hatti, who are widely regarded to have been the previous occupants of the Hittite capital of Hattusa. The “true” Nesa might then have occupied their early capital Nesa (Kanes) and their language then spread over much of Anatolia when they had secured the throne of Hattusa. The Hittite language would then have served as a chancery language which was spoken by ministers of state, scribes and traders but may have required centuries to become the predominant spoken language of the region.

The evidence of Hattic, a non-IE language which is occasionally related to one of the Caucasian groups (North Caucasian is often suggested), is not abundant but the Hittite archives at Hattusa retain both tablets in Hattic and, more usefully, bilingual texts in Hattic and Old Hittite (or Nesite). Hittite is thus represented as a symbiosis between at least two different languages and cultures, the Indo-European Nesite and the non-Indo-European Hattic from which the Hittites borrowed a number of terms relating to government (‘throne’, ‘lord’, ‘queen mother’, etc.) and religion (‘libation’, etc.) as well as personal names, including those of a number of their kings. This pattern has generally been interpreted as indicating that at some time in their past the proto-Hittites had either come into contact with and/or superimposed themselves on a Hattic population which was resident in north-central Anatolia. This “Hattic culture”, identified archaeologically for the period c 2500–2000 BC, gradually found itself placed under Hittite control and absorbed linguistically by the Hittite language which served as the chancery and trade language of central Anatolia. An alternative explanation, that it was the Hattic-speaking peoples who penetrated Hittite territory and influenced its language and ritual before dying out, is seldom contemplated. Only proponents of an indigenous Anatolian homeland for the Hittites (and all other Indo-Europeans) have been forced to suggest such a displacement, such as the Hatti temporarily pushing the Indo-Europeans out of central Anatolia and then later becoming subject to the Hittites when they later returned to regain their earlier homeland. That this latter model is very unlikely is supported by the nature of Hattic loans into Hittite. These loans seem to reflect the indigenous Anatolian urbanism, and the presence of these loans in Hittite would appear to be the result of Hittite occupation of what were originally Hittic towns such as Hattusa, the Hittite capital, and Pulu­shanda. Consequently, it seems far more plausible to derive the terms borrowed from Hattic from within Anatolia itself and assign the Hittites to the role of intruder.

The other major non-IE language to occupy Anatolia is Hurrian. Hurrian names are recorded in documents from Babylon and Syria as early as the third millennium BC but as an ethno-linguistic group they do not impinge on IE Anatolians until after the Old Kingdom (c 1400 BC) when the Hittites had spread toward upper Mesopotamia and greatly absorbed elements of Hurrian culture, especially religion, where the Hurrian pantheon largely replaced most of the earlier Hittite deities. As Hittite represented a symbiosis between the IE Nesites and the non-IE Hatti, so did the Luvians find themselves in a similar relationship with the Hurrians. With a major non-IE block occupying the region south of the Caucasus to the upper reaches of the Tigris and Euphrates, it is unlikely that this area could be regarded as an earlier homeland of the Anatolians.

In the absence of diagnostic ethnic markers, attempts to trace the Anatolians in prehistoric Anatolia have generally relied on evidence of invasions or destructions in the

![Anatolian Origins](image-url)
archaeological record which might accommodate some model of Anatolian movements prior to their emergence in the historical record. The most recent candidate for an Indo-European intrusion into Anatolia is associated with the destruction level (one meter thick) that marks the end of Troy II c 2200 BC. The candidate here, however, remains invisible in that there is no evidence for a new people at Troy in the subsequent period.

Some would attribute a major "destruction horizon" of Early Bronze Age II (c 2700-2600 BC) to the arrival of the Anatolians. The evidence is found on most major sites of western Anatolia and it has been suggested that the destruction of early Bronze Age towns as well as the abandonment of sizeable portions of western Anatolia were due to the infiltration of nomads from the northwest. Much later links seen in new ceramic types found in central Anatolia with those known from Troy (V) as well as the diffusion of the megaron, the distinctive 'large-house', have also been cited as evidence for a west to east spread of putative proto-Anatolians. It must be emphasized that as there are no decisive cultural markers that might link such models of population movement specifically with the IE Anatolians (although the horse does first appear in Troy V), it is very difficult to advance such hypotheses with a great deal of confidence. But it might also be said that a series of population movements from northwest Anatolia, presumably initiated in the east Balkans, does conform to one of the widely held solutions to the IE problem that sees PIE origins north of the Black and Caspian seas with subsequent movement southwestward through the Balkans and on into northwest Anatolia.

A fourth or third millennium intrusion from the northeast has also been proposed which relies on the general similarity between tumulus burials in the Ukraine-south Russia, then the Caucasus and finally eastern Anatolia and eventually, at Alaca Hüyük, north-central Anatolia. An advantage of an intrusion from the northeast would be that it would place between the Anatolians and any other IE stocks (or PIE if one prefers the Indo-Hittite hypothesis) a block of non-IE groups of the Caucasus as well as the Hurrians of eastern Anatolia and north Syria (who some suggest may have had Caucasian origins). This model would provide the Anatolians with a conveniently early and solid separation from its linguistic relations and perhaps account for its differences from the rest of the IE continuum. The archaeological evidence here rests largely on the introduction of exotic high-status burials involving large chambers, walled with stone and roofed with logs, then covered with earth and the remains of the heads and hooves of cattle. Such burials, found for example at Alaca Hüyük and Horoztepe, find parallels north of the Black Sea. Some have interpreted these tombs as the burials of Hittite princes who were establishing themselves in the lands of the Hatti.

An earlier intrusion from the Balkans has also been proposed for the period c 3500-3000 BC. This model would attribute the foundation of the major Bronze Age culture of northwestern Anatolia, that represented in the foundation of Troy and related sites, to the movement of Anatolians from the east Balkans. That there were connections between the Balkans and Anatolia at this time is not in doubt. Ceramics and other items of material culture show a broad similarity between Troy in Anatolia, the Ezero culture of Bulgaria, and more distantly, the Baden culture of the northern Balkans and adjacent territories. The emergence of stone-built citadels is also to be found from Anatolia (Troy) north across the western portion of the Black Sea (Ezero) and then on around to the steppe and forest-steppe regions of the North Pontic (Mikhaylovka in the Ukraine). A metal-working province also developed that extended from Anatolia to northwest of the Black Sea. The cultural priority of the spread of such features is still a topic of debate although the creation of some form of interaction sphere around the shores of the Black Sea might well have provided a medium for language dispersals.

It has also been suggested that the Anatolians did not come from elsewhere but are autochthonous to Anatolia, at least since the Neolithic period, i.e., the eighth–seventh millennia BC. In this solution Anatolian origins are seen to be closely related to those of the Indo-Europeans in general: the Proto-Indo-Hittite homeland is set to Anatolia and while the Anatolians remained in the homeland, the ancestor of the other IE stocks moved west to develop independently in Europe. This model is directly linked to the generally held belief that the Neolithic economy, i.e., an economy based on the raising of domestic plants and animals, spread from Anatolia into southeastern Europe about 7000-6500 BC. There are other models of IE origins that would have the Anatolians as essentially autochthonous but these generally presume a later date and offer either very poor or non-existent archaeological correlations.

An autochthonous origin for the Anatolians in Neolithic Anatolia c 7000 BC is very difficult to support in the face of the reconstructed cultural vocabulary of Proto-Indo-European. Such an early date of separation would require the Anatolian stock to possess only the most archaic Indo-European cultural vocabulary to the exclusion of later innovations evident in the subsequent development of the other Indo-European languages. The rest of (Proto-) Indo-European possesses a cultural vocabulary containing items that should not have been known anywhere prior to the fifth or fourth millennium BC, e.g., words associated with the yoking of animals, wheeled vehicles, wool. But as Anatolian also possesses cognates of these terms that are commonly assigned a late date, it is very difficult to suggest that the ancestor of Anatolian could have been separated from the rest of the IE continuum much before about 4000 BC.

The evidence for Anatolian origins is still very inconclusive and is likely to remain so given the nature of both the archaeological evidence and the possible vectors of language dispersals in Anatolia.

See also Agriculture; Indo-European Homeland; Indo-European Languages; Proto-Indo-European. Subgrouping; Time-Depth, Troy. [D.Q.A., J.P.M.]
Further Readings

LANGUAGE


ETYMOLOGICAL DICTIONARIES

ORIGINS AND CULTURE

ANATOMY

We are able to reconstruct a very detailed list of PIE words designating parts of the body and its products. Our knowledge of the PIE names for external parts of the body is particularly full and certain; there can be no real doubt that Proto-Indo-Europeans called the ‘eye’ *h1l40hj(e)s- or the ‘foot’ *p6ds. Indeed, such words and similarly “basic” ones such as designations of family relationships within the nuclear family play a central role in any demonstration of PIE family relationship. The larger internal organs are also generally reconstructible. Thus there is no doubt that the ‘heart’ was *kērd for the Proto-Indo-Europeans. However, our knowledge of most of the internal organs is less certain than it is for the external body parts and that relative lack of certainty presumably reflects their somewhat more specialized status as vocabulary items in Proto-Indo-European, knowledge of them being gained through butchery rather than casual observation as an infant. Our ability to reconstruct terms for the smaller internal organs and structures, e.g., nerves, blood vessels, what Matisoff has called “obscure internal channels and connectors”, is most restricted. It is most probable that the Proto-Indo-Europeans themselves did not have a very elaborate or specific vocabulary for these portions of the anatomy.

If we adhere to a fairly strict criteria of identifying roots to PIE, then the following anatomical terms may be reconstructed with relative confidence.

External Anatomical Parts
Head: *kṛētā-'head', *h2ent- 'forehead', *h1jēni-hj(e)s- 'face', *kripo- 'head and facial hair', *h1jōus-'ear', *h1jāns 'nose', *h1jōk- 'eye', *bhruh(j)- 'eyebrow', *h1j40hj(e)s- 'mouth', *ghelun-eh(j)- 'lip', *smok(j)- 'chin', *poksos 'breast', *ghes-r- 'arm', *ghelun-eh(j)- 'shoulder', *ghes-r- 'hand', *kōks-ōeh(j)- 'hollow of major joint', *mē(m)s 'flesh', *monis 'neck', *h4elVn- 'elbow', *h3nobh- 'navel', *h1jneg(h)- 'nail', *p6ds 'body hair', *poksos 'side, flank', *p6ds 'breast', *kēps 'body', *tjęks 'skin'.

Upper Torso and Limbs: *h1j40mōsos 'shoulder', *p6ds- 'shoulder blade', *hjēpes- 'limb', *h2eks- 'shoulder joint', *h2ektos-'arm', *bhāghus 'arm, foreleg', *dous- 'upper arm, shoulder', *gēhes- 'hand', *kōks-ōeh(j)- 'hollow of major joint', *kōhēm 'lower leg', *mē(m)s 'flesh', *pēnns-eh(j)- 'heel', *pēses- 'pens', *pokso 'body hair', *poksos 'side, flank', *putōs 'vulva, anus', *p6ds 'foot', *sek'ti 'upper leg'.

Lower Torso and Limbs: *gōnu 'knee', *klōmus 'haunch, hip', *h1jōrs(i)- 'rear-end', *hjēpes- 'limb', *h4orēgis 'testicle', *isghis- 'loins', *kōks-ōeh(j)- 'hollow of major joint', *kōn 'lower leg', *mē(m)s 'flesh', *pēnns-eh(j)- 'heel', *pēses- 'pens', *pokso 'body hair', *poksos 'side, flank', *putōs 'vulva, anus', *p6ds 'foot', *sek'ti 'upper leg'.

Internal Anatomical Parts
*udero-'abdomen', *h1jēhs(j)- 'blood', *kreuhs(j) 'blood outside the body', *h2ōst 'bone', *h1jēn(e) 'innards', *gut 'gullet', *kērd 'heart', *h3jēh(2)- 'kidney', *jek(t)- 'liver', *h1jējt- 'lung, interior of body', *pēlōm(j)- 'lung', *mūs(t)- 'muscle', *spelgh- 'spleen', *dōghuhs- 'tongue', *h1dōnt- 'tooth', *gombhos 'tooth'.

There is a relatively long list of reconstructible words for various diseases of the skin and for visible bodily deformities, while there appears to be no reconstructible words for non-visible diseases as anemia, a heart attack, a stroke, etc.

Unlike the case with many other semantic fields, reconstructing PIE body-part terms does not tell us anything about the geographical location of the speakers or of their cultural level. The wealth of reconstructible words for hair may suggest that the Proto-Indo-Europeans were closer to the more hirsute end of the human spectrum than the other end but such knowledge, if true, hardly throws much new illumination on the Proto-Indo-Europeans as a people. More significant is our ability to reconstruct specific, apparently underived, names for the rumen (the first stomach of a ruminant) and either the omasum or abomasum (the third and fourth stomachs of ruminants). This specificity and unanalyzability suggest that the association of Proto-Indo-Europeans with cattle is both old and intimate, reinforcing our notion that animal husbandry, particularly cattle-raising, formed a central part of PIE culture.

In addition to purely physical denotation, human physiognomy was integral to the IE myth of creation, the severed
Anatomy The human anatomy according to the reconstructed Indo-European lexicon.
parts of a primordial giant's anatomy serving as alloforms for both the physical and social world of the early Indo-Europeans. The most common physical correspondences saw the following equations: flesh = earth, bone = stone, hair = plants, blood = water, eyes = sun, mind = moon, brain = clouds, head = heaven, breath = wind. In terms of social tripartition, the head was associated with the priests, the upper torso with the warriors and the lower torso, which included both the lower support limbs and genitalia, was seen as the alloform of the commoners who physically supported society and were most closely tied to such concepts as fertility and sexuality.

See also Abdomen; Anus; Arm; Back; Blood; Body; Bone; Brain; Breast; Buttocks; Cosmogony; Ear; Elbow; Entrails; Eye; Face; Foot; Gullet; Hair; Hand; Haunch; Head; Heart; Heel; Jaw; Kidney; Knee; Lip; Liver; Loins; Lung; Marrow; Medicine; Mouth; Muscle; Nail; Navel; Neck; Nose; Sexual Organs; Shoulder; Side; Skin; Skin Disease; Spleen; Tongue; Tooth; Uterus; Wound. [D.Q.A.]

**ANCESTOR GOD**

The theme of a deity ancestral to a tribe, people or humans in general is a near universal in mythology although there are no linguistic grounds to reconstruct a specific deity of this nature for the Proto-Indo-Europeans. At best, there is a common Indo-Iranian deity, Indic Vivasvat, Iranian Vīvaḥvant, who appears to occupy this function. In the RV Vivasvat marries Saranyū of whom is begotten the Divine Twins, Yama and Yami, who here only vestigially reflect their role as the progenitors of humans in the IE creation myth. Similarly, the Iranian Vīvaḥvant is the father of Yama Xšaēta who establishes the first earthly kingdom, a virtual paradise. Both the Indic and Iranian names reflect an Indo-Iranian *Vivasvant*. In addition to being ancestor to humankind, as father of Manu, Vivasvat is connected with the first sacrifice and this Indic deity, whose name means ‘brilliant one’, also occupies a clearly “solar” position in early Indic religion. One motif in the story of Vivasvat that is encountered elsewhere is his transformation into a stallion in order to mate with his wife Saranyū after she had turned herself into a mare; cf. Poseidon’s ‘covering’ of Dēmētēr, again in hippomorphic guise, to produce the horse Areion or his coupling with Meduāsa to produce Pegasōs, or in Norse mythology, more distantly and without the hierogamic features, where Loki turns himself into a mare and gives birth to Sleipnir, the eight-legged horse of Óðinn.

The Scythian origin myth produces another Indo-Iranian, here specifically Iranian, ancestor figure in Tarḫتناs (Herodotus 4.5–6), the father of three sons—Lipoxais, Arpoxais and Kolaxais—whose contest for the kingship of Scythia yields the three Scythian peoples and/or social classes. The motif of a common father for the representatives of the three social classes is widespread and is also found, for example, in the Old Norse *Rígr* where Rígr (Heimdallr) fathers Fræll, Karl and Jarl, the eponymous representatives of the Germanic social classes (slaves, freemen, nobles).

**Kingship in Heaven Theme**

The only set of ancestor figures ever to have had at least a putative claim to IE antiquity emerge from the “kingship in heaven” theme, an account of the creation found in Greek (Hesiod’s *Theogony*, Apollodoros’ *Bibliotheca*, Nonnos’ *Dionysiaca*), Hittite (the Kumbari myths, the “song of Ullikummi”) and Iranian (*Firdousī’s Šahānnameh*) myth. In the Greek accounts an autochthonous ancestor figure, Ouranos, sires a variety of off-spring which he mistreats; one of them, Kronos, emasculated him with a sickle and reigns in his place. Hearing that he too will be overthrown, he devours his own children until killed by his son Zeus who assumes the kingship of heaven but his rule is only secure when he has dispatched a further challenger, Typhon, a gigantic monster with snakes growing from his body. In the Hittite version, the initial ancestor Alalu is deposed by his son Anu, and is then deposed by his son Kumbari who bites his father’s loins and thus absorbs his manhood. Kumbari undergoes a most unwanted pregnancy himself and (apparently) attempts to devour his children but is overthrown by his son Teshub, the “weather” god. Kumbari attempts to revenge himself on Teshub by engendering the gigantic Ullikummi who is ultimately dispatched by being cut (cf. the castration sequence in the Greek myth) from the shoulder of Upelluri, the giant Atlas-like figure from which he grew. In the Iranian tradition, the sequence of ancestors begins with the fourth Iranian king, Jamshid (the euhemerized Yama Xšaēta, son of Vīvaḥvant), who is overthrown by Zohak, the second king who, like

<table>
<thead>
<tr>
<th>Version</th>
<th>1st generation</th>
<th>2nd generation</th>
<th>3rd generation</th>
<th>Monster</th>
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</thead>
<tbody>
<tr>
<td>Greek</td>
<td>Ouranos begets</td>
<td>Kronos who castrates Ouranos and begets</td>
<td>Zeus who deposes Kronos but must kill</td>
<td>Typhon, offspring of Kronos</td>
</tr>
<tr>
<td>Hittite</td>
<td>Anu begets</td>
<td>Kumbari who castrates his father and begets</td>
<td>Teshub who deposes Kumbari but must kill</td>
<td>Ullikummi, offspring of Kumbari</td>
</tr>
<tr>
<td>Iranian</td>
<td>Jamshid is overthrown by Burt</td>
<td>Zohak who is deposed by Bor who begets Prudgelmir who begets</td>
<td>Oðinn who kills Bergelmir</td>
<td>Zohak, monster killed by Feridun Ymir</td>
</tr>
<tr>
<td>Norse</td>
<td>Ymir begets</td>
<td>Bor who begets</td>
<td>Feridun (grandson of Jamshid)</td>
<td></td>
</tr>
<tr>
<td>Phoenician</td>
<td>Ouranos begets</td>
<td>El who castrates Ouranos and begets</td>
<td>Baal who deposes El</td>
<td></td>
</tr>
</tbody>
</table>

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The Kingdom in Heaven Theme
Typhón, has snakes growing out of his shoulder, and rather than castration, saws his father in half. Zohak is then himself overthrown by Jamshed's grandson, Feridun. A possible Old Norse reflection of this motif has been suggested on the basis of the creation myth where the first being, Ymir (followed by Prudgelmir and then Bergelmir), is cut up by the leader of the final generation, Ōdinn.

Although the "kingship in heaven" theme with its three generations of ancestors and motifs of castration or, at least, cutting, and monsters is found in several IE sources, it is also well anchored in Near Eastern mythologies as well, e.g., Babylonian, Phoenician, and its presence in the adjacent IE cosmologies of Greece, the Hittites and Iran (but not India), has suggested that its origins lay in the Near East rather than in Indo-European antiquity.

Elements of the structure of the "kingship in heaven" myth have also been interpreted within an IE context in Jean Haudry's "cosmic" interpretation of IE mythology that envisages a three-heaven model of the IE universe. Here he interprets the order of the deities as representatives of the three heavens. Ouranos is the night sky; Kronos (possibly the 'cutter' < *kr-ono- from PIE *ker- 'cut') fills the role of the dawn and twilight to separate the night sky from his successor Zeus, the diurnal sky.

See also Cosmology, God. [J.P.M.]

Further Readings

AND
*kw'e 'and'. [IEW 635 (*kw'e); Wat 33 (*kw'e); GI 308–309 (*kw'e); BK 326 (*kw'[h][t]/a/*kw'[h][t][a]-)]. OIr na-ch 'not', MWels nac 'not', Lat -que 'and', Goth -h 'and', Myc -qe 'and', Grk te 'and', Arm -k' 'and', Hit -k't 'and', Av ca 'and', Olmd ca 'and'. Widespread and old in IE.

*jo 'and' [GI 308–309 (*yo-)]. Myc jo- 'and', Hit -ya- 'and', TochA -yo (< *jo + *u) 'with'. Sufficiently widespread to suggest real antiquity in IE.

[D.Q.A.]

ANDRONONO CULTURE

Andronovo is a blanket term for a series of Bronze Age cultures that spanned western Siberia from the southern Urals to the Yenisei river and which are broadly identified with prehistoric Indo-Iranians. The culture dates c 2000–900 BC and embraces communities that were largely mobile pastoralists as well as those settled in small villages, especially in Central Asia.

Employing Andronovo as a very broad cover term for Bronze Age cultures of the steppe lands east of the Urals, the earliest period is assigned to the Sintashta-Petrovka culture which should begin c 2300 BC. The distribution at this time comprises both the northern and western steppe (southern Ural-Kazakhstan) and is marked by the emergence of defensive sites such as Sintashta. Fortifications include ditches and earthen banks as well as timber palisades, an estimated twenty such sites exist. There is a general expansion of the Andronovo phenomenon to the south and east with the Alakul phase (c 2100–1400 BC), the Fedorovo phase (c 1400–1200 BC) and the final Alekseyevka phase (c 1200–1000 BC). South of the Andronovo border in the strict sense are a series of cultures which are believed to have either had an origin in the Andronovo culture (or neighboring Srubna) such as the Tazabagay culture, or are represented as an amalgam of steppe cultures with those of the oasis cultures of Central Asia, e.g., the Bishkent and Vakhsh cultures.

Andronovo villages, of which at least 150 are known, might range from two to about twenty timber houses (exceptionally up to a hundred), constructed of pine, cedar and birch, the last being one of the few IE arboreal names retained in Indo-Iranian. The houses were usually aligned overlooking the banks of rivers. The large semi-subterranean Andronovan houses (80 to 300 sq m) have been interpreted as the residences of extended families as one would expect from the Indo-Iranians. Livestock included cattle (c 46%), sheep/goat (c 37%), and horse (c 17%), the latter of which was well represented on Andronovo sites and was employed both for riding and traction. The percentage of cattle among the remains tends to be greater than their western steppe neighbors, the Srubna culture. The camel is also present among the faunal remains. The domestic pig is conspicuous by its absence although this absence is entirely predictable in a largely mobile economy.

The Andronovo dead were buried in timber or stone chambers under both round and rectangular kurgans (tumuli). Burials were accompanied by the remains of livestock, wheeled vehicles, cheek-pieces for horses, and weapons, ceramics and ornaments. Among the most spectacular remains are the burials of chariots, dating from c 2000 BC if not earlier. The chariots are found among paired horse-teams; the ritual burial of the horse in a "head and hooves" cult is also known.

The association between the Andronovo culture and the Indo-Iranians is supported by their pastoral lifestyle, by the distribution of Iranian place names across the region of their occupation, and by the historical evidence of the first millennium BC which indicates that their territory was occupied by Iranian speaking tribes—Sarmatians, Alans, Saka, etc. Comparisons between the archaeological evidence of the Andronovans and textual evidence of the Indo-Iranians are frequently made and employed to support the Indo-Iranian identity of the steppe tribes. Moreover, current explanations of the process of the "Indo-Iranization" of greater Iran and the Indian subcontinent rely heavily on a model which requires Andronovo tribes to have settled in Central Asia (the Tazabagay culture) or, at least, achieved linguistic dominance across the Bronze Age urban centers of the region, such as...
the Bactrian-Margiana Archaeological Complex (BMAC). They also play an important role in explaining the origins of the more pastoral societies such as the Bishkent and Vakhsh cultures. Generally, the earliest Andronovan phases are regarded as co-ordinate with the period of late Indo-Iranian linguistic unity while the later period sees them identified specifically with a branch of the Iranians.

See also Afanasevo Culture; BMAC; Bishkent Culture; Indo-Iranian Languages; Sintashta; Srubna Culture; Tazabagyab Culture; Vakhsh Culture. [J.P.M.]

Further Readings

ANGELICA
*Kuçendho* - *Kuçendhno* - 'angelica (Angelica silvestris)'. [IEW 631 (*Kuçendh-ro/*Kuçendh-no-)]. From *Kuçendhro-

**Andronovo** a. Generalized distribution of the Andronovo culture.

b. Plan of the Andronovo settlement at Karkaralinsk;
c. Reconstruction of Andronovo house.
we have ScotsGael contran 'wild angelica', Lat combretum an unidentified aromatic plant, Lith svendras 'reed, reed-mace (Typha latifolia)'; from *kvehndhno- we have Nlr cuinneog 'Angelica silvestris', ON hvonn 'Angelica silvestris'. A word of the northwest of the IE world. In Iceland angelica was employed to flavor ale (it is a flavoring agent in Benedictine and Chartreuse liqueurs) while its more common pharmaceutical uses generally include ameliorating indigestion and anemia. It also had a reputation for warding off evil spirits and plague during the Middle Ages. In the wild form, i.e., Angelica silvestris, it is found all over Europe.

See also PLANTS. [D Q A J P M.]

ANGER

*bhorgwos* 'angry, violent'. [IEW 163 (*bhorgwos*).] Olr borb 'stupid, violent', Lat bargs 'hard, unfriendly', Arm bārk 'angry, violent'. At least a word of the west and center of the IE world, though an "expressive" word that owes much of its shape perhaps to onomatopoeic factors.

*tret- 'be angry'. [cf.IEW 534 (*kat-); cf. Wat 27 (*kat-); cf. Gl 126 (*kat-); BK 273 (*kat-)]. Grk kōtōs 'spite, anger', Olnd sātru- 'enemy'. Olnd sātru- is often taken to be from *khr,et- 'light' instead. It is possible that the *ket- reconstructed here is but a phonological and semantic variant (*khet-?) of *kat- (or *khaet-).

*trohet- 'anger, any strong feeling' (< *that which rouses one to motion'). [IEW 300 (*trohet-); Wat 16 (*tis-tro-); Buck 16.42]. Lith aistra 'passion', Grk ois-tropos 'gadfly, sting, anger'. From *hjeis- 'set in motion'. If not the result of independent creations, a word confined to the center of the IE world.

**rabbh- 'fervocity'. [IEW 852 (*rabbh-); Wat 53 (*rebh-)]. Lat rabēs 'violence', Olnd rābbas- 'fervocity'. The underlying verb is attested in Olnd rabhate 'seizes, takes'. It is not certain that these words belong together and TochA rupurte 'desire, cupidity', sometimes cited here, should be rejected on semantic grounds. If the Latin–Old Indic correspondences are accepted, this would seem to suggest at least late PIE status.

See also FIGHT. [D Q A.]

ANIMAL

Gathered under this heading are those words we can reconstruct for PIE whose natural translation in English would be either 'animal' or some generic subset of animals, e.g., 'wild animal' or 'small animal'. With the probable exception of the dialectically restricted *g*ējūjom, however, all of these words for 'animal' reflect the English meaning of 'non-bird', 'non-fish', etc., i.e., that meaning where animal is the equivalent of the more formal 'mammal', rather than the sense of 'any member of the (biologists') animal kingdom'. Since most languages do not have a word with the latter meaning, the meanings we are able to reconstruct for these PIE words occasion no surprise. Actually, what is a little surprising is that some of the dialects of PIE, those at least ancestral to Greek and Tocharian, apparently did have a word for 'animal'
in the larger, more generic, sense.

'animal' (i.e., 'quadruped'). [IEW 643; GL 395]. Lat quadrupes'quadruped, animal', Umb petur-purus 'quadruped, animal', Lith ketur-kojis 'quadruped, animal', Myc ge-to-ro-po-(d)-'quadruped, animal', Grk τετάνους 'quadruped, animal', Alb šhtaté (< *ktevor-p(d)jeha-) 'animal', Olín čtuspad- 'quadruped, animal', TochB šwēr-pew 'quadruped, animal'. The exact shape of this word in PIE is difficult to reconstruct because as a more or less transparent compound there has been a tendency to rebuild it if, by action of regular phonological changes, the compound became less transparent. Nonetheless, this is clearly a word that is both widespread and old in IE and one that distinguished animals from humans on the basis of physical attributes.

\*ghuēr (gen. \*ghuēros) 'wild animal'. [IEW 493 (*ghuēr-); Wat 23 (*ghwer-); Gl 390 (*ghwer-); Buck 3.11; BK 236 (*gwy-*/gwyr-*/*gwey-/*gwyr-/*gwy-)]. Lat ferus (< \*ghuēr-o-) 'wild', fera 'wild animal', ferox 'wild, bold, fierce' (< \*ghuēris yok- 'wild-eyed' or 'wild-looking'), OPrus (acc. pl.) swētrins 'wild animals', Lith žveris (pl. žveres) 'wild beast', Lat žyrs 'wild animal', OCS žvēr 'wild animal', Grk ὄπις 'wild animal', TochB ču 'animal(s) and man/men' is a formula for representing the community's wealth—the same formula appears in Umb u(e)iro pecuo (cf. Olín viráspé- 'abundant of people and animals' = Old Persian (Elephantine) personal name Wrpš). In Old Indic pāśu might even, on occasion, include men, as the 'biped pāśu', along with horses, cattle, sheep, and goats which were designated as the five sacrificial animals (Atharvaveda 11.2.9).

\*g'ieh3yjom 'animal' (< *'living thing'). [IEW 468 (*g'diô-); Wat 24 (*'g'yô-); cf. Gl 387, Buck 3.11]. Grk ζώον 'animal', TochB šuyye 'sheep'. From \*g'ieh3- 'live'. Though found only in Greek and Tocharian it is unlikely to represent two independent creations. Possibly of late PIE date.

\*leuh3en (gen. \*leuh3enos) 'animal' (< *the one of the hunt'). [cf. Gl 427]. Grk λέων 'lion' (< *the hunter'), TochA lu 'animal', TochB luwo 'animal'. Cf. OCS lóvo 'hunt', lóvito 'to hunt'. (From Grk λέων was borrowed Lat leo, whence the word for 'lion' in most western European languages.) Like the previous word, possibly of PIE date.

\*h2yedep (gen. \*h2yedënos) 'creatures, (wild) animals, wolves'. [cf. Gl 413 (weî-); Pulv 3.355]. ON vinitr (< \*h2yëdnios) 'animal; wolf', Hit huçar (gen. huëtnas, pl. huitār) 'creatures, (wild) animals, wolfpack'. Though only certainly attested in these two stocks, the archaic heterotic stem argues strongly for PIE antiquity. Probably from \*h2yed-'be alive', otherwise seen only in Luvian. Possibly belonging here too are certain Slavic words for werewolf: Slov vedanec (~ vedomec) 'werewolf', Ukr víščun 'werewolf', Oczech vědě (pl.) 'she-werewolves', though particularly in Ukrainian this word has been subject to phonological deformation. The association of Germanic and Hittite would seem to assure a reconstructed meaning 'animal (but the association with 'wolf' is obviously very old (as the 'wild animal par excellence')?

Small Animal

\*meh1l 'small animal'. [IEW 724 (*mele-~ *smel-); Wat 41 (*mele-~ *smel-); Buck 3.11]. OIr mbl 'small animal', Wels mi'animal', NDutch maal 'young cow', Rus malá 'young sheep', Grk μῆλα 'small animal, sheep', Arm mal ((< *mbl-) 'sheep, ram'. Related adjectives are: Lat malus 'bad', Osc mallo- (with expressive gemination) 'bad', OCS malū ((< *mbl-) 'small'. In Germanic we have also *smelî: ON smal 'small domestic animals, esp. sheep', OE smæl 'small, little' (> NE small), OHG smal 'small, little', Goth sma:s 'small, little'. Widespread and old in IE. The meaning of this word seems to mean 'sheep'; thus the connection sometimes made with the verbal root *pek- 'pluck, shear' (that is *'the animal with wool') seems unlikely. This word and the previous one seem to have divided the animals, more particularly the mammals that the PIE speakers knew, into two fairly neatly divided groups, domestic and non-domestic. Since a person's livestock, his moveable wealth, was apparently the major form which wealth took in early IE society, it is not surprising that we find the semantic transition from 'livestock' > 'moveable wealth' > 'wealth (in general)'. This word also designated (domesticated) animals as opposed to human from the point of view of the social order. Thus Av pasu vtra 'animal(s) and man/men' is a formula for representing the community's wealth—the same formula appears in Umb u(e)iro pecuo (cf. Olín viráspé- 'abundant of people and animals' = Old Persian (Elephantine) personal name Wrpš). In Old Indic pāśu might even, on occasion, include men, as the 'biped pāśu', along with horses, cattle, sheep, and goats which were designated as the five sacrificial animals (Atharvaveda 11.2.9).
the Germanic descendants of "tauros 'aurochs; bull'), Av staora- 'large (domestic) animal (i.e., horse, ass, cow, camel), MPers stör 'draft animal, horse'. Though not widely attested, the geographical spread of those attestations suggests PIE status for this word.

**Animal Young**

*yclôlos* 'yearling'. [IEW 1175 (*yclô-lo-); Wat 78 (*ycl-); Buck 3.24; BK 503 (*ycl-/*ycl-)]. Lat vitulus 'calf, young of animal, yearling', Umb vitlo- 'calf', Grk .Translate  'southeast' 'anus', Arm  Translate 'the same calf'. Cf. Osc Vitelhû 'Ital., whence, via Greek, Lat Italia 'Italy' < "land of young cattle' (named for the god of cattle, Mârš). A derivative of *yclôlos- 'year'. Sufficiently widespread to reflect probably at least a late PIE term. Similar derivatives of *yclôlos- are to be found in OIr *ycl-si- 'sow, young female pig', Wels gwys 'sow, young female pig', Alb vic (*ycl-eso-). OInd vatsa- 'yearling, calf'; and in ON vdr 'wether', OE weder 'wether' (≠ NE wether), OHG windar 'wether', Goth wîzrus 'lamb'. (Gmc < *ycl-tu-).

?*per- offspring (of an animal) < *'what is brought forth'. [IEW 818 (*per-); Wat 50 (*per-); BK 39 (*pet/*pet-)]. Wels erthyl 'abortion', OIr farr 'bullock, steer', OE feart 'bullock, steer', OHG far 'bullock, steer' (< Proto-Gmc *farzan-), MHG verse < *farsi- 'heifer', OCS za-prãtúkh 'wind (i.e., impregnated or imperfect) egg', Czech s-pratek 'newly born calf', Grk pórtia- - pórtia- - pórtia- calf, heifer, Arm ort 'calf', Olnd prithuka- child; young of an animal. From *per- 'appear, bring forth'. Though derivatives of this verbal root with the meaning *'age young animal' are common, they appear to be very largely independent creations in the stocks where they are attested.

?*ghim- 'yearling'. [IEW 426 (*ghimo-)]. Lat hîmus 'two year old', OIr gorm 'one year old sow', Grk zióupa 'goat'. Probably independent derivatives of *ghimós 'winter'.

See also **Animal Cry; Bird; Birds; Dragon; Egg; Fish; Fly; Frog; Leech; Life; Mammals; Shellfish; Snail; Snake; Tortoise; Year; Worm.** [D.Q.A.]

**Further Readings**


**ANIMAL CRY**

?*gheu- 'cry (of animals or birds)'. [IEW 439 (*gheu-); Wat 22 (*gheu-); BK 235 (*gur/*gor-), 350 (*gar/*Gar-)]. Lat hirrite 'howl like a rabid dog', ON garpr 'warlike man', RusCS gûkati 'coo', Slov gîgati 'gurgle', coo', Olnd ghrghara- 'gurgling'. A collection of onomatopoeic words, likely to be independent creations in the stocks where they occur.

?*brem- 'make a noise (of animals)'. [IEW 142–143 (*brem-); Wat 9 (*brem-); BK 33 (*bar/*bar-)]. Wels brelu 'bleat', Lat fremû 'groll, roar', OE brelman 'roar', OHG bremen 'roar, NHG brümmern 'groll, grumble, hum', Pol brzmiec 'resound', Olnd bhramara- 'bee'. Perhaps reflecting a PIE onomatopoeic word for some sort of buzzing or roaring sound. It is also possible that each stock that shows a word of this phonological shape has independently created it. See also **Bark; Bird Cry; Bleat; Dog; Grunt; Noise.** [D.Q.A.]

**ANONT**

?*hêngw- 'anoint (with salve), (be)smear'. [IEW 779 (*hongw-); Wat 46 (*ongw-), Gl 692 (*ongw-)]. Lat ung(u) 'be'smear, anoint', Arm awcanem 'anoint', Olnd anâkti 'anoints'. Cf. OIr imb 'butter', OHG ancho 'butter', OPrus anctan 'butter', Olnd anjâs- 'salve, ointment'. Widely enough distributed to assure its PIE status. The range of meanings suggests the multiple uses of the substance which not only included a foodstuff but also something to be rubbed on bodies.

See also **Smear.** [D.Q.A.]

**ANT**

*môris- *- *mör- *- *môros' ant'. [IEW 749 (*mor-), Wat 43 (*mor-), Gl 194 (*morw-)]. From *môris-: OIr moirb 'ant', Wels möriz 'ant', OCS mrâv 'ant', Av mard 'ant'; from *mör-: Lat formica 'ant', Grk μύρμος 'ant', from *môros-: ON mør 'ant' (whence ME mite 'ant' and NE pismire), CrimGoth miera 'ant'. A further variant *morm- is seen in Grk (Hesychius) ὀμπιβας 'ants', Olnd valmika- 'ant', vantrâ- - vantrâ- 'small ant', Tochb wreme 'ant' (a phonologically similar form appears as 'worm' in a number of IE stocks). The number of phonological variants suggest that the designation for the 'ant' in IE traditions was more than usually subject to phonological deformation (via metathesis, etc.) owing to some sort of affective semantics of the word. Though it is hard to reconstruct the exact PIE shape of this word, it is clearly of PIE date.

See also **Insects.** [D.Q.A.]

**ANUS**

*pñôkûtos' anus'. [IEW 846 (*prôkûto-); Wat 53 (*prôto-)]. Grk πρόκατος 'anus', Arm erast-ank' (pl.) 'anus'. Its unanalyzability suggests great age, but its geographical distribution is compatible with a late, dialectal IE status. Probably related is Olnd plâsi- (< *prôkûto-) 'part of entrails'.

See also **Anatomy, Buttocks, Entrails.** [D.Q.A.]

**ANY** see **SOME**

**APART**

*sen- &sen-'apart'. [IEW 907 (*sen-/u-), Wat 57 (*sen-), Gl 104; Buck 12.23]. OIr san (< *s-n-i- 'different') 'especially', OWels han 'other', Wels o-han- 'from', hanner 'hall' (< *the


See also ADPREPS. [A.D.V, D.Q.A.]
"*samlu- 'apple'. They have also noted the similarity between the Hittite form and the Hattic šawat 'apple, apple tree' which, under observed sound changes elsewhere seen in Anatolian (i.e., Hittic t~ Hit t, cf. Hittic tabarna but Hit labarna), could have been identical with the Hittite form. Still, the likelihood that the Hittite word is a borrowing from a Hattic and thus unrelated is very high. The Indic and Nòristānī words are somewhat more probably related, but both the semantic and phonological distance invites caution.

The second term, *meh3̂lo-, is fragilely attested by forms in four stocks, some of them semantically tenuous (albeit credible). Otherwise, the Hittitologists involved insist that Hit mahla- meant 'grape(vine)' but the actual evidence says it could also have meant 'apple' or both, or simply the fruit of a tree or bush. As with the first term, some would also dismiss *meh3̂lo- as a (southern) substrate term and place the 'apple' beyond the ken of the earliest PIE society. The two forms are more or less similar although they may not be historically related at all in terms of a strict phonologically based position. Or they may be cognates: a (a laryngeal?), plus l plus a bilabial (note shifts between m and b in other places in some of these stocks). A staple PIE food like nuts and milk, the apple was probably denoted by one form which cannot be fully recaptured. In addition to the two IE terms, a much wider areal background has been suggested by the similarity of other 'apple' terms across Eurasia, e.g., Chuvash olma 'apple', Mongolian alima 'apple'.

Since the Mesolithic, i.e., before PIE times, the wild apple was spread across Europe, especially to the north, and is relatively ubiquitous on Neolithic and Bronze Age sites from Ireland to the Ukraine, including Anatolia and the Caucasus. Evidence for the domestication of the apple from its wild predecessor, Malus sylvestris, is difficult to establish and may theoretically lie anywhere in the temperate zones of Europe, west and central Asia. Since the cultivation of apples required grafting rather than simple vegetative propagation, it is held unlikely that the apple was among the earlier domestic fruits and the date of its presumed domestication tends to fall after the dispersion of the Indo-Europeans. Since the earliest evidence for grafting derives from China (citrus trees) and this is also the region of greatest genetic diversity of the apple, it is possible that the late domestication of the apple derived from western China.

The linguistic evidence notwithstanding, the wild apple is found so widely (and that includes Mesolithic contexts) that it is difficult to imagine a geographical situation for the earliest IE-speakers where they would not have been acquainted with the 'wild apple'. Many varieties of apple were known and, consonant with its dietary importance, the term may have been used generically for 'fruit'. The apple figures prominently in IE mythologies such as the "judgement of Paris" (who gave the "apple of discord" to Aphrodite, hence eventually precipitating the Trojan War). Those who regard the apple as a recent acquisition to IE speakers note the number of legends that depict the theft of apples by IE deities from non-IE pantheons, e.g., Héraklès' theft of the apples of the Hesperides. See also TREES. [PF]

Further Readings

ARM

*ēr̥h2̂mos (Latin, Germanic, Slavic) or *ērh2̂mos (Baltic, Indo-Iranian) 'arm, forequarter'. [IEW 58 (*-ra-mo-); Wat 3 (*-ra-mo-); GI 687 ('arH-mo-'); Buck 4.311]. Lat armus 'forequarter, shoulder (of an animal)', ON armr 'arm', OE earm 'arm; foreleg' (> NE arm), OHG arm 'arm', Goth ars 'arm', OPrus irmo 'arm', Lith irm-ede 'gout', OCS samo 'shoulder', Av armā- 'arm, forearm', Olnd irmā- 'arm'. Probably from *ēr̥ter(h)2̂- 'fit, attach'. A strong candidate for PIE status. Arm armukn 'elbow' has also been placed here; however, it is probably an independent creation.

*bhaghus (or *bheh2̂ghus) 'forearm, foreleg'. [IEW 108 (*bhāghu-s); Wat 5 (*bhāghu-); GI 687 (*bhāg2̂u-); Buck 4.311]. ON bōg 'arm, shoulder', OE bōg 'shoulder, arm; bough' (> NE bough), OHG buug 'shoulder', Grk πυξες 'elbow, forearm', Av bhu- 'arm; foreleg', Olnd bahu- 'forearm, arm, forefoot of an animal', TochA poke 'arm', TochB pokai- 'arm, limb'. Unanalyzable root with good distribution and a very strong candidate for PIE status.

*dous- ('upper') 'arm, shoulder'. [IEW 226 (*dous-); Buck 4.311]. Olr dow (DIL dow) 'arm', Latv pa-duse 'armpit' (< *part under the arm), Slov pás-duha 'armpit', Av daos- 'upper arm, shoulder', Olnd dós- 'forearm, arm'. Another unanalyzable root and very strong candidate for PIE status. See also ANATOMY. [D.Q.A.]

Further Readings

ARMENIAN LANGUAGE

Armenian is a single Indo-European language group, centered throughout its history in northeastern Asia Minor, in contemporary terms northeastern Turkey and the Armenian Republic. The Armenian people enter history on their Christianization in the first years of the fourth century AD, converted by missionaries from Cappadocia and Mesopo-
tania. At first the written languages of the Armenian Church were Greek and Syriac but in the early fourth century one Mesrop Maštoc', a learned cleric (and later bishop), devised a special alphabet for Armenian and translated the Bible from Greek into Armenian. Thus inaugurated, the fifth century became the "golden century" of Armenian literature with numerous translations, besides that of the Bible, and original compositions. It is the language of that period which is Classical Armenian (in Armenian itself this kind of Armenian is called Grabar) and it remained the written norm of Armenian writers until the emergence of the modern literary language in the nineteenth century. The modern literary language comes in two variants, an eastern one based on the variety of Armenian spoken around Yerevan in the Armenian Republic, and a western one based on the variety of Armenian spoken in Istanbul.

It has been calculated that no more than 450, certainly no more than 500, Armenian words are directly inherited from Proto-Indo-European. The rest are from the unknown or very imperfectly known languages that were in northeastern Asia Minor when the ancestors of the Armenians arrived there, from Iranian, from Greek, from Syriac, etc. From the seventh century BC Armenia would seem to have been in the political and cultural "orbit" of the Iranian world, particularly from the time of the Parthian ascendancy in northwestern Iran. As a result the lexical influence of various Iranian languages, but especially Parthian, has been enormous. The Iranian lexical influx has been compared to the penetration of (Norman) French words into Middle English. However, the Iranian influence on Armenian lasted much longer than the Norman French influence on English and is consequently even more massive than the French influence on English. So great were the number of Iranian borrowings, including everyday words of all descriptions (e.g., anapat 'desert', paštem 'I worship', ma(r)h 'death'), that Armenian was long thought to be just another Iranian language. It was not until the 1870s that Armenian was generally recognized as an independent IE language, albeit one heavily disguised.

The early non-Iranian words, though much smaller in number, are not without their interest as well. The language that preceded Armenian in northeastern Asia Minor was Urartian, itself a close relative of the better-known Hurrian. Armenian words with Urartian or Hurrian antecedents include xxor 'apple-tree' (cf. Hurrian hinzuri), maxr 'fr-tree' (cf. Hurrian māhri (a kind of tree), ult 'camel' (cf. Hurrian ultu), cov 'sea' (Urartian sua). The close agreement in shape of these Classical Armenian words and their presumed sources is remarkable, especially as the actual borrowing is likely to have taken place a millennium or millennium and a half before Armenian is first attested. The phonological shape of Armenian must have been substantially established before these borrowings occurred, though there may be evidence in these borrowings that original final syllables were lost only after this period of borrowing was complete (e.g., Hurrian māhri borrowed > pre-Armenian *maxr > Arm maxri).

Classical Armenian shows no traces of dialectal divergence. All writers of Classical Armenian, no matter where they came from, wrote in essentially the same way. The testimony of the modern varieties of Armenian also suggests that Classical Armenian did not have dialect divergences since all modern varieties can be derived from Classical Armenian with little residue. However, there are certain discrepancies within the inherited word-stock of Classical Armenian. Thus some Armenian words descending from PIE forebears with initial /p-/ have an initial h- and some have nothing (e.g., hun 'lord, channel' from *ponth₂- 'way or het 'footstep' from *pedom but on 'foot' from *pod- 'foot') and others have p (e.g., puetr 'leather' from *petetro-), PIE *-rs- sometimes appears as Armenian -r- and sometimes as -t- (e.g., t'aramim 'I wither' and t'arsamirn 'I wither'). There are several other unexplained divergences as these. These discrepancies suggest to some that Classical Armenian may originally have been a koiné, the amalgamation of more than one dialect, which eventually replaced all other dialects (much as the Hellenistic Greek koiné replaced [most of] the Greek dialects known in antiquity).

**Description**

The criterion that most clearly characterizes Armenian among the IE languages is phonological rather than morphological. The three series of stops that we can reconstruct for PIE, here represented by *t*, *d*, *dh, underwent a shift, much like we see in Germanic (there called "Grimm's Law") and appear in Classical Armenian as *t, t, d*. Evidence from contemporary Armenian dialects suggests that voiced series d, etc., may have been voiced aspirates in actuality and thus not very different, if at all, from the phonetic pattern古典ically reconstructed for this series in PIE. Recent suggestions concerning PIE stops would make Armenian even more archaic on this particular point than has usually been thought (cf. Gamkrelidze and Ivanov's reconstruction of *tʰ, *d, *dʰ which look much more like Armenian r, t, and d [especially if the latter is aspirated] than do the traditional *t, *d, and *dʰ). Whether the phonetics of the Armenian stop system is archaic or innovative, it clearly sets it apart from other IE groups. Armenian is a satam language, meaning that the dorso-palatalal of PIE (e.g., *k) appear as affricates and sibilants (Armenian s) while the labio-velars (e.g., *k) have lost all trace of labialization (Armenian k) and thus have fallen together with the non-labialized dorso-velars. Like Greek, Armenian preserves the distinction among PIE *e, *a, and *o (though Armenian shows a number of instances of a where we might expect to find either e or o). Like Anatolian, with which Armenian does not seem to share any significant innovations, Armenian preserves word-initial *h₂- (at least sometimes) and perhaps also *h₁- as well. One of the more unusual phonological changes to be found in Armenian is known as Meillet's Law and refers to the shift from *dú- to Arm erk-, e.g., *du > Arm erku 'two', *du-ró > Arm erkar 'long' (cf. Grik ðnpov).
### Proto-Indo-European and Armenian Phonological Correspondences

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<td>*p</td>
<td>h ~ o ~ p' ~ y ~ w</td>
<td>*pounth- ‘way’</td>
<td>hun ‘ford, channel’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*pod- ‘foot’</td>
<td>otn ‘foot’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*petetwo- ‘feather’</td>
<td>p’tur ‘feather’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*phitoi- ‘stepfather’</td>
<td>yawrav ‘stepfather’</td>
</tr>
<tr>
<td>*b</td>
<td>p</td>
<td>*steibe/o- ‘stamp, shoe’</td>
<td>stipem ‘I urge, compel’</td>
</tr>
<tr>
<td>*bh</td>
<td>b</td>
<td>*bhere/o- ‘bring’</td>
<td>berem ‘I bring’</td>
</tr>
<tr>
<td>*t</td>
<td>t' ~ d ~ y</td>
<td>*trosos ‘drying place’</td>
<td>t’ar ‘stake for drying fruit’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*mptos ‘mortal’</td>
<td>mard ‘man’</td>
</tr>
<tr>
<td>*d</td>
<td>t</td>
<td>*steibe/o- ‘stamp, shove’</td>
<td>stipem ‘I urge, compel’</td>
</tr>
<tr>
<td>*dh</td>
<td>d</td>
<td>*dhor- ‘door, gate’</td>
<td>durk ‘gate’</td>
</tr>
<tr>
<td>*k</td>
<td>s</td>
<td>*dokno ‘ten’</td>
<td>tasn ‘ten’</td>
</tr>
<tr>
<td>*g</td>
<td>c ~ t</td>
<td>*gonu ‘knee’</td>
<td>cur ‘knee’</td>
</tr>
<tr>
<td>*gh</td>
<td>j</td>
<td>*ghesr- ‘hand’</td>
<td>krunk ‘crane’</td>
</tr>
<tr>
<td>*k</td>
<td>k’ ~ g</td>
<td>*leik- ‘leave’</td>
<td>k’anem ‘I leave’</td>
</tr>
<tr>
<td>*k’</td>
<td>k’ ~ h ~ g</td>
<td>*k’-i- (interrogative pronoun)</td>
<td>him ‘why’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*penk’ ‘five’</td>
<td>hing ‘five’</td>
</tr>
<tr>
<td>*g”</td>
<td>k</td>
<td>*g”eneh- ‘woman’</td>
<td>kin ‘woman, wife’</td>
</tr>
<tr>
<td>*g’h</td>
<td>g – j</td>
<td>*g”hermos ‘warm, hot’</td>
<td>jern ‘warm, hot’</td>
</tr>
<tr>
<td>*s</td>
<td>h ~ o</td>
<td>*senos ‘old’</td>
<td>hin ‘old’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*sal- ‘salt’</td>
<td>al ‘salt’</td>
</tr>
<tr>
<td>*i</td>
<td>z ~ o</td>
<td>*stergos ‘sterile’</td>
<td>stef ‘sterile’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*trejes ‘three’</td>
<td>erk ‘three’</td>
</tr>
<tr>
<td>*u</td>
<td>g</td>
<td>*yalos ‘wolf’</td>
<td>gayl ‘wolf’</td>
</tr>
<tr>
<td>*m</td>
<td>m</td>
<td>*medhjos ‘middle’</td>
<td>mej ‘middle’</td>
</tr>
<tr>
<td>*n</td>
<td>n</td>
<td>*smusos ‘daughter-in-law’</td>
<td>nuer ‘daughter-in-law’</td>
</tr>
<tr>
<td>*l</td>
<td>l</td>
<td>*leik- ‘leave’</td>
<td>k’anem ‘I leave’</td>
</tr>
<tr>
<td>*r</td>
<td>r</td>
<td>*trejes ‘three’</td>
<td>erk ‘three’</td>
</tr>
<tr>
<td>*m’</td>
<td>am</td>
<td>*un(d)gut ‘twenty’</td>
<td>k’san ‘twenty’</td>
</tr>
<tr>
<td>*l’</td>
<td>al</td>
<td>*g’h1- ‘husband’s sister’</td>
<td>k’anem ‘I leave’</td>
</tr>
<tr>
<td>*t’</td>
<td>ar</td>
<td>*mp’tos ‘mortal’</td>
<td>mard ‘man’</td>
</tr>
<tr>
<td>*i’</td>
<td>i</td>
<td>*bhidros ‘biting’</td>
<td>birt ‘rigid, rude’</td>
</tr>
<tr>
<td>*i’</td>
<td>i</td>
<td>*khon ‘column’</td>
<td>shw ‘column’</td>
</tr>
<tr>
<td>*e</td>
<td>e ~ l (~ a)</td>
<td>*medhjos ‘middle’</td>
<td>mej ‘middle’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*senos ‘old’</td>
<td>hin ‘old’</td>
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<tr>
<td></td>
<td></td>
<td>*dekno ‘ten’</td>
<td>tasn ‘ten’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*k’erd ‘heart’</td>
<td>shir ‘heart’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*sal- ‘salt’</td>
<td>al ‘salt’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*n’eh ‘boat’</td>
<td>naw ‘boat’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’orhos ‘heir, orphan’</td>
<td>orb ‘orphan’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*pounth- ‘way’</td>
<td>hun ‘ford, channel’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’oj ‘eye’</td>
<td>aki ‘eye’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’onoro- ‘dream’</td>
<td>anuf ‘dream’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*sarts ‘flowing’</td>
<td>arr ‘brook’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*muds ‘mouse’</td>
<td>mukn ‘mouse’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’esmi ‘I am’</td>
<td>em ‘I am’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’ifkos ‘bear’</td>
<td>arf ‘bear’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’ewhos ‘grandfather’</td>
<td>haw ‘grandfather’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’or- ‘bird’</td>
<td>oror ‘gull’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’od- ‘smell’</td>
<td>hot ‘odor’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*h’or’hish ‘testicle’</td>
<td>orjik ‘scrotum’</td>
</tr>
</tbody>
</table>
Armenian Origins

The territory of the Armenian language appears to have been roughly coincidental with that of the earlier non-IE Hurrian and closely related Urartian (with dark shading). The poorly known and presumably related non-IE Etiu language was to its north. Many of these languages occupied partially or wholly the earlier territory of the Kuro-Araxes culture (light shading). The nearest IE neighbors of the Armenians were the Hittites (and related Luvian and Palaic-speaking populations) who were not closely related to Armenian. Assyrian and Gutian are non IE languages. Burials with wheeled vehicles have been uncovered at Trialeti and Lchashen. The territory of the Assyrians and Gutian are non IE languages. Burials with wheeled vehicles have been uncovered at Trialeti and Lchashen.

Though historically attested Armenian has changed rather slowly (though the modern verbal system shows a radical restructuring of the classical system), prehistoric Armenian underwent a good deal of change and thus Classical Armenian already presents a rather "modern" appearance when compared to its contemporary cousins. In nouns gender and the dual are lost, though there is still a maximum of five different case shapes. Though there are some conservative features of the Armenian verb, for instance the retention of the "augment" (a prefix denoting past time) in monosyllabic verbs (e-ber 'he brought', e-git 'he found'), in general it would seem that the verb has been very thoroughly rebuilt in the interim between PIE and the emergence of Classical Armenian. The verb is inflected for both person and number (singular and plural) but of the several tenses and moods that the Armenian verb indicates only present and aorist (itself a combination of the PIE imperfect and aorist) among the tenses and the imperative among the non-indicative moods can be traced back directly to PIE antecedents.

Herodotus (7.73) reported that the Armenians were in origin Phrygian emigrants or colonists. Thus, there has been a continuing assumption that Armenian is linguistically closely related to Phrygian. From the point of view of geographical propinquity as well as the tradition recorded by Herodotus such an assumption makes sense. However, the linguistic remains of Phrygian are so scant that they afford no confirmation (or disconfirmation). What does seem to be certain is that Armenian is a member of a "southeast" group of IE languages that includes Greek and Indo-Iranian as well. For instance, only Armenian, Greek, and Indo-Iranian show clear traces of the reconstructed PIE imperfect tense. Likewise they, and Phrygian, are the only IE languages to show the "augment" in past tense formations. Within this smaller group Armenian appears to be most closely allied with Greek showing a number of shared lexical items with it (e.g., Arm awelum 'I increase' and Grk ὁρέλλα 'I increase' from *bybhel-, or Arm swn 'column' and Grk κιών 'column' from something like *Kȳon).

Armenian Origins

The starting point for any discussion of Armenian origins must emphasize that the territory in which the Armenian language has been historically attested, the contemporary Republic of Armenia and eastern Turkey, was occupied during the Bronze Age by speakers of Hurrian and the closely related Urartian. The earliest Hurrian inscriptions are dated to the middle of third millennium BC and these run into the second millennium BC. The southern border of the Hurrians extended to Syria and southeast into the area inhabited in modern times by Kurds along the Iran/Iraq frontier. To the south of the Hurrians, even overlapping with them, were the lands of Semitic-speaking peoples. It has been suggested that the Hurrian language is related to the modern northeastern Caucasian language group (Nakh-Daghestani). By the first millennium BC the Hurrians had disappeared. They were replaced in the southeastern portion of their former territory by the Urartians who spoke a language closely related to Hurrian. North of the Urartians, in the northern part of the formerly Hurrian area, were the Etiu or Etiuni, who extended as far north as central Transcaucasia (i.e., the modern Republic of Armenia). Though the linguistic remains of the Etiu are meager, it is usually assumed that their language too was related to Hurrian. To the east of the Hurrian-Urartian-Etiu complex were the Gutians (or Qutians), known only from personal and place-names that suggest a different and unrelated language grouping, who occupied the territory south of Lake Urmia in what is now Iran. To the west of the Hurrian-Urartian-Etiu complex were various members of the (Indo-European) Anatolian group: Luvian in southern Anatolia and Hittites (who had replaced the non-IE Hatti and taken their name) and Palaic-speakers in central Anatolia. To the northwest were the non-IE Kaskians.

This linguistic picture really leaves no room for indigenous Armenians and forces one to conclude that they migrated to their historical seats from elsewhere. That they share a series of isoglosses, both morphological and lexical, with Greek has suggested that it is more likely that they originated to the west of their historical territory; to reverse the direction of movement and presume that it was the Greeks who moved off to the west raises serious chronological problems, e.g., the late attestation of Armenian in eastern Anatolia would suggest that the Greeks should not have arrived in their own
historical territory until long after we actually have evidence for the Greek language in the fourteenth century BC Linear B inscriptions.

In the period immediately prior to the emergence of the Hurrians, the northern area of their distribution was occupied by the Kuro-Araxes culture (c 3400–2500 BC). The distribution of Kuro-Araxes sites would encompass the territory of the Etio and Urartians as well as the northern part of the Hurrians. It is often presumed that the Kuro-Araxes culture is an archaeological reflection of the Hurrians. Its successors boast sites such as Lchashen and Trialeth with their abundant evidence for wheeled vehicles placed in tombs, a useful reminder that wheeled vehicles need not be a particular marker of IE cultural identity in western Eurasia (wheeled vehicles were also buried in the Sumerian tombs at Ur and in the royal burials of the Shang dynasty in China).

The emergence of the Armenians has proven, so far at least, invisible from an archaeological standpoint. Historical texts tell us of the Hurrians and their successors in the various Urartian states, detailing their incessant wars with their Hittite, Luvian and Assyrian neighbors and the later penetration of their territory by Kimmernians and Scythians (Iranian-speaking or at least Iranian-speaking groups originally from north of the Black Sea). By the seventh century BC the Urartian state was collapsing, ultimately in the face of the (Semitic) Babylonians and the Medes (Iranians of what is now Northwestern Iran). By c 590, the Urartian kingdom no longer existed. By this time we find the rise of the first Armenian kingdom and by the reign of Darius I (525–485 BC), the Persians, who were the heirs of the Medes, had organized two satrapies in Armenia (or, in Persian, Armina).

Armenian presence in their historical seats should then be sought at some time before c 600 BC; how much earlier it is very difficult to imagine and the historical evidence for the Armenian highlands does not provide any reliable candidates although Igor Diakonoff has made an extensive case for seeking Armenian origins among a people known to the ancient world as the Muski. The Muski were first recorded about 1165 BC when they crossed the upper Euphrates from the west and by 1115 some 20,000 of them under their five chieftains are recorded as advancing on the upper Tigris. Diakonoff has suggested that the Muski entered Anatolia from the Balkans about the twelfth century and represented one of the peoples who contributed to the collapse of the Hittite empire and who are repeatedly mentioned in early texts. The term was certainly applied to the Phrygians who occupied central Anatolia and Diakonoff, accepting some form of relationship between Phrygian and Armenian, identifies the eastern Muski as Proto-Armenians. Hence as we find Muski in the historical seats of the Armenians by about the twelfth century and we know the same name was applied to IE Phrygians to their west, then at least a case can be made for presuming that the Muski reflected an intrusive IE-speaking population. Diakonoff suggests that the Armenian name for themselves, Hayk, derives from *Hāttiyoš, the name applied by the Urartians to all the peoples from west of the Euphrates, i.e., the Hittite (or better, Hattic) lands.

The Armenians, according to Diakonoff, are then an amalgam of the Hurrians (and Urartians), Luvian and the Proto-Armenian Muski who carried their IE language eastwards across Anatolia. After arriving in its historical territory, Proto-Armenian would appear to have undergone massive influence on the part of the languages it eventually replaced. Armenian phonology, for instance, appears to have been greatly affected by Urartian, which may suggest a long period of bilingualism. Loanwords from Luvian can be identified (and perhaps from Hittite also) as can loanwords from Aramaic, though these strata are dwarfed by the massive influx of Iranian words, mainly from the neighboring Parthian in Northwestern Iran. In this process not only was the Armenian lexicon affected but also the grammar.

See also Indo-European Languages [D Q A, J P M.]

Further Readings

ARMENIAN LANGUAGE


ETYMOLICAL DICTIONARIES


ORIGINS


ARMY

*kor jos* 'army, war-band, unit of warriors'. [*IEW* 615–616 (*koro*-s); *Wat* 32 (*koro*); cf. *Gl* 644; *Buck* 20.15]. Mlr cutre 'troop, host', Gaul *Tri-corti* (tribal name: 'consisting of [ three tribes')*, ON heri 'army', OE here 'army', OHG heri 'army', Goth harjos 'army', OPtrus kargs 'army', Lith karias 'army', kāraš 'war', Latv kās 'army', Gk koipavos 'army leader', Koipō-in personal names (cf. the similar use of this element in early Germanic personal names, e.g., Hario-, Chario-, including that of Odin, i.e., Herian (< *koryonos*).
Perhaps also OPers kära-‘people, army’. Distribution suggests at least a word for ‘army’ from the west and center of the IE world.


**War-bands**

The word *koirios* has been examined in detail by Kim McCone and provides the basis for his reconstruction of PIE society. The emphasis found in the Germanic cognates suggests war-bands engaged in predatory behavior, cf. the related verbal forms in ON herja ‘harry, despoil, waste’, OHG herjan ‘to make a foray’, etc., and the use of this word as an appellative of Oðinn (Herjann) who leads a war-band of the dead. It may also underlie one of the tribes mentioned by Tacitus, the Hatti, which may have designated a specific type of military unit (or warriors disguised as phantoms) rather than a tribe. According to McCone this military unit may broadly be described as a Mannerbund, an organization of young unmarried men. The size of the unit may range from a minimum of two but usually more, and frequently about twelve. They lived off the country by hunting and raiding and engaged in berserkr-like behavior. The frenzied behavior is very often likened to that of wolves, and such social groups were frequently termed wolves (or dogs) and adopted the headdress, apparel and iconography of the wolf. It is from such groups that one may also derive the frequent application of personal names containing the element wolf, e.g., ON Herjólfr, OE Herewulf ‘Wolf of the war-band’.

The Irish cognate cuire ‘troop’ is archaic and cognate with a series of names of Gaulish tribal confederacies, e.g., Vocorii, Tricorii, Petrocorii, which indicate units of two, three and four ‘troops’ respectively. The early Irish exhibited an institution very similar to that of the Germanic war-band, the diberga or feindidi, which consisted of young unmarried men who lived off the country (hunting and raiding). Their bands consisted usually of groups of three, five, nine or twelve (with nine the most frequent) and their behavior was also explicitly that of a wolf or dog. Irish also produces a series of personal names where ‘wolf’ and ‘dog’ is a major element, e.g., Cenn Faélaid ‘Wolf-head’, Coin-chenn ‘Dog-head’.

On the basis of Celtic-Germanic comparisons, one can posit the specific institution of the war-band in at least the western periphery of the Indo-European world. To what extent it may be ascribed to a broader region or an earlier antiquity in IE depends on what further evidence can be adduced. The existence of cognate terms in Baltic, Greek and Iranian would at least indicate that the *koirios* itself is of PIE antiquity. Other possible cognates may be found in Italic, e.g., the personal name of Coriolanus and the town of Corioli.

The derivative of this word in Greek (Grk koirænos ‘army leader’) is taken by Benveniste to indicate a military commander who may control his troops but does not lead them in battle but McCone has shown that the term was still regularly applied to active warriors in the field. Ancient Greece also employed war-bands very similar to those of the Celts and Germans. The Ephesians, for example, reflected an age set of young unmarried males, between 16 and 25, who lived like wolves in the wild; warriors in Arcadia bore wolf and bear hides instead of shields (the Trojan Dolon wears a wolfskin in the Iliad) and another parallel would be the Spartan Krypteia. Wolf is a frequent enough element in early Greek names, e.g., Λυκόρρογος, Λυκωρόντης, and the frenzied behavior of Greeks in battle is described with the word λύσσα (λυσσον) ‘wolfish rage’. Although there is no certain lexical associations between koirænos and these war-bands, the structural similarities do exist.

The Old Persian form kāra- is isolated (there is no cognate in Indo-Aryan) and where it does occur, it implies the concept of a people under arms rather than a specialized military unit. Yet both ancient Iran and, especially, early India, yield evidence of the classic Mannerbund. The OInd mārya- ‘young man’ (cf. Av mārya ‘villain, scoundrel’) is employed to describe the wildly aggressive war-band assembled around the leadership of Indra or Rudra in the Vedas. Although the Indo-Iranian form is usually derived from an e-grade *merjo- with cognates in other IE stocks, McCone suggests that the underlying form may well be an o-grade (*morjos) with a precise cognate in Olr muie ‘leader, chief’.

McCone suggests that there is sufficient lexical and certainly structural correspondences to reconstruct a PIE ‘war-band’ comprising an age set of young unmarried and landless (but free) men who lived off the land, engaged in predatory activities, had a particular association with wolves (less so, dogs or bears), were famous for their berserkr-like behavior in battle, and might form the “shock troops” in military engagements. This was a distinct age set which, when married and settled on their land, entered the *teutēh* the tribal organization of adults who were still liable to military service.

*See also Age Set; Booty; Captive; Companion; Conquer; Fight; Leader; People; Social Organization; Warfare; War God, Warriors, Wild (God), Young.* [J.P.M., E.C.P.]

**Further Readings**


**ASH**

*ʰə̚s̚es(h)- (ʰ₂ə̚s̚os(h)-? 'ash (Fraxinus excelsior, perhaps F. oxycarpa, F. pallisiea, Sorbus aucuparia). [IEW 782 (ʰə̚s̚os); Wat 46 (ʰə̚s̚os); GI 537–538 (ʰɔs̚s); Buck 8.62; Fried 92–98; Camp 166–168; BK 415 (ʰə̚s̚as–ʰə̚s̚as)). OIr *umn̜us* 'ash', Wels *on̜yen(e)n* 'ash' ( Celt *osna-), Lat *ornus* 'mountain ash; spear', ON askr 'ash; spear', OE asc 'ash; speer' (> NE ash), OHG asc 'ash' (< Gmc *askiz*), OPms wosais 'ash', Lith *uosis* 'ash', Latv *uosis* 'ash' (< Baltic *o̝sis*), Rus jäsent 'ash' (< Slavic *os-en-), Alb ah 'beech', Grk οξύη 'beech; spear-shaft', Arm hac 'ash'. Perhaps also Hit ħassik- ~ ḥassikka- some form of tree with edible fruit (perhaps the olive which botanically belongs with the ashes as Oleaceous). It may be noted that the Celtic, Baltic, Slavic forms all derive from an underlying *ʰə̚s̚es*- while Germanic, Greek, Albanian, Armenian (and Hittite if accepted) all come from *ʰə̚s̚esk-*. Several species of ash and possibly the 'mountain ash' were perhaps distinguished by modifiers of PIE *os- (with considerable consonantal extensions). A strong association of the tree name with the spear or other pointed weapons is indicated by texts in several stocks. The lexical associations in Germanic are obvious where both ON askr and OE asc mean 'ash' and 'spear' and similarly in Latin where *ornus* indicated both the 'mountain ash' and 'spear'. Even where we find the PIE 'birch'-word semantically shifted, i.e., Lat fraxinus 'ash' it is employed metonymically for javelin ( Nam Clytii per utrumque grauui librata lacerto fraxinus acta lemur 'For through both thighs of Clytius went the ashen spear, hurled by his mighty arm', Ovid's Metamorphoses 5.143). In Greek too the root ῥήγ- appears variously in forms for 'ash', 'spear' and as an epithet for 'sharp, pointed'. In the Old Irish tree-list, the uninnus 'ash' is singled out as a "noble" wood because of its use in the manufacture of weapons and uninnus can also be used for 'spear-shaft'. The lexical associations are borne out by the numerous archaeological contexts for prehistoric ash. While it was employed in construction, it was probably most utilized as a medium for hafting, implements discovered in Europe of stone, copper or bronze with their handles intact are almost predictably of ash, e.g., the hafts to both the ax and dagger of Ötzi, the "ice-man" found in the Tyrolian Alps.

Another semantic association of the ash term was with the mountain ash or rowan tree in Italian, and with the beech in Greek and Albanian (where shifts of the ash term to 'beech' seem to have been co-ordinate with shifts of the corresponding 'beech' words [from PIE *bh[EH̄]-g-s] to 'oak'). Some forms in Finno-Ugric such as Mari oska 'ash' may have come from early IE; excepting the problematic Armenian reflex, *os- is a northern dialectal form. While its absence from Tocharian occasions no surprise given the semantic content of the texts of this stock, its absence from Indo-Iranian does occasion problems in assigning it to PIE with certainty although the existence of a potential Hittite cognate does help secure PIE antiquity. Moreover, given the wide distribution of the ash and its critical technological value, it may be argued that the ash (probably the common ash, but possibly involving some combination of the common, flowering, mountain and oxycarpal varieties) was integral to PIE speakers and perhaps even the pre-PIE vocabulary.

Botanically, the pollen evidence for the common ash (Fraxinus excelsior) c 6000–3000 BC finds it widely distributed across Europe with few exceptions, e.g., Iberia (where Fraxinus angustifolia can be found) and Scandinavia. It is, however, confined to northern Italy throughout most of the Holocene except the Bronze Age where it is found to extend as far south as the Tiber. Fraxinus ornus 'Manna ash' is limited almost entirely to southern Italy, Greece and southeast Europe during the period c 3000 BC and, although it is present in lake cores from southwestern Anatolia, the evidence suggests that it appears relatively late in the Neolithic or Bronze Age. The ash is far too ubiquitous to count for much—taken by itself—as diacritic for locating the Indo-European homeland.

See also SPEAR, TREES. [PF]

Further Reading

**ASH**

*ʰə̚eh[e̞]- 'ash' (< *ə̚e̞ burnings'). Hit hās (acc. hāssan) 'soda ash, potash; soap; (pl.) ashes', Ormuri yānāk ( < *ə̚a̚s-naka-), OInd āsā 'ash, dust'. From the derivative *ʰə̚eh[e̞]-s[ko]- we have ON aska 'ash', OE asc 'ash' (> NE ash), OHG asc 'ash', from *ʰə̚eh[e̞]-s-g(h)-: we have Gotl apgo 'ash', Arm ači 'ash'. From *ʰə̚eh[e̞]- 'burn'.

*ʰə̚en̜idi- 'ash'. [IEW 559–560 (*kenis); Wat 29 (*keni-); Buck 1.213, 1.84]. Lat cinis (masc.) 'ash', Grk κόνις (fem.) 'dust, ash', ToCh ciučučuću kente (< *kenis-o-) 'rust' (lit. 'iron ash/dust'). The Latin and Greek forms have been much debated. The Latin form is an s-stem while there are also indications that the Greek form derives from an earlier s-stem. Lat cinis may derive from *kenis- but need not; this again might derive from *kʰenid-. The different ablaut grades (Lat e-grade, Grk o-grade) may point to a static inflection. The difference in gender between Latin and Greek may reflect an underlying PIE neuter (the Tocharian word may be either...
ASK

*perk-* 'ask, ask for (in marriage)' (pres. *pyeskë/o~* proke/yps); [IEW821–822 (*perk-); Wat 53 (*prek-); GI 93 (*pfrsk); Buck 18:35; BK 67 (*pfrjir/*psper*). OIr arcu 'ask', Wels archaf 'ask', Lat posco 'ask', precor 'ask for', prex 'request', precus 'wooner', OHG lorc 'ask, examine', frægen ~ frahän 'ask', fergän 'demand'. Goth frathman 'ask', fragan 'test', Lith peršą 'propose in marriage', prašau 'request', OCS prositi 'ask'. Arm harc'anem 'ask', e-harc 'has asked', harsn 'bride', Av parasatti 'asks', OInd pccchati 'asks', TochAB párk- 'asks'. Widespread and old in IE.

?*jeh- 'ask for, beg'. [IEW503 (*jā~ *jē-)]. Av yās 'beg, entertain', OInd yā- 'beg, entertain', TochB yās- 'beg, yāsāu alms'. A word limited to the most easterly stocks of IE.

See also MARRIAGE, PRAY, SPEAK. [D Q A ]

ASPI, POPLAR

*h2/30sp-* 'aspen, poplar (Populus spp.)'. [IEW55 (*apsa); Wat 3 (*apsa); GI 538–539 (*Hosp*); Fried 49–53; Camp 157–159]. On osp 'aspen', OE æsp 'aspen', OHG aspa 'aspen', OPrus abse 'aspen', Lith apys 'aspen', Latv apse 'aspen', Rus osina 'aspen', Arm opi (< *h2/30psio/çh̥2>) 'poplar', possible cognates in Indo-Iranian include NPers fih 'oar', Wakh peî 'shoulder blade', OInd spha-(< *sp2jō- with metathesis from *h2spjō-?) 'oar, pole, shovel'.

A northern IE *h2/30sp-* is attested in three stocks, Germanic, Baltic and Slavic, and consonant with its northeastern distribution, we find similar forms in at least six Turkic languages of Siberia (apsak in three of them), several Finno-Ugrian forms such as Finnish haapa 'aspen, poplar', and another dozen Finno-Ugrian forms to the east (pi in six Samoedic languages). All of this argues for an areal term in a "language group" of northeastern Europe and southern Siberia during the second millennium BC. Most scholars agree that the Germanic, Baltic and the Slavic forms are cognate even though the different orderings of s and p have never been explained satisfactorily. This northern *h2/30sp-* is probably cognate with both Arm opi and OInd spha- and related Indo-Iranian languages. These Indo-Iranian forms mean things like 'front oar, punting pole, shovel, sacrificial instrument' for all of which poplar wood may be, although it is not necessarily used. The last of these meanings is reinforced by the use of poplar wood instruments and tools in early IE and Finno-Ugrian religious ritual. If the cognates in Armenian and Old Indic are accepted, then this word is of PIE status.

The main species of Populus tend to thrive in moist grounds and are particularly prominent in the flood plains of the major European rivers. Only the aspen (Populus tremula) tolerates relatively dry ground and is by far the most widespread species, found almost everywhere in Europe except for southern Iberia and the Mediterranean basin. It is specifically the quaking aspen that constitutes large forests of eastern Europe and much of south Siberia, where the seeds, buds, twigs, and shoots provide food—particularly in the winter—for many wild animals such as deer, rabbit and bear. The prehistoric distribution of the poplars and aspens is difficult to determine as the pollen for these species are not easily recognizable. Preliminary pollen maps for the period c6000–3000 BC would find the Populus primarily confined to northern Europe with a marked presence also in the Alps. While such maps may indicate the presence of Populus, they cannot be reliably utilized to reveal where it was absent. Similarly, while *h2/30sp-* may be assigned some degree of antiquity in IE, it is not clear whether it can be assigned a PIE date which would make its botanical distribution—as either 'aspen' or 'poplar'—relevant to locating the earlier distribution of the IE languages although the evidence for contacts between those northern stocks possessing the term and members of the Uralic family are clear enough.

See also TREES. [PF]

Further Reading

ASS

*gordebhōs* wild ass (Equus hydruntinus) or 'onager/ kulan (Equus hemionus)' or 'domestic ass/donkey (Equus asinus)'. [VW 214–215; Buck 3:46]. OInd gardabhā 'ass', gardabhī 'she-ass, jenny', TochB kercapa 'ass'. This word is typically taken to reflect a borrowing on the part of Tocharian from some form of pre-Indic or the borrowing on the part of both pre-Tocharian and pre-Indic from some third source. Logically also possible is that pre-Indic borrowed the word from pre-Tocharian. Any of these theories presupposes a very early borrowing, before the falling together of *-e-, *-a-, and the *-e- in Indic and before palatalization in Tocharian. Both these processes are very ancient in these stocks. Since the putative ancestor of the Tocharian and Indic words, *gordebhōs* has the look of a PIE word, including the suffix *-bhō-, which is often found with animal names, it is perhaps the case that *gordebhōs* is a late PIE word found in the east of the IE world. But if that is the case, another problem emerges (as it does in the case of the early borrowing scenario) and that is that it is unlikely that the pre-Tocharians and pre-Indics, located somewhere in central Asia (Kazakhstan, southern Siberia, Xinjiang), lived in an area where there were any wild asses. However, they would have been in an area where there were onagers or kulans. Perhaps *gordebhōs* was a dialect word for 'onager' that was transferred, probably independently, by speakers of (pre-)Tocharian and (pre-)Indic to the economically more important, and perceptually similar, ass. Alternatively, the underlying form referred to the 'domestic ass' which may have appeared in areas ancestral to later Indo-
Iranian and Tocharian movements by c 2000 BC if not somewhat earlier.

\[ ?^{mul}hksos \sim ?^{mukslos} \text{ass/donkey} (Equus hydruntinus) \]
or 'onager/kulan (Equus hemionus)'. Lat mūlus (< *mukslo-)'mule', Late Lat muscellus 'young he-mule', muscella 'young she-mule' (< *mukslo/aeh₂), Orus mūskū 'mule', Alb mushk 'mule' (very likely a borrowing from Slavic), Grk μυκλός (< *mukslo-)'he-ass'. In this case, if as seems likely, we have the remnant of a PIE word here (rather than, as is often supposed, a borrowing from some 'Asianic' source), we have a shift from 'ass' or 'onager' in Latin and Slavic to the hybrid offspring of an ass or an onager and a horse. Since the languages reflecting this word are all from the west and center of the IE world there is a reasonable chance that the original meaning, preserved in Greek, was that of 'ass' rather than 'onager'.

???os(o)nos 'ass'. [Wat 4 (*asinus); Gl 480; Blažek 108–109]. Lat asinus 'ass', Myc o-no 'donkeys', Grk ὁνός 'ass', HierLuv tarasna- 'ass' (< *tark-asna-'draught-ass'). Even if the Luvian word is to be divided this way and even if the Latin and Luvian words are thus related, there is no reason to suppose that the relationship is one of inheritance rather than borrowing (compare Sumerian anšu- (which was also employed to designate the 'ass' in Hittite texts) makes a reasonable fit with the archaeological evidence which suggest the diffusion of the domestic ass from southwest Asia to Anatolia and then onto Greece and the rest of the Mediterranean. The other possible route of the domestic ass into Europe, which involves a diffusion from North Africa to southern Spain as early as the third millennium BC, is without such a linguistic "trail". The other linguistic alternative for the 'ass', *gordebhos, is chronologically and geographically unlikely to extend into deep antiquity although it may have been applied to the domestic ass, presuming that the latter had reached Central Asia by c 2000 BC. Such an early arrival is possible as remains of Bronze Age domestic ass have been uncovered at Gonur depe in Central Asia. The "non-horse" equid that is most likely to have been encountered by the earliest IE-speaking peoples is the so-called "half-ass" or onager (Equus hemionus). In the prehistoric period it ranged across the steppes regions from Romania and the Ukraine east to Mongolia, and also southwards including Turkey, Iran, Afghanistan, Pakistan and India. It is identified on wall paintings from Çatal Hüyük from the sixth millennium BC and in the form of animal bones from Neolithic sites in eastern Anatolia in the seventh millennium and in Iraq as early as the fifth millennium BC. The onager had several uses. It appears to have been specifically hunted, e.g., the Yamma-culture site of Mkhaylovka, often presented as a fourth-third millennia BC settlement of early IE-speakers, yielded the remains of 118 onagers compared to 656 horses. Onager hunting, specifically for hides, is also suggested for early Neolithic sites in northern Iraq. But some have suggested that onagers also had other uses, such as serving as draft animals. Given the onager's widespread reputation for a bad and irascible temperament, claims that the onager was deliberately bred (and not just tamed or kept) from perhaps the fifth millennium BC onwards are controversial. Those who support the idea of its domestication cite depictions of what are presumably onagers pulling battle-carts in Mesopotamia from the third millennium BC onwards and Herodotus records that Xerxes's army still fought from onager-driven chariots in the fifth century BC. Those who find such statements incredible in light of the behavior of the animal have suggested that these draft animals are probably a hybrid of a male onager and a domestic ass. The geographical range of the onager encompasses the historical territories of exchange relationships between the Indus Valley civilization (Harappan culture) and Mesopotamia. The domestic ass was apparently introduced into Europe via Turkey (the Hittites) and the Black Sea and it begins to appear on archaeological sites of the Balkans, Ukraine and south Russia by at least the first millennium BC. The spread of the domestic ass to Greece was followed almost as fast by its spread to Rome whence it was introduced to the rest of the empire. The pattern of presumably loan relationships concerning *os(o)nos'ass' and its possible derivation from a southwest Asian word such as Sumerian anšu- (which was also employed to designate the 'ass' in Hittite texts) makes a reasonable fit with the archaeological evidence which suggest the diffusion of the domestic ass from southwest Asia to Anatolia and then on into Greece and the rest of the Mediterranean. The other possible route of the domestic ass into Europe, which involves a diffusion from North Africa to southern Spain as early as the third millennium BC, is without such a linguistic "trail". The other linguistic alternative for the 'ass', *gordebhos, is chronologically and geographically unlikely to extend into deep antiquity although it may have been applied to the domestic ass, presuming that the latter had reached Central Asia by c 2000 BC. Such an early arrival is possible as remains of Bronze Age domestic ass have been uncovered at Gonur depe in Central Asia.

Archaeological Evidence

Wild asses seem to have been widespread during the Pleistocene (they are depicted in Palaeolithic cave paintings) and were found in southern Europe to northern Africa, including Anatolia. The European variant (Equus hydruntinus), however, appears to have become quite restricted by the end of the Ice Age and in Neolithic contexts is limited to the territory of southern Europe from Iberia across eastern central Europe (Moravia, Hungary) to the steppe regions of the Ukraine-south Russia. Even in territories where it was likely to have been numerous, it is only marginally attested on archaeological sites and seems to have become extinct in the Carpathian basin by the middle Neolithic. The most recent finds are from Iberia at c 3000 BC and at a similar date from Romania. From a linguistic standpoint, the PIE community may have known the wild ass but whatever word they may have had for it should either have died out with the animal itself or been transferred to another animal.

The domestic ass or donkey (Equus asinus) evolved in north Africa c 4000 BC and was very well known in ancient Egypt. The domestic ass began appearing in southwest Asia by the late fourth millennium BC and asses were employed as pack animals by the Assyrian merchants who dealt with the Hittites in the second millennium BC. The earliest evidence for the domesticated ass in northwest India is c 2000 BC (although there is some evidence for wild asses in the Palaeolithic) and it is presumed that it was acquired in the
Anatolian-, Indo-Iranian- and Tocharian-speakers, and possibly of some of the more eastern European stocks. These same territories comprise most although not all of the current IE homeland theories and so it is probable that PIE-speakers, and certainly early east IE stocks, would have been acquainted with the onager. It is for this reason, and possibly because the crossbreeding of onagers and domestic asses may have been widespread, that *gordeo bhos is as likely to have indicated the 'onager' as the 'domestic ass'.

The mule, which is the meaning provided by the Latin and Slavic cognates of *mū(k)skos, is the product of an ass and a mare (the opposite ancestry, i.e., a stallion and a female-ass or jenny yields a hinny). Obviously, its existence in any society is predicated on the presence of both domestic horses and domestic asses and as the latter are not known in southern Europe until about the first millennium BC, this would set a lower time-depth of the reconstruction of an IE *‘mule’. Mules seem to have followed the path of the ass, first appearing in the Near East perhaps by the third millennium BC and then westwards into Anatolia (Homer [Iliad 24.278] claimed that the Mysians raised asses) and then into Greece and through the Balkans or westwards along the coast to Sicily and southern Italy. As for their introduction into territories proximate to the proto-Slavs, they began to appear on the sites of Greek colonies along the Black Sea coast where their bones may number in the thousands. It should also be noted that we have evidence from the first century AD that the Romans crossed male onagers withmares and jennies. How much earlier such hybridization was attempted is unknown but it holds out a remote possibility for a somewhat greater antiquity for an animal resembling the mule.

See also Horse, Wagon. [D. Q. A., J. P. M.]

Further Readings

ASSEMBLY
*h₁ō-gorōvēh₂r- ‘in-gathering’. [cf.IEW382–383 (*ager-); Wat 19 (*ager-); Buck 11.85]. Grk ἀγερά ‘assembly’, Olnđ agāram ‘house’. The comparison, although sometimes cited, is dubious on both phonological and semantic grounds. The Greek form is a deverbal from ἀγέρω ‘gather together’ and even if one posits *ḥagoreh₂r- as the underlying form of the Greek noun this would not yield the Old Indic word but rather an Olnđ *ṭgra-. Thus, if the two words are to be phonologically connected, a prepositional prefix, i.e., *h₁ō-, is more likely. Also to be considered here is Olnđ agāram ‘house which would have to be a neo-vṛddhied derivative. It is quite possible that the Old Indic words may be related to Olnđ nāgaram ‘town’ and hence be derived from Dravidian.

At best a very questionable late regional isogloss built on the root *(h₁ō)ger- ‘gather’.

The Greek ἀγερά named the place where people assembled to hear their chieftains meet in council and administer justice. The ἀγερά was a consecrated open space. In earlier times, it was enclosed by large stones sunk into the earth. Subsequently, the area was adorned with trees, especially plane trees (Platanus). In later times, it was built as a square open court surrounded by colonnades. In Athens the term was confined to the assemblies of the phylai and demes. In Crete, on the other hand, the term ἀγερά continued to be applied to popular assemblies. The ἀγερά was thus at the center of political, religious, social and commercial life. With regards to the latter, the ἀγερά functioned as the market place and was therefore supervised by a magistrate ἀγεράτῳ νομίζοντας having the same tasks as the Roman aediles. The ἀγεράτῳ νομίζοι were chosen by lot each year. Their task was to supervise retail trade, test weights and measures, monitor the quality of food and settle disputes among buyers and sellers.

See also Social Organization. [A D V]

ATTAIN

*tem- ‘reach, attain’ (pres. *temeti). Grk (Homeric) τεμεῖ ‘arrives, reaches’ (reduplicated aorist τεμεῖον), TochA tambi ‘be born’, TochA cmon ‘birth’, TochB celi ‘birth’, atám ‘unfruitful ground’. The geographical distribution of the reflexes of this word would seem to guarantee at least late PIE status. PIE *tem- ‘arrive’ would be the telic counterpart of atelic *‘ἐμ’ ‘come’. The latter of course has become the term for ‘be born’ in Baltic (cf. Lith gemū ‘am born’).

See also Accomplish. [D. Q. A.]

ATTEMPT
**per-** 'trial, attempt'. [IEW 818 (*per-*); Wat 50 (*per-*); Buck 9.99; BK 41 (*pʰe-r-a/*pʰe-r-a-*)]. Lat *experior* 'test, attempt', *percussum* 'trial, risk', Grk *katapeira* 'trial, attempt', Arm *p'or* 'test, proof'. Lat *experio* seems to be denominal. Goth *fairina* 'fault' may belong here but is probably better associated with the root *per- - pass beyond* as is ON *fár 'danger'. It is possible that this entire cognate set should be associated with *per- - pass beyond*. Ol r *aitr* 'watch over', although sometimes cited here, is probably not related.

See also **ACCOMPLISH; SET IN MOTION**. [M.N.]

**AUGER**

*terh†-trom* 'auger'. [IEW 1071 (*ter- *tora-*)], cf. Wat 70 (*ter-*); GI 612 (*tʰer-*). Olr *tarathar* 'auger', Wels *taradr* 'auger', Lat *terebra* 'auger', Grk *tēpetop* 'bore, gimlet'. From *terh†- 'pierce'. Though nouns of instrument in *-trom* are a very productive category in late IE, it is quite possible that this particular derivative with this meaning was already present in (late) PIE.

The auger is primarily an instrument for boring through wood as is seen in its various contexts, e.g., the first syllable of the Old Irish form, i.e., *tar-,* was ingeniously explained by medieval Irish etymologists as from *dair* (*Dil. dair*) 'wood' while the word occurs in the Odyssey (5.245) where Odysseus, after having planed down timbers, employs an auger to bore them so that dowels may be inserted to hold them together to form a raft. Hence, while the underlying meaning might also accommodate the meaning of *awl*, the general context here appears to suggest a woodworker's tool. An obvious technological context for the use of a bore in PIE would be in the drilling of mortises for fastening with tenons the blocks of timber that would have formed the segments of a disc wheel or other parts of a wheeled vehicle (bronze awls or augurs have been found associated with wagon burials in the steppe region of the fourth-third millennia BC). Drills were also employed in prehistory for the perforation of shells or small stones for beads and, on a larger scale, to drive a shaft through a stone ax, mace or hammer. In drilling through stone the drill would be assisted by sand as an abrasive to bore through the stone. Although all the words found in the historically attested IE stocks indicate a metal tool, a stone borer or some other form of organic borer, e.g., bone tube, would have been employed both during and long before any period one might wish to assign to PIE "unity".

See also **AWL; NAVE; PIERCE; TOOL; WAGON; WHEEL**. [D.Q.A., 1 P.M.]

**AUNT**

*mehr†-truho* 'mother's sister'. [IEW 701 (*maehr†ruh*); cf. Wat 39 (*mätér*); Buck 2.52]. OE *modrige* (< *mehr†ruhjo*); mother's sister', Fris *modrije* 'mother's sister', Grk *myhtrou* 'stepmother', Arm *mawru* 'stepmother, mother-in-law'. The underlying formal equations for Germanic, Greek and Armenian are so good that they render independent development unlikely, at least for some of the reflexes of the western and central part of the IE world. Robert Beekes has suggested that *mehr†-truho* is a feminine derived from *mehr†-trous* which gives Grk *μητρός* 'mother's brother, any relation on the mother's side'. The antiquity of the word for 'mother's sister' would explain why in Homer "mother's sister' even though this word is attested solely in Greek.

Wordick attempted to add further forms to the set derived from *mehr†-ter*: OWeis (pl.) *modrep* 'mother's sisters', Wels *modryb* 'aunt, uncle's wife, married woman', OCorn *modereb* 'mother's sister', Lat *matercula* 'little mother', Olfr *mātēka* 'mother, nurse; grandmother' to reconstruct 'mother's sister' as *mehr†-tēk* *eh₃*, but his evidence is insufficient. While OWeis *modrep* and OCorn *modereb* 'mother's sister' may reflect such a proto-form, Lat *matercula*, meaning 'little mother', neither matches the semantics nor the phonology, being a diminutive (in which the c is a dissimilation of original *t* before *l*, originally *mehr†-tēkh*). His attempt to set these alongside the German cognates (e.g., OE *modrige* 'mother's sister, cousin') also fails as the *g* is a palatal glide reflecting Proto-Gmc *modur-∂an-* (shown, for example, in variants in which the semivowel is spelt *ig*, also seen in the Frisian cognate *modrire*). Nor can Olfr *mātēka* 'mother, nurse; grandmother' be certainly placed here as it probably employs the common Indic suffix *-k₃ < PIE *-keh₄*, unrelated to the *-k₃* *eh₃*- that appears in British Celtic. Lat *matertera* 'maternal aunt' and Panjabi *mater* 'mother-in-law' reflect another common suffix *mehr†-[e]r-tereh₃*- *-tereh₃*- All of these other forms are probably independent innovations as also are Grk *θεία* (a late word attested only from the first century AD onwards) and *μήθις*, which refer to both patrilateral and matrilateral aunts, and are based on common child-language forms, e.g., NE *daddy*.

In addition to the derived form above, the maternal aunt may have been called by the same term as 'mother'. This at least would be the expected term in four of the six kinship systems that one might possibly ascribe to PIE, i.e., Hawaiian, Iroquois, Crow and Omaha. Further evidence comes from a variety of sources. Latin kinship terminology provides for brother's near relative or german *frater* (*fratres germani*); a similar distinction is observed in the Irish use of *derb* 'true', e.g., *derbrathair* 'brother (by blood)', and the Old Persian designation of a brother german as *hamaputar-* 'of the same father', *hamātar-* of the same mother'. The inference is that 'brother' and 'sister' referred to more than the siblings german because the words 'mother' and 'father' were extended to people beyond the biological parents, namely their siblings. To this might be added the fact that a variety of terms were independently created to express the concept 'mother's sister'.

It is difficult if not impossible to reconstruct a PIE word for 'father's sister'. A special term might be predicted if the kinship system were Sudanic, Iroquois, Crow or Omaha (Eska would have generalized a word for 'aunt' while Hawaiian would have employed the same word as 'mother'). But other possibilities existed since sub-types of the Omaha system (II and IV), which reveal skewed generations, label
the paternal aunt 'sister', i.e., *success. There may be some evidence for this in an Irish source where OIr *siur 'sister' seems to be equated with 'woman's father's sister'. But many other terms are derived from the word for father by various devices. Grk *pater* and Av *tārya 'father's sister' are simple, productive *j-derivatives for words *uncl* OE fa-h-u, -e and Fris *fète 'father's sister' may be related to the root for 'father', but that is itself uncertain; OHG *basā 'father's sister' cannot be so related. Grk *mēthi* 'father's sister, mother's sister', *βιβλία 'aunt' and *γεωργία 'grandmother' are Greek innovations based on a child-word stem also seen in NE *daddy* and OCS *dēde* 'grandfather' while Lat *amīta 'father's sister, paternal aunt' is similarly formed; the rare Late Lat *ava 'grandmother' is from avus 'grandfather'; Lith *ava 'wife of mother's brother' was created from *avas 'mother's brother'; OCS *stryja 'father's sister' is a feminization of *stryj 'father's brother, uncle'. There is no certain evidence then for a word for 'father's sister' although it might be said that none of the stocks reveal a pattern that might be described as either Eskimo or Hawaiian in structure.

See also *Kinship, Uncle. [M.E.H.]

Further Reading

AUROCHS see COW

AUTUMN see SEASONS

AWAKE

*pheles- 'awake'. [IEW 390 (*pher-); Buck 463]. Alb ngrē 'awake, raise up, lift', Grk (perf.) ἐγερ-γοπα 'was awake', Av (perf.) ḣēgāra 'was awake', Olnd *hēgārī 'is awake, awakes'. Perhaps also Lat *expergō 'I awaken', ON *kerskr 'fresh, lively', MHG *karsch 'fresh, awake, lively'. This root shows some diversity in formations within particular stocks (a possibly laryngeal-less origin for the Latin form) but its distribution is broad enough to point to a likely PIE root.

See also DREAM, SLEEP. [J.C.S.]

AWAY

*pelaus 'away (from)'. [IEW 72-73 (*au-); Wat 4 (*au-)]. OIr ω 'from', OWhls o 'from', Lat *au-leo 'carry away', OPrus *au 'away', Lith *au- 'away', Latv *au 'away', OCS u- 'away', Hit *awān 'away', u- 'hither', Av *ava 'down, off', Olnd *ava 'from'. Cf. Alb *hēy (< *hēu-nje-o- *enter'). Old in IE.

*pēt 'away, beyond'. [IEW 70-71 (*at-)]. OIr atith- 'back, out of', Lat at 'but', Goth ah-bjan 'however', Lith a-tu- 'back, away', OCS o-ť 'from, again', ot- 'away, out', Grk *tētō 'however', Olnd *atas 'from there', TochA *atas 'away', TochB *ate 'away'. Old in IE.

*de- 'away (from)'. [IEW 181-183 (*de-); Wat *de; GI 367]. OIr de- 'of, from', OWhls di 'from', Lat de 'away'. A far western innovation in form and meaning from *de/do *toward.

See also ADPREPS, TO. [D.Q.A.]

AWL

*pēleus- 'awl'. [IEW 310 (*elā); GI 817]. ON *adr 'awl', OE eal- *awl (never used), OHG *alsna 'alsna 'awl', Khot *alysna- 'awl', Olnd *arā 'awl'. A Goth *alysna- is reasonably certain on the basis of the (borrowed) Spanish *alesna and French *alène 'awl'. Cf. OHG *alā 'awl' (< *hēlehrs). The evidence is very good that we have here a word of PIE antiquity. The word was borrowed into Finno-Ugric, e.g., Finnish or sharp metal object, drill; Veps or 'drill'.

The awl, a pointed tool which is employed to pierce a small hole in leather or wood, is ubiquitous across Eurasia from the Palaeolithic onwards. Originally, awls were fashioned from bone but they were manufactured from copper already during the Neolithic and are among the earliest and most widely-attested metal tools known in Eurasia.

See also AUGIR, PIECE, TOOL. [D.Q.A.]*.

AWN see EAR (OF GRAIN)

AX

*pēlēkhus 'ax'. [GI 620 (*pēlekh-ad), 771; Buck 9.25]. Myc pe-reke-ke-α 'ax', Grk pelekos 'ax', Oss K險 'ax' (from some Iranian source > TochA porat 'ax', TochB peret 'ax'), Olnd *parasū 'ax'. The word is clearly old in Greek where it occurs both in the Linear B tablets and in Homer (in its base form and in a number of derivatives), the later context revealing that it meant both a tool and a battle-ax. The Old Indic word also reveals itself as a tool, e.g., where it is employed to fashion wooden containers for Soma (RV 10.53, 91) while in other contexts (Jauninva-Brahmana 2.232) it refers to a battle-ax. PIE *pelēkus is usually taken as a loanword into the various IE groups where it is found and because of the palatalization in Old Indic, is presumed to be an old loan (before the satamization of the Indo-Iranian stock), i.e., before c 2000 BC. It is commonly derived from a Semitic form, but here there is considerable debate over the underlying meaning of Semitic *plq which is taken to mean 'split apart, ax' by GI but 'to stick, kill' by Igor Diakonov. GI hence compare the IE form with Akkadian *plakkku which they translate as 'ax' while Diakonov argues that the word means 'spindle, stiletto'. GI derive 'spindle' from a homophonous root (but cf. OHG *delisa 'ax, hatchet', MHG dehse 'spindle') and agree with Diakonov that it may derive from Sumerian *balag 'spindle'. It is perhaps, therefore, a late 'wander-word' of the southeast of the IE world, Semitic and Sumerian.

*pēleks'awl, adze'. [IEW 1058-1059]
From *teKs-; e.g., OHG *dehsa 'ax, hatchet', MHG dehse 'spindle', Av taśa- 'ax', from *teksēh₁; OIr *tal (< *táisi-) 'ax', ON pexla 'adze', OHG dehsala 'adze, hatchet', RusC tesla 'ax'; cf. similar derivatives: Lat tela (< *teks-leh₁) 'cloth', Rus te 'sawn planks', Czech tes 'timber', Grk *thēkhs 'handicraft, art'. From *teks- 'fabricate', thus originally 'fabricator' or 'tool for fabricating'. It is possible that these words all reflect independent creations, but it seems likely that they reflect at least late PIE creations.

*haegWisj(e)h₁ 'ax'.

Lat ascia « *teks-leh₁) 'adze of carpenters and masons', ON ox- « ox 'ax', OE ex- « eac- « acces 'ax' (> NE ax), OHG ahhus- « acchus 'ax', Goth aquis 'ax' (Germanic from Proto-Gmc *akwiszj₁- « *akusj₁), Myc a-qi-ja 'ax', Grk ἄξινη 'ax'. If the apparent Proto-Gmc *akusj₁ is from *akwusj₁ with *-u- in the middle syllable rather than inherited *-i- (compare Goth jukuzi 'yoke' with OE geoc 'yoke', presupposing *jukizi) and thus secondary within Germanic, then *akwizj₁ is directly relatable to Myc a-qi-ja and reflects a PIE *h₂egʷisj(e)h₁- or *h₂egwisj(e)h₁-. Alphabetic Grk ἄξινη and Lat ascia reflect *h₂egʷisj(e)h₁-. The two putative PIE forms are similar but not the same. The difference between the two stages of Greek is striking. It seems likely that the history of this word is confused at some point.

*sekOr- 'ax'.

Lat sec Oris 'ax', OCS sekyra 'ax'. From *sek- 'cut'. Other formations from the same verbal root include Lat secula 'sickle', OE sigoe (< *skeitēh₁) 'scythe' (NE scythe), sagu (< *sokēh₁) 'saw' (NE saw). The apparent (almost) agreement of Latin and Old Church Slavonic has been taken as evidence of a common inheritance or of interdialect borrowing. GI find a possible Semitic origin for this word, e.g., Akkadian sukuru 'ax' which they suggest may ultimately be a loan from Sumerian. Diakonov regards the loan hypothesis as unconvincing as the Akkadian word actually means 'javelin'. That the word is built on a widespread and convincing PIE verbal root militates against GI's attempt to derive this word from Semitic or some other southwest Asian language.

The distinction between the ax and the adze is that the former has a symmetrical blade which is mounted parallel with its handle while the adze has an asymmetrical edge which is mounted at right angles to its handle. The ax then is employed for a cutting motion while the adze is used for a planing motion, e.g., the rough shaping of wood.

During the Neolithic period the axes of Eurasia might be made of flint (chipped stone tools) or from some other type of stone where the surface might be ground and polished.
(polished stone tools); in some regions such as Scandinavia, flint axes may also have been polished. Axes were generally simple flat axes but in a number of later Neolithic cultures (e.g., Copper Age cultures of the east Balkans, the TRB culture of northern and central Europe) and still more recent cultures (e.g., the Corded Ware culture), the axes were often perforated for hafting. These are often termed "battle-axes" and when found in graves such as those of the Corded Ware culture (in parts of northern Europe known as the "Battle-ax culture"), they are clearly a male-associated tool or weapon. While they may have served as weapons, they were also employed as tools; conversely, there is dramatic evidence from the Linear Ware culture of the earlier Neolithic that simple unperforated stone axes were used for smashing in the head of one’s enemy. It might be observed that despite generations of references to the earliest Indo-Europeans as "battle-ax-wielding warriors", there is no word which clearly reconstrucsthe meaning 'battle ax' from the cognate sets listed above. From the Neolithic period also come both copper flat axes and perforated axes, especially in southeastern Europe. The period of the earliest texts revealing terms for axes is the Bronze Age by which time axes were manufactured from bronze, an alloy of copper and tin, which yielded a very much stronger implement than the earlier copper.

See also Craftsman; Make; Stone; Thunder-god; Tool.

[D.Q.A., J.P.M.]

**Further Readings**


**AXLE**

*heks-* ‘axle’. *IEW* 6 (*āgəs-* – *āks*); Wat 1 (*aks-); Gl 625 (*Haks-); Buck 4.30. Lat axis ‘axle, axis’, OE eax ‘axle, axis’, OHG ahsa ‘axle, axis’, OPrus assis ‘axle, axis’, Lith ašis ‘axle, axis’, OCS ost ‘axle, axis’, Myc a-ko-so-ne ‘axle’, Grk ἄξον ‘axle, axis’, Av aśaya (dual) ‘shoulders’, OInd āksa- ‘axle, axis’. Derivatives in *-e- which mean ‘axle’ are Wels echel’axle’, ON oxull ‘axle’ (by borrowing > NE axe). Other derivatives in *-e-, particularly *heksleks-* mean ‘shoulder(-joint)’, presumably the older meaning of this whole family and which is preserved in the underven *heks* - only in Avestan (for ‘axle’ and ‘shoulder(-joint)”; one should compare the relationship of ‘nave’ and ‘navel’), cf. also Olfr ais ‘back’. Though patently a metaphorical extension of ‘shoulder(-joint)’, the meaning ‘axle’ was well-established by late PIE times. Some have suggested the reverse with the word derived ultimately from *hekeg-* ‘drive’ by way of nominalization to an s-stem *heges-* > *heks- and thus variously explained with reference to the rotating movement of the axis or its wheels.

The axles on the earliest wheeled vehicles in western
Eurasia were of two types. In Mesopotamia, the Pontic-Caspian steppe, and northwest Europe, vehicles rode on a fixed axle, i.e., the axle was mounted directly onto the base of the wagon on which the wheels, with a round axle-hole, rotated. In Switzerland and southwest Germany, however, the axle-hole was rectangular and both wheels and axle rotated together. The presence of this principle in the Mediterranean and Atlantic Europe at a later date has suggested that this second region was once much broader. Alexander Hausler has argued that the different construction principles suggest multiple places of origin for the wagon while others have argued that the differences hardly warrant such a conclusion and prefer to see the wagon as having been invented in one place and diffused elsewhere. That wheeled vehicles might be independently invented is indicated by the presence of wheeled toys in Mesoamerica before any contact with Europeans; however, the emergence of wheeled vehicles, whatever their axle-construction, is very much a phenomenon of the fourth and third millennium BC in Eurasia.

The most abundant evidence for early wheeled vehicles derives from the steppe region north of the Caucasus where several hundred have been found in burials dating from the fourth through the third millennium BC. Here the axles were generally narrow with a gauge, the distance between the wheels, of about 1.0 to 1.10 m. All evidence for the earliest wagons indicate the use of the fixed axle and there is no indication of the pivoted front axle, the type of axle that permits one to reduce more effectively the turning circle, until the first millennium BC.

See also Novotitorovka Culture, Shoulder, Wagon, Wheel, Yamna Culture [D.Q.A., J.P.M.]

Further Readings
BAALBERGE GROUP

This variant of the TRB culture, dated to c 3800–3500 BC, is essentially known from its mortuary practice. Approximately two hundred Baalberge graves are found distributed from central Germany to Bohemia. The graves were set in barrows which may include up to ten burials and the primary burial might be placed in a stone cist and accompanied by ceramics not only of TRB derivation but also exhibiting influences of the more easterly Baden and Bodrogkérsztőr cultures. These barrows were re-used in subsequent periods (by the Walternienburg/Bernburg, Globular Ampora, Corded Ware and Unetice cultures) and provide relative chronologies for a variety of the cultures of this region.

The importance of the Baalberge group in discussions of the IE problem concerns its “eastern” affiliations since some have argued that it was the product of steppe pastoralists, presumably early Indo-Europeans, migrating into central Europe. Such an argument derives from the observation that both the Baalberge and the steppe tribes of the “Kurgan tradition” raised barrows over their dead and they buried the deceased in the flexed position on their right side (alleged by some to indicate male social dominance). The association of the Baalberge group with the steppe pastoralists of the Kurgan tradition is, however, unsupported by both the evidence of physical anthropology which markedly distinguishes the two populations and by the fact that there are no intrusive steppe barrows within nearly five hundred kilometers of the Baalberge group. It is also argued that the precise burial posture of the dead, with the hands held before the face in the “eating position” is not matched by steppe burials nor do they exhibit the intensive use of ocher in the grave also seen in steppe burials. Hence, a local origin within the early TRB culture is far more widely accepted.

In addition to its origins, the fate of the Baalberge group is also seen as relevant to IE expansions since some regard it to be ancestral to the Corded Ware horizon that spanned northern and central Europe and has been widely acknow-
ledged as Indo-European. Again the reasons for such association tend to emphasize the parallel use of the tumulus over burials known in both cultures.

See also Corded Ware Culture, Indo-European Homeland; TRB Culture. [J.P.M.]

Further Reading

Babble

*baba- 'babble'. [IEW 91 (*baba-); Wat 4 (*baba-)]. Lat babi 'beats himself proudly, prances', babiger 'foolish, simple', NE baby, babble, MHG bābe ~ bōbe 'elder, mother', OPrus bēint 'mock', Lith bōba 'old woman', Latv bībināt 'babble', OCS baba 'old woman', SC bībljati 'stammer', Alb bebe 'newborn child', Grk βαβάζων 'babble', OInd bhāva-karōti 'crackle of a fire'. Widespread but clearly an onomatopoeic formation; these words are unlikely to represent anything certain that could be reconstructed for PIE antiquity.

*lal- 'babble'. [IEW 95 (*(s)kā-lo-)]. OIr col 'back', Wels cil 'back', Lat culus 'rear-end', OInd kūla 'slope, back; rear of army' (for the semantics compare NHG rücken 'back' and the cognate NE ridge). From *kēuh- 'be bent' (cf. *kēuy- 'hermia'). Related is NPers kūn 'backside, buttocks, anus', kāna 'buttocks (of horse or man)'. This Persian data suggest perhaps the existence of a PIE 1st heteroclite. Grk (Hesychius) κυστός 'anus' also belongs here (outside of Hesychius this word appears in compounds, always with reference to pederasty: Hesychius also gives 'vulva' as a meaning of κυστός but that probably reflects a misunderstanding of one or more of his sources), though the source of the -s- is obscure. At least late PIE.

See also STAMMER. [D.Q.A.]

Back

*kuh₂los 'back'. [IEW 951 (*(s)kā-lo-)]. OIr cöl 'back', Wels cil 'back', Lat culus 'rear-end', OInd kūla 'slope, back; rear of army' (for the semantics compare NHG rücken 'back' and the cognate NE ridge). From *kēuh- 'be bent' (cf. *kēuy- 'hermia'). Related is NPers kūn 'backside, buttocks, anus', kāna 'buttocks (of horse or man)'. This Persian data suggest perhaps the existence of a PIE 1st heteroclite. Grk (Hesychius) κυστός 'anus' also belongs here (outside of Hesychius this word appears in compounds, always with reference to pederasty: Hesychius also gives 'vulva' as a meaning of κυστός but that probably reflects a misunderstanding of one or more of his sources), though the source of the -s- is obscure. At least late PIE.

See also BODY, BUTTOCKS. [D.Q.A.]

Hēp-ér 'back, behind' (temporal 'afterward'). [IEW 53 (*ap-ero-); BK 435 (*apθ]-/*apθ]-). ON aalr- 'very', OE eafōr 'descendant', OHG avar 'again, a second time', Goth ailer 'after', ailar 'descendant', Lyotic eprel- 'rear-, later', Av apa-ra- 'behind, following, other', OInd apha- 'later'. A widespread derivative of the previous entry. Cf. Lat aperiō 'open' and, reflecting *hēp-ér, NE after.

*ap- 'immediately adjacent; behind, following'. [IEW 53 (*apo-); Wat 3 (*apo-)]. Lat posterus 'behind', Lith pas 'at, with', pāstaras 'last, furthest behind', OCS po 'after', pozdō 'late', pozō 'behind, after', perhaps Alb pa 'without', Grk (dial.) νός 'near, by'. Originally, possibly a genitive of *hēp- 'near, on' and/or *hēp- 'back, behind'.

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BADEN CULTURE

The Baden culture is a large late Copper Age or early Bronze Age culture of east-central Europe centered on the Carpathian basin and extending northwards into Poland and south into Croatia and Bosnia. The culture dates to c. 3600–2800 BC and it is a major component of a series of cultures extending across the Balkans (e.g., Cernavoda I, Ezero) into northwest Anatolia (Troy) that has sometimes been designated the “Balkan-Danubian complex” although some archaeologists would reject such a concept. These cultures do share broadly similar ceramic inventories and in the central and eastern Balkans they follow either the collapse of the long-term Neolithic tell settlements or occupy the tells themselves but after a cultural break.

The Baden culture is known from at least a thousand sites that vary in size and location. Northern settlements tend to be larger and more stable while those in Bosnia and Croatia often give the appearance of small camp sites. Fortified settlements are also known, particularly where Baden bordered on a different culture. One of the most famous of the defensive sites is the hill-top settlement of Vučedol in Croatia where two houses were surrounded by a wooden palisade and, where exposed, a ditch. The presence here of an apsidal house, i.e., a house where one end terminates in a rounded or apse-like construction, has also been regarded as an important ethnic marker as similar houses appear in western Anatolia and Greece where they have been used to trace the movements of IE-speaking populations (but apsidal houses are found so widely in Europe since the Neolithic that any simple correlation between house form and IE language is dubious at best). The economy was mixed; agriculture was well attested including the raising of wheat, barley, millet, oats, pulses and the gathering of wild fruits and nuts. Livestock included cattle, pig, and especially sheep/goat which appears to have increased in importance and has been attributed to the introduction of new stocks from the east. The Baden culture also exhibits some of the earliest evidence for wheeled vehicles in central Europe as two clay cart models/drinking vessels were discovered at cemeteries at Budakalász and Szigetszentmártón, both near Budapest.
The ceramics include a variety of presumably ritual vessels, including large anthropomorphic "urns" as well as many varieties of handled drinking cups which have been associated with new fashions presumably involving the consumption of some alcoholic beverage. Burial was by both inhumation and cremation, the former predominating. Where the settlements are largest, the cemeteries tend to be smaller while areas in the south such as Hungary have boasted larger cemeteries such as Budakalász with about three hundred burials. One grave yielded two oxen which have been interpreted as evidence for paired draft.

The Baden culture is frequently discussed in association with the spread of Indo-Europeans because it possesses a number of cultural traits that have been regarded as diagnostic markers of IE society: the (occasional) use of small fortified settlements, houses with apsidal ends (suggesting a pastoral ancestry), wheeled vehicles, clay vessels suggesting both drinking sets and containers whose use has been associated with the consumption of dairy products or alcoholic beverages, sexual dimorphism in burial rite with males interred on their right sides and females on their left, and cult vessels displaying solar symbols. Within the Kurgan model of IE origins, the Baden culture is seen to serve as a vehicle for its expansion and consolidation in the central Balkans while those supporting a central European homeland seek the genetic roots of the Baden culture in the earlier TRB and Linear Ware cultures. The bearers of the Baden culture have been variously identified with speakers of languages ancestral to the Celtic,Italic, Illyrian and Venetic languages.

See also CERNAVODA CULTURE; COČOPENI CULTURE; EZERO CULTURE; KURGAN TRADITION; TROY. [J.F.M.]

Further Reading
BADGER

*mell* - badger (*Meles meles*). [Blážek 15–17]. Lat méles 'badger, marten', Slov (dialectal) malč (< Proto-Slavic *melics*) - badger. Though only weakly attested in Slavic, this apparent Latin-Slavic isogloss suggests that this may have been at least a dialectal word for 'badger' (or some other mustelid) in late PIE. The badger was widely hunted in antiquity and its natural distribution extends from the Atlantic to the Pacific, including all those regions that have been suggested as IE homelands. Given the size of the badger (averaging about ten kilograms in weight) and its distinctive markings, it is nearly impossible to imagine that the PIE speech community did not have a word (or words) for this animal.

See also MAMMALS; MARTEN; WEASEL. [D.Q.A., J.P.M.]

Further Reading

BAG

*bholghis* (skin) bag, bolster (made from stuffed animal skin). [IEW 125–126 (*bhelghis*); Wat 7 (*bhelghis*); BK 10 (*böl*/*bol*). Otł bolg 'sack', Wels bol 'stomach', Gaul bulga 'leather sack', ON belgr 'flayed animal skin, bag, belly', OE bél(l)ig 'bag (> NE belly), OHG balg 'skin', Goth balgs 'bag made of skin', OPrus po-balso 'bolster', balzina 'pillow', Latv pabalsts 'pillow', Slov balzina 'leather-bed', SC balzina 'pillow, bolster, AV barzis 'bolster, cushion', Shughnī vtīj (< Proto-Iranian *bzt*) 'pillow', OLnd upa-barbant 'cover, bolster' and perhaps barbīs- (sacrificial) straw, bed of grass'. Distribution assures PIE status from *bhelghis* -swell'.

See also BASKET. [D.Q.A.]

BALD

*kluwos* 'bare, bald'. [IEW 554 (*kluwos*); Buck 4.93]. Lat calvus 'bald', AV kauura- 'bald', OLnd ati-kūrva- 'bald'. Cf. the next word.

*golh'wos* 'bare, bald'. [IEW 349 (*galu-s*); Wat 18 (*gal-); Buck 4.93; BK 310 (*kal-f*). OE calu 'bald, bare, callow' (> NE callow), OHG kalo 'bald', OCS golū 'naked', Rus goljy 'bare'. Cf. the Balto-Slavic words for 'head' (*g(h)olh'yu-eho- 'bald-pate'). Lith galva, Latv galva, OCS glava, Rus golov. Probably here also belongs Arm glux (< *gholh'yu-ko- or *gholo-ku-?) 'head'. It seems best to start from an earlier PIE *kolu- ~ *klu- 'bald'. In a central area of the IE world the initial consonant was voiced (and further aspirated?), perhaps the result of its expressive meaning.

*neog'nos* 'bare, naked'. [IEW 769 (*nog*); Wat 45 (*nog*); Gl 144 (*nog*); Buck 4.99]. ON nakinn (rebuilt on the analogy of a participle from *nakin* 'naked', Grk ηυμός (< *gommō- < *nog'nō*) 'naked', Hit nekumant- (< *nekunant*) 'naked', AV mayna- 'naked', OLnd nagna- 'naked'.

With somewhat different formations we have: OIr nocht 'naked', Lat núdus (< *nog'edho-) 'naked', OE nacod 'naked, bare (> NE naked), OHG nachor 'naked', Lith nūgas 'naked', OCS nagn 'naked', Olnd nāga- 'elephant' (< *hairless one*). The underlying word is well-attested throughout the IE world and obviously old. Perhaps because of its expressive meaning it was subject to a good deal of morphological and occasionally phonological reshaping.

*bhosos* 'bare, naked'. [IEW 163 (*bhoso-s*); Wat 9 (*bhoso*); Buck 4.99]. ON berr 'naked', OE bær 'bare, naked' (> NE bare); OHG bar 'naked', Lith bāsas 'barefoot', Latv bāss 'barefoot', OCS bosū 'barefoot', Arm bok (< *bhos-ko-?) 'barefoot'. Probably restricted to certain central dialects in PIE.

The sense of 'without hair' and 'without clothing' seem to have been close in PIE. *neog'nos* apparently could have meant either 'naked' or 'without body-hair'. Lack of body-hair was a pre- eminent mark of immaturity. A similar association is to be seen with OE calu > NE callow. Conversely the presence of body hair was an important sign of adulthood.

The concept of the naked warrior is found in the evidence of IE tradition: according to Diodorus Siculus an elite among (Continental) Celtic warriors went into battle naked, ηυμός (Bibl. 5.28), this seems to be an expression of an assumed animal character and force, and the same warriors styled their hair so that it resembled a horse's mane. St. Gildas commented on the 'shameless' fighters among the Scots and Picts (De excidio Britanniae, cap. 1), and the image of the champion fighting naked "before the host" is also suggested in the Welsh sources, specifically in the three champions, "diademned" or "gorgeted" men featured in the Welsh Triads (Triodedd Ynys Prydein T. 21, p. 37).

Baldness, or a lack of head-hair, carries some ambiguous charges: as a sign of approaching old age it seems to show that male virility (held in, or symbolized in the hair) was being retrograding. Early balding might especially be regarded as a kind of personal affliction: an Irish source cites "baldness, weakness, early grayness" as kinds of supernatural punishment (Metrical Dinsenchas 3.1–25) and attempts to reverse or "cure" baldness were well known. Curatives for baldness using vegetable substances may have been conscious of the hair-grass homology, but animal substances, such as fats, were used as well: animals, in this way of thinking, do not grow bald.

To show the mixing of images OIr mael provides the ordinary meaning 'bald' but can also mean 'shorn' or 'crophaired', and so mael can indicate servile status or mark the pre-adolescent male (the gilla) or be used of a shorn or tonsored druid, a high-status figure of the First Function. The great Finn mac Cumaill spent some time in his youth as Dame Mael, Bald Demne, but Finn had some druidic, as well as superlative Second Function, warriorly skills. His "bald" state also shows a case of a price being paid for a particular skill or talent gained. The Greeks of Homer's epic invention have their semi-comic target in Thersitēs (Il 11.212ff.), who also combines a low-class appearance (as he
makes a contrast with the 'thin growth' of his misshapen head to the abundant hair of the Achaian warrior-lords) but Thersitês too has his concealed connection to the satirist (in the Old Irish context) and others who have certain powers related in all likelihood to the Trickster figure, but not completely detached from magical (and First Function) potencies.

See also HAIR; TRICKSTER. [D.Q.A., D.A.M.]

Further Readings

BALTIC LANGUAGES

The Baltic branch of Indo-European is itself divided into two sub-branches: West Baltic whose only attested language is the extinct Old Prussian, and East Baltic attested in Lithuanian and Latvian (the latter also known as Lettish). Though first attested only in the early fifteenth century in the form of the earliest Old Prussian text, Baltic as a whole, and Lithuanian in particular, is a remarkably conservative branch of Indo-European and so plays a greater role in the reconstruction of Proto-Indo-European than the lateness of its attestation might suggest.

Old Prussian is the name conventionally given to speakers of a West Baltic language spoken in the former East Prussia. They are first mentioned in history, under the name of Aistians (and thus at least possibly confused with the non-Indo-European Estonians) by Tacitus in the first century AD. By the ninth century Prussian, or some similar name, had become the usual designation for this ethnic group. The Yotvingians (or Jatvingians) to the east of historic East Prussia are presumed to have spoken a closely related language but there are no certain records of it. Prussia was conquered by the Teutonic knights in the thirteenth century and christianized. At the time of the Reformation the then Grand Commander of the order accepted the teachings of Martin Luther and secularized the order, making it into the Duchy of Prussia. Most of the rather meager linguistic remains of the Old Prussian language reflect the activities of German-speaking Lutheran pastors who translated religious literature in Old Prussian. Thus none of
the few documents written in Old Prussian are written by a
native speaker and, indeed, there is no assurance that the
writers' command of Old Prussian was altogether fluent. Still
there is enough data to make it clear that Old Prussian does
differ in certain significant ways from Lithuanian and Latvian,
e.g., OPrus *dadan* 'milk' but Lith *pienas*, OPrus *agio* 'rain'
but Lith *lietus* or OPrus *camstian* 'sheep' but Lith *avis*. By the
eighteenth century speakers of Old Prussian were linguistically
assimilated to German or Lithuanian.

East Baltic is represented by Lithuanian and Latvian. Other
East Baltic groups are recorded in early historical times, e.g.,
Selonian, Semigallian, Curonian, but all have been linguistically
assimilated to Latvian and/or Lithuanian (if, indeed, they
were very different from Lithuanian or Latvian to begin with).
Latvian at least has also assimilated speakers of Livonian, a
variety of Baltic Finnish similar to Estonian, and some of the
development Latvian has undergone has been attributed by
some to substrate influence of Livonian. As is the case with
Old Prussian, the oldest literature in both East Baltic languages
consists of religious translations. Lithuanian is attested from

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Proto-Indo-European and Baltic Phonological Correspondences

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<td><em>gh</em></td>
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<td><em>gh</em></td>
<td><em>hmimglehₕ</em> 'mist'</td>
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<tr>
<td><em>k</em></td>
<td>k</td>
<td><em>k</em></td>
<td><em>kos</em> 'who'</td>
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<td><em>g</em></td>
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<td><em>g</em></td>
<td><em>gou</em> 'cow'</td>
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<td><em>gh</em></td>
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<td><em>gh</em></td>
<td><em>ghormₕ</em> 'heat'</td>
</tr>
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<td><em>s</em></td>
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<td><em>s</em></td>
<td><em>h₁es</em> 'ear'</td>
</tr>
<tr>
<td><em>i</em></td>
<td>j</td>
<td><em>i</em></td>
<td><em>juhₕ</em> 'broth'</td>
</tr>
<tr>
<td><em>u</em></td>
<td>v</td>
<td><em>u</em></td>
<td><em>u₁₁kₜos</em> 'wolf'</td>
</tr>
<tr>
<td><em>m</em></td>
<td>m</td>
<td><em>m</em></td>
<td><em>mehtₜₜ</em> 'mother'</td>
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<td><em>n</em></td>
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<td><em>n</em></td>
<td><em>h₅nas</em> 'nose'</td>
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<tr>
<td><em>l</em></td>
<td>l</td>
<td><em>l</em></td>
<td><em>lokₜis</em> 'salmon (trout)'</td>
</tr>
<tr>
<td><em>r</em></td>
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<td><em>r</em></td>
<td><em>h₁rudhₜ</em> 'red'</td>
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<tr>
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<td>im</td>
<td><em>m</em></td>
<td><em>kmtₜom</em> 'hundred'</td>
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<td>in</td>
<td><em>p</em></td>
<td><em>g₇hpₜ</em> 'strike'</td>
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<tr>
<td><em>l</em></td>
<td>il</td>
<td><em>l</em></td>
<td><em>u₁₁köₜos</em> 'wolf'</td>
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<td><em>t</em></td>
<td>ir</td>
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<td><em>mr</em> 'die'</td>
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<td><em>i</em></td>
<td>i</td>
<td><em>i</em></td>
<td><em>likₜₜ</em> 'remain'</td>
</tr>
<tr>
<td><em>j</em></td>
<td>y</td>
<td><em>j</em></td>
<td><em>g₇byₜos</em> 'living'</td>
</tr>
<tr>
<td><em>e</em></td>
<td>e</td>
<td><em>e</em></td>
<td><em>meidₜu</em> 'honey'</td>
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<td><em>e</em></td>
<td>e</td>
<td><em>e</em></td>
<td><em>schₜₜ</em> 'sow'</td>
</tr>
<tr>
<td><em>a</em></td>
<td>a</td>
<td><em>a</em></td>
<td><em>h₁ékₜis</em> 'axle'</td>
</tr>
<tr>
<td><em>a</em></td>
<td>o</td>
<td><em>a</em></td>
<td><em>mehₜₜₜ</em> 'mother'</td>
</tr>
<tr>
<td><em>o</em></td>
<td>a</td>
<td><em>o</em></td>
<td><em>lokₜis</em> 'salmon (trout)'</td>
</tr>
<tr>
<td><em>o</em></td>
<td>uo</td>
<td><em>o</em></td>
<td><em>dohₜₜ</em> 'give'</td>
</tr>
<tr>
<td><em>u</em></td>
<td>u</td>
<td><em>u</em></td>
<td><em>rūnₜos</em> 'dogs'</td>
</tr>
<tr>
<td><em>u</em></td>
<td>ū</td>
<td><em>u</em></td>
<td><em>bhₜₜₜₜ</em> 'be'</td>
</tr>
<tr>
<td><em>h₁</em></td>
<td>ū</td>
<td><em>h₁</em></td>
<td><em>h₁estro</em> 'is'</td>
</tr>
<tr>
<td><em>h₂</em></td>
<td>o</td>
<td><em>h₂</em></td>
<td><em>h₂erhₜₜ</em> 'plow'</td>
</tr>
<tr>
<td><em>h₃</em></td>
<td>o</td>
<td><em>h₃</em></td>
<td><em>h₃ɔₜₜ</em> 'eye'</td>
</tr>
<tr>
<td><em>h₄</em></td>
<td>o</td>
<td><em>h₄</em></td>
<td><em>h₁ɔğₜₜ</em> 'testicle'</td>
</tr>
</tbody>
</table>
the beginning of the sixteenth century and Latvian from the
last quarter of the same century.

In phonology Baltic shows clear connections with other
IE groups both to the east and west, but particularly with
Slavic. Both Baltic and Slavic are satem languages (along with
Indo-Iranian and Armenian) which means that PIE *k and
*kw appear as Proto-Baltic and Proto-Slavic *k and PIE *kw
appears as *š (in all Baltic and Slavic languages except Lithuanian *š subsequently becomes s). However, both
groups, but particularly Baltic, show exceptions (e.g., Lith
pėkus ‘cattle’, OPrus pecku ‘cattle’ from PIE *pęku) which
suggest that Baltic and Slavic were on the periphery of that
part of Proto-Indo-European that underwent satamization.

Both Baltic and Slavic also show the effects of the ruki-rule
whereby a PIE *-s- is retracted to *-š- after *r, *u, *k, or *i,
an unexpected phonological development that is shared
otherwise only with Indo-Iranian. With Slavic and Germanic
Baltic shares dative and instrumental case endings in *-m-, rather than in *-bh- as in all other IE languages that retain
these cases, e.g., Goth wulfam, Lith vilkams, OCS vůlkomá
but Olnd vykébyah ‘to the wolves’).

East Baltic is generally a very conservative branch of Indo-
European and Lithuanian in particular preserves an “archaic”
aspect otherwise found in IE languages at least a couple of
millennia older. Particularly the declension of the nouns and
adjectives, with seven cases, singular and plural (and at least
dialects the dual as well) persists as a remarkably faithful
witness to the situation in Proto-Indo-European. Only Old
Indic attests a system that is less changed from what is usually
reconstructed for Proto-Indo-European. With regard to the
verbal system Lithuanian, and all of Baltic, has been much
more innovative. The PIE present tense is well-preserved and
the future reflects a PIE desiderative [ormation (i.e., ‘want
to’) revalued as a simple future. Both the PIE aorist and
imperfect have contributed to the simple past tense. But most
of the PIE aorist and imperfect formations have disappeared,
along with the entire perfect and middle. Very characteristic
of Baltic is the fact that the original third person singular does

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duty for the dual and plural as well, thus esti, the descendant of PIE *hêstis ‘is’ is used for all numbers.

The relationship with Slavic is particularly close. There are numerous Balto-Slavic lexical innovations, e.g., Lith ranka ‘hand’, OCS рóка ‘hand’, and a number of common innovations in phonology, e.g., in the systems of intonations inherited from Proto-Indo-European, and morphology, e.g., the creation of a distinction between definite and indefinite adjectives. The development of the latter distinction is particularly interesting from the point of view of comparing it with the same development in neighboring IE stocks. In Baltic and Slavic the definite adjectives result from the fusion of the basic adjective with a following demonstrative pronoun, *jos (a form which in other IE languages functions exclusively as a relative pronoun), e.g., ‘which (is) X’ (Lith básasis ‘(the) barefooted’, OCS bóstji ‘(the) barefooted’ < *bhosos jos). While the ancestral syntactic unit is shared by Baltic and Slavic, the process by which the old demonstrative pronoun became a morphological suffix occurred independently in both groups, witnessed by the fact that word-final *-s had already been lost in Slavic when the morphologization occurred. A similar definite adjective is seen in Albanian, though there the old demonstrative (or relative?) pronoun precedes the adjective and is still a separate word (e.g., i ri ‘(the) young’).

In neighboring Germanic a distinction between definite and indefinite adjectives was built by using purely morphological material, each adjective comes in two shapes, “regular” and in the form of an n-stem derivative. The latter is the definite one of the pair. (A similar distinction may once have existed in Tocharian.) We see a regional development of explicit definiteness within late Proto-Indo-European, but only Baltic and Slavic show identical manifestations of that definiteness.

Baltic Origins

The origin of the Balts has often been regarded as diagnostic for locating the earliest Indo-Europeans. The conservatism of Baltic, in particular Lithuanian, has been explained by some as due to the fact that all the IE stocks, the Balts have moved least from their homeland and, consequently, mixed least with foreign substrates who would have stimulated language change. On such reasoning one popular theory of IE origins of the late nineteenth and early twentieth century AD onwards and the later conquest of Baltic lands by the German Knights of the Teutonic Order coming from the west. The evidence of Ptolemy in the second century AD of names (Soudini and Galindia) clearly ancestral to those of the later Prussian tribes makes it likely that Balts have occupied at least their western territory since the beginning of the Christian era. To locate the Balts any earlier on the basis of written sources requires some guesswork. For example, in the fifth century BC Herodotus records the existence of the Neuroni who occupied snake-infested lands north of what may be the Pripyat marshes and these Neuroni have been identified by some as Balts; the Lithuanians, for example, were known for the cult of the green snake (but the geographical position of the Neuroni is controversial and others would argue that they might more easily be assigned to the early Slavs). At this time the Pripyat region was occupied by the Milograd culture and one can then argue a long sense of cultural continuity in the Baltic region back at least to the earliest appearance of the Corded Ware horizon in the late fourth and early third millennia BC. This is the earliest culture that occupies the entire Baltic region, here in the guise of the local variant known as the Halbküstenkultur, whose general cultural inventory is at least potentially Indo-European, e.g., it was in possession of wheeled vehicles, domestic horse.

Any attempt to trace the IE ancestors of the Balts to a still earlier period runs into serious problems. The Neolithic (fourth millennium BC) TRB culture of the north European plain may also accord with many of the expectations derived from the reconstructed cultural lexicon of the IE languages, but its distribution only extended to east Prussia and cannot be seen to underlie the distribution of the East Balts. Rather, there appears to have been a slow acculturation of local hunter-gatherer populations who slowly incorporated agriculture and stockbreeding into their economy from their TRB and later Globular Amphora neighbors. The archaeological result of this process is the middle Neolithic Narva culture which appears to have persisted into the Bronze Age in some areas. There is considerable disparity between west and east Lithuania with respect to the reliance on domestic animals throughout both the middle (Narva) and late Neolithic (Corded Ware) and it was only about 2000 BC that stockbreeding begins to become important in the east. The spread of the Corded Ware horizon in the Baltic region is not particularly impressive in quantity, e.g., Latvia boasts no more than about forty known Corded Ware burials. Baltic also contributes to a set of cognates for fortified settlement (Lith pilis ‘fort’, castle’, Latv pilis ‘fort’, castle’ < *pelhē) and it is only in the early Bronze Age (c 2000-1100 BC) that Baltic hillfort settlements begin to appear. Irrespective of where one wishes to locate the IE homeland, it is unlikely that we can speak of the full Indo-Europeanization of the Baltic region until 2000 BC although IE-speakers may well have begun to enter the east Baltic a millennium earlier. The geo-chronological position of Baltic also illustrates why the concept of assigning the IE homeland to the Baltic region is rather
implausible, i.e., it requires IE expansions from an area that itself could only have become IE-speaking when we already begin to find differentiated IE stocks such as Anatolian or can confidently presume their existence such as Indo-Iranian.

As the distribution of the Corded Ware horizon covers the entire north European plain and beyond, it is unlikely that it describes the specific distribution of the earliest Balts but rather their more distant linguistic ancestors who also evolve into their Germanic and Slavic (and possibly other) neighbors. The emergence of a distinctly Baltic language stock depends largely on what date one assigns to such a phenomenon and other than confining the Proto-Balts to the last two millennia BC, nothing else certain can be established. For those who believe that archaeological phenomena can reflect linguistic developments, it has been argued by Lothar Kilian that the first major cultural differences in the Baltic territory emerge only about 1000 BC when the West Baltic area engages in cremation burial while the East Baltic region continues the inhumation mode of burial. Since the West Baltic territory subsequently appears to divide into three regional units corresponding with the historically attested Prussian tribes, this may suggest some correlation between the archaeological and the linguistic data. Certainly the emergence of Proto-Balts in the period between 2000 and 1000 BC is unlikely to meet with many objections. See also CORDED WARE CULTURE, INDO-EUROPEAN LANGUAGES, TIME-DEPTH, TRB CULTURE. [D.Q.A., J.P.M.]

Further Readings

Language

ETYMOLOGICAL DICTIONARIES

ORIGINS AND CULTURE

BARE see BALD

BARK

*Bouvozeh₂* ‘bast, bark’. [IEW 690, cf. Wat 37 (*leup-*)]
Lith *luobas* `rind, bark`, Latv *luobs* `shell, rind`, Rus *lub* `bast, bark`, Alb *labo* `rind, bark, crust`. As such it is a word of the center of the IE world but other derivatives also occur: Mlr *luchtar* ‘boat made from bark’, Lat *liber* (*lubhro–*) `bast, book` (since bast, especially beech bast, provided an early writing medium), OHG *laut* `bark, bast`. Also probably belonging here are the Baltic words for `board`: OPrus *lubbo* `board`, Lith *luba* `board`, (pl.) *lubos* `ceiling`. Although sometimes set here but probably not related are: OIr *lub* `herb`, OWelsh *luirt* `garden`, and the Germanic words for `leaf`: OE *leaf* `leaf` (> NE *leaf), OHG *lub* `leaf`, Goth *laufs* `leaf`.

Words for `bark`, specifically inner bark, are sometimes the same as or the source for the words for `book` because inner bark or bast (the soft elastic, sap-conducting layer) was used by many peoples, including at least some of the early Indo-Europeans, for writing. Thus, Lat *liber* `bark, bast`, which was used for writing before the advent of papyrus, eventually yielded the meaning `book, letter` (cf. the etymologically unconnected Grk *βυβλος* ~ *βιβλος* which earlier meant the inner bark of the papyrus, hence the paper, used for writing). NE *book* ultimately comes from `beech` (OE *boc*) since in the Germanic area beechwood was used for writing. In the Slavic area, Old Russian *lubt*, for example, denoted both `bast` and `material for writing`. Given these almost ubiquitous connections, one can posit a more specific, late IE meaning of `bast` and a culturally critical meaning of `material for writing on`.

The many Slavic cognates such as Sc *lubura* and Rus *lubok* often denote boxes made of bast, specifically elm and linden bast, an essential ingredient of the peasant home into modern times. Possible morphological extensions of this were words for skull and forehead (Rus *lob* `forehead`). Slavic and Baltic reflexes of *leubh-* often denote `board, shingle` and the like whereas Germanic reflexes, if they belong here, tend to denote `leaf, foliage` and in Celtic we have Mlr *luchtar* `boat made of bark`. In sum, a large set of central dialectal cognates point to either an original generic meaning of the exterior of a tree: `leaf, inner bark`, etc., or, which is perhaps more likely, `bark` or `wood`, and, eventually, the diverse objects made of such materials. A tantalizing hypothesis would derive the word for `bark` from a verbal root `peel, strip`, e.g., Slavic *lupiti* `strip` as a source for *lub* `bast`; however, the reconstructed verb ends in a non-aspirated p and hence cannot, by the conventional rules, be a source of *leubh-*. On universal semantic grounds also it is relatively unlikely that an item as basic in the lexicon as `bark` would be derived from a rather specialized verb.

See also PLANTS, TREES. [PF]

BARK²

*leh₂* `bark` (pres. *leh₂-eo–*). [IEW 650 (*la– *lé–)]
Buck 18.14. Lat *lätro* (a denominative based on an unattested *lätro-– barking*) `bark (at), rant, roar`, Lith *louj* `bark`, Latv *laij* `bark`, OCS *lajo* `bark`, Alb *leh* (< *loha-ske–*) `bark`, Oss *rejum* `bark`, Olnd *réyti* `barks`. Widespread and old in IE; not obviously onomatopoetic but rather inherited by regular phonological processes from the parent language. Cf. possibly Grk *úlía–* `bark` though this word cannot be a phonetically
barley

*bhels-* 'yelp, howl'. [IEW 123 (*bhel-)]. On belja 'roar, howl', OE bellan 'roar, howl', OHG bellan 'bark', Olnd bhäsät- 'barking, yelping', bhäsati 'barks, yelps'. Not obviously onomatopoeic and if the Germanic and Old Indic words belong together, we have good evidence for a PIE word.

*bha$ati- 'low of cows', Grk (gen. ll£pO'npoVl1) 'movement from one social class to another or...'

*bau$or- 'bark, low'. [IEW 95 (*bau]). Lat baubor 'bark', Lith baubu 'low of cows', Grk bau$oς 'bark'. An onomatopoeic formation, quite possibly independent in each of the three stocks, based on the sound of a dog barking (Grk bau$oς bau$o) or cows lowing.

*bhëreg-* 'bark, growl'. [IEW 138 (*bhereg-); Wat 8 (*bher-); Buck 18.14; BK 33 (*bar-/*bar-)]. On bërcja 'bark', OE beorcian 'bark' (> NE bark), Lith burgeti 'spurt, splash, splutter, growl'. The difference in meaning between Baltic and Germanic strongly suggests that we have independent onomatopoeic formations in the two stocks. At best we have a late IE dialectalism reflected here.

The fact that the first two verb roots, neither of them obviously onomatopoeic, can be reconstructed for the barking of dogs may suggest the long-standing association of dogs and people, an association long antedating the PIE period, and the relative importance that association had for PIE society. It might be noted that barking is an acquired trait, bred into dogs through domestication, and it is not one of the behavioral patterns of the wolf from which the dog was first domesticated. It might be argued then that the first term, *leh₂-, is "semantically" in full accord with both the noise made by a domesticated dog and also an expression of some of the primary reasons for its domestication, to serve as a watch dog and assist in the hunt. The second term, *bhel-s-, may lack the informational content of the first.

See also Animal Cry, Bird Cry, Dog, Howl, Moan.

BARLEY

*ghrs³dh(h)i (gen. *ghrs³dhos) 'barley (Hordeum vulgare and/or H. distichum). [IEW 446 (*gherdzh(h)i); Wat 22 (*ghṛzd-); Gl 565 (*ghṛ(r)d-), Buck 8.44]. Lat hordeum (*ghṛṣṭhejum) 'barley', OHG gersta (< *gχrsdheh₃, with new full-grade) 'barley', Alb drīhe (< *gḥṛṣdhhi) 'cereal grain', Grk (Homerica sg. κρῆτος < pre-Grk *gχrstdh with *e- - i-as in ἱππος 'horse') 'barley'. Cf. the derivative OCS grosdā (< *ghosdho) 'grapes' (< *fruit < kernel'). Another possible cognate is Hit karas (=<kargas, karas?) a kind of wheat. If the Hittite word is accepted it may represent either *gheshadh or *ghorsadh. Widespread and with no certain root connections (though it has often been connected to *ghers- 'stiffen, bristle' as the 'awned' grain or the like), this is clearly the oldest IE word that specifically refers to 'barley'.

*ģhεl¥bingt 'barley'. [IEW 29 (*alβhi-); cf. Wat 2 (*alβh-); Gl 565; BK 457 (*alβh-/*alβh-)]. Alb elb 'barley', Grk ἀλβη (pl. ἀλβητα) 'barleymeal'. A somewhat different formation is seen in Khot rrusa- 'barley', Pashto oβρaše (pl.) 'barley', Wakhi arbas 'barley' (<Proto-Iranian *arbusa-). Probably a derivative of a word for 'white'. Cf. Homeric κρῆς λευκόν or ἄλβητα λευκά and the set of designations in Germanic for 'wheat' (e.g., On hvett, OE hwett (> NE wheat), OHG weizet, Goth haitais) that all derive from the word for 'white'. The same suffix occurs in Hit seppit 'wheat'. However, the word for 'white' would appear to be *hælβhos with a different laryngeal. A word of the center and east.

*bhars (gen. *bhærs(os)) 'barley'. [IEW 111 (*bhæres-); Wat 5-6 (*bhares-); Gl 770 (*bhærs-); Buck 8.44; BK 24 (*bar-/*bar-)]. Lat fâr (gen. farris) 'grain, coarse meal, (coarse) bread', farma 'flour, meal', Umb fâr 'flour, meal', ON barr 'grain, barley', OE bere 'barley' (underlies OE bæor-líc > NE barley), Goth bartzems 'barley-', OCS braśmo 'nourishment', Rus bòrošno 'ryemeal', SC brāšno 'meal, flour'. Just possibly to be added here are Grk (Hesychius) ἄηπων an ancient plant deity, or Περσεφόνη, if from *Pherséphone and if originally *s- grain-slayer. Variants without *s-, i.e., OIr bærgein 'bread, loaf', Wels bara 'bread' (Celtic < *barageno-, A£vICa). Rus bor 'millet' are also known. They may or may not belong here. This word is found in the west and center of the IE world and is often taken to be a borrowing. Two candidates have presented themselves. GI compare the word with Proto-Semitic *brr-/*barr- 'grain, threshed grain' (cf. Hebrew bar 'threshed grain') but the distribution of cognates within IE does not support direct connections with the Near East. Alternatively, others have derived the word from some substratum language of central or western Europe. It may be, but, if so, it is a very old borrowing, taken across at a time when the various IE dialects were not very much differentiated. Arguing against the borrowing hypothesis is the morphological shape that this word apparently had in late IE, a morphological type that must have been very recessive. That it should have attracted a borrowed word seems unlikely.

*meig(h)- 'barley' (grain?). [Bailey 332–333]. OIr miach 'measure (of grain), bushel', OPrus moasis ~ mays 'barley', Lith (pl.) mięžiai 'barley', Latv (pl.) miezē 'barley', maize 'bread', Khot massa- (< *mēg-so-) 'field'. If all these words belong together, we have evidence for another widespread and presumably old word, perhaps meaning 'barley', perhaps something more general such as 'grain'.

There are a variety of terms for barley that show a number of overlaps among the IE stocks. The reasons for this may have been motivated by any number of factors. For example, the specific uses of the cereal (whether consumed by people or animals), its movement from one social class to another or its role in poetic diction. One of the more obvious factors may have been the different types of barley being exploited. The two main types of barley were Hordeum distichum (two-rowed barley) and Hordeum hexastichum (six-rowed barley) whose physical difference would have been obvious to a prehistoric farmer. In addition, barley may be hulled, i.e., of a type where the pales adhere to the grain after threshing which would render the cereal more suitable for animal human consumption. Alternatively, barley may have been
naked, i.e., the hulls would have fallen away at threshing, thus providing a cereal more easily processed and consumed by humans. All of these types of barley are so widely dispersed over Eurasia that they would all have been known to prehistoric groups of IE-speakers. What is perhaps most striking is that the varieties of wheats are even still greater yet we lack a similar large set of ‘wheat’ terms.

Because of a lack of gluten, a porous loaf cannot be made from barley; however, a flatbread may. Barley is also consumed in the form of porridge or, when malted, in the form of beer. Although the range of wild barley probably extended into the southeast Balkans, it is unlikely to have extended much beyond those territories immediately adjacent to Turkey and its area of domestication is generally sought in southwest Asia where the earliest domestic barley is set to c 9000 BC. From there it was presumably carried along with a variety of wheats into Europe by the earliest farmers in the seventh millennium BC (unless domesticated locally in adjacent areas of the Balkans) where it eventually reached northwest Europe by c 4000 BC. It also appears in the region northwest of the Black Sea, in the Bug-Dniester culture and in the Linear Ware and Tripolye cultures from the sixth millennium BC onwards. Here also a route from Turkey through the Balkans and then eastwards is commonly sought although it may also have penetrated north of the Black Sea by way of the Caucasus where it appears by the sixth/fifth millennia BC. It is also known in the Sredny Stog culture of the Dnieper region and perhaps in southern Siberia by the fourth/third millennia BC.

Barley is hardier than wheat and it eventually supplanted the latter in a variety of regions where resistance to climatic extremes favored the former, especially in northern Europe, where barley gradually replaced wheat in some regions as early as the later Neolithic or later during the climatic deterioration of the later Bronze Age. Certainly the relatively large number of IE words designating ‘barley’ and the fact that a word meaning ‘grain’ can also be used more specifically for ‘barley’ strongly suggests that barley was an important grain of early IE speakers although no cognate terms are known in the easternmost stocks, Indic and Tocharian. It should be noted that barley was hardly unknown in either Iran or India. It appears in Iran by 7000 BC and by c 6000 BC domestic barley is known from Mehrgarh in Baluchistan and later in the Harappan culture.

Where barley and wheat co-existed, and that includes the IE world, wheat was considered the nobler of the two grains and preferred for human consumption, e.g., in the classical world where wheaten bread was the typical fare of the upper classes and barley bread that of the lower classes (soldiers, serfs and slaves). In several IE traditions we find the names of wheat and barley brought together as a designation for all grains. Thus we have Grk πυρακαλκραθι ‘wheat and barley’ and likewise Hit seppit euwann-a ‘wheat and barley’. In these combinations and in the placement of their constituents we have a small echo of the PIE poetic verbal tradition and an insight into how PIE speakers viewed one of their most important food sources.

See also Agriculture; Grain; Stand; Wheat. [D.Q.A., J.P.M.]

Further Readings


BARREN


See also CASTRATE. [D.Q.A.]

BASIN

*louh3strom – lough3drom ‘wash-basin’. [IEW 692 (*loua-tro-); Wat 37 (*leu(a)-); BK 581 (*law-ah-/*law-ah-)]. OIr loathar (DIL lothar) ‘trough, vat, tub, basin; boat’, Mbrt louver ‘basin’, Gaul lautro ‘bath’, Lat po-lubrum ‘wash-basin’, Grk ξορπόν ‘bath’. From *leuh3- ‘wash with the instrumental suffix *-trom. Similar in construction, but different in meaning is ON ladh ‘soap’, OE lēadar ‘soap, soda’ (> NE latter), both a wash-basin and soap are (different) ‘instruments of bathing’. Given the divergence in formation (*-trom vs. *-drom) and meaning, the likelihood that we have independent formations here rather than inheritance is high.

See also CLEAN; POT. [D.Q.A.]

BASKET


*kreb- ‘basket’. [cf. IEW 948-949 (*s)kerb(h)-]. ON hript ‘packbasket’, ME rip ‘fishbasket’ (perhaps < Old Norse), OOG rel ‘frame for carrying something on one’s back’, Lith krępsas ‘large satchel, backpack’. Surely related are the o-grade AOE korb ‘wagon (-seat)’, Lat corbis ‘basket’ (whence by borrowing is OHG korb ‘basket’), Lith kertas ‘basket’, Latv kārba ‘bag made from alder- or birch bark’, Rus kôrob ‘basket’. The Baltic and Slavic words are often, but not always, taken as borrowings from OHG korb (itself certainly a borrowing from Latin). The meaning of the Latv kārba argues against borrowing. The alder- or birch bark container is obviously a native craft, owing nothing to Germanic or Latin models. Indeed,
its technological ancestors, bark containers presumably for coals, were found as part of the possessions of Otzi, the “Iceman of Tyrol”, who was recently dated to c 3300 BC. In view of the meaning of the Germanic reflexes of our putative *kreb-, it is possibly significant that the Iceman carried many of his possessions in a simple rucksack supported by a U-shaped frame. In any case, it would appear that we have here at least a word for ‘basket’ or the like, confined to the northwestern part of the IE world, though as an item of trade the word was subject to borrowing or at least renewal from one IE group to another. Related perhaps to *(s)kerbh- ‘turn’ and, if so, more particularly to Grk κάρπος ‘dry stalk, straw’, a raw material for basketry.

See also Bag. [D.Q.A.]

**BE**

*h₁es-* ‘be’ (pres. *h₁esmi/ami’, *h₁éstis/’is’, *h₁éstenti/they) [they are]. [IEW 340–341 (*es-); Wat 17 (*es-); GI 256, 264 (*es-); Buck 9.91]. Olr am/is/’am/is/are’, O’Wels hint ‘are’, Lat sum/est ‘am/is/are’, ON em/es/ero ‘am/is/are’, OE com/ is/sind ‘am/is/are’ (> NE am/is), OHG ist ‘is’, Goth im/st/sjum ‘am/is/are’, OPrus asm/est ‘am/is’, Lith esm/ésti ‘am/is’, Latv esmu ‘am/is’, OCS jestam/éstam/éstam/éstam ‘am/is/are’, Alb jan/jen ‘am/are’, Grk εἰμί/έστιν/έστιν ‘am/is/are’, Arm en/e ‘am/are’, Hit esm/és/asan ‘am/is/are’, Av aham/aiti ‘am/is/are’, Olnd ásam/ásti/sánti ‘am/is/are’, ásat- (< *h₁-es-yt-) ‘non-being’. Nearly universal in IE. Possibly originally *sit*. Already in late PIE it was common in some parts of the IE world to use a locative particle, *h₁e/on, either with or without ‘be’ in the third person. Thus beside *ést* in Greek we also have Ėv-i ‘(there) is’ (whence NGrk éivai ‘is’), Alb esiti (< *h₁en-sti) ‘is’, TochA naṣ (< *h₁e(n)-o-ti) ‘is’, TochB nesam (< *h₁e(n)-o-s-) ‘is’.

*bheu(h₁o)- ‘come into being, be; grow’. [IEW 146–150 (*bheu-); Wat 8 (*bheut-); GI 256 (*bhuH-); Buck 9.91; BK 8 (*bow-/*bow-)]. A pres. *bhujevo- is seen in the west of the IE world: Olr -bi ‘be’, Wels bydda ‘be’, Lat fió ‘be’, OE béo ‘am’ (> NE be); other formations are seen in: OHG báun ‘live’, OPrus bei ‘was’, Lith būti ‘be’, OCS byti ‘be’, Alb bůj ‘lodge, stay’, Grk φιάμα ‘grow, become’, φίον ‘beget’, Arm busanum ‘sprout up’, Av bavit ‘be’, Olnd bhavati ‘is’ (and bhō ‘earth, world’). An old aorist *(h₁)y/h₁hucht-‘was’ is fairly widespread: Grk ἐψώ ‘would be’, Olnd ahbath ‘was’, and perhaps Lat fut ‘was, have been’, OCS by ‘was’. Cf. the widespread nominal derivatives (1) *bhuto-: Olr both (DIL buiht) ‘hut’, Wels bod ‘dwelling’, OPrus butan ‘house’, Lith būtas house, and, independently, Grk φυτόν plant; *bhúh₂pt-, Lith būtis ‘to be’, OCS byti ‘be’, Rus byti ‘to be’, Grk φύσις ‘nature’, Av būtis- ‘name of a demon’, Olnd búti ‘being’; (2) *bhúh₂gůnt- ‘(what) will be’: Lith būsant- ‘future’, OCS bysónt- ‘about to be, future’, Av bůsant- ‘what will be’. Widespread and old in IE. In the meaning ‘be’, it appears to have supplied the aorist beside the present *h₁es-*. Its own present formations would appear to be late and only dialectally present in late PIE.

See also Srt. [D.Q.A.]

**BEAKER CULTURE**

The Beaker “culture”, dating to c 2600-1900 BC, is a late Neolithic or early Bronze Age cultural phenomenon that is found intermittently across Europe from Ireland east to Hungary and from Denmark south to Sicily. A distinctive drinking vessel, the beaker, often with an S-shaped profile and decorated in bands, is the defining characteristic of the Beaker horizon. Other frequent but not invariant associations are made with archery equipment (barbed-and-tanged arrowheads, wrist bracers, small bow-shaped pendants), v-perforated buttons, copper daggers, and copper, gold and silver ornaments.

At least four social mechanisms have been employed to explain the wide-spread distribution of the beakers and, in general, undermine their designation as a specific archaeological “culture”. Their small cemeteries, the conservatism of ceramic forms over a broad area and their association with early metallurgy has fostered the suggestion that the “Beakers” were the first European “gypsies” or “tinkers”, and hence explains their cultural integrity over a large area of Europe. The presence of finely made beakers in graves accompanied by local domestic wares has also suggested that these were the product of craft specialists and their largely maritime or riverine distribution has been explained as the result of west European exchange systems rather than evidence of any specific ethno-linguistic group. The combination of the beaker with the archery equipment and certain other non-subsistence goods has also been explained as a “cult package”, adopted by diverse peoples across Europe, and participated in by the higher status members of society. In this way, the appearance of beakers, the analysis of which suggests their use in the consumption of mead, would perhaps mirror the much later (Iron Age) spread of Mediterranean wine-serving sets that were found in the graves of the Celtic aristocracies of western Europe. Finally, in some regions such as the Netherlands and France, northwest Iberia, parts of Britain and Ireland, beakers are also found in considerable numbers on settlement sites and may suggest population movements (or merely the degeneration of the original social prestige of the vessels to household wares). In general, there is probably no single explanation for the occurrence of beakers in every region of its distribution and there were probably several vectors (population movement, exchange, etc.) that account for their spread.

The Beaker “culture” has often been associated with the Indo-Europeans since there are good reasons to derive it from the area of the earlier Corded Ware culture (the Netherlands/Rhineland region is probably the most widely accepted), which is frequently regarded as early Indo-European. Alternatively, Marija Gimbutas derived the Beakers from early central European cultures that witnessed the early impact of
Beaker a. Generalized distribution of the Beaker "culture".

immigrating steppe tribes. The fact that the evidence for domestic architecture has been extremely meager and is generally confined to flimsy structures has suggested to some that the Beaker culture was highly mobile (presuming it represents an ethnic group). Beakers are also sometimes linked with the spread of the domestic horse (in Ireland and parts of Iberia, for example), solar symbolism, weaponry, and the introduction of early metallurgy—all seen as Indo-European traits. Some physical anthropologists have also argued that the Beaker population may represent an intrusive physical type in some of its areas of expansion. For those who argue for movement of people, the Beaker culture represents the earliest evidence for Indo-Europeans (or more specifically Celts) in the British Isles.

See also Corded Ware Culture. [J.P.M.]

Further Readings

BEAN see PLANK

BEAN

*bhabheh₂*—‘bean (*Vicia faba*). [IEW 106 (*bhabhā*; Wat 5 (*bha-bhā*); Buck 5 66). Lat *faba* ‘bean’, ON *baun* ‘bean’, OE *bean* (> NE *bean*), OHG *bōna* ‘bean’ (Gmc < *bhabhineh₂*), OPrus *babō* ‘bean’, Rus *bob* ‘bean’. Cf. Grk *φακός* ‘bean’ and Alb *bathe* ‘bean’ ( < *bhako/eh₂*). At least a word of the west and center of the IE world.

The wild ancestor of the broad bean (*Vicia faba*) remains unknown and is perhaps extinct. The earliest certain archaeological evidence derives from the Near East, e.g., Israel, c 6500–6000 BC, and some remains are cited from early Neolithic Italy and the later Neolithic in Greece and Iberia while other forms of vetch are occasionally known from southern European Neolithic sites. Generally the domesticated bean appears to have spread across the Mediterranean only about the third millennium BC and then northwards as the plant thrives in both warm southern regions and the more temperate climate of northern Europe. As it is found in central and northern Europe earliest in Bronze Age contexts (as is also the case in the Caucasus), its dissemination among the ancestors of the Germanic, Baltic and Slavic stocks probably dates to c 2000 BC or later. Varieties of *Vicia* also appear in India by the Bronze Age.

The common bean (*Vicia faba*) has been the subject of a short and inconsequential discussion of the IE homeland. Both the ancient Greeks, or at least the Pythagoreans, as well as Roman priests shared prohibitions against the consumption of the bean, which was seen as the repository of the souls of the dead. This religious justification was seen as supplementary to physical reasons for avoidance as consumption of the bean by some Mediterranean populations, particularly in south Italy, induced favism, a severe allergic reaction resulting in anemia, fever and other unpleasant effects. This favism in turn was seen to be a result of a particular gene deficiency (glucose-6-phosphatase dehydrogenase) which, however, like the sickle-cell gene, provided additional resistance against malaria. On the basis of this, it was suggested that IE (actually Mediterranean) attitudes to the bean might then be sought in a homeland which fits the distribution of the mosquito and malaria, i.e., northwest of the Black Sea, the Balkans and central Europe. The concatenation of arguments bears little credibility since it confuses specifically Mediterranean beliefs and behavior with Proto-Indo-European and seeks an origin for the malaria-gene deficiency complex outside of the region where we actually find it in the Mediterranean.

See also Agriculture, Plants. [D.Q.A., J.P.M.]

Further Readings

BEAR

*ḥr̥t̥k̥os*—‘bear (*Ursus arctos*). [IEW 875 (*ṛk̮po*-s); Wat 55 (*ṛk̮o*); Gl 417 (*ḥṛ̥tk̥̂̄r̥*); Buck 3.73]. OE *arth* ‘bear’, Lat *ursos* ‘bear’, Alb *art* ‘bear’. Wels *arth* ‘bear’, Lat *ursos* ‘bear’, Alb *art* ‘bear’, Grk ἀρκτός ‘bear’, Arm *art* ‘bear’, Hit ḫart(a)-ga- ( = /hartka-/) ‘a kind of priest or cultic official, bear-man’, Av *araśa* ‘bear’, NPres *xir* ‘bear’, Olnd *fksa* ‘bear’. Note that Lat *ursa*, Grk ἀρκτός, Olnd *fksa*- all designate the ‘Big Dipper’ or ‘Plow’ (*Ursa Major*) constellation as well. Cf. also Lith *iršva* ‘bear’s den’, (dial.) širtva – širta – širtas ‘den, lair’ (if < *ḥr̥t̥k̥̂̄k̥o/eh₂*). Perhaps originally a nominalized adjective, *ḥr̥t̥t̥kos* ‘destroying’ (nominalized by a shift of stress), itself from *ḥr̥t̥t̥ikes* seen in Av rasah- ‘destruction’, Olnd rakšas- ‘destruction’. Widespread and old in IE. It may be significant that in the northern tier of IE languages (Slavic, Baltic, Germanic, and [partly] Celtic) this inherited word for ‘bear’, originally itself surely a descriptive substitute for a term now completely vanished, was replaced by newer words, all apparently “taboo” substitutes. Thus in Germanic the bear is ‘the brown’ one (cf. ON *bjorn*, OE *bera* (> NE *bear*), OHG *berman*), in Baltic ‘the ice-fisher’ (cf. Lith *lokys* ‘bear’ and *uokysi* ‘break the ice in order to fish’), in Slavic (and Old Indic) the ‘honey-eater’ (thus OCS *medvědi* ‘bear’, Olnd *madhv-ad* ‘honey-eater’). It has also been suggested that under the same taboo pressure, some Uralic tribes adopted the Indo-Iranian word for ‘bear’ which emerges in Finnish as karhu ( < Indo-Iranian *ḥr̥k̥šas*).

The brown bear (*Ursus arctos*), the only likely referent of *ḥr̥t̥t̥kos*, was ubiquitous across Eurasia in almost all territories in which IE languages are spoken (as far south as Iran where it has been recovered from prehistoric sites, Kashmir
and the Punjab) although its present distribution has seen its virtual disappearance in western Europe. The bear has sometimes been regarded as diagnostic in excluding the steppe lands north of the Black Sea as a potential homeland area; however, remains of bears have been recovered from Tripolye, Sredny Stog, Yamna and Catacomb sites, clearly indicating their presence in this region. As this territory also includes the use of bear teeth in pendants or burial with bear claws, in both the steppe region and in the Fayanovo culture in the forest zone, it is clear that bears may have also exercised some ritual-symbolic function in prehistoric society. How this role may have applied to specifically PIE society is difficult to determine as the bear is widely embued with certain cultic significance in many cultures, cf. Greek Artemis whose name is derived from that of the ‘bear’ and served as ‘Mistress of Animals’ and the hunt. Bear-skin dress can be observed in a Hittite ritual where one of the dancers, the Łuhartagga,-member of the ‘bear people’, is apparently dressed in a bear skin while the term in Old Norse for a warrior, operating out of control in battle-frenzy, is berserkr (< NE berserk), which many take to be literally ‘bear-shirted’, indicating one either dressed in the manner of a bear or having taken on the characteristics of a bear. The bear, in particular the she-bear, is a widespread symbol of fertility and child-bearing.

One historical curiosity is some nineteenth-century attempts to relate the word for bear, *h₂tikos with that for ‘white’, *h₂tök- (only possible with some non-discriminatory nineteenth-century reconstructions) and postulate an original PIE *white (bear)*. This was one of a number of extraordinary arguments for the theory of a polar origin for the Indo-Europeans which here required the reconstruction of *polar bear (Thalarctos maritimus)*.

See also MAMMALS. [D.Q.A., J.P.M.]

Further Readings

BEAR²


*seu(h₂)- ‘bear a child’. [IEW 913–914 (*seu-); G1 511 (*seu-); Buck 2.41, 4.71; BK 169 (*sʰaw-/sʰaw-)]. OIr suth (< *sʰu-tu-) ‘birth, fruit’, Av hū ‘bear a child’, Olind sīte ‘bears/begets a child’. More common are the derivatives *suh妞 ‘and *suh妞 ‘son’; ON sunr, OE sunu (> NE son), OHG sunu, Lith sūnus, OCs synu, Av hunu- (of evil beings), Olind sūn-, and Grk útug, Tocha se, TochB soy. Cf. also Wels hogen ‘girl’ and Arm ustr ‘son’ (rebuilt after dust ‘daughter’). Outside of Anatolian this seems to be the original verb for ‘bear a child’.

*genh₁- ‘beget a child; be born’. [IEW 373 (*gen-); G1 19 (*gena-); Gl 652 (*k’en-(i)); BK 275 (*k’an/*k’an-)]. OLat genō ‘beget’, gignō ‘produce’, OE cennan (< *gonhjeje-o-) ‘beget’, Grk γεννάω ‘beget’, Olnd jānati ‘beget’. These are all secondary, transitive, formations built in the individual stocks. The underlining intransitive and undoubtedly older formation ‘be born’ is to be seen in OIr rogenar (< *ro-gegn-) ‘am born’, OlLat gnáscor ‘am born’ (Lat náscor), Grk γίγνομαι ‘am born’, γένοµαι ‘am born’. The various present forms are post-PIE developments. Cf. too the plentiful derivatives such as Lat nátio ‘nation’, Grk γενεσίς ‘birth, origins’, Olnd jāti- ‘birth, family’, etc.

*ték- ‘bear or beget a child’. [IEW 1057 (*tek-); Wat 69 (*tek-); G1 131 (*ték-); Buck 4.71, 4.72]. Grk tiktōma (< *ti-ik-omai) ‘beget, bear’. Cf. tekmen- and tek(m)n- (o-) ‘OB Western *polhxnai ‘am born’, TE Western *polhxnai ‘am born’, TE Western *polhxnai ‘am born’. The various present forms are post-PIE developments. Cf. too the plentiful derivatives such as Lat nátio ‘nation’, Grk γενεσίς ‘birth, origins’, Olnd jāti- ‘birth, family’, etc.

*pellh₂- ‘bear young (of animal)’ (particularly to foal?). [IEW 799 (*pelh₂-); Wat 47 (*pau-)]. MWels ebwel (< *sljukwopolh₂x>) ‘foal’, ON lóli (< *pJ₃Χ, on-) ‘foal, colt’, fyl (< *pj₃, on-) ‘foal, colt’, fylja ‘foal, foal’ (borrowed > NE foal), OHG folo ‘foal, colt’, fuliha ‘foal, foal’, Gothic fula ‘foal’, Alb pjeļ ‘give birth to, produce’, pelē (< *polh₃, on) [a lengthened grade derivative of the *n-stem seen in the Germanic words for ‘foal’] ‘mare’, Myc po-roi ‘foal’, Grk πόλος ‘foal’, Arm ul (< *polh₂os) ‘kid, young of deer or gazelle’, amul (< *pJ₃, on) unfruitful, barren, yli (< *n- + *polh₂, nihe₂) ‘pregnant’. At least a word of the west and center of the IE world.

See also CHILD, SON. [D.Q.A.]

BEAUTIFUL.

*kal- ‘beautiful’. [IEW 524 (*kal-); Wat 26 (*kal-); Buck 16.81]. Grk καλός ‘beautiful’, καλλίον more beautiful, Olind kala- ‘healthy, prepared for, clever’, kalytics- ‘beautiful, agreeable, excellent, good, salutary’. Although cited in some handbooks, the Germanic forms ON halr ‘man’, OE hæle ‘man’, OHG helid ‘man, warrior’ (< GMC *kal- ‘man’) are semantically insecure, while TochA kálvala ‘beautiful’ is more likely < *keu-. The heart of the etymology is the Greek-Indic correspondence, which is less than completely tight.
BEAVER

*bhebhrus 'beaver (Castor fiber)' [IEW 136–137 (*bhebhru-); Wat 7 (*bhbrhru- ~ *bhebhru-); GI 448 (*bhibhr-er ~ *bhbrhbr); BK 29 (*bur/~/*bor/~)]. Obret beuer 'beaver' (if not loanword). Gaul bebru- 'beaver', Lat fiber 'beaver', ON björ 'beaver', OE beofor 'beaver' (> NE beaver), OHG fibar 'beaver', OPrus bebrus 'beaver', Lith bebras - bebrus 'beaver', Rus bohr 'beaver', Av bawra- - bawri- 'beaver'. Cf. the underlying adjective in OInd bahbru- 'red-brown'. PIE *bhebhrus 'beaver' shows regular retraction of stress in the originally derived noun. A secondary nominalization of OInd bahbru-, with no change of stress, yields OInd bahbru- 'mongoose'. There is a widespread PIE derivative *bhebhritis 'pertaining to (a) beaver/beavers' in Gaul bebrinus ['river] of the beavers', Lat libritus 'of the beavers', OHG bibrin 'of the beavers', Lith bebrinis 'of the beavers', Av bawrumin- 'of the beavers'. The 'beaver' also appears to underlie a series of tribal names, e.g., Mit Bibraige, Obrit Bibroci, and in Bythinia the tribal name Bebrukes has been interpreted as 'Thracian'.

The utility of beaver skins has insured that its presence is often attested on archaeological sites of the Neolithic period in those regions in which it was present. For example, at the site of Dereivka, proposed by supporters of the "Kurgan theory" as one of the typical early Indo-European settlements, the remains of fifteen beavers were recovered that suggests deliberate hunting rather than chance encounters. It has also been recovered from Poland during the Neolithic in considerable numbers. The general range of the beaver in the Neolithic period extended from Britain (but not Ireland despite the evidence for 'beaver' in a tribal name) on the west across Siberia; however, the southern limits are generally set north of the Mediterranean (although the beaver has been claimed for Iberia), Anatolia and the area north of the Caspian and Aral seas. Its lexical retention in Iranian is not unexpected since the territory of some of the eastern dialects could still include the beaver. In the Avesta the beaver is associated with the goddess Anahita. Its absence from the Indian subcontinent explains not only the loss of PIE bhebhru- 'beaver' but also the morphological gap which permitted the creation of bahbru- 'mongoose'.

See also MAMMALS. [D Q A., J. P.M.]

Further Reading


BED

*leghes- ~ *lóghos 'place for lying, bed, couch' [IEW 658–659 (*legh-); cf. Wat 35 (*legh-); GI 29 (*lec*b); Buck 7.42; BK 587 (*lag/~/*lag-)]. From *leghes-: MBret lech (< *legh-s-o-) 'place', Grk λέχος 'bed, bier'; from *lóghos: ON lag 'layer, place', Rus лож 'ravine, SC лож 'lair, den; riverbed', Alb lag 'city precinct, neighborhood' (-je is a secondary suffix), Grk λέχος (< *legh-~o-) 'place for lying, ambush', Tochā lák 'riverbed', lake 'bed, resting place', Tochā leke ~ leki 'bed, resting place'. Other formations are seen in Olr lige (< *leghom) 'act of lying down; bed, couch, grave', Wels lile (< *legho-) 'place', Lat lectus (< *legho-) 'bed, funeral couch', OE leger 'lying, illness; couch, bed, grave' (> NE lair), OHG leger/couch, grave', Goth ligrs 'bed, couch' (< *legh-ro-), OHG lehtar 'womb; placenta', Grk λέχτρον (< *leghtron) 'couch, bed, marriage bed'. Cf. Grk λεχτρον 'partner of one's bed, wife', SerbCS su-logu 'wife' (both < *sqm-logho- 'lying together'). From *legh- 'lie down'.

*melitih- ('honey-bee'). [IEW 116 (< *bhehi-); GI 516 (*bhi-~k-~); Buck 3.82; BK 27 (*bay/-~bay-)]. OIr bech 'bee' (also 'wasp' in compounds), Wels beleg 'drone' (< Proto­Celtic *빅조-), ON by 'bee', OE bēo 'bee' (> NE bee), OHG bīo 'bee' (< Proto-Gmc *bigwa-), OCS bīčela (< Proto-Slav *bike-lā) 'bee'. With a different, probably o-grade is Lat fūcus 'drone'. With a different suffix the Baltic cognates: OPrus bitte 'bee', Lith bīte 'bee', Latv bīte 'bee' (< *bhih-t-ih-). Distribution indicates that this word was confined to the north-west part of the early IE world. The word appears to be formed from *bhehi- (h-): strike, attack'.
'honey-bee'. A late term shared by two contiguous stocks of the center of the IE world and based on the word for 'honey'.

*dhren* - 'drone' (<buzz). [IEW 255 (*dh-er*).] OE *drôn* 'drone' (>NE *drone*), OHG *tréno* 'drone', Grk *θρόνας* 'drone' (cf. also *τενθρίνη* 'hornet', *ἀνθρίνη* 'wood-bee', *θρίνος* 'lament for the dead, keening'). The presence of a specialized term for a male bee, albeit limited to the west and center of the IE world, may be due to the observation that in summer some bees gather at the entrance of the hive to fan the honey and that in the autumn dead male bees are at the entrance of the hive whence they have been expelled to reduce the population in the winter.

*kmbhp-hr* - 'drone'. [IEW 634]. OHG *humbal* 'drone', Grk *κυψῆν* 'drone'. At best a possible late IE isogloss.

The geographically confined terms for the 'bee' suggests that we are not in a position to reconstruct a term for honey-bee, *Apis mellifera*, to PIE itself. Nevertheless, the existence of reconstructed terms for 'honey' and 'wax' clearly indicates that the early IE-speakers were familiar with that insect and her works.

Races of *Apis mellifera* are widely disseminated through Europe and the forested areas of western Asia as well as southwest Asia, Iran and India. They are, however, absent from the desert areas east of the Caspian which was a likely staging area for the migration of Indo-Iranian tribes southwards. Consequently, the absence of cognate terms for 'bee' and 'honey' and the shifts in meaning from 'mead' that are found in most of the Indo-Iranian languages is not entirely unexpected.

The exploitation of bees by human communities probably goes back to the earliest forms of hominids as primates today, as well as many other animals, have been gathering honey for millions of years. The earliest representational art of honey gathering occurs at about 7000 BC in Spanish rock art and hives are depicted in Egyptian art from the middle of the third millennium BC.

The question of "domestication" is moot, for bees were not domesticated like other animals, even when kept for their honey but merely lured into thatched skeps, artificial dwelling places known to Hesiod (*Theogony* 593-599), until enough honey was produced to make the destruction of the skep profitable. Destruction of the habitation site, however, frequently caused the bees to relocate, and one spell (Anglo-Saxon Poetic Records 6 125) records the magical attempts to avert their relocation at an inconvenient distance. Pliny's *Natural History* records the complementary folk custom of attracting wild bees with dead carcasses.

See also Honey, Hum, Insects, Wax. [M.E.H.]

Further Readings


**BEECH**

*bhehagos* 'beech (Fagus silvatica, *F. orientalis*). [IEW 107-108 (*bhág-0*); Wat 5 (*bhág-0*); GI 533-535 (*bh₃̀ίhko*), Buck 8.62; Fried 106-115]. Gaul *bágos* 'beech', Lat *fagus* 'beech', ON *bôk* 'beech', OE *boc* 'beech; written document, book' (>NE *book*), béce (<Proto-Gmc *bôkjo-*) 'beech' (>NE *beech*), OHG *buoh* 'written document, book', *buohha ~ buoeha* 'beech', Rus *buz* 'elder', Alb *bung* (<*bhehagnos*) 'oak', Grk *φυηγός* 'oak'. A word of the west and center of the IE world.

The term for 'beech' is at once a basic and accepted component of the early IE vocabulary, and the subject of much controversy as to its actual form. Critical reflexives (with typical divergent vocalisms) include Grk (Attic) *φυηγός* 'oak', ON *bôk* 'beech', and no less than eleven Slavic forms such as Sc *haz/ basa*, all of which mean 'elder'. Many of the Italian, Germanic and Greek forms argue for (long or short) a. Almost all forms indicate an initial *bh-*, the Slavic, a palatal *g*, and the Greek, Germanic and Italic, a feminine o-stem, thus *bhehagos*.

The semantic vicissitudes of these arboreal words include the metathetical shift to a) 'hot lye or buck' (MHG *büchen ~ büchen*), reflecting one use, and b) 'bookstaff' or 'letter' (OHG *buohstap*), and even 'book' (from OHG *bôc* 'book'). The smooth gray bark seems to have been used for writing, especially in religious contexts, e.g., the beech was sacred in the groves of the Alban Hills dedicated to Dôdôna. Metaphorical shifts include the following: a) three varieties of elder in the Slavic area on the basis, presumably, of the bark, the bright green oblong leaves, edible fruit, and the overall shape (a missing link of sorts provided by the borrowed Baltic terms which denote either 'beech' or 'alder'); b) 'oak' in Greek and Albanian on the basis of such similarities as the edible nuts and, possibly, a religious taboo placed on the 'oak' term so that the 'beech' word "filled the gap". Despite the peregrinations of meaning and the variations of form, especially the vowel, the distribution of stocks exhibiting cognates for this word could suggest that IE *bhehagos* referred to the common beech (*Fagus silvatica* Linnaeus).

The beech has long been regarded as a critical marker of the location of the IE homeland. The argument, simply stated, observed that whereas a term for 'beech' could be reconstructed to the PIE vocabulary, the historical distribution of the beech was limited to the territory west of a line from Kaliningrad (Konigsberg) on the Baltic Sea to Odessa on the Black Sea. This distribution might then be employed to demonstrate that the IE homeland must also lie to the west of this line (generally, it was argued, in northern Europe) and that a homeland north of the Black or Caspian seas must be excluded. The argument rests on three assumptions—that *bhehagos* actually meant 'beech' rather than any of its other semantic reflexes, e.g., 'oak', 'elder', that *bhehagos* could be attributed to PIE antiquity rather than a later dialectal status, and that the assumed distribution of the beech in prehistory was correct.

The first assumption, that *bhehagos* actually indicated
the 'beech' rather than either a different tree or a taxonomically broader class of trees that may have involved a number of species has been challenged. As both the Alb bung and the Grk πυμόκ both refer to the 'oak' while the beech is quite common in the regions of both these stocks (it is the second commonest tree in Albania), the motivation for a semantic shift from 'beech' to 'chestnut oak' is by no means clear. As for the second assumption, the distribution of cognates for *bhehatos are limited to languages of the west and center of the IE world and there are no grounds for asserting greater antiquity. Attempts to adduce potential Iranian cognates such as Kurdish būz 'elm' to this series have been universally rejected.

The third assumption concerns the prehistoric distribution of the beech. There are two main species of Fagus in areas relevant to the earlier distribution of the Indo-Europeans. The most widespread is Fagus silvatica the 'common beech' which today may be found across much of Europe, being absent as a native plant only in northern Scandinavia, much of the British Isles, and the southern Mediterranean (southern Iberia, southern Italy, southern Greece). The more restricted Fagus orientalis is native to Greece and the Balkans and can also be found over northern Anatolia and the Caucasus. In addition to its palynologically attested distribution the beech is well-known from archaeological contexts where it was employed for the production of implements, e.g., oars, handles, shuttles. The nuts of the beech were also a nutritious source of edible oil and mast for pigs since the Neolithic period onwards.

The spread of the beech after the end of the last Ice Age can be traced across Europe where the initial finds are confined to southern and central Europe. By c 6000 BC the beech was largely confined to northern Greece, the Balkans and the Alpine region with expansions westward into northern Italy and towards south and central France. By c 4000 BC the beech may be found as far north as southern Germany and Romania. By 3000 BC, the beech would have penetrated further north into southern Poland and by 2000 BC the beech would have reached the Baltic Sea and northern France. Despite many claims to the contrary, this temporally dynamic spread of the beech offers little comfort to any putative solution to the IE homeland problem. In the area of Asia where we believe the beech was quite native, i.e., Anatolia to northern Iran, it is linguistically unattested. Its heartland in Europe was largely confined to Greece and the Balkans, the very territories that provide the meaning 'oak' rather than 'beech'. In those regions where IE stocks do attest the meaning 'beech', the tree itself seldom appears earlier than the Bronze Age, i.e., clearly after the period of PIE disintegration/IE expansions. Its sensational spread north and westwards from its original core area during the Bronze Age (c 2500–1000 BC) may correspond roughly
to the expansion of some IE peoples into western Europe as the vast primeval forests of beech and oak had been established in Gaul and Germany but the concatenation of assumptions required to press the "beech line" into an argument concerning the earlier location of the Indo-Europeans would appear to be exceedingly dubious.

See also Trees. [PF, J.P.M.]

Further Readings
Lane, G. S. (1967) The beech argument: a re-evaluation of the linguistic evidence. KZ 81, 197–212.

BEER

*ḥ₂elut- 'beer'. [IEW 33–34 (*alu-); Wat 2 (*alu-); GI 838].
ON of 'beer', OE eal (gen. ealop) 'beer' (> NE ale), OPrus alu 'mead', Lith alus 'beer', OCS olu 'beer', olovina 'dregs of beer', Rus ul 'beer', any alcoholic beverage except wine (both Baltic and Slavic words have at times been taken as borrowings from Germanic but there is no particular reason to do so), Oss eliuton 'beer'. As a word for 'beer', it is confined to the northwest of the IE world with an outlier in eastern Iranian. At least late IE in date.

There are two proposals for connections outside this area. One would see *ḥ₂elut- as the 'bitter drink' and related to Lat alūmen 'alum', and Grk ἄλοδομος 'pungent, bitter'. The second proposal is that this word is the same as Runic alu, a magical term of some sort, and ultimately related to Latv a hent 'be beside oneself', and Hit ahunat- 'bewitch, hex' (based on an unattested *alwanzahh- 'affected by sorcery' < *ḥ₂elusno- < *ḥ₂elusno-). The notion would be, then, that beer induced a "high" wherein the drinker was infused with a sort of magical power.

The origin of beer is difficult to date although on theoretical grounds alone it has been thought to date from the origins of agriculture and the earliest domestication of barley by the ninth millennium BC, i.e., an inevitable (and fortuitous) discovery. On the other hand, the earliest reputed evidence for beer derives from the site of Godin Tepe in western Iran where a jug, dated to c 3500–3100 BC, was claimed to contain the residue of beer and a vat recovered from the Early Dynastic (c 3500–3400 BC) site at Hierakopolis in Egypt yielded evidence of beer residue (wheat, barley, dates, grape pips and signs of fermentation). Other evidence are the pictorial representations of brewing vats in Pre-dynastic Egypt and straws for straining and drinking beer that are known from Mesopotamia c 3200 BC.

Generally, evidence for the existence of beer in Europe consists of either sprouted grain, usually but not invariably barley, or the presence of aromatic plants employed to flavor beer. In Europe the former is not commonly known before the first century BC (and may be due merely to storage in damp conditions) while the latter, generally in the form of sweet gale/bog myrtle (Myrica gale) or hops (Humulus lupulus), is not found until the early Middle Ages. This "hard" archaeological evidence tends to be much later than is suggested by linguistic evidence or the presence of vessels believed to have been employed in the consumption of alcoholic beverages which begin to appear in Europe c 3500–3000 BC although they are perhaps more likely to have been associated with the drinking of mead rather than beer. It is clear that beer was consumed by various populations during the Iron Age, e.g., Xenophon records it in Anatolia while Dionysius of Halicarnassus (Roman Antiquities 13.10) claims that the Gauls drank a 'foul-smelling liquor made from barley rotted in water'. As beer does not appear to have been commonly consumed in either the Aegean or Italy in classical times, the absence of cognate terms in Greek and Latin occasions little surprise.

See also Dregs; Ferment; Honey; Juice; Sacred Drink, Wine [D.Q.A.J.P.M.]

Further Readings

BEETLE see INSECTS

BEFORE

*ḥ₂enti 'in front'. [IEW 48–49 (*anti); Wat 3 (*ant-); GI 136 (*H₂antiβ-); BK 414 (*h₄ap-t₂/*h₄ap-t₂β*; *h₄ap-t₂/*h₄ap-t₂*). Lat ante 'in front of', Lith ant 'on, upon', at', Grk ávri 'instead of, for', ávta 'face to face', Arm and for', Hit hanti 'facing, frontally, opposite, against', hanza 'in front', handa (to the) fore', OInd anti 'opposite'. These are all frozen case forms of a noun which survives in Lith antis 'breast(s)', Hit hant- 'forehead, front', TochB ànte 'brow'. Cf. also Lat antia 'forelock' and Grk ávrioς 'opposite'. Old in IE.

*pph₂eh₁ in front of; before of (time). [IEW 813 (*pph₂); Wat 49 (*ppad-); BK 46 (*p₁∅ta/*p₁∅ta∅-). OE lora 'in front of, before' (> NE lora), OHG fora 'in front of', Goth fura 'in front of', Grk ἀφά 'by, near, alongside of, beyond', Arm ar 'near, at', AV para 'before', OInd pura 'formerly, before'. Old in IE. From *per 'through' (through and therefore 'beyond, out front of').

*pph₂eh₂ in front of; before of (time). [IEW 811–812 (*ppa); Wat 49 (*ppa-i-). OIr anair 'from the east' (the east is in front of anyone who orients him/herself towards the rising sun as appears to have been the common PIE custom), Gaul are- 'before, by, east', Lat praë 'before', OPrus prei 'to', Lith prië 'by, at, near, to; in the time of', Grk ἀφά 'before', OInd par∅
'thereupon'. From "per 'through' ('through' and therefore 'beyond, out front of'). Old in IE. 

*pro 'forward, ahead, away'. ['IEW 813–814 (*pro); Wat 49 (*pro)]. OIr ro- (verbal prefix), MWels ry (verbal prefix), Lat pro- 'pro before, in front of, for', OGH fir- 'before', Goth fri- 'before', OPrus pra 'through', Grk πρό 'in front of, in defence of, forward, before (of time)', Hit pari 'forward, further, Av frā 'in front of', OInd prā- 'before'. From "per 'through' ('through', therefore 'ahead of').

See also Adpreps; Behind; Direction; Face; Forehead. [D.Q.A.]

BEGIN 

*neik- 'begin'. ['IEW 761 (*nēik-)]. OPrus neikaut 'change', Lith už-ninkū 'begin', ap-ninkū 'assault', OCS vāz-ninknti 'regain consciousness', Grk χείονος 'quarrel', Hit nini(n)k- 'start up, mobilize'. Though only sparingly attested, the geographical distribution of that attestation guarantees PIE status.

See also Set in Motion. [D.Q.A.]

BEHIND

*gho- 'behind'. ['IEW 451–452 (*gho-); Wat 23 (*gho-)]. Lith až(ū) behind', Lat vzh 'behind' (< Proto-Baltic *ažo), Rus za 'by, to', Arm z (preverb 'with regard to'). At least a late IE preposition and particle.

See also Adpreps; Back 2. [A.D.V.]

BELCH

*h2reug- 'belch'. ['IEW 871 (*reug-b ~ *reug-g); Wat 55 (*reug); Gi 430–431 (*reug*); Buck 4.57]. Lat erūgo 'belch', OE rocettan 'belch', MHG ite-rücken 'ruminate', Lith riugumi → rūgi 'belch', Rus rygat 'belch', Grk ἐρεύγω 'μαι ἐρεύγαντα 'vomit', Arm orcam (< orucam) 'belch', NPers (noun) ə-rûy 'belch'. Widespread and old in IE. Probably unrelated to words for 'roar'.

See also Spew. [D.Q.A.]

BELIEF

*kred-dheh1- 'believe' (< *place heart*). ['IEW 580 (*kred-dhē); Wat 30 (*kred-dha-); Gi 701 (*kred-dhē); Buck 17:15]. OIr creid 'believes', Lat crēdō 'believe', Hit k(a) ratan dai - 'place heart', Av zrādā 'believing', zrādātāti 'believing', OlInd sārā dāhāti 'believes, has trust in', sārā dāhā 'faith'. Although all the terms are generally regarded as cognate and indicative of PIE status, there has been considerable debate over the deeper etymology of the expression since it has long been recognized that the 'heart' element of this reconstruction is problematic. The Old Indic word for 'heart', for example, is hṛtd- and the Avestan is zarád- and hence the first element of the Old Indic compound, sārād- cannot be easily derived from the word for 'heart' (though OlInd *s*-[Av *s*] is what we would expect the word 'heart' to begin with on the basis of other IE languages). Emile Benveniste argued that the first element in the expression was *kred- 'pledge, stake invested with magic power'. Such a reconstruction is based on both linguistic arguments and the use of the term in Old Indic. In the Ṛgveda 'belief' involved prayers to the gods in which the human supplicant put trust in a deity, particularly Indra, in the certainty that the trust would be remunerated. The context of the supplications were generally those involving some trial, e.g., trust in Indra who would fight the demon Vṛtra. Moreover, Benveniste maintained that there were no other parallels in the early IE languages for seeing the 'heart' as the organ of belief or trust. However, there is no trace otherwise of *kred- 'pledge, stake invested with magic power' and the majority of linguists has continued to see *kred- as a form of 'heart' (which is fully supported by the expression in Hittite). Even if Benveniste were right, we must assume the influence of the form of the Avestan word 'heart' on the word for 'believing' since the latter would otherwise be *sázdā-. It may be worth noting that the descendant of the PIE word for 'heart' in Tocharian A means 'will'.

*hrehr- 'trust in, believe'. ['Wat 45 (*h-); Gi 706 (*Ho-)]. Lat ēmēn 'sign, omen' (< 'declaration of truth'), Hit hāiti 'believe, take as truth' (the Hittite might either reflect an athematic *hrehr- ti or an iterative-intensive *hrehr-eje-o-o-). (One of the laryngeals must be *h2-, if it is the second laryngeal, then the first must be *h2-j). Perhaps also here are OIr oeth 'oath', ON eðr 'oath', OE ēb 'oath' (> NE oath), OHG eit 'oath', Goth arij 'oath' if the Celtic and Germanic reflect *hrehr-i-to-. It has been suggested that the Celtic, Germanic and Hittite words belong together from a PIE *hrei- but that forces one to leave aside the otherwise attractive Lat ēmēn. On the other hand, it has also been suggested that the Celtic and Germanic words for 'oath' are derivatives of *hrei-gó 'i.e., one goes about a fire in swearing an oath; cf. the formally identical Grk ὁρω 'course, fate'.

*peri-steh2- 'belief'. ['Del 79]. OIr ires(s) 'believe', Parthian parast 'ardor'. From *peri- 'before' + *steh2- 'stand' (i.e., 'hold oneself before'). Perhaps independent creations in the two stocks.

See also Heart. [D.Q.A., J.P.M.]

Further Reading


BELT see GIRD

BEND

*h2enk- ~ *h2eng- 'bend an object so that it stays bent'. ['IEW 45–46 (*ank- ~ *ang-); Gi 626 (*Hank)x]; Buck 9.14; BK 395 (*han-/*han-). With e-vocalism: OIr ečath 'fishhook', Wels angad 'grip', ON angu 'spine', OHG ango 'fishhook', Lith anka 'loop', Av akha 'hook', OlInd ācātī 'bends', ankas- 'bending, curvature', Toča aścāl 'bows', with e-vocalism: Lat uncus 'bent', OE anga 'prickles', OCS ogok 'hook', Grk ἄγκος 'barb', MPers ančītan 'bends'. Hit hinkz < 'bows (reverentially), curtsies' presents difficulties since one would expect *ha- as the outcome of *h2e-; however, O. Lindeman
suggests that the form may have had an original diphthong as is evident in the Old Hittite spelling ha-in-kan-ta. The broad distribution of cognates makes the form securely reconstructible to PIE.

*indhendh*—bend (one's body'). [IEW 114 (*indhendh-); GI 133 (*pêdêh-)]. ON bidja 'ask, pray', OE biddan 'ask' (> NE bid), OHG bitten 'ask, request', Goth bidjan 'ask, pray', Lith bādas 'hunger', Alb bind 'convince', Oldn bôdhathe 'presses', TochA poto 'honor', TochB pauto 'honor'. The correspondence between Oldn jitu bâdha 'bending the knees' and OE cnēowegeb, O Sax kēo beda 'prayer (with bended knee)', strongly suggests that the Germanic forms belong here. On the other hand, it is also possible to derive the Germanic forms from *geu- (*gehxu-?), see also in Gmc. *strê, *strô, *strō (in TochM *stooped', Arm *kâmja 'pulleys at top of mast', Wat 2 heah 'goblin', Lucca Kći.11C 'bend (of terrain)'. Wat 34 jtiu badh- (*geu-); *ask, pray', OE *badhate 'bend, tum'. KOMo~(noun) *geu-lo-s (*bhedh-) 'arch'.

*bend*—desire'. Even with the Germanic forms *bend*.

klêng- 'kneel', 'tilts, bends', Latv *sfe* cneowvitex agnus castus, *klenk-); lank (*law-/*lôw-)

BEND

as is evident in the Old Hittite spelling *keu-k-.

*BEND

The broad ground, hill' provides an intermediate semantic step between the original meaning 'curve' and the Germanic meaning 'high'. These forms, as well as those forms meaning 'boil', 'hump' and 'breast' (if Oldn kuca- is indeed related) suggest that PIE form referred to the curve of a protuberance or hill. The Baltic forms meaning 'demon, devil' may reflect either an association between hills and otherworldly creatures (cf. OIr stìd 'fairy mound', Æs Sîd 'fairies') or an association between physical unattractiveness ('boil', 'hump') and evil character.

*klêng-*—bend, turn'. [IEW 603 (*klêng- — *klenk-); Wat 31 (*klêng-)]. Lat clingō 'girl', OFrench ('Gmc. *flichur 'turn aside, flinch', ON hlekkr 'ring, chain', hlekjas 'be impeded' (< 'be fettered?'), Nce hlekja 'put in fetters', OE hience ~ hlinc 'link, chain of links, coat of mail (made of links or rings)' (> NE link), OHG (h)lanka 'hip', Lith klenkti 'goes fast', Latv klencê 'limps', OCS kleć 'kneel', TochA klânk 'mount, setting', TochB klêne 'mount, setting', klânk 'doubt'. The semantic value of Latv klencê 'limps' is explicable if the Old Norse form hlekjas 'be impeded' expresses a notion of fetters. Distribution suggests PIE status.

*kwelp*- arch'. [IEW 630 (*kwelp-)]. Wat 34 (*kwelp-). On hvella 'to arch', OE hweall (noun) 'vault', behwielan 'arch over', MHG welben 'to arch', Grk κόλπος (noun) 'fold, hollow', κολλός 'billow'. The distribution suggests a word of the west and center of the IE world.

*lêng-*—bend'. [IEW 676 (*lêng-)]. Lith lingvotis 'soar, hover', Latv liguot 'swing, rock', Slov lagac 'bend', Alb lêngor 'flexible', Oldn rangan 'moves here and there', TochA BANk-hang' (< *dangle'). Distribution suggests PIE status.


*lêrd*—*lord*—a crooked? [IEW 679 (*lerd-)]. Wat 36 (*lerd-). *ScotsGaelic lorcach 'lame', OE be-lir-tan 'to deceive, cheat', Grk λοσδός 'steepled', Arm lôrc 'k-twisted bodies'. The Armenian form is a hapax but seems to refer to physical deformity of some sort. The underlying form is uncertain.

*lêug-*—bend; bend together, entwine'. [IEW 685—686 (*lêug-)]. Wat 37 (*lêug-); Buck 9.14; BK 584 (*law-/*law-). OIr lo-long- 'sustains, supports', Lat luctō 'struggle, wrestle', ON lokkr 'lock (of hair)', OE locc 'lock (of hair)' (> NE lock), OHG loch 'lock (of hair)', Lith lûgnas 'flexible, pliable', Grk λυγεζ 'fold, bend', λυγε 'vixen agnus castus, a kind of willow tree'. OE locc 'lock of a door' (> NE lock) (< a bending together, shutting and, possibly, the Lat luctō 'wrestle' (< 'entwine limbs in a struggle') express the notion of 'entwining' while the Greek reference to the 'willow', a plant tree whose branches were often twisted into containers, further supports this semantic field; if this semantic shade was present in the proto-language, then the meaning of the Old Irish form could be explained as...
well since things that are entwined support each other.

bend 'bend' (pres. *németi). [IEW 764 (*nem-); Buck 9.14; BK 576 (*nem-/*nem-)]. Wels nant 'valley', Gaul nanto 'valley' (Celtic < *napt- 'that which is bent'). 

Av *namati 'bends', Olnd *nami 'bends', bows, submits oneself', TochAB *näm-a- 'bend', TochB *ram- 'bend', deflect (with distinction of the two nasals). Cf. also the derivative *nèmes- 'bowing': 

Av *namah- 'honoring', *namasya- 'render homage', Olnd *namas- 'bow, obeisance, referential salutation, adoration (by gesture or word)', *namasyati 'shows honor'. The same phonological and morphological form is seen in Lat nemus 'sacred grove' and Grk *výmós 'sacred grove', and in a different morphological shape in OlI naimed 'sanctuary', Fris *nimidas 'sacred groves', though whether these words belong here (as *where one honors the gods’) or not is unclear. Even without the ‘sacred grove’ set, this word’s geographical distribution (from Ireland to the eastern margins of the IE world) would appear to guarantee PIE status.

*bend 'bend', [IEW 802–803 (*pel-); Wat 48 (*pel); GI 611 (*pel-); Buck 9.15]. *plo-: OlI diabul 'double', Lat simul *single’, duplus 'double', OlI fel 'belly, stomach' (< *fold’), Goth *twils 'doubt’, Alb pale 'fold’, Grk πέπλος 'material, cloth (worn by women and falling in folds’), ἀπλός 'single’, διπλός 'double’, *pol-t-, *pl-t-: OlI alt ‘joint’, ON falda ‘to cover one’s head’, einaldr ‘simple’, OE fealdan ‘to fold’ (> NE fold), anfæld ‘simple’, Goth falban ‘to fold’, *ain-falp-s ‘simple’, Olnd puta- (noun) ‘fold’. The use of ‘fold’ to express the idea of multiplication, as seen in Lat simulplus, duplus, etc., is quite straightforward: folding something in half “doubles” it. The distribution suggests PIE status.

*bend, swing'. [IEW 1047–1048 (*sung-~*senk-); Wat 68 (*sung(w)-)]. OlI seng ‘thin’, OlI sung ‘slim, slender, thin’, OE swancor ‘slim, flexible’, swigan ‘whip, strike, swing’, OHG sung ‘swing’ (< Gmc *sungw-), Olnd svajate ‘embraces, clasps’, perhaps TochB suk ‘hand over to’, TochB sūkāsk- ‘dangle’ (i.e., ‘let swing’). It is not certain that the Old Indic and Tocharian forms are cognate with the Irish and Germanic forms; if they are not, then the root is almost certainly a late, dialectal development in western European; otherwise, if the Old Indic and Tocharian forms are part of the cognate set, then there is a case for PIE status. The meaning ‘thin’ must have developed from the meaning ‘flexible’.

*bend; make a sudden veering motion'. [IEW 1148–1149 (*qe-n-g-); Wat 76 (*weng-)]. OlI vakka ‘to stray, wander about’, OlI wincian ‘to blink’ (> NE wink), wancol ‘inconsistent’, OHG winchan ‘shake’, OPrus wīngiskan (acc. sg.) ‘trick’, Lith vęngi ‘to try to avoid’, Alb veng ‘fellow (of a wheel)’, Olnd vāngati ‘limps’. The Old Indic form is questionable since it is unattested in words; otherwise, the cognates are all found in western languages, suggesting the possibility of a late dialectal development. The semantics of the Germanic and Lithuanian forms suggest a motion which is sudden and which veers from a linear path.

*bend a pliable object'. [IEW 1130 (*weik-~*weig-); Wat 75 (*weik-)]. Lat vincio ‘bind, tie’, Lith vykis 'tape-worm', Lat vikt ‘bend, fold’, Grk eîkô ‘yield, give way’, Olnd vicî ‘deceit?’; *ueig-: ON vikja ‘bend, turn’, OE wic ‘wych elm’. The relationship between the Germanic forms with final *g- and the other forms with final *k- is unclear. Also, the meaning of ‘deceit?’ (< *bent’) for the Old Indic form is not accepted by many.


See also Circle; Crooked; Curve; Elm; Valley. [M.N.]

Further Reading

BERRY

*hûgoheh-s- ‘berry, fruit’. [IEW 773 (*ôg-); Wat 45 (*ôg-); GI 558; Buck 5.76]. Lith uoga ‘berry’, Latv uôga ‘berry’, OCS jâgođa ‘fruit, berry’, Rus jâgođa ‘berry’ (the Baltic and Slavic forms show long vowels because of the regular lengthening of any vowel in these stems before a PIE voiced stop), TochAB oko ‘fruit; result’. Probably also belonging here are NE aïre ‘sloe’, Wels eirin(en) ‘plum’ (both < *agron-), aeron (< *agron-) ‘fruits, berries’, Bret irin ‘sloe’, ON akarn ‘fruit of wild trees’, OE aecom ‘nut, mast of trees’ (> NE acorn), Goth akaran ‘fruit, result’ (< Gmc *agron), NHG buch-heckern (< *-agron-) ‘beechnut’. Finally, it may be that the underlying verb survives in Arm aèm (< *hûgoheh-s-) ‘grow’. All of these words taken together is evidence for a pan-IE lexeme; *hûgoheh-s- by itself is central and eastern in its distribution.

*hûouheh-s- ‘berry, fruit’. [IEW 297 (*et-); Wat 45 (*ôg-); GI 541 (*oi-wo-); Buck 5.76]. Lat ûva ‘bunch of grapes’, bunch of (other) fruit or flowers’, Grk ὀά (< *hûouheh-s-) ‘service-tree (Sorbus domestica)’, òôv ‘service-berries’, Arm aygi (< *hûouheh-s-) ‘grapevine’. At least a word of the IE family of the IE world. Perhaps from a *-hêi- ‘red’ (because of the red or purplish color of the berries involved) and so ultimately related to *hûi- ‘yew’.

*stôqs (< *stôqs) ‘berry, fruit’. Lat fraga (pl.) ‘strawberries’, Grk πòq (< *pòq) – πòq (< *pòq) from an earlier paradigm πòq (< *pòq) ‘grape, berry’. Geographically much more restricted than the previous words but one that is archaic in shape. Possibly a late IE word.

See also Food; Mulberry; Plants; Wine; Yew. [P.F. D.Q.A.]
between', Olnd antar 'between'. From *hjon-in'.

See also ADPREPS. [D.Q.A.]

BEYOND

*helnos 'beyond, yonder'. [IEW 24-25 (*al-); Wat 2 (*al-); Buck 13.13; BK 431 (*alr-/*olr-). Olfr oll 'ample (over)', OlLat ollus 'that one', Lat uls 'beyond, ON allr 'all', OE all 'all (> NE all), OHG all 'all', Goth alls 'all', OCS lani 'in the past year'; perhaps also Lith aliai 'all'. This element also appears in the names of Celtic matrons such as Ala-teivia, Ala-gabiae, etc.

The root is especially concentrated in the Germanic languages, though extended forms from PIE *helnos 'other' are also found, e.g., Olfr aile 'other', Lat alius 'other', Goth alic 'other', Olfr elles 'in another manner (> NE else), Grk αλλος 'other', Arm ayl 'other', TochA الة-k 'other', TochB الة-к 'other'. The distribution supports PIE status.

See also ADPREPS. [A.D.V.]

BIND

*bhendh- 'bind'. [IEW 127 (*bhendh-); Wat 7 (*bhendh-); Buck 9.16; BK 26 (*binr-/*benr-)]. On binda 'to bind', OHG bintan 'to bind', Goth bindan 'to bind', Lith bentaras 'companion', Grk πεισμα 'rope, cord', πεψος 'father-in-law', AV bandayeti 'binds', Olnd badhinati (>*bhendh- 'binds', βάνδοο 'kinsman, connection, kinship'. This root is securely reconstructible to PIE. The nominal forms *pehaimi, *pakej 'other', Arm aile 'other', TochA الة-k 'other', TochB الة-ک 'other'. The distribution supports PIE status.

See also ADPREPS. [A.D.V.]

*bhendh- 'bind'. [IEW 1150 (*bhendh-); Wat 76 (*w-)]. Lith vérta 'thread (a needle)', Lat vérre 'thread', OCS vūveři 'push in, drive in', Rus verbatti 'prick', Alb vbqer 'hang up', Grk αείπω 'attach, lift up, suspend'. It is debatable whether the Greek form belongs with this set, if not, then there is no reason to reconstruct the initial laryngeal nor to

*pehaimi, *pakej 'other'. The distribution supports PIE status.

*bhendh- 'bind fast'. [IEW 254 (*dhergh-)]. Lith dirži 'be tough, hard', dirža 'belt, girdle', Av darazayeti 'letters, binds fast', Olnd dřıyati 'is strong, fast'. The Lithuanian nominal form and the Indic support reconstructing the meaning 'bind fast' for this cognate set.

*bhendh- 'bind fast securely'. [IEW 787-788 (*pák- - *pák-)]. Wat 46 (*pág- - *pák-); GI 123 (*pákak- - *pákak-). Lat pango 'drive in', ON fa 'capture', OE fó 'capture', légan ('pákej-e-o') 'join, bind, unite', OHG fáhan 'capture', Goth fahian 'capture', Grk πάγον 'plant, make solid', Olnd pásâyati 'binds'. Perhaps one might also add Lat pāx 'peace' (>'a binding together by treaty'), pácsc heart 'agree', págus 'district, province; country (as opposed to the city) (>'a boundary staked out on the ground'). The variation in the voice of the root-consonant (>*-k) which may also be observed in other examples, e.g., *peq- - *pekt 'draw, color', may find its origin in the athematic paradigm such as 1st sg. *pehaqm, 1st pl. *pæqm, 2nd sg. *peh, 2nd pl. *pæk, 3rd pl. *pæk 'draw, color'. The Latin and Germanic forms point to the presence of a nasal infix; the Greek forms show the suffix -nu. The Old Indic verb is a derivative based on the noun pása- 'following the track of blood' (>'a dog, bloodhound').

*bhendh- 'bind fast'. [IEW 254 (*dhergh-)]. Lith dirži 'be tough, hard', dirža 'belt, girdle', Av darazayeti 'letters, binds fast', Olnd dřıyati 'is strong, fast'. The Lithuanian nominal form and the Indic support reconstructing the meaning 'bind fast' for this cognate set.

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*bhendh- 'bind securely'. [IEW 127 (*bhendh-); Wat 7 (*bhendh-); Buck 9.16; BK 26 (*binr-/*benr-)]. On binda 'to bind', OHG bintan 'to bind', Goth bindan 'to bind', Lith bentaras 'companion', Grk πεισμα 'rope, cord', πεψος 'father-in-law', AV bandayeti 'binds', Olnd badhinati (>*bhendh- 'binds', βάνδοο 'kinsman, connection, kinship'. This root is securely reconstructible to PIE. The nominal forms *pehaimi, *pakej 'other', Arm aile 'other', TochA الة-k 'other', TochB الة-ک 'other'. The distribution supports PIE status.

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assume anything other than late dialectal status.

*kergh-* bind'. [VW 206]. Lith kerši ‘tie, bind’, TochAB kark-‘bind’. The Lithuanian form necessitates a PIE *kergh-* rather than *kerg- since the latter should have had Proto-Baltic lengthening by Winter’s Law. The agreement of Baltic and Tocharian at least suggests late PIE status for this word.

See also Valley, Yoke. [M.N., D.Q.A.]

**Binder-God**

The concept of a binder-god was treated extensively by Mircea Eliade, who devoted a whole section of his *The Sacred and the Profane* to the topic. It originated in the notion that the Vedic god Varuna puts trespassers in bonds, striking them with dropsy. Georges Dumézil devoted one of his early works to the alleged correspondence between the Greek sky-god Ouranos ‘heaven, sky’ and the OInd (Vedic) Vārūṇa, both names derived, according to him, from an IE root *u̯er-* ‘bind’, hence the underlying notion of both deities was the concept of one who bound others (in their power). But this hypothesis led into inextricable complications as regards the Greek term which looks to be a phonological development of an earlier *uorsano-. It has, therefore, been abandoned, and Vārūṇa, whose name is susceptible to many interpretations, is currently linked with the root *u̯er- *speak* (cf. Lat *verbum* ‘word’, NE word) as the master of the sacred word or formula while Grk *Ouranos* belongs with OInd *varya- ‘rain’, hence *yorsanos ‘rain-maker’. There are thus no linguistic grounds for attributing a binder-god to PIE antiquity, at least on the basis of comparative linguistics.

A genuine binder-god is the *regnator omnium deus*, mentioned by Tacitus (Germania 39) as residing in the sacred grove of the Semones. He has been identified in turn with Tyr, Oðinn or a trinal, etymonic deity *Semmo; whoever he may be, no one is supposed to penetrate into the sanctuary unlettered (nisi vinculo lignatus). It is therefore reminiscent of the Eddic Fjöturlundr in the second lay of Helgi Hundingsbana.

See also Priest. [E.C.P.]

**Further Readings**


**Birch**

*bherthgōs* ‘birch’ (Betula pendula). [IEW 139–140 (*bhera-*)], Wat 7 (*bhera-*), Gf 531–533 (*bherH*), Fred. 26–31, BK 16 (*bar-/*bar-*). Lat *færus*/*fraxinus* ‘ash’, ON *björk* ‘birch’, OE *beorh* ‘birch’ (> NE birch), OHG *birh()-ha* ‘birch’, *Prus beere* ‘birch’, Lith *bėrzas* ‘birch’, Latv *bērz* ‘birch’, Rus *bereza* ‘birch’, Oss *beaz* ‘birch’, OInd *bhbrja- ‘birch’. The Germanic, Baltic and Slavic words all derive from *bherthgōs; however, the Latin form is a derived adjective with zero-grade of the root, i.e., *bhtgōs-s-i-no* and Old Indic represents a *bhthgōs. Ossetic is ambiguous as to the original root-syllable vowel.

The name for the birch tree, a traditionally basic component of the PIE vocabulary, is excellently attested in at least six stocks from Europe to Asia. The Italic, here, Latin, reflex *fraxinus* shifted to ‘ash’ (still our Linnaean term today). This extreme shift, like the total loss of any reflex in Greek, was possibly due to the relative scarcity of the birch in Mediterranean climes, except in the highlands—but the ecological argument fails for Celtic and Armenian since the tree in question is present in Britain, Ireland and Armenia. In Celtic the words for ‘birch’ (OIr *beithe*, Wels *bedw(ε)n*, Bret *bezve(n)*) are all derived from *gēt(u) ‘pitch’*. Otherwise, the correspondences are fairly regular in Germanic and Slavic where all refer to the tree. Given the regular correspondence for the initial *bh-,* the medial *g* and a full vowel in the root (with Old Indic indicating a laryngeal), and four words exhibiting a feminine gender, we can posit a feminine *o*-stem as above. Apparently related forms in five stocks strongly suggest an etymological or at least folk etymological or associational relation to the idea of ‘bright, white, brilliant, shine’ and the like. For example, in Iranian we have Oss *bārāz ‘birch’ but Av *braz-* ‘to shine’ or in Germanic there is ON *björk ‘birch’ and bjørnt ‘bright’, OHG *bir(h)tha ‘birch’ and *beraht ‘bright’. More compelling is the fact that the ‘birch’ term in Baltic, Slavic and Germanic is feminine, not only in grammatical gender, but in lexical substitution (she) and cultural-mythological symbolism. The birch was a symbol for the feminine and specifically for young, virginal femininity in PIE times (as it still is today in all the northern stocks and indeed Finno-Ugric and Palaeosiberian languages). Gamkrelidze and Ivanov have suggested that the concept of ‘purity’ is so closely associated with the name of the ‘birch’ that Hit parku-’ritually pure, innocent’ may be derived from the name of the ‘birch’ and provides secondary testimony of the existence of the arboreal term in Anatolian. Such a connection is possible but by no means certain.

The archaeological contexts for the birch in Eurasia are many and varied. Birch bark, of course, was widely employed for the manufacture of containers and as insulation or flooring material or outright construction of houses. Birch tar was also the universal cement utilized in prehistoric times, e.g., birch gum was employed to fix flint arrowheads on their shafts or axes in their sleeves which helps explain the presumed replacement of the word for this tree in the Celtic languages by a term meaning ‘pitch’. Finally, birch fungi was credited with medicinal properties, and because of its hallucinogenic effects, was used by Siberian shamans and perhaps by early Indo-Europeans as well.

There are four main species of the birch in Europe which range from Betula pendula which can stand up to 30 meters high to Betula humilis, a lowland shrub found largely in wetland environments. Tolerant of poor soils, the birch was one of the first trees to spread over most of Europe where subsequently it was replaced by later trees (oak, etc.). Nevertheless, at c 6000 BC the birch could be found from
Ireland in the west across Eurasia. Areas where it is not found would seem to have been limited to Italy south of the Alps and southern Greece. In no subsequent period does birch seriously penetrate Italy which supports the suggestion that Lat fraxinus 'ash' is the result of a semantic shift by IE populations who settled in a relatively birch-less Italy. Betula has been recorded from lake sediments in southwest Anatolia, across the European steppe and also in Kazakhstan where there are also abundant archaeological contexts for birchwood in the Andronovo culture which has long been regarded as ancestral to at least some groups of Indo-Iranian languages.

Although PIE arboreal terminology is very poorly reflected in Indo-Iranian, the terms for 'birch' are very well attested, e.g., Khot brämja-'birch', Wakhi šuz 'birch', Shughni šarzi 'birch', and the distribution of the birch extends at least into northwest India. This wide distribution for the birch suggests that it cannot be seriously employed in delimiting the homeland of the IE language family.

See also Shine; Trees. [PEF]

Further Readings

BIRD

*heuei- (nom. *heueis, gen. *heueis) 'bird'. [IEW 86 (*he-i-); Wat 4 (*swi-); GL 454–455 (*Hwe-); Buck 3.64]. Wels hwyad 'duck', Lat 'bird', Umb (acc.) avif 'bird', Alb vida 'dove', Grk aieîrös 'eagle', Arm haw 'bird, chicken', Av viš 'bird'. Despite the occasional semantic shifts to a particular species, the widespread distribution and similarity to *heod(y)nom, the root indicating 'egg', suggests that this is the probable general term for 'bird' in PIE.

*pipp- 'young bird, nestling'. [IEW 830 (*pipp-)]. Wat 51 (*pipp-). Slow pipa 'hen', Alb bibë 'young aquatic bird', Grk πίνον 'young bird', OInd pippaka 'a type of bird'. To this may be added Lat pipō 'peep (of a nestling)'. The term is surely onomatopoetic but it does provide a standard IE term.

See also Animals; Bird Cry; Birds, Egg. [J.A.C.G.]

Further Reading

BIRD CRY

*kla(n)- 'scream (of birds)'. [IEW 599–600 (*kleng-); Wat 31 (*kleng-)]. Lat clangō 'cry of birds', ON hiakka 'cry of eagle', Lith klągėti 'cackle', Latv kladžēt 'cackle', Grk κλαζω 'resound', κλόγγιδης 'shout, scream (of people and birds), bark or bay (of dogs)'. At least a word of the west and center of the IE world.

*kuw(uk)- 'cry out; cry out as a bird'. [IEW 535–536 (*kuw-)]. Wat 27 (*kaw-). From *kuw-: Wels cuan 'nightowl', Late Lat cavannus 'nightowl', OHG hüwō 'owl', Rus kâvati 'cough loudly', Grk κῆψ (<*kakwak-)* 'tern', OInd kauti 'cries out'; from *kauk-: Lith kauktū 'howl', kaukys 'a bird whose cry was said to foretell a good harvest of flax', Latv kaukā 'howl', Grk κοκάω 'cry, lament', Arm k'uk 'sighing, groaning', OInd kokāyate 'cries out', kōka 'a kind of goose'. Cf. ME hülen 'howl' (> NE howl), OHG huuwilōn 'shout with joy'. Though it is not certain that all the words listed here are related, the distribution may suggest PIE status for this word.


*ul- 'howl, hoot'. [IEW 1105 (*ul-); Wat 72 (*ul-)]. Lat ululāre 'howl', Lith ululot 'shout hello', Grk ιλάω 'bark', OInd ulūti- 'ululating'. Cf. Late Lat ulucus (screech) owl, OInd ulāka- 'owl'. Given the divergence of meaning, these verbs probably represent independent onomatopoetic formations. The agreement of Latin and Old Indic in the words for 'owl', however, is striking.

See also Animal Cry; Crow, Noise; Owl. [D.Q.A.]

BIRDS

The IE people had a large number of bird names, about forty of which have come down to us, surviving in the oldest written dialects, such as Hittite, Old Indic and Greek, and in the numerous other dialects that came later. In their pre-Linnaean minds, these IE tribes grouped birds together in a way which would puzzle us, for the combinations seem odd. In early Indic culture, the swan and goose were seen as one and the same, or at least variants of the same, and were called by a single word hamsa-, no doubt linked together because of the birds' long necks and white bodies. Yet one was a domesticated bird, the other less so. But there were probably secondary terms to modify hamsa- that were added to the root. Though we do not know what modifying term separated the swan-hamsa- from the goose-hamsa-, we do have a special Indic hamsa-, that in the Rāmāyana, was called the kala-hamsa-, literally the 'speechless swan', and this might be a reference to our mute swan, though we can only guess. There were other clusters of roots that would have us suspect that Indic hamsa- was regarded as a heron as well. In other IE languages we find that the eagle and the gull were related, as elsewhere the loon and falcon. Though these perceptions seem incongruous today, we would easily be able to understand such ancient groupings as there are for PIE *ker-, which links variously the crow, raven, grackle, jackdaw, blackbird and even the starling, birds black in color. Or we would have a group linked by the term 'sparrow' which would stand for the small birds from chickadee to finch to warbler.

Not only is it apparent that the Indo-Europeans perceived different groupings of birds under one name but the dialects which inherited the IE proto-form would frequently see fit to change the semantic value of the words. Thus, in some IE dialects, an inherited term for 'owl' would yield a later 'jackdaw', the 'eagle' would become a 'kite', and the
woodypecker' a 'jay'. So pervasive was this switching of designations that we have only four bird names from IE which have survived with the same semantic value in five or more IE stocks: PIE *ger- 'crane', *ghan-s 'goose', *h3er- 'eagle', *h3enhi- 'duck'. Thus the reflexes of *ghan-s are seen in Celtic, Italic, Germanic, Baltic, Slavic, Greek, Iranian and Indic. The 'duck', under the root *h3enhi-, is preserved in Italic, Germanic, Baltic, Slavic, Greek and Indic. The 'crane', surely a bird of commanding appearance, is known from the root *ger- in Celtic, Italic, Germanic, Baltic, Greek, Armenian and Iranian, and *h3er- as 'eagle' in Celtic, Germanic, Baltic, Slavic and Hittite.

There are considerably more IE bird names which have been maintained with the same semantic load in two to four stocks. These are the 'blackbird' (Celtic, Italic, Germanic), 'capercaillie' (Germanic, Baltic, Greek), 'coot' (Italic, Germanic, Greek), 'falcon' or 'hawk' (Italic, Germanic, Slavic), 'jackdaw' (Baltic, Slavic), 'jay' (Italic, Germanic, Greek), 'kite' (Greek, Armenian), 'magpie' (Baltic, Slavic), 'owl' (Celtic, Germanic), 'pheasant' (Slavic, Iranian [perhaps a loan]), 'quail' (Greek, Old Indic), 'starling' (Italic, Germanic), 'stork' (Germanic, Armenian [perhaps a loan], Hittite), and 'thrush' (Italic, Germanic, Baltic, Slavic).

There is also a small body of IE bird names which have no ornithological cognate in another IE dialect. Rather, they were individually derived from various IE roots, such as the root meaning 'to make a raucous sound', or a color term 'white', or the like. Into this category fall the 'dove', 'pigeon', 'finch', 'sparrow', 'vulture' and 'gull'. A final category contains onomatopoeic terms which are not inherited from PIE, since, lacking pertinent sound shifts, they must be originally onomatopoeic in the individual IE languages. Here we note *ker-, *kor-, *kr-, etc., a proto-form for 'crow', which has largely (though not completely) been renewed in each of the IE dialects. The terms for the 'cuckoo' and 'hoopoe' have been similarly unaffected by sound shifts and point to independent onomatopoeic re-creation.

The continuation of bird names from PIE was in other ways chaotic. There is no term for the 'dove' or 'pigeon' in any two stocks that has the same phonetic origin, although all the IE languages do indeed have words for those two common birds. Albanian has vist but from the PIE root *h3e4ei-'bird' which produced both the generic term for 'bird' in Lat avis and 'eagle' in Grk aetos.

It is quite reasonable that the earliest Indo-Europeans would retain a common word for 'goose' and 'duck', as both were widely exploited in the wild state and were subsequently domesticated; and surely the crane is a bird of strong impression—its lofty size, its forlorn cry and great stilted legs are the stuff of folklore that is continued in the literature of the various IE stocks, even though some abandoned the inherited *ger- and replaced it with a different term.

One might wish to compare the principal birds of the Indo-Europeans with those of a living "pre-scientific" people. By principal bird is meant a bird name that is not a compound such as Olnd kala-hamsa-, and by "pre-scientific", one might select someone such as the Tzeltal Indians from the central highlands of the Mexican state of Chiapas. We know of no IE attempt at taxonomy until we come to the efforts of Aristotle who sought comparative features. This grouping by Aristotle survived until the eighteenth century when Linnaeus began a process of combinations that has survived till this day, though with continual modifications. A comparison of the groups implied by the Tzeltal's naming processes with those groups implied by the association of names in the IE stocks is, instructive. In IE we find domesticated birds such as 1) the goose; and 2) duck, itself further linked to wild ducks, grebes and teals; 3) vultures of many kinds; 4) game birds such as the quail and capercaillie; 5) birds of prey such as the eagle, hawk and falcon; 6) pigeons and doves; 7) corvivd birds, black in color, such as the crow, raven, jackdaw, blackbird, and starling; 8) owls; 9) the hen and cock; 10) the passeriforms, which seem to include most any small birds, e.g., sparrow; 11) the swan; 12) the stork; and 13) the woodpeckers.

The IE series can be compared with the Tzeltal bird names where the birds can be largely grouped on the basis of an active noun root to which are added frequent modifiers. These yield: 1) water birds, such as the duck, grebe and shorebirds; 2) vultures; 3) birds of prey—eagle, hawk, kestrel; 4) the turkey, including the jay(!) and chicken; 5) the quail, including the tinamou and road-runner; 6) the dove and pigeon; 7) the owl; 8) nightjay; 9) the swift and swallow; 10) the parrot; 11) the woodpecker; 12) the flycatcher; 13) the thrush, including the bluebird; 14) warblers, including the siskin and vireos; 15) the sparrows, including the towhee, grosbeak, tanager; and 16) the blackbirds, including the cowbird, raven, grackle, but no true crow as they are not found in Chiapas.

There are in Tzeltal far more identified birds than these, some with their own unique, uncompounded name, and others with modifiers of an avian root: thus 'white duck', 'large duck', and 'eather bird', 'buttock bird', 'forest hawk' and 'streaked woodpecker'. Thus we can get a lot closer to an inventory of the birds as understood by Tzeltal culture since their language yet lives than we can recover an inventory of the PIE birds where most of the compounds have been lost and the terms have permutated in the literary dialects. But we do notice a certain similarity in perception from the basic grouping of bird constellations in IE with that of the Tzeltal culture, and further note that in some areas it does correspond to the Linnaean system. Similar results can be found from such distant cultures as the Maori of New Zealand and the Mohawk Indians of New York State.

In all, we have for the Indo-Europeans almost twenty classes of birds (this number should not be considered firm for there are many ways one can argue for groupings and spectrum, but it should be roundly acceptable), and about thirty-five to forty names that can be shown to designate IE birds. Yet in most languages of western Europe, we now have names for every bird that can be seen, and even names for
BIRDS

some that are extinct, and certainly, for any given area of the early Indo-Europeans, there are far more terms than those which existed during the Neolithic period. This later diversity was arrived at in a straightforward way: As the IE speakers separated from their original source or each other, they encountered non-IE cultures, and frequently adopted new words from their neighbors and added them to their own inventory. Correspondingly, they would either abandon the inherited PIE word that had just been replaced by the substratum term, or they would use that for another bird they considered similar. Thus the preliterate Armenians abandoned their inherited word for 'goose', *jan, and replaced it with sagan, taken from an unknown people living in western Asia. The Greeks acquired κολυμβος 'dove' from a language unknown. And the English, having dropped the IE term for 'bird', *daway-, in the Proto-Germanic period, then also abandoned, during the Anglo-Saxon period, the Germanic form fugal (which survives somewhat with restricted use as 'fowl'), and replaced it with 'bird' in the ninth century from a source unknown. In addition, though the IE dialects might have a common word for 'crow', built on a root approximating *kro- or *kor-, this word did not pass through any of the particular sound shifts to produce NE crow. Rather, it developed into OE hroč 'rock', and NE crow was re-invented yet again through onomatopoeia in that language. Similarly, the onomatopoetic term for 'cuckoo' and 'hoopoe' remained impervious to sound shift, and passed through the dialects as possibly did *bu- for 'owl'.

The IE bird terminology thus shows us, under reconstruction, nothing that significantly distinguishes its prehistoric naming-culture from that of any other such people. They knew what they had to know to communicate about food, to communicate about what was ritualistically important, to protect their flocks from avian predators, and to mention what amazed and delighted them. The reconstructed roster of IE bird names does not indicate any specific location in Eurasia for their origin as the various species that are strongly attested can be found over most of Eurasia and certainly over the territories of any of the competing solutions to the IE homeland problem. As far as the purely lexical evidence is concerned, the Indo-Europeans developed an ornithological taxonomy that was little different from those of any other pre-scientific people.

See also Bird, Bird Cry, Blackbird, Cock, Coot, Crane, Crow, Cuckoo, Dove, Duck, Eagle, Egg, Falcon, Finch, Gamebird, Goose, Gold, Hen, Heron, Hoopoe, Jackdaw, Jay, Kite, Magpie, Nest, Owl, Quail, Sparrow, Stork, Swan, Thrush, Vulture, Wing, Woodpecker. [J.A.C.G.]

Further Readings


BISHKENT CULTURE

The Bishkent (aka Beshkent) culture is a Late Bronze Age culture (c 1700–1500 BC) situated in southern Tadzhikistan. It is primarily known from its cemeteries which appear to have been used by mobile pastoralists. Ceramics are generally hard-made rather than wheel-made; the metal objects are often of types to be found among the Andronovo culture of eastern Kazakhstan, and some have regarded the Bishkent culture as a local Andronovo variant. There is also some evidence for contacts with the more settled BMAC of north Bactria as some wheel-made pottery is also known. Material from the cemetery at Tandriul, for example, is typical of the BMAC (Sapalli culture). Prominent among the Bishkent sites is the cemetery of Tulkhar, which yielded about eighty burials. Although there were some cremation burials, most of the evidence was comprised of inhumations. Sexual dimorphism was observed with males placed on their right sides and females on their left (similar practices are known from the Corded Ware culture of central and eastern Europe and the more proximate Tazabagyab and Vakhsh cultures of Central Asia and the Swat culture of Pakistan). The males buried at Tulkhar were accompanied by rectangular hearths reminiscent of the rectangular fire-altar (āhavanīya) of the Indo-Aryan priest while women were associated with round hearths, the shape commonly ascribed to the gāṛhapatiya, the domestic and hence female-associated hearths of the Indo-Aryan house. The Bishkent culture has also been seen as a possible contributor to the Swat culture which in turn is often associated with early Indo-Aryan movements into northwest India.

See also Andronovo Culture, BMAC, Fire Cult, Swat Culture, Vakhsh Culture. [J.P.M.]

Further Readings


BITE

*denk- 'bite'. [IEW 201 (*denk-); Wat 11 (*denk-); Buck 4.58]. On Avg `tongs, pincers', OE æng(e) `tongs, pincers' (> NE `tong(s)'), OHG zanga `tongs, pincers', Alb (Gheg) dan (Tosk dare) `tongs', Gk δάκνον `bite', Av tiṣṭa-dāstra 'having a sharp bite', tiṣṭa-dāṣa `having a sharp bite', OInd daśat `bites', probably TochB tśik- `bites' (pres. tśākna) `bite (as of a snake)'. The root vowel of the Tocharian form must be analogical in some fashion but the meaning is certainly a good fit and the
nasal present corresponds to that of Greek. PIE status assured.
See also Eat; Tooth. [M.N.]

BITTER

*h2em-ro-s 'bitter, sour'. [IEW 777–778 (*om-); Wat 46 (*om-); Gl 551 (*om-/*p-); Buck 15.37; BK 385 (*ham-/*ham-)]. Lat amārus 'bitter', ON apr 'sharp, hard, cold', OE amprē 'sore, dock, OHEG ampharo 'sorel, dock', Alb ēmbel 'sweet', (Tokš) tēmbel 'gall', Arm amok 'sweet', OInd amalā 'sour'. Possibly Lith āmalas 'mistletoe', Latv āmu(o)ls 'wood-sorrel, clover'. From *h2em- 'raw, bitter'. Well attested with considerable, though straightforward, semantic developments across numerous dialects, in the northwest as a botanical term, while semantic shifts to 'sweet' are found in Armenian and both meanings are attested in Albanian.

*sū-ros (suhrros) 'sour, acid, especially of liquids or cheese' (< 'raw, moist'). [IEW 1039 (*sū-ro~ *sou-ro-); Wat 67 (*sūro-); Buck 15.38]. ON sūrr 'sour', OE sūr 'sour' (> NE sour), OHEG sūr 'sour', OPrus suris 'cheese', Lith sūras 'salty', Latv sūrs 'salty, bitter', OCS syra 'wet', Rus syroj 'damp, moist, raw'. A northwesternism, presumably in late IE.
See also Beer; Cold. [J.C.S.]

BLACK

*mel-n- 'dull or brownish black'. [IEW 720–721 (*mel- *mela-); Wat 40 (*mel-); Gl 685–686 (*mel-); Buck 15.65; BK 535 (*mal/*mal-)]. Wels melyn 'yellow', Lat mulleus (< *mln-eos) 'reddish', OE mæl 'mark, sign, time' (> NE meal [< 'set time']), OHEG ana-malt 'spot', Goth mēla (< *mel-) 'written mark', OPrus melne 'blue spot', Lith mėlas 'dark-blue', mėlynas ~ mulvas 'blue', Latv melns 'black', Grk μέλας 'black', μελαίνω 'blacken', OInd malina- 'dirty, black'. Cf. Rus mалина 'raspberry'. A term for 'brownish black', whose distribution from Celtic to Indic confirms the root can be reconstructed; the reference to brownish and eventually 'yellow' in Welsh indicates that a duller brownish black was the referent. Gl suggest that this word is related to *mėlit 'honey' (i.e., originally 'honey-colored') but the semantic distance is very great.

*Keir- 'dull or brownish black'. [IEW 582 (*kē-ro-); Wat 28 (*kel-); BK 201 (*kīh)maj-/*kīh)maj-]. OIr cēr (< *Keir-o-) 'dark brown', Norw harr 'ashes', OE hār 'hoar, gray' (> NE hoar), OHEG hēr 'worthy, grand' (< Proto-Gmc *xaira- 'gray' < *Koir-o-), OCS sēru (< *Koir-o-) 'gray', Alb thīr (< *kūr-no-) 'soot', Grk κιραφός (< *kir-bho-) 'fox', κιρφός (< *kimo-) 'orangy'. The root *Keir-, a word of the west and center of the IE world, seems to refer to much the same range of color as *mel-n- and may be an innovative replacement in that region. The IEW confuses this term with *Ker- 'bluish gray' but the i-diphthong serves to distinguish the root for 'brownish black'.

*kpsnōs 'black'. [IEW 583 (*kers-); Wat 30 (*kers-); Gl 365; Buck 15.65; BK 274 (*kpsn-jar/*kpsn-jar-)]. OPrus kipsnan 'black', OCS črūna 'black', Rus černyi 'black', OInd kṣpa- 'black'. Different formations are seen in Lith kėršas 'white and
BLACK

black, piebald', Alb sorre (< *kʷersneh₂> 'crow'. A third root confined to the center and east of the IE world, suggesting a later innovation, signifies a glossy black, as shown by the references to 'crows'.

See also BROWN, COLOR, DARK. [M.E.H.]

BLACKBERRY see MULBERRY

BLACKBIRD

*h₁èmes₁ 'blackbird'. [IEW 35–36 (*ames ~ *omes-); Wat 2 (*ames-); BK 462 (*ham-/*ham-)]. Wels mywlách 'blackbird', Lat merula 'blackbird', OE øsale 'blackbird', OHG anusla 'blackbird'. A western dialectal term.

*kopso- 'blackbird'. [IEW 614–615 (*kopso-)]. OCS kosá 'blackbird', Grk κόπυρος 'blackbird', κόστυρως 'blackbird'. Possibly a central dialectal term.

Blackbird is a term that applies specifically to a thrush-like bird, the Turdus merula, which is entirely black in color and smaller than the crow or raven. Although cognate sets exist, they are clearly dialectal and provide no grounds for positing a PIE word for this bird. From PIE *fer-'crow' comes the MArm sareak 'blackbird', with the diminutive suffix -ek. In Old Indic the blackbird has many names, doubtlessly implying that the bird had no standardly understood terminology, most of the names are based on OInd kail-, probably meaning 'melodious' or 'murmuring'. cf. Theocritus, who regarded the blackbird as sacred because of its sweet song. The blackbird is well distributed from Europe to Asia.

See also BIRDS. [J.A.C.G.]

Further Reading

BLADDER

*vupós 'bladder'. [IEW 1105 (*udero-)]. Lat vés(s)ica (< *vēnsica?) 'bladder', OInd vasti 'bladder'. The apparent phonological match of the Latin and Old Indic words and the exact semantic match make this word a good candidate for PIE status.

See also ANATOMY, ENTRAILS. [D.Q.A.]

BLAME

*h₁lēŋh₁ 'blame, reproach'. [cf.IEW 676 (*lēŋh₁-)]. Grk ἐλέγχος 'blame, reproach', Hit lī(n)ke 'swear', lingāi 'oath', Luv likk- 'swear'. The distribution, in Greek and Anatolian, strongly suggests PIE status. The peculiar semantic development seen in the Anatolian cognates is illuminated by the phrasing of the "soldier's oath" in Hitite. Swearing an oath in Hitite, and presumably more widely in Anatolian, consisted of a curse on oneself—to be fulfilled if the oath was broken.

See also OATH, PRAY. [D.Q.A.]

BLEAT

*bhlēh₁ 'bleat' (pres. *bhleh₁je-o-). [IEW 154 (*bhle-)]. Lat īleo 'weep, cry, lament, shed tears', MHG blējen 'bleat', Latv blēju 'bleat', Rus blēju 'bleat'. A word of the IE northwest.

*bhle- 'bleat'. [IEW 102 (*bhle-)]. ORus blekati 'bleat', Rus blekati 'bleat', Grk βληκαται 'bleat' (cf. Alb blegeras 'bleat' and MLG bleken 'bleat'), as if from *bhleid-. OE blētan 'bleat' (> NE bleat), OHG blēzán 'bleat'. A widespread onomatopoeic formation, probably independent in each of the stocks where it occurs.

See also ANIMAL CRY, SHEEP. [D.Q.A.]

BLIND

*h₁endh₁ós 'blind'. [IEW 41 (*andho-); Wat 2 (*andho-); Buck 4.97]. Gaul anda-bata 'gladiator who fights in a helmet without eye-openings', Av anda- 'blind', OInd andhā- 'blind'. Though sparsely attested, its attestations come from opposite sides of the IE world and suggest a respectable antiquity. As the designation for an infirmity, the word was probably subject to taboo or euphemistic replacement.

*kolnós 'one-eyed'. [IEW 545 (*kol-no-s)]. Grk (Hesychius) κελλάς 'one-eyed', OInd kānā- 'one-eyed'. Possibly OIr coll 'having lost the right eye' and/or MIR goll 'blind of one eye, purblind'. If the Celtic be accepted, distribution would confirm at least a late PIE date for this word.

*kaikos 'one-eyed, cross-eyed'. [IEW 519–520 (*kaik-o-); Wat 26 (*kaiko-); cf. GL 135]. OIr caíoch 'one-eyed', MIR lethchaich 'cross-eyed', Wels coeç 'vacant', coegddal 'one-eyed'. Lat caecus 'blind', Goth haĩs 'one-eyed', perhaps OInd kekar- 'cross-eyed' (only attested very late). The -a- suggests a popular word, a "competitor" perhaps of the previous word. Certainly a westernism in IE. If the Old Indic word belongs here, then we have evidence for a much wider distribution originally.

In IE tradition, the received wisdom is that blindness comes about as a payment for other singular personal gifts or talents: the blindness of the poet Homer and the Theban seer Tiresias are examples from Greek tradition while, on another level, the blind Indic god Bhaga, who rules all destiny, has obtained a power to make up for his lost sight. Sightedness can also be construed as a "wound" in the IE First Function, affecting the head and a "sovereign" sense, located in the eyes.

A blind or single-eyed deity is a recurrent motif in the mythologies of a number of IE peoples, particularly those of western Europe, where it marks the Varuša character in contrast to a one-handed Mitraic figure. In Norse mythology, Óðinn sacrifices one of his eyes for a drink from Mimir's well which provides him with the gift of wisdom while his Mitraic counterpart, Tyr, must violate his own word given on trust in order to bind the wolf Fenrir and in consequence suffer the loss of his arm.

The Roman counterparts to the debilities of Óðinn and Tyr are to be found in early Roman history, or historicized myth, where Horātius Coëls, who is blind in one eye, is able...
to hold off the Etruscans with his one-eyed gaze while Mucius Scaevola, a failed assassin of Lars Porsena, so impressed his intended victim by holding his hand in a fire and swearing an oath that many more assassins had also been dispatched to kill the Etruscan king, that Porsena sues for peace. Another possible instance of the one-eyed motif is to be found in Pliny's account of Regulus, a lawyer who would paint a large circle around one of his eyes in order to cast a spell over those in court.

Celtic examples of one-eyed figures who can “bind” through the power of their gaze are well known, especially in Irish mythology. In the cataclysmic second battle of Motyrra, Lug dances about the armies of the Formoriuns on one foot and with one eye closed in order to insure victory while his main opponent, Balar, is renowned for his single enormous eye which would so fix his enemy that they would be powerless to resist. Moreover, many druidic names contain the element *dall*- ‘blind’ and its connection with prophetic power is evident in such tales as the *Tromdarn Guaire* where the blind druid Dallan Forgaill has his sight restored and thereby loses his special ability.

Jaan Puhvel has noted how the eye as a source of power finds a curious lexical association in both some IE and Semitic languages where ‘eye’ and ‘well’ or ‘spring’ seem to be closely related, e.g., Hit *sakui* and Arm *akn* mean both ‘eye’ and ‘well-spring’ while Av *casman*- ‘eye’ yields both NPers *casim* ‘eye’ and *casime* ‘spring’ while Latv *aka* ‘well’ and Rus *oko* ‘eye’ are cognate. Wells or springs, e.g., the Well of Mimir in Norse mythology from which Odin gains his prophetic power, are well known in Germanic and Celtic mythology. See also *Defect*. [D.Q.A., J.P.M., D.M.]

**Further Reading**


**BLOOD**

* *h₁esh₂or* (nom.), *h₁esh₂nōs* (gen.) ‘(flowing) blood’. [IEW 343 (*ès-r̃g̃*); GI 715 (*ēsH₂n-ī̂̂̃*); Buck 4-15]. OLat *asēr* - *asyr* ‘blood’ (this is an archaic word handed down in tradition whose exact shape had been forgotten), Latv *asins* ‘blood’, Grk *ēpa* ‘blood’, Arm *artui* ‘blood’, Hit *ēshar* (gen. *ēsh(n)as* ‘blood’, OInd *āṣaj* (gen. *ānas*) ‘blood’, Tocharian *yār* and Tocharian B *yasar* (< *h₁esh₂or*) ‘blood’. Cf. the derivates in Lat *sanguine* (< *h₁esh₂n-gʷ-en*-) ‘blood’. Its geographical spread (including Anatolian) and archaic morphology insure PIE status.


It has been argued that the lexical distinction between ‘(inside) blood’ and ‘(outside) blood’ in PIE is emphasized by derivatives and extensions of meaning that indicate two, opposed metaphorical sets. According to this hypothesis, the root for ‘(outside) blood’ *křeuha₂* yields words signifying aggression, e.g., Bret *kriz* ‘crueil’, Lat *credulus* ‘crueil’. Lith *křuvinas* ‘make bloody’, Grk *κροῦσα* ‘beat, whip, crush’, and dying, seen metaphorically in terms of the hardening (or freezing) of ‘outside blood’, e.g., OIr *cruand* ‘hard’, Lat *crusta* ‘crust*, Latv *kreve* ‘coagulated blood’, Olnd *kruviayatis* ‘makes thick, harden’ and OHG *hrosō* ‘ice’, Grk *κρύος* ‘icy cold’, Latv *kruv-u-s* ‘frozen mud’. This connection, it is suggested, establishes an underlying semantic notion that *křeuha₂* was to be associated with a negative set of connotations involving wounding, the drying out or hardening of the body, and in the sense of Levi-Strauss, the “raw”, i.e., the natural rather than the cultural world. However, while the words associated with blood clearly derive from *křeuha₂*, this is not demonstrated for those that denote either ‘cold’ or ‘strike’ which can or must be derived from *kreu-* (without a laryngeal). Therefore, there are phonological grounds for distinguishing both the words and meanings in PIE although some form of secondary association between *křeuha₂* and *kreu*- may have occurred. It is also suggested that *h₁ēš₂t* ‘(inner) blood’ not only was associated with the concept of a life-giving body fluid but also denoted the patrilineal line, the male’s own blood-line, in kinship terminology. See also *Body, Heart, Kinship, Sister*. [D.Q.A., J.P.M.]

**Further Readings**

Hamp, E. P (1979) Indo-European *kreu-.* IF 82, 75–76.


**BLOW**

* *bhel*- ‘blow, blow up, swell (specifically used of genitalia)’. [IEW 120–122 (*bhel*); Wat 6–7 (*bhel*); GI 775 (*bhel*); Buck 10.38; BK 10 (*bul-*/*bol-*)]. OIr *ball* ‘body part’, *ball fēil* ‘pudendum’, *ball ferda* ‘penis’, Lat *follis* ‘leather sack inflated with air’, *flo* (< *bhel-eh₂*) ‘blow’, ON *blása* (< *bhel-ē-*) ‘to blow’, OE *blāwan* (< *bhel-ē-*) ‘to blow’ (> NE blow), OHG *blāsan* ‘to blow’, Goth *uīblēsan* ‘blow’, Grk *φάλλας* ‘penis’, Arm *belun* ‘erect’, Olnd *bāhanda-* ‘pot’. The relatively broad distribution of cognates makes this form solidly reconstructible to PIE.

* *bhele*- ‘become inflated’. [IEW 156 (*bhele*)]. ON *blístr* ‘blow’, Latv *blīstu* ‘become thick’, Grk *ϕίλοσθα* ‘overflow of moisture’. An enlargement of the previous entry.
**peis-** 'blow through an aperture so as to make a noise'. [IEW 796 (*peis-*)]; Wat 48 (*'peis-*)]; Lat *spretō* 'blow', ON *flästa* 'to fart', OE *læstringa* 'farting', MHG *visen* 'to fart', Lith *pyškėti* 'bursts, cracks', OCS *piskať* 'to whistle', Rus *pišči* 'squeak', Olnd *pichorþ* 'flute, pipe', TočA *pis-* ('*piyask-*) 'blow (a musical instrument)'. Latin *spretō* shows an initial s- which makes its connection with the rest of this set a little doubtful. The Baltic, Slavic and Old Indic forms point to a suffixed stem *'psi-sk*-. The distribution suggests PIE status.

**p(he)iu-** 'blow, swell'. [IEW 847 (*'p(o)-*); BK 34 (*'p[β]lw-* *'p[θ]low-*)]; Mīr *tān* (*'pou-ino*-) 'foam, froth', Wels *ewyn* (*'pou-ino*-) 'foam', OPrus *pouitian* (misspelling for *'pomn attributeName* *)* 'p(orn-mean) 'buttocks', Lith *pūrei* 'tult, puff', Latv *patre* 'summit, back of the head', Rus *pāja* 'ball', Arm *hologi* (*'pou-jo-*) 'breath', Olnd *puputta* -swelling of the palate and gums', *pā-g*: ON *ljūka* 'snowstorm', Lith *pūgā* 'snowstorm', Latv *pāga* 'squall of wind', Grk *pυγή* 'buttocks', Olnd *phuhpphukāraka*- *panting*; *(p(θ)u)*: *pustula* 'bubble, blisters', Grk *φυτά* 'wind, blast', Olnd *pūsia* 'flourishes, prospers'. The root-initial stop varies between aspirated and unaspirated, perhaps for sound-symbolic reasons. The large number of derivatives based on this root and its broad distribution suggest PIE status.

**suei-** 'blow through a small aperture so as to hiss or buzz'. [IEW 1040–1041 (*suei-*)]; Wat 68 (*'swei-*)]; GI 105; Buck 10.38. *sueisid* : OIr *sēttid* 'blows', Wels *chwythu* (*'sīsid-*) 'blows', OCS *svistati* 'to whistle, hiss', Grk *κισσό* 'sizzle, crackle', Olnd *kvědati* 'buzzes, hums, murmurs'; *sveighl*: Lat *silīlo* 'whistle, hiss', OHG *swegala* 'reed, flute', Goth *swīglōn* 'to play the flute'. The stem *sueisid* - may be reconstructed to PIE with some certainty, based on the range of languages in which it is attested and the fact that the correspondences are fairly regular. The Latin and Germanic forms may be derivatives based on the same root but due to their onomatopoetic nature, it is also possible that they represent parallel innovations in the two stocks.

**h2yeik-** 'blow'. [IEW 82–83 (*'te-*)]; Wat 73 (*'we-*)]; GI 584 (*'Hq*)]; Buck 10.38. OE *wāwan* 'to blow', OHG *waten* 'to blow', Goth *wahjan* 'to blow', OCS *věati* 'to blow', Grk *ἁχειν* 'blows', Av *vāti* 'blows', Olnd *vṛti* 'blows'; *h2yεχινitos* Wels *gwynt* 'wind', Lat *ventus* 'wind', ON *vindr* 'wind', OE *wind* 'wind' (> NE *wind*), Goth *winds* 'wind', Hit *huwaiti* 'wind', Olnd *vāta* 'wind', TočA *vant* 'wind', TočB *vante* 'wind'. The Old Indic form may presuppose *h2yεχινitos* with vocalism of the syllabic nasal preceding loss of medial laryngeal. Both the verbal root and the participial derivative are very solidly attested to PIE.

**pr-** 'blow (on a fire)'. [IEW 809 (*'pr*-*)]; OCS para 'steam, smoke', Grk *νιπθο* 'blow', *niumpo* 'burn', Hit *p(a)ra*- 'breathe, blow'; *preus*-ON *frya* 'to pant, snort', Olnd *prusnōti* 'sprinkles, showers'. Some confusion exists among forms based on the stem *preus- in the particular meaning 'blow on a fire' and forms based on the homophonous root *'preus- freeze, burn'. Although the root *pr- is only scantly attested, its distribution suggests PIE status.

**bhes-** 'blow'. [IEW 146 (*'bhes-*)]; Wat 8 (*'bhes-*)]; GI 134 (*'bhes-*)]; Grk *φωσκο* 'cool off' (tr.) (originally 'cool off by blowing'), Olnd *babhasti* 'blows', TočB *pēs*- 'whisper'. If all of these words belong together then we have evidence for PIE status.

See also FART, SEXUAL ORGANS, SWELL, WIND. [M.N.]

BLUE see GREEN

**BMAC** (BACTRIAN-MARGIANA ARCHAEOLOGICAL COMPLEX)

The BMAC (also known as the Oxus culture) is a late Bronze Age cultural phenomenon (c 2200–1700 BC) of southern Turkmenistan. Coincident with the collapse of urban societies further south (Namazga V/VI periods), there was a colonization of the oases of Bactria and Margiana from the south (Namazga V type pottery is found on some of the earliest BMAC sites). The proliferation of the new sites, however, has also suggested that there was an additional demographic element absorbed by the BMAC.

The settlements of the BMAC are typified by defensive forts such as Gonur and Togolok, both circular and rectangular, that may be surrounded by up to three walls. These greatly resemble the *qala*, the type of fort in this region also known from the historical period. Within the forts are residential quarters, workshops and temples. The social structure of these forts, at least on the basis of later ethnographic evidence, suggests that each had its own ruler who may well have been in competition with both neighboring forts and with nomadic tribes of the region. The existence of nomadic stockbreeders is attested on and near many of the fortified sites by the presence of Andronovo pottery.

At the fortified site of Dashly 3 there was also a circular ceremonial center. Investigation of some of the ceremonial rooms has revealed evidence for cultic paraphernalia that has been identified with the *soma* (Iranian *hāoma*) ritual, i.e., equipment for expressing a liquid, remains of both ephedra and poppy, and it has been suggested that the *sauna* ritual emerged out of these BMAC centers and was carried southwards into the historical sites of the Indo-Aryans.

The economy of the BMAC was based on irrigation agriculture and stockbreeding. The primary cereal crop identified so far is barley (*Hordeum vulgare*) accompanied by a variety of wheats (*Triticum aestivum/durum, T. dicoccum*) and some pulses and lentils, i.e., chick-pea (*Cicer*), pea (*Pisum*), grass pea (*Lathyrus*) and lentil (*Lens*). Among the fruits, there is evidence of plums (*Prunus*), apple (*Malus*), and grape (*Vitis*). The domestic animal remains were dominated numerically by sheep and goat with small numbers of cattle. The age-structure of the sheep, with many older individuals known from the site of Gonur, suggests that they were exploited for wool as well as meat. In the later period there is some evidence for camel. Wild animals included gazelle, wild boar, tortoise, and eagle. Onager remains are known from the culture as well but horse remains have not
yet been found although the presence of Andronovo material on the sites suggests a knowledge of the horse since this animal is very well represented on Andronovo sites further north. Evidence of the domestic donkey (*Equus asinus*) have been recovered but its chronological position (BMAC or still later in the Bronze Age) is uncertain.

The ability of the BMAC to expand over a large area was due to its adoption of intensive irrigation. The structure of the citadels, along with the large quantity of locally produced status goods frequently recovered from burials, suggests a hierarchical society. The grave-gifts included metal goods (copper bowls, ornaments, silver buttons), ceramics and stone vessels, and stone seals. The seals reveal scenes presumably associated with mythological figures, e.g., snakes, dragons, lions, and entire "narrative" scenes.

The BMAC now plays a very important role in discussions of the archaeology of the early Indo-Iranians. One of the key problems of identifying Indo-Iranian expansions into Iran, Pakistan and India has been the chain of Central Asian urban sites that apparently separated nomadic stockbreeders of the Russian and Kazakhstan steppe, the Andronovo culture, who conformed very well with respect to settlement, economy, technology and ritual expected of the early Indo-Iranians and the earliest historically identified Indo-Aryan and Iranian cultures further south. To the south of the Central Asian centers were the local Iranian and Indian cultures which were presumably or provably non-IE, e.g., to the southwest of the Caspian were the Hurrians and Urartians while southern Iran was occupied by the Elamites; the Harappan culture of India is presumably non-Indo-European. There is no evidence that these regions were penetrated significantly by the Andronovo culture of the northern steppe. Hence, it has become increasingly clear that if one wishes to argue for Indo-Iranian migrations from the steppe lands south into the historical seats of the Iranians and Indo-Aryans that these steppe cultures were transformed as they passed through a membrane of Central Asian urbanism. The fact that typical steppe wares are found on BMAC sites and that intrusive BMAC material is subsequently found further to the south in Iran, Afghanistan and Pakistan, may suggest then the subsequent movement of Indo-Iranian-speakers after they had adopted the culture of the BMAC. Such a model, obviously, presupposes that one can associate an Indo-Iranian identity with the BMAC.

Arguments for this identity rests on several lines of evidence. The geographical location of the BMAC or Oxus sites conforms, it is argued, with the historical situation of the Da(h)ša and Parnoi mentioned in Greek and Latin sources which have, in turn, been identified with the Dāsas, Dasyus and Panis of the Ṛgveda who were defeated by the Vedic Arya. The presence of triple-walled circular forts in the BMAC also matches the description of the fortified sites depicted in the Vedas. Moreover, the BMAC sites have also yielded physical
evidence of what has been presumed to be the Indo-Iranian *sauna cult, one of the characteristic religious distinctions between the Vedic Arya and their enemies. On the model of contemporary relationships between Tajiks, the settled farmers of the area, and the semi-nomadic Uzbeks, the steppe populations are presumed to have been in regular seasonal contact with those settled in the oases. Such relationships have tended to result in bilingualism among the settled populations, one of the prerequisites of a language shift.

See also ANDRONONO CULTURE; BISHENT CULTURE; HARAPPAN CULTURE; INDO-IRANIAN LANGUAGES; MEHRGARH; SACRED DRINK; VAISHISH CULTURE. [J.P.M.]

Further Readings

BOARD see PLANK

BOAT
*neh₂us (gen. *nehu₃os) 'boat'. [IEW 755] (*nâw-); Wat 43 (*nâw-); Gl 582 (*nâw-); Buck 10.83; BK 568 (*na-/ *nâ-). OIr nâu (DIL nô) 'boat', Wels noœ 'boat', Lat nāvis 'ship' (borrowed > NE náve), ON nör 'ship', OE nöwed 'skiffer, sailor' (with, as sometimes happens, a 'hardened' laryngeal we have ON nokkú 'boat', OE naca 'boat', OHG nahho 'skiff, small boat' reflecting a virtual *nën₃u₃-on-), Grk ναῦς ('war-') 'ship', Osm nab 'boat', Olnd nāw- 'boat'; compare the derivative *nehu₃ios: Grk νήσος 'of or belonging to a boat', Av nāvaya- 'navigable', OFr navié ['river'] passable only with a boat, not wadable', Olnd nāvā- 'crossable with a boat', Khowár nā 'mill-race, aqueduct consisting of hollow logs' (and similar words in other Dardic and Nūristānī languages, e.g. Ashkun as nō- nāwa 'mill-race', Kati nā 'mill-race, aqueduct consisting of hollow logs'). TochA new 'flood' (< *nâwe by metathesis < *nehu₃io-; it may be a direct inheritance or, more probably, a borrowing from Iranian, specifically Sogdian). In the Iranian Sarikoli we have wanaw 'irrigation channel' reflecting *wi-nâwyā. These latter meanings may suggest that for the Proto-Indo-Iranians both aqueducts and boats might be made out of hollowed-out logs. From *s(n)eh₂u- 'swim' which renders quite uncompelling Gl's attempt to derive this word from a West Semitic *unu₃-at- 'jar, vessel'. The evidence of Dardic and Nūristānī might suggest that this PIE 'the swimmer' might have been, in earliest times, a hollowed out log. In any case, this word is widely reflected in IE and is clearly the most usual word for 'boat' in PIE.

*holθduh₁- (dugout) canoe, trough'. [IEW 31–3 (* władh₁-); Buck 10.83]. OE ealdh₁ (< *holθduh₁-te₁eh₁) 'trough', ORus lōd’ka 'boat', Rus lōdka 'boat', TochAB oly₁ (< *holθd
The use of dugouts was not confined to the coastal regions of Europe but we also find evidence in the inland waterways and lakes. During the Neolithic period, dugouts of oak are known from the Swiss lake-side dwellings. The use of birch-bark and hide vessels is more elusive but they are also believed to date from a very early period; indeed the latter is regarded as far more seaworthy and they were employed also since the Mesolithic. As the reconstructed PIE vocabulary for water transport is confined to ‘boat’ and ‘oar’ (and does not include the ‘sail’ which is encountered archaeologically from the Bronze Age onwards, or any other specialized nautical terms), there are neither grounds for presuming a particularly high level of naval technology for the speakers of the proto-language nor can the evidence of the boat be employed to specify the homeland of the Indo-Europeans.

See also Float; Oar; Swim. [D.Q.A., J.P.M.]

Further Reading

BODROGKERESZTÚR CULTURE

This middle Copper Age culture (c 4000–3600 BC) of Hungary is known best from its seventy cemeteries which show clear genetic links with its predecessor, the Tiszapolgár culture. Settlement evidence is extremely meager and confined to only a handful of sites without clear architectural remains. The economy was apparently mixed agriculture and stock-breeding with cattle the predominant species, followed by sheep/goat and pig. Wild fauna include the aurochs, red deer, wild boar, roe deer and hare. Ceramics continue the forms of the earlier culture although a particular form, termed a “milk jug”, is also prominent. There is an increase of objects of copper and gold, both implements (shaft-hole axes, awls) and ornaments from the preceding culture. Flint and stone tools also continue.

The Bodrogkeresztúr cemeteries make a sharp distinction according to sex with males buried on their right side, females on their left; both sexes are oriented with their heads to the east. Burials are accompanied by pottery, implements of stone and copper, and ornaments of copper and gold. Social and demographic analyses of the cemeteries have suggested that the Bodrogkeresztúr communities lived in small groups of 15–20 closely related people. Comparisons between the distribution of wealth in the Bodrogkeresztúr cemeteries and those of the preceding Tiszapolgár period suggest that the later burials were more egalitarian and showed less emphasis on male primacy.

Within the Kurgan theory of IE origins, the Bodrogkeresztúr culture is explained as a “kurganized”, i.e., Indo-Europeanized, native culture of southeast Europe whose structure was altered by steppe intruders although analysis of the physical type indicates that the population was of the local “Mediterranean” type rather than the intrusive Proto-Europoid type of the steppelands. Alternatively, it has been
Bodrogkereszttur culture

viewed as a culture stemming from a central-east European (IE) homeland that, with the Salcuta culture of neighboring Bulgaria, migrated southwards to form the "Proto-Greeks" in the third millennium BC.

See also Tiszapolgar culture. [J.P.M.]

Further Reading

Body

*bkreps* (gen. *kqutos*) 'body'. [IEW 620 (*krep-); Buck 4.11; BK 323 (*kwhar-/*kwhar-)]. OIr crf (*ktpa*) 'body, flesh', Lat corpus 'body', OE hthi 'belly, womb', OHG (h)reif 'body', Av karaS 'body', Olnd kfp- 'form, beauty'. This is the one word reconstructible for PIE with the meaning 'body'.

See also anatomy. [D.Q.A.]

Boil

*bher* 'seethe, bubble'. [IEW 132–133 (*bher-); Wat 9 (*bheru-); BK 4 (*bar-/*bar-)]. Mlt lobar (DIL lpor) (< *u-bero-) 'well', Wels golfer (< *wo-bero-) 'brook', Lat fermentum (< *bher-men-tom*) 'ferment, leaven', OE beorma 'yeast, leaven', Grk (redup.) πορφυρο 'bubble', Av bara- 'move oneself quickly', Olnd bhurau 'moves rapidly, quivers'. There is some question whether the Indo-Iranian forms are cognate with the others though this word still seems reconstructible to PIE.

*bhereu* 'seethe'. [IEW 143–145 (*bh(e)reu-); Wat 9 (*bheru-); Buck 5.22, 10.31]. OIr berbaid 'boils, seethes', Wels berwal 'boil', Lat fervéo 'boil', OE bréowan 'to brew' (> NE brew), OHG briuwan 'to brew', Alb brume 'dough', Olnd bhuvani- 'restless, excited'. An extension of *bher- 'seethe' with reference to cooking and brewing confined to the European stocks.

*seu* 'boil (something)'. [IEW 914–915 (*seu-); Wat 58 (*seut-)]. ON sjóda (< *seu-t-*) 'to cook, boil', OE sédan (< *seu-t-*) 'to cook, boil' (> NE seethe), Goth (noun) saups (< *seu-t*) 'sacrifice', Lith siausti 'to rave, charge around', Rus žutiti 'to joke, play with', Av hāvayeiti 'stews'. The range of stocks in which this root is attested secures it to PIE. The meaning 'sacrifice' in Gothic suggests the possibility that some
sacrificed animals were boiled.

*jes- 'boil'. [IEW 506 (*jes-); Wat 79 (*yes-), Buck 10.31]. OIr es(s) 'catacrag', Wels (noun) ias 'boiling', OE gist 'foam, yeast' (> NE yeast), OHG jesan 'to ferment, effervescence', Grk ζῦκο 'boil', cook', Hit is(s)na- 'dough', Ay yaśṣya- 'boil', Olnd yaysi 'boils, foams', Tocha Yāṣ- 'boil', TochB Yāṣ- 'excite, ravish' (< *māke boil'). Broad distribution and semantic regularity, especially with widespread reference to food preparation, suggest PIE status.

*sret- ~ *sreḍh- 'boil, be agitated, move noisily'. [IEW 1001-1002 (*sr-ēdh- ~ *sr-et-)]. Mlr sṛthit 'spurt of milk or blood', OHG stredan 'effervescence, whirl, boil', Grk ἀθος 'rushing noise, roar of waves, clash of oars', Tocha sārtw- 'incite, instigate, encourage', TochB sārt- 'incite, instigate, encourage'. If all of these words, as seems probable, belong together then we have evidence for a PIE word.

See also Beer; Cook; Ferment; Wave. [M.N.]

**BONE**

*םו (gen. *םכב) 'bone'. [IEW 783 (*ost(h)-); Wat 46 (*ost-); GI 716 (*p̲e̲to-š̲h̲;); Buck 4.16]. OIr asna ~ esna (< *h2estnijio-) 'rib', MWels eis(es) (< *h2estom) 'ribs', Lat os 'bone', Alb asht 'bone', Grk ὀστέον 'bone', ὄσφυς (< *h2ost-bhun-) 'hip', ὀστάκος ~ ὀστάκος (< *h2os-ōstikoj-) 'lobe', ὀστράγαλος 'vertebra, ball of ankle joint, knucklebone', Arm oskr (< *h2ost-up-) 'bone', Hit hastai- 'bone', Luv ḫas(s) 'bone', Av as-ča- 'shinbone', asti- 'bone', Olnd asthi (gen. asthnēs) 'bone', TochB āsta (pl.) 'bones'. (Possibly connected are Lat costa 'rib' and OCS kosti 'bone' but the initial *k- is not explained.) Practically universal in IE: clearly the PIE term for 'bone'.

See also Anatomy; Cosmology. [D.Q.A.]

Further Reading


**BOOTY**

*سور 'booty (particularly men, cattle, and sheep)' [cf.IEW 910 (*ser-); GI 644 (*sēr-w̱-)]. Preserved as such only in Hit sāru 'booty (particularly captured men, cattle, and sheep)', saruwai 'plunder, rob', cf. the derivative *seruō/ehā- 'pertaining to booty' in Mlr serb (< *seruchā-) 'thief', Wels herw (< *seruōs) 'raider (whose principal goal was usually cattle); outlawry'. Perhaps belonging here also is Lat servus 'slave' if < *he of the booty' (i.e., 'someone brought home as booty').

See also Captive; Freeman; Reward; Servant; Steal; Wealth. [E.C.P., D.Q.A.]

Further Reading


**BORDER**

*뿐만 'border, line, limit'. [IEW 784 (*bou-); GI 647 (*bou-); Buck 12.353]. Hit aṛha- 'line, rim, boundary, confine(s)', aṛhā(i)- 'go down the line, circulate, make the rounds', aṛhaṇa- 'one living outside the boundary', iṇhu- aṛtī (< *h4tī) 'basket' (< *circular line). Cf. the derived aṛtīh₂o/eh₂- in OE orton (< *h4tīh₂om) 'beginning, front', orton (< *h4tīh₂-ōn-) 'border, bank, shore', Lat ortex 'brim, edge, boundary, coast; region, rope, cable (< *line); from *h4tīh₂o/eh₂- we have Lith ṗoras 'air, weather' (< *what is outside), 80 ṗora 'outside', Lat ortex 'border, boundary, country, limit'. The line or limit separating indoors from outdoors or the village from the surrounding countryside. Widespread and old in IE.

*morg- 'border'. [IEW 738 (*merg-); Wat 42 (*merg-), Buck 19.17]. OIr mroig 'district', Wels bro 'district' (Celtic from a metathesized *mroģ-). Lat margō 'edge', ON mork 'borderland, forest', OE mearc 'border, district', OHG marka 'border, district', Goth marka 'border, region', Av maraza- 'border country', perhaps Tocha markam- 'characteristic mark'. The distribution suggests PIE status.

*term- ~ *termōn 'border'. [IEW 1075 (*term-); Wat 70 (*term-en-); GI 50 (*ter-); Buck 19.17]. Lat termen 'border', Myc te-mi 'border', Grk τέμπα 'border, goal, end point', ατέμπαν 'without limits', Aim 'farm end', Hit ταρμ- 'stake', Olnd tarman- 'point of sacrificial post'. From *ter- 'cross over'. Specific points along borders were marked by posts or stakes, hence from *ter-men-, literally, 'that which one crosses over' to Hit tarma- 'stake'. The use of stones, stakes, posts, etc., as border markers arose with sedentism and religious practices. In ancient Rome, for example, the father of the family ritually circumambulated his fields whose borders were marked by posts or stones which had been set into the ground according to ritual prescriptions involving sacrifices. In Rome, Greece and India, boundary posts or stones were regarded as sacrosanct and harsh penalties were exerted against anyone who violated such markers.

Historical records in Latin, Greek and Old Indic report rituals intended to separate sacred, and thus living, space from profane and thus uninhabitable space. Both the hearth and the tomb were circumscribed with sacred rites. These rites while emphasizing kinship, implicitly required the separation of one hearth, one household, one homestead, and eventually, a social unit bound by the same ancestral founder, from the next. Social and religious considerations are therefore at the inception of formal boundaries.

See also Furrow; Line. [A.D.V.]

Further Readings


BOW AND ARROW

*"g'jija (gen. *"g'jijos) 'bow-string; taut thread'. [IEW 481 (*"g'jijos)] Lith *gija 'warp threads', OCS žica 'thread', Grk βεξ (gen. *"g'jijos) 'that provided with a bow-string') bow', Av *jyati 'bow-string', NPers *zhī 'bow-string', OlInd *jyati 'bow-string'. Archaic in shape. In respect to the meaning 'bowstring', clearly at least a word of the southeast of the IE world.

*hjysus (perhaps originally *hîjus, gen. *hîjusos) 'arrow'. [IEW 301 (*eis); GI 643]. Grk ἴος (gen. *hîjusos) 'arrow', Av īśu- 'arrow', OlInd īśu- 'arrow'. From *hîjus- 'set in motion'. Attested only in the southeast of the IE world.

hýrkoros 'bow and/or arrow'. [IEW 67 (*arqu-); Wat 3 (*arku-); Buck 20.24, BK 384 (*har-akʾī/*har-akʾī)]. OlLat arquus 'bow', Lat arcus 'bow', ON grʾ 'arrow', OE eard 'arrow' (NE arrow), Goth arhvazna 'arrow'. Attested only in the west of the IE world.

*ṭokos 'bow'. [cf.IEW 1059 (*tekʾ-); cf. Wat 69 (*tekʾ-); Fried 125–129]. Myc to-ko-so-wo-ko 'bow-makers', Grk τοξόν 'bow', Scythian taksā 'bow', MPers taks 'bow'. It has often been assumed that the Greek word is borrowed from Scythian, sometime after the founding of Greek colonies on the northern shore of the Black Sea (Olbia, Tanais, etc.). Certainly Athens was known for having a police-force of Scythian archers. However, the apparent presence of the word in Mycenaean, long before there is any recorded contact between Greeks and Eastern Iranians, would suggest that τοξόν might be inherited rather than borrowed. In any case, this is a metonymic extension of *ṭokos 'yew' either in the southeast of the IE world or in Eastern Iranian alone.

The use of the bow and arrow dates to the end of the Palaeolithic (the last Ice Age) and it was one of the most common and ubiquitous weapons known in Mesolithic Eurasia. The archaeological evidence for the bow is derived from well-preserved contexts, e.g., Swiss lake-side dwellings, Danish bogs, and iconography. From the actual evidence of prehistoric bows we find that the material of manufacture ever since the Mesolithic was almost predictably yew followed distantly by elm (cf. ON almrʾ 'elm; bow', OE(elm) 'elm'), and less occasionally maple or pine (cf. PIE *dhonu- 'fir' which may give Av *dhunwar 'bow', OlInd dhânu- 'bow'). That the bow was not used exclusively for hunting is indicated by the evidence of Mesolithic cemeteries in both the Baltic and the Ukraine where arrowheads were found embedded in the remains of the deceased. Similarly, during the Neolithic it served not only for the hunting of the wild fauna found on almost any site but also for warfare, e.g., in southern Britain there is dramatic evidence for archery-based attacks on Neolithic enclosures while in the Yamna culture of the Pontic-Caspian steppe the discovery of single arrowheads in burials is often interpreted as evidence for the cause of death rather than a grave good. Archery kits, comprising flint arrowheads and wrist bracers and occasionally small bow-shaped pendants, are a distinctive feature of the Beaker burials that mark the transition from the end of the Neolithic to the early Bronze Age across a broad region of western and central Europe. There is also a large quantity of arrowheads found among the slightly earlier Copper Age Rinaldone and Remedello cultures of central and northern Italy.

There is some evidence for a transition to bronze arrowheads in western Europe, e.g., in Brittany there are some sixty examples of bronze arrowheads found alongside flint while they also occur in the Argaric culture of Spain and they are known later in the middle Bronze Age from southern France. Despite the fact that Caesar mentions the possession of the bow by the Gauls on the Continent, a Celtic word is absent from any of the cognate sets due to the disappearance of the bow and arrow from Insular Celtic-speaking territories during the later Bronze Age. Although the bow and arrow were well known in Ireland during the Neolithic and early Bronze Age, there is no evidence for this weapon from c 1500 BC until literary records of the Middle Ages when the Irish found themselves on the receiving ends of Viking archers. Earlier encounters with the arrow probably derived from Irish raids on Roman Britain and the Insular Celts gained their word for 'arrow' from the Romans, i.e., OlIr saiget < Lat sagitta 'arrow' (cf. Wels saeth, Bret saez). The critical factor here was that in some regions of Eurasia the shift to a technology based on chipped-stone tools to those made of bronze saw the disappearance of arrowheads without any replacement of the weapon in the new material.

The shift to metal arrowheads, the probable referent of all our cognate sets, is seen best in the east where bronze arrowheads appear in eastern Europe and especially in the steppe region of Eurasia. Although most Neolithic evidence indicates flint arrowheads, there are occasional finds of metal arrowheads in the final stages of the Tripolye culture of the northwest Pontic region and in the Corded Ware horizon (c 3300–2500 BC). The Catacomb culture of the third millennium BC has yielded some evidence for the actual bows, measuring about 90 to 130 cm in length, and these are believed to have been composite bows, i.e., bows constructed of segments of wood fitted together with lashings, gum and bone plates. In addition to the bows there were also discovered the remains of quivers with ten to twenty arrows; the later measured about 45 to 60 cm long. By c 2000 BC bronze arrowheads are found at Sintashta, a site regularly associated with the (?Indo-)Iranians east of the Urals. During the first millennium BC arrows of steppe type with three lobes are found widely over the Eurasian steppe and into parts of central Europe. But these were not the earliest metal arrowheads in this region as they are also encountered in middle Bronze Age burials in central Europe, i.e., c 1500 BC, and in the later Urnfield culture (c 1200 BC). With respect to the Germanic cognate set, bronze arrowheads were also occasionally found in northern Germany and Poland during the late Bronze Age and a quantity of Iron Age and Roman-period bows made of yew have been recovered from a Danish bog.
Bronze arrowheads are also known in the Near East from at least the third millennium BC and by the late second millennium there were even occasionally arrowheads of iron. In Anatolia, copper arrowheads are known from the third millennium BC and bronze arrowheads are known among the Hittites which are similar to those of Palestine. New Kingdom Hittites are portrayed carrying bows and the Hittites are credited with revolutionizing warfare in their own region with their application of chariot-mounted archers in battle; they also utilized archers on foot. In Greece arrowheads were fashioned from obsidian in the early Bronze Age but bronze arrowheads are known from the late Bronze Age Mycenaean levels of Knossos in Crete and archers are depicted in Mycenaean art. These Greek bows are generally of the segment-shaped and double convex type but descriptions in Homer of bows made of ibex horn and which are described as παλίντονος 'bent-back', has led to the suggestion that they were also employing composite bows.

In India there is evidence of copper arrowheads from the Harappan culture and seals from the same culture depict composite segment bows. Later in the first millennium BC there is abundant evidence for iron arrowheads over much of India. The Indian arrowhead was inserted into a shaft of wood, bamboo or reed. The bow is frequently mentioned as a major weapon in early Indic literature.

From an archaeological perspective, the bow and arrow must have been known to the Proto-Indo-Europeans irrespective of the time or place of their homeland or the more geographically confined clusters of cognate terms. For the period of the fifth to third millennium BC the arrow was one of the primary weapons employed by the peoples of Eurasia until the emergence of close combat weapons, the spear and the sword, in the second and first millennia BC. While all the cognate sets presumably indicate a metal arrowhead, the original referent, depending on the time depth of the underlying proto-form, could just as well have been a stone arrowhead. The probable referent of the bow mentioned in the eastern cognate sets was the composite bow and this might have extended back to PIE times.

See also MEDICAL GOD, WARRIORS. [D.Q.A., J.P.M.]

Further Readings

BOY see SON

BRAIN

*μρέγχμεν-- μρέγχ(m)n-o- 'brain'. [IEW750 (*mregh-m(n)o-); Wat 43 (*mregh-m(n)o-); Gl 712-713 (*mregh*); Buck 4.203], OE bregen – braugen 'brain' (> NE brain), MHG bregen – bragen 'brain', Grk βρεχμός ~ βρέχμα ~ βρέγμα 'forehead'. A word of the west and center of the IE world.

*μόστρ' brain, marrow'. [Gl 713] Av mstrvan- 'skullwall',

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Olnd mastiska- 'brain', mástaka- 'head, skull', mastulunga- (*mast-n-pla-?) 'brain', (Indo-Iranian < *māstr(g), gen. māstnās?), TochA mástun (pl) (< *mest-e-') 'marrow', TochB mresstiva- (*mest- + [later]-iw?) 'marrow'. Probably ultimately related to *mosghos 'marrow, brain'. Apparently, this is the eastern word for brain while *marshimen is the western.

See also Anatomy, Head. [D.Q.A.]

Further Reading

**BRANCH**

*Koh1koh2 (gen. *Koh2koh2) 'forked branch' (< *leaves and branch of deciduous tree?*). [IEW] 523 (*Kákha*; GI 596 (*kák*)), Buck 8.55. Goth hōha 'plow', OHG huohhili 'wooden hook plow made from a curved branch', OPers sagnis 'root', Lith šaka 'branch', šaknis 'root', Lat saka 'ramification of a tree', sakas 'pitchfork', sakne 'root', OCS socha 'pole', (primitive) wooden plow. Rus sokha 'primitive plow', posokh 'forked staff', Arm cax 'branch', NPers šax 'branch, antlers' (the latter two as if from *Koh1koh2*, Olnd sākha 'branch'. Archaic in its morphology and geographically widespread; surely PIE in date. In origin a collective noun derived from *Kehkom 'edible greens'. The semantic variation is intelligible: just as 'branch' in English means fork or other bifurcation as much as anything arboral, so many of the reflexes of *Koh1koh2 mean 'forked root' or they mean 'plow' as early and primitive plows were made of tree-trunks or heavy branches such that the forked end of it, or a large forked secondary branch, served as handles for the plowman. 'Branch' was most probably the early PIE meaning.

*Kank- 'branch'. [IEW] 523 (*Rank*), GI 596 (*kák*). Olr cēcht (≠ *kankto-) 'plow', Mlr gēc (with secondary grade rather than c-) 'branch'. Wels cainc (< Proto-Celt *kanku-) 'branch', ON hárr (< *hanha-) 'thole-pin; shark' (from peg-like teeth), Lith astankė 'barb, crooked projection from a tree', OCS sokha 'shoot, twig, sprout', Rus suk 'branch, knot', Olnd sākta 'peg, sākti- 'spear'. Similar in shape to the preceding word but not related to it in form. PIE date.

*Hosdōs* 'branch'. [IEW] 785–786 (*ozdo-s*), Wat 46 (*ost*); GI 175 (*Hos-*) ([IEW] 785). OHG ast 'branch', Goth asts 'branch', Grk òsos 'branch, shoot', Arm oṣi 'branch', Hit hāsdēr 'twigs, branches'. Compare, with lengthened-grade, OE ðost 'knot in wood', MDutch ðost 'knot in wood'. Widespread and old in IE. This word and the PIE word for 'nest' (*hōs-sd-os and *ni-sd-os, respectively) may have been derived from the zero grade of the root 'to sit' (*sed*), i.e., 'place to perch on, to sit in, etc.' But this idea, despite the prestige of its authors, is problematic. There is several words for branch, in any case, suggests a rather fluid situation with a number of interlocking symbolic dimensions yielding various outputs in various stocks for the concrete denotations at issue.

*Ur(h)ad- 'root, branch'. [IEW] 1167 (*ur(ē)d*); Wat 78 (*wrēd*); GI 572 (*wr(a)t-*/wr(o)t*); Buck 8.54. From

Further Reading

**BRAVE**

*Dhers- 'brave'. [IEW] 259 (*dhers*), Wat 14 (*d'hers*), Buck 16.52. OE dear 'dare' (> NE dare), OHG gater 'dare' (< Gmc
BREAK


*bhreg- ‘break’. [IEW 165 (*bhreg-); Wat 9 (*bhreg-); Buck 9.26]. Lat fraingh (with nasal infix) ‘break’, OE brecan ‘to break’ (> NE break), OInd brehahan ‘to break’, Goth breikþ ‘breaks’, OInd giri-bhraj- ‘breaking out of the mountains’. Some doubt exists to the meaning of the Old Indic compound; if it does indeed mean ‘breaking out of the mountains’ then the case for reconstructing the root to the proto-language is strengthened. Otherwise, the root is probably of late, western, dialectal status. Although some have connected this root with *bherag- ‘clatter, make noise’, such an etymology is very unlikely.

*bhres- ‘break, smash to pieces’. [IEW 171 (*bhreus-); Wat 9 (*bhres-); BK 3 (*bur-/*bor-)]. OIr bruid (DIL bruid) ‘breaks, crashes’, MWels breu ‘brute’, Lat trustum ‘piece’, OE byrns ‘crush’ (cf. NE burst), Alb bresher (Gheg breshen) ‘hail’. The relatively limited spread of the cognates suggests a late word. The form *bhres- may, however, be an extended form of *bhreu- ‘cut, break up’ which in turn is probably an extension of *bher- ‘cut’ which would suggest that the basic root is quite early.


*leug- ‘break, break off’. [IEW 686 (*leug-); Wat 37 (*leug-); Buck 9.26]. OIr lucht ‘load, cargo’, Wels llwrrh ‘load, burden’, Lat lágō ‘mourn’, OE to-lúcan ‘to pull or tear to pieces’, OHG leohhan ‘to tear, pluck’, Lith ląžti ‘break’, Latv ląžti ‘break’, Alb lúne ‘knot’, Grk lývnalós ‘unhappy’, Arm lukanem ‘loosen’, Av fra-uruxiti ‘destruction’, OInd rujati ‘breaks, shatters’, TochB lakle ‘pain, suffering’. The root is securely reconstructed to PIE. The first element of the Greek compound ἀλλουκτόπεδα ‘shackles, fetters’ has been cited in connection with this root (ἀλλουκτό- ‘unbreakable’ + πέδη ‘fetter’), but such a connection is doubtful. It is interesting to note that both the Greek and Latin formations based on this root refer to unhappiness or grief, suggesting some metaphorical link between unhappiness and destruction which is also indicated in the Tocharian cognate. The precise nature of the link is unclear, some scholars suggesting that it involves the often violent manifestation of grief while others suggest a metaphor of ‘breaking down mentally’.

*reup- ‘break’. [IEW 870 (*reup-); Wat 55 (*reup-–*reub-); Buck 9.26]. Lat rumpó ‘break’, ON rúfa ‘to break’, OE *reowan (past ptcl. ro fen) ‘to break’ (cf. NE rift), Lith rūputi ‘to grieve, afflict’, OInd rupati ‘suffers racking pain’. If the Old Indic form belongs with this cognate set, then the root is PIE; otherwise, it may be a later formation.

*urchg- ‘break, tear to pieces’. [IEW 1181–1182 (*urég-); Wat 78 (*urég-); Buck 9.26]. Lith rēzē ‘to cut, scratch’, OCS rēzati ‘to cut, hew’, Rus rezati ‘to cut, slash’, Grk ῥήγωμι ‘break’, Arm ergan- ‘tear, rip up’. The Middle Irish form points to a vocalism *-e/- and hence may not belong to this cognate set. The Balto-Slavic and Greek forms correspond fairly well and the reconstruction is moderately secure to at least the central area.

*bhres- ‘burst’. [IEW 169 (*bhres-); Wat 9 (*bhres-)]. Mlr brosc ‘crash, din’, ON bresta ‘to burst, crack’, OE berstan ‘to burst’ (> NE burst), OSub brestan ‘to burst’. The Middle Irish form is probably not cognate but rather a result of the form bloc- ‘noise’ being influenced by the initial cluster of br(s)id, bronnain, and broid, all of which mean ‘breaks’. If the Irish form is discounted, then the root is only attested in Germanic.

See also GRIEVE. [M.N.]

BREAST


Female

*pístenos ‘woman’s breast, nipple’. [IEW 990 (*speno-); GI 365; Buck 4.41]. Grk (Hesychius) στηνύον ‘breast’, Arm stin ‘woman’s breast’, Av bistāna- ‘woman’s breast’, OInd stāna- ‘woman’s breast, nipple’, TochA pāssām (dual) ‘woman’s breasts’, TochB pāscane (dual) ‘woman’s breasts’. With the following entry this word looks to be a strong candidate for PIE status.

*speno- ‘(woman’s) breast, nipple’. [IEW 990 (*speno-); —81—
Buck 4.41]. Olr sine (* *spenijo-) ‘teat’, ON speni ‘teat, nipple’, OE spenu ‘breast’, OHG spumni ‘nipple’, OPrus spenis ‘teat’, Lith spenys ‘teat’. This word looks to be a western innovation, by metathesis and simplification of the heavy consonant cluster, of the (presumably more archaic) preceding entry, i.e., *p* → *sp*.


*dheh1lus* ‘nourishing, suckling’ and ~ *dhhyileh1* ‘teat, breast’. [IEW242 (*dhi-lo-*)]; Wat 13 (*dhe(i)-*); GI 487. Lat felix ‘fruitful, prosperous, happy’, Alb dele (< *dholi*;hle) ‘sheep, ewe’, Grk Ò̌θiû-’loûf’ nourishing, OInd dàratì ‘suckling’, Mir deil (DIL dela) ‘teat’, ON diklr ‘suckling lamb, young of animal’, OE delu ‘teat, nipple’, OHG tîla ‘female breast’, with new lengthened grade in the further derivative in Latv dîl ‘suckling calf’. All of these can be taken as rather banal derivatives of *dheh1(i)-* ‘suckle’. We may also recognize a northernly (Celtic, Germanic, Baltic) and late IE word for ‘teat, breast’ in *dhyileh1*.

*pap*- ‘mother’s breast, teat’. [IEW91 (*ba*b*); Wat 47 (*pap*]). Lat papilla ‘teat, nipple, breast’, MHG buoben ‘breast’, Lith papas ‘breast’, OInd pîppala ‘nipple. Probably not a real “word” at any point in PIE but rather a continuously reinvented nursery term (cf. NE pap, boob).

See also ANATOMY. [D.Q.A.]

BREATHE

*hênhymi* ‘breathe’. [IEW38 (*an*a*); Wat 2 (*ana*); GI 388 (*a*H*); Buck 4.51; BK 369 (*an-a*/*an-a*).] Goth uz-anan ‘breathe one’s last’, Olind anir ‘breathes’, TochB anîsk ‘breathe, inhale’. Though not widely attested the geographical spread indicates great age within IE.

*hjeh1tmen* ‘breathe’. [IEW345 (*etmèn*); Wat 17 (*etimen*); GI 388 (*anH*); Buck 4.51; BK 369 (*an-a*/*an-a*).] OE æðm ‘breathe’, OHG atum ‘breathe’, OInd atmā- ‘breathe, soul’, TochA ânîk ‘self, soul’, TochB âtīme ‘self, soul’ (Toch < *antimn-, a conflation of this etymon and the next one). See also *hjeh1tr- ‘lung, internal organ’.

*hjeh1hymos* ‘breathe’. [IEW38–39 (*an-a*); Wat 2 (*ana*); GI 388 (*anH*); Buck 4.51; BK 369 (*an-a*/*an-a*).] Lat animus ‘spirit, wind’, Grk âvømíos ‘wind’, Arm holm (< *honm* ‘wind’, perhaps Olind ânila- (i < *anima-*) ‘wind’ (for Tocharian, see previous entry). (Cf. Olr aná ‘breathe’ and Wels anaol ‘breathe’ from Celt *hjeh1h1-tlo*). From *hjeh1h1- ‘breathe’. It seems reasonable that this word, based as it is on a clearly attested verb ‘breathe’, is a later creation than *hjeh1tmen- which has no such underlying verb. Both words, however, show a wide geographical spread and, as Tocharian demonstrates, must have existed, in at least a part of the PIE world, side by side.


*dhùesmi* ‘breathe, full of (wild) spirits’ (Balto-Slavic ‘breathe, exhale, expire’). [IEW268–271 (*dheu*); Wat 14 (*dheu*); GI 388 (*dheu/H*s*).] Olr dásacht (< *dóto stâko* ‘rage, fury’, Lat furó (< *dhùes*o-) ‘rage’, bellùa (< *dhùeslu- with dialectal b- rather than f-) ‘wild animal’, OE dyseg ‘confused, dizzy’ (> NE dizzy), OHG tusk ‘confused’ (< *dhtsâko-), MHG tuster (< *dhuastro-) ‘ghost, spectre’, OE dwaes ‘foolish’, MHG twâs ‘fool, evil spirit’, and getwâs ‘ghost, spectre, foolishness’ (< *dhuës*o-), Lith dvešî ‘perish, die (of wild spirits)’. Probably onomatopoeic in origin and only in Greek has *dhuës*o- ‘spirit, wind’ (borrowed as *dhuës*o- ‘image, picture’, Hit ruhâ(i)- ‘gasp’, TochB col (< *dheus*ô-) ‘wild (of animals)’). With new full-grades: ON dyôr ‘wild animal’, OE deôr ‘wild (animal) > NE deer), OHG tior (‘wild animal’ (Gmc < *dheusôm*), Lith daïsos (pl.) ‘upper air, paradise’, OCS duha ‘breath, spirit’, Rus duh ‘breathe, spirit’. Widespread in IE though not universal; probably only secondarily the usual word for ‘breathe’ in some IE areas. Related to *dheu- ‘breathe (one’s last)’. It has been suggested that the underlying semantic difference between *dhùesmi* and *h1en1h1mi might be explained by presuming that the first meant ‘exhale’, hence its association with ‘breathing one’s last’ while the latter, which lacks such connotations, may have indicated ‘inhale’.

*pneu*- ‘snort, sneeze’. [IEW838–839 (*pneu*).] Wat 52 (*pneu*); Buck 4.51; BK 560 (*nap*</*nap*).] In Ínysa ‘puff, snort’, OE ônesan ‘sneeze’, Grk πνεω ‘breathe’. Probably onomatopoetic in origin and only in Greek it has become the ordinary word for ‘breathe’.

*bhes*- ‘blow’. [IEW146 (*bhes*); Wat 8 (*bhes*).] Grk πνει ‘breathe, spirit’, Olind *psu- ‘breathe’. Probably onomatopoetic in origin; distribution suggests a late dialectal term in PIE.

See also ANATOMY, BLOW, COUGH, DEATH, LUNG, NOSE, SIGH. [D.Q.A.]

BRIDE-PRICE


The family of the Indo-European bride received some form of economic consideration from the groom or his family. This
custom, the bride-price, is well-documented elsewhere and is attested in a number of cognates from Germanic, Slavic and Greek. Accordingly, an Indo-European proto-form, the neuter noun *wetmen-, may be reconstructed on the basis of OCS věno (< Proto-Slavic *vědnom < PIE *wetmon) ‘bride-price’ and Gk ἔδων ( <*rēdōm) ‘bride-price’. OE *wituma ‘bride-price’ with various spellings of the stem vowel and Fris wetma point to Proto-Gmc *wet(m)ôn, an n-stem. The shifting medial vowel of Old English weotoma and Old High German widamo, widemo results from oblique forms of the stem, the English and German reflecting the syllabic nasal of the oblique, *wetm-n-, and the Frisian the consonant of the (*g!Jh;)i-d-ro-s); WRNTE.

*bright, clear’. *wetd-, ‘broad, wide’, Av HALF; ‘clear’, Olnd and metathesis SHINE; *osthx- ‘breadth’. From roca-steIl} vowel f8vov *rJedh- ae8vov (*>plat-); ‘lead’, a root frequently used in connection with *urhx6us) ska{drs giedras ‘clean’ (> NE *8, ‘clear’ (the Oir in Oir heiar ‘also pol-t'iipe ‘shining, radiant’, TochB *vednom [M.E.H.I -had gaidra lAalvoi */Jedmon) UGlIT 1 ; ‘breadth’, 1rAarU~ pdrdOu- urU- ‘bride~price’ clernsian *h2IJ.ed-no-. Exc:HANGE; polu ‘half’, Rus ‘bright sky’, heiar ‘clear’, OE prathas- Buck 12.61]. Lith *F£DpOV) citra­ ‘bright’, ‘bright, ci(Jra- might more or less directly just possibly a late word of the IE west hadar ‘bright’. had (*pltit-); AevK"6~ Wat 51-52 takes SPREAD. ‘broad, Wide’, Oind and not results *koitus (Hesychius) (s)koitr6s (ie (s)koit> ‘brightness’, related to the *koitus seen in ON heið ‘honor, rank’, OE hâd ‘clear’, OHG heitar ‘clear’. Lith skaiðras ‘bright, clear (of weather; clear, limpid (of water)’, Latv skaidrs ‘clear’ (the unexpected shape of the Baltic words may reflect a voicing dissimilation from *k.i > k. d, Av éðra- ‘clear’, Olnd citrá-‘excellent, bright, variegated’). The Germanic and Baltic words, on the one hand, and the Indo-Iranian, on the other, look to be independent creations of an unattested noun *(s)koi̯t ‘brightness’, related to the *koitus seen in ON heit+ ‘hood’, OE heitt ‘rank, status’, -heit ‘hood’, Goth haidus ‘way, manner’ (< ‘appearance), Olnd ketu ‘brightness, light, apparition, form’. This complex is, as a whole, of PIE date.

*BRIGHT


*ghaidros ‘bright, shining’. [IEW 488 (*ghoi-d-ro-); Buck 15.57]. Lith gaidrás ~ giedras ‘fine, clear (of weather); bright, cheerful (of mood); clear, limpid (of water)’, gaïdra ‘cloudless sky, hot weather’, Latv dzids ‘azure’, Gk φαιδρός ‘beaming (with joy), cheerful’ (cf. Gk φαιδίμος ‘bright, shining, glistening, famous, glorious’). At least a word of the central part of the IE world.

*(s)koitós ~ -kítros ‘bright, clear’. [IEW 916 (*skai-); Wat 58 (*skeai-). ON heid ‘bright sky’, heidi ‘clear’, OE hâdor ‘clear’, OHG heitar ‘clear’. Lith skaiðras ‘bright, clear (of weather; clear, limpid (of water)’, Latv skaidrs ‘clear’ (the unexpected shape of the Baltic words may reflect a voicing dissimilation from *k.i > k. d, Av éðra- ‘clear’, Olnd citrá- ‘excellent, bright, variegated’). The Germanic and Baltic words, on the one hand, and the Indo-Iranian, on the other, look to be independent creations of an unattested noun *(s)koit> ‘brightness’, related to the *koitus seen in ON heit+ ‘honor, rank’, OE hâd ‘rank, status’, -hâd ‘hood’ (> NE ‘hood), OHG heitt ‘rank, status’, -heit ‘hood’, Goth haidus ‘way, manner’ (< ‘appearance), Olnd ketu ‘brightness, light, apparition, form’. This complex is, as a whole, of PIE date.

**plech2es- (*plech2- ‘broad, wide’. [IEW 636–637 (*gel-); Wat 18–19 (*gel-). OE cléane ‘clean’ (> NE clean), clándsan ‘purify, cleanse’ (> NE cleanse), OHG klémni ‘shiny, fine’, Grk (Hesychius) χαλάων* ‘star-shaped ornaments’. The Greek attestation is weak, just possibly a late word of the IE west and center.

See also Light1, Shine, White. [D.Q.A.]

BROAD


See also Half, Heap, Spread. [D.Q.A.]
BROTH

*bërthōr* - broth. [IEW 507 (*fäs-*); Wat 79 (*yā-s-*); Gl 608 (*yeu-s*)]. Lat *tēs* 'broth', OPrus *sāse 'meat broth', Lith *jūsē* 'fish soup', OCS *juchā* 'soup, broth', Rus *ukhra* 'broth, fish soup', Grk ζύμη (*< *tēs-mēh-*) 'leavening'. NPers *jāsānda* 'broth', OInd *yās-* 'soup, broth, the water in which various kinds have been boiled'. Widespread and old in IE. From *✩*jēuhr-* 'mix, join together'.

?*korm-* ~ *krem-* 'broth, mash?'. [IEW 572 (*k(e)r-em-*)], Gl 608 (*kr-em-*). OIr *cuirm* 'beer', MWels *cwrwlf* 'beer', Gaul κύρμιμ - κύρμιμ type of beer, Lat *crem* 'broth, pap', OCS *krāma* 'fodder', Rus *korm* 'fodder', OInd *karam-bhār* - 'barley porridge; soup'. It is not certain that all these words belong together, certainly no single proto-form can be reconstructed. Perhaps a word of PIE antiquity.

See also BEER, BOIL, FERMENT, FOOD. [D.Q.A.]

BROTHER

*bhēr̥hātēr* - 'brother (?father's brother's son, cousin). [IEW 163–164 (*bhātār*); Wat 9 (*bhātār*); Gl 666 (*bhra-Ḥ̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣..
traditional set has been challenged by Szemerenyi who has suggested that the Slavic words may be derived from *seurio-; a vṛddhīed form (*śeuro-) of PIE *sū- 'woman, wife', i.e., a term used to denote males related by way of their wife. A similar origin for the Old Indic word (< *s(t)u)jelο-> has also been suggested. The traditional reconstruction still seems more likely. A word of the center and east of the IE world.

*śeqeuros* 'wife's brother'. [Wordick 185–186]. Frits Bager 'wife's brother', OHG swägur 'wife's brother', Old Norse svāstr- (< *svāstra-> 'pertaining to the father-in-law' (the presence of svāstari- 'grandson of the father-in-law' may imply an Old Indic noun *svāsara- 'father-in-law'), Kashmiri heshe 'wife's brother', Sindhi hāra 'spouse's brother'. A derivative of *śeqeuros* 'father-in-law', perhaps independent in Germanic and Indic. The derivative's restriction to 'wife's brother' parallels the derivatives of *h2euzh2os* 'grandfather' such as Lat avunculus 'mother's brother'.

*KINSHIP; GI 664*

*śelio~ - *śelihion* - 'wife's sister's husband'. [IEW 1046 (*sue-lo-); Szem 27; Wordick 208]. On svili 'wife's sister's husband', Girk eilioves < *e[liov]es 'wife's sisters' husbands', (Hesychius) ἀδέλιοι 'wife's sisters' husbands' (< *(s)up-)śeloi (αε- co-brothers-in-law'). Distribution suggests a word of the northwest and center of the IE world. With as the word, Szemerenyi has suggested that this form is built on *sū- 'woman, wife'.

*ģ(e)m(he)ros* 'sister's husband, son-in-law'. [IEW 369 (*g(e)m(e)-); cf. Wat 19 (*geme-); OI 664 (*g(e)m-); Szem 20; Wordick 241–242]. Lat gener (< *g(e)m-er, possibly under the influence of genere 'beget, bear, bring forth') 'daughter's sister's husband'. Girk *γαμερος* (< *gameros < *gamro- < *g(e)m(e)ro- 'sister's husband'. Another form *ģ(e)mh2e-ter* can be seen in Lith ženétas 'daughter/sister's husband', OCS zeti 'daughter/sister's husband', Rus zjatt 'daughter's/sister's husband, husband's sister's husband', and Alb dhendar (Gheg dhendar) 'groom'; cf. also Av *zhmatar- 'son-in-law', Olnd *jmatar- 'son-in-law'. Subject to morphological rebuilding in the various stocks that attest it, to the point that the actual PIE form cannot be reconstructed. However, it is nevertheless widespread and old.

*šoinijos* 'wife's sister's husband'. Lith svinis 'brother-in-law' (particularly 'wife's sister's husband'). Lat svinis 'brother-in-law' (particularly 'wife's brother; wife's sister's husband'). Derivationally related to *šoinijeh2- 'wife's sister' seen in Lith svinė 'sister-in-law' (particularly 'wife's sister; brother's wife'), Lat svinē 'wife's sister', Arm keni 'wife's sister'. Though *šoinijos* is found only in Baltic, the presence of *šoinijeh2- in Armenian suggests an earlier wider distribution. So too does the existence of OHG (ge)swiē ( < *suejōn) 'brother-in-law' (particularly 'sister's husband'). Morphologically *šoinijeh2- might reflect originally an adjectival derivative of *śejon*.

For the four people whom the term 'brother-in-law' may be applied, PIE made a clear distinction, having separate terms for each. The best recorded of these was 'husband's brother', *daithê, a term represented in seven stocks. With the exception of Latin, where the word appears to have been borrowed from an alien dialect, the phonological correspondences are regular throughout the distribution and an original PIE term cannot be doubted.

An archaic-looking term for 'wife's brother', *sjōros, is preserved in Indic and Slavic, and perhaps Armenian, although in that dialect the form reflects 'son-in-law' and may be a borrowing from an otherwise unattested Iranian cognate. The fact that a modern derivative for 'wife's brother's son' survives in Rus štīrin 'wife's brother's son' suggests that this was an ancient word and may have been the PIE term despite its limited eastern distribution.

Widely separated Old Norse and Greek words for 'wife's sister's husband', point to an IE term *śelihion. In Lithuanian a special term svinis exists, derived from the term for wife's sister, svinė (cognate with Arm keni).

In many stocks 'sister's husband' is not distinguished from 'daughter's husband', *ģ(e)m(h2)ros, a feature that is typical of many Omaha systems where relatives linked by daughters and sisters receive identical terms.

Finally, Germanic and Indic suggest the existence of a vṛddhīed or lengthened-grade form, *śeqeuros, derived from 'husband's father'. Despite its archaic appearance, the application of this form to 'wife's brother' is probably a parallel innovation (lengthened-grades are highly productive in both Germanic and Old Indic) from a common IE adjectival meaning 'pertaining to the father-in-law' and this is the meaning attributed to the Old Indic form which occurs very late in Sanskrit literature.

See also Kinship; Son-in-Law. [M.E.H.]

**BROWN**

*ţber- 'brown'. [IEW 136 (*ţber-); Wat 7 (*ţber-); GI 190 (*ţper-); BK 29 (*buţ-/*bort-).] From *bhranos* (*bhrhunos*; ON brunn 'brown', OE brun 'brown' (> NE brown), OHG brün 'brown', Gkr ὑπόν - ὑπόν 'toad', other formations include ON bjorn ('Proto-Gmc *berot-') 'bear', OE beor (Proto-Gmc *berot- 'bear' (> NE bear), Lith bēras 'bay (color of a horse)', Mitanni pipuru 'brown (of horses)', Olnd babhrū 'red-brown'. The root is widespread, though with the exception of the same formation in Germanic and Greek and the word for 'beaver', each stock shows its own morphological innovation(s). Also, its strong and sometimes exclusive association with either the color of animals or the names of animals suggests that it probably is not a "primary" color although it did develop into one in Germanic.

*ţbadjos* 'yellow brown'. [IEW 92 (*ţbadjos); Wat 4 (*ţdayo-). Olr buide 'yellow', Lat blandus 'bay, chestnut brown (of a horse)'. The Italo-Celtic evidence is sufficient only to reconstruct this word to the far west of the IE world. Although the word may refer to the color of a horse in Old Irish, it may be much more widely applied and usually is unlike the term in Latin which seems to be primarily restricted to the color of horses.

See also Beaver, Black, Color, Dark. [D.Q.A.]

— 85 —
The Bug-Dniester (or Dniester-Bug) culture is an early Neolithic culture of the northwest Black Sea region during the seventh and sixth millennia BC. The culture reveals a transition from a predominantly hunting-gathering-fishing economy to the adoption of domesticated animals (pig, cattle) and ceramics with the retention of a local Mesolithic tool technology. The hunting-gathering component in the economy is clearly local and included the hunting of aurochs, red and roe deer and wild pig with extensive exploitation of fish resources (eel, pike, carp). The presence of a domestic component in the economy has been variously seen as evidence for an intrusion of Balkan farmers into the northwest Black Sea region, the product of acculturation where local Mesolithic populations adopted elements of the agricultural economy from their Balkan neighbors, or a local native development of agriculture (it has been suggested that the cattle and pig were locally domesticated while the presence of wild wheat [*Aegilops cylindrica*] and grinding stones on some very early sites may mark a local transition to or predilection for agriculture long before contacts with Balkan farming communities). These later contacts are believed to be evident in the adoption of domestic wheat (emmer [*Triticum monococcum*], einkorn [*T. dicoccon*], spelt [*T. spelta*]) and barley (*Hordeum vulgare*). Other cultigens or consumable plants include pea (*Pisum sativum*), sloe (*Prunus spinosa*), cherry plum (*Prunus cerasifera*), bullace (*Prunus insititia*), and Cornelian cherry (*Cornus mas*); traces of oats (*Avena*) and possibly millet (*Panicum*) have also been recovered. Architectural remains include semi-subterranean huts in the earlier phases with the development of surface dwellings in the later periods.

While the Bug-Dniester culture does not impinge normally on the identification of any specific IE stock, the nature of its agricultural economy marks a watershed between some of the major theories of IE origins. Proponents of an early Neolithic homeland associated with the spread of agriculture from Anatolia might tend to see the Bug-Dniester culture as the result of agricultural (and IE) expansions from the Balkans toward the steppe and forest steppe of the Pontic-Caspian region. Those supporting a homeland in the Pontic-Caspian itself would see in its evidence for local continuity possible support for the local development of agriculture in that region or, at least, a development independent of a migration of Balkan populations (and their languages). In this way, early agricultural populations to the west of the Bug-Dniester culture would be non-IE and the IE homeland might be situated somewhere to the east of the Bug-Dniester culture.
BUILD

*dem(h₃)- 'build (up)' (pres. *dem(h₃)-e/o-). [IEW 198-199 (*dem-/*dem)-; Wat 11 (*dem-); GI 646 (*tem-); Buck 9.44; BK 133 (*tem-/*tem-)]. OHG zeman 'be fitting', Goth ga-ti-o man 'match', Grk δύημα 'build', δύημα (< *δέμα-) 'body, stature, form', HierLuv tama- 'build', Khot pa-dim- 'make' (Proto-Iranian 'pati-damya-'), TochAB ta-mm 'incense, grow'. From *dem(h₃)-ro- comes a Germanic group: ON timbr 'timber, wood felled for building', OE timber 'building, building material; trees, woods' (> NE timber), timbr(i)n 'build, construct, erect; cut timber', OHG zimbar 'material, building', zimbaron ~ zimbaron 'build', Goth timiran 'build (up), strengthen; benefit, edify'. Widespread and old in IE. It is perhaps significant for the history of Germanic building techniques that this word has, in its derivative *dem(h₃)ro-, tended to become restricted to 'build in/with wood'. Old and widespread derivatives of the verb, though without the final laryngeal, mean 'house' in many IE stocks. The relationship of this *dem(h₃)- and the apparently similar *demh₃- 'tame' is disputed.

*kwei- 'pile up, build'. [IEW 637-638 (*kwēi-); Wat 33 (*kwēi-); Buck 9.44; BK 320 (*kʰwēj-/~kʰwēj-)]. OCS čini 'order', Grk ξυνάo (< *kwe-u-ejo-) 'denotative verb from suffixed o-grade of extended form *kwe-o- (o-) 'to pile up, make', Av kav- 'choose', Olnd cinnū 'piles up'. Distribution suggests a term primarily of the eastern part of the IE world.

Generally, words for 'build' are found in dialectally restricted roots that reflect different utilization of the various materials available for construction, e.g., OHG flehtan 'plait' and OCS płota 'fence' from *plek- 'plait', or Osc lētho- 'wall' and Grk τεῖγω 'wall' from *dheigh- 'to knead, mold' which also gives Lat fingere (< *dhēning-) 'to shape' and OE dic 'dike, ditch, embankment' (> NE dike). Other terms derive from the concept of 'settle', e.g., Grk τιτω 'build', Olnd kṣi- 'settle' from *tše- 'lie'.

See also TEXTILE. [A.D.V, D.Q.A.]

BURDEN

*h₁d₁nhaes- 'burden'. [IEW 321 (*enos-); BK 423 (*an-/ *an-)]. Lat onus 'burden', Olnd āna- 'goods wagon'. The underlying verb is perhaps to be seen in Hit aniyya-'do'.

See also CARRY, WAGON. [D.Q.A.]

BURN

*h₂e_i dh- 'burn; fire'. [IEW 11 (*ai-dh-); Wat 1 (*aidh-); Bus 1.85]. Olr āed 'fire', Lat aedēs 'temple', OE ād 'heat, fire', OHG eiht 'heat, fire', Lith ėsmé 'firewood', OCzech ništěj (Slav *čestýja) 'furnace', Grk aϊtθo (tr.) 'burn', aϊthumai (intr.) 'burn', aϊtho χ 'fire', Av aśeṣa- 'firewood', Olnd aɪñhe (< h₁j-in-dh-toi) 'kindle', edha-'firewood'. Distribution indicates PIE status.

*h₁el- 'burn'. [IEW 28 (*al-); BK 376 (*al-/*al-)]. Lat altar 'altar', adoleo 'burn a sacrifice', Swea ala 'blaze, flare up, burn', Olnd alatam 'firebrand, coal'. Though only sparingly attested, the geographical distribution of those attestations would make PIE status likely.²

*h₂e₁dh₃- 'burn, be hot' (pres. *h₂e₁d₃h₃or). [IEW 69 (*a(e)r-); Wat 4 (*a(e)r-)]. The underlying verb is preserved as such only in Palaić hā- 'be hot'. Derived verbal abstracts are attested in Olr aih (< *h₁e₁dh₃-ti-) 'kill', Hit hās (acc. hāssan) 'soda ash, potash, soap; (pl.) ashes' (< *h₂e₁d₃h₃os). Other, more widespread, derivatives are *h₁e₁dh₃-seh₃- 'hearth' in Lat āra 'sacificial fireplace, fire-altar', Hit hāssa- 'fireplace, hearth, fire-altar', *h₁e₁dh₃-ter- 'fire' (< *burner) in Av ātār- 'fire'; and *h₁e₁dh₃-mer- 'heat of the day' in Grk ἡμῶρ 'day'. An enlarged *h₁e₁dh₃- is probably to be seen in *h₂e₁d₃₃-art- 'star' (< *ember?). Further extended by an originally presenting suffix *-dh- is seen in Lat ardō 'burn' and TochA astār 'pure', TochB astare 'pure' (< *h₁e₁dh₃-dh-ro-). The evident antiquity of these derivatives assures the verb's PIE antiquity. The recurring association of this verb with the sacred 'fire-altar', ['sacred'] fire', 'pure') is noteworthy. With the loss of all laryngeals in most IE stocks this root came to lack much phonetic body and, presumably as a result, everywhere it has been replaced by other words for 'burn'.⁶

*deh₃u₃- 'kìndle, burn, blaze'. [IEW 179-180 (*dau-); Bus 1.86]. Olr (vn. dat. sg.) dou(d) (DIL dou(d) (< *doid < *dau-)) 'burning', MWel sdeiyaw (< *dau-) 'burn, singe', cymneu (< *kom + dau-i-) 'kindle', Grk διαίο ( < *deh₃u₃-jo or *dhisu) 'kindle, burn', Olnd dumō 'kindles, burns', TochA tias- 'kindle, ignite, light', TochB tu- < tws- 'kindle, ignite, light'. PIE status certain.

*dheg₃₃h- 'burn'. [IEW 240-241 (*dheg₃₃h-); Wat 13 (*dheg₃₃h-), GI 725 (*dheg₃₃h-); Bus 1.85; BK 142 (*d₁sh₃₃k-]*)]. OIr daig (< *degi-) 'flame', MWel godēith (< *deith < *dheg₃₃h-terh₃-) 'blaze, perhaps of burning', Lat favo (< *dhegyehto-) 'heat, cherish', febris 'fever', Lith degu 'burn', OCS že (where z < g for d) 'burn', Alb dheg 'burn', Grk θηβαν 'ash', Av dažati 'burns', Olnd dhāhati 'burns', TochAB tskā- 'burn'. Good distribution indicates PIE status. Gott days 'day' has also been placed here but this has been challenged since the derivatives from *dheg₃₃h- have the meaning summer ('e.g., OPrus dagis, Olnd ni-dagha-) and not 'day'. As it stands beside fidur-dogs, it may point to *dh₁h₃h₃g₃₃ - *dh₁h₃h₃g₃₃ respectively. *dh₁h₃h₃g₃₃ may be found in TochAB tskā- 'light, give light'.

*h₁jeus- 'burn, singe'. [IEW 347-348 (*eus-); Wat 18 (*eus-); GI 725 (*eus-); Bus 1.85]. Lat āro 'burn', ON yṣja 'fire', uṣli 'glowing ashes', OE yṣle (< *h₁jeus-) 'glowing ashes', Alb ethe (< *h₁jeus-dh-je₁h₃-) 'fiver, yll (< *h₁jusli-) 'star', Grk eίοn 'singe', Olnd oṣati 'burns, sings'. PIE status assured.

*h₁elh₃- 'burn, glow, charcoal'. [IEW 399 (*g(e)ul-); Wat 20 (*g(e)ul-); Bus 1.82]. OIr gual (< *g(e)oul-) 'charcoal', Olon kol 'charcoal', OE col 'glowing piece of wood, OHG kol (< *kula-), kolo (< *kulon) 'charcoal', Lith žvili' gleam, Latv zvīlēnē 'flame, glow', Olnd jvalati 'burns', jvala- 'flame, coal'. Very doubtful is Arm krak (< *guro-) 'fire, glowing coals' the Celtic form is cognate only if it has a secondary full-grade
based on the zero-grade *gul(h)-. Nevertheless, even with cognates in the northwest and Indic, the distribution is fair and indicates considerable antiquity.

*suell-*burn*'. [IEW 1045 (*suell-); Wat 68 (*swell-)]. OE swellan 'burn', OHG swellizón 'burn', Lith svilt- 'singe', Latv sveļu 'singe'. Grk εἶδην, ἐνα 'heat of the sun' is unclear as is ἀλητα (<>*suella-) 'warmth, heat'. The supposed connection with *shvel-*sun' is semantically attractive for Greek and still does not explain εὐλ- nor ἑλ- nor ἀλητ- (<>*shvelu-*fēla-). Moreover, *suell- is a root, whereas *sehul(ε)-'*sun' is a derived noun. Although sometimes compared here, OInd svārati 'lights, shines' probably does not exist. The root is solidly attested only as a 'northwesternm'.

*suelp-*burn, smoulder'. [IEW 1046 (*suelpio-s)]. Lat sulp(h)ur'sulphur', OE swel'sulphur', Goth swibils'sulphur' (Latin and Germanic <>*suelp[gen. suleplo-s]).

*ger- 'burn'. [IEW 1166 (*ger-); Wat 77 (*wer-); cf. GI 725; BK 491 (*wur-*>wor-). ON varm 'warm', OE wearm 'warm' (<>NE warm), OHG varm 'warm', Goth warnjan 'to warm', Lith vardu 'boil', Lat varīdus 'boil', OCS varun 'boil', cook', Hit ur-ānī (<> by dissimilation *urār- 'burn', warnance', TochA salp- 'be set alight, blaze up, burn'. An enlargement of the previous word? *wær- 'burn'. [IEW 1166 (*wær-); Wat 77 (*wer-); cf. GI 725; BK 491 (*wur-*>wor-)]. ON varm 'warm', OE wearm 'warm' (<>NE warm), OHG varm 'warm', Goth warnjan 'to warm', Lith vardu 'boil', Lat varīdus 'boil', OCS varun 'boil', cook', Hit ur-ānī (<> by dissimilation *urār- 'burn', warnance', TochA salp- 'be set alight, blaze up, burn'. An enlargement of the previous word? *wær- 'burn'. 

See also *Asul; *Charcoal; *Cook; *Day; *Dry; *Fire; *Heath; *Heat; *Hunger; *Pure; *Star. [R.S. PB., D.Q.A.]*

**BUTTERFLY**

*pelpel- 'butterfly'. [IEW 801 (*pel-)]. Lat pappili 'butterfly', ON filaþda 'butterfly', OE filæde 'butterfly', OHG filatira 'butterfly', Lith peteliské 'butterfly'. These words seem related in some fashion, and attest a word of the IE northwest, but the exact pre-form is not reconstructible. An expressive word subject to various kinds of phonological deformation. See also *Insects.* [D.Q.A.]

**BUTTOCKS**

*h1̥ors(o)- 'rear-end'. [IEW 340 (*ors-)]. Wat 46 (*ors-); Gl 717 (*ors-)]. Lat dorsum (<*d-h1̥ors(o)-, whether with a prefix *d- or by misdivision in phrases such as *tod h1̥orsom 'this back') 'back, ridge', ON ars 'arse', OE ears 'arse' (<>NE arse/ass), OHG ars 'rump', Grk ἄρρος 'rump', Arm ar 'rump', Hit ārra- ārrī- ārru- 'rump'. Cf. also OIr err 'back of chariot'. Though sparingly attested, we have here the PIE word for 'rump, buttocks'.

*nuo(h)t- 'rear-end'. [IEW 770 (*nöt-)]. Wat 45 (*nöt-)]. Lat natīs 'buttocks (of humans)', Grk χώρον 'back'; possibly related in some fashion is Goth nōta 'stern (of a ship)' with -t- rather than the expected -p- (crossed with nati net?). Though its archaic morphology argues a great age, its geographical distribution suggests that it was probably a regionalism in late IE.

*bulis- 'rump'. [IEW 99 (*b(e)h-u-); Wat 5 (*beu-)]. Lith bulis 'rump', Grk (Hesychius) βολάδα 'stuffed', OInd buli- 'vulva; anus'. Confined to the center and east of the IE world. *ghaghenov(e)h- 'buttock'. [IEW 438 (*ghengh-)]. Wat 22 (*ghengh-)]. Grk χοίρινη (<> kakhōne) 'crotch', OInd jaghāna- 'hind end, buttock, pudenda'. Related to OInd jāṅghā 'shin' and further to Grk gagan 'go'. The Greek and OInd formations do not quite match, so they may be independent creations. If they do reflect a common source, we have at best a late dialectal term in IE.

See also *Anus; *Haunch.* [D.Q.A.]

**BUY** see EXCHANGE
CABBAGE see VEGETABLES

CALL

Shout

*gal- 'call out, speak'. [IEW 350 (*gal-); Wat 18 (*gal-); Buck 19.13, 18.41]. Probably OIr gall 'swan', Wels gahl 'call', Lat gallus 'cock', ON kall 'shout', kalla 'to shout' (borrowed > NE call), OE ceallian 'call', OHG kallon 'speak loudly' (Gmc < *galsó-), Lith galsas 'echo', OCS glastu 'voice' (and reduplicated glagoliti 'speak'), Rus golos 'voice', Oss galas 'scream'. With Iranian, sufficiently widespread that its IE status is assured.

*gar- 'shout, call'. [IEW 352 (*går-); Wat 18 (*gar-); Buck 18.13, 18.14]. OIr do-gair 'call', gair (noun) 'shout', gairm (noun) 'shout', Wels garm 'shout, cry, gawr 'shouting', Lat garriō 'chatter, prattle', ON kær 'sickbed', OE ceaur 'care, sorrow, mourning' (> NE care), ceairt 'mourn' (> NE to care), ceair 'noise', OHG chara 'mourning', charōn 'mourn', Goth karō 'care', karōn 'be concerned', Grk γῆλος 'voice, call', (Hesychius) γαρρίδου 'rattle at', Arm cārīn 'swallow [bird]', cīarnūk 'nightingale', Oss zartan 'scream, zar'song'. Widespread and old in IE.

*neu- '± cry out'. [IEW 767 (*neu-); Wat 44 (*neu-); Buck 18.43; BK 571 (*naw-/*naw-)]. OIr nuall 'cry, noise', Lat nūnitus 'message, messenger', Latv naudu 'cry', NPers navadan 'cry', Olnd navate 'shouts, cries', TochAB nu-'toar'. Sufficiently widespread to be assured of PIE antiquity.

*ghel- 'cry out, sing (particularly of birds)'. [IEW 428 (*ghel-); Wat 21 (*ghel-)]. On gallia 'resound, gela 'comfort, soothe', gāla 'sing', gola 'scream', OE gellan 'scream, cry out' (> NE yell), galan 'sing' (cf. nihte-gale 'nightingale'), OHG gellan 'resound loudly, galan 'sing', (cf. nahtigala 'nightingale'), Goth gōljan 'scream', Russ galiitisa 'mock, na-galiit 'cry, sing', Grk γῆλος 'swallow', κίλιθα 'thrush'. At least a word of the west and center of the IE world.

*(s)vehugh- '± cry out, resound'. [IEW 1110 (*uagh- ~ *suagh-); Gl 106; BK 481 (*wa-/*wa-)]. ON saegr 'noise', svagla 'splash', OE swōgan ~ swēgan 'to sound' (> NE sough), Goth ga-swōgan 'sigh', Lith sugri 'howl', Lith sveigr- 'scream'. Hesychius places this as if from PIE *vehug-. At least a word of the west and center of the IE world.

*(s)trep- '± cry out, dispute'. [IEW 1037 (*s)trep- ~ (*s)treb-]. Wat 67 (*streþ-). Lat strepō 'cry loudly, make noise', ON þrefa 'dispute, wrangle', OE þranian 'restrain, reprove, urge, demand', προέλ 'dissemination'. Mtr treña (pl.) [DIL trnt] 'celebration, festival, rites, funeral games' has been placed here as if from *strepno- but is more likely to derive from the ordinal 'third' (trntan), i.e., a third part or triple celebration. A western dialectal term in late IE.

*vehb- 'cry, scream'. [IEW 1109 (*wabh-); Wat 73 (*wab-); Buck 18.13; BK 481 (*wa-/*wa-)]. ON cepa 'shout', OE wēpan 'weep' (> NE weep), OHG wuolfan ~ wulfan 'bewail', Goth wōpjan 'cry out, call loudly'. Lith volbyti 'summon at court', Latv vabij 'entice, summon to judgment', OCS vabij 'cry'. At least a northwestern term in late IE.

Invite

*ghuuhex- 'call to, invite, invoke'. [IEW 413 (*ghuh-); Wat 23 (*ghuuhex-); Buck 18.41]. Without the final laryngeal of the root we have OIr guth 'voice', and the Germanic word for 'god' (e.g., ON god - god, OE god (> NE god), OHG got, as *x- that which is invoked). From a present *ghuuhex-: OCS zovp 'call', Rus zavu 'call', Av zavati 'calls', Olnd hāv 'calls, invocates', from a present *ghuuhex-: OCS zvati 'call', Av zbatar- 'one who invokes', Olnd hva- 'call, invoke', TochB kuva- 'call, invite'. Cf. the related noun in Slov zov 'call', Av
zava- 'call', Olnd háva- 'call'. With intensive reduplication and with expressive *-a: Grk καυχούμαι 'speak loudly, boast'. Av zaozao-'call after', (perhaps then with dissimilation [*ghau-*ghau(h)₃] > *khai-[g]₃ Arm xawsim 'speak'). Other present formations are seen in Lith žatvetį 'conjure', Latv zavet 'conjure'. Arm jawnem 'consecrate, bles'. Widespread and old in IE.

*kelh₁- 'call out to'. [IEW 548–549 (*kel-); Wat 28–29 (*kela-); GI 174 (*k²h₁-l-e-s-); Buck 18.13, 18.14; BK 244 (*k²h₁l-/k²h₁l-)]. OIr callech 'cock', Wels celiog 'cock', Lat calō 'call together, summon, convoketo, calendae 'first days of the month when it was publicly announced on which days the nones and ides would fall', ON hjala 'chatter, talk', Latv kaljot 'chatter', Grk καλέω 'call', καλήτορ 'herald', κλήδην 'by name', Hit kalless- 'call', Olnd usi-kala- 'cock' (if < *dawn-caller). Old and widespread and old in IE. Enlargements of this verb include: OE hlōwan 'roar, low' (> NE low), OHG hlojan 'roar', OPrus kaltzā 'ring', kelsai 'read, sound out', Lith kalba 'speech'.

*keuk- 'cry out (to)'. [IEW 535–536 (*kdu-)]. Lith saukiu 'call, cry, shout; summon', Latv sauki 'call; summon; proclaim (in church); elect', TochB kuk- 'call out to'. A Baltic-Tocharian correspondence which must be at least of late IE date.

Cry Out

*kreuk- 'cry out, raise the hue and cry'. [IEW 571 (*s(k)re(h)-)]. OE hreám 'juridical outcry', Av xraos- 'call'. Olnd (ānu) krosati 'call after', (perhaps then with dissimilation (< NE low), OHG (h)ajan 'cry out to'. Probably to be connected here, though the connection is not without phonological difficulties, is Olnd 僖ha- 'a kind of large fish, Pisces (the zodiacal sign), fish'. Also possibly cognate is Lat gerrès 'Maena vulgaris' if it is a borrowing from some other IE group (if it were directly inherited we would expect *ferrès). Clearly the Germanic and Slavic words belong together but even with only three attestations deciding the original meaning is very difficult. Both the asp and the ruff are members of the percidae, though the pikeperch is about three times as large as the ruff. The asp, however, is a member of the cyprinidae and intermediate in size between the pikeperch and the ruff. The Old Indic cognate, if it is that, would argue for a relatively large fish as opposed to a smaller one. At least a word of the west and center in IE; if the Old Indic is cognate then we have good evidence for pan-IE status.

The distribution of the common carp extends across Europe (it has been identified on Swiss Neolithic sites) and into Central Asia and it is extremely well represented on sites north of the Black Sea from the Mesolithic period onwards. It was not only exploited as a source of food but necklaces and other ornaments fashioned from the teeth of the carp are a frequent artifact in the middle Dnieper region. Cyprinids are also known from the Indus river system and were exploited in the Harappan culture. The asp and pikeperch are known from central and northern Europe and across eastern Europe to Central Asia.

Further Reading


CAPTIVE

*kaptos 'captive'. [IEW 527 (*kap-to-s); GI 125 (*k²p²); Buck 20.47; BK 242 (*k²p²l-/*k²p²l-)]. OIr cach 'captive, female slave', Wels caeth 'slave', Late captus 'captive', ON haptar 'prisoner', OE hælf 'captive, slave, bond, fetter' (> NE haft), OHG haft 'bound; device for retaining, fetters', Goth (dat.) -hafti 'laden with, subject to', qibh-hafti 'pregnant'. A participial formation from the verbal stem *kap-take, seize' (cf. Lat capiō 'seize, take hold of, take'). Clearly a west IE word whose development lies in the taking of prisoners of war and their subsequent disposal as slaves.

See also BOOTY, WARRIORS. [E.C.P]

CARP

*Köpkyéllos 'carp (Cyprinus spp.)'. [IEW 614 (*Kop(h)elo-s); GI 28 (*Kop²elo-)]. Lith Šapalas 'chub (Cyprinus or Leuciscus) dobula'. Latv sapal(i)š 'dvina-carp, chub (Leuciscus idus, L. grislagine)', Olnd saphara- 'Cyprinus sophore, carp (in general)'. Though attested only late in Old Indic the exact semantic and phonological equation with the Baltic words need not be doubted. It would be nice to add Khot kava-'fish', Oss kæl 'fish' here as *kökphős but the difference in initial consonants is difficult. Similar phonetically, but unrelated (to this word or to each other), are OHG jar phá 'carp' (whence Medieval Lat carpa 'carp' and Rus koró 'carp') and Grk kypřivos 'carp'. At least a word of the center and east of the IE world.

*ghetos 'asp' or 'pikeperch'? Norw gjørs 'pikeperch (Suzostedion lucioperca)', Swed gars 'ruff (Gymnocephalus cernua aka Acerina cernua)', Rus žerékh (< *ghérho-) 'asp (Aspius aspius)'. Probably to be connected here, though the connection is not without phonological difficulties, is Olnd 僖ha- 'a kind of large fish, Pisces (the zodiacal sign), fish'. Also possibly cognate is Lat gerrès 'Maena vulgaris' if it is a borrowing from some other IE group (if it were directly inherited we would expect *ferrès). Clearly the Germanic and Slavic words belong together but even with only three attestations deciding the original meaning is very difficult. Both the asp and the ruff are members of the percidae, though the pikeperch is about three times as large as the ruff. The asp, however, is a member of the cyprinidae and intermediate in size between the pikeperch and the ruff. The Old Indic cognate, if it is that, would argue for a relatively large fish as opposed to a smaller one. At least a word of the west and center in IE; if the Old Indic is cognate then we have good evidence for pan-IE status.

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See also FISH, PERCH. [D.Q.A., J.P.M.]

CARROT see VEGETABLES

CARRY

*bher- 'carry' (pres. *bhér-o-). [IEW 128–132 (*bher-); Wat 7 (*bher-); GI 16 (*bër-); Buck 10.61; BK 6 (*bår-/*bär-)]. OIr beidh 'carries', Wels cymeral 'take', Lat fertō 'carry', ON berō 'carry, bear', OE beran 'carry, bear' (> NE bear), OHG beran 'carry, bear', Goth batan 'carry, bear', perhaps Lith beriu 'strew' and Latv berī 'strew' though the semantic divergence is great, OCS berō 'take', Rus berë 'take', Alb bë (< *bhēro-/*bēro-) 'carry, bring', Grk phēw 'carry', Arm berem 'carry', Av baraiti 'carries', Olnd bhāri 'carries', TochAB par- 'carry'. Cf. the widespread derivatives (1) *bherm- 'load':
OCS brēna 'load'; Grk φῶπας 'fruit', Olnd bhārmann- 'load';
(2) *bhētis 'carrying'; Lat foris 'luck', ON þurðr 'birth', OE gebyrd 'birth, fate', OHG giburt 'birth, fate', Goth gabatups 'birth', Arm bard 'pile', Av baraiti- 'carrying', Olnd bhāri- 'carrying'; (3) *bhōros 'what is borne': OCS sū-borū 'collection', Grk φῶρος 'produce; tax', NPer bar 'fruit', Olnd bhāra- 'acquisition, booty, burden', perhaps TochA bare 'debt' and TochB peri 'debt'; (4) *bhōros 'bearing'; Grk φῶρος 'bearing', Arm var-'bearing', Av -bara- 'bearing', Olnd bhāra- 'bearing'; (5) *bhōr 'one who bears (away)': Lat für 'thief', Grk ἰῶπ 'thief'. Absent in Hittite, but otherwise practically universal and certainly old in IE.

*veg̣h-̣ 'bear, carry' also 'ride' (pres. *veg̣he/o-). [IEW 1118–1120 (*veg̣h-̣); Wat 74 (*veg̣h-̣); GI 627 (*veg̣ḅh-̣); Buck 10.66; BK 301 (*wag̣ḅ/-*wag̣ḅ-)]. Wels anmawin 'drive about', Lat veho 'bear, carry, convey; draw', ON vega 'move, bring', OE wegân 'bring, be in motion' (> NE weigh), OHG wegân 'move, weigh', Goth gawigan 'move, shake', Lith vežū 'drive', OCS vezū 'drive', Alb vjudh 'steal', Grk (φ)εξέρω 'he should bring', Av vazaiti 'transports; leads', Olnd vahati 'carries, transports, conveys; leads'. Cf. the derivative *veug̣his in Lat vectus 'bar, pole, lever', ON vét 'weight', OE wiht 'weight' (> NE weight); *veug̣thlom in Lat vehiculum 'vehicle', Olnd vahitram 'vehicle, ship'; *veug̣hio- in OE wig 'horse'. Av vazym 'load'; *veug̣hos in OCS vozū 'wagon', Grk ἱκὼς 'wagon'; *veug̣hos in OThr fën 'wagon', Wels gwain 'wagon', TochA ḫwam 'way, manner', TochB yake 'way, manner' (and similarly *veug̣hos- in NE wagon). Widespread and old in IE. In many stocks it means 'ride (in a wagon or on a horse)' but it is not certain that this meaning can be reconstructed for PIE itself. Perhaps the best evidence that it could mean 'ride in a wagon in PIE is the apparent agreement of Lat vehiculum and Olnd vahitra-. However, it cannot be absolutely excluded that these are independent creations in their respective stocks.

See also Bear; Burden; Drive; Litter; Ride; Wagon. [D Q A.]

CASE

*velutrum 'case'. [IEW 1141 (*velu-tro-m); Wat 75–76 (*velu-tro-); BK 486 (*walp̣/-*walp̣-)]. Lit involucrum 'covering case', Grk ἐναυτροπ case, Olnd varitra- 'cloak'. From *vel- 'wind, turn'. Possibly a PIE word but also possibly independent developments in the three stocks that show it.

See also Bag. [D Q A.]

CASTRATE

*vedhris 'castrated'. [IEW 1115 (*vedh-ri-s); Buck 3.14; BK 478 (*wad-/*wad-)]. Grk ἰδπις 'eunuch', Luv wida(i)-'strike', Olnd wadhr- 'castrated'. The agreement of Greek and Old Indic in this instance suggests at least a late dialectal word in IE. Derived from the root *vedh- 'strike'.

Castration, the surgical removal of the testes of the male, was employed in stockbreeding regimes in order to induce both physical changes, e.g., speed growth and the accumulation of fat, and behavioral, e.g., reduce aggression in bulls in order to render them more useful as traction animals. Evidence for prehistoric castration is limited to metrical analysis of the bones of males where castrates will be expected to have a greater length to width ratio than unaltered males. Given natural variations in populations, such a technique results in frequent controversy over whether one can actually discern the presence of castrates although some have presumed that the mere presence of paired bovine draught, seen in central and eastern Europe from the fourth millennium BC onwards, itself should suggest the presence of oxen (castrated males). Nevertheless, even bulls, if their diet is reduced to inhibit aggression, may be yoked to pull carts.

See also Barren; Sexual Organs and Activities; Strike. [D Q A. J P M.]

CAT

*þhel- 'wildcat; any small carnivore'. Wels bele (< *þhelego-) 'marten', Lat felēs (wild) cat; any small carnivore', Olnd bharuja- 'jackal' (only lexically attested). Maldivian balu 'dog'. This word seems the most likely candidate for the PIE designation of the wildcat (Felis silvestris) which, whatever homeland model one adopts, must have been part of the faunal environment of the PIE speakers as it is found from Ireland into Asia while in Central Asia we have the Pallas' cat or the manul (Felis manul) and in India the yellow cat (Felis lybica) and the jungle cat (Felis chaus). However, the original meaning of the reconstructed word, if indeed it can be ascribed PIE antiquity, is doubtful. Another possibility is that the Welsh and Latin words alone belong together with a meaning of 'marten'.

*þKat- 'cat'. [IEW 534 (*kat-); GI 513 (*kʰat-); Buck 3.62]. Ofr katt 'cat' (if not from Latin), VulgLat cattus - gattus 'wild cat'. From Latin are derived both the Baltic (OPrus cattle 'cat', Lith katę 'cat', Latv kače 'cat') and Slavic (Rus kot 'cat') names of the 'cat'. Cf. also Arm katu 'cat' and Osg gedi 'cat'. The appearance of the word cattus is relatively late in Latin, as was the introduction (from Egypt?) of the domestic cat which is its typical referent (though it may refer like the older felēs to the wildcat as well). The word cattus is presumably borrowed from some non-Latin source as is, in turn, the source of many of the other European words for 'cat'. In Latin itself there was a secondary association with catulus 'young animal, whelp' that is of IE provenance, cf. ON hæða 'young goat, kid', MHG hatele 'goat'; Rus kotitsja 'bear young'.

Distinctions between the wild and early domestic cats on the basis of skeletal remains are difficult although domestic cats will tend to be slightly smaller with respect both to stature and dentition. In general, the domestication of the cat is widely presumed to have occurred in North Africa and possibly not until just before the New Kingdom in Egypt, i.e., the sixteenth century BC, although some would claim that it may have been domesticated as early as the Old Kingdom in the third millennium BC. Whatever the precise date of its domestication, it is to Egypt and such lexical forms as Nubian kads 'cat' that the chain of borrowings of both the animal
and the word is initiated. Domestic cats are said to have spread into the Aegean world before the twelfth century BC and the cat was present in Italy by the first centuries BC from whence it spread throughout the Roman Empire and beyond. Its arrival in India may be set to the third millennium BC. The domestic cat can interbreed with the wildcat.

See also Marten. [D.Q.A., J.P.M.]

CATACOMB CULTURE

Early Bronze Age culture(s) north of the Black Sea and Caucasus dating c 3000–2200 BC. The Catacomb culture was closely related to the somewhat earlier (Pontic) Yamna culture and occupies much of the same region while the successor to the Yamna culture in the east (Volga region) was the Poltavka culture. As the Catacomb culture occupies such a large area and can be divided into regional variants (on the basis of ceramic styles and to some extent burial practice), it is also termed the “Catacomb cultural-historical area” and the regional variants may themselves be designated as cultures.

Evidence for settlements is quite sparse and the overwhelming majority are regarded as short-term seasonal camp-sites situated near sources of water. Several more substantial settlements are known such as Matveyevka on the Southern Bug which had three large structures with stone foundations. On the small island of Bayda on the Dnieper river was discovered a late Catacomb stone-built fortress with a surrounding ditch. The economy is believed to have relied considerably on stockbreeding; remains of cattle, sheep/goat and horse have all been recovered with minimal remains of pig. Plant remains are very rare but traces of wheat, both einkorn (Triticum monococcum) and emmer (T. dicoccon), have been found, and remains of wooden plows have been recovered from Catacomb burials.

The Catacomb culture derives its name from its burial rite which augmented the shaft grave of the Yamna culture with a burial niche at its base, the so-called catacomb. Individuals were normally placed in the flexed position on their right side and might be accompanied with weapons—axes (both stone and metal), maces, arrows, daggers—and ornaments, including silver rings. Animal sacrifices, including the head and hooves of cattle, sheep and goat, accompanied burials (animal remains occur in about 16% of the graves). Ceramics were more elaborate than those of the Yamna culture and included, especially in female burials, low footed vessels interpreted as “censers”, presumed to be used in rituals involving some narcotic substance such as hemp. Wheeled vehicles are also found in burials and some have suggested that they include among their number some of the earliest chariots. In some regions of the Catacomb culture, particularly those centering on the Seversky Donets, there is considerable evidence for artificial skull deformation, possibly as both an aesthetic device and ethnic marker.

Another Catacomb cultural practice of considerable interest concerns skulls where the face of the deceased has been modelled in clay. This involved the infilling of eye sockets, ears, nasal cavity and mouth with clay and, in various degrees, modelling the surface features of the face. There are about a hundred examples known from the Dniester east to the Donbas which would constitute some 3% of all excavated Catacomb burials. In some instances modelled faces are clearly associated with status burials accompanied by wheeled vehicles, axes, scepters, and other prestige items. Although males are more likely to have this treatment, women and children are also found with modelled faces. It has been suggested that the Catacomb clay masks may have been a distant prototype for the later gold masks that were found accompanying the shaft-grave burials of the Mycenaeans. Another marked occurrence (9% of burials examined) involving the skull was the artificial widening of the occipital or trepannation (i.e., drilling holes in the skull), presumably associated with some (ritual-)medical practice.

Sets of tools from Catacomb burials have suggested the existence of craft specialists such as bronze workers while evidence of other crafts, e.g., weapon manufacture, weaving, have been found. Weapons occur in about 10% of all burials. From palaeodemographic studies of the burials (1200 have been studied) and assessment of the steppe resources, a population of some 50,000–60,000 has been estimated for the Catacomb culture in the north Pontic.

The presence of the catacomb niche in burials has been regarded by a number of archaeologists as a diagnostic cultural marker which permits one to trace either movements from the steppe or to the steppe, depending on one’s preference. Thus, the existence of niche-like chambers in burials from Italy across the eastern Mediterranean has been suggested as evidence for the spread of Catacomb people through these regions and other parallels in metal and figurine types have been proposed to support a movement of steppe populations through Syria into Palestine c 3000–2500 BC. As the practice of skull deformation has also been found in the east Mediterranean, contacts (presumably quite distant) have been sought to explain its appearance in the Catacomb culture. All of these suggestions, however, are driven by purely archaeological suppositions rather than linguistic and while IE-speaking populations must be accommodated in Anatolia (where there is really no serious evidence for “Catacomb migrations”) or later in north Syria (Indo-Aryans among the Mitanni), there is no reason to postulate IE-speakers in Palestine in the late fourth or third millennium BC. One further diagnostic item is the hammer-head pin, a characteristic ornament of the Catacomb culture which has been found much further afield in central Europe and Italy and these have been tied to either folk-expansions or at least the diffusion of a style from the steppe.

As for the ethno-linguistic identity of the Catacomb culture in its own territory, the culture is variously seen as ancestral to Indo-Iranians or perhaps Thracians although there have been some recent attempts to represent it as providing a common background to Greek, Armenian, and Indo-Iranian.

See also Poltavka culture; Yamna culture [J.P.M.]
**Catacomb Culture**

**Catacomb 1**

- a. Distribution of the Catacomb culture(s).
Further Readings

ÇATAL HUYÜK
Neolithic settlement site in central Anatolia dating c 7200-6100 BC. The site occupied 13 ha and although only a small portion was excavated, it revealed an amazing complex of what have been identified as both rectangular multi-roomed dwellings and religious sanctuaries. The economy was based on cattle raising and agriculture—wheat, barley, pea, vetch and wild seeds and fruits. Cattle comprised the largest group of livestock while sheep were apparently still hunted along with a variety of other mammals, including the onager, half-ass, hoar, deer, wolf, bear, etc. Lime-plastered rooms with painted walls and plastic decoration of animals, in particular bulls’ heads, have supported the concept of a bull cult at Çatal Huyük. Moreover, an abundance of figurines, particularly female figures, has been interpreted as reflecting devotion to goddesses. Burials were found below house floors and not interred until the body had been exposed and the flesh cleared by birds and insects (an apparent theme on the walls of some of the shrines). Although most burials were unaccompanied by goods, some were associated with a wide range of ornaments and occasionally weapons.

For those who derive the Indo-Europeans from Anatolia, either with the initial spread of the agricultural economy or a somewhat later expansion, the site of Çatal Huyük has been held up as a typical Proto-Indo-European site. V. A. Safronov, for example, has argued that Çatal Huyük specifically satisfies all twenty-seven of his lexico-cultural traits that define the PIE community, although most of these—settled life, domestic livestock, agriculture, hunting wild animals, ceramics, etc.—are so generic that almost any Neolithic site in Eurasia could accommodate his criteria and some of his proposed features.
Çatal Hüyük a. Location of Çatal Hüyük.

Çatal Hüyük b. Reconstruction of a portion of "town".

Çatal Hüyük c. Interior of room with access from the roof; d. Shrine with wall-paintings of birds defleshing bodies and bull cult; e. Aurochs hunting scene.
e.g., a "written" symbolic system or language, can hardly be regarded as diagnostic markers of the Proto-Indo-Europeans. Opponents to assigning an Indo-European identity to Çatal Huyuk emphasize that it actually fails to meet the minimum requirements of an Indo-European site or culture, lacking as it does the horse and wheeled vehicles (it antedates the appearance of wheeled vehicles anywhere by some two millennia); that its proto-urbanism is very much at variance with both the lexico-cultural evidence and the emergence of most IE groups in history; that its "goddess-centered" religious ethos is contradicted by the reconstructed male deities and the strongly patriarchal society of the early Indo-Europeans; and that it occupies a territory which is latterly assigned to the Hatti, the non-IE occupants of the lands settled subsequently by the Hittites.

See also Anatólian Languages, Indo-European Homeland.

Further Readings
Yakar, Jak (1991) Prehistoric Anatólia. Tel Aviv, Institute of Archaeology.

CAVE see CAVITY

CAVITY
*"helı̇ous - *"həeulos 'elongated cavity, hollow'. [IEW 88–89 (*au-lo-s); cf. Gl 523.] From *"həeulos: Lat alvus 'belly, womb; hold (of a ship)', alv(e)arium 'beehive', Hit walluwa- 'hollow, deep', from *"həeulos: Norw au' 'Angelica sylvestris', OPrus aulinis 'leg of a boot', Lith aūlas 'leg of a boot', aūlys 'beehive', OCS ulica 'alley', Rus ulica 'street', ūlej 'beehive', Grk au̯λός 'lute', ενυ̯λος 'river bed', Arm ուլ 'way', TochB aulon 'blood vessels'. The notion of 'beehive' comes from that of a hollow tree for a swarm. The metathesis of the *-l- and the *-u- parallels that seen in Lat nervus 'nerve' and Grk νευ̯ο ‘nerve’. Distribution indicates PIE age.

*"ḡhəumos 'gapping hole'. [IEW 449 (*ḡhēu-); Wat 23 (*ḡhēu-), BK 234 (*ga-*ga-)]. Grk χαῦς (< χαυς) 'chaos, infinite space', χαύων 'gapping', TochA коūth 'mouth', TochB koym 'mouth' (< *ḡhuhjom *ḡhuhjom, or < *ḡhuhuṭ)—the exact form of the Proto-Tocharian word, much less its PIE antecedent, is unclear). With suffix in north European: OE gōmā 'gum, palate' (> NE gum), OHG goumo 'gum, palate', Lith gomys 'palate'. From *"ḡhēu- 'gape, yawn'.

*"hē⛵os 'cavity'. [Puhvel 3:143–144]. Arm ayr 'cave', Hit hārya- 'valley, vale, dale'. Cf. also Lith arnuo 'abyss, bottom, depth'. Despite the limited number of attestations, this word is probably old in IE.

*Kōuh ḫ (gen. *Kōuh̄o) 'hole, opening'. [IEW 593–594 (*kʊu̯p); Buck 12.72]. Lat caverna 'cave', Grk κούαπ (< Kūhijd) 'eye of the needle; opening of the ear', Arm sör (< *Kōuh̄e-ro-?) 'hole', Av sūrā- 'hole, gap', Olnd śūna- 'lack', sūnyā- 'empty, hollow', TochB kor (< *kūhṛ) 'throat'. Derivatives from the root *Kouh ḫ include Mlr cūa 'hollow', Wels cau (< *Kōuh ḫuos) 'hollow, concave', Bret kac' 'cave', Lat cavus 'hollow' (whence NE cave), Alb thēle (< Kōuhte-ro-) 'deep', Grk (Hesychius) κοῖ (pl.) 'cavities in the earth', κοῖλος (< *Kōuhte-ro-?) 'hollow'. The term primarily indicates a depression in a surface but may also refer to an opening of some depth, even a gap. The geographical distribution strongly suggests PIE status.

*Kouh̄-is - *Kouh̄-ēh̄ - *Kouh̄-u̯ 'tube'. [IEW 919–922 (*skē-t-)]. Lith šēvā - šaiva 'spool', Latv saiva 'spool', OCS cěvînta 'lyre, pipe', Polish cewa 'tube, pipe', TochB kaice 'z trough, tub, body of lute' (< *kōiye-Ten-, or *kōwij-Ten-). The Baltic represents a satem-development of *k-, the Slavic a centum-development. Sometimes taken to be from (*sk)e(i)-'cut, split' but semantically the derivation seems most dubious.

*?kāiȳ(t) (gen. *kāiȳto̯s) 'cave, fissure (in the earth). [IEW 521 (*kāiȳ-t); BK 271 (*k̄l̄ay-*k̄l̄ay)-]. Grk (Hesychius) καιατας (pl.) 'ditches, fissures opened by earthquakes, (Doric) καιαδας 'pit or underground cavern in Sparta into which state-prisoners or their corpses were thrown', Olnd κεβατα- 'cave, hollow'. Limited distribution suggests at best a word of the center and east. The meanings range from a gap caused by an earthquake to a place in which to throw bodies of criminals. One of a small number of proposed Greek-Old Indic isoglosses, this equation has been challenged in both Greek and Old Indic etymological dictionaries.

See also MOUTH, VALLEY. [A.D.V., D.Q.A.]

CEDAR see JUNIPER

CELTIC LANGUAGES
The Celts emerge in historical records during the first five centuries BC when they dominated much of western and central Europe and had begun implinging on the literate peoples of the classical world. Known to the Greeks as the Κέλτοι and Romans as Celtae or Gallatae, they are most closely identified with the La Tène culture (c. 500–1 BC) of western Europe but, as the distribution of Celtic languages exceeds that of La Tène metal work, Celtic origins and initial expansions no doubt lie still earlier in the Iron Age or Bronze Age. Usually, the period of Proto- or Common Celtic is set to c 1000–500 BC.

Continental Celtic
The Celtic languages are geographically and historically divided into two broad groups—Continental and Insular Celtic. Of the two, the Continental Celts have left the earlier sources but these are not abundant nor did any Continental Celtic language survive late antiquity. The ancient Gauls came into close contact with the Greek trading colony at Massilia (Marseilles) from whence they eventually adopted a form of the Greek alphabet to leave about seventy monumental inscriptions and several hundred others on the
sides of pots. These date from the end of the third century BC while other inscriptions in central Gaul appear to date to the first century BC. Other than these short dedicatory inscriptions, the Gauls have also left some more extensive documents of a religious nature such as the 64-word lead tablet from Chamalières and the c 160-word inscribed tablets from a burial at Hospitalet-du-Larzac. The most famous extensive document is the Coligny Calendar, a much mutilated bronze tablet providing the names of sixty-two Celtic months covering a five year span and designating days as 'bad' or 'good', i.e., Gaul mat(u), cf. OIr maith, Wels mad 'good', an extraordinary testament of the early Celts' astronomical and astrological proclivities.

The Gaulish inscriptions provide us with some evidence for morphology and better evidence for personal and mythological names (e.g., the same name of a deity is found in Gaul Lugus and OIr Lug). These names, coupled with the extensive references in Latin literature and later recorded place names, are of considerable comparative interest in association with similar evidence from the Insular Celts. It is clear that the Gauls were largely P-Celtic, i.e., they had replaced the PIE labio-velar *kw* with a pure labial p, hence Gaul petro- 'four' but OIr ceathair, Lat quattuor, etc. Nevertheless, even in some of the Gaulish inscriptions, place names or the Coligny Calendar, there are still traces of the labio-velar, rendered in Gaulish as qu, e.g., Sequana (the river Seine). What is also to be noted is that the Gauls themselves were not linguistically unified and there is considerable (and predictable) variation from one region to another.

Celts, under a chief named Brennus, are reported to have sacked Rome in 390 BC and settled extensively in northern Italy where they formed the province of Gallia Cisalpina. These Celts were subjugated by the Romans by 192 BC but their language partially survived as Lepontic. The inscriptional evidence for Lepontic, devised in an Etruscan-derived alphabet, is the earliest of any of the Celtic languages and begins about the sixth century BC and runs to the first two centuries BC. These inscriptions largely coincide with the territory of the Golasecca culture and confirm the presence of Celts in northwest Italy before the sacking of Rome. The Lepontic inscriptions are frequently of a funereal nature while there are also about sixteen coin inscriptions. The narrow geographical range of Lepontic has suggested that it be treated as a dialect of Gaulish but it also shows a number of more conservative features than Gaulish.

Celtic tribes also exploded into southeastern Europe where they sacked Delphi in 279 BC. These latter invaders also settled in present day Turkey in 270 BC and became the Galatians who gave their name to the later Roman province to whom St Paul later addressed his Epistle. In general, the language of these Eastern Celts is known entirely from coin inscriptions, place and personal names.

The third main branch of Continental Celtic is variously known as Ibero-Celtic or Hispano-Celtic which is attested in Iberia between Burgos on the west and Zaragoza on the east.
play an important role in the formation of the Breton language. Whether this latter observation was accurate or not, there is very little evidence other than in Brittany that the Celtic languages on the Continent had not largely disappeared by c. 400 AD.

**Insular Celtic**

The surviving Celtic languages all belong to the Insular Celtic group and derive from ancient languages spoken in the British Isles before the Roman conquest of Britain. The Insular Celtic languages are traditionally subdivided into two groups: Goidelic and Brittonic (or Brythonic), with Goidelic also being termed Q-Celtic because of its retention of the PIE labio-velar while Brittonic is similar to Gaulish in its alteration of *kʷ> p, e.g., Lat quinque ‘five’ and OIr cóic ‘five’ but OWels pimp ‘five’, cf. Gaul pempe ‘five’. These differences are trivial in that they are met elsewhere within other IE stocks and do not alone provide a basis for distinguishing languages. There is considerable disagreement among Celticists concerning the historical implication of the division between Continental Celtic and Insular Celtic. Some argue that the shared innovations of all the insular Celtic languages indicate

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that they represent a separate division of Celtic and shared a
common prehistoric linguistic development apart from that
indicated in the Continental Celtic languages. Others,
however, argue that certain conservative features are to be
found explicitly in Goidelic, Hispano-Celtic and perhaps
Lepontic which indicate that they represent an early Celtic
spread along the periphery while the central core of Celtic
languages, i.e., Gaulish and Brittonic, are more closely related
to one another.

The earliest evidence for Insular Celtic is to be found in
the works of Greek and Roman travellers and, consequently,
comes at least second or third hand. It begins about the fourth
century BC with names gleaned from the travels of the
geographer-explorer Pytheas (c 325 BC) and continues
throughout the classical period, e.g., Ptolemy's description
of the British Isles (c 2nd century AD) with names of rivers,
tribes, and places. The Roman Conquest of Britain from the
Claudian invasion of c 43 AD onwards set the stage for
considerable bilingualism in Britain where approximately 800
Latin words were borrowed into the Brittonic vocabulary.

Native British coin inscriptions, beginning about the first
century BC, provide some of the earliest native testimony for
the Brittonic language. More useful are Brittonic inscriptions
that date to about the fifth century AD. Irish missionaries
reintroduced literacy to post-Roman Britain where we can
subsequently see the emergence of the main Brittonic
languages. The principal language is Welsh which may have
been written as early as the sixth or seventh centuries AD,
the period assigned to Archaic Welsh, and its traces rest almost
entirely in place-names and personal names in Latin
documents. Old Welsh marks the period from the ninth to
twelfth centuries while the period with far more abundant
texts, Middle Welsh, runs from the twelfth to fifteenth. Modern
Welsh is set to begin about the fifteenth century. Welsh has
survived better than Irish, benefiting from a much closer
association with the attempts of the Methodist church to
increase literacy, which stimulated the use of Welsh in the
reading of the Bible and in hymns.

Cornish, which is derived from the early Brittonic languages
of south-western Britain, is first attested in the Old Cornish
period (c 800–1200). Other than place or personal names,
the main source of information is the Vocabulary Cornicum,
a Latin-Cornish glossary with 961 entries. Most of our
evidence derives from the Middle Cornish period (c 1200–
1575 AD) and mainly from late mediaeval plays dating to
around 1450–1500. Late Cornish begins c 1575 and includes
a few religious works and plays but by then the language was
in a state of collapse and it became extinct by 1800. Although
there has not been a native speaker for nearly two centuries,
a revival movement has resurrected the Cornish language
(taking the more abundantly represented Middle Cornish
grammar and pronunciation as its model) and some thousand
people now claim to know at least some Cornish.

Breton occupies the most controversial place of the Celtic
languages since its origins are confused if not disputed. The
traditional explanation involves a migration of Celtic tribes
to Brittany from southwest Britain in the fifth to seventh
centuries, impelled either by Anglo-Saxon pressure from the
east or Irish pressure from the west. The natural problem is
that the goal of such a migration was a formerly Celtic-
speaking territory of Gaul and the traditional explanation
presupposes that Celtic had become entirely extinct in this
region before the introduction of Insular Celtic. There is a
school of thought that argues that such a scenario may be
disproved and that the Breton language actually represents a
fusion of both British colonists and existing late Gaulish
speech. Breton is divided into Primitive Breton (c 500–600
AD), Old Breton (c 600–1000 AD), Middle Breton (c 1000–
1600 AD) and Modern Breton from 1600 onwards. Breton
has been largely losing a battle against monoglot French-
speakers and today all Breton speakers are bilingual. Estimates
of the number of speakers runs about 550,000, largely in the
older age ranges although there are now serious attempts to
insure that the language does not become extinct.

The home of the Goidelic languages is Ireland. Here, the
earliest native evidence consists of Ogham Irish, known from
ogham inscriptions from about the fourth—sixth centuries AD.
The ogham system of writing was devised by someone familiar
with Latin, although the actual graphic system is very different
and consists of patterns of notches scratched on the corners
of memorial stones. These ogham inscriptions are confined
largely to southern Ireland (c 350 examples) and Wales (c 50
examples) where the Irish attempted to establish colonies
during the collapse of Roman rule. These inscriptions retain
the Celtic case endings and are easily comparable to both the
earliest British inscriptive evidence and that of the
Continental Celts. Subsequently, the case endings and much
else were lost during the extremely brusque restructuring of
the Irish language in the fifth and sixth centuries. An indication
of this simplification can be seen in the ogham name
CUNAGUSOS which, by the seventh century, was rendered
Congus. The seventh century coincides generally with the
period designated as Archaic Irish but most of the early
evidence for the Irish language derives from Old Irish. This is
the state of the language which was written in the Latin
alphabet of early Irish Christianity and set to the period c
700–900 AD. Old Irish provides a relatively voluminous body
of material, the earliest of which is clearly religious, e.g.,
glosses and commentaries on the Bible, but also includes a
body of native narrative and historical literature as well as
poetry. Among the most marked characteristics of Old Irish
are such features as the construction of words with numerous
prefixes, the use of infixed pronouns, the "conjugation" of
prepositions according to person, and a particularly complicate
system of verbal endings. Middle Irish is the name given
to the literature of the period c 900–1200 AD and Modern
Irish (with c 180,000 speakers) runs from c 1200 onwards.

The Goidelic language was spread by Irish immigrants to
both Scotland and the Isle of Man from about the fifth century
AD onwards. The Scots employed the Irish standard as their
literary language up until the seventeenth century and the birth of a distinctive Scots Gaelic is generally set to about the thirteenth century and the spoken vernacular (c 80,000 speakers) has emerged very much as a separate Goidelic language. A Goidelic language was introduced to the Isle of Man about the fourth and fifth centuries when the Irish were attempting to expand into western Britain. Manx was not recorded until the seventeenth century and although it was the main language of the Isle of Man through the eighteenth century, it was completely replaced by English in the twentieth century with the last native speaker dying in 1974. However, by this time Manx language enthusiasts had begun studying Manx from the last native speakers and a revived Manx survives among about 650 people.

**Description of Celtic**

Although the Continental Celtic languages are important for the elucidation of Proto- or Common Celtic, the abundant texts of the Insular Celtic languages, primarily Old and Middle Irish, coupled with Welsh, provide the basic comparative foundations of the Celtic languages and the evidence by which the Celtic stock contributes to the reconstruction of PIE. Phono- logically, the most familiar characteristic of the Celtic languages is the loss of PIE *p in Celtic, e.g., Lat pater 'father', porcus 'pig', and piscis 'fish' but OIr athair 'father', MrI orC 'pig', and OIr lasc 'fish'; also, the Celtic languages de-aspirated the PIE aspirated stops so that they fell together with the non-aspirated stops, i.e., PIE *ghg > Celt *g, PIE *dh/d > Celt d, and PIE *bh/b > Celt *b. Among the vowels, PIE *e > Celt *e, and PIE *o/o > Celt *o. The most unusual features of the Celtic languages are to be found in the Insular Celtic languages. These exhibit, on the one hand, certain quite archaic features, particularly in the verbal system and word order, but also many features found only in Insular Celtic, such as “conjugated” prepositions, e.g., OIr la 'with', but lem 'with me', lat 'with you', leiss 'with him'; infixing of pronouns, e.g., OIr berid 'he carries' but no-m-beir 'he carried me'. The restructuring of the Insular Celtic languages also resulted in mutation, where the initial of a word experiences the effect of the ending of a preceding word in the same clause even though the ending has been dropped. For example, where a nasal ending previously existed, it will modify the initial of the following word to a corresponding nasal, e.g., OIr secht (< *septem) n-ocht (< *okto) 'seven eightths'.

The dialectal position of the Celtic languages is disputed in detail although not in general. Similarities with Italic led to the presumption of an Italo-Celtic stage before the emergence of the individual stocks, and there is little question that both Celtic and Italic do share a number of common features, e.g., several preverbs, assimilation of *p...k* to *k*<sup>n</sup>...*k*</sup>(e.g., PIE *penkw* 'five' > Lat quinquie, OIr cóic), the superlative suffix *-isimo-, the optative in *-s-, a number of uniquely shared lexical items, e.g., Lat terra: OIr tr*í* 'land'. By the 1960s, closer examination of all the putative shared features by a number of scholars suggested that so few correspondences existed and the differences were so great that the concept of a period of Italo-Celtic unity was largely rejected. It was argued that both stocks appear to have developed independently from late PIE although there may have been occasional contacts. But despite the collapse of the Italo-Celtic hypothesis, most attempts to reconstruct the interrelationships of the IE languages tend to group Italic and Celtic closer to one another than to most other IE languages and there are some today who wish to resurrect some form of Italo-Celtic hypothesis. Against the broader spectrum of dialectal relationships, Celtic is often held to be a peripheral language which separated rather early (but after Anatolian) from the main continuum of late IE dialects.

**Celtic Origins**

The earliest historical references to the Celts, dated to the sixth and fifth centuries BC, place them broadly between southwest Iberia and the Atlantic on the west to near the mouth of the Danube on the east. By the fifth century BC, the distribution of many of the Celts of western and central Europe coincides in general with the La Tène art style that dominated Europe north of the Alps and the equation Celts = La Tène is broadly correct for this region as long as one understands that La Tène art could and did spread beyond the borders of Celtic speech and that not all Celts can be associated with a La Tène artwork. This divergence between the distribution of Celtic speech and La Tène culture is particularly true of Lepontic which is clearly linked to the Golasecca culture and whose inscriptional evidence predates the appearance of the La Tène. In Iberia there is effectively no evidence for the La Tène and southern Ireland is similarly devoid of La Tène metalwork despite the fact that this very region provides the earliest inscriptional (ogham) evidence in Ireland for a Celtic language. On the other hand, the appearance of graves with intrusive La Tène metalwork in east central Europe does tend to correlate with historical testimony concerning the eastward movement of Celts. In short, the La Tène provides an imperfect marker for the sphere of influence of the Celts and may attest late expansions but cannot reflect the area of the earliest distribution of (Proto- or Common) Celtic speakers.

The La Tène is generally seen as an organic outgrowth (under the admittedly heavy stylistic influence of Greek and eastern models that penetrated western Europe through Greek colonies in Marseilles and elsewhere) of the west European Hallstatt culture. The Hallstatt culture (800–500 BC) has a broader distribution than the La Tène but also does not provide evidence of a unitary “Celtic phenomenon”. For example, it is represented in Iberia but only very minimally so. A similar situation obtains in Ireland where about fifty bronze copies of Hallstatt swords provide the primary evidence for a Hallstatt “culture”. From this evidence it is clear that there is not a single Iron Age culture that can explain the origin and dispersion of all the Celts.

Generally, the archaeological evidence for continuity can be traced further to the late Bronze Age Urnfield culture of...
the thirteenth century BC and even earlier but with a decreasing sense of linguistic utility. It is clear from the Celtic languages that they shared common words for 'iron' and other technological items ('shield', 'caldron', etc.) that they are unlikely to have encountered anywhere prior to the Urnfield or late Bronze Age. Moreover, the Golasecca culture of northwest Italy is part of the general Urnfield phenomenon and there is some evidence of the spread of the urnfields into northwest Iberia as well. Hence, the initial spread of the Celtic languages may have begun during the late Bronze Age and involved some population movements and later migrations are suspected for the Iron Age. But major shifts in populations are not envisaged: analysis of skeletal remains from the Hallstatt and La Tene, for example, point to broad homogeneity among western and central European populations with more marked differences between them and those of the British Isles. Similarly, it has not been possible to discern any particularly genetic features which are shared by all of the main Celtic-speaking populations, even in the British Isles. Here the physical and genetic composition of the Celtic populations has generally been regarded as merely "residual" or "peripheral" European rather than particularly derived from some continental Celtic "homeland". For this reason archaeologists in western Europe have also emphasized other social processes that may have led to the spread of the Celtic languages. The establishment of Bronze Age hillforts and later centers of Iron Age chieftains has been viewed as providing an arena for language change and diffusion with varieties of Celtic expanding along marriage networks between the social elites (vaguely like French among the Russian nobility of the early nineteenth century) or via travelling craftsmen who received the patronage of such elites. It has even been suggested that Celtic may have served as something of a pidgin or *lingua franca* among the trade-routes of western Europe. This latter theory, however, seems most unlikely as pidgins are characterized by brusque simplification of grammar, a feature that is hardly supported by both the conservatism of reconstructed Common Celtic and the complicated evolution that some of the Celtic languages took, such as Old Irish with its augmentation of the existing verbal forms.

Finally, there are those who hold to a theory of Indo-European origins that would seek the roots of all IE stocks in Europe in the spread of the agricultural economy from the Near East. Such a model would have the (Proto-) Celtic stock emerging out of the languages of the Neolithic inhabitants of western Europe during the period c 5000–4000 BC. This model, however, seems most unlikely given the general similarity of all the Celtic languages with one another that we find with the first inscrptional evidence, e.g., the Old Irish expression 'the women' would be rendered *inna mnas* which, were we to find it on an ogham inscription of the fourth-seventh century AD, would have been written *indás mnás*, the precise form that we do find it on a Gaulish inscription of c 100 AD. It is most improbable that the (Proto-) Celts were able to maintain parallel linguistic development from Ireland across western continental Europe from the beginning of the Neolithic to the historical period, a time-span on the order of four thousand years. For this reason, linguists have generally confined the search for the Proto-Celts to the later Bronze Age (c 1200 BC onwards) or the Iron Age.

As Celtic languages spread in the early historic period, they provide us with cautionary evidence concerning the relationship between the process of linguistic expansion and visibility within the archaeological record. Even where we can trace in time the course of Celtic movements, such as the spread of Goidelic speakers from Ireland to Scotland in the first millennium AD, such a migration is in no way supported by hard archaeological evidence.

See also **Golasecca Culture; Hallstatt Culture; Indo-European Languages; La Tene Culture; Urnfield Culture**

[J.P.M., D.Q.A.]

Further Readings

**Language**


**Dictionaries**

CEMETERY H CULTURE

Indus Valley late Bronze Age culture (c 2000–1400 BC) which takes its name from a series of burials deposited in the upper levels of Harappa, one of the major towns of the Harappan culture or Indus Valley civilization. The stratigraphic position of the burials suggests that they followed the collapse of urban society in north India-Pakistan. The burials were dug into a mass of debris of Harappan pottery overlaying an earlier cemetery (designated R 37), which belonged to the Harappan culture. The burials from Cemetery H are divided into two stratigraphical groups: the earliest were extended inhumations while the latter burials involved the deposition of bones (after exposure) in an urn. Among the complete burials, which were accompanied by pottery vessels, there was also some evidence of the sacrifice of a sheep or goat.

The urns, which were covered with lids, generally contained only partial remains of the deceased after exposure. These ranged in age from adults to infants. The upper stratum yielded some 135 urns although many of them contained no evidence of human remains. The ceramics, which consist of forms foreign to the Harappan culture but techniques of manufacture reminiscent of it, have led some to suggest a synthesis of native Indus and foreign elements. Among the ceramics were vessels decorated with peacocks, bulls, a goat and a dog which have been interpreted in the light of Vedic mythology. The excavator of Cemetery H, Maho Sarup Vats, for example, discerned within the body of the peacocks a horizontal figure, the sūkṣma satīra, representing the souls of the deceased in Indic religion. The dogs are compared with the two hounds of Yama, the Indic lord of the dead. The goat is regarded as an archetypal pathfinder. A mythological figure (of uncertain interpretation) is depicted carrying a bow and standing between two bovines. For this reason, the Cemetery H culture has occasionally been regarded as evidence for a mobile and intrusive population associated with early Indo-Aryan movements into India. An earlier theory that the Cemetery H “people” represented Indo-Aryan destroyers of the Indus towns is now rejected since there is a clear hiatus between their burials and the abandonment of the towns. Moreover, the paucity of Cemetery H remains in the Indus region does not support the proposition that it was responsible

Cemetery H a. Distribution of the Cemetery H culture.

Cemetery H b. The painted motifs of the Cemetery H vessels have been interpreted as peacocks with the sūkṣma satīra, the souls of the deceased known later in Vedic religion.
for major cultural and linguistic change. On the other hand, certain traits of the Cemetery H culture with regard to cremation have been linked further north to the Swat culture, which has often been seen as evidence for some form of Indo-Aryan movement toward the sub-continent. The evidence of physical anthropology, however, offers no further support for an intrusive element in the Cemetery H population since anthropological analysis of the skeletons from the Cemetery H inhumations finds them very close to both the early burials of the Swat culture and the local Harappan (R-37) populations.

See also Harappan Culture; Indo-Iranian Languages; Swat Culture. [J.P.M.]

Further Readings

Vats, M. S. (1940) Excavations at Harappa. 2 vols. Delhi, Government of India.

CENTAUR

????'hondheruos 'centaur'. [Del 73]. Lat Februus (presiding god of Lupercales), Grk Κένταυρος 'centaur', Av gandharwa- (name of monster), Shughni žindär 'werewolf', Olnd gandharva- (mythical being). Most of these comparisons cannot be maintained. The old comparison between the Greek and Old Indic forms is rightly dismissed in etymological dictionaries as fantastic. Nor is Lat Februus 'god of death and purification' cognate as it belongs with Grk θέου 'offer (on the sacrificial fire) < *'fumigate' (cf. Grk [Homeric] θέσιν 'sulphur [used for purification]') which is derived from PIE *dheu-s-). The various Indo-Iranian forms may be cognate with one another but lack a clear etymology.

The Greek centaurs (Grk Κένταυρος 'centaur') are described as a savage bunch of mythical beings, half human, half horse-like, living in the woods or mountains of Elis (Arcadia) or Thessaly. They represent wild life and animal desires; they are lustful, often attempting to rape women; and they indulge in heavy wine drinking. Individual centaurs have myths of their own, like Nessus whom Heraklès tackled and who ultimately caused the latter's demise, as he was poisoned by fabric dipped in the dying centaur's blood. Attempts to attribute this term to greater antiquity were made in an early work of Georges Dumézil but the edifice of such a proposal has long since been rejected.

See also Horse. [E.C.P]

Further Reading

CERNAVODA CULTURE

The Cernavoda I culture is a late Copper Age culture (c 4000–3200 BC) of eastern Romania and Moldova, situated primarily in the lower Danube region. The culture occupied the previous territory of the Gumelnita culture, part of the continuum of east Balkan tells that had been occupied since the early Neolithic. According to the Kurgan theory of IE origins, the earlier Neolithic culture was destroyed and a hybrid “kurganized” culture involving local and steppe elements was created. The latter is seen in the shift from stable tell settlements to hill-top settlement and defensive architecture (Cernavoda I was surrounded by three ditches), the disappearance of painted wares and their replacement by coarse ware pottery, especially employing shell-temper and/or decorated with cord impressions (both features of steppe ceramics), the abandonment of surface buildings for timber semi-subterranean houses, and the occasional presence of the horse. In Moldova, the Cernavoda culture is attested by cemeteries where the deceased were placed in the flexed position on their left (less frequently right) sides in a pit that might have been elaborated with a timber or stone structure. The covering of the deceased and the bottom of the burial chamber with ocher as well as the tumulus erected over the grave, sometimes with a stone kerb, are all traits also encountered among the steppe cultures. According to the “Kurgan theory”, subsequent steppe migrations pushed the Cernavoda culture south and west where its western variant played a part in the formation of a “Balkan-Danubian complex.”
of cultures, among which the Baden culture is quite prominent. In the eastern part of its distribution in Moldova, the Cernavoda I culture is one of the components that underlies the foundation of the Usatovo culture.

Cernavoda II and Cernavoda III refer to later cultures in the same general vicinity, the first perhaps reflecting an intrusive steppe culture and the latter a continuation of Cernavoda I into the early Bronze Age. In the historical period, the area of the Cernavoda culture was occupied by Dacian- and Thracian-speaking populations.

See also Baden Culture; Dacian Language; Ezero Culture; Kurgan Tradition; Thracian Language; Usatovo Culture.

CHAFF

*pelovecha* — *pelou* 'chaff'. [IEW 802 (*pel-); cf. Wat 48 (*pel-)]. Lat. *pala* 'chaff', Lith *pelai* 'chaff', Latv. *peli* 'chaff', Rus. (dial.) *pela* 'chaff'; OPrus *pelwo* 'chaff', Lith *peliūs* 'chaff'. Latv. *pelus* — *pela(d)vas* 'chaff', OCS *pely* 'straw', Rus. (dial.) *polova* 'chaff', OInd (pl.) *palāvas* 'chaff'. In one form or another, widespread in IE and clearly of PIE date. Related to words for 'dust', e.g., Lat *pulvis* 'dust'.

*k*et- 'chaff, bran'. [cf.IEW 632 (*kūtet-)]. Mt. *cāith* (< *k*ōti-) 'needle, bran', Grk *niripov* (< *k*ōtūro-) 'bran', (Hesychius) *πίτεα* 'bran'. If these words all belong together, we have evidence for a word of the west and center of the IE world.

See also Agriculture; Grind; Plants; Thresh; Winnow.

CHARCOAL

*hengl* (< *h*əngol) 'charcoal'. [IEW 779 (*angelo-*)]. Nl. *angiel* 'light, fire', OPrus *anglis* 'charcoal', Lith *anglys* 'charcoal', Latv. *uogle* 'charcoal', OCS *ogl* 'charcoal', Rus. *ugoli* 'coal', NPrs *angīšt* 'charcoal', OInd *āngara* 'charcoal'. The variation *ěl* of the second syllable and the variation of o-stem and i-stem suggest that we have new o-stem and i-stem derivatives of an old root noun in *-l*-, which may itself derive from *h*əngw*nis* 'fire'. Except for the New Irish and a few others, such as Russian, meaning 'coal', all of the other forms stand for 'charcoal', the almost pure carbon derived by burning wood under controlled conditions, e.g., by covering it with a sod. The cognates in five stocks, in any case, virtually guarantee its PIE status.

*ge(u)lo* — *gulum* 'fire, glowing coal'. [IEW 399 (*ge(u)-lo-*)]. Wat 20 (*ge(u)-lo-*); BK 299 (*kal-*kəl-*). OIr *gual* (< *ge/oulo*-) 'coal', On *kol* 'charcoal', OE col 'coal' (> NE coal), OHG kolo 'charcoal' (Gmc < *gulo-), TochB *sōyle* (< *guelhlo*- or *guelhλhı*-) 'hearth'. The meanings of 'fire, glowing coal' and of TochB 'hearth', suggest but do not prove that in some stocks this word may have had a specific recent meaning crucial in a domestic economy where fire must be preserved through the night or borrowed from a neighbor. By one hypothesis, in fact, this second charcoal word was derived from a verbal root *geu-* 'to glow', but this is speculative. One of the birch-bark containers found with Otzi, the Neolithic ice-man, held a variety of pieces of charcoal and leaves that was interpreted as an ember carrier.

Both the charcoal words illustrate isomorphic semantic shifts: an earlier meaning of charcoal (ON *kol*, OCS *ogl*) shifts to 'coal' as part of technological change while the original meaning is conveyed by a qualified form such as 'charcoal' or 'wood charcoal', e.g., Rus *dvěřevsnyj* *ugol*.

See also Burn; Fire; Hearth. [PF]

CHERNYAKOVO CULTURE

Situated in the forest-steppe region between the rivers Dniester and Dnieper, the Chernyakovo culture sees the transition from Bronze to Iron Age (1050–725 BC) northwest of the Black Sea. The culture derives from the preceding Belogradovka culture that occupied the territory during the Bronze Age. Settlements include both open sites and hillforts which might be surrounded by multiple banks and ditches. Houses were generally surface dwellings and substantial, on the order of 10 x 6 m in size. Material culture comprised objects of stone (axes), bronze (axes, weapons, ornaments) and iron (tools). Distinctive metal horse-bits are known from the culture and even the ritual interment of the horse. Burials vary and there is evidence of both inhumation under barrows and cremation in urnfields, especially in the later periods. The later testimony of Herodotus places the "Scythian Farmers" in the region earlier occupied by the Chernyakovo culture and this also coincides well with the region of earliest Slavic river names. For this reason, the Chernyakovo culture is sometimes portrayed as either a stage in the development of the Slavic languages or at least some form of late Indo-European ancestral to the evolution of the Slavic stock. Imports and metallurgical developments suggest that the Chernyakovo culture was in contact with Scythians from whom a series of Iranian loanwords and river names may have been passed into the (Proto-)Slavic and further, (Proto-)Baltic languages.

See also Slavic Languages. [J.P.M.]

CHERNYAKOVO CULTURE

The Chernyakovo culture occupied the northwest Black Sea region (the Ukraine, Moldova, Romania and southern Poland) from the second to the fifth centuries AD. Its sites number in the thousands. Settlements vary considerably in size, the most thoroughly excavated ranging from about twenty-five to forty-five habitations. Houses comprised at least three different types: semi-subterranean structures, surface dwellings constructed of wattle and daub, and stone-built structures. In the later period in the forest region there are post-built walls that foreshadow the typical "Slavic" dwellings of later cultures. Another frequent feature on the settlements were storage pits in which there were found remains of various wheats (*Triticum monococcum*, *T. dicoccum*, spelt) and barley. Clay ovens were also regularly found in the houses. Only a few sites show evidence of defence, such as earthen walls with timber palisades or stone-built walls. Cattle was
Chernoles a. Distribution of the Chernoles culture.

Chernoles b. Hillfort at Chernoles (up to 1.5 km across).

Chernyakovo a. Distribution of the Chernyakovo culture.

b. Chernoles house with oven; c. Inhumation grave; d. Varieties of cremation burials.
the primary livestock, followed by sheep, pig and horse; remains of the donkey are also known. The economy was further enhanced by trade with the classical world, and Roman material such as coins, pottery, amber, alabaster, and glass beads, have been encountered on Chernyakovo sites.

Cemeteries of the Chernyakovo culture are well known and many have been excavated. They reveal both inhumations (extended with head to north or west) and cremations in an urn or small pit. Grave-goods were frequent and included pottery, tools, weapons, ornaments and what have been interpreted as food offerings for the dead.

The Chernyakovo culture embraced a territory which was settled by a variety of ethnolinguistic groups. A primary element were the highly mobile Sarmatians who spoke an Iranian language. They are particularly evident in the inhumation burials throughout the region and they occupied not only the steppe but also the forest-steppe, and they replaced or assimilated earlier Iranian speaking Scythian tribes. A second major component is seen to derive from the north, where elements of the Przeworsk and Zarubitsy cultures are particularly marked in cremation rituals. These two cultures are often assigned to the early Slavs. To the west there were also local groups of Dacians and Getae and the area was also penetrated by Germanic tribes. The culture has been presented as a convenient contact zone to explain lexical borrowings between Germans and Slavs, and Iranians and Slavs. The culture was brought to an end in the fourth and fifth centuries AD by the Hunnic migrations.

See also Przeworsk Culture, Slavic Languages, Zarubintsy Culture. [J.P.M.]

CHERRY

*krnom – *kmes- 'cherry (Cornus mas, Prunus padus). [IEW 572–573 (*ker-); Wat 30 (*ker-); GI 554–555 (*kmn-); Fried 115–121]. Lat cornus 'cherry', Lith Kūn joins 'divine protector of cherry', Grk κράμος 'cherry'.

The hard core of the evidence for the cherry are Latin cornus and Greek κράμος (cf. also Homeric κράνεων, on which Cincé led the 'swallowing swine' into which Odysseus' men had been transformed). These are strongly supported by the name for the Baltic, that is, Lithuanian 'patron of cherries', Kūnis (where Grk απ, Lat or, and Lith ir are the regular reflexes of PIE syllabic *i). This PIE *krn- may conceivably be supported by the Slavic form for the red or black cherry such as Rus čeremukha (< *cherem- < Common Slavic *cherem- < late PIE *kerm-) although it should be emphasized that the generally Slavic root for 'black' (e.g., Rus černyi) is a much likelier source. A Thracian or Phrygian cognate might be the source for the Grk κέρανος 'cherry'; Alb thane 'cornel cherry', whatever its precise origin, cannot be placed here as an inherited cognate.

The problematica 'cherry' term could refer to the members of two distinct genera. First, the cornel cherry (Cornus mas) was found from central and southern Europe across the Black Sea region to the Caucasus while several species of the cherry (Prunus sp.)—bird, sour, mahaleb, and the cherry proper—were found widely over temperate Europe and Anatolia. There is abundant evidence for the consumption of wild cherries in the Neolithic and Bronze Age but the earliest evidence for the domestic cherry does not appear until the classical period. Other than its fruit (which served both humans and as fodder for livestock), the cornel tree along with the shoots of the wayfaring tree (Viburnum lantana) were favored for the production of arrow shafts in the Neolithic and Bronze Age. As in some modern languages, the same term (here *kmn-) may have comprised both genera on the basis of shared properties, notably the succulent, edible and often red or black berries. While the grammatical gender cannot be established, there are lexical and cultural grounds for thinking that the cherry had feminine connotations.

See also Trees [PF].

CHICK-PEA

*Riker- 'chick-pea – garbanzo (Cicer arietinum). [IEW 598 (*Riker-); Buck 5.67]. Lat cicer 'chick-pea', Maced (Hesychius) κικειποι 'birds' pease (Lathyurus ochrus), Arm siser (< *keiker-)'chick-pea'. Grk κριτοσ (if < *kikrios) 'chick-pea' is sometimes placed here but is more often rejected as cognate in most etymological dictionaries.

The geographical distribution suggests that this word may be a borrowing from some Near Eastern or Mediterranean source but there is nothing in the shape of the word that demands that it be a loanword. The chick-pea (Cicer arietinum) along with the pea (Pisum sativum) was part of the early Neolithic wheat-barley agricultural complex although it differs from the latter by being a primarily warm climate plant. The distribution of the wild chick-pea (Cicer arietinum subsp. reticulatum) is confined to southeastern Turkey and it is from here that the spread of the domestic chick-pea is derived. It appears in archaeological contexts by the eighth millennium BC in sites in Anatolia and Syria in quantities markedly less than Pisum. Its earliest appearance in Greece derives from the early Neolithic and it is presumed to have been part of the initial Neolithic suite of domesticates introduced from the Near East. However, unlike the pea, it is not found further to the north and is so far absent from the botanical remains recovered from sites in the north Balkans, Moldova, the Ukraine and the Swiss lakeside sites. It is known, however, in southern France during the Neolithic. Although popular in Italy, its archaeological attestation is very meager before the classical period. Its earliest appearance in Afghanistan and India dates to about the third millennium BC and today India produces 80% of the world's chick-pea crop.

See also Agriculture, Food, Pea, Plants, Vegetables. [D.Q.A., J.P.M.]

CHILD

*teknom 'child, offspring'. [IEW 1057 (*teko-no-); Wat 69 (*tek-); Buck 2.43 cf also 2.27]. On pgeb 'man, free servant', OE þegn 'servant, follower' (> NE thane). OHG degan 'servant,
follower', Grk τέκνον 'child'. Cf. Av taxma- 'seed, offspring', OInd takman- 'child'. Distribution suggests PIE status.

Terms for 'child' often overlap specific kinship labels such as 'son' or 'daughter' or terms for servant. It is doubtful that PIE made extensive use of any gender-neutral term; usually gender specific terms such as 'boy' and 'girl' were employed. One originally neuter term, derived from the root *tek- 'beget' (Grk τεκνό < *ti-tek-<0), is preserved as 'child' in Greek and matches Germanic terms for 'servant' which is semantically upgraded in many areas to mean 'servant of the king' > 'nobleman' (cf. thane in Macbeth). Indo-Iranian cognates suggest an original meaning 'seed, sprout', a meaning also recorded in Greek. Geographically more restricted but showing a similar range of meanings is ON barn 'child', OE bairn 'child' (> NE bairn [preserved in Scotland]), OHG bairn 'child', Goth barn 'child' (< Proto-Gmc *barna-), Lith bėrnas 'servant', Lat bērnus 'child', all from *bher- 'bear (a child)'. Other roots associated with begetting a child were employed, e.g., *genh₁- 'give birth' which underlies OInd kind 'child'. Elsewhere, a variety of terms signifying a 'young animal' are specialized as human terms, e.g., Lat puér 'boy' akin to pullus 'colt, chick'. Also, terms for 'free' or 'noble' are applied to children as in Lat liber suggesting a concept of legitimacy. These latter seem to be individual developments in the various stocks.

See also Bear²; Daughter; Kinship; Son. [M.E.H.]

CHIN

*smeK- 'chin, jaw'. [IEW968 (*smek-); GI 96-97 (*smekh-r-); Buck 4.142]. Ot r smeč (< *smēkha) 'chin', Lat maxilla (< *smaxšla-) 'jaw(bone), lower part of face', cf. also *smokur 'chin, beard'; OE smēras (pl.) (< *smahria-) 'lips', Lith smakros - smakrat 'chin', Latv smakrs 'chin', Alb mjekër 'chin, beard', Arm mawruk 'beard', Hit š(a)mankur 'beard', OInd śmasru- (< *smāsu-) 'beard, (especially) moustache'. Clearly PIE in distribution and status.

?*men- 'chin'. [IEW726]. MWels mant 'mouth, jaw', Lat mentum 'chin' (Italo-Celtic < *mp-to-), Hit mēni- 'chin'. The Italo-Celtic on the one hand and the Hittite on the other may well be independent creations from *men- 'project'. Alternatively, we may have evidence of a root-noun *men-'chin' (again derived from *men- 'project') with different morphological renewals in Italo-Celtic on the one hand and Hittite on the other.

See also Anatomy; Hair; Jaw. [D.Q.A.]

CHUST CULTURE

The Fergana Valley of eastern Uzbekistan was occupied at the end of the Bronze Age or early Iron Age (c 1500-900 BC) by the Chust culture. Settlements varied in size from small single dwelling sites to larger settlements over 10 ha in size. Some sites indicate defensive architecture and others occupy hilltop locations. The actual domestic structures are not well known but were sometimes built of mud-brick. Frequent in settlements are large pits that are believed to have served for the storage of grain. Wheat, barley and especially millet have been recovered along with agricultural tools (sickles and hoes). Stone sickles and stone knives as well as painted pottery of the Chust culture have been related to developments further east in Xinjiang. Domestic animals included cattle, sheep/goat, horse, asses and possibly pig. Wild animals included gazelle, onager and saiga antelope. Pottery was hand-made; both bronze (spearheads, knives) and some iron objects are attested. Burials are variable with interment on the edge of settlements in pits; hoards of skulls are known as well as human remains mixed with those of animals. The physical type has been identified as Europoid and has been variously interpreted as the remains of Iranian peoples moving towards the east or Iranian-speaking people retreating from the eastern steppe or Xinjiang who had been forced west. Either way, the presumption is that the Chust culture reflects the increasing sedentization of earlier mobile (?)Iranian) pastoralists.

See also Bishkent Culture; Indo-Iranian Languages; Vaksh Culture. [J.P.M.]
CLEAN

*hērθa* 'wash'. [Puhvell: *nenekCi (*muh*); *neig* (*neig-O*); OE *necht* 'clean', Goth (acc. pI.) *mældhO*. [VW 37] of *neik* 'clean'. The semantics is also difficult and may not constitute PIE. The PIE status for this word has not been determined.

CLEAN

*meluto* 'wash (in urine?)'. [IEW 719 (*mel-du*); cf. Wat 40 (*mel*); OE *molde* 'sand, dust, soil; land, country' (> NE mould); OInd *mrd-*. The Old Indic form points to a root in the shape *mi* (*mel-)*. The pattern of distribution suggests at least late PIE date. See also PENCE, WALL, WHEEL. [D.Q.A.]

CLADISTICS see SUBGROUPING

CLAN see FAMILY

CLAY

*mlēdho*/es *clay*. [IEW 719 (*mel-dh*); cf. Wat 40 (*mel*); OE *molde* 'sand, dust, soil; land, country' (> NE mould); Goth *mulda* 'earth, clay', Grk *μαλακές* 'modelling mixture of wax and pitch', OInd *mrt-*. The despiration in Old Indic is probably due to influences from the adjective *mpēdī-* 'soft'; the verb *mardh*- 'be moist, sticky' preserves the expected aspiration. From *mēldh*-'soft, weak, flexible'. The agreement of Germanic and Indic would seem to assure PIE status for this word.

*gioyos* 'clay'. [IEW 362–364 (*gloio-uo*); OE *clæg* 'clay' (> NE clay), Fris *klav* 'clay' (< Proto-Gmc *klaijaiz*), Lith (pl.) *gleivęs* 'slime', Latv *gievęs* 'clay', Grk *γλυόω* 'clay'. [^[1]] Cf. also Lat *gluten* (< *gloī-ten-*) 'glue'. At least a word of the west and center of the IE world.

*istio* 'clay'. [VW 184–185]. Av *istam* 'brick', *zamoščtva- 'clay-tile', OInd *istaka* 'brick', Khoward *istu* 'sun-dried brick, large clod of earth', TochB *isem* (< *tstio-m-?) 'clay'. It is possible that the Tocharian word was borrowed from Iranian but, if so, the borrowing was very early. If the Tocharian is an independent inheritance, then we have evidence here for a word of the IE east.

Ceramic technology exploits naturally occurring clays which need not vary greatly from other soils; thus, our inability to recover a marked distinction between *potter's clay* and other types of 'earth' occasions little surprise. The term *mlēdho* which is geographically more confined, emphasizes gluey or slimy aspects of the substance which seems further removed from the concept of modelling clay. The Grk *κεραμός* 'potter's clay', pottery is a local innovation, perhaps derived from the verb *κέραμον* 'mix'. In the preparation of ceramics, the clay is frequently mixed with another substance, e.g., grit, crushed shell, vegetable matter, crushed sherds, in order to avoid shrinkage and consequent breakage during firing. The other primary use of clay would have been in the production of daub as an insulation for wattle and daub houses.

See also Pot. [M.E.H., D.Q.A.]

Clean

*kelu* 'clean'. [IEW 607 (*klu-*)]. OlLat *clauca* 'gutter, sewer' (although the Latin grammarians cited *hlu*). The agreement of Anatolian and Tocharian would seem good evidence for PIE status for this word.

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*neig-* rather than *nei-g*-, and thus may not belong with this cognate set. Aside from this uncertainty, the root is reasonably well attested for PIE.

*peuh-* 'clean (by straining or sieving)'. [IEW 827 (*peu-*)], Wat 51 (*peu-ja*). OHG lowen 'sieve, clean grain', OInd pāvāyati 'cleances, purifies'. Cf. also the various derivatives *peuh-to-s' cleaned': Lat *putus* (with short -u- perhaps influenced by *putare* 'to clean') 'clean', Av *pūtika*- 'serving as purification', OInd *pūtā*- 'clean'; *peuh-to-s' clean': Mgr *ār* 'new, fresh', Wels *ir* - *irаем* 'fresh, green', Lat *pūrus* 'pure, spotless'. The distribution of the root *peuh-* and its derivatives suggests solid reconstruction to PIE. Attempts to connect this root with *peuh-* 'lire' (± the purifier) are highly speculative.

See also *pure*. [M.N.; R.S.P.B.; D.Q.A.]

CLOSE (THE EYES)

*meigh~* *meik* - 'close the eyes'. [IEW 712–713 (*meigh*)]. From *meigh*: Lith (už-) *migi* 'fall asleep', Latv (zaiz-) *migt* 'fall asleep', mēgš 'close the eyes', OReus *megnuti* 'blink', Rus *mžati* - *mžit* 'blink, close the eyes'; from *meik*: Lat *micāre* 'move quickly, flash', Osorb *mikac* 'blink'; Toch B *mik* 'close the eyes' is ambiguous as to *-k-* or *-gh-* In one form or another widespread in IE.

See also *eye*, *sleep*. [D.Q.A.; E.J.W.B.]

CLOTHING

CLOTH see TEXTILE

CLOTHES (ONESELF)

*hjeu* - 'put on clothes'. [IEW 346 (*eu-*)]; Wat 17–18 (eu-), GI 610 (*eu-), Buck 6.11; BK 394 (*haw/*hau*). Lat *inđu* 'put on, get dressed in', *exīd* 'divest oneself (of)'; Lith *aūti* 'put on shoes', *avęti* 'wear shoes, boots, stockings', Latv *aut* 'put on shoes, stocking', OCS *ob-juja* 'put on shoes', *iz-utti* 'take off shoes', Arm *aganim* 'dress'. Cf. also ORl *fūan* (< *upo-ou-no*-) 'outer garment, tunic', TochB *ēw* 'inner skin'. The geographical distribution of this lexeme suggests considerable antiquity in IE. A widespread nominal derivative is *hjoutelhs* in Lat *sub-alicula* 'under tunic', Lith *aūkle* 'shoeelace', Latv *aūkla* 'cord', Av *aōtra* 'Footwear', though the wide variation in meaning suggests independent creations rather than a word of PIE date.

*yes* - 'be dressed, dress' (3rd sg. present [1] *yes(i)ō* 'is dressed, wears-', [2] *yesietai* 'dresses, clothes'). [IEW 1172–1173 (*yes*); Wat 78 (*yes*); GI 610 (*wes*); Buck 6.11; BK 460 (*haw/*hau*).] [1] Grk *ēvētη* 'get dressed', Arm z-*genum* 'get dressed' (Greek and Armenian < *yes(n)-eu*), Hit wess-*be dressed', Luv wass(a)- 'be dressed', Av vaste 'wear', OInd vaste 'wear', TochA *wab* - 'be dressed' (cf. TochB infitive wastsi 'clothes'); [2] ON *verja* 'dress', OE *wearan* 'dress' (NE *wær*, OHG *werian* 'dress', Goth *wasjan* 'dress', Alb *vesh* 'dress', Hit wassezza 'dresses'. Cf. the denominative Lat *vestī* 'dress'. There are a number of nominal derivatives meaning 'clothes': *vesmn-* in Grk (Lesbian) (*f)ēwma* 'clothes', Av *vāghanam* 'clothes', OInd *wāsmān* - 'covering'; *vestis* in Lat vestis 'clothes', Goth wasi 'garment, dress', Grk (Hesychius) (*f)ēwma 'clothing'. Arm z-*gest* 'garment, clothing'; or *wes-* in MHG wester 'baptismal gown', Grk (*f)ēwma 'clothes', Hit *westra* 'clothes', Av *vastra* - 'clothes'. Cf. also Mcy *was-a-to- (< wehanos) 'kilt'. If *hjeu-* was actually vowel-initial, i.e., *eu-* then *yes-* may be an old extension of it, i.e., *-u-es-. In any case *yes-* is the most basic and general clothing word reconstructible for PIE, being attested in almost every stock and geographical area, including Anatolian and Tocharian. It is noteworthy that in Mycenaean Greek the derivative wehanos, literally '[that] which is worn', is the word for 'kilt', the clothing par excellence, at least for men, which was worn in Greece and Anatolia although it would be too much to project it back into greater antiquity for all the IE peoples given the wide variety of clothes that we encounter when we first recover their apparel, e.g., trousers among the steppes populations, long tunics in the Bronze Age of the Germanic world. It may be possible that *yes-* is further related to Greek *ēwma* 'hearth' (cf. Hestia, the goddess of hearth and home). If so, it may be that its still earlier meaning was that which warms/protects.

See also *clothing*, *cover*, *textile*, *textile preparation*. [D.Q.A., E.J.W.B.]

CLOTHING

*uospoehet* - 'garment'. [IEW 1172 (*ues*).] Lat *vespa* - *vespula* - *vespillo* 'undertaker, one who steals clothes from the dead', Hit was(sa)-pa- 'garment, shroud', Luv waspant- (< *uospo*-) 'wearing funeral shrouds'. From *yes-* 'be dressed', *dress*. The derivative formant *-po-* is productive in neither Italic nor Anatolian, so it is very likely that *uospo-* of PIE age.

*bhru* - 'buit of cloth'. [IEW 137–138 (*bhru*); BK 7 (*bar/*bar*).] Lith *burva* 'piece of cloth', Lat *burvus* 'small sail', Mcy *pa-we-2* (pl.) (= *parweha*) 'pieces of cloth', Grk *φάρος* (buit of cloth) (i.e., the cloth directly as it comes from the loom, usable as is as a cloak, blanket, or woman's *peplos*). Cf. also Lith *būre* 'sail', Grk (Hesychius) *φάρος* 'to weave, to plait', *φάρος* 'mat, seamam's cloak of plaited flax'. Though attested in only two traditions, the exact semantic match is a strong argument that we have reflexes of a (late) word in the center of the IE world. Only in Grk *φάρος* is the underlying verb attested (PIE *bher-* 'weave, twine').

*drap-* - *drop-* 's clothes, cloak'. [IEW 211 (*drop*); Buck 6.12]. Gallo-Roman *drappus* 'clothes', ON *trol* (pl.) 'fringe', Lith *drapanos* (pl.) 'clothes', Latv *drāna* (< *drapa*) 'clothes', OInd *dripá*- 'cloak'. Perhaps from *drop-* 'split (off)'. Perhaps also here *Ava dhrasa* - 'flag', OInd *drāsa* - 'bannet' but as likely is a connection with *dreb- 'tremble'. This is one of the very few words for clothing that has an eastern IE cognate. Despite the uncertainty of the phonological shape of this word (perhaps to be accounted for by some post-PIE borrowing back and forth from one branch of IE to another), this looks to be a likely candidate for (late) PIE status.

*baitētʰ-* - 'cloak'. [IEW 92–93 (*baitā * *paitā*); GI 53].

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CLOTHING

OE pād ‘coat’, OHG pfeit ‘garment’, Goth paisda ‘tunic, shirt’, Grk βάδτα ‘shepherd’s or peasant’s coat of skins; tent of skins’. Alb petk ‘clothes, garment’ may belong here as well but, with its initial *p-, it is probably ultimately a borrowing from some Germanic (Gothic?) source. This word is usually taken to be a borrowing by both Germanic and Greek from some non-IE source. It certainly may be, but there seems to be no reason it has to be, save that *b was of very rare occurrence in PIE. Certainly a cloak of wool or animal skin must have been part of the Proto-Indo-Europeans’ store of clothing.

*kentn(-) ~ patch, patched garment’. [IEW 567 (*kentha-); Wat 29 (*kentha-)]. Lat centō ‘patchwork clothes’, OHG hadara (*kotreha-) ‘patches’, Grk κέντρον ‘patched clothes’, Arm կոտանակ’clothes’. Cf. also OInd kanthā ‘rag, patched garment’. All but the Indic words would appear to be reflexes of a widespread and ancient *mn-stem. The lack of an -n- in the first syllable of the Germanic and Armenian words is plausibly explained by the dissimilatory loss in forms like *kent-. The Old Indic word would be an independent derivative of *kent-. It is perhaps worthy of note that Ötzi, the ‘Iceman of Tyrol’ (of c 3300 BC), had as his principal garment a cloak neatly composed of deer, ibex, and chamois skins patched together. Perhaps related to Grk κεντρεο ‘prick’ (in the meaning *’stitch’?), though the latter would appear to have been descended from a PIE *kent- (cf. Lat sītis ‘hunting spear’).


See also Cover, Headband; Shoe, Textile; Textile Preparation. [D.Q.A.]

Further Reading


CLOUD


*sneudh- ~ *sneuhd- ‘mist, cloud’. [IEW 978 (*sneudh-); Wat 62 (*sneudh-)]. Wels nud ‘mist’, Lat nubes ‘cloud, mist’, Av snooda ‘cloud’, Baluci nōd ‘cloud’. All forms may have either -eu- or -ou-. Lat nubes is also explained differently. Thiny but widely attested enough to insure PIE status.

*hymeigh- ~ *hymighleih- ‘drizzle, mist’. [IEW 712 (meigh-), Wat 40 (*meigh-); Buck 1.74]. OIr nel (if from *miglo-with n- from *nebhos) ‘cloud’, ON mistr (< *migstaz) ‘dark weather’, OE mist ‘mist (> NE mist), NDutch mist ‘mist’, miggen ‘drizzle’, Lith migla ‘mist’, Latv migla ‘mist’, OCS migla ‘mist’, Rus mgl ‘mist, darkness’, māzti ‘drizzle’, Grk οὐξία ‘cloud’, Av maeda ‘cloud’, OInd megha ‘cloud, mish’ ‘mist’. Arm mēg ‘mist’ is an Iranian loan. It is doubtful whether this root derives from *meigh- ‘flicker’ while *hymeigh- ‘to urinate’ is semantically very close to ‘drizzle’ and as both had *h3- (cf. Grk οὐξία ‘urinate’ and οὐξία ‘cloud’), the roots will be the same except for the palatalized velar. Distribution indicates PIE status.

The fact that *nebhos filled out the semantic fields of both ‘cloud’ and ‘sky’ led to an inconsequential attempt by both F. Specht and W. Brandenstein to reconstruct the weather conditions of the IE homeland. It was believed that the earliest Indo-Europeans had uniformly designated the heavens with *dēus ‘bright sky’ which suggested fair weather conditions in the homeland. The movement into the cloudy regions of the Balts and Slavs, for example, had prompted them to abandon their etymologically transparent word for ‘sky’ and expand the meaning ‘cloud’ to include ‘the heavens, the sky’ as a more appropriate term for their cloudy new homes. Specht incongruously argued for a homeland in northern Europe while Brandenstein proposed that the clear sky of the Eurasian steppe was the original referent. He also observed that the entire argument was likely to be specious since the secondary meaning ‘heaven’ for *nebhos was by no means confined to Baltic and Slavic. More recently, Gamkrelidze and Ivanov have suggested that the association of ‘cloud’ and ‘sky’ indicates that the Proto-Indo-Europeans lived in a mountainous environment where the ‘sky’ might well lie in the clouds. Such a hypothesis is obviously no more creditable than the others.

See also GOD; RAIN. [R.S.PB.]

Further Readings


CLUB

*bak- ‘club’. [IEW 93 (*bak-); Wat 4 (*baki-)]. OIr bacc ‘staff (if not from Latin)’, Wels bach ‘corner’, Lat baculum
Club  a. Wooden club (British Neolithic); b. Stone mace-head (Dnieper-Donets culture, Ukraine); c. Stone mace-head (Mariupol cemetery, Ukraine); d. Early Bronze Age burial with copper club (Kutuluk I, Volga region); e. Copper harpoon (Copper Hoard culture, India); f. Copper bar celt (Copper Hoard culture, India). Note that both the harpoon and bar celt (as well as other weapons) have been identified by various authors with the vajra- of the Indic god Indra.
'staff', MDutch pegge 'pin, peg' (borrowed > NE peg), Grk βίατρος 'staff'. By its phonology (possessing both *b and *a) probably a popular word of the west and center of the IE world.

*vedhagohuə - 'club'. [IEW 1115 (*vedh-); cf. Wat 73 (*vedh-); BK 478 (*wad/-wad-)]. OPrus wedigo 'ax', Lith vedegą 'ax', Latv vēdzga 'ice-pick', Av vādin- (name of a demon, the 'striker'?). From *vedh- 'push, strike'. Only if the Avestan word is related is there any evidence that this is a PIE word rather than a specifically Baltic one. Since the original meaning of the Avestan word is only an etymological guess, the PIE status is dubious. Certainly this verbal root shows a good many other derivatives with precisely the meaning 'club': OIr fodh 'ax', Av vadar- 'weapon', Olnd vadha- 'weapon', TochB yatwe 'whip', but they are all independent formations.

*μᾶγρος 'cudgel'. [cf. IEW 1117–1118]. Grk Μέλείαρος 'Meleager' (< *mele-wagros 'caring for cudgel'), Av vāra- 'mace, cudgel' (whence Finnish vasara 'hammer'), Olnd vājra- 'thunderbolt; cudgel' (whence TochAB wasir 'thunderbolt'). A word of the southeast of the IE world. If the Germanic name Odosacer (< Gothic), OE Eadwacer (< Proto-Gmc *Auda-waktraz) meant 'a rich in weapons', then we would have evidence for an originally wider IE distribution. From *ua-g- 'split, strike, bite'.

*lorgelhə - 'club'. [IEW 691–692 (*lorga- ~ *lorgi-)]. OIr lorg 'club, pestle', MWels llory 'club', ON lurkr 'cudgel, club'. Possibly a word of the far west of the IE world. The possibility of borrowing between Celtic and Old Norse cannot be excluded.

In the mythologies of the IE peoples, the god of war or a similar deity charged with aggressive behavior, e.g., storm god, wields a club, mace, ax or hammer. In Old Indic tradition the weapon is the vajra- which is primarily employed by Indra. In Vedic contexts this vajra- is wielded either by throwing or striking and a part of it, at least, is made of copper as the instrument is described as 'red-brown', the color designation for copper. The texts also reveal that the vajra- is likened to an arrow in that it possesses a point with four to eight edges, barbs and a shaft. The shaft or handle was thinner than the head. According to Wilhelm Rau, the instrument as described in Old Indic literature finds by far its best parallel in the "harpoons" of the Copper Hoard culture. On the other hand, Harry Falk has more recently suggested that only the so-called "bar celts" from the same culture provide a solid candidate for the vajra-.

Clubs existed probably long before the emergence of anatomically modern humans in Eurasia between 100,000 and 40,000 years ago. There is evidence for stone clubs in the Mesolithic over broad areas of Europe where their purpose has been variously described as serving for bludgeoning large fish, seals, or pounding in stakes for fish weirs. In the Neolithic and early Bronze Age one encounters more frequently some evidence for a macehead, either attached by a perforation or simply shaped and lashed to a wooden handle. These are found from the Atlantic to the Urals and are generally interpreted as symbols of power and authority; they are found generally in mortuary contexts with presumably important individuals. From the early Bronze Age Poltavka culture in the Volga region comes a burial accompanied uniquely by a large copper club. It seems likely that some form of club or mace-head would have been known to the earliest IE speakers.

See also AX, COPPER HOARD CULTURE, TOOL. [D Q A, J P M.]

Further Readings


COAL see CHARCOAL.

COCK

There are no cognate sets between the various stocks for the rooster, and the individual terms tend to be ultimately onomatopoeic, stemming from roots with meanings such as 'call', 'sing', or, in the case of Greek, 'ward off'. Thus we have OIr cailch and Wels cellog (< *kel- 'call', IEW 548–550 (*kel-)'cock', Lat gallus (< *gal- 'call') 'cock', Goth henna (< *kan- 'sing') 'rooster' (but ON heerna 'hen', OE henn 'hen' > NE hen), OHG huon 'chicken'), OFers kahrkatat (< *ker- 'call of bird') 'cock', and the obviously onomatopoeic Olnd kukkatat (< *ko ko 'cock'). Grk Αλεκτρυόν 'cock' derives from *halek- 'ward off', cf. the Avesta where the crowing of the cock drives away demons. The Lith gaidys 'cock' and OCS kur 'cock' are without etymology.

See also BIRD, HEN. [J A C G.]

Further Reading

COLD

*kelh- 'cold'. [IEW 551 (*kel-); Wat 28 (*kelh-)]. Wels clyd 'sheltered, warm, dry, snug', Lat calidus 'warm, hot', Lith šaltas 'cold', Latv salts 'cold, naked', Av sarata- 'cold', perhaps the reduplicated forms ON hêla (< *hêlôn) 'frost', Olnd sêtra- 'the cool season' and less likely OCS slana 'hoar frost'. As Celtic and Latin indicate, the root *kelh- is also connected with words meaning 'warm, hot', cf. also Lat calêo 'to be hot', suggesting that the root semantics may have concerned intensity rather than specifically temperature. While several connections may be questionable, the geographical spread still supports a PIE form.

*krušten črezing cold). [IEW 621–622 (<kruüs- ~ *kruus-); GI 589; VW 236]. Grk προσταίνω 'am congealed with cold, freeze' (cf. also προσταλλός 'ice, numbness; crystal', πρόπως 'icy cold, frost' (< *kruşmo-), πρύζος 'icy cold, frost' (< *kruws-; all the Greek forms show a delabelization of original *k to k- in the neighborhood of -u), TochA
k_ras (acc. sg. kroššám) 'cold', Toch B krošče 'cold'. Other derivatives are to be seen in Lat crusta 'crust', OHG hroso 'ice, crust', Latv krusēs 'frozen mud'. The distribution suggests that this word was widespread and old in IE.

*htēu- 'cold'. [IEW 783 (*oug-)]. OIr nacht (noun) 'cold', Wels oer 'cold', Lith aštū 'to become cold', Latv auksts 'cold', Arm _CRC 'cold'. Although best attested in the northwest, the Armenian cognate does support deeper IE status.

*gēl- 'cold, to freeze'. [IEW 365–366 (*gel(ə)-)]. Wat 19 (*gel-); Buck 15.86; BK 287 (*ku%p/-*k'o%p-)]. Lat gelù 'cold, frost', ON kala 'to get cold', OE calan 'to get cold', ceald 'cold' (> NE cold), OHG kali 'cold', Goth kaldi 'cold' (< Proto-Gmc *kaldaz). The earlier suggested Grk (Gallo-Roman) *γελάνωρόν 'cold' is now widely discredited, restricting this item to northwest IE.

*sreῖge- 'cold, frost'. [IEW 1004 (*sreīg-)]. Wat 64 (*sreīg-); GI 589 (*sreik-)]. Lat frīgus 'cold, frost', Grk πρύγος 'frost, cold'. Geographical spread only supports late, perhaps dialectal status.

*thēlgh- 'be cold'. [IEW 32 (*algh-)]. Lat algor 'frost', algē 'be cold', ON (gen. sg.) elgjar 'snow', Nlge elgur 'snow-drift'. Doubtful cognates and even if the words share the same root this is relevant only if it reflected a substantive 'cold, ice'; Lat algor is better derived from algē.

A wide variety of direct semantic oppositions among homophones occur in IE, often in the religious vocabulary, but extending well beyond it. This pattern has been taken by Michael York to represent a 'possible IE tendency toward polarized perception', including a "basic positive-negative duality". [J.C.S., R.S.PB]

Further Reading

COLOR

No Indo-European term for the noun 'color' is reconstructible, but this fact does not mean that the Indo-Europeans failed to recognize different colors. Among many peoples, e.g., the Navajo, a complex set of specific color terms may coexist with the absence of an abstract general term for color. Within individual languages, terms for color often derive from terms for the 'surface', e.g., Lat color (akin to celāre 'cover, conceal, cf. Olnd vārna- 'color' from a root var- 'cover') or Grk χρώμα (akin to χρών 'pelt, hide') or are derived from a specialization of individual color terms, e.g., Celtic *liwō- (OIr It 'beauty, appearance, glory, color', Welsh liw 'form, countenance, color') akin to Lat livūr 'dark blue' or OE liw 'appearance, form, color' which is related to Lith žvys 'grey'. The most interesting of these terms appear to relate to markings rather than color per se. A root *perk- is applied to a variety of variegated beings, e.g., Lat porcus 'perch or piglet', OIr _CRC 'perch, salmon'. It is further seen in Grk περκνός which designates 'freckled' or 'red' as does its Indic cognate pṣñ-, while a Greek term, puxkyrıv is glossed as 'black'. However, the most interesting derivative of *perk-, *pork-yōs, occurs in Germanic, Proto-Gmc *far(g)wa-, the antecedent of NHG farbe 'color'. This root is normally translated as 'speckled', but 'striped' or 'stippled' may be more accurate in light of the lineated speckles on the fish and animals named.

Other color words derive from 'spotted', PIE *poi-k-. As a verb Olnd pimsati, TochAB pık- and Rus pisat mean 'paint' and later 'write'. The zero-grade *piko- appears in OCS as pisa 'dog', Rus pes 'dog', i.e., 'spot' but the o-grade, *poiko- gives Av paesa-, Olnd pęsa- 'form, color' and OE fah 'color' but also læge 'fated, doomed to die', perhaps from < *poikio- 'marked'. Finally Grk ξείζω and Olnd rajjati both reflect PIE *sreg- 'dye'. The same root occurs with lengthening via Winter's Law in Lith rnioga 'skein' < *(s)rõgh₁a-

The Proto-Indo-European Color System

Color-terms refer to a complex of optical properties: hue (the discrimination of frequency in light waves), saturation (the amount of admixture among different hues) and intensity. Non-scientific systems of nomenclature often do not distinguish these properties and result in complex overlapping terms. In Berlin and Kay's famous study, Basic Color Terms, a hierarchy of seven color systems employing up to eleven primary terms was proposed. The primary colors, here marked in small capitals, are: WHITE, BLACK, RED, GREEN, YELLOW, BLUE, BROWN, PURPLE, PINK, ORANGE, and GRAY. The term primary as used here should not be confused with primary spectral colors (red, blue and yellow) which refer to the physical nature of color blending. A primary term is monolexemic; its meaning is not deducible by analyzing the meaning of its parts, e.g., 'lemmon-colored' or 'reddish' are not primary color terms. It is also primary because it cannot be subsumed under another color category, e.g., orange is a primary term because speakers of English regard it as a color between yellow and red, while crimson is regarded as 'a kind of red', that is it can be defined as a variety of a more inclusive term. Secondary color terms, those employed only for restricted objects, e.g., boan or bay (for animals) or brunette (for hair), and those defined in terms of other colors, e.g., scarlet (= a kind of red) or those derived from natural objects as a sub-shade, e.g., turquoise (a kind of blue) are all excluded as primary. However, colors have been known to shift classes, thus 'orange' was originally a shade of yellow derived from the fruit, but is now widely regarded as a distinct color. In the absence of native intuition, it is often unclear whether a given term is a primary one or not. Consider Lat canus 'white' or 'gray' and OE basu 'gray', both reconstructible to PIE *kás-, but OHG haso, Olnd sásá-'hare' may indicate that this term originally referred to an animal, not a primary color. However, it is also possible that the word for 'hare' was 'the gray one', and thus the color meaning was primary.

In their original study, Berlin and Kay tested speakers of twenty different languages (drawn from different language
families) with Munsell Color charts which display 320 color chips. The speakers were asked to identify the focus of each of their primary color terms. They revealed recurrent patterns that suggested certain universals of color categorization. To this sample of contemporary languages was then added historical evidence taking the number of languages considered to ninety-eight in which it was revealed that there were seven 'stages' of color systems and that each subsequent stage required the incorporation of the distinctions made in the previous stage. Berlin and Kay outlined their seven stages as follows.

Stage I  BLACK, WHITE (two terms)
Stage II  BLACK, WHITE, RED (three terms)
Stage IIIa BLACK, WHITE, RED, GREEN (extending into the blues) (four terms)
Stage IIIb BLACK, WHITE, RED, YELLOW (four terms)
Stage IV  BLACK, WHITE, RED, GREEN, YELLOW (five terms)
Stage V   BLACK, WHITE, RED, GREEN, YELLOW, BLUE (six terms)
Stage VI  BLACK, WHITE, RED, GREEN, YELLOW, BLUE, BROWN (seven terms)
Stage VII BLACK, WHITE, RED, GREEN, YELLOW, BLUE, BROWN, PURPLE, PINK, ORANGE, GRAY (eight to eleven terms)

It was later realized that this system contained a number of inaccuracies and could be greatly improved by taking into consideration both the physical properties of light perception in humans and a more precise and consistent definition of the various color categories (e.g., the distinction between BLACK and WHITE in Stage I was not the same as in Stage II). Lexicalization of color terms appeared to be dependent on three factors. Six primary colors received a basic response as color categories, i.e. black, white, red, yellow, green and blue. To this had to be added a series involving the "fuzzy union" of different primaries, e.g., black or green or blue yielded a "dark-cool" perceptual and linguistic response while a union of green and blue (named here GRUE) provided a "cool" response, red or yellow produced a "warm response" and white or red or yellow yielded a "light-warm" response. Finally, there were five semantic categories that were based on "fuzzy intersections" of colors, i.e. black + yellow = brown, red + blue = purple, red + white = pink, red + yellow = orange and white + black = gray. The evolutionary sequence originally defined was reinterpreted as a "successive differentiation of previously existing color categories", e.g., composite categories (such as GRUE) between Stages II and V were decomposed into their constituent primaries (green and blue).

The definition of the stages has remained similar to the original study but is now generally elaborated as follows.

Stage I  WHITE and BLACK
Stage II  WHITE, RED, YELLOW, GRUE, BLACK
Stage III  WHITE, RED, YELLOW, BLACK OR WHITE, ROW, GRUE, BLACK
Stage IV  WHITE, RED, YELLOW, GRUE, BLACK
Stage V  WHITE, RED, GREEN, BLUE, BLACK
Stage VI  WHITE, RED, YELLOW, GREEN, BLUE, BLACK, BROWN
Stage VII WHITE, RED, YELLOW, GREEN, BLUE, BLACK, BROWN, PINK, PURPLE, ORANGE, GRAY

Berlin and Kay's categories were evolutionary in the sense that each higher stage comprehended an earlier stage. They found some social correlation in that languages of cultures of small groups of hunter-gatherers tended to fall into the first three stages while modern industrialized (including European) languages employed Stage VII systems. They argued a Stage III system for Homeric Greek (more recent analysis suggests a Stage II) and a Stage IV system for Old and Middle Irish. Russian and (New World) Spanish, two of the languages examined, indicated a Stage VII.

It would be incorrect, however, to equate directly the number of terms with the level of civilization. Classical Latin, for example, had no primary term for BROWN which was supplied in the Romance languages from (Barbarian) Germanic. Moreover, some languages do not fit easily into their schema. The presence of two separate term for 'blue' in Russian (stiny 'dark blue', goluboj 'light blue') has often been pointed out.

A more significant problem concerning the classification of the PIE system is the presence in Indo-European of various 'grayish' terms which should imply a Stage VII development, although other Stage VII terms, e.g., PURPLE, PINK and ORANGE are missing. Lerner suggested that Old English and Homeric Greek employed bipartite systems in which hue and intensity existed side by side. Such a theory would account for the troublesome Russian (and Hungarian) data in which blues and reds of different intensity are distinguished. Lerner's evidence suggests that earlier systems were far more consistent in this distinction, and we propose that the various 'grays' of PIE may have been the non-intense counterparts of a less developed system.

The lexical evidence for IE color terms suggests that we can reconstruct with confidence a Stage III system and possibly a Stage IV system which distinguished the following five colors:

- BLACK *mel-n-* (*keiran*)
- WHITE *h2re6g- (*h3elbhos, *bholh1os, *kueitos*)
- RED *h1reudh- (*h1elu*)
- YELLOW *ghel-
- GREEN *kjeh1-

As the best reconstructed color term in PIE is 'red', a Stage II system is assured. That we have at least one word for 'yellow' or 'green' is also fairly certain. Reconstructing both primary GREEN and YELLOW is more problematic and the existence of a GROW (green + yellow) has been observed for other language groups. It has also been argued that the system employed by Homeric Greek was only Stage II (transition to Stage III) and to assign a "higher" stage to PIE is unlikely since, in general,
Some Basic Indo-European Color Systems

<table>
<thead>
<tr>
<th>Color</th>
<th>Greek</th>
<th>Old Irish</th>
<th>Russian</th>
<th>Spanish</th>
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</thead>
<tbody>
<tr>
<td>WHITE</td>
<td>λευκός</td>
<td>bán</td>
<td>белый</td>
<td>blanco</td>
</tr>
<tr>
<td>BLACK</td>
<td>μέλας</td>
<td>dub</td>
<td>черный</td>
<td>negro</td>
</tr>
<tr>
<td>RED</td>
<td>έρυθρός</td>
<td>derg</td>
<td>красный</td>
<td>rojo</td>
</tr>
<tr>
<td>YELLOW</td>
<td>χρυσός</td>
<td>buide</td>
<td>зеленый</td>
<td>amarillo</td>
</tr>
<tr>
<td>GREEN</td>
<td></td>
<td>glas (GRUE)</td>
<td></td>
<td>verde</td>
</tr>
<tr>
<td>BLUE</td>
<td></td>
<td></td>
<td></td>
<td>azul</td>
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<tr>
<td>BROWN</td>
<td></td>
<td></td>
<td></td>
<td>cafe</td>
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<tr>
<td>PURPLE</td>
<td></td>
<td></td>
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<td>morado</td>
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<td>PINK</td>
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<td>ORANGE</td>
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<td>anaranjado</td>
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<tr>
<td>GRAY</td>
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<td>gris</td>
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Color systems do not descend to a lower stage over time. On the other hand, it might also be argued that the semantic "mixing" where PIE *'gel-'yellow' also provided a base for words meaning 'green' was an artifact of time, the original meaning be primary yellow and that new formations indicating green did not come into existence until after GRUE had separated into GREEN and BLUE. Moreover, there is a case to be made for regarding *'kiah2' as filling out the semantic slot for green in which case all five terms for a Stage IV system might be proposed.

Words for color-terms found in other stages are not solidly reconstructible as primary color terms in PIE. For example, terms that might yield a meaning 'blue' tend to relate to specific objects, e.g., *'slihxu- 'plum colored', and are geographically restricted; similarly, the word for 'brown' ( *bher-) is difficult to reconstruct as a primary color as so many of its referents in various stocks are either to animal names or at least the specific colors of an animal. Of modern languages, Stage IV systems include Japanese, Korean, Cantonese and Mayan.

See also BLACK, BROWN, DARK, GOLD, GRAY, GREEN, HONEY, LIGHT, PAINT, RED, SPECKLED, TEXTILE PREPARATION, WHITE, YELLOW. [M.E.H., J.P.M.]

Further Readings

COME

*"g'\textit{em}'- come' (pres. *"g'\textit{emsk}e/\textit{o}/-- *"g'\textit{mle}/o) [IEW 464 (*"g'\textit{em}); Wat 24 (*"g'\textit{em}); GI 75; Buck 10.47] Lat \textit{veniō} 'come', ON \textit{koma} 'come', OE \textit{cuman} 'come' (> NE \textit{come}), OHG \textit{queman} – \textit{koman} 'come', Goth \textit{qiman} 'come', OPrus \textit{genton} 'bear', Lith \textit{gimt} 'come into the world, be born', Latv \textit{dzinmt} 'come into the world, be born', Grk \textit{βαίνεω} – \textit{βάσκω} 'come', Av \textit{jamātī} – \textit{jasati} 'goes', Olnd \textit{gacchati} 'goes', TochA \textit{kunnās–} 'come', TochB \textit{kannak–} 'come'. Cf. *"g'\textit{mēti}'-motion': Lat \textit{con-ventīō} 'coming together', \textit{samkund} 'meeting', OHG \textit{kumīt} – \textit{chumīt} 'motion', Goth \textit{gaqūmps} 'meeting', Grk \textit{βαίσις} 'step', Av \textit{gāt} - 'motion', Olnd \textit{gāt} - 'motion'. Widespread and old in IE. The basic intransitive verb of motion toward the speaker.

*"g'\textit{ehr} - 'come' (pres. *("g'\textit{ehr}\textit{t}) [IEW 463 (*"g'\textit{ā}); Wat 24 (*"g'\textit{ā}); Buck 10.47]. Olr \textit{bād} (< *"bā-a-tī) 'dies', Lith (dialect) \textit{gējū} 'go', Latv \textit{gāju} 'go', Grk (Laconian) \textit{βίβαστι} 'they strike', Arm \textit{kam} 'stand', Olnd \textit{jīgātī} 'goes'. Ancient variant of the preceding (like *"drem- and *"dreh2- 'run'). Cf. also *"g'\textit{e)mēn}-: Grk \textit{βίβασε} 'step', Olnd \textit{gāmān}- 'step'.

COMPANION

*"sok"-h2-ōi (gen. *"sek"-h2-jōs) 'follower, companion'. [IEW 896–897 (*"sok"jōs); Wat 57 (*"sok"-yо); Buck 19.51, 19.53]. Lat \textit{socius} 'partner, companion', ON \textit{seggi} 'follower', OE \textit{secg} 'follower', Grk \textit{οἰκος} 'help', Av \textit{haza-} 'friend, companion', Olnd \textit{sakhå-} 'friend, companion'. The Germanic forms (Proto-Gmc *sagwja- < a thematic *"sok"h₂jōs as in Latin) apply in particular to those who follow the leader in combat, i.e., warriors, and this must be close to its original meaning, given its derivation from *"sek"- 'follow'. The distribution indicates PIE status.

*"droughhos' companion, comrade'. [IEW 254–255 (*"dēreugh₂); GI 658 (*"dēreug₂)]. OE \textit{ge-dreag} 'troop', Lith \textit{draugas}'friend', OCS \textit{druš} 'friend, companion' (also \textit{družina} 'companions in arms'). The underlying verb exists in ON \textit{drygja} 'carry out', OE \textit{drēogan} 'lead a (certain) life, do, work, take part in, perform' (> NE \textit{dree;} \textit{drudge}), Goth \textit{durigan}
'wage, carry on (a military campaign)'. A derivative *dhrughtis-is seen in ON drott 'troop', O Sax druht-folc 'army', MHG truht 'troop', Goth ga-drauthis 'soldier', and a further *dhrughti-no-in ON dröttinn 'lord', OE dyhten 'chief, lord', OHG truhtin 'chief, lord' (< *troop-leader'). A word of the northwest of the IE world whose origins appear to lie in the vocabulary of the military band. The military emphasis is particularly striking in Germanic where it has given rise to the usual word for 'lord'. It is sometimes thought that this word is ultimately the same as *dhrughe- 'deceive' but the semantic distance is very great and they should probably be kept apart.

*hepis *confederate*. [IEW 325 (*épi-*)]. Grk ἕποις 'gentle, kind, soothing, friendly', OInd āpi 'ally, friend, acquaintance', āpivām 'friendship, confederation', āpyam 'confederation, alliance, friendship'. This word has been taken as a nominalization of *hepι* upon, near (cf. Grk ἔπι, OInd āpi), thus 'one nearby, neighbor' or, much more likely given the meaning we find in Old Indic, from *hep- 'fasten, join' seen in Hit drub- 'join, attach', Lat *apere 'attach, tie to', cōpula (< *co-apula) 'bond'. In the latter case the (late) PIE form would be *hēpēs and would provide further evidence that laryngeals did not color adjacent long vowels. In any case an isogloss in Greek and Indo-Aryan.

*hegmēn- 'troop'. [IEW 5 (*agmēp-)]. Lat agmen 'troop, train', OInd ājman- 'train'. A banal formation from *hēgēg- 'drive'.

See also Arm, Follow, Warfare, War God, Warriors.

[End of Entry]

COMPARATIVE MYTHOLOGY

As with the reconstruction of Proto-Indo-European linguistic forms, there is no direct evidence of the mythic constructs of the PIE community. The specific mythic statements of the different IE-speaking stocks are available, presuming that such myth has in fact survived in each tradition, which often is not the case. The "approaches to myth" taken within the community of Indo-Europeans have evolved over a century and half of research. In the mid-nineteenth century, the major approach to comparative mythology was underpinned by the assumption that the key to interpreting myth lay with natural phenomena, especially the sun, thunder and lightning. By the early twentieth century the interpretive emphasis had shifted to what would later be termed the ritualist school where myths were seen as expressions of ritual beliefs primarily concerned with the manipulation of the universe, particularly as it concerned the rejuvenation of the world. Although a number of other schools developed that emphasized the psychological foundations of myth, e.g., Freud and Jung, these were largely ignored by researchers in Indo-European comparative myth. Rather, the cornerstone of the predominant approach to the mythology of the Indo-Europeans today has grown out of the functionalist school that concerned itself with how mythology served as a charter of societal behavior. This was developed most fully by Georges Dumézil, who is credited with founding the "new comparative mythology". This approach may be generally characterized as catholic or inclusive, rational-sociological, meso-structural, and transdisciplinary. That is, in its investigation of mythology it is prepared to data, themes, and resemblances taken not only from myth in the strict sense, but also from epic and even from quasi-historical sources and so accepts a rather broad definition of what "myth" is, and where remnants or reflections of myth may be located. Under the functionalist assumption that myths do provide a social charter, the investigation of IE myths is then aimed at describing or recreating an IE society or social structure, at least as an ideological model if not as a provable, historical reality or proto-reality. The meso-structural label detaches this approach to myth from such grander macro-structural attempts as those erected in the last century by the naturist school and in this century by the structuralists: the investigatory focus on a single linguistic family, however widely dispersed and various the cultures within this family, reduces the focal ambition somewhat. Finally, this approach to mythology is conducted along transdisciplinary lines, bringing into play techniques derived from philology and linguistics, comparative religion, sociology and anthropology (including hints taken from structural anthropology), literary myth-analysis and other disciplinary varieties and tendencies; it is accepted that sometimes the use of one approach may contradict the rules or findings of another.

The Naturist School

The primary school of comparative mythology of the mid nineteenth century argued that the underlying content of IE mythology was an allegory of natural phenomena, particularly that associated with the sun but also including the other elements. The leading exponent of this approach, Friedrich Max Müller (1823–1900), led the school of "solar mythology" which sought to interpret IE myth, both linguistically and structurally, in terms of oppositions in nature. Müller argued that the early Indo-Europeans were incapable of abstraction and hence the observable events most central to them, those relating to natural phenomena, were described through mythic circumlocutions, e.g., the Dawn disappears in the fiery embrace of the Sun = the passing from dawn to day. After the dispersion of the Indo-Europeans and the rise of the individual language stocks, the myths were forgotten and new ones created to remedy the "disease of language" which had disassociated the original mythic metaphors. The purpose of comparative mythology was to examine both the etymological basis of the names of deities and compare the structural elements of various myths to recover the original PIE myths which were invariably connected with natural phenomena. Hence, the career of a mythic hero, for example, with his rise and ultimate demise, might be regarded as a mythic metaphor for the course of the sun through the passage of the day while combats between a hero and a monster were metaphors for the battle between night and day.

The naturist or solar school of mythology was ultimately
defeated by its own excesses (one critic reduced Müller's own life to a solar metaphor) and has been generally abandoned as the primary interpretive key to IE mythology. On the other hand, that some IE mythology must relate to natural phenomena cannot be denied, especially as the few names of deities which are sufficiently widespread among the different IE stocks to posit a PIE linguistic form relate to natural phenomena such as the Sun, the Dawn, and the Sky. Attention to primarily natural phenomena in IE myth is particularly to be seen in the more recent works of Jean Haudry who has suggested that a central cosmological concept of the Indo-Europeans was that the universe was divided into three skies (a diurnal, dawn/twilight, and nocturnal) which served to organize other fundamental themes, e.g., divinities (celestial gods, bridging gods, and night spirits or spirits of the dead), colors (white diurnal sky, red dawn or twilight sky, and dark night sky), social functions (the celestial colors have a social valence), and about which mythic narratives were developed, e.g., the archetypal hero such as Héraclès (proposedly related to Hēra ("*jērēh-", 'year') conquers the 'year', i.e., gains immortality and avoids the cyclic nature of existence. (Although frequently proposed, the etymological basis for this entire argument is by no means secure and Hēra may well be from "*ieh₁-en- 'active' hence 'physical ability, strength' [cf. Spartan *eιφήν = *eιθήν] (< *ieh₁-en- 'teenager' = 'one possessed of youthful strength').) Hēra would then be like her Roman counterpart Juno, a derivative of 'young', or Olind Śakti, also a derivative of 'strength'. Hēraclès would then be 'famed for strength' which would make much better sense as a given name than 'famed for the year' or 'famed for Hēra'.

The ritualist school was very much dependent on etymological connections and this approach has also been recently extended in Garrett Olmsted's attempt to reconstruct PIE myth by assembling the assorted bynames (aliases, epithets, epiphanies, etc.) of various Celtic deities and extending comparison to the mythological traditions of other IE stocks. A single Gaulish god, for example, is regarded as underlying Gaulish Vēlāunos and Ešus (in the Roman interpretation, Mars and Mercury) and his characteristics can be assembled by analysis of the various bynames, e.g., Vemostonos 'wound with thunder', Ocelos 'eye' or 'seer' (i.e., similar to the Norse Óðinn), Medocios 'who renders judgment' (i.e., similar to Old Indic Varuna), from which one ultimately reconstructs a PIE sky god who wields a thunderbolt, rescues clouds from a serpent, and produces rain and fertility. Not entirely dissimilar to Max Müller's 'disease of language' we have here a multiplicity of epithets for the various IE deities that may be projected back into the period of PIE 'unity' which helps account for the apparent abundance of names for various deities.

**The Ritualist School**

The ritualist school, championed by such scholars as Sir James Frazer (1854-1941) in his *Golden Bough*, emphasized the close relationship between myth and ritual. Its central focus was the belief that rituals were undertaken to manipulate, largely rejuvenate, the universe and that myth was merely the narrative accompaniment to such rituals. In Frazer's work great attention was focussed on the king as the embodiment of fertility who mated annually with a female spirit to promote the growth of vegetation and whose own health mirrored that of his society. Illness or disfigurement resulted in his incapacity to promote fertility; he had to be deposed or put to death by a successor or periodically die and be rejuvenated himself. The empirical basis of Frazer's study was world-wide reports of customs, folk-practice and belief, as well as myths. Comparative mythology might then uncover in ancient myths the various themes concerning the maintenance of fertility and, in some instances, possibly also the traces of ritual behavior designed to manipulate the elements.

As with the ritualist approach, it would be impossible to ignore certain elements emphasized by the ritualist school that are to be found in the mythologies of the Indo-European stocks, e.g., the frequent theme emphasizing the ritual mating of the king with either a mare or a female figure who represented the (fertility of the) land. Moreover, other members of this school such as Lord Raglan have had a major impact on the study of comparative mythology. His *The Hero* (1930) investigated the recurrent structural patterns in the life of the hero, based both upon clearly mythic and also quasi-historical literature, where a recurrent sequence of events could be discerned, e.g., unusual conception of hero of noble birth, his exile and return. The underlying ritual behavior suggested by some IE myth has also been emphasized by Bruce Lincoln who has examined the nature of IE sacrifice within the general scheme of IE cosmogonic myth where the world is renewed, or better, 'recycled' through the sacrifice of animals which restore to the macrocosm of existence that which was originally created. In some instances, specific rituals in IE traditions, e.g., the burial of hair to promote fertility, following the homology between hair and plants, help to augment reconstructions of IE myth. But, naturally, as an interpretive key to all IE mythology, a purely ritualist approach would either be required to ignore much of what appears most essential or force the mythic elements into a procrustean bed of interpretation.

**Functionalist School**

The functionalist school regards mythology as an expression of the social collective whose purpose is to reinforce or integrate social behavior. That myths do reflect the respective (often archaic) social structures can be argued on a tightly empirical base, for example, where one may encounter the palace-centered pantheon of the ancient Greeks where the various deities fill out both the occupations (e.g., warrior, smith, cup-bearer, messenger) and social behavior (e.g., constant intrigues, infidelities) of a Bronze Age or Iron Age palace society. In contrast, the pantheon of the Norse...
with its emphasis on the drinking hall, dead warriors, and more limited social complexity reflects better the social realities of early Germanic society. On a more abstract level, myths may serve to express the underlying charter for societal behavior and its construction. This approach was particularly emphasized by Emile Durkheim (1858–1917) who regarded religion as “society personified” and the various deities or sets of deities might be seen as collective representations of the various social classes of society. The relationships between deities might then serve to reinforce the expected relationships that operate within societies or illuminate areas of structural conflicts. For example, the inferior social position of the lower orders in society is frequently “justified” in the mythic traditions of various IE stocks that relate how in some primordial contest the lower social orders were incorporated into society of the higher or in the simple order of births, three brothers assumed the three major roles in society (priest, warrior, herder-cultivator). As the school that most greatly influenced the works of Georges Dumézil, functionalism still plays an active part in the development of current approaches to IE mythology.

**Structuralist School**

The structuralist approach to mythology is primarily concerned with analyzing myths in terms of binary oppositions which the content of the myths seek to resolve. It assumes for all human beings there is a deeply embedded mental structure that sets up opposing patterns to achieve a resolution of conflicting elements. These oppositions might include the distinctions between the natural world and that constructed from culture (or the “raw and the cooked”), the male versus the female, left versus right, active versus inanimate, visible versus invisible, gods versus giants, aspects of color (black and white), direction (up and down, north and south, etc.) or anything else that might be reduced to a binary opposition. As an interpretive principle, such an approach can be turned on almost any mythic text. In terms of the reconstruction found in T. Gamkrelidze and V. Ivanov’s study of IE culture, where they seek a binary opposition in the IE world view and social behavior rooted in the nature of IE marriage which, for them at least, was founded in the practice of women marrying across consanguinely related halves of society. Hence they seek reflexes of this dualism in the epic-heroic sagas as these were written down three centuries or more after the first wave of Christianization. Tripartition is regarded as basic and central to an IE system or “ideology”; an ideology thus shaped with a strong segmentary—to use an anthropological term—impulse or bias. Myth, either intact or reflected (or disassembled) is brought forward as an illustration or illumination of this ideology. The systematic association of three functions or Functions—accepted as Sovereignty (F1), Guardianship or the Warrior Function (F2) and the Function of Fertility (health, sexuality, etc.) (F3)—is sought out in terms of statements of or concerning founding myth, religious structure and belief, in socio-political organization (regarded as primary, but sometimes reconstructible only indirectly or by inference), even in the relict characters and themes of legend and folklore. The implicit assumption is that an IE or PIE mythic code or matrix (and primarily the tripartite impulse) has usually left behind it traces of itself. Another assumption is that of the persistence over time of this pattern, so that even when the “functional” aspects of pagan religion (with the pantheon of divinities seemingly divided according to the three major functions they reflected or served) disappeared with the advent of Christianity, the tripartite code might emerge, much later, in quite another area. For example, Western medieval civilization was ideally divided into the clearly identifiable trifunctional job-titles of oratores, bellatores, laboratores—those who prayed, those who fought, those who worked, a revivification of the putative PIE societal structure. Or in another IE familial situation investigated by Dumézil, trifunctional and other patterns, encased in pagan myth and legend, survived the christianization of Scandinavia, and clearly re-emerged in the evidence of the Eddas and the epic-heroic sagas as these were written down three centuries or more after the first wave of conversion and baptism. The persistence of the IE tripartite model thus establishes a diachronic-historical, and not merely a synchronic-structural, pattern and in this way differs fundamentally from the structuralist approach to mythology.

Dumézil’s IE tripartite theory was supported early on by the work of scholars such as Emile Benveniste and Stig Wikander. Benveniste helped ground Dumézil’s theories in the ancient and important Iranian area, while Wikander investigated Indic epic and other Iranian possibilities as well. Tripartitism since then has revealed its “echoes” resonating in a number of specific, contextually IE mythic or paramythic situations or dramas and has been employed to determine the probable existence of an IE base, root, or influence in a particular cultural context. Thematic instances of tripartition include, but are by no means limited to (a) the three “crimes” of the king (connected to the theme of the king or sovereign necessarily operating in all three functions) and the calamities that proceed from these delicts; (b) the three sins of the warrior, the theme of a type of death as fitted to each function, again usually referent to the figure of the sovereign and how he, engrossing all functions himself, may have to die a “three-
### COMPARATIVE MYTHOLOGY

#### Examples of Tripartition in Various Indo-European Traditions

<table>
<thead>
<tr>
<th>INDIA</th>
<th>Mitanni deities</th>
<th>RV</th>
<th>Mahābhārata</th>
<th>Indic classes</th>
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</thead>
<tbody>
<tr>
<td>I: sovereign</td>
<td>Mi-it-ra</td>
<td>Mitra</td>
<td>Yudhīśhṭra</td>
<td>Pāṇdu</td>
</tr>
<tr>
<td>II: warfare</td>
<td>Indra</td>
<td>Arjuna</td>
<td>ksatriya</td>
<td>swears by chariot and weapons</td>
</tr>
<tr>
<td>III: fertility</td>
<td>Na-sa-at-tiya</td>
<td>Nasatya</td>
<td>Nakula</td>
<td>Sahadeva</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IRAN</th>
<th>Avesta</th>
<th>Iranian social classes</th>
<th>Sacred fires initiated by early Iranian kings (Shāhānemeh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: sovereign</td>
<td>Aša Vāsiṣṭa</td>
<td>Vohu Manah</td>
<td>Atur Farnbag 'priests'</td>
</tr>
<tr>
<td>II: warfare</td>
<td>Xsaθra Vairya</td>
<td>rathaeštar 'chariot warrior'</td>
<td>Atur Gushnasp 'warriors'</td>
</tr>
<tr>
<td>III: fertility</td>
<td>Amrāt</td>
<td>vastryō Ḫuṣyant- 'herdsmen'</td>
<td>Atur Bazzen Mihr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GREECE</th>
<th>Judgment of Paris</th>
<th>Athenian social groups</th>
<th>Lycgurhus's reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: sovereign</td>
<td>Hera promises kingship</td>
<td>ἱεροσοτοῖ 'priests'</td>
<td>establish senate</td>
</tr>
<tr>
<td>II: warfare</td>
<td>Athēnē promises military victory</td>
<td>φύλακες 'guards'</td>
<td>established military messes</td>
</tr>
<tr>
<td>III: fertility</td>
<td>Aphroditē promises love of most beautiful woman</td>
<td>γεωργοί 'farmers'</td>
<td>redistributed land</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROME</th>
<th>Deities</th>
<th>Major Roman priests</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: sovereign</td>
<td>Jupiter</td>
<td>Flāmen Dālis (Jupiter)</td>
<td>Rōmulus</td>
</tr>
<tr>
<td>II: warfare</td>
<td>Mārs</td>
<td>Flāmen Martialis (Mārs)</td>
<td>Tullius Hostilius</td>
</tr>
<tr>
<td>III: fertility</td>
<td>Quirīnus</td>
<td>Flāmen Quirīnalis (Quirinus)</td>
<td>Ancus Martius</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCAN</th>
<th>Deities</th>
<th>Heimskringla</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: sovereign</td>
<td>Óðinn</td>
<td>on Winter's Day a blood sacrifice for a good year</td>
</tr>
<tr>
<td>II: warfare</td>
<td>Fōrr</td>
<td>on a Summer's Day, a sacrifice 'for victory in battle'</td>
</tr>
<tr>
<td>III: fertility</td>
<td>Njōðr</td>
<td>in the middle of Winter, a sacrifice 'for a good crop'</td>
</tr>
</tbody>
</table>
### COMPARATIVE MYTHOLOGY

#### A Scheme for Dividing Indo-European Tripartition

<table>
<thead>
<tr>
<th>Function 'Marker'</th>
<th>Left Hand</th>
<th>Interstitial</th>
<th>Right Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1: TIME</td>
<td>Varunaic King</td>
<td>Magical King</td>
<td>Mitraic king</td>
</tr>
<tr>
<td></td>
<td>Time: uncontrolled</td>
<td>Controlled</td>
<td>Delimited</td>
</tr>
<tr>
<td>F2: ACT</td>
<td>Odin-warrior</td>
<td>&quot;Doubled&quot; warrior</td>
<td>Polăr-warrior</td>
</tr>
<tr>
<td></td>
<td>Act: uncontrolled</td>
<td>Controlled</td>
<td>Delimited</td>
</tr>
<tr>
<td>F3: SPACE</td>
<td>Merchant</td>
<td>Herdsman</td>
<td>Farmer</td>
</tr>
<tr>
<td></td>
<td>space: uncontrolled</td>
<td>Controlled</td>
<td>Delimited</td>
</tr>
</tbody>
</table>

#### fold death"; (c) the three major categories of diseases or ailments and the three types of remedies that might be applied. All of these themes are dealt with elsewhere in this volume. Tripartition has also been located in images of division or the parts of the human body (head = F1, mid-body and arms = F2, and lower body and legs = F3), in such symbolic usages as functionally ordered colors (generally, white and gold = F1, red = F2, green/blue = F3), and even in spatial or geographical divisions. The best known spatial reference would identify the sky as a Fl zone, the earth as F2, and the subterranean (or sometimes submarine) zone as F3. As the place of vegetal fertility and potential life, such a division comes into play when defining the place of topos of particular gods—or with funerary customs (cremation or the body given to the sky, placement of the body on the earth, interment within the earth).

#### Interfunctional Relations

"Echoes" in the mythic stratum also help to fill out the full image of each function in terms of both its positive and negative valences, and they also demonstrate the systematic, and not always cooperative, relationships between the functions. In terms of the latter, the most prominent and dramatic theme has been what Dumézil called the War of the Foundation (or Interfunctional War). As this theme works itself out, there is a secondary division initially established between the first two functions (priests and warriors) on the one hand, and the F3 zone and potency of herder-cultivators on the other. This division cannot be healed, and a complete tripartite unity achieved, until the third function is either defeated or otherwise manipulated and convinced to join the totality. Dumézil's original evidence came from the Norse myth of the war between the Aesir and Vanir and from Roman historicized myth (rape of the Sabines), but there may be additional evidence for the drama of reconstitution to be found in various places in the Greek sources, even including the Iliad with the Trojans occupying F3. It may be said that the subordinate or anomalous situation of the F3 area regularly recurs in the evidence that is available to us, where the hero-warrior of the second function displays his disdain or unconcern with the potencies or impotencies of the common agricultural population (F3), especially as their mass or numbers contrast to his heroic singularity. Some have seen in this mythic theme evidence for real hostility among the functions, and the theoretical construction of a PIE society where agriculture (and perhaps the city, though not the activity of the herdsman) lay outside of or exotic to the PIE socio-economic system (cf. the clear bias among Hebrew pastoralists in Genesis where the sacrificial offerings of Abel, the herdsman, were favorable to God while the agricultural fruits of Cain, the settled farmer, were unfavorably received).

Other tensions between the functions also can be found, as when the ideology or true "sovereignty" is seized by or allocated to a purely priestly or spiritual power (as in Vedic India and the brahman priestly caste, or in the medieval West) and the secular-military aspect of kingship is isolated and forced "downward" into the warrior function, or when the triumphant F2 zone of force and war, in a reversing manoeuvre, actively seeks to deny or even to remove most of the powers of the sovereign function, with the intent of drastically limiting or even demolishing kingship itself (e.g., Greek aristocracies dominating the polis, Roman republican rule).

#### Duality or Bifurcation

The second important direction in which IE specialists have turned or focussed their recovered mythic evidence is toward the discovery of dual or binary aspects in each function. Dumézil's initial suggestion and research involved the bifurcation of sovereignty into two subsets of powers, Varunaic and Mitraic. Very briefly described, the Mitraic aspect of sovereignty shows forth the overt powers of the ruler, the areas of justice, enforcing social order, and the exercise of the sword-power, all powers operative in the open. Varunaic potencies are always darker, more mysterious, magical and even irrational and, in fact, are often difficult to define precisely. A simple demonstrative formula would put the king's justice (effect follows on cause) on the Mitraic side, his mercy (random, uncaused, unpredictable) on the other, the orienting terms of left hand for the Varunaic, right hand for the Mitraic may have been used.

Dumézil's second exploration was into the bifurcated nature of the warrior (F2) function; he located, using especially the legendary and myth-epical materials and sources of the Germanic-Scandinavian North, a figure he termed a "warrior
of Öðinn" presented or contrasted against a "warrior of Þórr". The two types make a contrast specifically in their allegiance to one or another key aspect of the second function: one aspect is controlled, pro-social, open, honorable (the Þórr-warrior), the other in contrast is uncontrolled, destructive, mysterious and threatening (the warrior of Öðinn). Evidence for this divided warriorhood may be found elsewhere in IE contexts; it is suggested, at least, in a sequential arrangement when the Athenian ephèbos, the uncontrolled guerilla-fighter and "black-hunter" graduates to full and disciplined social service in the ranks of the hoplite army. It might be noted that an alternative explanation for the "duality" of the IE warrior function has been proposed by Kim McCone who has suggested that the so-called "warrior of Öðinn" actually reflects an IE age set of young warrior while the "warrior of Þórr" reflects the older age set of married and landed or at least propertyed warriors who are part of the IE *tueutēh₁-tribe* under a *hērgs* king. The final age set, according to McCone's system, would be that of the elders, the non-combatants who were respected for their wisdom and advice and who therefore filled out what Dumezil has otherwise termed his "First Function".

The Third Function already has an important mythic marker in terms of the twinned gods that can reside in or represent it (the Indic Asvins, for example, or the Greek Dioskouroi); this gemination seems to reinforce the idea, primary to this Third Function, of multiplicity or plenty, but see below for other explanations and complications.

On the other hand, the F3 twins, and the phenomenon of duality, may reflect or be related to an ancient IE cosmogonic drama, one that was described and decoded in separate investigations by both Jaan Puhvel and Bruce Lincoln: the origins of society (or at least of religion and the sacral) are assigned to a primeval act in which "Man" kills "Twin" in order for the act of cosmogony or foundation to proceed. The sources here are Indic-Vedic, Iranian and Germanic, and the theme is reflected at last in the Roman "legend" of Romulus and Remus and the founding of Rome.

These attempts to divide the inner structure of the functions have most recently been associated with a general reworking of the original tripartite system, and especially a remapping of the functions so as to produce a scheme in which each function is divided not just into left and right modalities, but also shown to contain an intermediating force or figure, one self-crafted to operate according to the basic plot of the function itself. That is to say, if we take the Þórr-warrior/Öðinn-warrior division, we find at the center, between them, a "doubled" warrior who may operate in either zone, and the same intermediating ("self-controlling") figure may be located for the First or Sovereign Function. Again, the Third Function gives considerable difficulty, but what can theoretically be produced takes the shape of the accompanying diagram.

A significant step beyond this two dimensional enneagram has been taken by William Sayers, who has subjected the three functional areas to a reformulation that actually allows a tri-dimensional diagram to be designed: each functional zone may react not to one but to two situating elements, that is, controlled/uncontrolled and nature/culture. Sayers' spheroid figure has the additional advantage of showing the relative proportion of the three functions in terms of the totality, where the size of the function is inversely related to its "ideological" importance: more signifies less.

A Fourth Function?

Finally, some investigators in the IE area have recalculated myth and the mythic evidence to question and to re-examine, or at least to modify, the very tripartite urge that seems to dominate so much of the way IE-speaking cultures have structured or reinvented their particular imaginative cosmos. Dumezil knew early on of evidence suggesting that in some IE cultural sources the dominant shape or "ideology" was not ternary but quaternary; the Indic caste system, for example, defined the caste hierarchy as composed of brahman, ksatriya, vaisya and sūdra, each with its attached cluster of powers and responsibilities. The last group, the sūdra, might be ignored because it was outcast, or situated outside the integral system, but there is IE evidence elsewhere that also suggests
or even demands a quadripartite functional division. The Reeses found the ancient Irish provincial plan to provide four foci for four “energies” or functions, plus the commanding or central Fifth; the ancient Indic evidence also speaks of four ‘tribes’ or divisions. In Ireland, according to the Reeses, a divided Sovereignty is present or resident in two “directions” (center and west, Meath and Connacht), war and warrior take the north (Ulster), prosperity is in the east or the province of Leinster, while the remaining direction and province (south, Munster) mixes its signals and is more than a little exotopic, even sinister. They also found Irish (and other IE) evidence for an additional social division, containing a variety of craftsmen, entertainers, and marginal characters and occupations, but including the smith, an important or even primary artisan often connected, as a weapons-maker (and, in the myth-epical evidence, as a fosterer), to the Warrior Function.

In terms of this quaternary theme and the explanation of its mythic echoes, we can now look to two theoretical suggestions, those of Nicholas Allen and of Emily Lyle. The first finds the likelihood of a Fourth Function reinforced because of parallels with other societies that project a segmentary “ideology”, but finds support as well in terms of the plausibility of a “closing” function, one standing for what is alien, threatening, ambiguous, “beyond” or “outside” the normative IE tripartite system; this function then is less substantive than it is defined relationally. The second theory uses mythic sources often mined for their reflection of IE structures, such as the Greek, the Vedic and the Irish, to posit its mythic echoes, we can now look to two theoretical structures, such as the Greek, the Vedic and the Irish, to posit its mythic echoes, we can now look to two theoretical images of the IE “ideology” he established. See also Cosmogony, Cosmology, Divine Twins; Eschatology, Goddesses, Priest, Sacrifice, War of the Foundation; Warriors. [D.A.M., J.P.M.]

Further Readings

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SUMMATION

Clearly the approach to myth taken by investigators into the IE ideology has by no means been closed off or declared a final or concluded matter. In terms of the “ideology” controlling IE religion, decoding the functional setting or action of particular divinities (Norse, Gaulish-Celtic, and especially Greek) has not been at all easy. The Fourth Function is still an attractive object for investigation and theory. The IE ternary urge or patterning impulse, on the other hand, still exists as an attribute which cannot ever be absolutely limited to IE-speaking cultures (any more than dual or bifurcate sovereignty can be) but tripartition does appear to be more likely to be found in and characteristic of an IE context, and often in exotic or out-of-the-way sources. The ternary mark or marking, however derived, seems ever available, its imaging always near the surface. Thus when William of Tyre, the twelfth century historian of the Crusades, referred to Saladin, nemesis of Outremer, he called him “wise, brave, and generous”, that is, he attached to the Moslem general the canonical, in fact the mythic, excellences of the good or true IE sovereign. Yet the mere collection of tripartite cases and citations can be of little or trifling utility; IE “comparative mythology” demands strict attention to the ramifications of theory, and specifically of the theoretical structure broadly conceived by Dumézil. No criticism of this scholar has been able to finally and absolutely shatter and replace the complex image of the IE “ideology” he established.

See also Cosmogony, Cosmology, Divine Twins; Eschatology, Goddesses, Priest, Sacrifice, War of the Foundation; Warriors. [D.A.M., J.P.M.]
Indo-European legal language, OIr dligil, Armenian clearly presuppose an 'victory' 'hold fast, conquer'. Wat 34 'debt'. A word confined to the IE northwest. It pairika PIE age, « Wat 33 'compensation for a crime; blood price' 'debt' ± pairika cayati has cognates in kaya- Studies in afm Buck 20.41; BK 185 riales a~d kaena- (*la-); apa-citi­ CIRCLE; *seghl)f, Indo-European and Indo­ dligid'is kaina 'price', Grk lamenla 'make someone pay (a debt, ransom, fine)' (*klJi-ti-); 'vengeance, hatred', GI 709 OInd 'make restitution'. With a different morphological formation is cayati tribute', Milyan ment, vengeance'). The notion here is very much one of exacting punishment for a crime such as murder or violation of an oath. This sense can also be found in early Irish texts, the Avestan form. Although sometimes compared here, forms (*kwei-), stems for' were seen by Emile Benveniste as semantically distant and a result of contamination between two homophonous stems (*kwei-), one indicating 'punishment' and the other 'honor'. On the other hand, the early Irish cin not only designates 'guilt, crime, payment' but may also mean 'respect, esteem' and the relationship between the estimation of one's honor and the price of maintaining it may not have been so distant.

*serk- 'make restitution'. [IEW 912 (*serk-); Wat 58 (*serk-)]. Lat sacciō 'make restitution; make whole (i.e., repair)', Hit sarrukci 'makes restitution'. The meaning 'make restitution (for damage done) is a specialization, of PIE age, of 'serk- make a circle, complete (cf. TochB serke 'circle, cycle, complete set') and is a lexical manifestation of the notion that in society founded on exchange and reciprocity, an offense, whether to gods or to men, requires restitution or recompense to complete the circle of social obligation.

*dlgh- 'debt' [IEW 271 (*dlgh-); GI 708]. OIr dligid 'is entitled to, is owed', Wels dyed 'duty', Goth dulgs 'debt', OCS dlóga 'debt'. A word confined to the IE northwest. It has been suggested (and denied) that the Gothic word is borrowed from Celtic; it has also been suggested (and denied), independently of the previous proposal, that the OCS word was borrowed from Gothic. Both borrowing hypotheses are possible; neither is compelling. It has also been suggested that the word is originally non-IE.

See also BLAME, CIRCLE, CRIME, HONOR. [E.C.P., D.Q.A.]

Further Readings

COMPLAIN
?

CONCUBINE
?

CONCUBINE
?

CONQUER
?

CONIFER see PINE

CONQUER
?

Germanic verb in: ON sigra, OE sigorian, OHG sigirôn, all 'conquer', OHG ubar-sigirô 'triumphant'). Grk ἕπω 'hold', ἄρη (<*ṣi-sgeheo> 'hold'. Av hav 'gain', havah 'outrage'. Olnd sákhatе 'overcomes', sáhás- 'victory', TochAB sâč- 'hold oneself back'. One should also note the derived *seghy in Grk ἕπυρος 'firm, strong', Hit sakkurya- 'overcome' (though the -kk rather than the expected -k is unexplained), Olnd sâhurî- 'victorious'. Widespread and old in IE, used of 'strength' both physical and mental (as shown by the Celtic cognates). Both Celtic, e.g., Gaul Sego-marus, Segôn-dûnum and Germanic, e.g., ON Sigurðr, OE Sigeward, OHG Sigwart, frequently employed this word in personal and place names; it possibly also underlies the name of the Trojan hero *Εκτόρ Ηέκτορ*.

**CONSORT GODDESS**

Various IE groups evidence a goddess in the role of royal consort. In addition, associated themes include protectress of marriage, fertility, and the bestowal of the gift of prophecy. These functions are much too generic to support the supposition of a distinct PIE "consort goddess" and many of the "consorts" probably represent assimilations of earlier goddesses who may have had nothing to do with marriage.

Greek Héra (Roman Jūnō) was a consort goddess, similar to the Germanic Frigg, and the Indic concept of the 'Great'-goddess Devī as Sakti 'power', the power which an Indic consort gave to her husband. Héra was sister and wife of the god of the gods, Zeus. She was already connected with Zeus to some extent in Mycenaean texts of c 1200 BC (e.g., PY 172). Héra is not necessarily the 'beloved wife', but the 'betrayed wife'. Héra has a multitude of functions (only thus can she be the father of all the deities and heroes) by different mistresses, and Héra always wreaks vengeance not upon her omnipotent husband but upon the young maidens whom Zeus seduces or rapes. The Scholia on Theocritus (15.64) states that initially, Zeus was unsuccessful in his courting of Héra. He therefore turned himself into a cuckoo which perched, shivering, on Héra's knee. Héra took pity on the cuckoo and warmed it at her breast, whereupon the cuckoo re-metamorphosed into Zeus, who seized Héra. She agreed to marry him, if he would not rape her. Their wedding night, on the Isle of Samos, lasted three hundred years. Because she was the consort par excellence, Héra was the goddess of marriage. Her children by Zeus were the war-god Arès, the goddess of youth, Hēbê, and the smith-god Hēphansos; she was said to have given birth to the latter parthenogenetically. She was also said to have given parthenogenetic birth to the monstrous serpent Typhôn, whom the father-god Zeus slew. She was associated with the serpent in her iconography as well as her mythology: in her sanctuaries were found votive offerings which included terracotta snakes. Héra was the 'cowed' (cf. Homer, Iliad 1.551); she thus has affinities with bovine goddesses such as the Egyptian goddess Hathor. Héra, like the Germanic consort-goddess Frigg, was able to bestow the gift of prophecy (cf. the Scholia on Homer, Iliad 19.407), and she gave wise advice to Zeus (Homer, Iliad 3.345-346). Héra had three surnames, which reflected three stages of life: she was called 'Child'; 'The Completed One' (that is, matron); and 'Widow' (or, the divorced or abstinent woman) (cf. Pausanias, Description of Greece 6.22.2). These life stages were not linear but cyclical; each year she renewed her virginity by bathing in the river Kanathus (Pausanias, Description of Greece 2.38.2-3).

Roman Jūnō (Greek Héra) had much the same mythology as Héra, as sister and wife of Jupiter (Greek Zeus). She too is the consort-goddess, and as wife of Jupiter she is invoked as both regina, 'queen', and mater, 'mother'. Although Arès was considered the son of both Héra and Zeus, Mars, the Roman counterpart of Arès, was described as the parthenogenetic offspring of Jūnō alone (Ovid, Fasti 5.231-232). Jūnō was a transfusional goddess, Jūnō S.M.R.: seispes 'unblemished' or 'saviour', mater 'mother', regina 'queen'. In her ritual groove in Lanuvium, which was guarded by a serpent, the dictator of Lanuvium made sacrifice to Jūnō Seispes alone, rather than as consort of King Jupiter. On allotted days, young women enter the grove bearing barley cakes. If the woman is a virgin, the serpent will eat the cake; otherwise, the cake is rejected and the maiden is duly punished. As a goddess of childbirth, Jūnō was invoked by women in labor, and she assisted at childbirth. In a ritual for Jūnō Lucina, in a grove under the Esquiline Mount, young girls offered their backs, and were struck with thongs; by this means, they believed that they could achieve an easy conception. Jūnō was also worshipped in the woodland grove of Arcicia, where there were bloody rites to determine the succession of priests. Jūnō was invoked for religious and political unity, along with the two other deities of the Capitoline triad, Jupiter and Minerva (cf. the Iranian invocations, found in many inscriptions, to the triad Ahura Mazdäh, Anâhita and Miðra). Frigg, the 'loved one' (cf. Av froyo 'dear', ONl priyå 'wife, daughter'), was the Germanic wife of Ôðinn and protectress of marriage. She represented marital chastity, similar to the Greek Héra and the Roman Jūnō. She could foresee the future: she 'knows the whole of fate, even though she says nothing' (Poetic Edda, 'Lokasenna' 29).

In Tantric philosophy, the Indic goddess Sakti was the principle of activating female energy. In singular form, Sakti is manifested particularly as the consort of the god Śiva, who in turn represents static energy (cf. Saundaryalahari I). Sakti is one aspect of the 'Great'-goddess, Devī. As activating energy, Sakti is personified as a plural deity as well as a singular one. Each Sakti is the consort of a male deity. Sakti was the matron goddess, the wife par excellence, similar to the Germanic Frigg and the Greco-Roman Héra/Jūnō.

**See also GODDESSES, LOVE GODDESS, TRANSFUNCTIONAL GODDESS.** [M.R.D.]
COPPER HOARD CULTURE

The Copper Hoard culture is primarily localized to the middle Ganges region, and dates vary approximately to the period c. 2000–1500 BC. Evidence for the culture is based largely on the discovery of hoards of copper artifacts, primarily consisting of harpoons, anthropomorphic figures (possible weapons), swords with antenna hiltts, several different types of axes and a variety of ornaments. There is evidence that the copper hoards were also associated with the so-called Ochre Coloured Pottery (OCP).

The Copper Hoard culture has been variously attributed to Harappan refugees and to Indo-Aryan invaders. The latter theory, particularly promoted in the works of Robert Heine-Geldern, was based on the stylistic similarity between certain...
items in the Copper Hoards with more distant parallels west of the Indus and as far away as Russia. This theory has generally been abandoned although outside links are still proposed, for example, with the BMAC, another candidate for Proto-Indo-Aryan speakers. A major, and obvious, problem with associating the Copper Hoard culture with the earliest Indo-Aryans is that the culture was situated east of the region generally attributed to the geographical world of the Vedic Aryans. Harry Falk has suggested that it is more obviously correlated with the Middle Vedic culture, in particular the territory assigned to the Kuru-Pañcalas. The weapons, with the exception of the antenna-hilted swords, appear to be as much psychological as functional, i.e., large multi-barbed metal harpoons, anthropomorphic figures with hooked arms that may have been launched with a rope, and large bar celts which Falk identifies as the archaeological reality behind the vajra, the special weapon assigned to the Old Indic god of war, Indra. Falk has suggested that such weapons were intended to impress and terrify the indigenous populations of the Ganges during the eastern expansion of the Indo-Aryans.

**Further Readings**

CORDED WARE CULTURE

The Corded Ware culture is the major north and central European cultural grouping of the Copper Age during the period c 3200–2300 BC. The culture, reflected primarily by its burials, is known from the Netherlands and Switzerland in the west, across southern Scandinavia and central Europe as far east as the upper Volga (Fatyanovo-Balanovo culture) in Russia and the middle Dnieper (Middle Dnieper culture) in the Ukraine. The burials are typified by flexed inhumation under a tumulus. Sexual distinctions are strongly marked with males on their right side, accompanied by stone battle-axes, beakers, arrowheads, and boar tooth pendants; females were on their left side and provided with canine-tooth pendants, and copper ornaments; both males and females were accompanied by cord-decorated amphorae. The faces of the deceased were directed to the south.

For IE dispersals; they were seen to be intrusive in many areas of Europe; the battle-axes were regarded as expressive of the warlike propensities frequently attributed to the IE-speaking peoples; their possession of both the horse and wheeled vehicles correlated well with some of the more diagnostic items of the reconstructed IE lexicon; their area of distribution coincided with various IE stocks such as Germanic, Baltic and Slavic; and no further significant cultural intrusion was admitted into their region that might have subsequently explained the emergence of IE stocks. For this reason, the Corded Ware culture was originally supposed to represent the PIE culture in theories that derived the Indo-Europeans from the north European plain. Today, this theory has little currency although the Corded Ware culture is still commonly seen as ancestral to those IE peoples whose immediate origins are sought across northern, central and parts of eastern Europe, i.e., the Celts, Germans, Balts and Slavs. Some of the other past generalizations must also be modified; for example, there is clear evidence that the Corded Ware cultures did engage in some agriculture. A Corded Ware pit from the site of Bronicice in southeast Poland yielded traces of emmer (Triticum dicoccum) and bread (Triticum aestivum) wheat, barley (Hordeum vulgare), lentils (Lens esculenta), and pea (Pisum sativum) and the discovery of domestic pig on Corded...
Corded Ware sites indicates that they could not have been (fully) nomadic pastoralists.

Considerable controversy exists over the origins of the Corded Ware culture and its associations with other cultural groups. The distribution of the Neolithic TRB culture coincides considerably with the later range of Corded Ware sites and the physical type of Corded Ware burials tends to reflect that of earlier populations of the same region. There is little doubt that, at least in some regions, the earlier TRB culture should be associated with the origins of the Corded Ware horizon, e.g., in the Netherlands a Corded Ware house has been discovered which parallels the form of earlier TRB structures. In other areas, however, the appearance of Corded Ware burials does appear to herald a new culture and physical type, e.g., in Lithuania, although even here the numbers seem to have been few and did not significantly alter the genetic pool of the native population. A case study from southeast Poland suggests that Corded Ware populations may have taken advantage of local environmental and agricultural collapse to occupy previously depopulated regions.

Supporters of the Kurgan theory have argued that the immigrants from the steppe lands were a prime stimulus in the development of the Corded Ware culture. They argue that the Black Sea-Caspian region sees the earlier development of tumulus burial, cord decorated pottery, a mobile pastoral economy, domestication of the horse, use of wheeled vehicles, and the supposedly warlike society suggested by the presence of battle-axes. Opponents of such interpretations emphasize that such similarities are not genetic, e.g., tumuli and cord decoration are widely found through the world and do not require a uniquely Kurgan origin; the specific burial rite, including posture and sexual dimorphism, are not found in the Pontic-Caspian but can be found among late Neolithic cultures in central Europe, e.g., the Tiszapolgar culture; local environmental change can explain the shift towards more mobile economies; the wild horse was regularly hunted in the TRB culture; and wheeled vehicles also appear in the TRB culture and do not require a Ukrainian or Russian origin. From a purely archaeological standpoint, the origins and dispersal of the Corded Ware culture is one of the pivotal (and still unresolved) issues of the IE homeland problem.

See also Fayanoovo-Balanoovo Culture; Indo-European Homeland; Kurgan Tradition; Middle Dnieper Culture; TRB Culture. [J.P.M.]

Further Readings
COSMOGONY

Although there is a variety of creation myths among the various IE-speaking peoples, there are also a sufficient number of common elements to suggest the existence of an underlying PIE myth or myths whose general structure can be at least partially recovered. The creation myths may be divided into two broad elements—a cosmogonic myth that explains the origins of both the physical and social worlds, and a “foundation” myth that is more directly associated with the origins of mankind (anthropogonic) or the establishment of specific peoples.

Cosmogonic Myth

The cosmogonic myth is centered on the dismemberment of a divine being—either anthropomorphic or bovine—and the creation of the universe out of its various elements. In the Old Norse *Grímnismál* (40–41), the giant Ymir is dissected so that the mountains are formed from his bones, heaven from his skull, the trees from his hair, etc. (cf. also the Old Irish *Tain* which climaxes with the dismemberment of a mythical bull into the various features of the Irish landscape). This pattern of cosmogonic dissection is also seen in the Old Russian *Stić o golubinoy knug* (Poem of the Dove King) where the Christian god’s face yields the sun, his breast the moon, his eyes, the dawn, etc. The christianization of the myth is not limited to the Slavs but is also found in Celtic (BM MS 4783, folio 17a) and Germanic (Frisian Code of Emsig) sources where Adam’s body is derived from elements of the physical universe. Greco-Roman traditions offer us Ovid’s account of Atlas in the *Metamorphoses* (4.655–662) which relates how the giant’s beard and hair become forests, his bones become stone, his hands the ridges of mountains, etc. The Middle Persian *Škend Gumānig Wizar* (16.8–20) of the ninth century AD describes how the physical world derives from the body of the evil demon Kūmt, whose skin yields the sky, his flesh the earth, his bones provide the mountains, and his hair becomes the plants. The Old Indic *Puruṣasastāka* (c. 900 BC) from the *Ṛgveda* describes how Puruṣa, the (primeval) ‘man’, was divided so that his eye became the sun, his mouth the fire, his breath became the wind, his feet the earth, etc. Such evidence presents a relatively consistent set of allomorphs between the anatomy of the host source and that of the physical world (or vice-versa). The most frequent correlations, or better, derivations, are the following: Flesh = Earth, Bone = Stone, Hair = Plants, Blood = Water (the sea, etc.), Eyes = Sun, Mind = Moon, Brain = Cloud, Head = Heaven, Breath = Wind.

The underlying structure of the cosmogonical myth is reversible, i.e., it also yields an anthropogonic myth where the various sources speak of the constitution of the human body as its various parts are made from the elements cited above, e.g., wind becomes breath, plants become hair. This “atomization” of the human body, which is particularly evident in Greek biological tradition, also underlies IE approaches to medicine and related behavior, e.g., the cure for baldness often involves the application of the allomorph of hair, i.e., plants, while there are widespread traditions that shorn hair should be planted in the ground (e.g., burial of the hair of the Roman Flamen Diālis, the Avestan injunction to bury hair and nails in the ground, the Old Indic *Cūdākarman* where the child’s first tonsure is planted with a kūsa root, the Slavic folk custom of burying shorn hair).

This anatomical cosmology is also seen to extend into the social world since the divisions of the primeval man not only account for the physical world but also for the social divisions of society. The class divisions derive vertically from the anatomy of the initial victim. The head is the source of the priesthood and is the seat of thought, perception and speech while the warrior class, logically enough, is derived from the upper torso, in particular the arms, which provide strength, and the breast is the seat of courage. As the lower class of commoners is essentially defined by subsistence pursuits where fertility will be the overriding factor, it is the lower torso with both its sexual organs or its euphemistic symbols of the same, e.g., the knee, that provides this social division. In addition, just as the legs support the body, the herding-cultivating class is seen to support the higher social divisions of their own society.

It has been occasionally claimed that one can discern iconographic representation of the Indo-European creation myth in the stone stelae of the early Bronze Age in the Alpine region. Here there is a long tradition of expressing mythic concepts in stone at sites such as Val Camonica and some of the stelae, which depict a possible sunburst at the head and repeated elements such as weapons, have been interpreted, on grounds far more obvious to the proposer than others, as clear reflections of the original cosmogonic or Purusa figure.

Foundation Myth

Clearly related in structure is the other IE creation myth that comprises a primeval sacrifice of ‘Twin’ by his brother ‘Man’. The myth is seen in Indo-Iranian, Germanic and Roman tradition. In the Indic sources the figures are Yama ‘twin’ and Manu ‘man’. Yama is the first mortal to die and he establishes the otherworld; Manu is the ancestor of mankind, first king, originator of sacrifice and legendary composer of the *Manu-smṛti*, the Tradition or Law of Manu. Yama is seen as the sacrificial victim of his ‘brother’ Manu which sets creation in motion. The Iranian equivalent of Yama was Yama Xšāēta who, after sinning, is deprived of his royal halo (*xvaronah*) which is then dispersed to the patrons of the three social classes and who is cut in half by his brother. The Germanic myth, preserved best in Tacitus’s *Germania* (2) records the origin of the Germans from a primeval Tuisto (from the root ‘two’ and often taken to mean ‘twin’ or perhaps ‘bisexual’) and his son Mannus ‘man’ (and cognate with Oländ Mann) who generate the three social classes of the Germans (as was also the case in Iran). The Ymir (< Čmir *Yumiyaż*) of the Norse creation myth noted above as an example of the cosmogonic myth also means ‘twin’ and is cognate, some would argue, with the
Cosmogony and Sacrifice

In both the cosmogonic myth and the foundation element of it, one of the central aspects is the notion of sacrifice (of a brother, giant, bovine, etc.). The relationship between sacrifice and cosmogony was not solely that of a primordial event but the entire act of sacrifice among the Indo-Europeans might be seen as a re-creation of the universe where elements were being continuously recycled. The continuity of the creative aspects of sacrifice is, for example, recorded by Tacitus (Germania 39) who describes how the ancient Semnones sacrificed a man on a fixed occasion where representatives of all their peoples had assembled in recollection or perhaps better, re-enactment, of the origins of their race. Similar practices may be found among other IE traditions where the victim sacrificed, e.g., the cow in ancient Rome or among the Persians, the horse in ancient India, would be anatomically dispersed in a pattern that reflected the prevailing models of cosmic or social partitioning of the universe. Sacrifice thus represents a creative re-enactment of the initial cosmic dismemberment of a victim and it helps restore the material stuff to the world.

See also Ancestor God; Comparative Mythology; Cosmology; Creator, Divine Twins; Eschatology; Horse; Sacrifice; Stelae; War of the Foundation. [J.P.M.]

Further Readings

COSMOLOGY

Cosmology is the world view of a people, a system by which the constituent elements of their universe are related with one another. It is to be contrasted with cosmogony which concerns the origin of the universe itself or eschatology which describes the end of a universe. A clearly reconstructible cosmology of Proto-Indo-European eludes us although there are certain major widespread patterns that suggest elements, possibly conflicting, of early IE cosmological systems.

Polarity and Direction

The vocabulary of the various IE stocks relating to direction clearly suggests that the early Indo-Europeans (as well as their later successors) participated in the widespread partitioning of the universe into right and left. For the early Indo-Europeans, the right hand and right side (*deker-nos/-wos/-teros; *hregtos) was associated with concepts of male, strength, health, straight, and other "positive" aspects. The associations are persistent both in PIE and in the later evolution of the various IE stocks, e.g., Lat dexter ‘right, handy, dexterous, skilful; of good omen, favorable, propitious’ or the semantic range of NE right. Even more recent formations would attract similar semantic bundles, e.g., OE swiþ ‘strong,”
mighty' but comparative *swīðre 'right (hand)'. Conversely, the left (*slaijós; *sexiós; *skaujós) was regarded as female, weaker, unhealthy, crooked, and an assortment of "negative" qualities, e.g., OIr *cle 'left; malign, inauspicious, sinister, bad', Wels *cwith 'left; strange; sad', Lat *sinister 'left; wrong, perverse'. This dichotomy was not only lexical but also behavioral where the right side of a tent, house, table, etc., may be assigned to the male or the honored guests and the left side is regarded as inferior. Archaeologically, a number of Neolithic and later cultures of Europe and Asia (e.g., the Corded Ware and Bishkent cultures) mark the sex of the deceased by burying males on their right side and females on their left.

The reason for the dichotomization according to side is probably based on the anatomical universal which favors right-handedness. This system, however, has also crossed with the method of reckoning the cardinal directions among the early Indo-Europeans. The lexical evidence makes it clear that in IE culture one quite literally "oriented" oneself by facing the sun. In so doing one faced the rising sun in the east and hence the north would be on one's left side while the propitious right side faced south. This can be seen, for example, in Celtic (OIr *dess 'right; south', Wels *dehau 'right; south') and OInd *daksina-'right; south'. Terms for north, however, are built on words for 'left', e.g., OIr *loc 'north' from *cle 'left; sinister, unpropitious', Wels *gogled 'north' from *cled 'left'; the Germanic words for 'north' (ON norr, OE norþ, OHG nordan) but Umb *netr 'left'.

Other systems of binary opposition are proposed in the cosmological schemes of Gamkrelidze and Ivanov who posit a system of contrasting categories. For example, they argue that all living things were classified as animate (animals) and inanimate (plants). The former was then divided into wild and "not-wild" animals; the "not-wild" were divided into those that spoke and were rational and those who weren't; the rational ones were divided into those that were terrestrial/mortal and those that were celestial/immortal, etc. An underlying binary system was, they argue, based on the IE social practice involving cross-cousin marriage where women were exchanged between two moieties. The actual evidence for such a marriage system, much less support for the explicit system of oppositions that they propose for PIE, is hardly conclusive.

Three Worlds

Another recurrent pattern observed in the early religious literature of a number of IE stocks, Greece and India in particular, suggests a physical tripartition of the universe. The basic pattern, according to Jean Haudry, is a universe consisting of three rotating skies, each marked by its own deities, its own color and social associations. Each realm marks out a specific sphere of influence which cannot be infringed upon by a different realm, e.g., in the *Iliad Zeus, the Greek reflection of the PIE god of the diurnal sky, cannot extend his powers into the night. According to Haudry, one may posit an original system where the diurnal sky is the home of the PIE sky god (e.g., Lat Jupiter, Grk Zeus, OInd Dyaus) and the associated color is white or, at least, bright. The night sky is the home of deities such as Grk Ouranos and the associated color is dark or black. The dawn and twilight provide the realm of the Lat Saturnus, Grk Kronos, OInd Savitri, and the color here is red. The skies rotate around a common pole (axis mundi) whose reflection as a post, pillar or enormous tree is found across the various IE stocks. In their own treatment of IE cosmology, T. Gamkrelidze and V Ivanov propose that all living things were grouped into three main zones about the "world tree", i.e., upper, middle and lower world.

The three skies and their deities, according to Haudry, are replicated in the generational myths of the Indo-Europeans, e.g., the "kingship in heaven" theme, which exhibit a succession of divinities ruling until the present generation (e.g., Greek Ouranos > Kronos > Zeus), the various schemes for the "ages of the world" found, in particular, in Greek (Hesiod where the cycle begins with the black night of Ouranos, followed by the red [Golden] age of Kronos, then the white [Silver] age of Zeus) and Indic tradition, the color-codes of the social classes in various IE societies, e.g., Germanic (Rigspula) where Jarl (noble) is of a white complexion, Karl (free farmer) is red and Pørell (slave) is black, Indo-Iranian (white = priest, red = warrior, dark = herder-cultivator).

Haudry has also argued that the diurnal cycle of day-twilight-night provided the early Indo-Europeans with a homology on which was also based their view of the time in general, e.g., the year was similarly conceived of in terms of a diurnal part, a twilight and a night, and this was extended to eschatology where all existence confronts a twilight and a night.

Three Functions

The most widely accepted cosmology of the Indo-Europeans is the "social" cosmology as elaborated by Georges Dumézil and his followers. Like Haudry's tripartite cosmic system, the central element of Dumézil's system is a tripartite division of the world, here seen as primarily social rather than physical. According to this system the earliest Indo-Europeans and their successors have inherited a mental template that naturally divides their social world into three basic spheres of activity: judicial-religious, defensive, and procreative, or, in terms of social roles, that of priests, warriors, and herder-cultivators. The system is expressed and elaborated from the level of high myth to folk-tale where the totality of society is invariably expressed as a union of these three social elements. The tripartition of the Dumézilian school is ideological and not necessarily practical, i.e., it does not require one to imagine a PIE society with well defined social classes or castes but rather it attributes to the speakers of the proto-language only a mental map of their universe.

See also Comparative Mythology, Cosmogony, Eschatology, Left, Right.
Further Readings

**CÔTOFENI CULTURE**
Côtofeni is an early Bronze Age culture (c 3300–2500 BC) of western Romania and adjacent parts of Serbia and Bulgaria. Sites are primarily to be found in the upland regions, the lower areas given over to other cultures. Variations in the amount of settlement debris and the presence of Côtofeni material in upland caves suggest that there was a mobile component to the society as well as a stable element that resided in hilltop sites, promontories, or settlements defended by concentric ditches. Dwellings range from small pit-dwellings to surface structures up to 8 m long. Rudimentary metallurgy existed with the production of arsenical bronzes (awls, daggers and ornaments) while tools continued to be fashioned of stone (axes) and flint, bone and antler. Marked similarities with the neighboring Usatovo culture have been observed in the production of metalwork, especially daggers, which also have parallels in the Aegean. There are some clay...
COUNTRY

*pʰlθ2- 'country, land (< the broad one)' [IEW833 (*pʰla-); cf, Wat 51-52 (*pʰlat-); GI 684 (*pʰelH-); Buck 12.71, 1.21]. Mir Letha (Brittany), Wels Lydaw (Brittany), OE fold 'land', Lith plat-ąz 'wide', Grk ἀγαθός (place name), Arm haol 'earth, country', Av paríḥi 'surface', Olnd ihtihv 'earth'. With a different formation but similar meaning is Olr lathar 'place'. From *pleth₂- 'broad and flat'. Distribution clearly suggests PIE status. In both Olnd ihtihv and Celtic, e.g., Gaul Litauis(s), the word for the land has been turned into that of a female goddess and suggests either a parallel development or reflection of an earlier IE concept of divinized land.

In most IE languages, the terms for 'country' are generally derived from such notions as 'place', e.g., Grk χώρα 'space, place, country' or productive concepts such as 'land, earth, ground, soil' when used to express the surface on which one lives, e.g., Lat terra 'land', Lith žemé 'land'. At times a 'tract of land' is also employed, e.g., Lat pagus or a circumscribed area, e.g., Lat línes 'boundary', Olnd desá 'region' or jansadá 'race + padá 'place'. More distantly related are OCS polje 'field' and Arm hol 'earth, country'. Other creations are 'one's own country' which may be formed from compounds involving kinship terms such as Bret mamvro (< mam 'mother' + bro 'country') or Grk πατρίς, Lat patria, OE fæderedæl, OlHG fatherovil, Lat tēvijsa - tēveze 'fatherland'.

See also FlAT [A.D.V]

COUNSEL

count see NUMBER

COUSIN

*cousachtach 'act of coughing' [IEW649 (*kʰás-); Buck 4.53]. Mol cosach 'cough', ON hóst 'cough', hóst 'cough' (vb.), OE hwóst 'cough', hwósan 'cough' (vb.), OHG huöst 'cough', Lith kosulys 'cough', kosi 'cough' (vb.), Latv kāsēļ 'cough' (vb.), OCS kastl 'cough', Alb kolle (< *kʰesleh₂-) 'cough', Olnd kastāre 'coughs' (vb.), Točh kosi 'cough'. Though not found in Hittite, almost pan-IE in distribution. Certainly the PIE word for 'cough'.

*pster- 'sneeze'. [IEW846-847 (*pster-); Wat 53 (*pster-); Buck 4.54]. OIr stréid 'sneeze', Wels ystrew 'sneeze', Lat stérum 'sneeze', Grk πτεθυματ 'sneeze', Arm pʰtgam 'sneeze'. These words may be independent onomatopoetic creations. PIE status doubtful.

*pṣeu- (or *kṣeu-) 'sneeze'. [IEW953 (*skēu-); Buck 4.54]. Lith siaudžiu 'sneeze', Latv ᵖkāju 'sneeze', Olnd kštuti 'sneezes'. Again there is a strong possibility of onomatopoetic here. PIE status doubtful.

Further Reading

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Hesychius and glossed as 'daughter of a cousin'. Other evidence that words for 'brother' and 'sister' were more widely applied than just to siblings is provided by such replacements for the inherited words as Grk ἀδελφός 'brother', ἀδελφή 'sister' (< ἀνδρ-ελθειν-ελθε- 'having the same womb'), Lat (frater) germanus 'own brother', (soror) germana 'own sister' (> Spanish hermano 'brother', hermana 'sister'), OIr drébharr (in 'true brother'), derbhur (in '*true sister'), Alb moter (in '*moter < *mehbtr-ehu-') 'sister' (< *maternal, i.e., uterine [sister])]. The presence of the Old Persian adjectives hamapitar- 'having the same father' and hamatar- 'having the same mother' point in the same direction. As already noted, this extension of 'brother' and 'sister' to 'father's brother's son' and 'father's brother's daughter' respectively is certain in many IE stocks. As most of the historical data from which we derive our knowledge of Latin, Old Persian, etc., kinship terminologies were most interested in specifying paternal relatives, the lack of good examples of a similar extension to maternal cousins (or even to 'father's sister's son or daughter') may simply reflect accidental gaps in the record. Certainly those kinship types which do typically show extensions of 'brother' and 'sister' to cousins (Omaha, Crow, Iroquois) almost always include the children of the mother's sister along with the father's brother's (i.e., all parallel-cousins) in that extension. One might also note that the lack of clear evidence for separate cousin terms in PIE is one of the negative lines of argument against the proposition that PIE society practiced crossed-cousin marriage.

See also Kinship; Marriage. [M.E.H., D.Q.A.]

**COVER**

*Kel-* 'conceal, cover'. [IEW 555–554 (*Kel-); Wat 28 (*kel-); Buck 12.26]. OIr céilt 'conceals, dissimulates', Lat celo (with lengthened vocalism) 'conceal', coccelo (< *kelo-ko-) 'cover, hide', ON hylja (zero-grade) 'to cover', OE helan 'to conceal', OHG helan 'to conceal', Goth huljan (zero-grade) 'to cover', Grk καλύπτω (zero-grade vocalism with labial extension, perhaps influenced by κρύπτω 'hide') 'cover'. Semantically, this set poses little difficulty and is reconstructible at least to the west and central IE of the world.

*Kem- 'cover'. [IEW 556–557 (*Kem-); BK 353 (*q)fjam-/ *pjam-)]. Late Lat camisia 'linen-shirt, nightgown' (< Gaul?). ON hamrer 'skin', hamrer 'snake's slough; husk', OE hamer 'dress, covering', ham 'undergarment', hemed 'shirt', Olnd sámula- 'thick woollen shirt', sambil- 'pod, legume'. The distribution of attestations would seem to assure PIE status.

*(s)keu(h)- 'cover, wrap'. [IEW 951–953 (*s)keu-; Wat 60 (*s)keu-]. As a verbal form this is only attested in Olnd skuñati 'covers' where the meaning 'cover' may well be late and its earlier meanings: 'poke around, hunt around, tear' suggest that its status as a cognate is doubtful. There are, however, numerous nominal formations which are readily reconstructible to the proto-language suggesting that the underlying verbal root must be older. For example, OE sceó (< *skeuo-ko-) 'cloud, scüwa (< *skuhon-) 'shade, darkness; protection', OHG scuwo 'shadow', Arm cü (< *skeuh̥-ko-) 'roof, cover', Lat ob-scénus (< *kuh̥-o-) 'dark, obscure' (< 'covered'); *kuh̥-l- 'cover, covered area'. OIr cúl 'hind part, nape of neck', Wels cil 'corner, hind part', Lat calis 'bottom, buttocks', ON skjól 'shelter, refuge', Lith kūvalas 'skin, cover', Latv cātuls 'skin, cover', Grk σκυλός 'pelt, skin', *(s)keu-t- 'skin, hide'; Wels cweh scrotum, Lat cutis 'hide', ON hide 'hide', OE hyd 'hide' (> NE hide), OHG hūt 'hide', Lith kūtis 'purse, money-belt', kiautas 'case, cover', Grk σκυλός 'hide, leather'. *(s)teg- 'cover'. [IEW 1013–1014 (*s)teg-; Wat 65 (*steg-); Gl 49 (*s)ek-; Buck 12.26; BK 135 (*taq-/*taq-)]. Lat tegó 'cover', ON þekja 'to cover, clothe', OE þecan 'to cover (> NE thatch), OHG decochen 'to cover', Lith stiegiu 'put on a thatch roof', Grk στέγα 'cover, protect', Olnd sthagayati 'covers, hides'. The -th- in Old Indic is problematic and may point to a non-IE origin. Aside from this form, the cognate set is unproblematic and may be reconstructed to at least western and central IE with reasonable certainty.

*Yer- 'surround, cover, contain'. [IEW 1160–1162 (*yer-); Wat 77 (*wer-); Gl 645 (*yer-); Buck 12.26]. OIr ferenn (< *yer-eno-) 'girde, belt', Lat apertio (< *ap-ier-jo-) 'open, uncover', ON verja 'hinder, forbid', OE weran 'guard, hinder, forbid', OHG werfen ~ woren 'hinder, forbid', Goth warjan 'hinder, forbid', Alb varr 'grave', Grk ἐφαγμα (influenced by the PIE word for 'horn'), Alb bó 'cow', MWels buich 'cow', Umb (acc.) hum 'cow', Lat hōs 'cow' (though the initial b- rather than the expected v- may reflect the influence of some other Italic dialect), ON kyri 'cow', OE ca 'cow' (> NE cow), OHG chu 'cow', Latv gūos 'cow', OCS goved̆ 'of cattle', go-māno 'threshing floor', perhaps Alb ka 'cow' (pl. ge) which would be regular from *gōwus, pl. *gōwes, except for unexpected k- rather than *g- (influenced by the PIE word for 'horn')., Mvq qo- 'cow', Grk bōu 'cow', Arm kov, HierLuv wawa-, Av gāus 'cow', OE fers 'cow', Oss gās ~ gō 'cow', Olnd gau 'cow', TochA ko 'cow', TochB ke 'cow', cf. the widespread derivative *gōwos in Grk tēsopáthos 'worst four cows', Arm kōgī 'butter', Av gavya- 'pertaining to cows', Olnd gavya- ~ gavya- 'pertaining to cows', TochB kewiy 'butter'. Also of interest is the equation of Grk ξατομῆ
'sacrifice' (cf. OPers *batagu- 'place name'), Olld *satagvin- 'consisting of a hundred cows', both reflecting a PIE *ᵲkʷto(m)-gʷ o- and with elements reversed in Grk Boukāttōs name of a month in Boeotia, Delphi, Aetolia, etc., Olld gosātam 'pertaining to a hundred cattle'. Widespread and old in IE. This word has variously been connected with Sumerian gūs 'god bull' and/or Ancient Egyptian gw 'bull' under the assumption that the PIE word might be borrowed from some Near Eastern source or with Old Chinese *tou 'cow' with the possibility that the Chinese word might be borrowed from some IE source. Either suggestion is a possibility but neither is necessary and an onomatopoeic origin for this word in the various families cannot be entirely ruled out.

*₇hlegh- 'cow'. [IEW 7 (*agh-); Buck 3.23; BK 365 (*ag/-*ag-)]. Olr ag (< *agh-ehs-) 'cow', ag allaid 'stag' (< *wild ox'), āl 'brood, litter', Wels ael 'brood, litter', eilien - eilion 'fallow deer; horses', Arm ezn 'cow', Av azi- 'giving milk', Olind ahī-'cow'. This word is usually reconstructed as *₇hlegh- but such a reconstruction makes it impossible to include Arm ezn 'cow'. The Indo-Iranian forms are ambiguous as to whether the initial vowel was *₇h-e- or *₇h-e-; only the Celtic seems to require *₇h-e-. However, there is some precedent for an initial *e- appearing as a- in Celtic, cf. Olr aig 'ice' from *geh-. As the word is attested at the margins of the IE world this strongly suggests PIE status.

*₂uokēh- 'cow'. [IEW 1111 (*uookā); Wat 73 (*wak-); Buck 3.23]. Lat vacca (with expressive gmination) 'cow', Olind vaśā- 'cow'. Another word whose attestations on the margins of the IE world would seem to guarantee PIE status. What, if any, was the exact semantic difference between this word and the previous two is impossible to recover. Though purely speculative, one might suggest 'heifer'.

*₂ukwsēn- 'ox'. [IEW 1118 (*ukwēs-); Wat 74 (*ukwēs-en-); Gl. 483 (*ukwēs-en-); Buck 3.22]. Olr os(s) 'stag, cow' (transferred from the domesticated animal to the 'corresponding' wild one), Wels ych 'ox', ON oxt 'ox', OE oxa 'ox' (NE ox), OHG oxa 'ox', Goth aūhā 'bull', Av uxSan-'bull', Olnd uksan-'bull', TochB oksō 'draft-ox'. Widespread and old in IE.

*tauros 'aurochs; bull' (in its first meaning = Bos primigenius). [IEW 1083 (*tauro-s); Wat 69 (*tauro-); Gl 439 (*tauro-); Buck 3.21]. Olr tarb 'bull', Wels tarw 'bull', Gaul tarves 'bull' (Celtic < metathesized *tarus), Lat taurus 'bull', Umb (acc. pl.) turul 'bulls', ON fjorr 'bull' (as if < *teuro-), the vowel has been influenced by the Germanic descendants of *steuro- 'large (domestic) animal'), OPers tauris- 'bison', Lith tauras 'aurochs; bull' (borrowed from Baltic is Estonian tarvas 'aurochs'), OCS tura 'aurochs; bull', Rus turo 'aurochs; mountain goat', Alb tarok - taro 'bull', Grk ταυρός 'bull', Khot tura 'mountain goat'. Widespread and old in IE. Only those stocks whose speakers remained in areas where Bos primigenius was to be found have retained the earlier meaning 'aurochs; bull'. One might note the similar concatenation of meanings in NE boar 'wild swine; adult male (domesticated) pig'. These words have often been taken to be related in some fashion to Arabic twr, Hebrew šōr, Akkadian šaru, all 'steer', whether because the PIE words were borrowed from Semitic, the Semitic words were borrowed from PIE, both languages borrowed from a third source, or the similarity is evidence of the ultimate genetic relationship of PIE and Semitic.

*²usr- 'aurochs'. Lat āurus 'aurochs' (borrowed from Germanic according to Caesar, from Celtic according to Macrobius), ON urr (gen. urra) 'aurochs', Swed (dial.) ure 'ferocious bull', OE ūr 'aurochs, bison', OHG ūro - urocho 'aurochs', Goth ūraz (name of a rune) (all < Proto-Gmc *ūr-, possibly from earlier *ūsr-). Possibly borrowed from Germanic is Finnish uros 'male of an animal'. The Germanic (and perhaps also the Celtic) may be connected with Pashto ūs (< Proto-Indo-Iranian *ūṣra-?) 'camel', Olind usrasta- 'bull, ox, ursa- 'cow'. Not everyone agrees that the Germanic and Old Indic words belong together. The phonological match is good, but the morphological match is imperfect and the semantic match is likewise imperfect. (The Old Indic words are otherwise taken to be ultimately the same as ustra- 'bright, of the dawn' and ustrā-ustrā- 'adult bovine of either sex' was originally 'red cow'.) If we do take the Germanic and Indic words as evidence for a PIE *ūstr-ūstr- then it is worth noting that the early Germanic speakers, who knew both aurochs and cattle, restricted this word to the aurochs which might be an indication that they were closer to the PIE state of affairs in their assignment of meaning than the Old Indic speakers (and modern Swedish speakers) who were familiar only with domestic cattle. Generally this set is taken to be from *ues- 'damp, moist' [IEW 1171–1172] and to have originally meant the 'inseminator'. But if the original reference was to the aurochs we might also think of *ues- 'stab, cut' [IEW 1172] and the meaning the 'gorer' or the like.

However, the meaning of the Pashho cognate, if it belongs here, suggests the inclusion of another set of Indo-Iranian words: Av ustra- 'camel', OPers uṣa-bāra- 'camel-borne' (the OPers uṣa- may reflect either Proto-Indian *ūṣa- or [probably also] *ūṣṭra-), Olind uṣtar- 'bull hitched to the plow', uṣtrā-'bull' (only in Vedic; in later Indic 'camel'). The shift in meaning in Iranian and later in Indic may have been dictated by the need to name the 'camel' (coupled with the loss of the aurochs from their new environments) or the shift may have been influenced by other Near Eastern languages with similar sounding words, e.g., Akkadian urtu 'dromedary', Urartian ульту 'camel' (if these words are not ultimately borrowed from Iranian). However, the totality of the Indo-Iranian data suggests rather a meaning 'a useful one' for *ūṣṭra-, *ūṣṭra- and a relationship with OHG usstir 'industry', ustinnōn 'to function'. If so, it is extremely unlikely that the Germanic words for 'aurochs' are related with this latter set at all.

Finally, if the long vowel in Proto-Germanic *ᵲru- is secondary, for which there are some parallels, it is possible that it is related to Myc wi-ri-no 'ox-hide', Grk πρινός (ox-)hide; shield'. If so, the chances are good that Germanic has preserved the original meaning and that the derivative in
Greek was semantically transferred to cattle. One might also include Old Ind *ulaḥ~ulaḥ, the designation for some wild animal. In the absence of any more definitive meaning for the Indic words their possible inclusion must remain unsettled.

With regard to the possible semantic shift from 'aurochs' or 'cattle' to 'camel' in Iranian, it is very difficult to distinguish wild from domestic camel bones since there was very little if any selective breeding of the domestic variety. The camels referred to in Iranian are most likely some variety of the Bactrian camel (*Camelus bactrianus). The earliest evidence for its domestication so far is camel dung from a settlement in central Iran (where it is presumed the animal was kept on site rather than hunted off-site) dating to the mid third millennium BC. Early IE populations passing through Iran would no doubt have encountered the camel and the animal is later found in significant numbers on sites of the Eurasian steppe. Camels are in northern Kazakhstan by about 1700–1200 BC and in the Ukraine by the tenth century BC. 

?P*weis- and/or *g(h)ombhros 'bison (Bison bonasus). [IEW 1134 (*weis-); Wat 75 (*weis-); cf. GI 440]. For *weis- ON visundr 'bison', OE we(o)send 'bison', OHG wisant ~ wisunt ~ wintern 'bison' (> NE wisent; Germanic apparently < *weisonts, gen. wisonts, from Germanic Lat *bison), OPbris wis-sambris 'bison'. The Germanic words appear to reflect an old participle meaning 'stinking' (from *weis- 'give off an unpleasant odor'; see also 'wesel') that presumably reflects the strong musky odor given off by adult males during the rutting season. The Old Prussian word is a compound with *wis-as its first member and as its second member -sambris that reflects a pre-OPbris *zambra-, matching Rus zubr 'bison' and similar words in other Slavic languages. (Lithuanian has stumbris 'bison' while Latvian has stumbős ~ sūbras; both the initial consonant, whether s- or st-, and the vowel -u- seem secondary though their exact explanation is uncertain.) The Old Prussian and Slavic would reflect a PIE *g(h)ombhros with no known root connections. This word may be the best candidate for the original (late?) IE designation for the 'bison', the Germanic word being a later word, originally a descriptive adjective, that replaced the earlier *g(h)ombhros.

?Pdomhjós 'one to be tamed; young bull'. [IEW 199–200 (*domi-o-s); GI 491 (*têmH)-]. Alb dem 'bull, steer', Olnd damya- 'young bull'. Quite probably independent creations in Albanian and Indic. Cf. Olr dam 'bull', dam allaiđ 'deer' (= wild cow), Grk δαύλης 'young steer'. 

?Plohpọ~*lehpeh- 'cow'. [cf. IEW 667]. Latv luòps 'cattle, livestock', Alb lôpe 'cow'. Possible evidence for a dialect word of the center of the IE world. Although sometimes set here, Olr lôg ~ lâg ~ loîg 'calf' is more likely from *loigos 'springer' and does not belong with the other words.

Wild Bovids

The primary form of wild cattle, the aurochs (Bos primigenius), is the ancestor of the world's domestic cattle and was known from Britain to the Pacific and south into Africa. The Pleistocene aurochs was very large and stood some 1.8 m tall at the shoulders. After the Ice Age, the beast became smaller but was still markedly different in appearance and disposition from Neolithic domestic cattle and on numerous sites dating to the Neolithic, aurochs remains are found alongside those of domestic cattle. Given its distribution, there is almost no place in Eurasia (the aurochs was well known in the region north of the Black Sea, the Balkans and in Anatolia where we find abundant evidence for the cultic significance of the aurochs at sites such as Çatal Hüyük) where early IE-speakers might have been situated where they did not know the aurochs and so there is no archaeological difficulty in reconstructing a PIE term for the animal (*tauros).

Shifts in the meaning of the word from 'aurochs' to 'bull' could be motivated by the great size of the animal. Even in the Holocene the withers height of the aurochs bull was 1.7 m and that of the females was 1.5 m while the earliest domestic cows in Europe only measured c1.25–1.3 m in height, hence the replacement of a word for an exceedingly large wild bovid by domestic bull could be easily motivated and could have occurred quite early in some regions. Although Irish preserves the word, there is no evidence for the aurochs in Ireland since the time of its initial human colonization and so it may have already meant 'bull' in Common Celtic if not earlier. Nevertheless, a reason to preserve the name of the animal elsewhere would have been easily motivated since it was widely hunted in the prehistoric period and continued to exist in many regions well into the historic period. There is, for example, a depiction of an aurochs hunt in a Hittite settlement on the upper Khabur river while a gold statuette of an aurochs is known from the Bronze Age Maykop burial north of the Caucasus. Much later the aurochs is referred to in the various Germanic law codes and the name of the aurochs occurs in nearly three hundred place names in Germany. The last European aurochs were killed in the Middle Ages where, despite royal protection, they became extinct in France and Hungary by the thirteenth century, east Prussia by the fifteenth and the last recorded living aurochs (a female) was killed in Poland-Lithuania in 1617. The absence of a word for aurochs or its shift to either the domestic cow or another animal in India is predictable in that the corresponding Indic wild cattle, the Bos namadicus, does not appear to have survived much more recently than the earliest Neolithic (it is known from Baluchistan at about 6000 BC); it is widely regarded as the ancestor of the zebu or humped-back cattle (Bos indicus) of India.

The other wild bovid, the European bison or wisent (Bison bonasus), still exists although the Caucasian or mountain wisent has recently become extinct. The animal was easily distinguished from early domesticated cattle; it stood some 2.0 to 1.8 m high at the shoulder and could weigh up to 1000 kg. Its range would appear to have extended from western and southern Europe across to Russia and the north Caucasus. Since its distribution was confined largely to those areas where the Baltic, Slavic, Germanic, and Iranian (in the
form of Ossetic in the northern Caucasus) languages are spoken, it is not surprising that no other tradition has a word for the bison. A Celtic cognate would not be impossible since although the animal was unknown in Ireland it did not become extinct in Britain until the twelfth century and in France until the eleventh century; however, we have no evidence for the word. The bison was hunted to extinction in Germany in 1755 (it is mentioned in the Nibelungenlied and recorded in some sixty-two place names in Germany) and in Hungary in 1790 and survives naturally only in Poland as the north Caucasian herds were killed off in the 1920s. The name for the 'bison' in Ossetic, in any case a relatively recent language immigrant into the Caucasus, has no relationship with either *uis- or *gh(ombhros. There is no evidence in the past that the European bison was domesticated and hence it is less likely that its name would have "crossed" with that of a domestic animal (as with the aurochs). Today, European bison number in the several thousands and are kept in more than two hundred breeding centers over the world. There is also, of course, an Indian buffalo (Bubalus bubalis) which was native to the subcontinent and was domesticated, reputedly as early as the sixth millennium BC. This animal, which only spread westwards in the Middle Ages, is understandably without linguistic cognates in IE.

Although of no demonstrable IE antiquity, mention should also be made of the water buffalo, specifically of the Indian wild buffalo (Bubalus arnee), whose native range extended from at least India westwards to Mesopotamia and thus included later IE-speaking territories of India, Afghanistan and Iran. The animal was domesticated by the third millennium BC and is often depicted on the seals of both the Harappan culture (Indus Valley Civilization) and of Mesopotamia. It spread north into Russia but it was generally not until the Middle Ages that it was imported through southern Europe.

**Domestic Bovids**

Domestication of cattle began during the transition to the Neolithic economy; appearing earliest in Anatolia and Greece in the seventh millennium BC and subsequently throughout the rest of Europe, reaching northern and western Europe in the centuries before 4000 BC. Domestic cattle are also found by the sixth millennium BC north of the Caucasus as they spread through the steppe and forest-steppe regions or were there locally domesticated from the native aurochs. Domestic cattle appear at a similar date in Central Asia. The domestic zebu or hump-backed cattle (Bos Indicus) appears in Baluchistan by the fourth millennium BC and its bones and its depictions on seals are regularly recovered from sites of the Harappan culture.

Cattle were certainly exploited for meat (hides, and their bones and horns for tools) and by the end of the Neolithic they also served as traction animals for pulling plows and wheeled vehicles. Castration is argued to have begun at least by the middle Neolithic, e.g., some 20 to 25% of the male cattle recovered from a TRB site (c 3900-3100 BC) appear to have been castrated.

Whether cattle were also exploited for their milk in the early Neolithic is hotly debated. Some suggest that the age-slaughter pattern of Neolithic cattle coupled with the existence of clay objects that may have served as strainers for dairy products indicate an early Neolithic date for a dairy economy. Others believe that cattle dairying (as opposed to milking goats or ewes) was not introduced until the end of the Neolithic, or possibly later, and dispute conclusions drawn from the age-slaughter patterns that indicate high calf mortality.

**Cattle and Milk in Indo-European Belief**

Irrespective of whether the cow was associated with milk during the PIE period, a number of IE traditions place great emphasis on a mythical cow that provides enormous quantities of milk. In Old Indic tradition it is the Kâmadhenu (or Surabhi), the wish-fulfilling cow who has been compared to Auđumla, the cosmic cow of Old Norse tradition whose udders provide rivers of milk and the Welsh Fuwch Gyeilloru which also produced vast quantities of milk which had healing powers. Such comparisons may well be generic but the importance of cattle among the IE-speaking peoples is emphasized not only by those lexical items related directly to the animal, but also terms for the stomachs of ruminants (*vĕnVstr-‘abomasum*, *reumn-‘rumen*).

**Cattle Sacrifice**

Cattle were also employed in sacrifices among many Indo-European peoples and there is some lexical residue of this in *kante(m)-g*ou-‘hundred-cattle (sacrifice)’: Grk ἐκατοτέρη ‘sacrifice (of a hundred cows)’, OPers θαταμ- ‘place name, Olnd ṣatagin- ‘consisting of a hundred cows’, and transposed as *g*ou-kante-‘cattle-hundred (sacrifice)’: Grk Βουκάτρος ‘name of month (associated with cattle sacrifice)’, Olnd goṣatam ‘of a hundred cattle’. This compound is confined to Greek and Indo-Iranian and is best considered a later, dialectically restricted word. The terms indicate specifically a sacrifice only in Greek and even by the time of Homer the hecatomb had lost its etymological force, e.g., in the Odyssey (3.6-8), only eighty-one bulls are sacrificed and in the Iliad (23.146) the hecatomb consists entirely of fifty rams.

While the sacrifice of cattle is so widespread as to be almost universal wherever domesticated cattle might be found in antiquity, there are a number of parallel rituals among different IE stocks that suggest the possibility of earlier inherited behavior. Both the Romans and the early Indians, for example, maintained the sacrifice of a pregnant cow. The Roman Forticidia involved the sacrifice of a *forda bove* ‘pregnant cow’ to Tellus, the goddess of the earth. Here the two were killed and the embryo removed to be burnt separately from the cow which would provide the main sacrifice. Similarly, in ancient India the priests sacrificed the astāpādī ‘the cow with eight feet’, i.e., a pregnant cow, and similarly, the embryo was removed, here offered in a supplementary rite to the Maruts while the main sacrifice of the cow was presented to the Earth.
**Cattle Raid**

Many of the IE stocks preserve traditions of cattle raiding. In some cases, these are almost central to their epic literature, e.g., in early Ireland the *táin* 'cattle raids' were a recognized narrative category and in a society where wealth was reckoned in cattle, cattle-rustling was regarded as the most appropriate activity for young male warriors. That the practice of cattle-raiding might be earlier and postulated for PIE itself rests on several bodies of evidence. There are a number of correspondences among the various IE stocks for cattle-stealing that are built on the verb 'to drive': OIr *tain* (< *to-ag-no*) ho 'cattle raid', Lat *bovés agere* 'to drive or raid for cattle', Av *gam varatām az* 'drive off cattle (as) booty'.

Another source of information concerning cattle stealing derives from the structure of what is generally described as the IE dragon-slaying myth which Bruce Lincoln has suggested was also the myth of the first IE cattle-raid. This myth is best reflected in Indo-Iranian tradition but as elements have been discerned in the traditions of other IE stocks, it has been projected back into the PIE past. The underlying structure describes how a warrior-hero by the name of 'Third' (*Triitos*) sets out with the assistance of the warrior god to recover cattle that had been stolen from the Aryan people by a foreigner. In order to recover the cattle, *Triitos* must fight and kill a three-headed serpent, after which he returns with the cattle. In the *Rgveda* (10.8) the hero is Trita who, with the assistance of the war god Indra, kills the three-headed (*tri-sīrṣānām*) opponent Viśvarūpa who is described as a serpent (*ahi*). The Avestan (Yast 15) version involves Ṣrētaona, the 'son of the Third', who with the help of the storm god Vāyu defeats the three-headed (*ḥrī-kamarādam*) serpent opponent (Aži Dahāka). Here the spoils of his raid are described as women rather than cattle. But in Greek mythology, the raid of Hēraklēs (according to Hesiod) is against the enemy Geryōn who has carried off cattle and who is described as three-headed (*trī-kīrēvalo*) and, being descended from the Medōsa whose hair was formed of writhing snakes, might also be associated with a serpent. Bruce Lincoln suggests that vestiges of the myth are also retained in Germanic tradition, e.g., where the hero Hymir, with the aid of the war god Pōrr employs an ox head to capture the Midgārd-serpent, and less clearly traces are discerned also in Hittite myth.

The cattle-raid myth is seen as a charter for the behavior of the warrior, justifying cattle-raiding in general where the raid is not simply to amass more cattle (or wealth) but to "recover" what the Aryan (or earlier IE) community was unjustly deprived of. In the idealized world view of the early Indo-Iranians, according to Lincoln, the purpose of the cattle-raid was for the warrior class to recover cattle which were to be given to the priest who would sacrifice the cattle (a re-enactment of the cosmogonical first sacrifice) to celestial gods who awarded cattle to the Aryan people. Comparable mythic structures concerning both the creation of the world from cattle and the raiding for cattle can also be found among certain African tribes and Lincoln suggests that their
similarities may be explained by the common cultural ecology of cattle-raising people.

See also ABDOMEN; BARREN; CASTRATE; COSMOGONY; MALE; MAMMALS; MILK; SACRIFICE; THREE-HEADED MONSTER; WAGON; WAR GOD; YOKE [D.Q.A., J.P.M.]

Further Readings

CRAB see SHELLFISH

CRAFT, CRAFTSMAN
*dhabhros'craftsman'. [IEW 233–234 (*dhabh-ro-s); Wat 12–13 (*dhabh-ro-); Buck 9.42; BK 71 (*dab-/*dab-)]. Lat faber 'workman, artificer, smith', Arm darbin 'smith'. From *dhabh- 'put together', cf. OE ge-dafæ 'mild, gentle' (< *"fitting, becoming") (> NE data'). Though attested in only two stocks the geographical distribution of those attestations strongly suggests PIE status.

*kerdos 'craft'. [IEW 579 (*kerd-); Wat 30 (*kerd-); BK 210 (*tfh[r]ard-/*tfh[r]ard-)]. Oit cerdás 'craftsman, artisan (usually gold- and silversmith)', Wels cerdd'song, poem; craft, art', Grk κέρδως 'gain, profit', (pl.) 'cunning arts, craft' (borrowed > Lat cerdás 'workman of the lowest class'). A putative PIE *kerdeh₃- 'craftsman' is known only from Old Irish and thus has no particular claim on PIE antiquity. However, the intersection of 'craft', 'poetry', and 'profit' in the form of *kerdɔ́s is clearly of PIE age.

*tek̥s-(torh- 'one who fabricates (cloth, wood, etc.)'. [IEW 1058–1059 (*tek̥b-torh-); GI 611 (*h[ə]k̥r̥s-); Wat 69 (*tek̥s-); Buck 6.33; BK 91 (*l[ə]rk̥r̥s-/*l[ə]rk̥r̥s-)]. Lat textor 'weaver', Grk τέκτων (rebuilt from *tek̥son) 'carpenter, artisan', Av τašan- 'creator', Olnd tåkṣan- 'carpenter'. Sufficiently widespread to be strongly suggestive of PIE status. From *tek̥s- 'fabricate'.

One of the characteristics of agricultural or Neolithic societies is the emergence of craft specialists. These are people who engage in various degrees in the production of some commodity which can be exchanged for goods, particularly subsistence goods, since a certain amount of time expended by the craft specialist will remove him or her from the subsistence economy. Evidence for craft specialists before the emergence of written records such as the Linear B tablets which list the names of a variety of craft workers is largely circumstantial. The traditional areas where archaeologists posit the existence of some specialist is in the manufacture of pottery, especially technically demanding ceramics such as kiln-fired painted wares as known from southeast Europe and central Asia where there is also evidence of potters' workshops in settlements. Other workshops include those for manufacturing stone and bone tools. With the emergence of metallurgy, both the extraction of copper by miners (attested in the Neolithic in the Balkans and across Eurasia by the early Bronze Age) and the casting of copper and early bronze implements also required specialists and their presence appears to be indicated in metal-working tools, for example, those which accompany burials in cultures such as the Catacomb culture of the Pontic steppe. By the fourth millennium BC we have good reason to posit the wheelwright or wagon-builder as a specialized craftsman.

The underlying concept behind the several reconstructible words for 'craftsman' in IE seems to vary. Since *dhabhros 'derives from a meaning 'put together', it seems more likely that this described a carpenter or, in the British sense 'joiner', than a 'smith' although that meaning is found in the cognates of some of the IE stocks. The combination of 'smith' and 'poet' seen in the Celtic reflexes of *kerdeh₃- may be explained by the frequent metaphor of the poet as one who 'forges' words together into verse. PIE *tek̥s-(torh-) combines the notion of 'weaver' with that of 'builder' which may be explained by the widespread use of wattling in the construction of houses. Despite the evidence for potters in the archaeological record, there does not seem to be a reconstructible term for this craft although the third word is also associated with *tek̥s- (cf.) - 'plate, bowl', here perhaps originally one carved out of wood.

See also BUILD; CRAFT GOD; TOOL [D.Q.A., J.P.M.]

Further Reading

CRAFT GOD

Deities specifically concerned with particular craft specializations may be expected in any ideological system whose people have achieved an appropriate level of social complexity. Among many peoples of the world, for example, a smith deity or divine beings particularly associated with the crafts of metalworking, are to be expected and such divinities are predictably found among the various IE stocks (e.g., the Irish Goibniu, Welsh Gofann, Latin Vulcan, Greek Hephaisstos). In some stocks, Celtic, for example, the prominence of the craftsman was very high where the aed danus itinerant craftsmen, were protected by law and Irish tales emphasize the craftsmanship abilities of their heroes. Similarly, in Indic mythology the deities concerned with the fashioning of special weapons, e.g., Tvástrá and also Visvakarma ‘all accomplishing’, are regarded as primeval creators (cf. Grk Hephaisstos and the mortal Germanic Weland). Nevertheless, despite our ability to reconstruct several terms for metals to PIE, there is no widespread lexical correspondence upon which one might posit the existence of a specific craft deity among the speakers of the proto-language.
In the absence of lexical evidence for craft deities, it might be suggested that there existed structural evidence for such deities in PIE. The Dumezilian reconstruction of IE ideology envisages a mental template which divides the social world into three "functions": judicial-religious, defensive, and procreative, which may be translated into three social roles: priests, warriors, and herder-cultivators. In the establishment of this system it was observed that various IE traditions exhibited such a social tripartition only if one excluded evidence for a fourth class. In Varro’s De Lingua Latina, the IE social classes of officials, priesthood, military, and agriculturalists are all reckoned but alongside them are also the artisans. According to Strabo, the Athenians were divided by Ion into ἵεροποιοί ‘priests’, φυλάκες ‘guards’, and γεωργοί ‘farmers’ with a fourth class of δημιουργοί ‘artisans’, a system also embraced by Plato in his Republic. In ancient Iran, the “canonical IE” classes (abaran ‘fire priest’, nāthaestar ‘chariot-fighter’ and ṣtātrārya ‘shepherd-cattle-man’) were followed by the huitiš ‘artisan’.

In general, the occasional presence of a fourth class of artisans has been regarded as a later extension to the original three social divisions reconstructed to PIE among later IE groups whose social and economic complexity would naturally have demanded such divisions. Already by the Bronze Age, for example, the Greeks had developed a palace economy in which a wide variety of artisans (potters, metal workers, chariot-builders, ship-builders, weavers, etc.) were an integral part of the Greek economy, a situation well attested in the Linear B tablets. From an archaeological perspective, the earliest appearance of craft specialization may have been considerably earlier. During the Neolithic, for example, specialized areas for the manufacture of pottery, figurines, bone objects, and other products are encountered in southeastern Europe as well as the mining and processing of copper. In the early Bronze Age there is evidence for the materials associated with the production of metal artifacts recovered from burials that suggests specialized bronze-smiths. It is in fact far easier to postulate the existence of artisans from the archaeological record than it is to propose the existence of priests. Nevertheless, the evidence for social, or at least, ideological segmentation of society is far stronger for the traditional tripartite than some quadrupartite system.

Nick Allen, however, has suggested the existence of a “Fourth Function” both because such structures can be found in other “segmentary” ideological systems and also because there would be a need to devise some form of category that would comprise all those “functions” that otherwise lay outside the three canonical functions of society. Although he does not explicitly assign craft specialists to such a “function”, their very existence in the social world of the early Indo-Europeans might argue for some resonance in the ideological constructs of the various IE stocks if not PIE itself.

See also Comparative Mythology, Creator, Smith God.

Further Reading


CRANE

*ger- ‘crane’. [IEW 383–384 (*ger-); Wat 20 (*gera-); GI 457 (*k’er-); BK 290 (*k’ur-/*k’or-)]. Wels garan ‘crane’, Gaul tri-garanos ‘three-crane’, Lat grās ‘crane’, OE crān ‘crane’ (> NE crane), OHG kraunh ‘crane’, OPrus gerwe ‘crane’, Lith gerve ‘crane’, Latv dzēve ‘crane’, Rus żeravl’t ‘crane’, goose’, Grk yépævòs ‘crane’, Arm krunk ‘crane’ (also grē ‘crane’ which may be a loan from a neighboring language), Oss zymaeg ‘crane’. No term of IE origin exists in Old Indic where the terms hurara- and puskara- are commonly employed although the root *ger- does appear in OInd jārare ‘shout hoarsely’. The root *ger- is clearly the PIE term for this bird with attestation in six to eight stocks, a situation matched only by the cognates for ‘goose’.

The crane is a large-bodied bird, up to a meter and a half tall; it is attracted to bogs and wooded areas. Cranes are frequently confused with storks and herons, and ancient literature reveals these errors which are still made today. Cranes were considered gregarious, affectionate with their young, but are also known to be contentious. The crane is widely distributed all over the world.

The crane is also the subject of an IE narrative complex involving a battle between cranes and a (non-Aryan?) people. The tale is reflected in the traditions of five stocks (Latin, Greek, Armenian, Iranian, Indic) although it has been clearly borrowed among some of them. The basic motif in the west is found in Greek tradition where Homer (Iliad 3.6) relates how cranes slaughtered pygmies, a motif that was subsequently picked up and elaborated on frequently in Latin literature. Under Greek influence we also have a fifth-century Armenian account of how pygmies fight with cranes who are competing for the produce of their fields. The Middle Persian Greater Bundahšīn relates how a large bird, the čāmrūs, devastates the fields of the non-Aryans while the OInd garuda attacks and devours a non-Aryan people, the Kirātas (cf. the Sabdakalpadrunga where the garuda is employed to define kiratāsīn- ‘Kirātas-eater’). Although not fully cognate, both the PIE word for ‘crane’ and OInd garuda share the same root. The Old Indic bird shares two other behavioral similarities with that of the Greek ‘crane’: it is known to devour snakes and it is associated with precious metals (in Greek tradition a stone regurgitated by a crane becomes a touchstone for gold) or stones (emeralds in Indic tradition). On the basis primarily of Greek and Indo-Iranian, it might be suggested that in late IE there existed a motif in which a non-Aryan people, set at the periphery of the world, were bested by man-eating cranes who are also associated with the eating of snakes and the discovery of precious metals and/or stones.

One further association between the crane and IE mythology involves the interpretation of the Paris Altar, a stone relief
from Gaul that depicts the Celtic god Esus cutting a tree and then a bull with three cranes (tarvos trigaranus) which has been linked to a Vedic account of how Indra slew a three-headed monster and was assisted by a woodcutter who hacked off the three heads. Out of the three stumps flew three birds (identified in the Indic version as a woodcock, partridge and sparrow).

See also Birds. [J.A.C.G.]

Further Reading

CRAWL
*serp-* 'crawl'. [IEW 912 (*serp-); Wat 58 (*serp-); Gl 445 (*serp-)]; Buck 10.41. Lat serp̄o 'crawl', Grk ἔπαω 'crawl', OInd sarpāti 'crawls'. Cf. Lat serpentis 'snake', Alb giisper 'snake', (pl.) śtiępięrin 'vermin' (both < *serpene-), OInd sarpa- 'snake'. This seems to have been the usual verb for 'crawling on hands and knees rather than crawling on one's belly', hence the derivatives with the meaning 'sneak, go on all fours'. Unlike *serp-*, this word seems to have focused on crawling on hands and knees rather than crawling on one's belly. Late word of the IE northwestern.

*rēp-* 'crawl'. [IEW 865 (*rep-); Wat 54 (*rēp-); Buck 10.41]. Lat rēpo 'crawl, go on all fours', OPrus ripāti 'follow', Lith replöti 'crawl, go on all fours', Latv rāpāt 'crawly, go on all fours'. Unlike *serp-*, this word seems to have focused on crawling on hands and knees rather than crawling on one's belly. Late word of the IE northwestern.

*(t)sel- 'sneak up on, crawl up on'. [IEW 900 (*sel-); Gl 129]. Lith selū ~ selinu 'sneak, prowl, step softly', Arm solim (< *t-sol-?) 'crawly', Av svant- 'crawling', OInd tśrati 'creeps up on, sneaks', tśrū- 'crawling animal'. Cf. OIr selige (DIL seelech) (< *selēkjo-) 'turtle; snail', NFr selide (< *selēkti-) 'snail', Alb shtlige 'snake'. Though not attested in many stocks, the geography of the attestations argues for PIE status. The initial *t- may be simply the first part of a rare PIE initial consonant-cluster or the remnant of a prefix.

See also Snake. [D.Q.A.]

CRAYFISH see SHELLFISH

CREATOR
*dhehlter- 'creator'. [IEW 237 (*dhē-tēr); BK 70 (*diy-/*dēy-)]. Lat con-ditor 'founder', OCS dětěl 'doer', Grk θεός 'founder', Av dātar- 'creator', OInd dhātar- 'founder'. From *dhehl- 'set'. The root is widespread and the derivation so common that these terms are likely to be independent creations in each of their stocks.

*turk-ter-* 'creator (< *artificer < *cutter)'. [IEW 1102]. Av ṭuṛṣṭar- 'creator', OInd ṭvṛṣṭa (≈ *Tvṛṣṭa) 'name of creator deity'. As a deity, this term is entirely confined to the Indo-Iranian superstock although it is commonly derived from the widespread root *turk- 'cut'. The Indic deity ṭvṛṣṭa is prominent in the Ṛgveda as the artificer of the gods who, among other things, fashioned the vajra of Indra by which he killed the demon Vṛtra. He is more than a craft god, however, as he begets Tristiras, the 'three-headed one', who is prominent in one of the myths found widely among the IE stocks.

See also ANCESTOR GOD, COSMOLOGY, GOD, THREE-HEADED MONSTER. [E.C.P., J.P.M.]

Further Reading

CRIME
*h2roergʰ- 'commit a crime'. [cf. IEW 1154–1155 (*vergʰ-), 1181 (*ureg-); Wat 77 (*vergh-); Gl 415; Puhvel 3:401–402]. On vargr 'felon, criminal' (> metaphorically also 'wolf'), OE (adj.) wearg 'evil, malignant, accused', (noun) 'villain, felon, criminal; monster, malign being' (cf. wiergan [as if < *h2roerghejo-] 'curse; do evil'), OOsax warag 'accursed' (epithet of Judas; cf. gi-waragean 'punish [a criminal]'), OHG warg 'devil, criminal' (cf. fer-wergen 'curse'), MHG warc 'monster'. Goth launa-wargs 'unthankful', gawargeins 'damnation', wangiba 'judgment, condemnation', ga-wargan 'condemn', OPrus wargs 'evil', wargan (noun) 'evil', Lith varguas 'hardship, misery', Latv vārgs 'sick, suffering', OCS vargu 'enemy', Rus vōroq 'enemy, devil'. From Old Low Franconian medieval Latin has varguis 'one who is expelled (for a crime); highwayman, bandit'. As such a word of the northwest of the IE world. Germanic and Baltic have evidence of a lengthened-grade derivative *urerghos in OE eaeld-werg 'vile of old', Old Lith. vėrgas 'slave', Latv vērgs 'slave'. Different in form but related are Hit hurkil- (< *h2urghil-?) 'sin, ( sexual) perversion', harkiles pesnes 'catamites' (subject to the death penalty who may redeem themselves by heroic acts), TochB warag (< *h2urgh-ejo-?) 'highwayman, bandit'. The two meanings of ON vargr, 'criminal' and 'wolf', have led many to reconstruct *urerghos and connect the Germanic word with *vergʰ- 'strategy' (cf. NE worry [as a predator might do to its prey]) and wider speculations of the PIE juridical status of calling someone a wolf (cf. OInd vṛkko hit sah 'he is a wolf', referring to the special legal status of the abductor in the ritual kidnapping of a bride). However, the meaning 'wolf' in Old Norse seems clearly secondary and the morphologically exact equation with Baltic and Slavic suggests a more mundane original meaning of 'evil, criminal' though the Old Norse equation of 'wolves' with 'criminals' may reflect a conceptual connection of PIE age.

See also ARMY, BAD, WOLF. [D.Q.A.]

Further Readings
CROOKED

*skeng-* *(sk)kog-* 'crooked' [IEW 930 (*sk)keng-]; Wat 59 (*skeng-); BK 261 (*k*\lju*-'k*\lju- 'k*\lju-). MIR scingim 'spring', ON skakkr 'skew, distorted', OHG hinkan 'limp, go lame', Grk σταειω 'limp, go lame', Av haxti- 'thigh', Olnd sakti- 'thigh', khandiat 'limps'. While there is some variation in precise formation, geographic spread supports PIE status.

*skel-* 'crooked'. [IEW 928 (*skel-); Wat 59 (*skel-); Buck 12.74]. On skjalgr 'slanting', OE sceolh 'crooked', OHG secelah 'slanting, crooked' (< GMC *skelha < *skel-go-), OPrus kulczi 'hip, haunch', Lith kalnas 'heel', Bulg külla 'thigh', Alb căle 'lame', Grk σκέλος 'thigh'. An early reading of TocM m[j]ti 'falcon', Av *mer-* 'crooked', OHG maro 'tender, soft, callow', OHG maro 'tender, soft, callow', OCS iz-mrūmitati 'root out, clear (a wood for cultivation)', ORus morommati 'gnaw', Grk μαπατίων 'extinguish (a fire)', Hit māryattu 'is smashed', Olnd mnēti - mnēti 'crushes, grinds'. The basic meaning is 'crushes, grinds'. The basic meaning is 'crushes, grinds'. The basic meaning is 'crushes'. Though preserved only in Anatolian and Old Indic, both the geographical distribution and the archaic morphology (infixed ne-present) argue for PIE status for this word. The meaning in Hitite may reflect semantic conflation with a phonologically similar *t(i)swark- 'be sick' inherited from PIE *suergh-.

*yel-* 'crush, grind, wear out, wither, fade'. [BK 501 (*was-*/*was-*)]. On visna 'wither', visinn 'withered', OE wisan 'dry up, wither, waste away', weornian 'pine away, become weak, fade (away), wither', OHG fer-wesen 'destroy, decay', Alb veshk 'wither, shrivel, wilt', Hit wesụrīya 'press, oppress'. Widespread and old in IE.

*(sk)tergh-* 'crash'. [Pres. *(sk)ter-g-h-]. Hit istarkzi - istar(ak)kiyazz 'is ailing; afflicts', istarminzzi (< *stγ-ne-g-h-ti) 'afflicts', Olnd tnpēdhi (< *γ-ne-g-h-ti) 'crushes, bruises', stθnī 'crushes'. Though preserved only in Anatolian and Old Indic, both the geographical distribution and the archaic morphology (infixed ne-present) argue for PIE status for this word. The meaning in Hitite may reflect semantic conflation with a phonologically similar *i(swark- 'be sick' inherited from PIE *suergh-.

CROW

*kVr-C- 'crow; raven'. [IEW 567 (*ker-); Wat 29–30 (*ker-); GL 457–458 (*ker-)]. Lat corvus 'raven', corvix 'crow', OE hroc 'crow, raven, rook' (> NE rook), Bulg krokon 'raven', Grk κόραξ 'raven', κοράνη 'crow', Olnd karata- 'crow', karata- 'crow' (Old Indic has in all thirty-six words for the 'crow'). The base term *kVr-C- denotes 'a harsh, coarse tone'. Similar to this term is PIE *h3er- (cf. Grk ξηρας 'dry', Bulg uș 'mild, soft, tender, gentle', NE wilt 'mild, soft, tender, gentle', NE wilt 'mild, soft, tender, gentle', NE wilt 'mild, soft, tender, gentle'). While there is some variation in precise formation, geographic spread supports PIE status.

*yer-* 'crow'. [IEW 1166 (*yer-); GL 458 (*wr-m-)]. OPrus warne 'crow', Lith viðra 'crow', OCS vrana 'crow', Rus voróna 'crow', TochB vrânta 'crow'. Perhaps also Arm agraw 'crow' which could have developed *yer- (PIE *uγV > Arm gV), but the initial a would be perplexing, although Armenian does have atmn 'tooth' (cf. Lat dens 'tooth') with no explanation for the prothesis. The distribution suggests at least a late term in PIE.

These large and most common black birds have a clear name from the literature of many IE dialects. The bird itself is indeed remarkable, not only for its size and color, but also for its behavior, which reflects intelligence and friendliness, it has, as well, an amusing gait, suitable for such an inquisitive animal, and is also extremely vocal, with a wide range of sounds. On the other hand, these traits tend to be outweighed by these birds' association with carrion and hence in Vedic myth the crow is considered an inauspicious omen as it was also among the Greeks, and indeed, others can see the crow and raven as a spooky bird, lurking in the shadows, waiting to announce flood, famine or disaster. This emphasizes another aspect of these birds, their association with prophetic knowledge. A west European comparison may be found between Celtic and Germanic where functionally cognate deities, the Irish Lúg (= Gaul lótogos 'raven') and the Norse Óðinn, were both accompanied by two ravens which supplied them with foreign "intelligence."

CROOKED

CRUSH

*mer- 'crush, pulverize'. [IEW 735–736 (*mer-); BK 526 (*mur-/*mor-)]. Olm mérb 'lifeless', Wels mérw 'weak, slack' (Celtic < *meryl-), ON mérja 'prick, pierce, sting', morma 'wither away, droop', OE mearu 'tender, soft, callow', OHG maro 'tender, soft, callow', OCS iz-mrūmitati 'root out, clear (a wood for cultivation)', ORus mormommati 'gnaw', Grk μαπατίων 'extinguish (a fire)', Hit māryattu 'is smashed', Olnd mnēti - mnēti 'crushes, grinds'. The basic meaning is 'crushes, grinds'. The basic meaning is 'crushes, grinds'. The basic meaning is 'crushes', though preserved only in Anatolian and Old Indic, both the geographical distribution and the archaic morphology (infixed ne-present) argue for PIE status for this word. The meaning in Hitite may reflect semantic conflation with a phonologically similar *t(i)swark- 'be sick' inherited from PIE *suergh-.

*CUCKOO

*kuku- 'cuckoo'. [IEW 627 (*kuku)]. MIR cūach 'cuckoo', Wels cog 'cuckoo', Lat cuculus 'cuckoo', ME cucu 'cuckoo', Lith kukūoti 'to cuckoo', Rus kukūša 'cuckoo', Grk κόκκως 'cuckoo', Arm k(w)ku 'cuckoo', NPers kuku 'cuckoo', Olnd kokila- 'cuckoo'. This widely distributed name is likely onomatopoeic in most instances, reflecting the well-known call of the cuckoo. The same term also appears in neighboring language families, e.g., Georgian gugulis 'cuckoo', Turkish...
guguk 'cuckoo' and Akkadian kugu 'cuckoo'. The IE root *(s)p(e)ikov[ei]- 'woodpecker' supplies the OInd pikā- 'any of the Indian cuckoos that breed in the Himalayas'.

The cuckoo is notable for its irresponsible nesting habits, for it lays its eggs in other birds' nests, for them to raise. Thus the bird's personality has sexual overtones; it is also seen as a harbinger of Spring. Its distribution covers the IE area.

See also Birds. [J. A. C. G.]

CURE see HEAL

CURSE see PRAY

CURVE  
*pandos* 'curved'. [IEW 788 (*pando-*)]. Lat *pandus* 'curved, bent', ON *attur* 'bent back'. Western isogloss in late IE.

*(s)kamb-* 'curve'. [IEW 918 (*s)kamb-]; Wat 58 (*skamb-); Buck 12.74]. OIr *camm* 'curve', Wels *cam* 'curve', Grk *skauβις* 'curve'. At least a corner and center of the IE world.

*(s)kan-t(h)ο- 'corner, a bending'. [IEW 526–527 (*kan-tho-)]; Wat 27 (*kanto-); Buck 12.353]. Wels cam 'tyre', Gaul *cantos* 'rim, border; iron rim of wheel' (> Lat *catinus* ~ *kanthos* 'iron rim of a wheel'), OCS kut *kut* 'angle', Rus kut 'angle', Grk *κανθός* 'corner of the eye'. The OIr hapax *seit (cēt?)* 'pillar' has been placed here but this is doubtful. A word of the west and center of the IE world.

See also BEND. [A. D. V.]

CUSTOM  
*(s)vedh-* 'custom, characteristic, individuality'. [IEW 883 (*svedh-)]; Wat 67 (*s(w)e-); Buck 19.61]. Lat *sodalis* 'companion' (< *member of a group*), ON *sidr* 'custom', OE *sidu* 'custom', OHG *situ* 'custom', Goth *sidus* 'custom' (< Gmc *siduz < *sedhu-*, Grk *ἐδόχη* 'practice, habit', perhaps OInd *svadhā* 'character, peculiarity, custom', TochA *šo-tre* 'sign, characteristic', TochB *šor-tre* 'sign, characteristic'. Both the Germanic (because of the i vocalism) and Old Indic cognates are questionable but if Old Indic is accepted, then there is a good case for PIE status. This has been analyzed as consisting of *(s)w(e)*'own' + *(s)nediht- 'set, establish'. This term has been connected in particular to reciprocal and contractual relationships, including poet-patron relations and other gift-exchanges.

See also EXCHANGE; SIGN. [J. C. S.]

Further Reading


CUT  
*del- 'carve, split, cut'. [IEW 194–196 (*del-*)]; Wat 11 (*del-); Buck 12.232]. OIr *dello* 'form', Wels *delv* 'form, image', Lat *dolo* 'hew', ON *telgi* 'carve, cut', OPrus *delliw* 'divides', Lith *dalytis* 'to divide', Latv *dalti* 'to divide', Alb *dalso* 'cut'. Grk δαλιάλλω (< *dai-del-*) 'work cunningly', OInd *dālāti* 'bursts, cracks'. The root is attested in a broad range of languages and may be reconstructed to PIE with a degree of confidence. The Old Indic form is found only in the later language, suggesting the need for caution in connecting it with the cognate set; its semantic value may be the result of influence by the phonetically similar form *dānati* 'bursts, tears'.

*gleubh-* 'cut off, cut out'. [IEW 401–402 (*gleubh-*)]; Wat 23 (*gleubh-)]. Lat (verb) *glābō* 'peel, skin', ON *klaða* 'to split', OE *cleofan* 'to split' (> NE *cleave*), OHG *klōban* 'to split', Grk *γλυῦμα* 'carve out'. Cognates are confined to Italic, Germanic and Greek suggesting that the case for a PIE reconstruction is not strong. On the other hand, the zero-vocalism seen in the Greek form may possibly point to an earlier, atheletic paradigm upon which the attested thematic forms are based. Such a paradigm would suggest considerable antiquity for the root.

*(s)gerbh-* 'scratch, cut'. [IEW 392 (*gerbh-*)]; Wat 20 (*gerbh-); GI 536 (*s)gerbh-]. ON *skrāpa* 'scratch' (borrowed > NE *scratch*). OE *ceoflan* 'to cut' (> NE *carve*), OHG *kerban* 'notch, carve', MHG *kerben* 'to notch, carve', OPrus *girīn* 'number', OCS *žlih*a *loṭ*, Grk *πρόφασα* 'scratch, write'. Distribution suggests antiquity only in the western and central IE world. The Old Prussian word for 'number' suggests that the verb may have been used to describe scratching a tally on some object.

*(s)ker-* 'cut apart, cut off'. [IEW 938–940 (*s)ker-]. Wat 59–60 (*s)ker-]; GI 612 (*s)ker-]; Buck 9.22; BK 246 (*klh*/*klh-*). OIr *scaradh* 'separates, divides', ON *skera* 'to cut', OE *scierran* 'to cut, shear' (> NE *shear*), OHG *scieren* 'to cut, shear', Lith *skirū* 'to separate, divide', Latv *skirī* 'separate, divide', Rus *kroju* 'cut', Alb *shqer* 'toapart', Grk *κερίω* 'cut', Arm *kerem* 'scrape off, scratch off', Hit *karsma* 'cut off, castrate', OInd *kṛnati* 'wounds, kills'. The root is so well attested that it is securely reconstructible to PIE. Unfortunately, the present stems do not correspond very neatly. The Old Irish form points to a root of the form *(s)keryh-*, the Old Indic form, with nasal infix, may also point to a root with final laryngeal. The Lithuanian form exhibits a zero-grade vocalism with a suffix *(s)e/o-*, Greek on the other hand, possibly reflects a full-grade vocalism with the same suffix. The Hittite form shows the extensions *(s)er-. Cf. also the derivative *(s)kert-. [IEW 941–942 (*s)kert-)]. Lith *kert* 'hew', Latv *cērtu* 'hew', Arm *kertem* 'skin', Hit *karai-* 'cut off'. Av *karanta* 'cuts', OInd *kṛnti* 'cuts'. The root also underlies the term for 'tally' in Germanic, e.g., ON *skor* 'notch, tally, twenty' (borrowed > NE *score*), OE *scierd* 'cut, notch', i.e., it reflects a preliterate accounting technique by which a notch on a stick or other artifact corresponded to a commodity unit or set of units.

*kerd-* 'cut into, carve'. [IEW 579 (*kerd-*)]; Wat 30 (*kerd-); Buck 9.41; BK 210 (*fylh*/*fylh-*). OIr *ceard* 'art, handicraft', Wels *cerdd* 'song', Grk *κέρδος* 'profit, advantage, gain'. Another enlargement of *(s)ker-* At least a word of the west and center of the IE world.
*skehj-i-d-* 'cut'. [IEW919–921 (*skēi-); Gl94]. Lat scindō 'cut', ON skita 'to defecate', OE be-scītan 'to defecate' (> NE shit), OHG scizan 'to defecate' (Gmc < *skih₂d-), Lith sklédžiu 'separate', Latv škiédū 'scatter', OCS čediti 'filter, strain', Grk σκῖνζω 'split, tear', perhaps Arm c'tem 'scratch'; *skei-t-: Goth skaidan 'to separate'. The unextended *skehj- appears in OInd chyati 'cut'.

*sek-* 'cut'. [IEW 895 (*sék-); Wat 56–57 (*sek-); Buck 9.22]. Mir eiscid (< *in-sek-*) 'cuts off', Lat secō 'cut', sceō 'know', Lith j-sėkiū 'to dig', OCS sekp 'cut', Hit sakk- 'know'. Most forms based on this root are attested in west IE; if, on the other hand, the root underlies the forms *(s)ker-, *(s)kerh-t-* and *(s)kehj-i-*, then it must be of great antiquity.

*kwe*r-* 'cut' (pres. *kweri*). [cf. Buck 9.22; BK 328 (*kʰ[ʰ]/[w]/[kʰ]/[l]or-)]. Wels pryd (< *kwe*rt-) 'time', Osc -pert...time(s)' (e.g., petiro-pert 'four-times'), Hit kuerzi 'cuts', Luv k(u)wart 'cuts', Olnd -kft...time(s)' (e.g., sa-kft 'once'). Though not attested in many stocks, the geographical distribution of those attestations would seem to guarantee PIE status for this verb.

*put-* 'cut'. [VW 397]. Lat putāre 'prune', TochAB putk- (< *put-ske/o-*) 'divide, share, separate'. Although poorly attested, the geographical distribution suggests PIE status.

See also CRAFT, CRAFTSMAN; HAIR (CUT HAIR); KNIFE, SWORD.

[M.N., D.Q.A., C.F.]
DACIAN LANGUAGE

The Dacians, situated north of the lower Danube in the area of the Carpathians and Transylvania, are the earliest named Indo-European group in the present territory of Romania. They are first mentioned in the writings of Herodotus (Histories 4.49, 93, 100, 119, 125) and Thucydides (Peloponnesian Wars 2.96, 1) and later were known historically from the first centuries BC, appearing in Greece as slaves where a Dacian was known as a Δαος (or Latin Davas).

The Dacian language, attested primarily in the form of personal and place names, whose etymologies can only be speculative, or in the form of a few Greek glosses, is very little known. A Dacian origin has also been supposed for certain words in Romanian that lack Latin or Slavic ancestors, e.g., Rom mal 'mountain' (cf. Alb mal 'mountain'), Rom mare 'big' (cf. Alb madh 'big') but again the Indo-European nature of these words is controversial. Dacian is generally regarded as a variety of Indo-European closely related to Thracian (which was centered in what is now Bulgaria) and hence the frequently employed expression "Thraco-Dacian". Certainly such an association makes sense geographically (and, according to Strabo, was the opinion of the classical world as well) but as Thracian is similarly poorly attested such a closeness of relationship must be taken largely as an act of faith. Moreover, it has long been observed that certain toponymic elements show markedly different distributions, e.g., -dava 'town' is the standard element north of the Danube while in Thrace the corresponding element is -bria. Other frequent toponymic elements, e.g., -para 'settlement', -diza 'fortified town' and -sara 'river' are confined to Thracian territory. Ivan Duridanov has reviewed the evidence for toponymical terms of putatively IE derivation and found thirteen exclusive to Thracian and eight ( *aba, *auras 'river'; *mariska-, *tibas, *lugas 'swampy area'; *mal- 'hill; bank'; karpa- 'cliff'; and *medas 'forest') confined to Dacian territory.

The Iron Age Dacians controlled the mines of the Carpathians which provided gold, silver and iron and by the
first century BC they had carved out a substantial empire under their king Burebista. Wars between the Romans in the next century ultimately led to Trajan's total conquest of the Dacians by 106 AD. From the conquered territory the Roman province of Dacia was formed and the earlier Dacian language was eventually replaced by Latin whose legacy has survived as modern Romanian.

Description

Some 20-25 Indo-European etymologies have been regarded as reasonably solid for Dacian place and personal names and botanical terms although in the absence of a secure semantic base, little certainty can attach to any of them. Among the more convincing is the name of the town at the mouth of the river Axios, *Aξιόνα, which is modern Cernavoda, i.e., 'black water'. The river name "Αξης may derive from *T-k(r)-i -not-shining' (i.e., 'dark', cf. Av axsaēna- 'dark-colored', while the second element may be from *upa 'river' (e.g., Lith. upe 'river'). The place-name element -sara (Δαυανά, Saprasara) may derive from *sora (cf. Lat. serum, OInd. sara - 'liquid') while similar appearing names such as Atizis, Aiţiţ, and Azizis may all derive from the PIE *beih-gos 'goat', cf. Grk aić(she-)goat', Arm ayr(she-)goat', Av izaēna-(goat)hide', and perhaps Alb edb 'kid'. The name of the 'bitch' (PIE *bherh-gos) probably lies behind the place-name Bersovia/Berzobizis. Comparisons such as Dacian seba 'elder-tree' and Lith šeivā-medis 'elder-tree' from *Ketēh' suggest the argument that Dacian palatalized the palatal velars. While the evidence is far too meager to provide a full phonological picture, Edgar Polomé has outlined the basic features of Dacian, among which are included: merger of voiced aspirates with non-aspirates, change of palatal velars into sibilants, *o > a, accented *ē > i̯a, *e > a, etc.

Dacian Origins

With historical attestations from the fifth century BC onwards, Dacians can presumably be recognized in the archaeological record as bearers of the Iron Age Ferigile group who exploited the iron sources of the Carpathians. The Ferigile group is presumably derived from the somewhat earlier (eighth century BC) Basarabi culture (situated in modern Moldova). Beyond this point, the prehistoric record of Romania is exceedingly complex and the ethnic identity of its inhabitants is increasingly conjectural. What can be said is that the earlier cultures marking the transition from the Bronze Age to the Iron Age horizon (corresponding to the Hallstatt culture of central and western Europe) are seen to be largely if not exclusively autochthonous and based on local Bronze Age cultures. This relationship can be seen, for example, in the way that the earliest Iron Age cultures appear to distribute themselves on the basis of local Bronze Age groups. The Bronze Age itself is marked by a cultural succession, sometimes involving cultures covering broad territories of Romania and adjacent territories such as the Noua culture of the thirteenth-twelfth centuries BC or smaller regional groups, especially in the middle Bronze Age c 1600 BC. The early Bronze Age cultures of the region (eastern Romania and Moldova) consist primarily of the Cernavoda and Folteşti cultures which represent, at least ceramically, components of a broad Balkan-Danubian complex of cultures that extended as far south as Anatolia.

In the Kurgan theory the creation of the early Bronze Age cultures is credited to the incursion of steppe peoples from the Ukraine and south Russia. The cultural milieu of Neolithic Romania comprised the Cucuteni-Tripolye culture over the north-east, the Petrești culture to its west and to the south, the Gumelnița culture, which was primarily anchored in Bulgaria, south of the Danube but extended into the northwest Black Sea region. What is regarded as the structural collapse of these earlier Neolithic cultures is held by many to have been the result of Kurgan invasions which are attested in Romania by relatively persuasive evidence for burials and whole cemeteries of the steppe type and whose deceased may be physically differentiated from those of the previous Neolithic cultures by being taller, more robust and long-headed. Other cultural markers include the appearance of the domesticated horse, cord-decorated and shell-tempered pottery, etc. This cultural collapse represents the most recent major discontinuity within the archaeological record that is widely favored to reflect IE expansions into the region. Before this discontinuity, only the initiation of the Neolithic itself with the spread of the Čiro culture and subsequent Neolithic expansions eastwards across the northwest, e.g., the Bug-Dniester culture, or along the Black Sea coast, the Hamangia culture (Dobrogea), could be seen as a major vector for the spread of a new language. These Neolithic populations, marked by a remarkable density of settlement, no doubt formed the essential population basis of the region. Nevertheless, both the evidence of cultural diffusion and the subsequent evidence of physical types suggests a persistent influx of steppe populations beginning with the Copper Age and continuing into later periods. This influx is especially marked in the Iron Age where presumably Iranian-speaking steppe populations (Scythians and Sarmatians) contributed to the ethnic mixture among the Dacians. By the first century AD, the impact of Roman colonization and assimilation brought about the end of the Dacians as an ethno-linguistic group.

See also BUg-Dniester Culture; Cernavoda Culture; Thracian Language; Tripolye Culture. [J.P.M.]

Further Readings

Language


DAUGHTER

*dghuf* (gen. *dghuftrós*) 'daughter'. [IEW 227 (*dghuf(h)áter-*]. Wat 15 (*dghuf(h)áter-); GI 668 (*dghuf(h)Háter-). Buck 2.42, Zem 4, Wordie 153–154]. Gaul *dhu(h)trár* 'daughters', Osc *futu(trá)daughters', ON *dóttur* 'daughter', OE *dohtor* 'daughter' (> NE daughter), OHG *tohter* 'daughter', Goth *dauhtar* 'daughter', OPrus *duckti* 'daughter', Lith *dūkte* 'daughter', OCS *dústi* 'daughter', ORus *doči* 'daughter', Myc

That a single term ‘daughter’ survives in some way in all major branches except Albanian shows that Indo-European daughters were significant to their families. Later Italic and Celtic languages have innovated with a new term, but archaic Oscan and Gaulish inscriptions preserve traces of the original lexeme. The exact nature of the medial laryngeal cannot be determined, and the unexpected loss in Italic, Celtic and Armenian suggests a unique cluster. Persistent efforts to create just-so stories about Indo-European home-life by etymologizing ‘daughter’ as ‘milk’ (< *dheugh-, though the meaning ‘milk’ for this verb is restricted to Indo-Iranian) and more recently as ‘the person who prepares the meals’ (< *dhuug- ‘meal’, cf. Goth dauhtis ‘meal, banquet’, East Iranian (Herodotus) τὐκτὰ ‘banquet’) provide no insight into the actual state of affairs.

See also Brother, Kinship. [M.E.H.]

DAUGHTER-IN-LAW
*snu-sōs ‘son’s wife, brother’s wife’. [IEW 978 (*snusōs); Gl 663 (*snuso-); Buck 2.64; Szem 19; Wordick 244]. Lat nurus ‘son’s/grandson’s wife’, ON snor ‘son’s wife’, OE snor ‘son’s wife’. Friis snore ‘son’s wife’, OHG schnor(a) ‘son’s wife’, GrimmGoeth schuos (for *schnos) ‘son’s wife’, Orrus snakhta ‘son’s wife, bride’, Rus snokha ‘son’s wife, bride’, Grk vnous ‘son’s wife, bride’, Arm nu ‘son’s wife’, Sogd swash ‘daughter-in-law’, Oss nosta’a ‘son’s/grandson’s wife’, Olnud snusa ‘son’s wife’. The distribution indicates PIE status. Unrelated or only distantly related is Alb nuse ‘bride’ (< *(s)nuβh-tieh), parallel to the later replacement in Greek by νυμφη ‘young wife, married woman, marriageable woman, daughter-in-law’.

Daughters-in-law have not only suffered at the hands of their husbands’ mothers but from Teutonic etymologists, who have attempted to relate the term to ‘knot’ (< *snu- ‘bind, tie’, cf. the homophonous German schnur). These attempts and Szemerényi’s more recent attempt to see the word as a derivative of ‘son’ (< *snusos < *snaus-sos < *sana-so-s ‘son’s wife’) with unparalleled zero-grade ablaut of u is most unconvincing. Alternatively, Gl suggest a relationship with the root *sneubh- ‘marry’ which is plausible if the latter represents an enlargement of (an unattested) *sneub- ‘marry’.

See also Daughter, Kinship, Son-in-law. [M.E.H.]

DAWN


The root *h2eues- ‘to shine’ effects a broad semantic range, including not only ‘dawn’, ‘morning’, ‘day’ and ‘light’ but also ‘east’ (the direction of the sunrise) and ‘red’ (= morning redness, the color of the dawn), reflected in Lat aurum (< *h2eusom) ‘gold’, OPrus ausis ‘gold’.

See also Dawn Goddess, Day, East, Gold. [PB.]

DAWN GODDESS

A Proto-Indo-European goddess of the dawn is supported both by the evidence of cognate names and the similarity of mythic representation of the dawn goddesses among various IE groups. The primary evidence for a PIE *h2eusōs ‘Dawn’ is to be found in Ol nd Usas, Grk ἡφος (Eos), Lat Aurora (and non-cognate Mätér Mätūta), and the Baltic dawn goddesses, Lith Aušrė and Latv Ausēkulis.

The Olnd Usas was the ‘reluctant’ dawn, punished by the warrior-god Indra for attempting to forestall the day. She, as the Roman Mätér Mätūta, nurtured her siblings’ child instead of her own. In this case the foster child was Agni the fire god, the son of the night, RatrI (RV 1.96). Usas was the most addressed goddess in the ḫyveda. She was described as a ‘Great’-goddess, and she was transfunctional, being ‘endowed with knowledge’, ‘strong with strength’, and ‘bestowing all treasures’.

Aurā (the feminine a-suffix is a Latin innovation) was the Roman goddess of the dawn. In Greco-Roman myth, Eos-Aurā fell in love with the mortal, Tithόnus, and she begged the father-god Zeus to grant her lover immortality. She forgot to ask that Tithόnus be granted eternal youth as well, and she continued to live with her immortal, but ever-ageing, lover. In fact, it was with reluctance that she left his bed each morning, until he became terribly old; then she locked him in a room, where he mindlessly blathers (Homeric Hymn to Aphrodite 237). This theme of the reluctant dawn is found throughout Indo-European dawn mythology. Aurā’s inherited Indo-European mythology was shared by the Roman Mätér Mätūta, ‘Morning Mother’, who took on much of Aurā’s inherited Indo-European myth. In the Roman rites of ‘The Mothers’, the Matrālica, yellow cakes were offered to the goddess. Female slaves were excluded from the temple of Mätér Mätūta at this time, and mothers prayed to her, not on behalf of their own children, but on behalf of another’s, since she was an ‘unfortunate parent’. The Indic myth of the dawn-goddess Usas explains this latter aspect of the rite, described in Ovid’s Fasti (6.473–568). Usas took care of Agni the fire god, the son of the night, Usas’ sister, RatrI. Plutarch (Vita Parallelae, ‘Life of Camillus’ 5.2) also describes the ritual, stating that the mothers care for their brothers’ children rather than their own. Further, slaves are not only excluded from
the temple, a handmaid is led into the shrine, struck with
sticks, and driven forth again. The underlying myth behind
this rite is the punishment of the "reluctant" dawn, seen more
transparently in Indic myth; in Roman rite the handmaid is
punished in her stead.

Eōs, the Greek goddess of the dawn, shares mythology
with Aurora, having the immortal, ever-aging Tithônus as
lover; Eōs, as Aurora and other dawn goddesses, is "reluctant"
to leave her bed. The Lithuanian Austrine began each day by lighting a fire
for the sun. Her name is cognate with Latvian Auseklis, who
like other goddesses of the dawn, was "reluctant" in the sense
that she did not always rise in the morning. In Latvian folk-
songs, there were various explanations for her absence: she
was said to be locked up in a golden chamber, or in Germany
weaving dour velvet skirts.

All of this evidence permits us to posit a PIE *h₂eusōs
'goddess of dawn' which was characterized as a "reluctant"
bringer of light for which she is punished. In three of the IE
stocks, Baltic, Greek and Indo-Iranian, the existence of a PIE
'goddess of the dawn' is given additional linguistic support
in that she is designated the 'daughter of heaven'. This can be
seen in the correspondence of Lith dievo dukštę, Grk θυγατρίαν
Διός, and OInd dūhita divāh which all derive from a PIE
*dhug(h)₂ter dūsōs 'daughter of heaven'. The corresponding
'son of heaven' is not lexically reconstructible but is both
semantically and mythologically associated with the 'Divine
Twins'.

See also Dawn; Divine Twins; Goddesses, Sun Goddess
[M.R.D.]

Further Readings
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DAY
*h₂égʰť 'day'. [IEW 7 (*āgher-); Wat 1 (*agh-); Buck 14.41;
BK 461 (*hag-/hag-)]. ON dagr 'day', OE dæg 'day' (> NE
day), OHG tak 'day', Goth dags ‘day’, Av azan- 'day', OInd
āhar (gen. athnas) 'day'. The etymological connection of the
Germanic and Indic forms is based on a dubious analogical
effect of Proto-Gmc *dāywaz 'warm time of the year' (<
*h₂dʰgwos 'burning') > ON dægr ~ dægn 'half day, period
of twelve hours', OE dōgar 'day'), which purportedly supplied
the initial *d- to the Germanic forms. Another suggestion is
that the Gmc *d- results from a misdivision of *tod *h₂égʰť
'that day' or the like as *to(d) dh₂égʰť (where *dh₂- gave the
same result as *dh-). If the Germanic and Indo-Iranian forms
are cognate, the root appears to be an archaic r/n-stem. But
its limited geographical spread indicates dialectal status in
any case.

*h₂eh₃-mer 'day'. [IEW 35 (*āmer-); Wat 2 (*āmer-), Buck
14.41]. Grk (Homeric) ḫμερ (gen. ḫματος), (Attic) ḫμερά
'day', Arm awr (< *h₂eh₃, mòr) 'day'. Dialectal IE, represented
only in two stocks that frequently exhibit shared isoglosses.

*deino- ~ *dino- 'day'. [IEW 186 (*deino-); Wat 10
(*dei-); Buck 14.41; BK 119 (*tʰr’-/*tʰr’-)]. Olr trédēnus,
'three-day period', Lat nundinae 'the ninth (market) day', OCS
dint 'day', OInd dīna-m 'day'; the full form of the root is
represented by Goth sinteins 'daily', OPrus (acc.) deinam 'day',
Lith dėieną 'day', Lat dīna 'day'. Possibly belonging here as
well is Alb gđhin (< *d(e)rinie/o-) 'at dawn'. The root *deino-
~ *dino- is a nominal form derived from the verbal root *dei(u)-
to 'shine' by means of a nasal infix. This secondary form is
probably PIE in date.

*dje(u)- 'day'. [IEW 184–185 (*dejeu-); Wat 10 (*dei-);
Gl 693 (*tʰr’-); Buck 14.41; BK 119 (*tʰr’-/*tʰr’-)]. Olr dīa
'day', Wels dydd 'day', Lat dies 'day', Osc zicolo- 'day', Grk
ἐδείκτος 'at mid-day', Arm tiw 'day', Hit šiwat-t 'day', OInd
diva 'during the day', divāsa- 'day'. Words descended from
*dje(u)- 'day' are based on the root *deiu- 'to shine' (cf. OInd
didēnti 'shines'). Though *dje- is geographically diffused and
is represented in three regional groups, the robust number of
metaphorical extensions of this root and the obvious nature
of the 'day' from 'shine' derivation suggest that *dje- may be
dialectally independent and not of PIE date.

The root *deiu- furnishes a number of lexical derivatives.
In addition to 'day', there is 'see' (cf. Homeric δειαίνος 'he was
being seen'), 'clear' (cf. Grk (Hesychius) διάλυσ 'clear,
certain'), 'sky' (cf. OInd dvāth), 'heaven' (cf. OInd divām),
and 'god' (cf. Grk Zeus, Lat deus, ĭptēter).

See also Burn, Shine, Sky, God, Time. [P.B.]
said to be an inscription on a sword, and where, in the mytho-
legendary atmosphere of the Welsh Mabinogi, warriors
resuscitated in a Caldron of Regeneration can fight, but
they cannot speak. To be dumb is, in fact, to be seen as dead
(deafness would probably be included in this view); we note
the widespread European folkloric belief concerning “seeing
the wolf” (Grk ...ιούκος ἰδεῖν), that is, if the wolf (the sign of
death) is seen or sees someone, that person is struck dumb: loss of the power to communicate verbally is tantamount to
loss of vitality, to dying.

See also Blind, Defect. [D.Q.A., D.A.M.]

DEATH

-mer- ‘die’. [IEW 735 (*mer-); Wat 42 (*mer-); Gl 396
(*mer-); Buck 4.75; BK 525 (*mir-/*mer-)]. Lat morior ‘die’,
mer- ‘disappear, die off’, Av miryente ‘dies’, OInd miryate ‘dies’. This is a very wide-spread verbal root in PIE (lacking only in
Celtic, Albanian and Tocharian) and clearly of great antiquity. It has spawned a number of nominal derivatives, some of
which are listed below:

mer-tos ‘dead; mortal’. [IEW 735 (*mr-tos-); Wat 42
(*mr-tos-); Buck 4.75; BK 525 (*mir-/*mr-tos-)]. Lat mortuus
‘dead’, OCS mrtv‘dead’ (Latin and Slavic < *mer-tos, whose
formation is analogical to the word for ‘alive’), Grk ΜΟΡΘΟΣ
‘person’ (< *mortal’), ΜΑΘΒΟΡΟΣ ‘immortal’, Arm mard
‘person’, Av marata- ‘dead’, OInd mṛta- ‘dead’. Widespread
 PIE term for ‘dead’.

mörtos ‘person, mortal’. [IEW 735 (*mør-tos-); Wat 42
(*mer-); Gl 396 (*mer-); BK 525 (*mir-/*mer-)]. Grk (Hesychius) mōρτος ‘person; dead’, Av marata- ‘person,
mortal’, OInd mārta- ‘person, mortal’. A late dialectal term in
IE.

mptis ‘death’. [IEW 735 (*mr-ti-); Wat 42 (*mr-ti-);
Buck 4.75; BK 525 (*mir-/*mr-ti-)]. Lat mors ‘death’, Lith miritis
‘death’, OCS s-tūr-m‘death’, Av marati ‘death’, OInd mṛtyu-
‘death’, and (only late attested) mpti- ‘death’. Distribution
suggests PIE antiquity.

mptóm ‘death’. [IEW 735 (*mr-tő-m); Wat 42 (*mr-);
Buck 4.75; BK 525 (*mir-/*mr-tő-m)]. On mord ‘murder’, OE
mord ‘murder, death, destruction’, OHG mord ‘murdar’, OInd
mṛta- ‘death’.

móros ‘death’. [IEW 735 (*mōro-s); Wat 42 (*mer-);
BK 525 (*mir-/*mr-s-)]. Lith māra ‘pestilence, plague’, OCS mōra
‘plague’, Grk μόρος ‘fate, doom, death’, OInd māra- ‘death’. A
word of at least the center and east of the IE world.

nek- ‘perish, die’. [IEW 762 (*nek-); Wat 44 (*nek-);
Gl 397 (*HneR-), BK 557 (*nikR-/*nekR-)]. Lat neco ‘kill’,
nocor ‘infllict injury’, Av nasyeti ‘disappears’, OInd nasyati ‘is
lost, disappears, perishes’, TochA nakstar ‘disappears, perishes’,
TochB nakstar ‘disappears, perishes’ (nakṣam ‘destroys’).
Perhaps here is also the name of the Germanic chthonian goddess Nehalennia. Though not certainly found
in Hittite, this word is also ancient in IE. Compare the
following nominal derivatives:

nek- ‘death’. [IEW 762 (*nek-); Wat 44 (*nek-); BK 557
(*nikR-/*nekR-)]. OIr écht (< *gći- ‘killing’, Lat nec
‘death’, OE ēht (< *onkíehθ) ‘hostile pursuit’, Grk νοκτορ
‘comma’, νεκτορ ‘necar’ (< *death conquering), and possibly
Hit heank- ‘death’, though he- is not well explained (the
remains of a prefix).

nēkus ‘death; dead’. [IEW 762 (*nēk-); Wat 44 (*nēk-);
Buck 4.77; BK 557 (*nikR-/*nēkR-)]. OIr éc (< *tkū- ‘death’,
Wels angau ‘death’, Grk νεκτός ‘corpse; dead’, Av nasu-
‘corpse’, TochA onk ‘man’, TochB enkwe ‘man’ (Toch
< *ŋku-o- ‘mortal’). Distribution suggests PIE antiquity.

uel- ‘die’. [IEW 1144 (*uel-); Wat 76 (*wela-), Gl 723
(*wel-)]. On valr ‘one who dies on the battlefield’, val-hill
‘Valhalla’ (dwelling place of warriors fallen in battle), val-kyra
‘Valkyrie’ (one who chooses from the slain those who go to
dwell in Valhalla), OE wel ‘slaughter, carnage’, (pl.) ‘dead
bodies’, wæl-cyrge ‘witch-sorceress’, wöl ‘pestilence, mortality,
disease’, OHG walt ‘battlefield’, wuoel ‘pestilence, destruction,
overthrow’, Lith velė ‘soul, spirit’, velines ‘remembrance of the
dead’, Veļiuoka ‘god of the dead’, Latv velis ‘spirit of the
dead’, velns ‘devil’, Veļu laiks ‘rite of remembrance of the
dead’, Ukr valjava ‘body-covered battlefield’, Czech vařeti
‘fight, make war upon’, TochA walt- ‘die’, waul ‘dead’. Perhaps
belonging here as well is Luv walant(i)- ~ ulant(i)- ‘dead’ though
it might also be derived from *g*el- More speculative
is any connection with the Greek adjective ἡλίσιον πεδίον
‘Elysian fields’ (the abode of the dead). Certainly if the Luvian
word belongs here, we have a word that was widespread and
old in IE.

dheugheis ‘perish’. [IEW 487 (*dhgheis-)]. Grk φθινο
‘dwindle’, OInd ksya-te ‘disappear, be destroyed’ (ksināti
‘destroys’). Cf. the derived *dhugheis: Lat sitis ‘thirst’, Grk
φλικόν ‘decay’, OInd ksiti- ‘collapse’. With the exception of
Lat sitis ‘thirst’, which may not belong here, the distribution
suggests a late isogloss in IE.

dheuv- ‘die’. [IEW 260 (*dheuv-), Wat 14 (*dheuv-);
Buck 4.75]. OIr dith ‘end, death’, Lat fānus ‘burial’, ON deyja ‘die’
(borrowed > NE die), OHG tauwen ‘die’, Goth diwans ‘mortal’,
OCS daviti (< *dhuoge/j-0-) ‘strangle’, Arm di ‘corpse’. Found
in the west and center of the IE world. Perhaps from *breathe
onc’s last and related to *dhuus- ‘breathe’.

néhuis ‘corpse’. [IEW 756 (*nāhuis), Wat 43 (*nāi-);
Gl 724 (*nāu-), Buck 4.77, BK 568 (*na-/*na-)]. On nar
‘corpse’, OE nē(-) ′corpse’, Goth naus ‘corpse’, OPrus nowis
‘corpse’, Lith nūve ‘oppression, torment of death, death’, nūviti
‘oppress, destroy, extinguish’, Lat nāve ‘death’, nāvet ‘kill,
destroy’, OReu navt ‘corpse’, TochA nāwm (< *nu-ehθ-ment-)
’sick’. In the sense of ‘corpse’ an innovation of the Germano-
Balto-Slavic group. Grk takes this word to be identical with
the word for ‘boat’, hence a vessel that transports one to the
afterlife.

See also Death beliefs, Destroy, Extinguish, Underworld.

[D.Q.A.]
DEATH BELIEFS

The details of the Indo-Europeans' beliefs about death and the afterlife can be ascertained to a degree by testimony from comparative linguistics, inscriptions, religious texts, mythology, and archaeological evidence about funerary practices.

Burial

The traditions of the various IE stocks indicate that when a person died he or she was mourned by family and friends, and the body was prepared for cremation or inhumation. One of the few lexical sets possibly associated with burial is *sepeli6-o- seen in Lat sepelio 'bury', sepulcrum 'tomb', Olnd saparyati 'honors, upholds'. The word is a derivative of *sep- 'handle (skillfully), hold (reverently)' [IEW 909 (*sep-); Wat 58 (*sep-); GI 728 (*sepʰ-)] as in Grk ἔσμε 'serve, prepare'. μεθέσο - ἐφέσο 'manage (horses)', Av hap- 'hold', Olnd sapat- 'touched, handles, caresses; venerates', sapti- 'team of horses'.

During the early historical period, inhumation was more common among most IE groups than cremation, although the latter was also accepted in many cultures and preferred in India and Iran. In other areas such as Homeric Greece and Scandinavia, cremation was sometimes a special honor accorded to heroes. The variation in funeral rites over both space and time, however, militates against any attempt to reconstruct an "original" PIE burial mode through an analysis of the burial rites of the various IE stocks. All that can be said is that an IE origin set at any time up to about the fourth or third millennium BC would more likely comprise inhumation rather than cremation, which at that time was less widely employed and more common in peripheral areas of Europe. As for the former, inhumation was generally soon after death; however, there is sporadic evidence from the Atlantic to Asia of secondary burial of the deceased after the flesh had been removed, either through exposure (to the elements or birds or slower decay in a charnel house) or the assistance of flint tools where the flesh would be cleaned from the bones. The range of burial modes is also considerable: flat graves, megalithic tombs, earthen barrows, both elongated or circular, are encountered in various regions of Eurasia. In addition to the actual burials there are in some IE traditions evidence of sacrificial pits associated with the graves of presumably renowned persons, e.g., at Mycenae and earlier sites in Greece, in Hittite (Hattic and Hurrian) texts and at the Hittite site of Gedikli, and some earlier Yamna sites in the north Pontic region. But without decisive linguistic evidence it is impossible to determine which if any of these may have applied specifically to the Proto-Indo-Europeans. It should also be added that in the discussion below concerning various IE themes, the different IE traditions present such a variety of beliefs and approaches to death and the otherworld that one may well suspect that there was also considerable variety in death beliefs among the Proto-Indo-Europeans as well.

Among the various IE stocks, the final disposition of the body was accompanied by religious rituals, aimed at ensuring the future well-being of the dead person's spirit, and sacrifices of drink, food, or animals. Grave gifts of weapons, tools, clothing, jewellery, household objects, food, and drink were commonly placed with the body; money was not usually offered except as a coin or two to pay the otherworldly ferryman in Greek and Roman tradition. Further sacrifices were often made after the funeral, both at specified intervals following the rites (most commonly three, nine, thirty, and forty days after the death, and thereafter at yearly intervals) and on particular festival days honoring the spirits of the dead (e.g., the third day of the Greek Anthestèria, a spring festival, the Roman Dies Parentales, German Feasts of the Dead). The soul maintained a strong link with the burial place, where the libations and sacrifices were usually performed. In some IE stocks, those who died without descendants to sacrifice to them were condemned to eternal hunger; a desire to avoid this promoted reverence for one's ancestors, a higher birth rate, and (in some cases) the practice of adoption if there were no offspring in a marriage.

Afterworld

Evidence from the different IE groups suggests a Proto-Indo-European belief that, after the inhumation or cremation of the corpse, the spirit of the dead person made a journey culminating in crossing a river or climbing a hill to reach an afterlife. In this afterworld, ruled by a deity or deified human and inhabited by other more minor deities, the souls of the dead carried on their existence, occasionally returning to the world of the living as ghosts, but more often simply receiving gifts or sacrifices from their survivors and descendants. In different cultures, the soul's journey to the afterworld may begin at the moment of death, at the completion of a prescribed ceremony or ritual, or at the dissolution of the body, whether by fire or by natural decay. Primary evidence for the death journey is found in various originally slang or euphemistic terms for death and dying which are derived from words meaning 'go' (e.g., *leit(h)- go forth' which gives ON lidinn 'dead', leit 'tomb', Goth (causative) -leifan, AV raet- 'die'; and *gweh a- 'go' which yields Olr badi 'he dies' and at-bat 'died', at-bai(h) 'vanishes, perishes', bā 'death', Wels bad 'plague'. Another linguistic pointer is the prevalence of euphemisms for dying or killing formed from terms meaning 'put' or 'bring' compounded with prepositions to give a sense of movement from one place to another (e.g., Lat interficiō 'put between, kill' and intereō and perēō 'die', Goth usquinian 'die', Olnd antar dhā- 'do in, kill').

Rituals and grave gifts also attest to the concept of the journey: the Vedic somadhā ceremony is repeated at frequent intervals for a year or two to provide the soul with food on its travels, then discontinued when the soul is presumed to have arrived. Vedic hymns adjure the soul to 'follow the path' to
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the afterworld. In Hittite funeral ritual, priests were responsible for smoothing the path to be followed by the soul with a mixture of honey, tallow, and oil. The souls of the dead in Iranian belief must cross the narrow Chinvat bridge spanning an abyss. In Greek mythology, the soul walked to the river boundary of Hades, where the ferryman Kharon was waiting.

It has been suggested that this last motif reflects a PIE belief that the soul was transported into the afterlife by an old man, death personified, who served as a ferryman. The motif is not only present in Greek myth where Kharon is consistently depicted as an ‘old man’ (γερόν < PIE *gerh₂- ‘to age, mature’) but also in Old Norse sources where one encounters a karl (< *gerh₂s-) ‘(old) man’ ferrying the body of Sinjofn across a fjord (Volsunga Saga 10). In Celtic tradition we find Barinthus (< *Barrfind ‘head-white’), the ferryman who carries Arthur’s body to Geoffrey of Monmouth’s Fortunata. The motif of a ferryman is also known in Indo-Iranian and Slavic tradition but here his role is more concerned with carrying the ‘saved’ to a happy afterlife rather than simply conveying all the dead to the next world. Yet there are still a number of similarities with the concept of a white-haired and bearded old man that Bruce Lincoln has postulated a PIE belief concerning *gerhont- ‘old man’ as ferryman of the dead.

The river of the otherworld has also been analyzed in comparative terms and it has been suggested that a number of IE traditions are variations on an original theme. The well-known river of the Greek otherworld, Léthé, washed away memories while the Vijara of Indic tradition washed away both good and bad deeds. On the other hand, there are also lakes and springs such as the spring of the Norse Mimir which imparts great wisdom as do certain springs or lakes in Irish tradition. On such a basis, Bruce Lincoln has suggested that there was a PIE tradition that envisaged the dead having their memories washed away by a river of the otherworld. These memories were then carried by the river into a spring from whence certain chosen ones might drink and draw the accumulated wisdom of the departed.

The soul of an unburied Greek was unable to make the river crossing and could only wait outside the gates of the afterworld. Early Attic tombs often contain clay models of boats provided for the journey. Italian funerary monuments and tomb paintings from the sixth through fourth centuries BC show the deceased traveling on horseback or in a chariot to the afterworld, although this may be influenced by the Etruscan substrate. Nevertheless, the motif of conveyance to the site of burial by a wheeled vehicle is widespread among many IE stocks not only in the historic period but also among their presumable prehistoric ancestors. Chariots or wagons are found in the graves of the Celts and Iranians of the steppe (attested both in Scythian royal burials and in the writings of Herodotus) and the motif is depicted in art among both the Italic peoples and ancient Greeks. In prehistoric contexts such wagon burials are known in the Iron Age Hallstatt and La Tène cultures in the west and in burials spanning the Bronze Age in eastern Europe, either in the form of actual wagon burials in the late Yamna, Catacomb, and other cultures of the steppe and forest-steppe or in the form of clay models in the Baden culture of the Danube basin.

In literature, the Romans were heavily influenced by the Greek mythology of the journey, with few original touches. However, in an older Italic (and Etruscan) tradition the soul remained closely tied to the actual grave or tomb, which was often decorated and furnished inside to provide a home-like atmosphere. Tomb inscriptions often evince concern about the safety of the tomb and the bones; violating a grave was a criminal offense; and the tomb’s owner frequently made provisions against the sale or transmission by inheritance of the tomb. In Baltic, Slavic, and steppe Iranian areas the tomb is also often decorated like a house, with lavish funeral gifts. Frequently a supply of horses, carts, and harness suggests provisions for a journey to the afterlife and a prosperous existence there. Scandinavian evidence again has the spirit of the dead person closely associated with the grave while an apparently separate soul inhabits either Hel, the underworld, or Valhalla, the warriors’ paradise. Those who died in battle were taken immediately to Valhalla by the Valkyries. As befits a seafaring people, the afterworld may also be reached by sailing; the well-known image of the Viking funeral via a burning ship dates back to the Bronze Age. For those too poor to ride, grave gifts included wagons for the transport of the soul or Hel—shoes for the long and arduous walk. A bridge, a river, and a great gate all stand as obstacles to the pilgrim soul. Although the Celtic traditions concerning the afterworld are confusing and contradictory, the concept of the soul’s journey is clearly present. Literary evidence deals mostly with two coexisting traditions of water journeys to an island afterworld or otherworld and access to an underworld through a mound or hill (OIr sid, cf. the NE loan banshee ‘woman of the sidh’).

That the afterworld was surrounded by an earthen wall or enclosure is widely found in IE tradition where a range of IE terms relating to ‘enclosure’, ‘fort’ or ‘wall’ are employed in depicting the place where mortals go after death. For example, from PIE *gh6rdhos ‘hedge, fence, enclosure’, ON pl. gardar is employed to describe the surrounding walls of the realm of Hel, the goddess of death; the Avesta to denote the cave of demons associated with pollution by death, and OInd (acc. sg.) mnrmaiyam garh ‘house of clay’ is used to indicate where one goes after death. Indo-Iranian tradition also employs Indo-Iranian *saitu- ‘boundary wall’ (Avesta ‘aetti-’, OInd setu-) to indicate the wall surrounding paradise (cf. NE paradise from Iranian ‘that which is walled around’) while other terms normally indicating a fort or wall are found in other IE stocks. It has been tentatively suggested that the concept of the earthen wall as a boundary between the living and the dead may also derive from the practice of tumulus burial where the house-like construction that contained the body of the deceased was separated from the world of the living by the earthen walls of the mound.

Once the journey was accomplished and the barriers of
water or earth had been surmounted, the soul was believed to exist eternally in the afterworld. The presumed location of the afterworld varies according to the geographical situation of each stock of the Indo-Europeans. A subterranean world is depicted in Greek, Roman, Germanic, Celtic, and probably Hittite belief, supplemented by an afterworld which could be reached variously by travelling west over sea for the Greeks, Celts, and Balts; north by land or sea for the Germanic people and again the Greeks; and south for Indic people. Since there is also some textual evidence for an afterworld in the south in Celtic (the location of the Tech Duinn 'house of Donn' who is the first king of the early Irish afterworld), Germanic (Odänsakr, the 'land of the living' beyond India) as well as Indic, it has been suggested that this is the direction of the IE afterworld itself but there are so many variations that such an assertion is exceedingly difficult to demonstrate. Many branches of IE, among them Hittite, Germanic, Indic, Iranian, Baltic, and Thracian, also believed that the souls of the dead resided in the sky. In fact, the only direction which did not lead to an afterworld for some group of Indo-Europeans was east.

It has been argued on the basis of a number of IE traditions that the afterworld or the deceased was ruled by a "lord of the dead" who was also the 'twin' of the IE cosmogonic myth. This relationship is most clearly indicated in the Indic tradition where Yama, the first king and etymologically equivalent with 'twin', reigns over the departed. His Iranian equivalent Yima was also first man and king and although the religion of Zarathustra deprived him of his original role, it is recollected in part in the story of how he built an underground enclosure to house humans, beast and plants through a mythic winter. In Irish tradition we encounter Donn, one of a set of brothers, who has a house across the sea where the dead are gathered and one of the names of the Irish afterworld is Emain Ablach, the first element of which reprises the IE word for twin (OIr emon 'twin'). 'Twin' is found again in Old Norse tradition where the functional if not lexically cognate Ymir, who is part of the cosmogonic creation of the world, has his land in the south, the direction of the Norse afterworld.

While there was no concept of punishment for sins or reward for virtue per se, the afterworld took different forms in different IE branches. It could be pleasant, featuring reunions with ancestors, abundant food, and enjoyable activities, as in Indic, Iranian, Hittite, Greek, Germanic, and Celtic tradition, or merely a dull waiting period, as in Hittite, Greek, Roman, and Germanic, during which the souls felt nothing but suffered if neglected by their descendants. It has been observed that descriptions of the more pleasant afterworld in IE literature tends to stress more what it does not possess—sorrow, labor, pain, disease, hunger, etc.—than what it does. Its southerly direction, at least according to some IE traditions, is then held to be more congruent with a northern homeland for the Indo-Europeans who would look to the warmer climates of the south for a model of their more pleasant afterlife. Sometimes both types of afterworld are present in the same culture, possibly representing a PIE distinction between the pleasant afterworld designed to induce heroes to sacrifice themselves in battle for the people, and the somber underworld with its reminder of the seasonal cycle of birth and death for women and the common people, who needed a reminder of their duty to produce descendants but were not to be encouraged to die young.

Through the great variation in IE afterworlds, one has been suggested as having PIE status. In Anatolian, specifically Hittite belief, one finds the expression nu-war-a-si-san sarrizzi hannari le kuiski 'let none seize it (= wellu- 'pasture, meadow'), which finds a Vedic (RV 10.14.2) echo in nāṣa gāyūṭir apabhārtva 'this cow pasture is not to be taken away', both suggesting that the afterworld is modeled on a pasture or meadow. The lexical support for assigning this motif to PIE requires an association between words meaning 'die' (e.g., ON valr 'one who dies on the battlefield', val-holl 'Valhalla', Lith velines 'remembrance of the dead', Latv Veļu laiks 'rite of remembrance of the dead', TochA walu 'dead'), which are from *wel- and the element *uel- which may underlie *velsu- indicating a 'meadow, pasture' (e.g., ORus Volosū (> *vol-su-) 'cattle god = deified pasture', Greek Πλήσιον πεδίον 'meadowy field' = Greek otherworld, and Hit wellu- (< *uel-nu-) 'meadow'). As there is no synchronic derivational relationship between 'dying' and 'meadow' in any IE stock, however, and the semantic development 'place of the dead' > 'meadow' seems rather obscure, these two roots are more likely to be independent of one another.

In addition to the more "pragmatic" approach to death, various IE traditions reflect a more philosophical approach founded within the IE cosmogonic scheme where the human body is an allomorph of the cosmos. And just as in the IE creation myth, where the universe is constructed out of the constituent elements of a primordial giant (or cow), death is seen as a return of the body back into the elements from whence it originally derived. In the Rigveda (10.16.3), for example, the deceased is informed by the priest that in death the eye must return to the sun, the self or spirit to the wind while in Euripides Suppliants (531-534), on burial of the corpses, the body is expected to return to the earth and the breath to the aether. Such an extension of the IE cosmogonic myth is found in other IE traditions and points to an explicit belief that the world is essentially timeless, living things being created out of the substance of the material world (stones, grass, water, wind, etc.) and then dissolving back into their constituent elements on death only to be reassembled, i.e., born, again.

See also Cosmogony, Death, Eschatology, HELL-HOUND, UNDERWORLD. [L.J.H., J.P.M.]

Further Readings
DEATH BELIEFS

DEBT see COMPENSATION

DECEIVE
*dhreugh- 'deceive'. [IEW 276 (*dhreugh-); Wat 15 (*dhreugh-); Buck 16:68]. OHG triogan 'deceive'. AV družati 'lies, deceives', Olind družyati 'harms, is hostile to'; also MIr aur-frāch 'ghost, spectre', ON draugr 'ghost, spectre', AV draoga- 'lie, deceit', Olind dtragpha- 'injury, harm'. Cf. ON drauma 'dream', OHG troum 'dream' (< *false vision'). Found only on the western and eastern extremes of the IE world, its distribution would seem to assure its PIE status.

*(s)neig- 'deceive'. [cf. VW 568]. ON svikva, svikja 'deceit, betray', svik (pl.) 'betrayal, fraud', OE swican ~ swic(i)an 'lie; wander off'; also OE swic 'deceit, treachery, illusion', TOCH WEKH 'to lie', TOCHB wakia 'lie'. The apparent agreement of Germanic and Tocharian would make likely the PIE status of this word.

*kel- 'deceit'. [IEW 551 (*kel-); Wat 28 (*kel-)]. Lat calvōr ~ calvō 'deceive', calumnia 'deception, calumny', ON hol 'praise, boasting', hcola 'praise, boast', OE hōl 'slander', hōlan ~ hēlan 'slander', OHG huolan 'deceive', Grk κηλέω 'bewitch, deceive', κόλαξ 'flatterer'. At least a late PIE word in the west and center of the IE world.

*(smel- 'deceive'. [IEW 719-720 (*mel-)]. Lith mēlas (dialectally mālās) 'lie', Latv mēl 'lie', Arm mel 'sin', AV mainya- 'deceitful', TOCH A mǎl 'lie'. Distribution suggests at least late PIE status.

*meug- 'cheat, deceive'. [IEW 743-744 (*meu-); Wat 42 (*meu-)]. OIr formáchtas 'false, smothered, concealed', Lat muger 'cheat speech', ME micher 'thief' (> NE meecher), OHG mēhha 'highwayman'. Western isolation in late IE.

*mēh- 'wave (the hand)', trick (with the hand). [IEW 693 (*mā-)]. Lith mēju 'wave, signal with the hand', Latv māt 'wave with the hand', māt 'signal, wave with the hand', OCS (na)majati 'nod, beckon to', Rus ob-manuitt 'tick, deceive', Olind mājā 'tick, illusion', TOCH A māsk 'switch', juggle. A word, apparently, of the center and east of the IE world.

*meng- 'charm, deceive'. [IEW 731 (*meng-); Buck 16:68]. MIr meng 'deceit, guile', Grk μαγγανος 'charm, philtre', μαγγανεια 'trickery', Oss meng 'deceit'. If all these words belong together, then their geographical spread would indicate PIE status for the group.

See also Lie² [D Q A I]

DEEP
*dheub- 'deep'. [IEW 267–268 (*dheub-); Wat 14 (*dheub-); Gl 6; Buck 12:67]. Onl domain 'deep', Wels dwān 'deep' (< Celt *dubh-), ON dýtrpr 'deep', OE deep 'deep' (> NE deep), OHG tiof 'deep', Goth dūps 'deep' (< Gmc *deupaz). Lith dubis 'deep', Latv dubūjā 'deep', OCS dūno (< PIE *dubno- 'ground, floor, dubious ravine, valley', Alb der 'sea' (< *dubetos), TOCH A TAP 'high', TOCHB Tapre 'high' (TOCH < *dubiros). Grk βυθός 'depth, bottom of the sea' is highly unlikely and the Celtic forms have been questioned. This item has sometimes been regarded as a (possibly substratal) northwesternism, but the plausible Albanian and Tocharian connections would secure IE status which is of particular importance since this would represent a relatively strong case for the rare PIE *b. Probably also with a nasal infix is Onl domun 'world', Corn down 'deep', NE dump 'deep hole in pond', OHG tumpfilo 'deep place in water', Lith dūmblas 'slime'. With final voiceless stop as *dheup- 'deep': ON dūfa 'dive', OE dufan - dūfan 'dive' (> NE dive), OCS dupina 'cave'. See also DIVE; LAKE [J.C.S.]

DEER
*hēlētēn (gen. *hēlētēnos) (British English) red deer/ (North American English) elk or wapiti (Cervus elaphus). [IEW 303–304 (*el-en-); Wat 16–17 (*el-); GI 437 (*el-en-); Buck 3:75; BK 452 (*el-/el-)]. Lith ellenis 'elk/moose, red deer/elk', elnīs ~ elnias 'elk/moose (Alces alces)', (in central Lithuania) 'red deer/elk (Cervus elaphus)', stag, Latv alnis 'elk/moose (Alces alces)', OCS (j)eleat (pl. (j)elete) 'red deer/elk (Cervus elaphus)', stag, Rus olēnl 'red deer/elk (Cervus elaphus)', stag, Bulg (dialect) alne 'young, yammys', Myc e-ra-pi-ja 'pertaining to deer', Grk ἐλαφός (< *hēlēphbos) 'red deer/elk (Cervus elaphus)', ἐλάζος (< *hēlēnos) 'young of (red) deer, fawn', (Hesychius) ἐλαιος (< *hēlējeno-) by metathesis 'young of (red) deer, fawn', Arm elni (gen. elini) 'hind', TOCH A yal 'gazelle', TOCHB yal 'gazelle' (the Tocharian probably = goitered/Persian gazelle [Gazella subgutturosa]). Perhaps belonging here ScotsGael lon (< *hēljono) 'elk/moose (Alces alces)' and perhaps ON lamb 'lamb', OE lamb 'lamb' (> NE lamb), OHG lamb 'lamb', Goth lamb 'lamb', if the latter set is from *hēljōnhus, a derivative with new full-grade of the ἐλαφός seen in Grk ἐλαφός, and once meant 'young of any animal' (< *‘fawn’. Possibly belonging here as well is Lat inuleus ~ innumus (the latter form influenced by innumus ‘mule’) young roebuck if with the same metathesis of *l- and *n- as we see in Grk ἐλαιος ‘fawn’. Also sometimes connected is Hit aliyan (~ lamb) but this word is more likely to be an inner-Hittite creation from alr- ‘(soft) wool’. Widespread and old in IE. The semantic development
seen in Tocharian presumably results from the movement of the pre-Tocharian speakers to the east, out of the territory where red deer/elk are native and the assignment of the word to perceptually similar game animals (i.e., "red deer" > "game animal" > gazelle"). Often this word is taken as a derivative of *hjesl- 'brown' seen in OHG elo 'brown, reddish yellow', Av aurusa- 'white', Olind arusä- 'reddish, flame-colored', aruna- 'reddish'. Certainly such an assumption makes a good deal of semantic sense (cf. British English 'red deer'). However, one should note that the color-term is always with a *-u-, i.e., *hjeslu-, which the animal designation always lacks and that the color-term occurs in IE stocks that do not have the animal term.

*hesl>ntha- 'hind/cow-elk (adult female Cervus elaphus)' [IEW 303–304 (*elani); BK 452 (*il-/*el-)]. Wels elain 'hind', OPrus alne 'animal' (< *hind'), Lith alne ~ elne 'hind', OCS lani ~ alni 'hind'. Rus lani 'hind', (dia1.) alnyja 'cow' (the initial *a- of the Baltic and Slavic words is probably an internal development in those stocks). Cf. Grk elatos (< *hjeslthpi-)' doe, hind'. A feminine noun regularly derived from the preceding word. At least a word of the west and center of the IE world.

*bhrenatos 'stag' [IEW 168–169 (*bhren-to); Buck 3.75]. Norw bringe 'stag', Swed brinne 'stag', Messapic bhévébov 'stag'. Cf. Norw brun (< *bhrmnos) male reindeer. Derivatives of *bhrmnos seen in Albr (Hegh bri) 'horn'. Perhaps a word of the west and center of the IE world.

*b(h)roid(h)is 'red deer, elk' [cf. Buck 3.75]. OPrus braydis 'elk/moose (Alces alces)', Lith brédis 'stag, hart (Cervus elaphus)', (in central Lithuania) 'elk/moose (Alces alces)', Latv brédis 'red deer/elk (Cervus elaphus)', OCS a-briedis 'grasshopper' (< *like a stag'). Apparently limited to only Baltic and Slavic; doubtful antiquity.

The red deer (Cervus elaphus) is ubiquitous across most of Eurasia although its historical range only extended as far south as the southern slopes of the Himalayas, i.e., it includes Iran, Afghanistan and Kashmir, Sikkim and Bhutan but not further south. It was one of the primary animals hunted in both the Mesolithic and Neolithic and in later periods from Ireland to across much of Asia. There is probably no postulated homeland in which the Indo-Europeans would not have regularly hunted the red deer. It was exploited not only for its meat (adult sizes range from 130 to 300 kg) and hide but antler and bones which provided material for tool manufacture and its teeth were often made into ornaments.

*jörks 'roedeer (Capreolus capreolus)' [IEW 513 (*jörk-)]. Wels iwrch (with not well explained vowel) 'roe buck', Corn yorth 'roe buck', Grk ζόξ 'roedeer (in Europe), gazelle (in the African colonies)', (Hesychius) ḥόξος 'roe buck' (probably a word of the Celtic Galatians). A remarkable Greek-Celtic correspondence which would seem to assure this word PIE status at least in the west and center of the IE world. Witczak has recently suggested that the Germanic words for roedeer also belong here. Proto-Germanic apparently had *raithaz 'roe deer' (> OHG reh 'roe dear'), *raithô 'roe deer' (> ON rá 'roe dear'), OHG reha 'roe dear'), and *raithan-

roebuck' (> OE rā - ráha 'roe buck' (> NE roe), OHG reho 'roe buck'). Witczak takes the Proto-Gmc *rathza as reflecting a late PIE *roixos by metathesis from *jörkos. This species has rather short antlers that do not branch elaborately; thus it is not too surprising that the word might be readily transferred in Greek to the gazelle. One might note that the zoological name, capreolus, is the Latin word for roedeer and it is transparently a derivative of capra 'goat'.

The roedeer (Capreolus capreolus) is found across much of Eurasia but not south of Iran and northern Iraq and it is unknown from northwest India. It is regularly known from European Neolithic sites, although usually in amounts considerably less than those of the much larger red deer. In general, most IE stocks, other than Indic, who knew the red deer are also likely to have exploited the roedeer as well.

Among the Cervidae with whom some of the early Indo-Europeans would have come into contact there is also the fallow deer (Dama dama) whose natural distribution would have included the Mediterranean, southeast Balkans, and Anatolia while the Persian fallow deer (Dama mesopotamica) occupied western Asia. The animal is very infrequently found in Europe although its historical range only extended as far from northwest India. It apparently had its natural distribution in the Mediterranean, southeast Balkans, and Anatolia while the Persian fallow deer (Dama mesopotamica) occupied western Asia. The animal is very infrequently found in Europe although its historical range only extended as far from northwest India.

DEFECT

Moral

*melos 'bad' and *mélēs- 'fault, mistake'. [IEW 719 (*mel-); Wat 40 (*mel-)]. Mtr mēl(< *melso-)'mistake', Lat malaus 'bad', Lith mēlas 'lie', Latv mēlī 'lie', Grk μέλεος 'miserable, fruitless, vain', Arm mel' 'sin', Av mārya- (an epithe of evil beings). From *mel- 'fail'. It is not certain that all the forms given here belong together. If they do, they provide good evidence for a word for 'moral flaw' or the like, at least in late PIE.

Physical

*mendo/ehai- 'bodily defect'. [IEW 729-730 (*mendi, -om)]; Wat 41 (*mendi-). OIr mennar 'spot, stain', Lat menda 'bodily defect', mendium 'fault, error, mistake', Lycian mete- 'damage, harm', Olind minda 'defect of the body' (crossed with ninda 'abuse, slander?'). A good semantic match from both ends of the IE world, though weaker phonologically. Probably of late PIE status.

DEFECT
*lord(s)kos* 'crooked of body'. [IEW 679 (*lord-sko-); Wat 36 (*lerd-)]. ScotsGael *lorch* (< *lor(d)s-kakos*) 'lame', MHG *lerz* 'left', Grk *lōropōs* 'bent backwards, so that the front of the body is convex', Arm *lorc-*'k- (< *lor(d)-s-k-)* 'bent backwards, so that the front of the body is convex'. From *lerd-* 'bend'. Sufficiently widely attested that it is probable we have at least a late IE word.

*(s)keng* 'limp'. [IEW 930 (*s)keng-], Wat 59 (*skeng-); Buck 4 94; BK 261 (*sk-[k*]+k-*[k]*[j*]-on-k-). On *skakkr* 'awry, twisted', OHG *hinkan* 'limp', Grk *skaikos* 'limp', Olnd *kat-ji* 'limp', *khatiya* 'lame' (*khatia*)- a Middle Indicism for *skatij(a)-*. A reasonably well-attested group of PIE date.

*sromos* 'lame'. [IEW 1004 (*sro-o-mo-)], Buck 4 94. OCS *chrromi* 'lame', Rus *khromoj* 'lame', Olnd *srama*- 'lame'. The underlying verb appears only in OCS *o-chrump* 'they became lame'. The initial *ch-* of Slavic may suggest the influence of an (unattested) Iranian cognate *hrmana*. Probably an 'easternism' in late PIE.

*skauros* 'lame'. [Buck 4 94]. Lat *scaurus* 'clubfooted', Olnd *khora*- ('khota- ~ khoda-') 'lame' (*khota-* a Middle Indicism for *skor-*)]. If these words belong together, we have evidence for at least a late PIE term. However, it is also possible that they are independent formations or borrowings in the two languages.

As injuries to the head and the senses are usually tied to the First Function, and injuries to the arms or hands or torso are tied to the Second Function, so the lower part of the human body is allocated to the Third Function, and wounds and injuries there are conceived of as attacking that function, and the powers of generation and male sexuality generally. Injuries to the leg or knee (note Lat *gena* 'knee' and *geno* 'beget') are transferred to the male generative powers, and can diminish them. However, a more flexible symbolic usage seems to dictate the widespread belief that an artificer, such as a smith—an ambiguous figure but one who in this case can be fitted into the Third Function—has sacrificed bodily integrity for his quasi-magical powers of material transformation. The smith is often seen as dwarfish or crippled in his lower limbs or, at least, unable to pass on his power and the mastery of his art to any children of his own, though he may be very often found in the IE sources as a fostering figure, protecting, raising and training a son not his own.

See also Blind; Deaf. [D. Q. A., D. A. M.]

**DEGREES OF DESCENT**

*pro-* third generation marker. [IEW 813 (*pro-)]; Wordick 249]. Wels *or-wyr* 'great-grandson', Lat *pro-avis* 'great-grandfather', *pro-nepōs* 'great-grandson', OHG *ler-nelo* 'great-grandson'. Lith *pro-antūkis* 'great-grandson', Rus *pravνν* 'great-grandson', Grk *πρότατος* προέργονος 'great-grandson', Olnd *prā-nāpat* 'great-grandson'. Widespread and old in IE.

*heup-* fourth generation marker. [IEW 323 (*epi)]; Wordick 249-250]. Lat *ab-avis* 'great-great-grandfather', *ab-nepōs* 'great-great-grandson', OE *of-spring* 'offspring' (> NE *offsprings*), Grk ἀπό-πατος αὐτ-ἐγγόνος 'descendant', OPers *ap-anyaka* 'great-great-grandfather', Olnd *ap-atyam* 'offspring'. Sufficiently widespread to support PIE status.

**h.et-** fifth generation marker. [IEW 344 (*eti)]; Wordick 250]. Lat *at-avis* 'great-great-grandfather', *ad-nepōs* 'great-great-grandson'. Olnd *ati-vṛddhaprapitamahā* 'great-great-grandfather' has been placed here as well but this is very dubious in that it is more transparently explained as a compound of *ati-vṛddha* 'very old' with *ati-* < PIE *hitē* 'beyond'. If this explanation for the Old Indic word is correct, we are left with evidence only from Latin. And as Lat *atavus* has plausibly been taken as a compound of *atta* 'grandfather' and *avus* 'grandfather', the likelihood that we have anything of PIE date is very doubtful.

PIE employed distinctive kinship terms only to the second ascending or descending generation, the grandparents and grandchildren. Remoter degrees of kinship were signaled by locational compounds. There is reasonably strong evidence that *pro-* was used to mark the third ascending and descending generation, while *heup-* marked the fourth ascending or descending generation. Markers of remoter generations are much more suspect. There are traces of a 'competing' system, at least for ascending generations in Hit dān attas 'grandfather' (lit. 'twice father') and Lat *bis-avulus* (cf. Spanish bisabuelo, etc.) 'great-grandfather' (lit. 'twice grandfather').

See also Descendant, Kinship. [M. E. H.]

**DEREIVKA**

Dereivka is a site of the Sredni Stog culture on a tributary of the middle Dnieper and dates to c 4500–3500 BC. The site consists of both a settlement and cemetery and has been presented as an archetypal Proto-Indo-European settlement by supporters of the "Kurgan solution" to the IE homeland problem. The settlement attests several structures, timber-built houses about 10 x 6 m in size, purportedly enclosed by a fence. The faunal remains consist predominantly of horse. Other species are domestic cattle, sheep/goat, pig and dog as well as wild species (red deer, roe deer, wild pig, elk, badger, bear, otter, wolf, fox, beaver, hare), a variety of birds (mallard, pintail duck, goose, teal, coot), and fish (silurus, perch, roach, red-eye, carp, and pike). Remains of over thirty tortoises were also recovered. The horse remains from Dereivka, which numbered at least fifty-two individuals, are widely regarded as critical for determining the origins of the domestic horse. One of the most important finds in the site was that of the skull of a stallion, accompanied by the forelegs of another individual and also the remains of a dog. The horses were originally identified as domesticated on morphological grounds (size) and age-slaughter pattern but recent analysis has declared them to be wild horses. The stallion, however, has been the major point of contention as it has been deemed domestic because of the dental evidence for the use of a horse bit (the other horses did not show such a pattern). Still others have suggested that the skull of the stallion derived from a
later period and that there is no evidence for domestic horses at Dereivka. Direct radiocarbon dating of the skull satisfies neither party in that it dates to c 2900 BC, too recent for easy assignment with the other Dereivka dates but too old for those who regard it as a very late deposition of the Bronze Age.

Adjacent to the settlement was a cemetery which comprised burials from two cultures: the Dnieper-Donets culture and, contemporary with the Dereivka settlement, burials of the Sredny Stog culture.

See also SREDNY STOG CULTURE; HORSE; KURGAN TRADITION.

Further Readings

DESCENDANT

*neptjis 'descendant'. [IEW 764 (*neptio-s); cf. Wat 44 (*nepöî-); cf. Gl 670; Szem 9, BK 573 (*n`ip[pl]-/*n`ep[pl]-)].

Rus netiň `nephew`, Grk áneu vos (< *smp-nepsiós) 'cousin' i.e., 'co-descendants', Av napt(i)ya- 'descendant'.

The most widely employed term for 'descendant' is based on the concept of 'grandchild', but a term meaning just 'descendant' is found only in central and eastern languages and is a masculinization of an innovative feminite *neptieurs, analogically developed from the regular feminite, *nept-ih, 'daughter's daughter, sister's daughter'. Accordingly, there is no reconstructible term for 'descendant' in the generic sense, although any number of specific terms such as 'son' can be used so metaphorically: In other cases metaphors derived from the natural world like 'offspring' or 'scion' are employed. As a result, many items are later glossed simply as 'kinsmen', e.g., Hesychius' éores , προσήκοντες, συγγενεῖς 'relatives'.

See also CHILD; DAUGHTER; KINSHIP; SON. [M.E.H.]

DESIRE

*las- 'be greedy, lascivious'. [IEW 654 (*las-)]. OIr lainn (< *lasiti-) 'eager, greedy', Lat lascivus 'lascivious', ON losti 'joy, pleasure, desire', OE lust 'pleasure, desire' (> NE lust), OHG lust 'pleasure, desire', Goth lustus 'desire, covetousness', Lith lokšnus 'loving, amorous, tender', OCS laskati 'flatter',
* **yene**- 'desire, strive to obtain'. [IEW 1146 (*yen-*)].  
  Wat 76 (*wen-), BK 619 (*win-/wen-). Lat venus 'lusty', ON vinr 'friend', OE wine 'friend', OHG gi-winnan 'achieve through struggle', Goth wēms 'hope', perhaps Hit wēn- 'copulate', Av vāntā 'beloved, wife', Olnd vāns- 'lusty, vanōti 'demands, strives for, likes; obtains, conquers', vāma- (< *uŋh-mo-') 'dear, fair, noble', TochA wani 'pleasure', TochB wina 'pleasure'. Cf. the derived verb *uŋh-skē-o/ -o and its nominal derivatives in OE wēscan 'wish' (> OHG wunsc 'wish', Olnd vānhchi 'wishes, desires'. Widespread and old in IE.

* **ghor(s)e/o**- 'desire' [IEW 440–441 (*gher-*)]. Wat 22 (*gher-); VW 188. Lat horiar 'exhort, incite', Umb her iest 'wishes', ON giarm 'desirous of', gīrma 'desire, yearn', OE german 'yearn' (> NE yearn), OHG gerōn 'want, desire, long for', Grk χαιρε 'rejoice'. Olnd hāryati 'finds pleasure in, desires', TochA kar(y)- 'laugh', TochB ker(y)- 'laugh'. Widespread and old in IE.

* **gheheldh**- 'desire' (pres. *ghehdhi-o/e-). [IEW 434 (*gheldh-*)]. OCS žliděti 'desire'. Olnd gīdhati 'is onious'; cf. the derivative *gheoldhus: OCS gładā 'hunger', Rus golod 'hunger', Olnd gāndha- 'envy'. A word of the center and east of the IE world.

* **h₀*ghigh(e-o)/*h₀*ghighje/o- 'desire (strongly)'. [IEW 14–15 (*a(ī)gh-*)]. Buck 16.62; cf. VW 609–610]. From *h₀*ghigh(e-o)-: Grk ἵππο 'violent desire', Av ḫtā- 'desire', Olnd ḫate 'strives for, wants', ḫā- 'desire', TochB ḫāskē 'concupiscence'; from *h₀*ghī dhe/o-: Av ḫīza- 'crave, yearn for', TochA (pl) ḫsalmān 'sexual pleasures', TochB ḫsalmē 'sexual pleasure' (< *h₀*ghī ho-ino-). At least a word of the center and east of the IE world.

* **h₀*ghop**- 'desire'. [IEW 781 (*hop-*)]. Wat 46 (*op-*)]. Lat optō 'wish', OCS za-(j)apā 'presumption, suspicion', Grk ἐπιθυμωμα 'choose'. At least a word of the west and center of late PIE. If *desire* is in this case 'grasp at' (for which there are parallels) then it may be that this word is originally an intensive derived from *h₀*hep- 'grasp', seen otherwise in Hit epa'grasps, seasizes'.

* **kwe**l̂ep**-desire**. [cf. VW 242]. Av xrap- 'desire', TochAB kulep- 'desire'. Known only in these two stocks, this word may be of late IE age.

* **mound**- 'desire strongly'. [VW 282]. Lith maudžioti/mausti 'desire passionately', Czech mléti po čem 'desire (something), seek after (something)', TochB maune (< **mound-no**- avarice, avidity). The apparent agreement of Balto-Slavic and Tocharian would suggest at least late PIE status for this word.

See also Break; Death; Conquer. [M.N.]

**DESTROY**

* **gʰjeh₂**- 'physical power, overcome, oppress'. [IEW 469–470 (*gʰjei₂-*)]. Wat 24 (*gʰeia-*)]. Olng kveita 'make an end, kill', Goth qisjan (< *gʰjeh₂-s-') 'destroy', Grk βία 'physical force, violence', βίαο 'do violence to', Olnd jyā 'force, violence', jināti 'overpowers, suppresses'. The most secure correspondence is between Grk βία and Olnd jyā, suggesting that the root in the proto-language may have been nominal rather than verbal. Uncertainty exists as to whether the Germanic forms belong with this set; if they do, then there is a reasonable case for reconstructing the root as PIE. Otherwise, the form may be a late dialectal isogloss.

* **dhgʰhei-** 'destroys'. [IEW 487 (*gʰheia(-o-*)]. OIr tuaind 'vanishes', Lat situs 'abandonment', Grk φθίνω 'destroy', Av dajit.arta- (> *djet-arta-*) 'who violates Arta', Olnd ksnāti 'destroys'. The connection between Greek and Indo-Iranian seems secure while the Old Irish and Latin forms are in some doubt. Lat situs may go with sinō 'place' via an intermediate meaning 'act of placing, leaving' which is semantically more plausible.

* **h₂ṣelh₁**- 'destroys'. [IEW 777 (*ol-(e)-*)]. Wat 46 (*ol-), BK 412 (*hul-/hol-). Lat ab-oleó 'destroy', Grk ἀλλᾶμαι 'destroy', Hit hulāt(-)- 'combat, fight'. Although the form is attested in very few languages, their geographic distribution makes a good case for PIE status.

* **h₂zekh-** 'ends, destroy'. [BK 402 (*har-ak-/*har-ak-*)]. OIr orcaid (DIL origid) 'slays', Arm harkanem 'split, fell', Hit harkē 'is destroyed'. The distribution of attestations suggests PIE status.

* **h₂zh₇eh₁**- 'destroys'. [IEW 332–333 (*er-*)]. Puhvel 136–137. Lith irri 'dissolve, go asunder', OCS oriti 'destroy', Rus raz-oriti 'destroy' (< *h₂orihje/o-ə-), Hit harra- 'destroy'. The agreement of Hittite and Balto-Slavic should indicate PIE status.

* **bhrêxh₃**- 'destroy, cut to pieces'. [IEW 166 (*bhrēti-*)]. Wat 9 (*bhrēti-*)]. OIr (3sg subj.) ro-bria (DIL bris(č)id) 'may spoil, destroy, brìthar word', Lat frīo 'tear apart', Rus brit' 'shave', Av pair-brìtnant 'cuts out', Olnd brìtnànti 'injure, hurt'. This cognate set presents numerous problems. If the Old Irish form ro-bria belongs to the root bronn- 'use, consume' (DIL bronnai), as Vendryes suggests, then the form probably comes from *bhrēus- 'break' rather than *bhrēti-. OIr brìthar 'word' may come from a form *bhrēi-treith, Vendryes notes that in Celtic numerous forms exhibit a connection between physical combat and speech. Lat frīo probably belongs here but has also been connected with Olnd mrtīyāti 'decays'. The various uncertainties associated with this set suggests that extreme caution should be used in positing the form for the proto-language.

See also Break; Death; Conquer. [M.N.]

**DEW**

* **rős** (acc. *rōsāp*) 'dew, trickling liquid, moisture'. [IEW 336 (*rosā-*)]. Wat 17 (*ers-). Buck 15.83. Lat rōs (gen. rōris) 'dew, trickling liquid, drops, moisture', Lith rasa 'dew', Latv rasa 'dew', droplets, fine rain', OCS rosa 'dew', Rus rosī 'dew', Alb resh (< the denominative verb *rōs-je/o-') 'precipitate' (cf. po resh shi 'it's raining', po resh bore 'it's snowing'), re (Gheg rē) 'cloud' (< *rosnti-), Av Raaha (name of river), Scythian
'Volga', Olnd *rásı 'moisture, humidity; name of a river; mythical river supposed to flow around the earth and atmosphere', rása- 'sap, juice, any liquid or fluid; marrow, essence'. It is also possible to reconstruct *h₁ros- with an initial laryngeal (only Greek could give the crucial evidence on this point). If so, it would be possible to see a relationship of this word with *h₁ers- 'flow'. However, it is also entirely possible to take the meaning 'flow' which appears only in Indo-Iranian (in the designation of rivers) as a secondary development in that stock of IE, perhaps induced by the phonetic similarity of the descendants of *rös 'dew' and *h₁ers- 'flow'. In any case in the root noun *ros- we have a solidly attested PIE word.

See also FLOW, RAIN, WET. [J.C.S., D.Q.A.]

DIE see DEATH

DIREC

DIG

*bhedh- 'dig, burrow'. [IEW 113–114 (*bhedh-); Wat 6 (*bhedh-); GI 133 (*bhedʰ); BK 18 (*badʰ/*bad-)]. Wels bedd 'grave', Gaul bedo- 'channel', Lat fodô 'dig', OPrus boundis (noun) 'prick', Lith bedî (vb.) 'prick', OCS bosti 'prick, gore', Hit padda- ~ pidda- (reading of first syllable unclear) 'dig', Tochari pât- 'plow'. A Germanic set indicating a ‘bed’ (ON bedr ‘bolster, feather-bed’, OE bedd ‘bed’ (> NE bed), OHG betti ‘bed’, Goth badi ‘bed’) has sometimes been placed here under the belief that the early Germans slept in hollows in the ground, i.e., ‘dig > animal burrow > bed’, but as the Proto-Germanic form *badja- apparently was borrowed into Finnish as posta ‘cushion’, derivation from *bhedh- ‘bend’, i.e., a pliable pad on which one slept, has also been suggested. Even without the Germanic words, the root is securely reconstructible to PIE.


*gheebh- 'dig'. [IEW 455–446 (*gheebh-); Wat 23 (*gheebh-); BK 223 (*gir-/*ger-)]. On grafa ‘dig’, OE grafan ‘dig’ (> NE grave), OHG graban ‘dig’, Goth graban ‘dig’, Lith grebt ‘rake’, Lat greb ‘scrape, hollow out’, OCS pogrëb ‘bury’. A northwest dialectal term of late IE. It is held to be 'in front', west is 'behind', south is to the (propiptious) right, and north is on the unpropitiouls left. Thus OIr anair 'from the east' has as its second part a PIE *phrebh ‘in front of’ also seen in Av pouran and Olnd purva- ‘front of, former, earlier’ while Av apar- and Olnd paric- indicate both ‘backwards’ and ‘west’ (cf. OIr tar ‘in the west’). Olr dessa, Av dása- and Olnd dása- mean both ‘right’ and ‘south’ while OIr tuisceart means both ‘north’ and ‘left’ as does Olnd saya-. Later innovations, albeit built on PIE roots, continue these semantic associations, e.g., OIr lef ‘left’ and Wels cledd ‘left’ also underlie words for ‘north’, e.g., OIr lochla, Wels gogledd. In Germanic the words for ‘north’, e.g., ON nör, OE norh, OHG nord-an (<<Proto-Gmc *nœrt-) may be compared with Umb mertriu ‘left’ or, in further semantic association with the equation of the ‘north’ and ‘left’ with the unpropitiouls, Grk νὲπτερος ‘lower, nether (world)’. The association of the cardinal directions with ‘right’ and ‘left’ also emphasizes their polarity in terms of the positive or propitiouls ‘right’ or ‘south’ and the negative or unpropitiouls ‘left’ and ‘north’.

In the other system the cardinal directions are associated with the sun at a particular time of day, i.e., east or south) is associated with the dawn or morning, e.g., PIE *h₂cásós ‘dawn’ which underlies ON austr ‘east’, OE éast ‘east’, OHG óst ‘east’ and Lat auster ‘south wind’ while the west is linked to the evening, e.g., OE west ‘west’ (cf. Lat vesper ‘evening’, etc.). Germanic also offers words for ‘north’ which are derivatives of *ner- ‘under’ – the north being down as opposed to the south being up (cf. Tocharian K ‘south’, lit. ‘sun-high’). The latter terms would be proof, if proof were needed.
that PIE speakers inhabited the northern and not the southern hemisphere. The cardinal directions provide a situation where the individual exponents of the PIE system cannot (usually) be reconstructed but the principles underlying the system can.

See also Before; Dawn; Dwell; Evening; Left; Right; Under.

[A.D.V., D.Q.A., J.P.M.]

Further Readings


DIRT

*rémós (or *rehjmós) 'dirty; dirt, soot'. [IEW 853 (*ré-m-); BK 611 (*rum-*rom-)]. Nice rama-legr 'dirty', OE römig 'sooty', OHG rämak 'dirty', MHG räm ~ röm 'dirt, soot', Olnd räma- 'dark, black', Rámá- 'Râma'. The geographical spread of the attestations, from the west and east margins of the IE world, would appear to guarantee PIE status for this word.

*solhₜ-, *solhₜ- 'dirt, dirty'. [IEW 879 (*sal-); Wat 56 (*sal-); Buck 15.88]. Olr sal (< Proto-Celtic *sal- < PIE *sλhₜ-ehₜ-') 'dirty', salach 'dirty', OIr *halu 'dung', MWels halog 'dirty', Lat salebra (< Proto-Italic *sales-ᵲa-') 'dirt', ON *sλlₜ-*sλlₜ- 'dirty yellow', OE sal 'dark, dusky' (> NE sallow), OHG solo 'dirty gray', OCS solovoj 'buff, dun, cream-colored' (Germanic and Slavic < *solhₜ-ehₜ-), OE sol 'dark, dirty; mud, wet sand, wallowing-place', TochB sal 'dirt' (Old English and Tocharian < *sλhₜ-ehₜ-). Perhaps a derivative is Hit salpa- 'dirt' (dog) 'dung'. Even without including the Hittite word we have evidence for a PIE term that was widespread and old.

*tihₘₜₜₜ- (be) dirty. [cf.IEW 1053 (*tā-)]. OE hīnan 'become moist', OCS tina 'mire, filth', Bulg *tina 'mire, filth, dung', Czech tina 'dung', TochB tinh 'be dirty'. Clearly the Slavic and Tocharian belong together though the connection of the Old English is less certain due to its semantic distance. Even without Old English, the evidence for PIE status is strong.

*leu- 'dirt'. [IEW 681 (*leu-); Wat 37 (*leu-); BK 579 (*law-*law-)]. Olr loth (< *luṭā) 'dirt', Wels lludedic (< *le/ out-) 'muddy', Lat pollut 'soil, defile', lutum 'mud', Lith lučėnas (secondary zero-grade) 'puddle', Grk λύμα (with unique long ū) 'dirt'. Fair distribution suggests the same antiquity.

*grōgs 'dirt'. [BK 605 (*gr-). Regional NE crock 'smut, soot, dirt', Lat grūsis 'dirt, smut; rubbish', Grk ὑγρός 'dirt in the nails'. Though only sparsely attested, the geographical distribution of those attestations and the possibility of reconstructing a consonant-stem in PIE (i-stems in Baltic are the usual outcome of consonant-stems; the NE word is indeterminate) would seem to be evidence for IE status.

*mai- 'soil, defile'. [IEW 697 (*mai-); Wat 38 (*mai-)]. OE māl (< *mai-lo-) 'spot, stain' (> NE mole), OHG mēl (< *mai-lo-) 'spot', Goth (gen. pl.) maile 'wrinkle', Lith mēles 'yeast', Latv mēles 'yeast'. Grk μαῖαν 'stain, sully' is sometimes placed here but is better derived from *meiₜ- 'harm' (cf. Olnd minātī 'damages, lessens, diminishes', or TochAB miₜ- 'harm'). Thus we are left with a Balto-Germanic correspondence which is not a very strong basis for reconstruction to PIE.

*dhaltₜ 'dust'. [IEW 262 (*dhalₜ-)]. This root should be rejected as Mr dûl 'wish' is semantically too distant to be related, Lat fuλlīgo 'soot' is derived from the word 'smoke', Lith dûmāi 'smoking beehives' does not belong here nor does Olnd dhaliₜ - 'dust'.

See also Dark. [D.Q.A., M.N., R.S.PB.]

DISH see POT

DIVE

*mesg- 'dip under water, dive' (pres. *mesgeo-). [IEW 745–746 (*mesg-); Wat 42 (*mesg-), Buck 10.33; BK 544 (*musₜ-ik-*mosₜ-ik-)]. Lat mergō 'dip, immerse, dive', Lat mergäns 'duck' (< *veidh- diving goose'), Lat mazgōti 'wash up', Latv mazgāt 'wash' (Baltic < *dip repeatedly), Olnd mähjāti 'sinks, perishes'. Reasonably widespread and certainly old in IE.

*gaₜdhₜ- 'dive'. [IEW 465 (*gaₜdhₜ-); Wat 24 (*gaₜdhₜ-), Buck 10.33]. Olr bāidid 'dives, drowns', Wels boddi 'drown, overflow, flood', Grk βιάζο (≤ *gaₜdhₜ-ehₜ-) 'valley', Av vi-gāṣhtā- 'ravine'. If all these words belong together, then their ancestor is surely of PIE age but it is still quite uncertain whether these are actually cognates.

*gaₜbhₜ- 'dip'. [IEW 465–466 (*gaₜbhₜ-); Wat 24 (*gaₜbhₜ-)]. On kāfa 'dive, plunge', kvefa 'dip, submerge, choke', k(β)uṣa 'choke', MHG erqueben 'choke', Grk βάζω 'dip in'. Perhaps related to some Indo-Iranian words meaning 'deep' and the like: Av jafrā- 'deep', Olnd ga(m)bhīre- 'deep'. If all these words are to be related, and their similarity of form makes an attempt to relate them tempting, they would appear to have undergone some irregular phonological developments that may suggest that it was a "popular" word of some sort.

See also Wade. [D.Q.A.]

DIVIDE

*ui-dh₁ₜ- 'put asunder'. [cf.IEW 1127–1128 (*weidh-), Wat 74 (*weidh-)]. Lat dividō 'divide, separate', Lith vidūs 'interior', Latv vidūs 'interior', Hit wida- 'bring', Olnd vidhyate 'bores through', vi-dhā- 'distribute, apportion, grant, bestow; prepare; furnish'. See also the derivative *uidh₁ₜ- 'bores through'. Widespread and old in IE.

*deh₁ₜ- 'cut up, divide'. [IEW 175–176 (*dā-); Wat 10 (*dā-); BK 130 (*tāh-/*tāh-)]. Olr dām 'host, retinue', Alb per-day- 'distribute, divide, share (out), scatter', n-day 'divide, distribute, split, distinguish', Grk δαίμονα (< *dh₁ₜμo-)}
DIVINE TWINS

Few mythological themes are as consistent or as widespread among Indo-European groups as that of the Divine Twins. Likewise few are as characteristically Indo-European. A pair of lesser gods, the Divine Twins have enjoyed widespread popularity in myth, legend and folklore from Sri Lanka to the Isle of Man.

Their prototype is easily reconstructed from extant mythological sources. They are two youths, twins or brothers, who frequently bear the epithet 'son' or 'youth'. They are depicted as supernatural horsemen and their epiphanies are horses. In their equine form, they are the divine steeds which draw the solar chariot. Perhaps for this reason, they are often regarded as offspring of the Indo-European Sky or Sun gods. They share a consistent relationship with the Sun god and the goddess or goddesses who represent the dawn, the morning and evening stars. One of the latter is presented variously as their consort, wife, or sister. Her solar associations are that of the Divine Twins from some watery peril. This theme probably emerged in the beginning of the Mabinogi, the principal source of Welsh mythology. Interspersed throughout that work are references to horse-like behavior by this goddess which was attached to the divine youths. This has proven to be one of the most durable, popular, and highly developed themes in epic and folklore.

From these primary functions, this pair has developed a greatly expanded range of attributes. Prevalent among these are stockmen, healers, physicians, sailors, controllers and forecasters of weather, and keepers of the wind. Especially in their epical manifestations, the twins emerge as individuals with distinct characters and different strengths. For example, when one appears physically strong, aggressive, and materially skilled, the other is a healer, who gives patient attention to domestic duties, agrarian pursuits, and romantic adventures. In certain geographic regions and among different ethnic groups, this functional disparity often led to one brother's popularity increasing at the expense of the other, effectively eclipsing the original relationship between the two and leaving only faint traces for the mythologist to discern. Alternatively, so extensively have the Divine Twins and their related themes penetrated all strata of Indo-European religious and folk belief that they have multiplied under varying monikers and guises and, in some of the more heavily worked sagas, they recombine to form pairs of brothers or twins, encountering and even combating themselves.

Celtic

No unambiguous myth has survived describing the functions and relationships of the Celtic Sun god. One Gaulish 'Apollo', called Beleunos, was associated with sacred, thermal springs and bore the epithet Atepromaros ('having great horses'). In Ireland, his feast day was Beltaine, a term combining the root tene 'fire' with bel 'bright'. Grannos, another Gaulish god who the Romans identified with Apollo, possessed curative powers. While etymologically obscure, it is difficult not to associate his name with the Irish word grian 'sun' (or 'hot springs'). Grannos is connected with the goddess S(t)irona whose name has been variously related to the word for 'star' or 'heifer'. In west and north Britain, the god Maponos 'divine son', who was also connected with healing springs as well as music, was equated with Apollo Citharocdus 'the harper'. In all, the historic and iconographic evidence indicates the existence of a Celtic Sun god connected with horses and an astral goddess. Furthermore, a divine 'son' is part of this solar complex.

Celtic myth shows the Divine Twins in close association with the horse goddess Epona 'divine mare', a peculiarly Celtic aspect of the IE transfunctional goddess who enjoyed wide popularity among the Celts as well as subsequent Roman cavalry units. She is easily recognized in myth as the Welsh goddess Rhiannon (from *Rigantona 'divine queen') and the Irish goddess Macha. Pagan iconography in Gaul and Britain show this goddess seated on a horse just as Rhiannon is introduced in the beginning of the Mabinogi, the principal source of Welsh mythology. Interspersed throughout that work are references to horse-like behavior by this goddess which makes her identification with Epona compelling.

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DIVINE TWINS

Mabinogi. Rhiannon bears a son, Pryderi, who disappears immediately and is raised by foster parents together with a magic colt born on the same night. This sort of simultaneous equine birth occurs also in the tale of the birth of the Irish hero, Ca Chulainn. In another tale, the Irish goddess Macha is forced, in an advanced stage of pregnancy, to race against the Ulster king's fleetest horses. As expected, this horse goddess wins the contest but prematurely gives birth to twins, who immediately disappear from the narrative. Thereafter the ancient capital of Ulster, the site of the race, was called *Emain Macha* 'Twins of Macha'. Another tale in the Irish Dindsenchas connects Macha with the construction of Emain Macha. Archaeological investigations of this site (Navan Fort) have disclosed that around 100 BC, a huge temple structure was erected there. Its name and the mythical tradition linked to it suggests that the Divine Twins may have been worshipped at this site.

Mabon 'divine son' (cf. Gaulish Maponos, and the Irish god *Mac ind Og* 'the young son'), a Welsh mythological figure who also disappears just after his birth, gives his name to the *Mabinogi*. In addition to Pryderi and Mabon, tales in the *Mabinogi* deal with the divine brothers under another name: the children of Llyr. These are *Bran* 'crow', Manawydan and their sister, *Brannon* 'white crow' (swan?). In the first tale, the brothers rescue their sister from her abusive husband after first crossing the Irish sea, a plot which conforms to the "rescue by sea" formula. In a second tale, Manawydan appears with Pryderi as his partner and with Rhiannon acting as their consort. In this confusing tale, the brothers assume the roles of itinerant craftsmen, wandering about and engaging in numerous trades and agrarian pursuits which emphasize their manifold functions. Ultimately, Rhiannon and Pryderi are abducted and eventually rescued by Manawydan.

Counterparts for the Welsh divinities Bran, Manawydan, and Mabon are found in Irish mythical figures of *Bodb* 'crow', *Oengus mac ind Og* 'the young son', and *Etain* 'the white shoulder' (swan?). In another tale, *Bodb* is chosen king but *Manannan* exercises the kingship. Manannan conspires with *Oengus* to trick the Dagda into giving Oengus the fairy mound, Bruig na Boinne. On a joint cattle raid, Manannan and Oengus capture a brace of magic cows whose milk has curative properties. Manannan institutes the "Feast of Age" which fends off sickness and age from the Túatha Dé Danann and Oengus hosts it at Bruig na Boinne. Manannan and Oengus are called to cure *Eithne* of her wasting sickness.

Even by the standards of Irish mythology, Manannan's horses are conspicuously famous. His healing skills are renowned. He is called the 'son of the sea' and in the late pagan period, replaces Tethra as the god of the sea. His kingdom is the Isle of Man but his mythical abode is *Emain Ablass* 'Twins of the apple trees', generally regarded as the Land of Promise, the Celtic realm of the dead. Mythologists stress that Manannan mac Lir and Oengus appear among the Túatha Dé Danann but are not one of them. This outsider role reflects the Divine Twins' membership in the ideological Third Function which sets them apart from the primary gods and allies them with chthonic and fertility gods of that order. As elsewhere, these Irish gods are better understood in light of their Indo-European origins.

**Germanic**

Evidence for the IE Divine Twins among Germanic speaking peoples is dispersed over 1500 years and across central and northern Europe. A composite picture drawn from these data lacks the coherency of the other traditions. For example, middle and late Bronze Age rock carvings in Scandinavia repeatedly feature solar discs in conjunction with both chariots, ships, pairs of figures, and aquatic birds. Half a millennium later, in the Germania, Tacitus reports that a Germanic tribe, the Naharnavali, dwelling near present day Wroclaw in Poland, worshipped a pair of youthful, twin brothers which Tacitus regards as close equivalents of the Roman Castor and Pollux. He also remarks that they are administered to by priests in female attire.

Almost a thousand years later, at the dawn of the Christian era in Scandinavia, the bulk of the Norse myths and legends...
were recorded which provide the preponderance of information about Germanic mythology. In these myths, figures readily recognizable as the Divine Twins are not found. Instead, a triad of deities comprising the god, Njörðr, his son, Freyr, and his daughter Freyja, have been identified as the greatly evolved IE Divine Twins and their consort. They are all chthonic, fertility deities, belonging to the Vanir branch of gods. Careful examination reveals a number of compelling qualifications. Both Freyr 'Lord' and Njörðr possess strong associations with horses and the sea. Njörðr is the patron of sailors and Freyr possess the magic collapsible ship Skíðblaðnir which is the official ferry boat of the gods. Freyr has the strongest solar characteristics of all the Norse deities. In the *Skíðismal*, Freyr becomes sick with love for Gerd, a maiden so white her radiance lights up the sea and sky. Having had only glimpses of her as he sat in Øinn's seat on the heights of Åsgard, he sends his servant, *Skírnir 'Bright One'* to woo her. This theme of the love sick god and his helper searching for a distant consort follows very closely that of the Irish tale, "The Dream of Oengus". Like Manannan mac Lir, Njörðr and Freyr are associated with not only the sea, but the land of the dead and the apples of immortality.

In Norse myth, horses are also engaged as celestial traction animals: *Skinfaxi 'Shining Mane'* draws the sun's chariot while *Hfrifaxi 'Frost Mane'* pulls the moon's. Both these bodies are associated with the goddess Freyja. The most famous horse in Norse myth is Sleipnir, Øinn's eight legged steed. As told in the *Prose Edda*, Sleipnir's birth is connected with the building of the Walls of Åsgard, for which a giant demands Freyja, together with the sun and moon, as payment. Elements of this story recall the Celtic horse goddess and birth of the Divine Twins viz. the demand for the goddess by an unwanted suitor and the seduction of the builders. Instead of a twin birth, in the Norse tale Sleipnir is born with an extra set of legs, thus representing an original pair of horses. Like Freyr and Njörðr, Sleipnir is responsible for carrying the dead to the otherworld.

Early Germanic legends are salted with the appearances of Divine Twin-like heroes. For example, the kingdom of Kent was founded by two Anglo-Saxon leaders named *Hengist 'stallion'* and *Horsa 'horse'* whose sister was named *Swana 'swan'*. The consort rescue theme has been popularized in Germanic epic, notably in the jumbled skein of tales comprising the *Volsunga Saga* and the *Nibelungenlied*. Historically, these epics build on the heroic sagas about famous figures and events dating from the period of the Germanic migrations. Accreted to these are an array of themes and motifs drawn from folklore and myth, including the consort rescue theme. An example of this evolution is seen in the Ermanaric legend. Ermanaric was a Gothic king whose kingdom was overrun by the Huns and who subsequently committed suicide around 375 AD. Two hundred years later, the historian Jordanes, using an embellished version of this legend as his source, reported that the defeated Ermanaric seized Sunhild, the wife of an unfaithful vassal, and caused her to be torn apart by wild horses. Sunhild's death is avenged by her two brothers, Ammius and Sarus. By the end of the thirteenth century, this tale had been incorporated by German bards into the saga of the Volsung family In the *Volsunga Saga*, Sunhild is named Swanhiel and, as befits the sister of the divine horsemen, can restrain wild horses with only her gaze. Rescue or revenge of ill-wed sisters (e.g., *Signy, Guðrún, Swanhiel*) by their brothers is so common in these famous Germanic epics that the strength and popularity of the earlier, underlying myth is hard to doubt.

**Baltic**

In the Baltic region, pagan religion survived much longer than elsewhere in Europe. Nevertheless, only a few written records document the religion of the Balts and these date from the fourteenth and fifteenth centuries AD. Because these early chroniclers were often Christian missionaries whose perceived duty was to eradicate pagan belief, their records are neither comprehensive nor coherent. Fortunately, their reports have been augmented by a body of evidence drawn from the native folklore. This material is rich in solar imagery and corroborates early ethnographer's accounts of sun worship by the pagan Balts. Also forthcoming is evidence of a strong and remarkably conservative tradition associated with the Indo-European Divine Twins.

Named Dieva dēli (Latvian 'sons of god') or *Dieve sunehai* (Lithuanian 'sons of god'), this pair of handsome youths are an exact equivalent of the Greek *Dioskouroi*. Lith Dievas, the Baltic Sky god, is the linguistic cognate of Greek *Zeus*, *Dyāus*, and Roman *Jupiter*. He and his two sons are closely associated with Latv *Saules meita 'Sun's daughter'* and *Saule 'sun'*, the Baltic Sun goddess, whose name is cognate with Greek *Helios*. Although Dievas does not appear to figure among the principal gods in the early accounts, he together with Saule and the Divine Twins enjoyed tremendous popularity in the folk tradition.

Latvian folk songs, called *dainas*, are replete with the adventures of the Sun as she rolls across the sky. At the end of the day she rests in the waters to the west. Here, she washes her pair of solar horses in the sea after their daily travel and ties them to the sun tree, the Baltic *axis mundi*, which is identified variously as a linden or an apple tree. This island in the west is also the place to which the dead travel and where they reside: the Baltic otherworld.

A favorite theme in the *dainas* is the rescue of the Sun, as she sinks beneath the waves, by the *Dieva dēli* who row to save her in a golden boat. Preserved in these songs is an extremely ancient archetype of the consort theme.

**Greek**

Despite strong influences from older Mediterranean cultures which tend to obscure its Indo-European roots, ancient Greek religion provides a remarkably clear picture of Indo-European Divine Twins. Their best known manifestations are the demi-gods, Kastor and Polydeukēs.
However, vestiges of other, archaic reflections allow precious insights to their development.

Greek solar imagery begins with the god Ἡλίος 'Sun' and his sister, Ἑός 'Dawn', who become in the course of the day, Ἑμέρα 'Day' and Ἡσπέρα 'Evening'. Ἑός' chariot is drawn by the two horses, Λάμπας 'Torch' and Ψαθήθων 'Shining one'. Ἑός accompanies her brother in his solar chariot across the sky. At the end of the day, on the Islands of the Blessed in the western ocean, Ἡλίος pastures his solar steeds. Later they return to the east sailing Ἡλίος' golden ferry boat along the ocean stream. Here again is the IE grouping of the Sun god and his sister, and the equine pair. In addition, associations with the Island of the 'Blessed' (i.e., the dead), the sea and sailing are demonstrated.

The Greek Divine Twins' relationship with the solar ponies is more than circumstantial. Καστόρ and Πολύδευκης have strong equine associations: they are known as great horsemen and bear monikers such as ἕυπποι 'good horsemen', λευκύπποι 'white horses', λευκόπαλοι 'white colts' and even λευκό πόλος Δίος 'Zeus' white ponies'. The use of πόλος 'colt' here stresses their youth, as does their most commonly used collective title, the Dioskouroi 'Zeus' youths'. This title also reveals their relationship with the Indo-European Sky god and sustains their comparison with their counterparts in other IE traditions.

Καστόρ and Πολύδευκης are also connected with maidens who have suspiciously solar characteristics. Their sister is Ἡλένη, who hatched from a swan's egg and whose father, Zeus, engendered her in the form of a swan. Etymologically, Ἡλένη's name is related to the Greek Sun god's, Ἡλίος. Καστόρ and Πολύδευκης abduct and marry the sisters, Ηλαῖετα 'Shining' and Φοῖβη 'Bright one' who are known collectively as the Leukippides.

Two other themes recur in tales of the Greek Divine Twins: water and rescue. The twins are called 'rescuers' and are the patron deities of sailors whom they save from shipwreck and to whom they can send favorable winds. Conforming strictly to the proto-type, they are famous for the rescue of their sister, Ἡλένη, after she is abducted by Τήσευς and Πηρίθους and hidden away in a remote village in Attica. Abduction and rescue are recurrent events in the careers of the twins and their sister. For example, the first work of western literature, the Iliad, involves Ἡλένη's abduction by Paris and her rescue by the brothers, Μενέλαος and Αγαμέμνων.

Hippomorphism, solar imagery, and twin births typify the Dioskouroi's lineage as far back as Hellen, the mythical ancestor of the Greeks. Thus Hellen's son, Αἰολός, seduces Θέα who is later changed into the mare Euippe. In this form, she gives birth to Μελανίππη 'Black mare' who in turn is seduced by Poseidón. When her foster father discovers her pregnancy, he blinds and imprisons her in an empty tomb where she gives birth to twin boys who are named Αἰολός and Βοιώτος 'herdsman'. Αἰολός becomes a sailor and settles on the island of Lipari, where he serves as the guardian of the winds. As kings of Sparta, the Dioskouroi abduct and marry their cousins who are betrothed to the kings of Messenia, the twin brothers Ιδάς and Λύνκεος. This farrago of horsey twin births, abduction, rescue, and seamanship is the Divine Twin myth bumping into itself as the tutelary gods and tales of early Greek tribes were consolidated into a greater Greek tradition. Καστόρ and Πολύδευκης' rivalry with Ιδάς and Λύνκεος reflect the ethnic conflict between Sparta and Messenia. The ascendance of Sparta as a major political and military power in Greece assured Sparta's διοσκουροί the dominant mythological position.

**Indo-Iranian**

When the Indo-Aryan tribes moved south across the Iranian plateau early in the second millennium BC, their cultural inventory included a refined skill in horse handling and chariot warfare. To the great empires of western Asia, Egypt, and the Levant, chariot warfare represented the latest technology in the Bronze Age arms race. By conquest or contract, Indo-Aryan speakers were entrenched by the fifteenth century BC in the kingdom of the Mitanni which stretched across northern Syria and from the Mediterranean to the Zagros mountains. In a treaty between the Mitanni and the powerful Hittite kingdom to the north, the names of numerous Mitanni gods were invoked. Among them was the earliest recorded name of the Indo-European Divine Twins: Na-sa-at-tya.

An almost identical name, Násatyā, appears later in the verses of the Rgveda where it refers to the Indic Divine Twins. Allonyms for these two Indic gods include Divo napatah 'sons of Dyaus', asvinah 'horsemen', and dasrāh 'wonder workers'. In the Vedas, references to the Twins' acts of healing and rescuing are numerous and these themes were readily transposed in epic, legend, and folklore. Another frequent theme is their role in fertility where they implant the seed (of man or beast) and it has been suggested that they are to be associated with paired male sexual organs, i.e., the testicles. However, their celestial origins are also well attested. Their father, or perhaps grandfather, is Dyaus, the ancient Indic Sky god. As in the other Indo-European traditions, this relationship is genealogically complex, incorporating Usas 'Dawn' (etymologically related to Greek Εὕς and Latin Aurora) and Naktā 'night' who were known collectively as Divo duhitaḥ 'daughters of Dyaus'. Jointly, these goddesses bear Sūryā, the Sun god and father of the sun maid, Sūryā. The latter is the joint wife of the Divine Twins. The Sun god is the solar charioteer and the wheels of his carriage are the sun. At dawn, the Twins yoke the horses to the golden chariot and Usas, the Dawn goddess, is born. With the sun maid, the Twins accompany the sun on his daily course.

Transpositions of the Divine Twins occur in the major Indian epics, the Mahābhārata and the Rāmāyana, both of which are traced back to the first millennium BC. In the former, the twins appear as Nakula and Sahadeva, twin boys who, with their more important half brothers Yudhīstīra, Bhima, and Arjuna form the famous Pāṇḍava family.
Throughout the *Mahabharata*, the twins play a secondary role commensurate with the minor status of their divine congeners and exhibit similar behavioral characteristics.

At the heart of the *Rāmāyana* is the divine Twins' popular search and rescue theme. Rāma leads his brother, Lakṣmana, and wife, Sītā, into exile in Dandaka forest. Sītā is abducted by the demon Rāvaṇa to his island kingdom, Lanka (Sri Lanka). Together with his brother, Rāma effects a rescue across the sea. In all, the *Rāmāyana* combines many of the elements found in the later Welsh tales (e.g., "Branwen Daughter of Llyr" and "Manawydan Son of Lyr") and demonstrates convincingly the antiquity of this theme.

The reforms of Zarābxtstra transformed at least one of the original divine Twins into a demon where Nāsātya (= Vedic Nāsatya) is explicitly represented as a demon. Nevertheless, the original dualism was replicated in the abstractions *Haurvatat* 'wholeness' or 'health' and *Amaratat* 'deathlessness' who are associated respectively with waters and plants, features that may be related to their herbal healing techniques reflected more clearly in Indo-Aryan myth.

**Patterns**

The genesis of the divine Twins can be sought in Indo-European cosmology. Associating a pair, or better, a matched pair of perfect horses with the solar wheel and the celestial deities representing the diurnal cycle would have occurred at a very early date, if we use wheeled transport and horse traction as a *terminus post quem*. Anthropomorphized, the shining youths' birth and adventures with their celestial companions would likely have soon become a standard component of the mythological repertory.

It is also reasonable to speculate that the cultural importance of the horse among Indo-European groups, especially among what might be called the nobility, was at least partly responsible for the widespread popularity of these two otherwise minor deities. Conversely, their links with agrarian pursuits, healing, and romantic adventures surely made them popular with the common folk. Evidence for their worship can be found from Scandinavia to the Near East as early as the Bronze Age. If the mythological evidence can be relied upon, their importance in the pre-Christian pantheons grew over time. In both Scandinavia and India, specific myths relate how the Divine Twins were admitted into the ranks of the older Indo-European gods and serve to document their growing popularity.

The relationships between the gods forming the solar constellation, including the Divine Twins, the Sun god (or goddess) and the astral goddesses vary only slightly among the different traditions. Always appearing at the head of the family was the Indo-European Sky god, *djeus*. The traditions are equally insistent that the Divine Twins are his offspring and that they are young. This is true even where their worship had been adopted by the non-Indo-European Etruscans, who knew them as *Tinas Clener* 'sons of Jupiter'.

Whatever the implications the notion of the evening sun sinking into a western sea has for Indo-European homeland theories, it cannot be disassociated from the Divine Twins' special nautical skills. Their reputation as sailors undoubtedly stems from their part in the celestial crew navigating the golden sun-boat through the night to their home in the east. Because the crossing of water is integral to many of the consort rescue themes, it is probable that the rescue theme is also rooted in this cosmological belief. Whether the connection between the solar gods and waters, especially thermal springs, may have contributed to the Twins' reputation as healers is moot. We know that this reputation is both ancient and strong, occurring as it does from Celtic regions in the west to Vedic tradition in the east.

Uniformly, European traditions held that on an island in the western sea the solar deities rested after their daily journey. That this island was also identified as the islands of the "Blessed", possessing magic apple orchards where the dead rested after their own "labors" ended, may have been the conflation of separate themes. Whatever its origin, the connection between the Divine Twins, the sea, magic apples, and the dead is so similar in Celtic, Germanic and Baltic myth that it may well be a later development among western Indo-European groups.

**Further Readings**


**DJEITUN CULTURE**

The earliest appearance of domesticated plants and animals and village settlement southeast of the Caspian is associated with the Djebitun culture. The culture dates to approximately 6000–5000 BC. Settlements were small villages occupying from one to two hectares; a completely excavated level at Djebitun itself revealed some thirty houses constructed of mud bricks, painted walls and lime-plastered floors. Internal hearths are also very characteristic of the dwellings. Material culture included pottery and flint tools, particularly sickle blades and grinding stones. Plant remains include wheats such...
as spelt and bread wheat (*Triticum aestivum*) as well as barley. Sheep and goats dominate among the domestic animals with evidence for cattle domestication occurring late; among the hunted animals were gazelles, wild boar and traces of onager. A feline is depicted on a wall painting from a large room at Pessedjik-depe which has been variously interpreted as a club-house or temple. Within one of the settlements were found a number of graves covered with red ocher.

The earliest remains of the Djeitun culture already indicate a mixed agricultural subsistence basis and it is clear that the economy was imported to the region rather than marking a transition from hunting-gathering to agriculture which is more likely to have occurred in northern Iran. Djeitun and the cultural sequence it initiates remains linguistically anonymous although it is highly unlikely that it was part of the linguistic continuum that led to Proto-Indo-European. Nevertheless, by c 2000 BC, many would argue that the Bronze Age villages and urban centers of the region played a critical part in defining the origins and dispersals of the Indo-Iranians in southern Asia.

*See also BMAC; Indo-Iranian Languages; Namazga. [J.P.M.]*

**Further Reading**


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**Dnieper-Donets Culture**

The Neolithic Dnieper-Donets culture of the Black Sea region flourished in the fifth and fourth millennia BC. Settlements of the culture are not well known but include semi-subterranean huts, and the economy of the population, at least in its earliest phases, was primarily based on fishing and hunting (aurochs, elk, red deer, roe, wild pig, onager, etc.). Domestic plant remains have also been recovered and these comprise wheat (*Triticum monococcum, T. dicoccum*), millet (*Panicum miliaceum*) and pea (*Pisum sativa*). Examination of the dentition of the Dnieper-Donets populations suggests that their diet was primarily high protein foods (meat, fish, nuts) and that the component provided by plants was minimal although there is some chemical (stable isotope) evidence from skeletal remains to suggest the consumption of plants. The importance of such information lies in the fact that the Dnieper-Donets culture, through the course of its existence, marks a transition from hunting-gathering to an agricultural economy.

The culture is best known from about thirty cemeteries which have so far yielded about eight hundred individuals. Burials are sometimes found in individual graves but more often in large grave pits in which the deceased were periodically placed and covered with ocher. The physical type of the Dnieper-Donets population has been termed "proto-
Europoid", a variety which was considerably larger and more massive than their neighbors elsewhere in Neolithic Europe. Some physical anthropologists have associated the Dnieper-Donets population with Mesolithic peoples of northern Europe.

The Dnieper-Donets culture has parallels in the middle Volga region in the so-called Samara culture and has suggested that already by the fifth millennium BC there was a broadly similar cultural horizon stretching from the middle Dnieper eastwards to the middle Volga. This is a region which is also associated with the earliest IE homeland according to the "Kurgan theory" and the role of the Dnieper-Donets culture has been the subject of some debate. In the Kurgan model, the Dnieper-Donets culture has been cast as a pre-IE population absorbed into the PIE community with the expansion of steppe pastoralists to the west. Its contribution, according to this model, may have been genetic, i.e., the massive physical traits of its population persisted among later cultures, but not linguistic. On the other hand, its distribution and connections with more easterly cultures might also suggest that it provided the initial foundation of the later so-called Kurgan tribes. Furthermore, its distribution, which extended to the upper reaches of the Dnieper, a territory whose river names have been ascribed to the early Balts, and its links with contemporary cultures of northeastern Europe, have also prompted its identification with the later (IE) Baltic populations.

See also KURGAN TRADITION; SAMARA CULTURE; SREDNY STOG CULTURE. [J.P.M.]
Further Reading


DO see MAKE

DOG

*K(l)uon (gen. *Kunus) 'dog (Canis familiaris)' [IEW 632–633 (*Kyon); Wat 34 (*kwon); Gl 505 (*Kphon); Buck 3.61; BK 652 (*Kphon; *Kphon)]. Olr cft (gen. con) 'hound', cufiten (< *kuneno- by dissimilation) 'young dog', Wels cft 'dog', colwyn (< *kuneno- by dissimilation) 'young dog', Lat canis 'dog', OPrus swnis 'dog', Lith šuo (gen. šuris) 'dog', Latv suns 'dog', Rus suka 'bitch', Grk kūon (gen. kūvoς) 'dog', Arm šun (gen. šan) 'dog', Hit Kkuwan/-Kun- 'dog-man', HierLuv zū-wa-t-n(i)- 'dog', Av spa (gen. spano) 'dog', Olnd svā (gen. svānās) 'dog', Tochā ku (acc. kom) 'dog', Tochē ku (acc. kwem) 'dog'. Enlarged by *-to- we have ON hundr'dog', OE hund 'dog' (> NE hound), OHG hunt 'dog', Goth hund's 'dog', Lat sūntena 'large dog' (deprecatory), Arm skund (< *Kunentu- 'small dog'. Widespread and old in IE. It may have been suggested (not very likely) that *Kunon reflects an older *pku-ôn 'of the sheep' (i.e., 'sheep-dog'). However, one might expect some trace of the initial *p- in some descendant and, in any case, *pēku seems not to have meant specifically 'sheep'. It has also been suggested that *hēkūos 'horse' is a thematic derivative, with new full-grade, of this word but both the morphology (a new full-grade at the absolute beginning of the word) and the semantic distance (although some American Indian tribes did employ the word for 'dog to the newly introduced horse) make such a derivation rather unlikely.

??(s)koli 'young dog'. [IEW 550 (*skol-); Buck 3.612]. OPrus scalenix 'setter, pointer', Lith kāle 'bitch', skalikas 'hound, hunting dog', Alb kelysh 'young dog', Grk σκυλάς 'young dog, young animal', (Hesychius) κύλλα 'young dog', Arm c'ul 'young steer'. This is a most doubtful grouping. If all the words assembled here do actually belong together, then we have evidence at most for a late word of the center of the IE word.

The dog is the earliest domesticated animal and derives from the wolf (Canis lupus). The process of domestication began by c 10,000-8000 BC and from the Mesolithic onwards the dog is known widely across Eurasia and its remains are relatively abundant on archaeological sites, often in the range of 2 to 5% of all individuals, occasionally much more. Either to assist in hunting or, in agricultural societies, to guard the flock or herd or drive away wild deer from crops, the dog has been indispensable. From an archaeological point of view, the Proto-Indo-Europeans must have known the dog but it is striking that other than the basic word, there seems to be a relative dearth of reconstructable terms pertaining to it (cf. 'wolf' where we can reconstruct a word for both the male and female or the variety of terms for cattle, sheep, and goat).

Although the basic lines of the modern breeds may have emerged only with the late Bronze Age or Iron Age, i.e., c 1000 BC, there were different types of dogs from the fifth millennium BC onwards which, at least in size and probably in other forms of appearance, might have called for different terms.

Words for 'dog' in some IE stocks may also indicate the 'wolf', e.g., Olr cūt (allaud) 'wolf' (< *wild dog'), Olnd svaka-'wolf' (but Av spaka-'of a dog'). In these instances, the dog participates in the extensive complex of myth and social behavior which associates wolves with warriors.

See also Bark 2 ; Death Beliefs; Hell-Hound; Mammals; Maykop Culture; Sintashta; Wolf. [D Q A., J. P. M.]

Further Readings


'court', Olnd dvāram 'door, gate, passage'. Certain PIE status for a word designating 'door' or 'gate'. That both the word for 'door' and 'doorjamb' show archaic morphology and no known root connections strongly suggests the antiquity of these objects in PIE culture.

This set of terms provides the essential elements of the IE 'door', a set of jambs and (usually) two doors, the word for door itself often appearing in the dual or plural. A door set to swing from jambs may be postulated for most areas of Eurasia from the beginning of the Neolithic (c. 7000 BC) onwards. In some instances in southwest Asia, however, at sites such as Çatal Hüyük which has been advanced by some as a "typical" PIE settlement, the entrances to the rooms would have been through the ceilings rather than the walls of the structures. In the early historic period there is evidence for the re-use of earlier door-jambs, structurally one of the most solid components of a house.  

See also House. [A.D.V., J. P. M.]

DOR Mouse see MOUSE

DOVE

The distinction between 'dove' and 'pigeon' is not entirely clear in English, and numerous European languages lack separate terms for each. In English, the slender Columbidae are called 'dove', especially the white dove. It is likely though that the white dove is a later arrival in Europe, being noted first in Greek in the fifth century BC. The various IE stocks support numerous and apparently unrelated terms. OIr colman 'dove, pigeon' and Wels colomen 'dove, pigeon' are possible loans from Lat columba 'pigeon' while palumbus is almost always the 'ring dove, wood pigeon, Columba palumbus'. In Baltic we have Latv balodis 'dove, pigeon' while Albanian provides vida 'male pigeon, vide 'female pigeon'. Grk κόλυμβος 'waterbird, especially the grebe', is clearly related to lat columba but does not share the same semantics. Armenian has alawni 'dove, pigeon'. In Old Indic there is no distinction between dove and pigeon; the Rigveda has kapota- 'dove, pigeon' while it is not clear if pāravata- is only the pigeon. Other than the semantically unrelated cognates in Latin and Greek, there is no continued term for 'dove' or 'pigeon' in Indo-European. See also Birds. [J. A. C. G.]

DOWN

*ni 'downwards'. [IEW 312 (*ni-); Wat 45 (*nii). OIr ne 'down', ON níðr 'under', OE neder 'under' (> NE nether), OHG niedar (Gmc < *ni-ter-) 'under', OCs nizò 'down', Arm ni- 'down, back, into', Olnd ni 'down'. Widespread and old in IE.  

*kat-h3e 'down'. [cf. IEW 613 (*kpta); cf. Wat 27 (*kat-)]. Grk κάτο 'down; through, among; according to', Hit kuatu 'down, by, whth, under'. Cf. Hit k̪at̪at̪īya- 'kneel, go down', TochB kdt- (< *kat-sketo-) 'to lower', kātkē 'deep'. Grk κατά 'has sometimes been connected with OWels cant 'with', MWels gan 'with', and OIr cēt- (a verbal prefix) but the -n- of the Celtic forms makes any comparison with the Hittite or Tocharian words very difficult.  

See also Adpres. [D Q A ]

DRAGON

*dfk- 'dragon'. [IEW 213 (*derk-)]. Mlr muir-dris (< *dfkis(h)>) 'sea-monster', Grk δράκων 'dragon', δράκατων 'she-dragon'. The apparent agreement of Old Irish and Greek, even though morphologically that agreement is only partial, is at least suggestive evidence for the shape of the PIE word for the mythical creature that places so prominent a role in IE legend. From *derk- 'see' from the dangerous, potentially lethal, gaze of dragons (e.g., Greek gorgons).

See also Animal, Poetry, Snake, Three-headed Monster. [D Q A ]

DRAW (WATER)

*h2eu(h2) - 'draw water'. [IEW 90 (*aus-); Wat 4 (*aus-)]. Lat haurīo (with secondary h-) 'draw water', On ausa 'draw water', Grk άλος 'take fire to', Palaic hussiya- 'pour'. Phonologically, this set is unproblematic but offers an interesting semantic shift in Greek where fire replaces water. Perhaps this relates to the IE myth of "fire in water" where the Indo-Iranian god Apām Nāpāt, who is characterized by fire, lives in water and the Irish story of the well of Nechtan which emits a blast of heat or light if anyone but its owner attempts to draw water from it.  

*h2en- 'draw (liquids)'. [Wat 2 (*an-); Puhvel 3.76–77]. Grk ἄνθεε 'bilge-water', ἄνθεε 'bale (out)', Arm hanem 'draw out, remove', Hit han- - hanye- 'draw (liquids)'. Though attested only in Hittite, Armenian and Greek, it would appear likely that we have here a PIE word.  

*sem- 'draw water'. [IEW 901–902 (*sem-)]. OIr do-essim ('to-ess-sem') 'pours', Lat sen-tina 'sewer', Lith semši 'ladle, draw (water)', Grk ἀνωτί 'gather, collect, ἄνωn 'bucket'. Old Irish, Latin and Lithuanian correspond well enough to reconstruct this root at least to western IE. The Greek form is more dubious. Possibly an original meaning 'draw water' could have served as the basis for 'bucket' which in turn could have underlain the verbal form 'place in a bucket', or, more generally, 'gather'. Alternatively, if the Greek verb is not based on a nominal form, the meaning 'draw water' could simply have become generalized to 'collect (objects)'; it is worth noting that in Homer the verb is used to describe collecting milk.  

See also Fire in Water. [M. N.]

DREAM

*h2en- 'dream'. [IEW 779 (*oner-); Wat 46 (*oner-); GI 205 (*Hner- ~ *Hner-); Buck 4.62]. Alb ender 'dream', Grk
DREAM

*DROGH* - 'dregs'. [IEW 251] (*dhera-gh-*) ; Wat 13 (*dher-*) ; BK 76 (*dur-/dor-*) ; ON dregg (*draf-jo*) 'dregs (borrowed > NE dreggs)', OE dæst(e) 'dregs', OHG tresir (< West Grim *drazst*) 'dregs', OPrus (pl.) dragios 'dregs', Lith (pl.) drageis 'dregs', Latv (pl.) dradzis 'dregs, grounds, lees'. Perhaps also Lat (pl.) frac'es 'dregs', if the -c- is from fracceso 'grounds, sediment, dregs' or flocces 'dregs of wine' but the a < *a still remains difficult. To be rejected is Lith dregnas 'humid' as it indicates *g and not *gh (Winter-Kortlandt Law), also Grk θαρσος (< *dhθh-gh-) 'trouble, destroy' is impossible. Cf. ON draf 'dregs', etc. See also BEER. [R.S.P.B.]

DRENGS

*hegg- 'drive' (pres. *hegg-). [IEW 4] (*ag-*) ; Wat 1 (*ag-*) ; Gl 61 (*ak-*) ; Buc 10 64/65; BK 397 (*hek-/*hek-*) . OIr ad-aig 'drive', OWelsg agit 'goes', Lat agò 'drive, lead', ON aka 'travel', Grk ἥγει 'lead', Av azaiti 'drives', Olnd ajati 'drives', TochAB ak- 'lead'. Cf. the derivative *heggmen-: Lat agmen 'that which is driven', Olnd ajman- 'career, passage, battle'. The primary word for driving cattle which also includes riding for cattle, e.g., Olr tain (pre-Irish < *to-ag-no-* hó 'cattle raid', Lat bovès agere 'to drive or raid for cattle', Av gav varṣṭam az- 'drive off cattle (as) booty'. Widespread and old in IE. See also Lead1, LEADER, RIDE, WAGON. [D.Q.A.]

DRIE

*hegg- 'drive'. [IEW 48] (*kel-*) ; Wat 28 (*kel-*) ; BK 248 (*k̩l̩-pal/k̩l̩-pal-*). Lat celer 'swift', Grk κέλλω 'drive (a ship to land)', κελής 'swift', (Hesychus) κολέο 'go', Olnd kalayati 'impels, bears, carries, does', kalayati 'impels'. Cf. ON halda 'hold', OE healdan 'hold' (> NE hold), OHG haldan 'hold', Goth haldan 'pasture cattle', TochB kalto- (< *k̩l̩-jo-*) 'press, goad, drive'. Reasonably widespread and certainly old in IE.

*dreibh- 'drive'. [IEW 274] (*dreibh-*) ; Wat 15 (*dreibh-*) ; Buc 10 65.; ON drrfa 'pull', OE drifan 'drive, hunt' (> NE drive), dræf 'herd' (> NE drive), OHG drifhan 'put to flight', Goth dregiban 'drive, push', Lith dirniub 'slowly drop down'. Cf. the Lithuanian phrase snigas dirniba 'the snow falls thickly' = ON p̩a drrfa snær. A dialectally restricted word of the IE northwest. See also Lead1, LEADER, RIDE, WAGON. [D.Q.A.]

DRIE

*hegg- 'be/become dry'. [IEW 68] (*as-*) ; Wat 3-4 (*as-*) ; BK 381 (*has-/haso-*) . Lat aëreo 'am dry', aéra 'heath', Osc aasai 'in the hearth', ON arinn 'hearth', aska 'ash', OE asca 'ash', OHG asca 'ash', essa (< *asoni) 'chimney', Hit hasan 'hearth', hás 'ash', Omruri yának (< *asika-) 'ash', Olnd ãsa- (< *h2s0-?) 'ash, dust', TochAB âs- (< *h2as-) 'become dry'. To this series may probably be added: Goth ažgō (with -gh-) 'ash', Czech ozditi 'dry malt', Grk αύξομαι 'become dry', Arm azazim (< *h2ges-gh-?) , eliwn (< *h2es-g-) 'ash'. The underlying semantic development is clearly 'dry' > 'dust, ash' > 'ash-place, hearth' and is unconnected with 'burn', e.g., Lat ardeo 'burn' < ardus 'dry' and not the reverse.

*hegsu- - *hegsuos 'dry'. [IEW 880-881] (*saus-*) ; Wat 56 (*saus-*) ; Gl 512 (*saus-/sus-*) ; BK 168 (*slaw-/saw-*) . Lat sàsus 'dry', OE sær 'dry' (> NE sear), OHG sôrtn 'to dry up', OPrus sausai 'dry', Lith sàsas 'dry', Latv sàssus 'dry', OCS sàclu 'dry', Rus sukhóy 'dry', Alb thaj (< older and dialectal than) (< *sau稍稍) 'to dry up', Grk αὔζω (< *atùhos < *h2susos), Av haes- 'wither away', Olnd sus- 'become dry'. The underlying meaning seems to be adjectival. Perhaps *hegsu- is from the perfect participle of the previous root. Both words are widespread and assignable to PIE.

*kseffros 'dry (of weather or land)'. [IEW 625] (*kse-ro-*) ; Wat 33 (*ksero-*) . Grk έρημός 'dry (land)', ξηρός 'dry, dried up', Olnd ksàra- 'caustic, burning'. Other cognates have been suggested such as Lat serènus 'dry, clean', OHG serünen 'become weak', Arm cér 'dry', TochA k̩sr̩ 'in the morning' but each of these are problematic. At best, the Greek and Old Indic forms may reflect parallel formations from PIE *kseff-h- 'burn, singe'.

*senk- 'make/become dry, singe'. [IEW 907] (*senk-*) ; Wat 58 (*senk-*) . OE sengan (< *sangan) 'singe', MHG sungen (< *sŋk-) 'singe', OCS pre-soči 'make dry'. Probably from *sek- 'dry up', cf. Lith senku 'dry up', secondarily 'singe' in German.

*ters- 'dry'. [IEW 1078-1079] (*ters-*) ; Wat 70-71 (*ters-*) ; Gl 39 (*ter-s-) ; BK 99 (*t̩r̩l̩ar-/*t̩r̩l̩ar-*) . Lat tòrrè 'dry', ON þerra 'dry', OHG derren 'to let dry', Goth paursus 'withered', Alb ter (< *torsejëo) 'dry off', Grk τέρσωμαι 'become dry', Arm t'armitt 'wilt, fade', Olnd t'syati 'thirsts' possibly OIr tir land', tirn 'dry' (< *tèrs), Lith tirstas 'thick, viscous, turbid (of clouds, rain, etc.). The same root also provides *tisus/*tisos 'dry'. OIr tart 'thirst, drought', Lat tórrus 'dried out', ON þurr 'parched', OE þyrre 'dry, withered', OHG dürri barren, arid, parched, drought', Goth þairsjan 'to be thirsty', Av tarsu- 'dry', Olnd t'si 'greedy, destrous, vehement'. The root *ters- 'dry' is broadly and securely enough attested to suggest PIE status although the vocalism varies. Further developments in Indic and the northwest may have been post-IE.

*siskus 'dry'. [IEW 894] (*sisk-*) . OIr sesc 'sterile, unproductive (of animals)', Wels hysb 'dry', Lat siccus (with expressive gemenation) 'dry', Av hĩsku- 'dry'. A reduplicated form built from *sek- 'to drain, run off'; possible IE status. See also BURN. [R.S.P.B., J.C.S.]
Further Reading

DUCK

*pado- ‘duck, teal?’. Span pato ‘duck’, SC patka ‘duck’, Arm bad ‘drake’, NPers bat ‘duck’. This root is also known in Semitic, e.g., Arabic bati ‘duck’, and Kartvelian, e.g., Georgian batti ‘duck’ and has been termed onomatopoetic.

The species indicated by PIE ‘duck’, a bird widely known and hunted for its meat, is not certain although the mallard is by far the best attested species. It is ubiquitous across Europe and much of northern Asia with migrations to India, and frequently numbers among bird remains on archaeological sites. There is no evidence, however, that the remains derive from a domesticated variety. The domesticated duck is generally believed to derive from the mallard (Anas platyrhynchos platyrhynchos) and the earliest evidence for the domestication of the duck in the Old World derives from southeast Asia c 3000 BC. Although there are historical references to ducks kept in captivity in ancient Greece and Rome, the earliest solid reference to the domestic duck in Europe does not predate the twelfth century AD. One of the results of domestication was an increase in the size of the bird such that domestic ducks became incapable of flight.

See also BIRDS. [J.A.C.G.]

Further Readings

DUMB see DEAF
DUNG see EXCREMENT

DWELL

*hues- ‘dwell, pass the night, stay’. [IEW 1170 (*yes-); Wat 78 (*wes-), GL 389 (*Hues-), Buck 7.11; BK 368 (*aw/*aw-)]. OIr foulid (< *hueseti) ‘passes the night, dwells’, OL Mod wes ‘be, stay’, OE wesan ‘be, stay’, OHG wesan ‘be, stay’, Goth wasan ‘stay, dwell’, was ‘was’, Grk vikta aitexa ‘I passed the night’, Arm goy (< *hues-) ‘is, exists’, anaim ‘spend the night’, awt ‘night’s rest’, Hit hues- ‘live’, huski- (< *hues-skato-) ‘wait for, linger, procrastinate’, Av vasati ‘dwells’, Olnd vasi ‘dwells, passes the night’, TochB was ‘dwell’, TochB veswa ‘trace’ (< *what lingers after’). Lat Vesta, the goddess of the hearth has been put here but surely belongs with Grk oura – our ‘hearth’, Oura – our, the goddess of the hearth, which must reflect *yes- rather than *hues-. Distribution assures PIE status. The underlying semantics may have derived from a PIE ‘to spend time’ (with an accusative of time) which variously developed into ‘be’, ‘dwell’ or ‘pass the night’.

[A.D.V]

DYE see TEXTILE PREPARATION
EAGLE

*h₃or- 'eagle'. [IEW 325–326 (*er-* or*); Wat 46 (*or*); Gl 455 (*He/or*); Buck 3.64; BK 406 (*hur/-hor*). OIr iar (DIL iar) 'eagle', Wels eyr 'eagle', ON ari ~ pm 'eagle', OE earn 'eagle' (> NE erne(e)), OHG ara 'eagle', Goth ara 'eagle', OPrus areli 'eagle', Latv ērils 'eagle', OCS otrli 'eagle', Rus orel 'eagle', Hit hāras (gen. hāranas) 'eagle', Palaic hāras (gen. hāranas) 'eagle' (Anatolian and Germanic suggest an original paradigm *h₃érōn, gen. *h₃(e)rmos). Other terms are derived from the same root with a meaning other than 'eagle': Myc o-ni-ja-pi 'of a bird', Grk ἄρτος 'bird', MArm urar (< *h₃or-h₃ōr*) 'a raptor, kite', Arm oror 'gull' and ori 'crow, raven'. Geographical spread would seem to insure the PIE status of the word. The IE root for 'bird' *h₃eyei-yields Grk αἴρος 'eagle' while Arm arcw 'eagle' might be derived from IE *h₃eipio- (cf. OInd ṣipitā- 'rising straight up').

The eagle is regarded highly for its strength, but its intelligence and swiftness are considerably surpassed by smaller raptors, the hawk and falcon. The term is used very loosely by some to refer to almost any large soaring bird. The eagle and other raptors are widely spread in numerous species throughout Europe, southwest Asia and India.

In Indic religion, two eagle names, supama- and syena- are mentioned in the Vedas with special reference. The latter term is equally seen to denote the 'falcon' or 'hawk'.

Demonstrable IE myths concerning the eagle are sparse if not non-existent. The most frequently remarked correspondence is the Old Norse Óðinn's use of an eagle to obtain the sacred mead which provides some vague parallel to the Old Indic motif of Indra sending an eagle to fetch the corresponding sacred drink, soma.

See also BIRDS; SACRED DRINK. [J.A.C.G.]

EAR

*h₃ōus- (gen. *h₃eus-s or *h₃usos) 'ear'. [IEW 785 (*ōus*); Wat 46 (*rous*); Gl 688 (*ō(H)os*); Buck 4.22; BK 393 (*haw-/*haw-). OIr *au (DIL o) 'ear', Lat auris 'ear', ON eyra 'ear', OE ēor 'ear' (> NE ear), OHG ōra 'ear', Goth ausō 'ear', OPrus ausins 'ears', Lith ausis 'ear', Latv āuss 'ear', OCS ucho (< *ōusos) 'ear' (usi [pl., historically dual] 'ears, intellect'), Rus ukho 'ear', Alb ves 'ear'. Grk αὖς (Doric ἄς) 'ear' (< *ōusos), (Laconian) αὖς 'ear', Arm unkn 'ear', Av uṣi (dual) 'ears'. Though not attested in either Anatolian (unless one presumes that Hit aus- 'see' is a credible cognate for the word for 'ear', i.e. < *'information receptor') or Tocharian, it is otherwise widespread and the archaic morphology secures its PIE status.

See also ANATOMY; HEAR. [D.Q.A.]

EAR OF GRAIN see GRAIN

EARLY

*h₃eier- 'early'. [IEW 12 (*aier-); Wat 4 (*ayer-); Buck 14.41]. ON är 'early', OE Ær 'earlier, before', OHG ēr 'earlier, before', Goth air 'early', Grk (Homeric) ἄρνοσ 'morning meal', ἡρνος 'of the morning, in the morning', Av ayar (gen. ayan) 'day'. This root ranges semantically over 'morning', 'early', and 'day'. It has a limited distribution among the IE languages, though its representation in three regional stocks and its r/n-root status in Avestan suggests an early IE formation. There is a possibility that *h₃eier- is connected with PIE *h₃ei- that lies behind the extended *h₃eith- 'burn, shine', just as with *deiu- 'to shine' > *deino- = *dino- 'day'.

*p₃ro- 'early, morning'. [IEW 814 (*prō-); Wat 49 (*per); Buck 14.44; BK 41 (*p₃j/or-/p₃j/ar-)]. OHG frō 'early', Grk
Early, in the morning', Olnd prätär 'early'. Based ultimately on the widespread root *per- 'forward, through', from which *prō- is derived, the lengthened form *prō-developed the meaning 'early' independently in a small number of scattered IE languages.

The early part of the day, the morning, is signified in various IE languages by the word for 'dawn', 'before' (cf. Wels cynmar, Grk σποά, 'light' (cf. Hit jukat 'at dawn'), cognate with Lat lax, Goth lihtap, Olnd roc.), and even 'good' (cf. Lat māne 'in the morning' from mānus 'good').

See also DAWN. [PB.]

EARTH

*dheghōm* 'earth'. [IEW 414–415 (*gθatem*); Wat 14 (*θatem*); GI 720–721 (*θ(e)gom*); Buck 1.21; BK 608 (*dag*-/*dag*).] OIr dō (gen. don) 'place, spot', Lat humus 'earth', OPrus semme 'earth', Lith žeme 'earth', Lat veme 'earth', OCS zemljă 'earth', Ahd dhe (< *dheghem*-) 'earth', Grk γῆν 'earth', Phryg χεμλ 'man' or 'earthly', Hitt tekana, taknas 'earth', Av zā, zam- 'earth', Olnd ksā, ksam- (gen. jmāh) 'earth', TočA tkam 'earth', TočB kem. The PIE word for 'earth'. The extension of this root to denote human beings, seen in the Phrygian example above, has many other parallels, e.g., OIr duine 'person', Wels dysn 'person', Lat homo 'man', Lith žmūdų 'person'. The derivation has been variously explained as 'human < *being who lives on the earth' or the belief that humans were created from the earth although here one might have expected a derivation from one of the words for 'dirt', 'clay' or, finally, the concept of 'man' as a microcosm of the earth, cf. creation myths involving the carving up of a giant to form the various parts of the landscape.

*thēr*- 'earth'. [IEW 332 (*er*); Wat 17 (*er*); Buck 1.21; BK 419 (*ar*-/*ar*).] ON jord 'earth', OE eorð 'ground' (> NE earth), OHG erđa 'earth', ero (< *erā) 'earth', Goth airpha (Gmc < *erta) 'earth', Grk ἔδα 'earth'. Perhaps also Wels erw 'field' although it may derive from the root for 'plow' (< *hyrθy-u-i). Uncertain is Lith erdvė 'place', cf. ārdvas, ārdvai, ērdvai, ētās 'wide'. Possibly a late dialectal term of the west and center of the IE world.

See also COSMOLOGY, EARTH GODDESS, GROUND, MAN. [R S FB.]

EARTH GODDESS

The existence of an IE 'Earth goddess', who is juxtaposed with a 'Father Sky', is underwritten by cognate names confined to the Baltic, Slavic, Thracian and Phrygian (Greek) traditions. The Slavic Earth(-mother) goddess, Matt Syra Zemlija ('mother moist earth') is linguistically related with Latvian Zemes Māte, Lithuanian žemyna, Phrygian and Thracian (Attic Grk) Σεμέλη (cf. Indo-European terms for earth: Lat humus; Grk (Attic) χθόν shows metathesis, Hit tekana, Av zam-, Olnd ksam-, TočA tkam, TočB kem. The emphasis on the 'Earth goddess' being 'Mother Earth' is also to be found in other IE traditions, e.g., OE fole, fēa mōdor 'earth, mother of men', Erce, eorpan mōdor 'Earth, mother of earth', Olnd Prthiivi mātā 'Mother Earth', bhāmi-mātā 'Mother Earth'.

Among Slavic peasants, Zemljă was Mother Earth and prophetess. If one dug into the earth and listened at the opening, the earth would make a particular sound if the forthcoming crop was to be good, and a different sound if the crop was to be poor. Peasants settled property disputes by calling upon Zemljă as witness; when oaths were taken, one swallowed a clod of earth.

The name of the Greek heroine Semele is etymologically related to the other IE earth goddesses (though borrowed from some other IE source rather than inherited in Greek); however, her mythology strays far from that of Earth goddess. She bore to Zeus the god Dionysus. Hera was angry with Zeus' and Semele's affair, and she determined to punish Semele. Hera disguised herself and went to Semele; she advised the girl to demand of Zeus that he reveal himself in his true form. Semele did so, and she was cremated by the celestial fire of Zeus. The god took the unborn child and sewed it into his thigh, later giving 'birth' to Dionysus. Both Semele and Dionysus were given immortality.

In addition to linguistically cognate earth-goddesses, a similar function is fulfilled by other deities such as the western Germanic Nerthus. According to the Roman historian Tacitus (Germania 40), a statue of Nerthus was led in ritual procession through a village, and then returned to her temple. Then the "goddess", along with her wagon and robes, was ritually bathed in a lake. The slaves who bathed her were subsequently drowned. Vestiges of this ritual may be represented by the ritual processions of the Roman goddess Nerito, Grk ἄνθή, Olnd nara- 'man' but Edgar Polomé has recently suggested that it is cognate with Grk νεότερος 'lower, belonging to the lower world'.

See also EARTH, GODDESSES, THREEFOLD DEATH; TRANS-FUNCTIONAL GODDESS. [M R D .]

Further Readings

EAST

*ē̄steus(e)ro*- 'east'. [IEW 86–87 (*aus-tero*); Wat 4 (*aus*); Buck 12.45; BK 393 (*haw-/*haw-).] Lat auster (gen. australis) 'south wind, south country', australis 'southern' (whence NE Australia), ON austr'east', OE aünern 'eastern' (> NE eastern), OGH ostar 'to the east', Latv austrums 'east', OCS usträ 'summer', Av vāstara- 'east'. From *ē̄steus- 'dawn'
EAT AND DRINK

*hɛðmi 'eat'. [IEW 287–288 (*-ed-); Wat 16 (*-ed-); GI 603 (*-et-); Buck 5.11; BK 418 (*at-/*at-)]. OIr etar (DIL ighthid) 'eats', Lat edo 'eat', ON eta 'eat', OE etan 'eat' (> NE eat), OHG ezzan 'eat', Goth iatan 'eat', OPrus ist 'eat', Lith ėdu 'eat' (3rd sg. ėstį), Lat ėdu 'eat', OCS jamě (*hɛdmi) 'eat', Grk ėdo 'eat (up), devour', Arm utem (*hjodė/o-) 'eat', Hit ėtiny 'eat', Av aПодробный перевод текста будет следующим:

**hɛdmi** 'eat'. [IEW 287–288 (*-ed-); Wat 16 (*-ed-); GI 603 (*-et-); Buck 5.11; BK 418 (*at-/*at-)]. OIr etar (DIL ighthid) 'eats', Lat edo 'eat', ON eta 'eat', OE etan 'eat' (> NE eat), OHG ezzan 'eat', Goth iatan 'eat', OPrus ist 'eat', Lith ėdu 'eat' (3rd sg. ėstį), Lat ėdu 'eat', OCS jamě (*hɛdmi) 'eat', Grk ėdo 'eat (up), devour', Arm utem (*hjodė/o-) 'eat', Hit ėtiny 'eat', Av aďatī 'let eat', Olnd ėdmi 'eat', Toch ɴaws- 'starve' (i.e. nɛdɛtuero/-not eat), TochB ɴaws- (-*naismo- 'starve', yestī (*hjėtto-) 'food, meal'. Clearly the PIE word for 'eat'.

**gras-** 'eat, graze'. [IEW 40 (*gras-); Wat 24 (*gras-); BK 216 (*tʃar-as/*tʃar-as-)]. Lat grāmen 'grass', Grk γράσσω 'gaw, eat', γράσμα ('grastar-') 'belly', Olnd graciate 'swallows, consumes', grastar- 'swallower', and with a new lengthened grade: ON krās (*grēsii-) 'delicacy'. Perhaps used originally primarily of herbivores.

**gɛP-** 'eats, makestic ate (usually of animals). [IEW 382 (*gɛp- *gɛbdh-); Wat 19 (*gɛp-h-); BK 624 (*qəbér/*qəbd-)]. OIr gop 'muzzle, snout, beak', OE cealī 'jaw, mouth' (> NE jow), NHG kiefer 'jaw', Lith žėbi 'masticate, eat slowly', OCS o-zobati 'maltreat, outrage', Rus zobati 'eat, zob 'crop, crowd', Av wafar- (~ wafan-) 'mouth (of demonic being)'. The final consonant shows a good deal of variability (-b- - p- - ph- - bb-), all of which suggests a popular word in later PIE, albeit a widespread one.

**hæue-** 'eat'. [cf. Mayrhofer I, 133]. Alb ha (*hæue/o-/) 'eat', Av avara- 'provisions', Ashkun au (*avas- *hæues- 'bread', Olnd avasam 'food', aŭvasi- 'glutinous', aiva- (*an iterative-intensive *hæue/o-/) 'eat, consume', ősadhí- 'herb, (medicinal) plant'. Perhaps a semantic specialization of *hæeu- (i.e., *hæeu-) 'favor'. In any case a word of the center and east of the IE world.

**dorkwom** evening meal'. [cf.IEW 210 (*derek-)]. Alb darkē 'evening meal', Grk δἰπτω 'evening meal'. (Alb darke would be regular from *dorkwom; ending in -e, a shift to the attested feminine gender would be unassuming.) Related are Bre specialization of *hæeu- (i.e., *hæeu-) 'favor'. In any case a word of the center and east of the IE world.

**jęeu** 'chew'. [IEW 400 (*jęeu-); Wat 26 (*jęeu-)]. ON tyggja (with dissolution from *kyggja 'chew, eat', OE cēowan 'chew, gnaw, eat' (> NE chew), OHG kiuanw 'chew', OCS žujo 'chew', Rus żužu 'chew', NPers javīdan 'chew', TochAB śuwa- 'eat'; also Lith (pl.) žiūnus 'gills (of fish)', Latv žānas 'jaw', Bulg žúna 'jaw'. Widespread, but not universal. Still it is probably the PIE word for 'chew'.

**mandh-** - *mant- 'chew'. [IEW 732–733 (*mant-)]. OIr mētal 'belly', Lat mandó 'chew', ON meilt 'bite', OE mīlf 'bite', OHG mindl 'bite', Grk (Hesychius) aŭðhvar 'jaws'. Probably a "popular" word for 'chew' and subject to irregular phonological reshaping. Largely restricted to the west of the IE world.

**treg-** 'gnaw'. Grk τράγω (aorist ἐτραγο) 'gnaw (particularly raw fruit)' > NGrk 'eat', Arm t'urc 'jaw', TochB təsık (< *treg-sič-o/-) 'chew'. Not widely attested but certainly of late PIE date.

**gōrth2-** 'swallow'. [IEW 474–475 (*gör-); Wat 25 (*gır-)]. Perhaps OIr tūar(a) 'food (if < *tō-gur-ia), OL vəro 'swallow (up), devour', Liv gən 'drink', Lat dëzur 'drink', OCS poztr 'swallow', Rus poztr 'drink', Alb ngrane 'eaten', zorre (< gərthunhaj 'entails', Grk βαπά 'meat, food (of a predator), Arm eker 'ate', Av jaraži 'swallows', Olnd girazi 'swallows'. Of PIE date. See also *grihšehu- 'neck'.

**kzem-** 'swallow'. [IEW 640–641 (*kzem-)]. Nic hůmā 'swallow', Arm k'im-k- 'throat', Av a-sām- 'sip, šāma- 'gulp', Khot tsam- 'sip' (Avestan and Khotanese < Proto-Iran čīm-), Ocs cumun 'swallow', Olnd cμaμi 'swallows'. It is possible that we have independent onomatopoetic formations at opposite ends of the IE world. It is more likely that we have here descendants of a PIE word, one whose "popular" character could lead to phonological reshaping as happened in Iranian.

**srebh-** (pres. *srobheis) 'gulp, ingest noisily'. [IEW 1001 (*srebh-); Wat 64 (*srebh-)]. Lat sorbeō 'sup, swallow, absorb', MHG surpfeln 'swalp' (as if with *-b- rather than *-bh-), Lith srebūia 'sup, spoon, surbiu 'suck', Lat strebúju 'swallow, spoon', OCS stribati 'drink noisily, Alb gjer 'sup, tipple', Grk ἐπονέο 'gulp down', Arm arbi 'drink, Ht s(a)raper- 'gulp', Pashto rawdl 'suck', TochB sarp- 'beat (of the heart)' (from the noise of the beating heart). Very widespread, clearly PIE in status.

**hjēghymi** 'drink'. [Wat 16 (*eg-)]. Lat ebrisus 'having drunk one's fill, drunk', Grk νιψαω 'sober' (< *ηγ-ευ-0/-not drink), Ht ekuzzii (= ekwstis) 'drinks, Luv a-kw-' drink, TochAB yok- 'drink'. Though not widely attested, this word would appear to be the oldest reconstructible IE word for 'drink'. Though often brought into this comparison, Lat aqua 'water' is phonologically incompatible because of its initial a- and the voiceless *-k-.

**peh3o-** (< peh3- 'swallow' > *drink (present *pip3h-0-). [IEW 840 (*peh3-); Wat 52 (*pih3-); GI 607–608 (*poh3(i)-); Buck 5.13; BK 40 (*pˁi3h3/a-/*pˁi3h3-a-)]. OIr ibid 'drinks', Lat bibō 'drink (potio a drink, potor 'drinker'), Wakh pōv 'drink', Olnd pibati 'drinks'. Showing different present formations: OPrus poieti 'drink (pois 'a drink, poton 'drinker'), Wakhi pōv 'drink', Olnd pibati 'drinks'.
gulps', *papassala-* 'esophagus', Olnd páti 'drink' (pätär- 'drinker').

It seems likely that Hit *ekuzzi preserves the older meaning here and that after Anatolian separated from the remaining PIE dialects, those dialects largely replaced *h₁ə́gʷh- by *pəb₃(ə)- as the usual word for 'drink'.

See also Bite; Breast; Feed; Lick; Suck; Taste. [D.Q.A.]

Further Reading

EEL

*ʰ₂Vŋɐh₁- ~ *ʰ₁Vŋɐhur₁- 'eel (Anguilla anguilla)'. [IEW 43–45 (*angʰ(h)i-); Wat 2 (*angʰwi-); Gl 444]. Lat anguilla 'eel' (whose form has been influenced by anguis 'snake', presumably before such influence we might have had *angella or *anguilla), OPrus angurigs 'eel', Lith angurys 'eel' (assimilated from *angurys, cf. Finnish ankerias 'eel' [borrowed < Proto-Baltic *angurysa]-), OCS угula ~ jegula (often taken as borrowings from Lat anguilla but that is not what we would expect phonologically, nor is it a particularly likely word to have been borrowed), Rus тигор 'eel', Grk ἔγγαλος 'eel' (whose form has probably influenced ἔχεις 'viper'). All of these would seem to represent either *ʰ₂Vŋɐh₁- or *ʰ₁Vŋɐhur₁- (plus other suffixes). The evidence of Slavic and Greek would seem to indicate that the first vowel was *e ~ *ə. If so, the Latin vowel would be analogical after anguis 'snake'.

Regarding its underlying meaning, Gl argue that the Greek word means 'water snake' and not 'eel' because Homer (Il. 21.203) mentions ἔγγαλος τε και ἰχθύων 'eels and the fishes' devouring one of Akhilleus's victims and hence the contrast (with the generic word for 'fish') suggests that the 'eel' is not a fish. From this they assert that one cannot reconstruct a PIE sememe 'eel' from the 'snake' word. That the meaning of the Greek word must be reassigned is very questionable since both the appearance and behavior of the eel might well lead to its classification in a folk taxonomy as a 'non-fish', i.e., it is not only elongated like a snake but it also can be seen moving on the ground outside of water. In Roman lore the eel was believed to be purely female and that for the purposes of reproduction, the eel mated with a male viper on visits to the sea coast. In Mordvin, the eel is known as the 'snake-fish'. Although there is considerable room for semantic confusion, archaeological evidence for the eel in this region in the prehistoric period although this hardly conclusive evidence since the recovery of fish remains from archaeological sites is notoriously difficult and the eel is a fish which has an extremely variable record regarding its consumption, i.e. in some cultures it would never be regarded as a consumable item of food. The present distribution of the eel, however, does include almost all the rivers of the Pontic region as far east as the Kuban. The value for the 'eel' in terms of the IE homeland is negligible in any case since this word cannot be shown to be of PIE status but has both a restricted linguistic and geographical range.

See also Fish; Snake. [D.Q.A.J.P.M.]

EGG

*ʰ₁o(ə)(u)om 'egg'. [IEW 783–784 (*o(u)-om); Wat 4 (*öwoyo)-; Buck 4.48]. Wels wy 'egg', Lat övum 'egg' (curiously close in form to Lat avis 'bird'), ON egg 'egg' (borrowed > NE egg), OE æg 'egg', OHG et 'egg', CrnGoth ada 'egg', OCS ajice 'egg', Grk άουον 'egg', Av -avaya- 'eggs'; although sometimes cited Arm ju 'egg' and Olnd anda- cannot be derived from this IE proto-form. It is quite possible that the word for 'egg' is a ṭṛdhied derivative of the word for 'bird' (*h3euei-).

In addition to the 'egg' as a basic part of any language's lexicon, eggs occasionally are found in archaeological contexts, e.g., eggs and eggshells are known from burials in the steppe region of the Ukraine and south Russia during the Copper and Bronze Ages.

See also Animal; Bird; Birds. [I.A.C.G.]

ELBOW

*ʰ₂e₁Vn₁- 'elbow, forearm'. [IEW 308 (*olīna); Wat 16 (*ol-); Buck 4.32]. OIr uilin 'corner', Wels elin 'elbow', Lat ulna 'forearm, ell', OE on 'ell', olbogis 'elbow', OE eln 'ell' (> NE ell), elnboga- 'elbow' (> NE elbow), OHG elina 'ell', elinboga 'elbow', Goth ælina 'ell', Grk ἀλέκνη 'forearm', ἀλέκηθρον (< *eleno-kraton) 'elbow', (Hesychius) ἀλέκνα 'elbow', Arm ol 'spine', TochA alem (dual) 'palms of the hands', TochB alye- 'palm'. Widespread and old in IE, though subject to irregular phonological changes. Also used as a unit of measurement, the 'ell', in Italic and Germanic.

*ʰ₁e₁le₁k- 'elbow, forearm'. [IEW 308 (*el-ɛq-); Buck 4.32]. OPrus waolís 'forearm, ell', alkunis 'elbow', Lith iolektsis 'ell', alkūnė ~ elkūnė 'elbow', Lat iolekts 'elbow', eļks 'elbow', Ėlko(n)s 'elbow', OCS lakūtī 'elbow', ell, Rus lokūt 'elbow, ell', Grk (Hesychius) ãlûōz 'forearm, Arm olokk 'shin, leg'. A variant of the preceding word used in the central part of the IE world. Here we also see the elbow extended to a unit of measurement in both Baltic and Slavic.

See also Anatomy; Arm. [D.Q.A.]

ELEPHANT


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These words are not really comparable but, as Blažek suggests, derive from some third language. Cf Egyptian 3bw 'elephant'.

??*lebłow-'ivory'. [Gl 443 (*leb‘ontb*).] Myc ἐτε-πα 'ivory', Grk ἐλαιόφας 'ivory', Hit ḫḫḫa- 'ivory'. Cf. Goth ulbandus 'camel'. Like the previous entry, the words collected here are related by borrowing of some sort rather than by inheritance. Neither 'elephant' nor 'ivory' can be reconstructed for PIE.

The two prehistoric elephants of the Pleistocene, the woolly mammoth (Mammuthus primigenius) and the straight-tusked elephant (Palaeoloxodon antiquus) were widely hunted in the northern hemisphere during the Ice Age. The straight-tusked elephant became extinct before the end of the Pleistocene while the woolly mammoth survived until about 11,000 years ago. The only elephants to survive the end of the Pleistocene were those adapted to warmer climates, the African (Laxodonta africana) and the Asian or Indian (Elephas maximus) elephants. The date of extinction of the pygmy elephants of Malta, Sicily, Cyprus and other islands is uncertain. Distant knowledge of the elephant in the Neolithic is possibly suggested by depictions of what are presumed to be an elephant on pottery from Adriatic Croatia which has been attributed to trading links with North Africa.

Although the distribution of the elephant was quite restricted, its primary purpose outside the area of its natural range is a source of ivory. The Minoan site of Knossos has yielded evidence of an ivory worker's shop dating to c 1400 BC (about the time of or slightly before the Linear B tablets on which we find the earliest Greek form of 'ivory') and elephant tusks have been recovered from both the Cretan site of Zakro and palace of Mycenae itself. The source of the ivory is uncertain. It may have been from India, Africa or possibly Syria where there is iconographic evidence (e.g., a Hittite seal of the fourteenth century BC depicts an elephant) and historical (Ashurnasirpal II reputedly killed thirty elephants in Syria during the ninth century BC) but no osteological evidence for the elephant at this time. In any event, both the commodity and possibly a name for ivory should have been circulating around the Aegean during the Bronze Age. It was also quite popular throughout the Near East around the ninth century BC and carried westwards to Italy as part of the Orientalizing style found in Greek art. Later it was very intensively imported from North Africa by the Romans. The depiction of elephants on art was very widespread, perhaps the most famous example in Iron Age Europe being the elephants on the panel of the Gundestrup cauldron which was discovered in a Danish peat bog (although probably manufactured in southeast or western Europe) c 100 BC.

Until recently there has been little or no attempt at the true domestication of the elephant, i.e. selective breeding, although elephants have obviously been "tamed" for millennia. Usually, the earliest date for such a process is attributed to the Harappan culture (c 2500–1500 BC) where seals frequently depict elephants with what appears to be a covering on their backs which, it is suggested, would indicate that they were already under some form of control. See also Mammals. [D Q.A., J.P.M.]

**ELF**

?*(a)lβhɔ- 'elf'. [IEW 30 (*alβho-); Wat 2 (*alβho-); Buck 22.44]. ON alfr 'elf', OE ælf 'elf' (> NE elf), OlBe *fbhɔ- 'artistic, learned; artisan, artist, orderer of time, one of a group of gods'. Perhaps also belonging here is OCS rabti 'servant'. The apparent agreement of Germanic and Indic would suggest PIE antiquity. Etymologically, the word appears to be related to Lat albus 'white' and Hit alpa- 'cloud', originally as the 'shining one' or the like.

The Germanic elves (ON alfr) are said to live in mounds, which led to the identification with the dead buried in barrows. They would receive sacrifice (ON allablot) at the beginning of winter in order to promote fertility. The Icelandic historian Snorri Sturluson distinguished light elephants (ON ljosålfar), dwelling in the resplendent Alheimr and more beautiful than the sun, sometimes called Eafroðull 'ray of the elves', and the hideous black elves (ON dikkálfar), dark as pitch, living underground. In the Anglo-Saxon era, an independent tradition developed, perhaps under Celtic influence. Old English texts of the ninth and tenth centuries mention a large variety of elves—bergelænn, dunelænn, muntelænn 'mountain elves', landelænn, feldelænn 'field elves', wæterelænn and særelænn 'water nymphs' and wudelænn 'wood spirits'. They were ambiguous, responsible for a number of illnesses, e.g., OE ylf sceotan 'elf-shot, i.e., lumbago', but, on the bright side, there is an Old English adjective ælfscie 'pretty as an elf', and this term appears in many personal names, e.g., Ælfred, Ælbeorht.

The Old Norse rbh are divine craftsmen, described as extremely skillful; they make a couple of old parents young again, put a cow back together and call her back to life, build the chariot of the Æsvins, make two horses for Indra, and multiply by four the magical cup of the artificer god Tvåst.

On a deep comparative level, they have been associated with the yearly cycle and the renewal of the year. Very important in this conception is their sleep after a long walk symbolising the duration of the year: they stay for twelve nights during the winter solstice in the house of Sávitri, marking the transition to the new year like Angrona presiding over the angustii dies in Rome.

[E.C.P.]

Further Readings


**ELK (AMERICAN MOOSE)**

*holís (gen. *holís) 'elk/American moose (Alces alces)*.
ELK

[IEW 303 (*el-); Wat 16–17 (*olki-); GI 437 (*el)-R]; Buck 3.75; BK 452 (*el-/el-). Lat alces 'elk/moose (Alces alces)' (borrowed from West Gmc *alxi-), ON elgr (< Proto-Gmc *alxi-) 'elk/moose', OE eolh 'elk/moose' (> NE elk), OHG elho 'elk/moose' (Old English and Old High German with new full-grade, i.e., if < Proto-Gmc *elx-), Rus lossi (regularly from < *olki-) 'elk/moose', Grk ἀλκή 'elk/moose' (borrowed from Latin), Khot ṛūs- 'arghal/Ovis poli (Ovis ammon)', Wakhi ṛūs 'wild mountain sheep' (Iranian < *ṛśya-), Olnd ḫša- 'the male of antelope, particularly the painted or white-footed antelope' (probably = nilgai [Boselaphus tragocamelus]). Widespread and old in IE. As with *h₁elh₁en 'red deer', the meanings that the eastern group give to descendants of *h₁olki- presumably reflect their removal into territories where Alces alces was not native.

The current and Neolithic distribution of the elk (Alces alces) extends from Britain (but not Ireland since the time of human colonization) across Eurasia; however, it is generally absent from southern Europe, the east Mediterranean and territories south of the Caspian. For example, while it is found in very large numbers on sites of northern Russia (where it is the mountain elk (Ulmus scabra or montana). The second term is also attested in Baltic and Slavic (as in Pol węza), and is supported by Albanian, Germanic (e.g., NE wyck 'elm'), and, most critically, Kurgish. In sum, we have a PIE *ui(m)g- for the 'common' or 'European elm (Ulmus glabra, U. loliacea, and U. campestris)' and another term *h₁elm- in western Europe with Germanic, Baltic and Slavic showing both terms (presumably with semantic complementary distribution).

*pteleveh₁ - *pteleveh₂- 'elm? (Ulmus spp.). [IEW 847 (*ptele(h)ja); Fried 89]. From *pteleveh₂: Mīr teile 'linden', Lat tilia 'linden', Arm 텔 'elm', from *pteleveh₂: Myc ptele-re-'w'ain', Grk πτελεία 'elm', Arm տէլ 'wood', Oss ṭeřve 'alder'. The reconstruction is weak in that the Middle Irish may or may not be a loan from English (the linden is not native to Ireland) while the Armenian form has been dismissed as a Greek loan although more recently this explanation too has been rejected. The Latin form is phonologically transparent but the motivation for the reference 'linden' is not and both the elm and the linden are native to at least the northern half of the Italian peninsula. The Ossetic is aboriginally cognate. The Greek evidence is enhanced by the probably related form πτέλος 'wild rowan' as rowans are a frequent, symbiotic understory in elm forests. In sum, a PIE *ptele- for the elm and metonymically or metaphorically related trees cannot be ruled out. If included, this might be the southern (Greek and Armenian) elm word, with overlap in Latin, in particular, since Latin participates in one of the two elm' words which are rather solidly attested in mainly northern stocks.

The genus Ulmus 'elm' was found over most of Europe excepting the Iberian peninsula and the southern extremes of Greece and Italy. It increased greatly during the relatively warm Atlantic period with climax forests, often mixed with linden trees, throughout southern Russia, the Ukraine and the north Caucasus. Ulmus is also represented in lake core sediments from prehistoric sites in southwest Anatolia. The genus retreated drastically during the Sub-Boreal, not so much because of climate (though disease has been seriously

Further Reading


ELM

*h₁el₁em - *h₁el₁mos 'mountain elm (Ulmus montana)' [IEW 303 (*elem-); Wat 16–17 (*elmo-); cf. Gl 545; Fried 80–87]. Mīr lem 'elm', Wēls llwyli(<en) 'elm', Lat ulmus 'elm', ON alm 'elm', elmr 'elmwood bow', OE elm 'elm' (> NE elm), OHG elmboum 'elm', Rus lem 'mountain elm', Pol lcem 'elm'. The distribution suggests a northwestern dialectal term, possibly the attested forms represent the remains of an old root-noun *h₁el₁em (*h₁el₁om? *h₁el₁m?), gen. *h₁el₁mos.

*uin(g)- 'elm (Ulmus spp.). [IEW 1177 (*uing-); Gl 545 (*weik-/*wink-); Fried 80–87]. OE wice 'elm' (> NE wyck-elm), Lith vinkšna 'elm', Latv vikšna 'elm', ORus vyaz 'elm', Rus vyaz 'elm', Alb vich (< *uingo-) 'elm', Kurgish vie 'a kind of elm'. Perhaps Oss wis-qed 'maple'. At least late PIE status.

Two overlapping sets of species of elm were denoted by two (solidly attested) terms that in turn overlap in both their reference and their geography. To begin, the early *h₁el₁mos is found in Celtic,Italic, and Germanic and is buttressed by many Slavic forms which most probably do not involve many independent borrowings from Germanic but, rather, a Common Slavic original. The referent of the western forms is the mountain elm (Ulmus scabra or montana). The second term is also attested in Baltic and Slavic (as in Pol węza), and is supported by Albanian, Germanic (e.g., NE wyck 'elm'), and, most critically, Kurgish. In sum, we have a PIE *ui(m)g- for the 'common' or 'European elm (Ulmus glabra, U. loliacea, and U. campestris)' and another term *h₁elm- in western Europe with Germanic, Baltic and Slavic showing both terms (presumably with semantic complementary distribution).

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proposed, cf. modern Dutch Elm disease) as because of extensive use as fodder through the harvesting of leaves, shoots and branches, its clearance due to its association with good soils, and because of its utility in making ropes, mats, baskets and other fiber-constructed objects. This practice has continued until very recently among Baltic and Slavic peasants.

See also Trees [PF]

Further Reading

EMPTY
*h1eu(h)astos* 'empty, wanting'. [IEW 345 (*eu-* *eu-*)-; Wat 18 (*eu-*)-; BK 409 (*hiw-*/*hew-*)]. From *h1eu- we have Grk ἐδώρει 'deprived', Arm unayn 'empty', from *h1u(e)hastos- we have Lat vānus 'empty', ON vann 'lacking', OE wān 'lacking, wan' (> NE wān), wānian 'lessen, wane' (> NE wane), OHG wān 'lacking', Goth wans 'lacking', Av āna- 'wanting', Oldn ānā- 'lacking' (Ind-Iran *h1u(ha)no-). Widespread and old in IE.

*yak- 'be empty'. [IEW 345 (*eu-*)-; Wat 18 (*wak-*)]. Lat vacō 'am empty', Hit wakk- 'fail, be lacking'. Though the attestations are few, the geographical spread of those attestations suggests PIE antiquity for this word.

*y1casts (*e)hastos* 'empty'. [IEW 346 (*wasto-*)-; Wat 18 (*wāsto-*)-; GI 684 (*wāst(o)-)]. Old fās (< *tehastos- 'empty'), Lat vastus (length of a unknown) 'empty, unoccupied, waste(d)', OE wēstē 'waste, desolate, empty, uncultivated (NE waste), OHG wuosti 'waste, desolate, empty, unoccupied'. Hit wastul-'sin' has sometimes been put here but in all probability belongs elsewhere. A western term in late PIE. Although sometimes so indicated in the handbooks, this word provides no evidence for a noun 'desert'. Both this entry and the previous one may be enlargements of *h1eu(h)astos-* and, if so, should be written *h1uak- and *h1u(e)hastos respectively.

*yučkįtos 'empty'. [IEW 1085 (*teus-*)-; cf. GI 365, Buck 13.22]. Lith tūščias 'empty, poor', OCS tůšti 'empty', Rus tōščy 'empty', NPer tauih 'empty', Pashto tāš 'empty', OInd tuchhya- 'empty'. From *teus- 'to empty' as in Av tāosayaiti 'let's fall, let's go', tusan 'they loose'. Lat tescia (tesqua) 'barrens, wasteland', an archaic form, has been suggested here but it is obscure and an unlikely connection. Attempts have also been made to connect OE post 'fertilizer' via a meaning 'emptying out'. The Latin and Old English forms are most likely parallel formations; in Balto-Slavic and Indo-Iranian, i.e., a satam isogloss, from PIE *teus- 'to be empty'.

*kęnuš 'empty'. [IEW 564 (*ken-*)-; Wat 29 (*ken-*)-; Buck 13.22]. Grk kēvōg 'empty', Arm sin 'empty'. Perhaps a late and dialectal word in PIE.

See also Lack. [D.Q.A., J.C.S., R.S.P.B.]

ENCLOSURE see FENCE
ENTRAILS

*ghorth-neha* - 'entails'. [IEW 443 (*gberg*); Wat 22 (*gbera*); BK 231 (*gur-*gor*). Lat haruspex 'entail-seer', ON gorn 'guts', garn 'yarn', OE micergern (< *mid-gern* 'internal fat, suet', gærm 'yarn' (> NE yarn), OHG garn 'yarn', Lith žarna 'guts', Latv zafrna 'guts', Grk ἱππότης 'a string of gut'; sausage', Olnd hira- 'band, strip', hird 'vein'. Germanic and Baltic agree on *ghorth-neha*. The other languages show different and independent derivatives, presumably of some root-noun *gh(e)rnh-. It would appear that the semantic focus of this word was on intestines, not in the living animal, but as useful for sewing or binding, or as in the case of Italic, fortune-telling.

See also ABDOMEN, ANATOMY. [D Q.A.]

ESCHATOLOGY

Eschatology is that branch of mythology concerned with cosmic endings. Members of pre-scientific societies employ creation and cosmic ending myths to account for the origin and fate of the physical universe. Since the last century, scholars in Europe have been fascinated by the ancient Norse legend of Ragnarök, the "doom of the gods", as an example of a cosmic ending myth. More recently, IE eschatology has attracted the attention of comparative mythologists who have sought to recover the original IE proto-myth in the vestiges of related traditions found in the eschatological literature of ancient Scandinavia, Ireland, Rome, Iran and India.

True to their martial nature, early IE societies believed that the world would end in a great battle between the traditionally opposed forces of good and evil. The reconstructed cosmic ending or "final battle" myth features events which occur both in the distant, mythic past as well as the future. Even in reflexes where this myth has been historicized, it is marked by a sense of temporal ambiguity and often includes incongruous predictions about the fate of mankind. Motifs common to the various eschatological myths include:

1. An archdemon dwells in the community of the gods (or men, in epic versions) whose paternal relatives are traditionally inimical to the gods.
2. Through default or guile, the archdemon assumes the leadership of the community.
3. During his reign, his subjects are unjustly or harshly treated while outsiders, on whose support the archdemon relies, are favored.
4. Building projects, especially the erection of fortifications, are carried out by the archdemon, in which his subjects are tricked or forced to provide labor.
5. Usually as the result of a particularly heinous act, the archdemon is exiled by his subjects.
6. The archdemon ultimately takes refuge among his foreign relatives. Binding the archdemon occurs only in Norse and Iranian myth.
7. A hero appears who is the nephew or grandson of the exiled archdemon. This relationship is often that of the PIE *nep(o)l- 'daughter's son' or 'sister's son'.
8. A protracted period of time passes during which both sides prepare for the final battle. This period is critical because it represents the "present" in which the bearers of the religious tradition lived and worshipped. In Norse and Iranian traditions, a cataclysmic "cosmic winter" presages the final battle.
9. The final battle occurs on a famous field. In it, many notables among the community of gods and their adversaries slay each other in single combat. Associated with the final battle and its aftermath is widespread death and destruction, interruption of the cosmic order, and the end of a temporal "cycle" or era.

Ireland

Irish myth recounts two great battles which occurred on the plain of Tuired (Mag Tuired). The first represents the Irish reflex of the IE "War of the Foundation" while the Second Battle of Mag Tuired is the Irish version of the IE "final battle". Accounts of this battle are known from manuscripts dating from the sixteenth and seventeenth centuries, although other references to the conflict indicate that the tale is of great antiquity and the language of the later manuscripts clearly derives from an Old Irish original. At the center of the myth is the struggle between the Tuatha Dé Danann, the gods worshipped by the ancient Irish, and the Formorians, a race of giants who were their traditional enemies. Unlike Ragnarök, the "final battle" theme is better developed in the Irish accounts, especially events leading up to the conflict. Also unlike Ragnarök, the Second Battle of Mag Tuired has been incorporated by its Christian chronicles into the mythical history of Ireland. Consequently, it represents not the end of the cosmos but rather the terminus of an historical cycle comprising one of the mythical ancestors of the Irish.

In the Irish version, the archdemon is Bres, who has more in common with the handsome fertility god Baldr of Norse legend than the demonic Loki. Because his mother is a member of the Tuatha Dé Danann, they adopt him. His father is Elatha, a Formorian king. Nuadu, then king of the Tuatha, forfeits his kingship because of a physical imperfection: his hand was severed in the First Battle of Mag Tuired. Subsequently, Bres is made king. Under Bres, the Tuatha suffer greatly and are made to perform menial tasks. Guests to Bres's house are not treated to their due hospitality and each house in Ireland is forced to pay onerous tribute to Bres's relatives.

His parsimonious treatment of a visiting poet incites the latter to satirize Bres, causing his reign to be unproductive. For this, the Tuatha exile Bres who flees to his Formorian kinsmen. Among them he raises an army to regain his kingdom. Seven years pass during which preparations for the ultimate conflict are made. Among the Tuatha Dé Danann, a new hero appears named Lug who was the son of Balor's daughter, i.e., the *nep(o)l- of a leader and primary warrior of the Formorian host. Lug, known among the Continental Celts as Lugus, was a prominent if not paramount god of the
Celtic pantheon. His “appearance” in this myth fixes it in the past according to the temporal perspective of his worshippers.

On the famous plain of Tuired, the “final battle” occurred during which many prominent mythic figures (Núadu, Ogma, Balor, Indech, Macha) are slain together with numerous others. During the conflict, four physicians from the Tuatha revived their slain by casting them into an enchanted well. Lug slays his demon grandfather, Balor, and routs the enemy. After the battle, the Irish goddess, Morrigan, predicts the coming era of agricultural barrenness and social corruption.

Iconographic evidence attests to the active worship by the Celts of some of these gods who perished in the battle, a fact which lends a future sense to this “final battle”. Reviving the slain warriors in a sacred well or cauldron is a common motif in Celtic mythology and iconography, e.g., the Gundestrup cauldron, which parallels the Norse myth of the resurrection of the dead einherjar by the Valkyries.

Rome

Lacking a coherent body of myth, ancient Rome has nevertheless provided mythologists rich sources of material in its extensive ritual tracts and its early legends. Among the latter is the legend of the overthrow of the Etruscan kings and the founding of the Roman Republic. This “historical event” contains the embalmed remains of the Indo-European “final battle” theme. Livy’s Early History of Rome provides the primary source. Here, the cosmic ending theme is adopted to account for the end of the era of dynastic kingships and the birth of the Roman Republic.

Lucius Tarquin, the archdemon in this version, appears twice in Livy’s history: as a father and son with identical names. His parentage is clearly Etruscan, a nation traditionally hostile to Rome’s territorial ambitions. Tarquin is befriended by and made the guardian of the royal offspring by the Roman king, Ancus. When the succession of the kingship is to be decided, Tarquin disposes of Ancus’s sons and becomes king. As monarch of Rome, Tarquin behaves in a lawless and tyrannical manner. During the Tarquin reign the fortifications of Rome, the temple of Jupiter, and Rome’s sewer system were completed. Atypically, this work is accomplished by employing free Romans rather than slaves. Tarquin strives to strengthen his grip on the kingship of Rome by enlisting support from foreign peoples.

Tarquin’s son outraged the Romans by his rape of Lucretia. For this crime, the Tarquins were exiled. Tarquin sought asylum among his Etruscan relatives, where he organised an army to subdue Rome. A moratorium of unnamed duration follows, during which both sides anticipate the impending conflict. In Rome, the young hero responsible for the Tarquins’ exile was Lucius Brutus, the son of Tarquin’s sister and Tarquin’s *nepōtē*. Like the Irish Lug, and the Norse Völarr, Brutus was known as the “silent” one.

The struggle between the forces of Tarquin and Rome culminates in a series of battles, all of which bear characteristics of the Indo-European “final battle”. The first is the Battle of the Arrian Woods in which Tarquin’s son, Arruns, and the Roman hero Brutus slay each other in single combat. The outcome is not decisive and Tarquin again returns to Rome with the army of the legendary Etruscan king, Lars Porsena. Porsena’s siege of Rome is the setting for the heroic acts of two of Rome’s great legendary heroes, Horatius Cocles (‘one-eyed’) and Múcinus Scævolu (‘left handed’). Cocles is recognised as the Latin reflex of the Indo-European one-eyed god (e.g., Norse Odin and Irish Lug). Likewise, Scævolu represents the Indo-European one-handed god (Norse Tyr and Irish Núadu). Their involvement in Rome’s critical War of the Republic distinguishes the latter as a version of the “final battle”. Livy noted that the Battle of Lake Regillus, the final battle of the war against the Tarquins, was fought with more determination than usual; officers of high rank who would normally have confined themselves to directing operations joined personally in the fighting, and with the exception of the Roman dictator, there was hardly a man amongst the nobility on either side who escaped without a wound. Mutual slaughter in single combat typifies this struggle as it does in other “final battle” reflexes. With the battle, the old order is forever eliminated and the new republic securely established.

Scandinavia

Reflections of the IE eschatological myth are recorded in both Old Norse myth and Danish historical tradition. The least narrative of all versions of the “final battle”, the Norse Ragnarök myth, is preserved in the Völuspa, the Valførðnisnål, the Grettisnål, the Lokasena, and Snorri Sturluson’s Prose Edda. An apparently rich body of myth relating to the “final battle” is alluded to in these highly stylistic but cryptic lays. Snorri’s is the only extant prose account and his deals primarily with the actual battle and ensuing apocalypse while shedding little light on the events which lead up to the conflict. From the general body of Norse myth, the main core of the theme can be reconstructed.

Loki is the foreign archdemon among the Æsir, the Norse gods. His father was a giant, the traditional enemies of the Æsir. Unlike the other figures of the Norse pantheon, there is no evidence indicating that Loki was ever actually worshipped in pagan Scandinavia. Although the Æsir suffer deprivations and humiliations at Loki’s hands, he is never “king” of the Æsir. Instead, he is depicted as a wily trickster whose primary purpose seems to be to torment the gods. Loki is responsible for the construction of the walls around Asgårð, the realm of the gods. By manipulating the blind Hóðr, Loki causes the murder of Baldfr for which he is exiled by the Æsir. Variant tales indicate that a) he is chained by the gods, perhaps in the shape of a wolf, b) he is chained and his son turned into a wolf, c) his son is chained in the shape of a wolf, and d) Loki is banished to Ótgarð, where he is king. Ultimately, he turns up among the enemies of the gods and is allied with them at Ragnarök.

Insofar as a sequence can be imposed on mythic time, it is
clear that the death of Baldur and the exile of Loki were acts which occurred in the mythic past. The bearers of the Germanic mythic tradition considered their recent past and present as antedating the “final battle”. Folk beliefs associated with the preparations for that conflict abound, especially proscriptions against disposing of finger nails and conserving shoe leather. Famous kings and warriors are selectively gathered by Óðinn into Valhalla to form the einherjar (band of dead warriors) and bolster the Æsir’s defences. Wargames are held in Valhalla after which the dead are revived by Valkyries and returned to Óðinn’s mead-hall for an evening of feasting.

Vidarr, the son of Óðinn, avenge the death of his father at Ragnarok and rules the new regime in its aftermath. He is associated with the Vedic god Visnú because of his cosmic stride which he uses, together with a special shoe, to tear apart the demon wolf, Fenrir. Vidarr’s relationship with Loki is uncertain. While Loki is considered Óðinn’s foster brother, there is no evidence to indicate that he is Vidarr’s uncle or grandfather.

Prior to the battle, there occurs a period of climatic, geological, astronomical and social cataclysm. A freezing winter (limbulvetr), three years long, is accompanied by the disintegration of social order, earthquakes, floods, and the disappearance of the sun. Monsters which have been held at bay by the forces of order break loose. The “final battle” occurs on the plain of Vigrdr. During the fight, prominent figures on both sides (Óðinn, Þór, Þýr, Heimdallr, Loki, Fenrir, the Midgard-serpent) are slain in single combat. The myth’s hallmark is the cosmic destruction wrought by the battle that sees the world seared in flame and then submerged beneath the sea.

Recorded in the Gesta Danorum of Saxo Grammaticus is the famous battle between the king of Denmark, Harald Wartooth, and his nephew, Sigurd Ring. Here, ancient myth has been transposed to legend and subsequently adopted as history. Similarities have been drawn between the “Battle of Bravellir” and the Indic Mahabharata. Specific details and the overall apocalyptic nature of the battle itself has attracted comparison with the Norse myth of Ragnarok.

Gurid, a Danish princess, bears a son Harald by a commoner. Because Gurid is the last surviving member of the Danish royal lineage, Harald becomes king by default. A mighty warrior, Harald expands his holdings through conquest. However, his cruelty eventually makes him a burden to his subjects. Harald recruits many foreign heroes into his army with whose help he suppresses insurrections. No exile motif is evident in the legend: the cause of the battle is a territorial struggle between the king and his nephew, Sigurd Ring. Harald and Sigurd declare war and then spend seven years preparing for the conflict. Sigurd Ring is the “nep(ð)ir-‘sister’s son’ of Harald. The final battle occurs on the plain of Bravellir. The list of slain heroes is unusually extensive, and Saxo takes pains to stress that the number of the lesser dead are uncountable. Other “final battle” motifs include references to the sky falling, the earth suffering, the loss of cosmic order and the return of chaos.

Iran

Ancient Iran retained the “final battle” as an integral component of its documented religious belief, a distinction which it shares with Scandinavia. Unfortunately, many of the inherited Indo-European elements were seriously distorted by the Zoroastrian reform in the first millennium BC. As evidenced in the ancient Avestan texts, the Indo-European pantheon was massively reorganized, and the gods’ inherent functions modified and restructured into an extensive array of apotheosized abstracts and their demonic alter egos.

Amid the systematic transformation of Iranian religion, most of the details associated with the “final battle” theme have been lost. Evidence relating to the cosmic ending is found in the later (200–600 AD) text, the Bundahishn. Preserved is the motif of the cosmic winter, which may be compared with the Norse fimbulvetr, and Yima’s vara, the place where living things will be sheltered.

A “final battle” is also recorded in which each of the divine Iranian abstract deities combats his demonic counterpart, including a long awaited face-off between MPers Ohrmazd (Av Ahura Mazdah) and MPers Ahriman (Av Angra Mainyu). When the forces of evil have been (inevitably) overcome, the souls of the dead undergo a trial by molten metal to determine their worthiness. Explicit in this process is the formation of a new, prosperous world where the righteous enjoy eternity.

India

At the heart of the colossal Indian epic the Mahabharata is the struggle between the royal cousins, the Pándavas and the Kauravas. This conflict was resolved in a cosmic battle, which occurs on the plain of Kuruksetra. Scholars date the evolution of this work to the post-Vedic period, from 400 BC to 500 AD. Efforts to identify transposed mythic themes from the Mahabharata have been extremely fruitful and among these is an epic version of the Indo-European “final battle”.

Dhṛtarāṣṭra, the brother of the king, Pándu, is the son of the princess Ambika and the wild hermit Vāśa. When Pándu dies, his sons are too young to succeed him and by default, Dhṛtarāṣṭra is made regent. The blind Dhṛtarāṣṭra fulfills the “archdemon” role and his sons, the Kauravas, represent the transposed “enemies of the gods”. The sons of Pándu, the Pándavas, are Dhṛtarāṣṭra’s nephews. They endure endless cruelties at the hands of the Kauravas. Denied their father’s palace, the Pándavas build and fortify the city of Indraprastha, making it their capital.

A final outrage is committed when Draupadī, the Pándava’s common wife, is dishonored by Duryodhana, Dhṛtarāṣṭra’s primary son. This act takes place immediately after Yudhishṭira, the eldest Pândava, loses the throne to the Kauravas in a game of chance. Consistent with the narrative, the exile motif is inverted and the Pándavas, rather than the Kauravas, are sent into exile. Thirteen years pass while preparations for the “final
"battle" are made.

The "final battle" is joined on the field of Kuruksetra, where many of the most prominent heroes of the age are slain, as were most of the Kauravas in single combat. From the perspective of mythical time, the Battle of Kuruksetra is followed shortly by the Kaliyuga, the earth's last, debased era before the destruction of the world.

**Patterns**

By reconstructing a proto-myth, some insights into the process of its evolution may be gained. It is clear from the evidence that the relative importance of specific deities and their functional significance changed both spatially and temporally and these factors affected their role in the "final battle". For example, Lug is depicted as the savior of the gods in the *Second Battle of Mag Tuired*, while Óddinn, Lug's Germanic counterpart, is slain but revenged by his son Viðarr. Lug shares characteristics with both Óddinn and Viðarr, implying a convergence of functions in the Irish version or divergence in the Norse. The occurrence of blind or semi-blind demonic figures in the "final battle" theme (Balor, Dhṛtarāṣṭra, Höðr) suggest that, in a broader mythological context, this characteristic may have been confused or conflated with a one-eyed god like Lug or Óddinn or their epic personifications (e.g., Horatius Cocles, Cú Chulainn). Motifs which receive greater attention in one tradition can provide insights to vague or obscure references in others. For example, Brútus's silence was a ruse to avoid the detection of his true character by his ruthless uncle. Why this epithet was applied to Lug and Viðarr is not explained, although both, like Brutus, appear suddenly, displaying surprising skills just when the gods' needs are greatest.

Recognizing the structure of a proto-myth does not ensure a complete understanding of its social significance. All the known versions show signs of influence from other religious traditions as well as the accumulated impact of centuries of social change. For this reason, the outcome and aftermath of the "final battle" differ in each version. Consequently, little light is shed on whether the proto-culture's concept of cosmic time is cyclic or lineal. What can be affirmed is that a complex, cosmic ending myth existed in the PIE period. Moreover, in view of the widespread occurrence of epic versions of the "final battle" theme and the co-occurrence of an epic and mythic version in Scandinavia, it is likely that a transposed epic version had evolved in the Proto-Indo-European period.

*See also War of the Foundation.* [S.T.O.B]

**Further Readings**


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**ESCUENT ROOT** *see* VEGETABLES

**ESTE CULTURE**

The Este or Atestine culture was the Iron Age culture (c 900–182 BC) of the Veneti of northeast Italy. It takes its name from their chief town of Ateste (modern Este). It is divided chronologically into four main phases: Este I (900–750 BC), Este II (750–575 BC), Este III (575–350 BC) and Este IV (350–182 BC). The main centers of the Veneti were the towns of Este, Padua, Verona and Vicenza. Here there is some evidence for architecture (both circular and rectangular huts or houses) but most of our evidence derives from shrines and, especially, cemeteries. The former include offerings of bronze figures (warriors on foot and horseback) and other evidence of votive deposits. Burial was by cremation in an urn and graves were marked with tombstones and in some instances were divided into what were presumably family groups separated by walls. By the fifth century BC inscriptions begin to appear on stone pillars and then votive objects, especially bronze pins, and tombstones. Altogether these have yielded approximately two-hundred inscriptions in Venetic, an IE language of disputed relationship but generally held to be close to (if not included within) the Italic languages. Whatever its precise linguistic ancestry, from an archaeological point of view the Este culture emerges out of the Proto-
Villanovan culture that spanned much of the length of Italy and underlies the later cultures of the Italic languages.

In addition to inscriptional evidence, the Este culture provides graphic representations of rituals. During the sixth and fifth centuries the Este culture was one of the main centers in the production of situla art, the decorating of large bronze buckets. The original purpose of the situlae was as wine serving sets but they were subsequently employed as urns. The scenes depicted on the situlae have been interpreted by some as incidents from funerals which might include games, feasts, and processions. Este art was not confined to situlae but is also found on other types of sheet metal.

By the fourth century, Celts had come to dominate the plain of the Po river and the Veneti adopted much of their material culture from the Celts. By 182 BC, the Veneti accepted Roman leadership and were acculturated linguistically within the Roman state.

See also Golasecca Culture; Italic Languages; Venetic Language; Villanovan Culture. [J.P.M.]

**EVENING**

*vesperos* – * עקבוס* ‘evening’. [IEW 1173 (*vesperos*); Wat 78 (*wesp-pero-); Buck 14.46]. Lat vesper ‘evening’, Lith vakaras ‘evening’, Latv vakars ‘evening’, OCS večerā ‘evening’, Grk ἑρέμος ‘evening’. The distribution of this root suggests a word of the center of the IE world. A reduced form of the root is seen in Gmc *vest- (< *vestos-)*, e.g., OE west ‘west’ (> NE west)(the direction of the sunset).

See also DAWN, EARLY, NIGHT. [P.B.]

**EXCHANGE**

*mei-* ‘exchange’. [IEW 710 (*mei-); Wat 40 (*mei-); GI 657 (*mei-n-)]. Latv miju ‘exchange’, Av fra-mita- ‘changed’, OInd māyate ‘exchanges’, minati ‘exchanges, deceives’, TochB mask- (< *mi-śəkə-*) ‘exchange’ (waś maskan ‘take the guise of, disguise oneself as’). Cf. also the o-grade nouns *moinos* and *moini* ‘exchanges’. *moinos*: OIr *main* ‘value, treasure’, *dag-maini* (Dills *dag-main* ‘benefit’) ‘good gifts’, Wels *mwyn* ‘value’, Lat manus ‘duty, charge, responsibility; public office; gift’, communis ‘common’, OE gemelrne ‘common’ (> NE mean), OHG gimeini ‘common’, Goth gamains ‘common’, Lith mašnas ‘exchange’, oes mete ‘exchange’, Av meta ‘punishment’. Benveniste explains the derivation of Lat manus ‘duty, charge, responsibility; public office’ from *mei-* as a mark of reciprocity of services expected for the appointment of a magistrate, whose main duty to the community was to provide for games and spectacles. Distribution suggests PIE status.

*meit- ‘exchange’. [IEW 715 (*mei-t(h)-); Wat 40 (*mei-); GI 657 (*mei-)]. Lat mūtō ‘change’, ON meidmar ‘gift’, OE māðum ‘gift’, Goth maidjan ‘change’, Latv mērtuot ‘exchange’, OCS mūt ‘exchange’, Av mitb ‘turned about’, OInd mitthati ‘exchanges’. [IEW 710 (*mei-)*]: derivatives in -t: Lat mētō ‘(ex)change’, Goth maithins ‘gift’, Av mithvara ‘paired’, OInd mitthati ‘exchanges’, Mitra ‘god of contracts’. Here we can see, especially in the sense developed in Avestan, that the exchange is viewed as reciprocal or mutual, hence balanced as a pair, rather than commercial, i.e., advantageous to only one of the parties involved. Similarly, the Germanic
forms derived from *maiph- tend to occur in contexts that suggest archaic usage of the term (e.g., ON meidmar is found only in the plural and in the Eddas in what may have been inherited as a fixed phrase of poetic diction [ON fjold meidma = OE (Beowulf) mædma fela ‘much treasure’], and the word occurs but once in Gothic). Thomas Markey has suggested that the word retained its early semantic field of gift-exchange. In this context, where gift exchanges cemented personal relationships between individuals, clans or tribes, one can understand how the Old Indic (and Iranian) god Mitra- could mean ‘friendship’ as well as ‘contract’.


*kwre(ha) (h-): ‘pay’ (pres. *kwrinéhát), [IEW 648 (*kwre-); Gl 650–651 (*kwre-/*kweh-ct-); Buck 11.81; BK 321 (*kwre-[ar-ay-/*kwre-[ar-ay-]). OIr crenad ‘buys’, Wels prynu ‘redeem’ (Celtic < *kwrina-), ORus kritvuti ‘buy’ (with a transfer from *-neh- to -neu), Grk *παπαγια ‘buy’, NPers xandtan ‘buy’, Olnd kritati ‘buys’, TochB kary- (subj. कर्म-< *kwrina- ‘buy’. Cf. the derivatives: OIr tinnsca ‘bride-price’, Lith (gen.) krenos ‘of the bride-price’, Lat křes ‘bride-price’, Olnd kraya-‘price’, TochA kuryar ‘trade’, TochB karyor ‘trade’. Distribution indicates PIE status. Derivatives in both Celtic and Baltic suggest that one of its specifications in PIE was ‘bride-price’. In a non-monetary society it would indicate the exchange value of things, and in the patriarchal organization of Indo-European society, it applied in particular to what was given in exchange for the bride.

The semantic distinction between *yes-no- and *kwreih (h-) in Greek, where the two cognate forms exist alongside one another, suggests that *yes- is to be associated with the actual business transaction, the haggling and purchase, while *kwrei- indicates the payment made at the conclusion of the transaction. Although originally separate as two different aspects of a business transaction, most IE stocks have tended to retain only one of them.


*per-‘exchange, barter’ (< *transport across’). [IEW/817 (*per-); Wat 50 (*per-); Buck 11.82; BK 37 (*pl-)/ar-/*pf-]). Olr ren(a)d ‘sells, bargains, exchanges’, Lat interpres ‘go between’, pretium ‘price’, pari ‘like, similar’, Grk πέρπνμι ‘sell’, Av paitanye ‘were compared’, perhaps Olnd pánate (< *prnate) ‘bargain, haggle’ (if this word does not belong with the following entry). The vocalism of the Greek verb is problematic as a zero-grade would have been expected in such a form that reflects an archaic type of present with a nasal infix. This may be seen in the dialectal (Hesychius) form πορνάμεν to sell’ and in the verbal adjective πόρνη (< *p-rne) ‘prostitute’ (< *sold). The earliest use of the term applies to sales abroad (cf. Homeric περν ἄλος ‘across the sea’) and refers to the sale of slaves abroad. It is derived, like many Greek verbs meaning ‘transport, cross’ (eg, πόρος ‘river crossing, passage’, πορευο to transport’, πείρα ‘cross the sea’, πέρα ‘beyond, across’, πέραν ‘abroad’) from *per- ‘through, across’ and its development can be seen in πείρα ‘that which is sold’. This word does not suggest archaic usage of the term (e.g., ON pretium ‘market-walk about’, British English ‘market-walk about’. From *yes- ‘buy’. Distribution indicates PIE status.

**EXCHANGE**

Indo-European Exchange

Exchange in pre-state societies is generally seen as an ongoing social contract between individuals, clans or tribes. Exchange relationships may vary considerably. In generalized reciprocity we find the type of constant exchange relationships that might obtain within a family where food, goods, etc., might freely flow from one member to another. Balanced reciprocity ideally involves exchange relationships where neither side seeks to gain at the expense of the other although reality may fall short of the theoretical goal for a variety of reasons, e.g., discrepancies in the exchange value, social standing of the individuals involved. Balanced reciprocity is most often found to exist between families, lineages, clans and even within tribes, although the expectation of parity may decline as one moves further from one’s closer kinship ties. The semantic connotations revealed at least in Germanic and Iranian which reflect “commonness” or “parity” for PIE *mei- suggest that this term may have been associated with a system of balanced reciprocity. Beyond the tribal level, one may encounter more frequently negative reciprocity, a system comparable to modern commercial systems where each party seeks to profit over the other. Here one is dealing with outsiders where the moral obligations pertaining to exchange...
may no longer be felt compelling.

The exchange may well involve the apparent presentation of a gift (*deh3*) with reciprocation required by the moral code of the individuals involved (cf. the Old Norse Hávamál [145]: *ey sét til gildis gíf* [gift looks for gift*]). This concept of expected reciprocation may be bound up with the frequent appearance of opposed perspectives in the meanings assigned to words for *give* and *take*, e.g., *h‘et*- yields Grk αὐτών *take* but Točhā e-* give*; *deh3* has Lat dō *give* but Hit da-*take*. Non-reciprocation may be punished by bad-luck, illness, etc. The reciprocation, however, need not be simultaneous and the receipt of a gift may entail future obligations. In terms of political theory, the exchange of commodities, including women in marriage (cf. the semantic ranges of both *kʷreiltī* and *yest-*), cements contractual friendship and helps to ensure peace in situations that might otherwise result in either warfare or mutual avoidance. As observed in Marcel Mauss's celebrated study of gift exchange, there are three options for groups of men who come together: hostility, avoidance or mutual accommodation effected by the exchange of gifts.

By the Bronze Age there is clear evidence for centralized exchange or redistribution systems seen, for example, in Mycenaean Greece where the overwhelming majority of the Linear B tablets comprise the records of palace-based economies. Here, chieftains were able to solicit from their subjects various goods (through taxes) which might then be be not only consumed by the elite but also redistributed among the population, stored in case of need, or converted into other commodities by way of exchange systems that could procure luxury goods abroad (cf. *per-*exchange [abroad]). Although easily attested among the socially more complex societies of the later Bronze Age, i.e., after c 1500 BC, such systems of redistribution are believed to have begun much earlier among some Neolithic and early Bronze Age societies where they provided a stimulus to increasing social complexity.

The idea of actual *selling* pertains to a money economy which would not emerge until millennia after the dispersal of the IE stocks. Thus, Emile Benveniste explained the meaning of ON sæja ‘deliver, sell’ with reference to Goth saljan ‘bring an offering to a divinity’ by quoting Tacitus to show that when someone forfeited his freedom in gambling, the winner would try to wipe out his feeling of guilt and shame for having reduced his opponent to servitude by way of an offering. This concept predated the establishment of commercial relations and a similar semantic shift is to be found in the meaning of the Germanic verb *bugjan* ‘liberate, redeem someone’ (from a servile condition) which developed into NE buy. Hence, both terms were originally associated with religious concepts.

See also Compensation, Give, Take. [E.C.F., J.P.M.]

Further Readings

EXCREMENT


*sok-) (gen. *s(e)knos*) ‘(human) excrement’ [IEW 947–948 (*sek-*)–d]; Wat 60 (*sker-*)–717 (*skʰerth-*), Buck 4.66). Olnd skarn ‘dung, manure, compost’, OE scarn ‘dung, manure’, Latv sārns ‘slag, excrement, menstruation’ (the Germanic and Latvian forms represent a conflation of the r- and n-stems of this noun), OCS strati ‘defecate’, Rus sôr’ dung’, seri ‘defecate’, Grk σκῦξ ‘(human) waste, excrement’, Hit sakkar (gen. saknas) ‘excrement’, (reduplicated) za-sgar-ais ‘anus’ (< *excrement-mouth’), Av sairya- ‘dung’. Sometimes connected with the following word but note the difference in velars, *k* vs *k*.

Both *kokʷt* and *sok-) would appear to be IE in distribution, with evidence for the latter being somewhat stronger. The two words may have been distinguished in that *sok-) primarily referred to human excrement while *kokʷt* denoted the agriculturally usable animal dung.

*kerd-‘defile, defecate’. [IEW 947–948 (*sek-*)–d]; Wat 60 (*sker-*)–717 (*skʰerth-—*). Lat mūscera ‘mouse-dung’, bu-cerda ‘cattle-dung’, so-cerda ‘pig-dung’, NHG harz (< *kordo-) ‘resin, rosin, gum’, Khot khārgga- (< *xard-kə-) ‘mud’, sam-khal- (< *t̥sama-xərd-) ‘smear, defile’, MPers xard ‘clay’, Shughni šard ‘clay’, šard- ‘defecate’, Pashto axēr ‘to plaster’ (the Iranian all from *kh-*). Olnd kardama- ‘mud, slime, mire, dirt, filth’, Točhā kartkal ‘swamp, marsh’, Točī bārāk ‘swamp, marsh’ (the Tocharian forms are derivatives of the verb kartk- (< *krd-kə-)). This word may not have meant ‘excrement’ in sensu stricto in PIE but probably included the notion of excrement as part of a more general meaning. Certainly of PIE age.

*gʰuub- ‘defecate’, *gʰuubtós ‘dung, muck’. [IEW 484 (*gʰub-*)–483 (*kʰu-*)]. Arm ku (< *gat-)? ‘dung, manure, muck’, Av guha- ‘dirt, excrement’, Olnd guha- ‘dung’ (the Indo-Iranian *-th-, rather than *-t- may be due to the affective nature of the word), gavatī ‘defecates’. The Armenian and Indo-Iranian words are certainly related and guarantee an IE word of the east. Perhaps Lat (im)bāhārē ‘defecile with menstrual blood’ belongs here if, as is usually supposed, it is for *bāhānārē and borrowed from Osco-Umbrian (in any case an affective word such as this might very well be subject to phonological deformation). Also possibly here is OHG quiat
(if < *g²yeh₁dh₁-o-) 'dirt, excrement'. If one or both of these latter possibilities belongs here, then we have a word whose PIE status is guaranteed. Gl, following earlier suggestions, would divide *g²ubₓ as *g²u-bₓ, i.e., as *g²u- 'cow' plus some suffix. This is an attractive analysis and would mean that originally the word must have meant 'cow-dung'.

*pʰuh₂d₁s₂ 'dung'. [IEW 627 (*'augh-'). Lith šūdas 'dung, muck', Latv šūds 'dung, muck', Grk (Hesychius) ioxvthi 'pig-dung', koubōn 'foul-smelling'. A word of the center of the IE world.

*ghed-e/o- (Albanian, Greek), *ghed-e/o- (Old Indic) 'defecate'. [IEW 423 (*ghed-); Buck 4.66]. Alb dhjis 'defecate', Grk ξέζο 'defecate', (Hesychius) χωδίτευω 'retire to relieve oneself', (Hesychius) χόδον είναι 'rump', Av zādāh- ~ zādāh-'rump', ŌInd haddati 'defecates', hadana- (only attested in the work of lexicographers) 'excretion'. At least an "easternism" in late PIE and, where the two existed side-by-side, more similar than the following formal word.

*kak(k)ech-e/o- 'defecate'. [IEW 521 (*kakka-); Wat 26 (kakka-); Buck 4.66]. Mlr ccaçaid 'defecates', Wels cach 'defecate', Lat cacō 'defecate', Rus kakati 'defecate', Grk κακάω 'defecate', Arm k'akor 'excrement'. Originally a "nursery word".

See also Anatomy, Diet. [D.Q.A.]

Further Reading

EXTEND

*hryg- 'move in a straight line; extend, stretch'. [IEW 854-857 (*hrg-); Wat 54 (*hrg-); BK 591 (*rak-/*rak-)]. OIr rígid 'stretches', MWels ro(d)i 'give', Lat regō 'direct in a straight line', ON rekja 'stretch, spread out', OE reccan 'stretch out; be concerned about' (> NE reck), OHG rec(h)an 'stretch out', Goth uالف- rakjands (pres. part.) 'reach out, extend', Lith ręžti 'stretch', Lat rivēz 'stretch up', Grk ἐρέγω 'stretch', Hlt harganau- 'palm, sole' (cf. Grk χειρός όποιας 'stretching out the hands'), Av rāzayeti 'adjust, arrange', ŌInd ṝṭjati - ṝṭjati 'stretches, stretches out', TochAB ṭak- 'stretch out, cover'.

The root is so widely attested that it may be reconstructed to PIE with a strong degree of certainty. The attested present-tense forms exhibit several different suffixes. Greek and Old Indic show *-e/o-, Germanic has causative forms; Latin shows the suffix *-deo/o-. A large number of derivatives, e.g., Lat tenēs, OE fyne (NE thin) show the meaning 'thin'. Cf. also *thet- (to- s- 'stretched': Lat tentus 'stretched', Grk ταξιδέσ 'stretched', ŌInd tātā- 'stretched'.

*teng(h)- 'pull'. [IEW 1067 (*tengh-); BK 106 (*t[ŋ]ana/*t[ŋ]ana-)]. Lat ēmō (*tengh-s-mon- 'chariot pole', ON þisþ 'wagon-pole, shaft', OE þeol 'wagon-pole, shaft', OHG dihsila 'wagon-pole, shaft' (*Proto-Gmc *þensilo), OCS ras-tegg 'pull apart', Av ḥang (pull) (with unexpected initial θ) rather than t-). The geographical distribution of the attestations would seem to guarantee PIE status. An enlargement of the attestation of *ten-s- 'stretch'.

*tens- 'pull'. [IEW 1068-1069 (*tens-); Wat 70 (*tens-); BK 106 (*t[ŋ]ana/*t[ŋ]ana-)]. OHG dinsan 'pull', Goth atpinsa 'pull', Lith tėšį 'stretch, pull', ŌInd tamsayati 'draws to and fro'. The root *ten- is extremely well attested, however, the extended form *ten-s- is, aside from the Old Indic form, only found in western IE suggesting the possibility that this form was created independently in the west and east. From *ten-s- 'stretch'.

*reig- 'extend, stretch out (a body part)'. [IEW 862 (*reig-); Wat 54 (*reig-)]. OIr ringid 'twists, tortures', OE recan 'stretch out, extend' (> NE reach), OHG rechen 'reach, attain', Lith režti 'stretch, tighten'. Distribution suggests a west IE dialectal form.

*seik- 'reach for, stretch out the hands'. [IEW 893 (*seik-)]. Lith siekti 'reach for something', seikė 'measure capacity', Grk ἱκών 'arrive, reach', ἱκάνω ~ ikavē 'come, reach, attain', TochB sik- 'set foot' (< *reach out the foot'), TochA šik 'footstep', TochB šiko 'footstep'. The phonological correspondence between the cognates and the semantic shift seen here in Greek from 'reach for' to 'arrive' is similar to that shown in NE reach. Distribution suggests PIE status.

*tek- 'stretch out to'. [IEW 1057-1058 (*tek-)]. OIr atetch (DIL ad-teitch) (< *ad-tech-) 'entreats', rechtad 'possesses', ON þiggja 'take', OE þigan 'take, receive, partake of', OHG dicken 'ask about', Lith tekš 'reach, suffice; stretch oneself out'. Numerous doubts exist concerning this cognate
set. OIr *ateich 'entreats' may more easily be derived from the verbal root *tech- 'flee, run' which then yielded *lfeic > 'seek refuge' > 'implore, entreat' rather than this set. The Lithuanian form may belong with a root *tenk- 'thrive, make progress' seen in Goth peihan 'thrive, succeed'. If we are left with only OIr *techtaind and ON *bigga, it is possible to reconstruct a root meaning 'stretch out the hand' which may have then come to mean both 'possess' and 'entreat'; however, with so few forms clearly belonging to this cognate set it is impossible to reconstruct the root with any certainty, even for west IE.

See also King; Leader; Right; Thin. [M.N.]

EXTINGUISH

*gʷes- 'extinguish'. [IEW 479 (*gʷes-); Wat 25 (*gʷes-); GI 43]. Lith gėsėi 'go out', Latv dzis 'extinguish', OCS ugasiti 'extinguish', Grk στείςται 'extinguish', Hit kist- 'go out', Olnd jáste 'be extinguished', TochA kās- 'go out', TochB kēs- 'go out'. Semantically this set fits very well but, unfortunately, the Greek argues for a labio-velar *gʷ, while Hittite supposes a simple velar *g- (the rest of the set are ambiguous between these forms). The prefix *s- in Greek (< *sgʷes-νυ-) is also unexplained. Aside from these difficulties, the root can be reconstructed with a moderate degree of confidence.

See also Death. [M.N.]

EYE

*h₃okʷ 'eye'. [iew 775-777 (*okʷ-); Wat 45-46 (*okʷ-); GI 688 (*se/okʰ⁰-); Buck 4.21]. OIr enech 'face', MWels enep 'face' (Celtic < *h₁enē-h₃okʷ-ν/eh₂), Lat oculus 'eye', ON auga 'eye', OE ēgē 'eye' (> NE eye), OHG ouga 'eye', Goth augō 'eye', OPrus akcis 'eye', Lith akiš 'eye', Latv aks 'eye', OCS oko 'eye', oși (pl., historically dual) 'eyes', Grk ὀσσε (dual) 'eyes', ὀσσα (< okʷŋp) 'eye', ὀψ 'face', Arm akn 'eye', ačʰk (pl.) 'eyes', Av as (dual) 'eyes', Olnd aksi 'eye', TochA ak 'eye', TochB ek 'eye'. Clearly the PIE word for 'eye'. It has been suggested that one of the PIE words for 'see', *sekʷ', is 'eye' with a prefix, i.e. *s-(h₃)kʷ- but the resemblance is most probably completely fortuitous.

*bhruh₃s 'eyebrow'. [IEW 172-173 (*bhruh₃-); Wat 9 (*bhr₃-); GI 668 (*bhr₃h₃-)]. OIr forbhr 'brows', ON brun 'brow', OE brun 'brow', eyelid, eyelash (> NE brow), Lith bruvis 'brow', OCS bruv 'brow', Rus bruv 'brow', Maced ἄρροιντες 'brows', Grk ὀφρυς 'brows', Av (dual) brvat- 'brows', Olnd bhr₃- 'brow', TochA parwām (dual) 'brows', TochB parwāne (dual) 'brows'. The PIE word for 'eyebrow'.

In IE cosmology, the concepts of 'eye' and 'sun' are consistently linked to one another and in at least one case, OIr sūl 'eye', the word for 'eye' derives from the word for 'sun'.

See also Anatomy, Close (the eyes); Cosmogony, Face; Sun. [D.Q.A.]

Further Readings


EYEBROW see EYE

EZERO CULTURE see EYE

EZERO CULTURE

Ezero refers to the early Bronze Age (c 3300–2700 BC) culture of Bulgaria named after the major tell site of Ezero near Nova Zagora. The Ezero culture overlays the earlier Neolithic and Chalcolithic levels of the tells which appeared to cease occupation c 4000–3700 BC leaving a hiatus of several centuries between the end of the Copper Age and the beginning of the early Bronze Age (Ezero) culture. The site of Ezero was surrounded by two lines of defence—an outer perimeter which enclosed an area c 160 m in diameter and an inner stone walled enclosure some 60 m across. The houses, which in evidence through nine building phases, were rectangular with a percentage exhibiting apsidal ends as is also known in the Baden culture and other contemporary Balkan and Greek settlements.

Remains of the subsistence economy provide useful information about the livestock, wild fauna and agriculture of the early Bronze Age of the Balkans. The cereals included wheat (einkorn, emmer) and barley which were augmented with small amounts of lentils, peas and substantial quantities of broad bean (Vicia sativa). There were also some traces of the grape (Vitis vinifera). Cattle predominated among the livestock followed by sheep/goat and pig. Wild fauna included aurochs, red deer, roe, wild pig and small amounts of fallow deer, hare, beaver, fox, wolf and bear. The technology exhibited local bronze working, the earliest showing copper-arsenic alloys (which are linked with similar material in the neighboring Usatovo culture). The ceramics reveal numerous stylistic similarities with Troy to the southeast and the Baden culture of the central Balkans.

The organization of the Ezero culture is generally regarded as more ranked than that of the earlier Neolithic cultures since settlements not only included tell sites but what are regarded as ancillary dependent settlements. This has prompted the theory that the fortified Ezero settlements served as citadels and had begun to approach the level of social complexity that was emerging in northwest Anatolia at this same time, e.g., at Troy.

The origins and the nature of external influences concerning the Ezero culture are controversial. Some have argued that it was rooted distinctly in the earlier Neolithic cultures and merely exhibits a cultural progression. Followers of the Kurgan hypothesis emphasize the settlement hiatus on the tells and attribute the culture to an amalgamation of local Neolithic populations and steppe tribes. Still others, impressed by its similarities with northwest Anatolia, speak of some population movement from Turkey while others would reverse the direction of movement and see Troy and related sites as extensions of Balkan cultures.
The significance of the Ezero culture in Indo-European studies far exceeds its own regional identification as the future home of Thracian tribes. For theories of IE origins that exclude Anatolia from the IE homeland, Ezero offers a possible explanation and cultural link between the steppe, the Balkans, and Anatolia which may account for the early spread of an IE stock into Anatolia that still retains genetic connections with Europe. Alternatively, for those who wish to reverse population movements, it may offer some evidence for emigration from Anatolia or, more plausibly, the creation of an interaction sphere that would have embraced populations all around the shores of the Black Sea.

See also **Baden Culture; Cernavoda Culture; Cotofeni Culture; Troy**. [J.P.M.]

**Further Readings**


FACE

*hényi-h3kʷ-ôeh2₃- 'face'. [IEW 311 (*en), 776 (*okʰ-)].
OIr ene 'face', MWels enep 'face', Grk ἀντι 'face', Av aṅka 'face', OlInd aṅka 'face, front'. In origin a compound, (what is) in (front of) the eye'. Apparently of PIE date.

*préti-h3(o)kʰʷ-ôeh2₃- 'face, front'. [IEW 776 (*okʰ-)]. Grk πρόσωπον 'face', OlInd pratsak 'breast, chest', TochB pratsāko 'breast, chest'. Another compound of PIE date, (what is) in front of the eye'. The exact, and unexpected, equivalence of the Greek and Tocharian formation, *préti-h3okʰʷ-ôeh2₃-, is very significant.

See also ANATOMY, EYE. [D.Q.A.]

FALCON

*kap- 'hawk, falcon'. [IEW 528 (*kap-); Wat 27 (*kap-)].
ON haukr 'hawk', OE healc 'hawk' (> NE hawk), OHG habuh ~ habuk 'hawk', Rus kòbëc 'type of falcon'. A western isogloss offers the only cognate set for the 'hawk' or 'falcom'. The multivalent *hVr-C- which supplies bird names ranging from 'crow' to 'hen' also underlies Grk κύρας 'falcom' while ἑρας was commonly used in early literature for the smaller hawks. Armenian seems to lack an early term for 'falcon' or 'hawk' and the eagle word արջ 'falcon' while the Slavic term, such as Rus sókol 'falcon' is a loan from Iranian and jástreb 'hawk' has no sure IE etymology. Lat accipiter 'hawk, falcon' is derived from pre-Lat *acu-peter 'sharp-winged' or, as suggested by Gl, 'fast-flying'.

Consistent with the lexical evidence, the term 'falcon' is much confused, but technically refers to any bird of the order Falconidae, of which the hawks are genus accipiter while the falcons are genus falco. The falconer uses the term 'falcon' for any bird he trains, whether hawk or falcon or eagle. Popularly, 'falcon' is used for any of the smaller birds of prey. The ornithologist understands it as a small raptor with pointed rather than broad wings. The term 'falcon', when used strictly, thus refers to only those raptors with pointed wings, long tails and largish head. They can be described as perfect fliers, capable of great speed when attacking. But the ancients clearly made no such distinctions though there was knowledge of numerous species of hawks in ancient times.

See also BIRD, EAGLE. [J.A.C.G.]

FALL

*kad- 'fall'. [IEW 516 (*kad-); Wat 26 (*kad-), Gl 61 (*Kʷar-); Buck 10.23]. OIr casar (< *kad-t-ará- 'fall', Lat cadò 'fall', cadavér 'corpse' (< *the fallen'). Arm c'aimi (< *kadio- 'fall', OlInd sad- 'fall off, fall out (of teeth)'). Found at the extremes of the IE world it is surely old but probably in PIE a "popular" rather than the normal word for 'fall'.

*phól- (*phból-) 'fall'. [IEW 851 (*phól-); Wat 51 (*ph(h)ol-), Buck 10.23; BK 53 (*ph/hol-); BK 53 (*ph/hol-)]. ON falla 'fall', OE fellan 'fall' (> NE fall), OHG fellan 'fall', OPrus au-pallai 'finds', Lith pėlė 'fall', Latv pēlu 'fall', Arm p'al 'fall, crush', p'anim 'fall'. A late IE word of the west and center.

*pēhi- 'fall'. [cf.IEW 825 (*pet-); BK 45 (*phat-)]. Grk (Doric) ἁπεῖ 'not falling', ἁπεῖα 'fall, calamity', Hit piddai (< *ptōhī) 'flies', petēnu- (< *ptī- 'neu-') 'cause to run'. Cf. the derivative *ptōhītios 'fallen': Grk
The Indo-European concept of fame is particularly associated with the vocabulary of oral tradition where deities are recorded in narratives, often epic poems. Even where the precise lexical formula indicated in Greek, Old Indic and Tocharian is no longer to be found, the same concepts may still be nested in the individual elements, e.g., OIr clu means 'fame' while OIr ainm, the cognate of Grk oνομα, OInd nāma, etc., 'name' also denotes 'reputation, renown'. In all those societies preserving a heroic literature, i.e., a literature specifically devoted to recounting in elevated style the deeds of warriors, we find a similar development. The goal of the warrior is to seek 'fame everlasting' which is not simply achieved on the battle-field but must also be recorded orally by the poets. The imperishable element of fame rests then with the oral literature in which one's deeds are recounted; it is the only means of achieving immortality in early Indo-European tradition. Hence Akhilleus in the Iliad must ponder whether to remain at Troy where he will most certainly die but gain 'imperishable fame' or return home, saving his life but abandoning his hope of achieving 'fame'. The early Irish epic tale, the Táin, records similar sentiments when the young hero Cu Chulainn learns from a druid that he who takes up arms on a particular day although his life be short, he will have a 'name' (ainm) that would last forever in Ireland. Cu Chulainn willingly accepts the prophecy, expressing the sentiment that if he achieves fame, he would be satisfied with but a single day on earth. Although the sentiments expressed in the institutions of the various IE stocks from Ireland to the Tocharians may obviously involve parallel developments which might be expected of any heroic society, the cognitive formula evident in Greek, Indo-Aryan and Tocharian suggest that these particular notions of fame and how it is achieved were already present in PIE society.

See also HEAR, POETRY [E.C.P., J.P.M.]
be born'. This word is found in widely separated western and eastern stocks and is thus unquestionably the principal IE term for the family as a biological entity. Terms that come from a compound, 'of the same kindred', PIE *somo-go(h1)-jos, show later phonological developments in the loss of the laryngeal and emphasize the importance that kinship reckoning came to have in later post-IE society.

With regard to the family as a social entity two terms compete. A neuter noun *domh₂-re- refers to the members of a single household as the o-grade *dom(h₂)os refers to the homestead itself, the house; metaphorically the building comes to represent the inhabitants in Italic and Slavic, although the archaic situation is indicated by locatives such as Lat domi 'at home' and the use of rare Grk δῶοι 'household' and the Indo-Iranian social locution 'master of the household' preserved in Av dāng patti- and OInd pātir dan. Benveniste incorrectly inverted this order, taking the o-grade as the social institution as in classical Latin. In actual fact athematic nouns designated the social reality and the o-grades the physical units as can be seen in the parallel situation with *tuik- 'clan' and *uikos- 'settlement'. The first form, which designates the social unit, reflects the original PIE feminine preserved in Indo-Iranian (Av vis- 'clan', OInd vis- 'dwelling; clan') and in a series of compounds for 'master of the clan' (Alb zot 'lord' < *dzwapt < *wskā + *poi-, Lith vispetasis 'master' and OInd vispaiti- 'head of the household'). The second form, *uikos, is the source of Lat vicus 'city block' and Grk οἶκος 'house'. The noun *domh₂-re- thus approximates the nuclear family and *uik- the extended family.

A deeper etymology for *uik- has been attempted from time to time but without great success. Few would accept the suggestion that it derives from *yeik- 'bend', i.e., a hurdle or fence encircling a household group. More recently O. Szemerényi has sought the origin of the word in a verb *yeik- 'go' (Grk έικων 'give way, withdraw', Av patti-visiati 'enter, visit', Yagnobi vits 'to go', OInd visati 'comes, arrives, enters'). In this way the *uik- is a nominalization of the verb, a 'going, gang, a group of people on the move', which would attest an originally nomadic residential structure which was then reapplied to their later settlements. The restriction of this verb to Indo-Iranian or, only somewhat more generally, to the southeast (with the inclusion of Greek), however, makes it uncertain that it can underly the widespread word for 'extended family, clan'.

The Proto-Indo-European Family

The precise structure of the PIE family has probably been more assumed than demonstrated. There are a number of classification systems that have been applied to family structures. It has been widely presumed that the PIE communities were organized into what are variously termed communal (patrilineal), joint or extended families. In such a family, wives marry into a family dominated by their husbands father, the daughters marry outside their family and move out of their lineage into that of their husbands. Upon the death of the father, the property may be divided equally among the sons, and each may then establish his own communal family with his sons as they marry. Encountered, although very rarely, is the matrilineal version of the communal family. These forms of family can be distinguished from the stem family where only one child (by way of primogeniture [inheritance of the first born] or ultimogeniture [inheritance of the last born]) inherits the parents' property. The other sons may move out or be prohibited from marriage. The third type of family is the nuclear family where all children tend to leave their parent's household on marriage to establish their own families elsewhere (there may be a temporary phase where newly-weds live with the parents before setting up their own families). A final type is the patrilineal nuclear family. Here the patrilineal principle, which sees the disinheritance of women, is not combined with the co-residence of all the males nor of their forming a communal subsistence unit.

In a survey of Eurasian family types, the most numerous is the patrilineal communal type (43%), followed by the nuclear (28%), then stem (15%), patrilineal nuclear (11%) and then matrilineal communal (2%). The distribution of the patrilineal communal (extended) family is found from the Baltic to Vietnam and defines the center of Eurasian types while the other family systems are dispersed about the peripheries. Sagart and Todd have suggested that the principles of linguistic geography, which holds that centers innovate while peripheries conserve, suggest that the patrilineal communal type is probably a late innovation that spread over a vast area of Eurasia (they can trace its late inception, for example, in China toward the end of the first millennium BC). They also suggest that the reason for its spread in Eurasia may have been that it assembled into a single co-operative unit the fathers, sons, and their brothers which may have served as an embryonic military unit.

See also House, Kinship. M.E.H., J.P.M.

Further Readings


FAR

*ulteros 'far'. [IEW 1176 (*ultero-), Wat 78 (*wi-tero-), Buck 12.441, ON vðr 'against', OE weder 'opposite' > NE wither as in withershins). OHG widar 'against', Goth wifra 'against', Av vitora- 'a further one', OInd vitarām 'far away'. Possibly also Lat vitrusc 'stepfather' < the one farther away'. From *uf- 'in two, apart + *tero-, a comparative form used both as a preposition and as an adverb denoting direction. A possible but problematic reconstruction as only Old Indic refers to 'far' and the Avestan and Old Indic forms differ with respect to the length of the first vowel.

See also Apart [A.D.V]
FART

* pérd/o- 'fart'. [IEW 819 (*perd-); Wat 50 (*perd-); Buck 4.64]. Wels rhech 'fart', ON freta 'fart', OE færton 'fart (> NE fart), OHG feznan 'fart', Lith perždu 'fart', Latv pētdu 'fart', Rus perdet 'fart', Alb pjerdh 'fart', Grk πέρδομα 'fart', Av pārōd- 'fart', Oldn pārdate 'fart'. Derived nouns are seen in Wels rhechen 'fart', ON fretr 'fart', OHG furtz ~ firtz 'fart', Lith peridu 'fart', Alb pordhe 'fart', but they are all rather banal derivatives of the verb. Though not universally attested, in part because our texts of such languages as Tocharian and Hittite have no reason to use such a term, this verb is clearly of PIE age.

* peds- 'fart'. [IEW 829 (*pezd-); Wat 51 (*pezd-), Buck 4.64; BK 42 (*pḷaṣ-/*pḷaṣ-)]. Lat pēdō 'fart', pōdēx 'rump, anus', perhaps NHG fisten 'fart', Lith bezdū 'fart', Rus bzdēt 'fart', Grk βδεω 'fart'. In origin, a phonetic variant of the previous word although it has also been claimed that *pérd/o- indicated a louder fart than *peds-.

See also Anatomy. [D.Q.A.]

FAST

*hek- us - xehθ- uk- 'fast'. [IEW 775 (*okū-); Wat 45 (*oku-); GI 455 (*okū-)]. O=Wels di-aeuc 'not-fast', Lat occior 'faster' (and possibly accipiter 'bird of prey' < quick-winged), Grk ὀξύς 'fast', Av āsū- 'fast', Oldn āsā- 'fast'. Good candidate for PIE status, presumably < *hek- 'sharply'.

*heg-ros fast (of animals). [IEW 64 (*heg-ros)]. Grk ἀγρός 'fast (of dogs, horses), Oldn ἡγρα- 'fast (of horses)' The underlying meaning here is 'white, shining' and suggests a particular semantic development of a color term (cf. 'the horses streaked on by') that might be late Indo-European. Compare also the cognate expressions: Grk κόκυς ἀγροῖ 'fast dogs', Oldn ἡγραν 'having fast dogs'; also Oldn ἡγραυ- 'rising straight up', Arm arcīw (< *xegipios) 'eagle'.

*eteto- 'quick, fast'. [IEW 345 (*eteto-)]. Lat adōr 'before, earlier', OE eðer 'quickly at once', OHG őtor 'quick, Lith otrūs 'lively', őt 'fast', Latv ātrs 'fast (with the Baltic apparently representing *eteto-), Thrac *Athus (river name, presumably the 'fast, turbulent'). To be excluded on formal grounds is Grk άγρο 'fat, fruit', OCS *alp 'fat, fruit', TocM *alp 'fruit'. Possibly also here should be OIr *dīt 'fast, turbulent'.

* etek- 'hasten'. [IEW 524-543 (*tegh-)]. OHg higian 'hasten', Rus sîgat 'spring', the uncertainty of Oldn sigrā- 'quick, fast', the only non-northwestern cognate, does not secure this good IE status.

*keigh- 'fast'. [IEW 542-543 (*tegh-)]. OHg higian 'hasten', Rus sîgat 'spring', the uncertainty of Oldn sigrā- 'quick, fast', the only non-northwestern cognate, does not secure this good IE status.

*hegbhulos 'fast'. [IEW 5 (*ag̣-); Buck 14.21]. Lat agilis 'quick', Oldn ajirā- 'agile, quick'. This pair probably reflects parallel dialectal formations from the very productive root *hag̣- 'drive'. Grk ἀγέλας 'herd (of cattle, horses, etc.)' would present another parallel, with considerably different semantic development.}

FATHER

*phēter (gen. *phētros) 'father'. [IEW 829 (*patēr); Wat 51 (*pater-); GI 667 (*phēyper-); Buck 2.35; Szem 1; Wordick 116-117]. OIr athair 'father', OWels -air 'father', Lat pater 'father', Osc pater 'father', Umb pater 'father' (in compounds), a zero-grade here while the Balto-Slavic forms Lith burzdūs- 'fast', OCS brūţo 'fast', Rus borzyj 'fast' reflect *z rather than *s, making their connection more doubtful. Not even secure as a northwest term in late IE.

See also Horse, Sharp, White. [J.C.S.]

Further Reading


FAT

*ptthwyr 'fat ness'. [IEW 793 (*pi-u-er-); Wat 47 (*pi-er-)]. Grk πταφ 'fat, tallow', πλω (lem. *πτερα) fat, fruitful, rich, Oldn pilvas- 'fat', pilvan- (lem. *pilvar-)'fat, swollen', payate 'is swollen, overflows'. The exact equation between Greek and Old Indic of an archaic morphology would seem to guarantee PIE status for this word. Possibly also here should be OIr *tīn 'fatness of goddess and 'Ireland', M=Wels *werd 'Irish Sea, Atlantic', *Iwerdôn 'Ireland' (< Proto-Celtic *IwerdI 'father of Ireland where 'fatness' is applied to the land, cf. Grk *περαία name of a district in Thessaly and Homeric *περαον *φορμον 'fertile land'; cf. NE 'fat of the land'.

*selpes- (or *selphes-?) 'oil, fat, grease'. [IEW 901 (*selp-); Wat 57 (*selp-); GI 609 (*selp-)]. BK 161 (*selp-; BH 161). Alb gialpe 'butter', Grk ἔλαιο 'oil, fat, grease', Oldn sarpis- 'melted butter', TochA salyp 'unguent, fat', TochB salyp 'unguent, fat'. Cf. OE seall 'grease' (> NE salve), OHG salba 'grease' (Gmc < *selp-), OE seallian 'to grease', OHG salbon 'to grease', Goth salbon 'to grease'. Widespread and old in IE.

*smerm- 'oil, grease'. [IEW 970-971 (*smeru-)]. Wat 62 (*smer-); Buck 5.89; BK 538 (*mar-*mar-). OIr smur 'marrow', Wels mēr 'marrow', ON smjor 'grease', OE smeor 'grease' (> NE smeal), OHG smeoro 'grease', TochB smar ( < *smero-) 'oily, greasy'. Unlike to be connected, for both phonological and semantic grounds, is Grk σμυρίς 'abrasive for rubbing'. The reflexes of this word are sufficiently widespread geographically to guarantee its PIE status.

*bhopus- (animal) fat'. Lat ad-eps 'suet, lard', optimus (if < *opV-pimus) 'fat', Hit appuzza 'animal fat, tallow', TochB op 'fatness'. The geographical spread of this word's reflexes strongly suggests PIE status.

See also Ancient, Meat, Milk. [D.Q.A.]
ON *pater 'father', OE *fader 'father' (> NE father), OHG *fater 'father', Goth *fadar 'father', Grk πατήρ 'father', Arm hayr 'father', Av pta 'father' (dat. pātōti), OInd pitar- 'father', TochA pācar 'father', TochB pācer 'father'. The PIE word for 'father'. Possibly also of PIE date is *pʰətʰ- 'parental'. [IEW 829 (*patro-)]. OIr atithre 'parental', MWels edryð 'paternal' dwelling, Lat paterius 'paternal', OE fædera 'father's brother', Fris fæderia 'father's brother', OHG fäturo 'father's brother' (Gmc < *pʰətʰ-os). Grk πατέρος 'paternal', OInd pītraya- 'paternal', TochB patarey 'paternal'.

*somo-pətər of the same father'. [IEW 829 (*somo-pato-)]. ON samleðra 'of the same father', Grk ὑπωνάτωπος of the same father, OIr hama-pitar- of the same father, TochA soma-pācər of the same father. The distribution of this compound suggests PIE status.

*at- (or *hət-) 'father'. [IEW 71 (*átos - *atā); Wat 4 (*atō); Buck 2.35; BK 430 (*at[h]([h])/ *at[h][t(h)])]. OIr aite 'father-t, tutor, teacher', Lat atta 'father', ON atti 'father', OHG attor 'father', Goth aita 'father', OCS oitc 'father', Rus otec 'father', Alb aite 'father', Grk ἀττα 'father', Hit attas 'father'. Although a word derived from the language of children, the distribution suggests PIE status.

*tat- (or *t-hət-) 'father'. [IEW 1056 (*tata-); Buck 2.35]. Wels tad 'father', Lat (inscription) tata 'father', Grk τάτα, τέττα 'father', Luv tātas 'father', OInd tata- 'father'. Perhaps a deformation of the preceding word which again suggests at least the possibility of PIE status.

*papa 'father, papa'. [IEW 789 (*pap(p)a); Wat 47 (*papa)]. Lat papa 'father', Grk πάπα 'papa', Palaic papa 'father', Scythian Zeuς Πατάς 'papa Zeus'. Another child's word which is widely enough distributed to suggest IE antiquity.

*genh₁-tor 'father, procreator'. [IEW 374 (*gena-ter); Wat 19 (*gena-); BK 275 (*kan-/*k'on-)]. Lat genitor 'procreator', Grk γενέτορ 'procreator', OInd jantār 'procreator'. Possibly, even probably, a word of PIE status but it is also possible that all three words are independent creations in the stocks in which they occur.

A formal term, PIE *pʰətər, existed beside several informal terms, most notable of which was *hət-. The formal term has been preserved in eight branches, Celtic, Italic, Germanic, Greek, Armenian, Iranian, Indic and Tocharian. If one can accept the loss of the vocalic laryngeal, then there may be some (questionable) traces of the word in both Baltic and Slavic. Szemerényi proposes to derive Lith tėvas 'father' from *ptē (cf. Av pta) where the laryngeal has been lost and *pt- > *t- (and the rest of the word is not well explained). In Slavic we have the divine name Stri-bogā, taken to be 'father-god'.

Although Antoine Meillet was fond of pointing out that Proto-Indo-European 'father' was not merely the masculine equivalent of 'mother', his chief argument, that 'father' was used as a divine title in Lat lōpiter, Umb luv paatre (dative), Grk Ζεύς πάτερ and OInd Dyaus pitar, is less convincing in light of titles like Greek Μήτρη πατός 'mother of gods' and the Irish gloss Ana: mater deorum 'Ana, i.e., mother of the gods'. Nevertheless, the fact that the Latin plural patrēs and the Indic dual pitārus signify 'parents' and legal precepts such as Lat si pater filium venum duuit, filius a patre liber ('if a father sells his son three times, let the son be free from his father') mention only the father indicates that the Indo-European father possessed considerable legal authority within the family.

Beside the formal term for father, PIE *pʰətər, there were a number of less formal terms. One of these, *at- or *hət-, may have signified 'foster-father', the meaning found in Old Irish. This word has displaced the formal term in Slavic, Albanian, and Hittite. A variation *t-at- or *t-hət-, with a peculiar but attested reduplication of the final consonant seen in other childish terms, forms the common term in Welsh, Baltic and most of Anatolian and is a common affectionate term in Albanian and Greek as well. Latin, Greek, Palaic and Scythian also possess a familiar form for 'father'. The need for a term for 'having the same father' in Germanic, Greek, Iranian and Tocharian suggests that the Indo-Europeans employed parent and sibling terms for a wider variety of people than one's own biological parents and the children of one's own parents, that is, they employed a classificatory rather than descriptive kinship terminology.

See also Grandfather, Kinship, Master. [M.E.H.]

**FATHER-IN-LAW**

*syēkuros 'father-in-law, husband's father'. [IEW 1043–1044 ( *syekurō); G 662–663 (*syekuros); Buck 2.61; Szem 17–18; Word 170–171]. Wels chwegrdn 'father-in-law', Corn whygern 'father-in-law', Lat socer 'father-in-law', OE sehoru 'swēor 'father-in-law', OHG sehwar 'father-in-law', Goth swaihtra 'father-in-law, Lith šešutas 'husband's father', OCS sverkra 'husband's father', Rus sverok 'husband's father', Alb jehherr (< *syekuro-) 'father-in-law', Grk ἔξυπνος 'wife's father', Arm skes-as- 'husband's father' (lit. 'mother-in-law's man'), Av xasura- 'father-in-law', NPers xusur 'father-in-law; mother-in-law' (New Persian has generalized the inherited words for both father-in-law and mother-in-law to both sexes), Pashto saxar 'father-in-law', OInd śvāśātra 'father-in-law'. Widespread and clearly old in IE.

Oswald Szemerényi has proposed that *syēkuro- be derived from *sy-, and *kuru- 'head', i.e., 'head of the joint family', arguing that the word was created and employed from the perspective of the wife (otherwise this derivation would make no sense since a man's father-in-law, i.e., the father of his wife, could hardly be a member of his own lineage). To a woman who had married into a man's family, the head of the family would be (presuming he was still alive), her husband's father, i.e., her father-in-law. It would be natural then, according to this line of reasoning, that the woman would refer to her husband's father as the 'head of the family'. In addition to purely linguistic problems concerning both elements of this compound, this theory also rests on the presumption that PIE 'father-in-law' initially (or only) designated
the wife's father-in-law ('husband's father') and that the husband did not possess a corresponding term for his wife's father (with whom he would presumably have contracted the marriage agreement and to whom he would have paid the bride-price).

It is important then to distinguish the point of perspective of the various terms for 'father-in-law'. The semantic contexts of the cognate terms can be divided into two groups. Those words that designate the 'father-in-law' solely from the point of view of the wife are Baltic, Slavic, Greek and Armenian. The other stocks (Celtic, Latin, Germanic, and Albanian) extend it to both the husband and the wife's in-laws. It has often been presumed that the extension of kinship terms to both sides is a later phenomenon but Heinrich Hetterich suggests that there is evidence of the early use of *yāsātār- (Yast 10. 116) to designate the 'father-in-law' from the point of view of the wife are Baltic, Slavic, Greek and Armenian. The evidence for this meaning in Oldn *svāsūrā-. This evidence, he argues, would make it more plausible to reconstruct 'father-in-law' from the perspective of both husband and wife, a situation which would seem to be predicted by the general analysis of other kinship systems (for example, Omaha kinship systems typically do not distinguish the husband's parents-in-law from those of the wife), and renders Szemerényi's interesting attempt at a deeper etymology for this term far less compelling.

*bhendhros or *penth-ro's ± relation'. [IEW 127 (*bhendh-), cf. GL 23 (*bendh-), BK 26 (*binh.normalized/*bendh-)]. Lith bendras 'companion', Grk πεζός 'father-in-law', Oldn bandhū 'relative'. Some would also place Arm aner 'wife's father' here (Winter suggested loss of expected *bh [or *bh] by contamination with hayr 'father'; the recorded form could then be metathesized from *enar and derived from *pentha­ro's, a form that might also account for the Greek etymon). If the relationship between Armenian and Greek is accepted, we could have a second reconstructed form although this would be confined to a limited region. The underlying root of *bhendhros is generally taken to be *bhendh- 'join, tie, connect' and hence we have here some one 'connected' (through marriage?) The case for anything other than some late regional IE isoglosses is not particularly strong and the specific kinship semantics are limited solely to Greek.

The relation between *sgūkuros 'father-in-law' and *suekrū̂hs 'mother-in-law', is problematic. Most take the masculine to have been remodeled to avoid an unwieldy cluster in the expected *suekuros. Four stocks—Baltic, Slavic, Greek (and Armenian)—record a special form for 'wife's father'. The Baltic and Slavic forms, Lith uosvis 'father-in-law', OCS štst 'wife's father' and Rus testi 'wife's father' are related to corresponding feminines, Lith uōsve 'mother-in-law' and Rus ščča 'wife's mother', and do not provide any insight into PIE. The words derived from *bhendhros are too general in meaning and the specific kinship semantics of this word appear to be unique to Greek and not indicative of PIE. It might be argued that the fact that several early and conservative languages maintained a distinction between 'husband's father' and 'wife's father' suggests that the distinction may have been original in PIE and its widespread loss was a later development, even if no single form for 'wife's father' can be ascribed to PIE. Alternatively, it may have been the case that PIE had generic terms for 'father-in-law' and 'mother-in-law' and where various stocks made distinctions between the husband's in-laws and the wife's it is because of independent innovations.

See also Brother-in-law, Kinship, Mother-in-law.


FATYANOVO-BALANOVO CULTURE

A variant of the Corded Ware horizon (c 3200–2300 BC), the Fatyanovo culture is located in the region from Lake Pskov eastwards to the middle Volga, and takes its name from a cemetery in the Yaroslav district. Fatyanovo defines the western part of the culture while in the eastern area of its distribution it is known as the Balanovo culture. Settlements, which are few in number, tend to be located in elevated positions and on Balanovo settlements rectangular semi-subterranean houses are known. Here also there is some evidence for sites defended by earthen banks. The general absence of settlement remains throughout most of the culture, as with other variants of the Corded Ware horizon, is usually interpreted as reflecting an essentially mobile economy. The Fatyanovo culture is seen to introduce an economy based on domestic livestock into the forest zone of Russia and the degree of mobility that one may ascribe to it is seriously mitigated by the fact that the main domestic fauna tends to be (the non-mobile) pig, which is then followed by sheep, cattle, horse and dog; there are also the remains of wild species.

Primary information regarding Fatyanovo derives from over three-hundred cemeteries attributed to the culture, the largest being on the order of over a hundred burials. Graves were shafts, sometimes over 2 m deep, and the walls might be lined with wood and the floor covered with birch bark. The usual pattern of Corded Ware ritual is reflected with males deposited on their right sides (heads to SW) and females on their left (heads to NE). Grave-goods included pottery, ornaments of animal teeth, polished stone battle-axes (for males) and occasionally stone mace-heads. Metal resources from the western Urals were exploited and it is from this region that one finds simple metal tools and ornaments although they are manufactured according to types known in central Europe. That the culture produced its own metal objects is attested by the finding of metal-working implements in graves suggesting the presence of local smiths.

Unlike many of the other variants of the Corded Ware
horizon, the Fatyanovo culture is found beyond the borders of the earlier TRB culture and has been regarded as a genuine folk movement into the forest region of Russia, variously derived from the Baltic, central Europe or, less likely, the Russian-Ukrainian steppe (there are similarities between Fatyanovo and Catacomb culture stone battle-axes). The case for an intrusive culture is based on the physical type of the population, flexed burial under barrows, the presence of battle-axes and ceramics. On the other hand, it has also been argued that the culture represents the acculturation of the local Pit-Comb Ware inhabitants of this region through contacts with Corded Ware agriculturalists to the west. If one assumes that the Corded Ware horizon does reflect an earlier IE linguistic identity (which is frequently accepted), it is unlikely to have persisted as later during the early historic period this territory appears to have been occupied by Uralic-speaking peoples before the still more recent expansion of the Balts and Slavs.

See also Corded Ware Culture; Pit-Comb Ware Culture.

Further Readings

FAVOR

*h₄eu- 'favor'. [IEW 77 (*au-)]. OIr con-ōi 'guards', Wels ewyllys 'desire', lat aveo 'desire strongly', Runic auja 'good fortune', Goth awi-liup 'thanks', Grk (Doric) ἄκύος 'friend, beloved', perhaps Arm avivm 'inspiration', Av avaiti 'cares for, helps', Olnd avati 'is pleased, promotes', avi- 'favorable', avas- 'enjoyment, favor, help'. Widespread and of PIE status. Perhaps *h₄eu- is actually *h₄eu- and ultimately the same as *h₄eu- 'eat'.

*h₄erhas- 'be well-disposed to someone'. Grk ἐπομαι- ἐπάω 'love', TochAB yars- 'be deferential, respectful'. The apparent agreement of Greek and Tocharian would seem to be good evidence for at least late PIE status for this word.
FEAR

*bhibhōihxe* 'is afraid'. [IEW 161–162 (*bhoi-); Buck 16.53] ON *bila* ‘tremble’, OE *beólan –* *bilan* ‘tremble’, OHG *bībēn –* *bebēn* ‘tremble’, Olnd *bibhāyā –* *bibhēti* ‘is afraid’. Though attested only on the extreme peripheries of the IE world, the exact equation of form (the Germanic verbs, like Olnd *bibhēti*, reflect the secondary addition of the present productive endings onto an old perfect) and meaning assure its PIE status. Other present appears in OPrus *biatwei* ‘to fear’, Lith *bijās* ‘is afraid’, Lat *bijuōs* ‘is afraid’ (< *bībīx-ehx*), OCS *bojati* (cf. Lat *būi-*) ‘is afraid’, Olnd *bhyatē* ‘is afraid’. Cf. also Lat *fœdus* (< *bīhōd-ehx*–) ‘ugly, repulsive’.


*duei*– ‘fear’. [IEW 227–228 (*duei-*)], Wat 15 (‘duei-’), Buck 16.53]. Grk *deidō* (perfect *dedwoia* ‘fear’, Arm *erkn'cim* ‘frighten’, perhaps Luv *kuwaya–* ‘fear’, Av *dvæs–* ‘be hostile, provoke’, Olnd *dviēt* ‘hates, is hostile’, Tochb *wet–* ‘be frightened’. A verb derived from *duei*– ‘two’ and thus originally ‘be of two minds, doubtful’ or the like. Certainly if the Luvian word belongs here (and not to *k'uhj(i)-* ‘fear’) we have strong evidence for PIE status.

*nēh₂*– ‘be timid’. [IEW 754 (*nā-*)], Gl 705 (*nah–*), BK 563 (*nah–*/*næh–*). Mir *nār* (< *nēh₂-sro–*) ‘modest, diffident’, *nāire* ‘shame, modesty’, Hit *nah–* ‘fear, be afraid’, *nahsār–* ‘fear, terror’, *nahsāriya–* ‘fear’. Attested only in two stocks but the geographical distribution would seem to support PIE status.

*k'uhj(i)*– ‘fear, revere’. [IEW 636–637 (*k'ur–*); Wat 33 (*kweia-*)]. OCS *cājō* ‘(to)wait, hope’, *kajo* ‘feel remorse’, Grk *tīo* ‘honor, revere (of the hearing of men before gods)’, perhaps Luv *k(u)waya–* ‘fear’. Olnd *cāyati* ‘reveres, pays attention to’. Particularly if the Cuneiform Luvian word belongs here (and not to *duei-*) the geographical extension would appear to assure PIE status for this word.


FEATHER see WING

FEED

*pēh₂*– ‘guard, protect, cause to graze’ (pres. *pēh₂ti – *pēh₂te(Reti)). [cf.IEW 787 (*pa–*), 839 (*pōju-*)], Wat 46 (*pa–*); Gl 600 (*p̣h'ah*–/*p̣h'oh(i)-*). OIr *ainches* ‘bread basket’, Wels *pauwer* ‘meadow’, Lat *pāso* ‘feed, lead to pasture; nourish’, ON *fōðr* ‘food’, *fōðdr–* ‘food’ (> NE *fooder*), OHG *fuoter* ‘fooder’, OCS *pau* ‘protect, guard’, Grk (Doric) *nēvā* ‘satiety’, Arm *hawaran* ‘herd’, Hitt *pāthas-–* ‘protect’, Av *pāti* ‘guard’, Olnd *pāti* ‘guard’, TochA pās-‘guard, protect, practice moral behavior’, TochB *paks-‘guard, protect, practice moral behavior’. Cf. Grk *tēn* (< *pēh₂jū* ‘flock of sheep’, Olnd *pājā* (< *pēh₂jū*–) ‘protector’, and Grk *sōvun* ‘guardian, herder’, Lith *pienu (< *pēh₂jūmėn–*) ‘guarder’. This word is widespread and old in IE. It was the usual word to describe the herdsman’s activities.

distinguish vas- 'graze' from vas- 'wear'), TochA wāsri 'grassy area, pasture'. Widespread and old in IE. This word would seem to be the intransitive equivalent of *peh₂- above, *pen- 'feed, fatten'. [IEW 807 (*pen-); BK 58 (*p₁h₁j̣̣r²-*p₁h₁j̣̣r²)]. Lat penus 'store of food', Goth fornæ (*finja) 'a barley dish', Lith penut 'fatten', pėnas ' fodder', Palat. bānū 'liver' (*pen-nu- 'the fattened one'). Clearly old in IE.

See also EAT and DRINK, FOOD; GRASS, PLANTS. [D.Q.A] FELT see TEXTILE PREPARATION

FENCE

*ghordhos (*ghortos ~ *ghórdhos) 'fence, hedge; enclosure, pen, fold'. [IEW 444 (*gherdh-); Wat 22 (*gher-); Gl 647 (*gérdh-); Buck 19.15; BK 303 (*ghér-*ghér-)]. From *ghortos: OIr gort 'standing crop', Wels garth 'pen, fold', Lat hortus 'garden', cohors (< *ko-ght-t-s) (gen. cohortis) 'enclosure, yard, cattle-pen' (via French > NE court), Osc hünnum 'enclosure', Grk γέρπος 'enclosed place, feeding place'; from *ghordhos: ON gardar (pl.) 'fence, hedge, court', OE geard 'enclosure, yard' (> NE yard; ON/OE < *ghordh-o), ortgeard 'garden' (lit. 'fruit-yard'; > NE garden), Goth gards 'house, household, court' (< *ghordh-i-), garda 'household', Lith gardas 'fence, fold, pen', OCS gradu 'town, city', Rus gorod 'town, city', Alb gardh 'fence, enclosure, hedge', Phryg -gordum 'city' (cf. Gördion 'Gordion') with zero-grade *ghórdh-: Hit gurtas 'citadel', Luv garta 'citadel', Av garođā 'cave housing demons', Olnd ghr[a]- (< *ghrdh-') 'house, habitation, home'. The ensemble of forms assembled under *ghordhos suggests an earlier root-noun, *ghórdhs (or *ghórdhhs), gen *ghórdhos. The word-final -*ds would have been pronounced *-ts and it is this pronunciation that may have led to the creation of the variant *ghortos. Certainly belonging here as well is TochB (pl.) kercy't 'palace' (< *ghört/dhiqoi courts', cf. Gordium). Widespread and old in IE.

The original meaning of *ghórdhos would appear to have included both the hedge or (wickerwork?) fence that enclosed an individual yard or a whole settlement and the enclosure (garden or corral) thus defined. The term is also used with specific reference to the walls surrounding the PIE otherworld, e.g., ON gardar surrounds the realm of the goddess of death, Hel, Av garođa- is used with explicit reference to the cave of demons contaminated by death and corruption, and Olnd mṛnmaṇyaṃ ghrām (acc. sg.) 'house of clay', i.e., where one goes after death. From *gherdh- 'gord' which, as a verb, exists only in German (cf. NE garð). A number of IE stocks show semantically similar forms as if from a palatalized PIE *gherdh-: OPrus sards 'fence', Lith zārdis 'corral', žārdas 'driving rack (for grain); fence, enclosure', Rus zorod 'granny', Phryg -zordum 'city'. As living areas were fenced in, it is not surprising to find the semantic shifts to 'house' or even to 'city', e.g., NE town is cognate with NHG zaun 'fence, hedge'. The term was borrowed into Finno-Ugric, e.g., Udmurt gurt 'village, settlement', Komi gort 'house'. 

*vorpo- 'enclosure'. Hit (pl.) warpa 'enclosures', warpa dā- 'encircle', HierLuv warpi 'temple precinct' (> *enclosure'), TochA warp 'enclosure', TochB werpiye 'garden', werpiske 'garden'. Both Hittite and Tocharian show identical denominative verb formations (*vorpo-ēh₂-): Hit (anda) warpā- 'enclosure', TochAB warpa- 'surround, encircle'. The double morphological agreement of Anatolian and Tocharian would seem to guarantee this word PIE status.

*kagh- 'hedge, enclosure'. [IEW 518 (*kagh-); Wat 26 (*kagh-). Wels cae 'hedge', perhaps Lat (pl.) caulis('a) enclosure for sheep' (if < *kaghleh₂-), ON hagri 'wheatfield', OE haga 'hedge' (> NE haw as in haw-thorn), hecg (< *kaghio-) 'hedge' (> NE hedge), OHG hag 'hedge'. Restricted to the northwest of the IE world. From *kagh- 'catch, seize'.

*mand- 'enclosure, stall'. [IEW 699 (*mand-)]. Thrac μανδάκις 'ring of sheaves', Grk μανδόπα 'cattle-fold, byre, horse-stall', Olnd mandura 'horse-stable', mandirasta 'habitation, dwelling, palace, temple, town'. Possibly late IE and restricted to the south and east of the IE world, these words have also, less plausibly, been taken to be borrowings from some unknown (Near Eastern?) language.

*ʔyoʔeoʰɛː- (~ *ʔyti-). From *ʔytoʔeh₂-: OE wort 'court, courtyard, farm; street', NLG wurt 'elevated settlement', TochA wart 'forest', TochB warto 'forest' (Tocharian < *kagh- 'what encloses or surrounds a settlement? or < *sacred grove' < *sacred (sacred) precinct?); from *ʔyti-: Olnd ūti- 'enclosure', from *ʔytoʔeh₂-: OPrus wanto 'door, gate', Lith (pl.) vartai 'gate, gateway', OCS rata 'gate'. It is likely that these all represent independent derivatives of *ur- 'enclose, cover, protect'.

See also FORT, GIRD, HIGH, HOUSE, WALL. [A.D.V., D.Q.A.]

Further Readings

FERMENT

*bhrue- 'brew'. [cf. IEW 144–145 (*bhr(e)re(u)-), Wat 9 (*bhr(eu)-); Gl 553 (*bhr²-reu-), BK 4 (*bar-*bar-)]. The underlying verb is attested with the meaning 'brew' only in Germanic: OE břowan 'brew' (> NE brew), OHG břuwan 'brew'. A derivative *bhrutum 'beer' (< what has been brewed') appears more widely: Lat defrutum 'boiled must', ON broð 'broth', OE broð 'broth' (> NE broth), OHG broð 'broth', Alb bersi (< *bhrutjeh₂-) 'lees, dregs; mash', Thrac βρυοζ a kind of beer. Cf. also ON brasuð 'bread', OE brēad 'crumb, bread' (> NE bread), OHG brōt 'bread' (named after the leavening agent); and ON Bragi god of poetry. These words suggest that the meaning 'brew' was widespread in at least the west and center of the IE world. The use of *bhrue- is a specialization of the *bhrue- that means 'boil, seethe'.

*kuat- 'ferment'. [IEW 627 (*kuat(h)-); Gl 28]. Lat casueus 'cheese', Goth hvāpō 'foam', hvāpian 'foam up', Latv kūsāt 'boil', OCS kvasū (< *kvāt-so-) 'leaven, sour drink', kysēla
sour', Olnd kváthati 'boils, cooks'. Another word which originally meant 'boil' that was specialized for some kind of fermentation process in several IE stocks of the west and center.

While fermentation may appear as a natural process that might have been discovered quite early, at least during the Neolithic period, Andrew Sherratt has suggested that this would presume the unlikely existence of sufficient sources of sugar to initiate the process. The sugars which one might expect to be found among Neolithic populations and their corresponding fermented drinks would comprise glucose from honey which would yield mead, fructose from fruits to produce wine, maltose from sprouted grain to yield beer and lactose from milk which could make kumiss. Of these, Sherratt suspects that mead was the earliest alcoholic drink produced in Europe since honey at least contained sufficient sugars and it has been circumstantially recovered in the form of presumably honey-associated pollen in a vessel of a Beaker burial c 2000 BC. Sherratt argues that the fruits of the Neolithic, including the wild vine, would have had insufficient sugar to have initiated fermentation (this assumption, however, has been contradicted by the recent discovery of the residue of wine from a Neolithic site in Iran dating to c 5400–5000 BC). An alternative method of fermentation, not requiring the boiling of a mash, involves the chewing of grain, for example, whereby fermentation is aided by pyalin, an enzyme in saliva. This technique is known in various parts of the world, e.g., Polynesia to make kaya beer and is also recorded in Finland. The lexical evidence, however, does not suggest this particular semantic scope for any of the words for fermentation.

The appearance of alcoholic beverages in Europe are usually dated to c 3500–3000 BC with the appearance of distinctive sets of drinking vessels in the Ezero, Baden, Corded Ware and Beaker cultures which have been tentatively associated with the consumption of mead.

See also Beer; Boil; Cook; Honey; Juice; Pot; Sacred Drink; Wine. [D.Q.A., J.P.M.]

Further Readings

FEW

*pau- 'little, few'. [IEW842 (*pau-); Wat 47 (*pau-)]. From *pauos: Lat pauper 'poor' (< *pau-paro- 'acquiring little'), ON far 'little, taciturn', OE fea - fearu (OE weor 'little, few', > NE few), OHG fe 'little, few', Goth (pl.) fawu 'few'; from *paukos: Lat paucus 'little', OHG föh 'few'; from *pauros: Lat parvus 'small', Grk παρύγος 'little'. At least a word of the west and center of the IE world.

FIELD

*ɦerθju- *ɦerθyugos field'. [IEW63 (*ar(o)h-), cf Wat 3 (*aro-), Gl 594, Buck 8.12]. Old arbor (DIL arbar) 'grain', Wels erw 'field', Lat arvus 'plowed', arvum 'plowed field', Myc a-ro-o-ra 'field, arable land', Grk ἀποφαί 'field', Arm haravunk 'field'. Av urvā- 'plant', Olnd urvār- 'tillable soil, yield-bearing crop' are often, probably rightly, included within this group. They reflect a Proto-Indo-Iranian *urvār- whose phonological development, whether from *ɦerθyugos- or *ɦerθyugos plagiarism, is somewhat irregular. From *ɦerθyugos- 'plow', thus originally 'plowed field'. At the very least late PIE in date in the west and center of the IE world.

*ɦagros 'field, pasture'. [IEW 6 (*aγ-ros); Wat 1 (*agro-); Gl 600 (*Hakro-); Buck 8.12; BK 396 (*hak-/*hak-)]. Lat ager 'field', ON askr 'field', OE acer 'field (> NE acre), OHGacker 'field', Goth aksr 'field', Grk ἀγρός 'field', Arm ar 'field', Olnd ağa- 'plain'. Widespread and old in IE. A derivative of *hag- 'drive (cattle)' and thus originally 'pasture'.


*Kapos - Kaphe (or *Kaphe - *Kaphẹ-?) 'piece of land, garden'. [IEW529 (*kap-); Buck 8.13; Bailey 355]. OHG huoba 'piece of land', Grk κήπος, (Doric κήρος) 'garden', Pashho sábah 'grass, vegetables' (< *that [produced] of a garden). Roshani sêp 'cultivated field', Shughi sâp 'cultivated field' (< Proto-Iranian *sapāt-). Alb kopsh't 'garden' presumably represents an early borrowing from Greek; an inherited *kapos should have given Alb *thop-. Widespread and old in IE.

*paldhugos- 'open meadow'. [IEW 793 (*paldhugos); BK 52 (*paldhugos-/*paldhugos-)]. Lith pieva 'meadow', Grk κάδος 'grass, grassy place'. At least a late PIE word in the central part of the IE world. Perhaps related to *peh₂- 'nourish, herd' to cause graze.

*uelsu- 'meadow, pasture'. [IEW 1139-1140 (*uelsu-); Gl 723 (*uelsu-); BK 612 (*uelsu-). ORus Wolos a pagan god, probably the protector of cattle (and thus possibly the personified pasture), Grk ηλίκος 'Elysian' (if *uelsu- 'his'), Hit wella- 'meadow'. All of these may reflect a PIE *uelsu- (in each case there are other possible, and mutually incompatible, phonological antecedents). If so, we have good evidence for an ancient PIE word for 'meadow, pasture'. ON vollr 'meadow, uncultivated land' has also been put here but phonologically it reflects the same Proto-Gmc *walh- 'forest, uncultivated
waste' seen in OHG wald 'forest' and OE weald 'forest' (> NE weald and wold, both of which refer to non-forested terrain).

J. Puhvel has suggested that the *wel- of *velsu- is basically the same as *wel- 'die' and that we have, then, etymological evidence for the existence of the concept 'meadow of the otherworld' or the like in PIE. Such a conclusion seems most speculative and the two words are probably best kept apart.

The words for 'field', particularly *h₂e₂groś, have long been cited to illustrate the economic dichotomy between the European and the Asian or eastern IE stocks where the former shows consistently a series of cognates for agriculture, including 'cultivated field' while the latter either lacks any cognate or, as is the case with *h₂e₂groś, shares the form but does not denote a field employed in agriculture. However, the recognition that a PIE word for 'garden', *kāpos ~ kāpeh-, survives in Iranian greatly reduces the apparent dichotomy between the European and Asian branches of IE.

See also Agriculture, Death Beliefs, Drive, Grass, Flow.

Further Reading


**FIGHT**

*he₂g-, *he₂groś- 'fight' < 'combinative activity'. [IEW 4 (*he₂-); Wat 1 (*he₂-); Buck 20.12]. Mir āg (< *āgru- 'fight; warrior's ardor', Av āzi- 'avidity, greed' (< pāșāṇ az- 'engage in a contest'), NPer *āzā- 'avidity, greed', OInd āj- 'race, fight', (ājim aj- 'put on a contest', pātnaj- 'engage in a contest'), TochB ȧk 'zeal'. Independently derived but ultimately the same meaning is Grk ἀγών 'fight, contest'. The Greek word originally meant 'assembly, gathering', e.g., Homeric (IIiad 7.298) ἀγώνιον θεοί 'assembled (statues of the city's) deities'. It became specialized into gathering for games, hence 'competition, fight'. From *he₂g-, *he₂groś- 'drive, push' where its original sense may have been 'activity' or 'drive' (in the NE sense) which then became specialized to 'combative activity'.

*judh- 'moved, stirred up; fight'. [IEW 511 (*jeu-dh-); Wat 79 (*yeudh-); Buck 20.11, 20.12]. O'Wels Judh- 'fight' (in personal names), Lat tēbō 'order, command', Lith judtī 'move, stir', Pol judźic 'incite', Grk ἀπομίθη 'battle', Av yādyēsī 'fights', OInd vādyēsī 'fights', TochA yutk- 'be anxious'. Distribution indicates PIE status.

*katu- 'fight'. [IEW 534 (*katu-); Wat 27 (*katu-); Buck 19.52, 20.12]. OIr cth thim 'battle', Wels cad 'battle', ON hōd 'fight', OE headu- 'fight', OHG hadu- 'fight', OCS kōtorā 'fight', Rus kotor 'strife, fight'. The Slavic k- (?borrowed from a centum language) is, of course, not compatible with OInd śatr- 'enemy', which is sometimes placed here and whose meaning is not so obviously connected. This word appears to be a northwestern term in IE and is widely represented in personal names in Celtic, e.g., Gaul Cattu-rix 'battle-king', and Germanic, e.g., Hedu-rīth 'battle-king' (cf. also ON [Runic] Ḟaduluakr, OE Hēadulac, OHG Hadubrant). Attempts to relate this word to Goth hēpjo 'chamber', Av kata 'house', i.e., a fenced-off area in which one offered a duel, are hardly plausible.

**veik- 'fight'. [IEW 1128–1129 (*veik-); Wat 75 (*weik-); GI 369; Buck 20.11]. OIr fic̣hid 'lights', fic̣ht 'military expedition', O'Wels guith 'anger' (these two Celtic < *uiketh₂)(-,) Lat vincō 'defeat', Osc vicint 'is convicted', ON veg 'light', vig 'strike, war, battle', OE gewegan 'light', wigan 'light', wic 'strike, war, battle', wigend 'warrior', OHG wihtan - wigan 'light', wig - wic 'strike, war, battle', wigant 'warrior', Goth wihan 'light', Lith aúveikin 'defeat', Lat veikt 'make straight', OCS věk 'force', Rus vek 'force'. It has been suggested that this word is associated with the root *veik- 'separate' > *uiketh₂)(- 'life force' (ON veg 'strength'), Lith viaktas 'life force') with its sacral connotations as the terms for combat might allegedly have given since the gods determine the issue of the light, e.g., OHG wān 'judge' by arms > *veik- 'fight'. On the other hand, *veik- 'separate (from the profane)' > 'consecrate' may be a more logical development and hence the two roots should probably be kept distinct. The distribution suggests a northwestern term in IE.

**nant- (noun) 'combat, fight'. [IEW 755 (*nant-)]. OIr nēt (< *nant-) 'battle, combat', ON nenna 'to strive', Goth ana- nanjban 'to take courage'. The Germanic forms appear to be denominatives. Tocharian forms, i.e., TochA nati 'might, strength' and TochB nit 'might, strength' are sometimes attributed to this root but as the second PIE *n- should not have disappeared, they should be excluded. The distribution of the forms suggests a late northwestern dialectal status.

See also Army, Contend, Drive, Warfare, Warriors. [E.C.P.]

**FILL**

*pelh₁- 'fill'. [IEW 798–800 (*pel-); Wat 48 (*pela-); cf. GI 190 (*p̣ ị̄ p̣ o) (o)H-I(-); Buck 13.21; BK 54 (*p̣ āl- / *p̣ pl-)J]. O'Wels pale 'fill', Grk πελάτημα 'fill', Arm heham 'pour', Av par- 'fill', OInd pīpārti 'fills'. Both Greek and Old Indic show a reduplicated present; the Old Irish form may be a nasal-infixed present or be based on an adjective, e.g., Lat plenus 'full'. Distribution indicates PIE status.

See also Abundant, Draw (Water), Pour, Satisfy. [M.N.]

**FINCH**

*(s)pengos 'finch, especially the chaffinch'. [IEW 999 (*s)pingo-); Wat 64 (*s IND-); GI 459–460 (*s)pink-'). OE fing 'finch' (> NE finch), OHG fincho 'finch', Grk σαίγων 'finch', perhaps OInd phingaka- 'shrike'. The Germanic and Greek terms refer precisely to the 'chaffinch (Fringilla caelebs)' Arm sarekik 'finch' derives from the polyvalent *Ky-v root. A common Old Indic term for 'finch' kukinga- has no relation to any other bird name, and Lat fringilla is suspiciously close to the Germanic and Greek forms and suggests onomatopoeia.

Finches form a greatly varied family of vaneged birds, and there is little doubt that terms for finch were used indiscriminantly for any such small and brightly colored bird.

See also Birds. [J A C G.]
FIND

*yer- 'find, take'. [IEW 1160 (*yer-); Wat 77 (*wero-); Buck 11.32]. OIr *fuar (DIL frith) (< *yer-yr-) 'found', Grk εὑρίσκω 'find, discover', Arm gerem 'take prisoner'. Balto-Slavic shows an extended *tret- (*treyht-?) in Lith su-ręsti 'catch', OCS су-рести 'find, meet', ob-ręsti 'find'. A word of the west and center of the IE world.

See also FIND ONE'S WAY, KNOW, SEEK. [M.N.]

FIND ONE'S WAY

*pent- 'find one's way' (pres. *pénětēo-). [IEW 808-809 (*pent-); Wat 49 (*pent-); Buck 10.74]. The underlying verb is preserved only in Germanic: ON finn 'find', OE findan 'find' (> Ne find), OHG findōn ~ lintan 'find', Goth linjan 'recognize, learn', OE lindan 'explore, seek out', OHG lindan 'explore, seek out'; OE fundan 'strive, hasten', OHG fundan 'strive, hasten'. Widespread and old is the derivative *pontōysis (gen. *pontiōs) 'untraced path'; Lat pons 'bridge', OPrus pinitis 'way', OCS pitt'way', Grk πόντος 'sea', OHG pitt 'way', Grk νῆσος 'sea' (< *path through the sea), πάτος 'path, stride', πάτεω 'step', Arm hun 'lord', Av pātā (gen. pātō) 'path' (from Iranian come OE pēp 'path' (> NE path), OHG pād 'path'), OInd pānthās (gen. pathās) 'path (as yet untraveled), route', TochB amaks-pānte 'wagon-master' (-pānte < *pātī-ō- 'of the way').

See also FIND; ROAD. [D.Q.A.]

Further Reading

FINGER see HAND

FIR

*dhonu- 'fir' (nom. *dhonōu?). [IEW 234 (*dhānu-); Buck 8.65; Fried 150-151; BK 141 (*dhānu-)]. OHG tanna (< *dhonōun-) 'fir', Hit tanat 'fir'. Though supported by only two stocks, this equation is semantically, phonologically, and morphologically perfectly regular (Germanic, of course, has hosts of nouns that have been extended by one sort of an n-stem or another). The probability of PIE status for this word, already strong, is even stronger if Av ḍhanāra (gen. ḍhananāra) (with initial influenced by ḍang- 'pull') 'bow', OInd dhānu (gen. dhāvanas) 'bow' is added to the equation. The Indo-Iranian forms reflect an earlier *dhenur (gen. *dhēnuenos) 'bow (grant that the use of fir [sapslings] for bows seems unlikely and needs to be researched; there is some archaeological evidence for pine in the manufacture of European prehistoric bows). Exactly the same word, with the same archaic paradigm, reappears in Lat femur (gen. feminis) 'thigh'. In Latin the PIE cluster *-nu- appears as -m-. The semantic relationship between 'thigh' and 'bow' is seen again in Grk σκέλος 'thigh' and σκελος 'bent'.

*hebi- 'fir'. [Fried 150]. Lat abīs (gen. abītis) 'silver fir (Abies pectinata)', Grk (Hesychius) ἄπιας 'fir'. The status of the form in Hesychius is debatable as it might be Greek, Illyrian or some other language, words of which might find themselves in a Greek text (if the word is not Greek but Illyrian, we are free to reconstruct *hebēbhi-). In later Greek a Scythian place-name 'Afisht', a district on the Borysthenes, is glossed as 'the wooded/wild (place)'. This word's occurrence in Latin, Illyrian (or Greek), and Iranian would appear to be presumptive evidence of its PIE status.

The distribution of the fir (Abies) is primarily southerly and pollen indicators suggest that c 3000 BC it was to be found from northern Spain/southern France across central Europe and the Mediterranean (it is a dominant tree of Anatolia) to northwest of the Black Sea and the north Caucasus and then across Siberia.

See also PINE, TREES. [D.Q.A.]

FIRE

*hechter 'fire'. [IEW 69 (*at(c)r-); Wat 4 (*ater-); cf. Gl 690; Buck 1.81]. Lat āter 'black, dark', perhaps Arm ayrēm 'burn', Av āter (gen. ātero) 'fire'. Perhaps also OIr aith 'furnace', Wels odyn (< *āti-) 'furnace' and Palaic hā- 'be hot' derive from the same root. Although sometimes cited as cognate SC vātra 'fire' may be a loan from Romanian vatra which may in turn be from Alb volr; possibly all three of these are loans from Iranian. Av āter, acc. āram (*ārm) points to an old neuter in -r. In *hechter at least one laryngeal was h₂, perhaps both, i.e., reduplication. The OInd atharvan- priest may be unrelated. Geographic distribution of the few certain cognates still supports PIE antiquity.

*hēgūn 'fire'. [IEW 293 (*egnis); Wat 16 (*egni-); Gl 605 (*ugni-); Buck 1.81]. Lat ignis 'fire', Lith ugnis 'fire', Latv uguns 'fire', OCS ognt 'fire', Rus ogont 'fire', OInd agni- 'fire'. Certain PIE status.

*pehur 'fire'. [IEW 828 (*pehur); Wat 53 (*për-); Buck 1.81; BK 43 (*ph₂wa-). Umb pur 'fire', ON yrร, lîr, fûn 'fire', OE fyre 'fire' (> NE fire), OHG hur 'fire', Goth fōn, fûnis (< *puon) 'fire', OPrus panno (< *pun-?) 'fire', Czech pyř 'ashes', Grk πῦρ 'fire', Arm hur (gen. hro) 'fire', hnoč 'oven', Hit pahhur, (gen. pahwēnas) 'fire', TochA por 'fire', TochB puvār 'fire'. Clearly of PIE status. The original paradigm was *pehur, *phuren. The secondary zero-grade *phur- > *puhr- through metathesis. There were several reshufflings, e.g., gen. *phur-n-es > *puns in Germanic.

The two main competing terms, *hēgūn 'fire' and *pehur, both mean 'fire' but have been seen to have originally constituted an opposition. The first word, regularly masculine in gender, is seen to represent the concept of 'fire' as something active, hence its delification in OInd Agni- 'fire (god)' who is one of the most invoked deities of the Rigveda. In contrast, *pehur is neuter in gender and traditionally regarded as the inactive conception of 'fire' as purely a material substance.

See also ASH; BURN, CHARCOAL, DRY, FIRE CULT. FIRE IN WATER, HEARTH. [R.S.P.B.]

FIRE CULT

The use of fire in religious ritual is so universal that it is
hardly unexpected that there is considerable evidence for its employment among the early Indo-Europeans although the lexical evidence for its deification is minimal. Central to sacrifice in ancient India was the offering made to the gods and dispatched by fire which was deified as Agni (fire) who, consequently, conveyed human offerings to the gods and was the second most frequent recipient of hymns in the Bhagveda. The elaborate structure of the Old Indic fire sacrifice, the Agnicayana, although extensively described in Indic religious literature, is difficult to integrate into a comparative IE framework as it appears to combine both native Indic (Harappan?) traditions, e.g., it may involve a massive brick altar constructed along precise geometric plans, and intrusive Indo-Aryan elements, e.g., fire cult, employment of only hand-made rather than wheel-made pottery. Furthermore, despite Agni’s transparent IE etymology, further outcomes of PIE *h₂yognis ‘fire’ such as Lat ignis or Lith ugnis lack such deification and even ancient Iran, which placed great emphasis on fire-worship, replaced this word with Atar. An underlying lexical comparison may be more easily found in the names of the Greek and Roman goddesses associated with fire where Greek ‘Ereith (Hestia) and Latin Vestia may both derive from *h₂yhu-es- (a byform of *h₂yus ‘burn’).

Reflections of the IE three “estates” can be found in the lore of the sacred fires of Iran where in Firdausi’s Shahnameh (Epic of the Kings), there were instituted the three great sacred fires: Atur Farnbag (priestly fire), Atur Gusnasap (warriors’ fire), and Atur Bazzen Mihr (the third estate fire).

The most interesting comparisons that may hint at a common core of IE behavior is to be found in the ritual treatment of fire of the ancient Indians and Romans. Vedic India employed three fires, two axial on an east-west line and one lateral. One of the axial fires was the gāthapati ‘fire of the gṛhapati (master of the house). It was the principal fire from which the others were lit and it was round in shape. As the familial sacred fire, it was expected to be constantly maintained and passed from father to son. The other axial fire was the ahavanyā ‘fire of the offerings’, the fire of the sacrifice made to the gods. It was quadrangular and oriented to the four cardinal directions. The third, lateral fire was the daksināgni ‘fire of the right/south’ which served to protect the other fires from attack from the dangerous side; it was semi-circular.

The ancient Romans also maintained distinctions between the fire of the household and offering fires as well as recognized distinctions in the shape of the hearth or fire. Their greatest fire was the aedes Vestae or ignis Vestae, the uniquely round fire tended by Vestal Virgins that must always have been kept burning and if extinguished, it was required to be relit according to a specific ritual not involving another fire. This fire was housed in the Aedes rotunda Vestae (round house of the Vestals), the only circular temple in Rome (cf. also the sacred fire of the Greeks, associated with the goddess Hestia, which was kept in the prytyaneum, a circular building). The Romans also maintained the distinction between the fire of the master of the house (a focusus, a portable hearth, brought to the site as a representative of the domestic fire as its purpose was to receive incense and the wine, associated with domestic worship) and the fire of the offerings in a rectangular temple. The underlying purpose of the different shapes was shared by both the Vedic Indians and Romans: the square fire or the temple in which it was housed concerned the celestial world and had to be ordered to the four directions of the sky while the round fire was earth-centered from which it drew its power.

Archaeological evidence from the Bronze Age cemetery at Tulkhar in south Tadzhikistan, which was presumably utilized by Indo-Iranians, found rectangular hearths associated with male burials and round hearths with female, suggesting that the shape of the fire may also have had a sexual valency, which might also serve to explain the connection between females and the circular fire in later Roman religion. Evidence for hearths, ritual fires and ash pits, associated with both structures (houses, palaces, temples) and graves is ubiquitous across Eurasia.

A further item of IE comparanda is the tendency to invoke the fire deity at the beginning or end (or both) of a litany of gods or an offering, e.g., in invocations to multiple gods in the Bhagveda, Agni is usually invoked at one end or the other, in Iran, fire occurs at the end of the list of archangels; and in Rome, Vesta is at the end of every invocation that involves more than one divinity.

Elsewhere in the IE world, there is evidence for sacred fires although without the striking comparative evidence seen between India and Italy. Irish sources, for example, emphasize the close relationship between the druid and fire, especially the establishment of the ritual fires at the feast of Beltaine (‘the fire of Belenus’, a surname of Lug), which was held on the first of May And in the Baltic world, fifteenth century Lithuanians were accused of worshipping a fire dedicated to Perkūnas which was tended by virgins who would be executed if it went out.

See also Bishkent Culture; Fire; Fire in Water; Hearth.

Further Readings


FIRE IN WATER

?*neptos ~ *h2epom nepēs ‘grandson/nephew of waters’ [Gl 582–583; Del 74; BK 573 (*nīlphī~*/‘nēpīphī~*)].

Ofr Nechtan (guardian of well), Lat Neptūns (sea-god), Av Apam Napat, OInd Apām Nāpāt. Possibly related here, mythically if not lexically, is ON snævar niðr ‘son of the sea’. a
kenning (by-word) for 'fire'.

A number of scholars reconstruct a PIE myth of "fire in water" based on both the lexical correspondences reflecting a 'grandson/nephew of waters' and recurrent mythic elements. The proposed Celtic reflex derives from early Irish tradition where Nechtan is possessor of a secret well which may be approached only by three cupbearers and himself; the mysterious fire in the water burns out the eyes of anyone else who approaches it. Nechtan's wife, Boand (who lends her name to the river Boyne), attempts to draw water from the well, walking withershins about it three times and incurring three mutilations—the loss of her thigh, a hand and an eye—before being pursued to the sea and drowned by the water from the well. The path of her retreat marks the course of the river Boyne.

The Latin reflex, Neptūnus, concerns the Lacus Albanus, the Alban lake, a lake within a deep crater that was supplied by underwater springs. Inexplicably during the dry season, at the time of the rising of Syrius (23 July, the time of the Roman festival of the Nepēnālīa) the lake rose to overflow through the mountains and began running toward the sea. The Romans learned from the Oracle of Delphi and an Etruscan soothsayer that if the waters reached the sea, their enemies in the town of Vei would be undefeatable. The Romans managed to change the course of the overflow so that it watered the fields rather than reached the sea. The account in Livy describes how the water (aqua) needed to be 'extinguished' (extinguere), a verb that generally meant 'put out a fire' at the time of Livy.

The proposed reflex in Indo-Iranian tradition is most clearly found in the Avesta (Yašt 19). Here one encounters the xvāranah, the fiery essence of kingship, which the god Apam Napat places in Lake Vourukasa for safe-keeping. Only a member of the aiyra (Aryan) may gain the xvāranah and the tale recounts how a non-Aryan Fransayan dived into the lake three times to recover the reward while the xvāranah fled, producing overflows from the lake which formed a series of rivers. The Indic reflex is devoid of narrative myth but there are enough descriptive elements to indicate that Apam Napat was both fiery (it is employed as a nickname of the fire god Agni) but also dwelt in waters, burnt without fuel, and had to be approached by priestly water-bearers.

Structurally, a possible Greek version of the myth has been sought in the figure of Poseidon whose name may possibly be etymologized as 'husband/lord of waters', i.e., < *dā- 'flowing water', Iran dānu 'river', etc. It is related (Apollodorus 11, 14, etc.) how Danaus sent his daughter Amymône in search of water when she was accosted by a satyr who was driven off by Poseidon who hurled his trident which lodged in the earth. Instructed to pull the trident out, Amymône released three springs from each of the holes which commingled to form the Lerna river.

The structure of the reconstructed myth then points to a fiery deity resident in water whose powers must be ritually controlled or gained by a figure qualified to approach it. Several of the myths suggest that the unsuccessful approach to the deity resulted in the formation of (three) rivers, real or mythical.

Whether the structural comparisons are necessarily well supported by the lexical evidence has been disputed. F. Bader has suggested that the Latin reflex, Neptūnus, was originally 'god of springs and rivers' and has related his name not to the kinship term but rather Av napta-'wet'. It has also been noted that there is an Umb nepitu 'submerged (in a river)' and an Etruscan nepuns (< *nep- 'wet'). Critics of the Celtic evidence derive OIr Nechtan from OIr necht 'pure, clean, white', a word related to Olds niktā-'washed'. If the Celtic and Latin objections are upheld, the postulated PIE *neptonos would seem to be excluded, at least in terms of its proposed lexical cognates, and the only comparisons remaining would be confined to Indo-Iranian.

See also Fire, Fire Cult. [E.C.P., J.P.M.]

Further Readings


**FIRM**

*pastos 'firm'. [IEW 789 (*pasto-); Wat 47 (*past-); G1 648]. ON fastr 'fast', OE fast 'fast' (≠ NE fast), OHG festi, fasto 'fast', strong, Arm hast 'firm'; possibly Oldn pastyam 'habitation'. Far less likely cognates are Lat postis 'door post' and TochB epastye 'skillful, clever'. The weakness of the proposed evidence, outside of Germanic and Armenian, hardly leaves this word as a strong candidate for PIE status.

See also Post. [J. C. S.]

**FISH**

The words Proto-Indo-European-speakers used to designate the various fish they were familiar with are harder to reconstruct than words for mammals. In part this difficulty arises because unless one is primarily a coastal dweller fish of any sort are a less salient portion of the environment than mammals are—they are ordinarily invisible and usually less important economically. Fewer members of the society are likely to have "specialized" knowledge of the relevant vocabulary and thus it may be easier for an individual item to be lost or to be transferred to a different referent. As a case in
point we may note that the descendants of *ghersos in two
so closely allied languages as Norwegian and Swedish refer
to two quite different (pikaperch and 'ruff' respectively) and
perceptually distinct species (indeed genera) of fish. Our
difficulty is compounded by the fact that the types of fish
found in central, northern, or eastern Europe, the most
plausible places to look for early IE communities, are much
more localized in their geographical distribution than are the
corresponding mammals. IE groups moving into western
Europe, the Mediterranean basin or Central Asia would have
moved into areas with a generally different assortment of fish
or into areas where fresh water fish (the Mediterranean basin)
or fish of any sort (Central Asia) are few in number. Moreover,
we know absolutely nothing about the words for 'fish' or
various types of fish in Anatolian. Thus, even if PIE were rich
in its fish terminology, we would expect that Celtic, Italic,
Greek, Armenian, Iranian, Indic, and Tocharian would have
lost, or at best reassigned, many of the inherited words
referring to fish as they moved into their new environments.
IE groups that we would expect to preserve the original fish
terminology would be Germanic, Baltic, and Slavic, three
globally geographical groups which are known to share a
sizeable number of innovations in other areas of vocabulary
that are not general, pan-IE words. It is sobering to recall that
even in the Uralic family, whose ancestors are believed to have
practised a primarily hunting-fishing-gathering economy,
there are only four, perhaps five, solidly attested names for
different species of fish in Proto-Uralic, i.e., *totka 'tench
(Tinca tinca)', *unca 'sheatfish (Stenodus leucichthys)',
*sampe 'sturgeon (Acipenser baerii)', *kare 'sturgeon
(Acipenser ruthenus)' and perhaps *key- 'little
whitefish (Coregonus lavaretus)'. In the following list of items
that are general terms for fish and those words where it is difficult
to assign an original meaning at the level of species or even
genera. More specific designations are to be found as separate
entries.

*dhghuhor- 'fish'. [IEW 416–417 (*dhgho-); Wat 14
(*dhgho-); GI 453 (*dhgho-); Buck 3.65; BK 80 (*disg-/
*deg-)]. O'Prus suckis 'fish', Lit žuvis (dialectal consonant
stem gen. pl. žuvis) 'fish', Latv zuvis – zvis 'fish', Grk i̱δός
'fish', Arm jukn 'fish'. Cf. Latv zutis 'eel'. Attested only in a
broad band of central IE languages, its archaic shape, both
phonological and morphological, as well as its probable lack
of any root connections within PIE (although GI see it as a
derivative of *dhegh- 'earth', i.e., the 'underground' or 'lower'
animal), suggest that this may well have been the PIE word
for 'fish' which has been replaced, particularly in the west of
the IE world, by the word for 'trout'.

*mplh- 'minnow, small fish'. [IEW 731 (*mpli-); Wat 41
(*mpli-i-)]. OE myne 'minnow (phoxinus phoxinus and
similar small cyprinidae) (> ME meneu > NE minnow), OHG
muniwa 'minnow', Rus mën 'burbot (Lota lota)', Grk μαύινη
'Maena vulgaris (a small sprat-like fish which was salted)',
and perhaps Olnd mätia 'fish'. But the Old Indic word is not
to be separated from a rich collection of similar words in the
Dravidian languages. Whether the Indic word is borrowed
from Dravidian or vice versa is not easily determined but a
Dravidian origin for min 'fish' is certainly the more probable
as the 'fish' sign, phonetically min, is one of the most plausible
readings for the Indus Valley inscriptions which are widely
although not universally attributed to early Dravidian
speakers. Even if inherited from PIE, it is possible the Indic
word was phonologically influenced by the similar word in
Dravidian. Possibly also belonging here are Lit minke
'codfish (Gadus morrhua)', Latv mene 'codfish'. From *mën-
'small, thin'. At least a word of the west and center of the IE
world; if the Old Indic word is cognate, then we have evidence
for pan-IE status.

*Kônkus a kind of fish. [IEW 523 (*känk-)]. ON hár (<
Proto-Gmc *hanhu-) 'shark', Olsd sanku- a certain kind of
aquatic animal or fish, perhaps 'skate-fish', *sakula- a kind of
fish. Not all authorities would agree that the Indic and Old
Norse words are related; in any case, it is not possible to
reconstruct a more specific meaning. Of doubtful PIE status.

*Krek- 'fish-eggs, frog-spawn'. [IEW 619 (*krek-)]. ON herogn
('borrowed > NE hoe), hrygna (<
Proto-Gmc *hrugnjon) 'female salmon or trout', OHG hrogen
– hrogen 'roe', Lith (*pl.) kurkulaí 'frog spawn', Latv (*pl.)
kurkulis 'frog spawn', Rus ярк (< Proto-Slavic *krekó or
*kreko) 'frog spawn'. Clearly all these words share a single
root, though not particular PIE shape is reconstructible. A word
of the northwest of the IE world.

See also Animal, Carp, Eel, Leech, Perch, Salmon,
Sheatfish, Sturgeon, Tench, Trout. [D Q A.]

Further Readings
JIES 11, 263–280.
Napolskikh, V. (1993) Uralic fish-names and original home. Ural-
Altaische Jahrbücher 12, 35–57.

FIST see HAND

FLAT

*pelhok- 'spread out flat'. [IEW 831 (*plá-k-); Wat 48–49
(*pela-); GI 581 (*pli-); Buck 12.71; BK 49 (*pli/~
*pliail)); Lat plakes 'be in agreement' (> *be level, even)'. The root, which is widely spread and clearly of PIE status, also appears with a
variety of other extensions, e.g., *pel-to-m- > OF leud 'flatland,
field' (> NE field), *plehrtu- > OF flour 'floor' (> NE floor),
*pelhironos [IEW 806 (*pela-); Wat 48–49 (*pela-); GI 683
(*pliail)); Buck 12.71; BK 48 (*pliail/~*pliail)); Lat pláns 'flat, even, plain', O'Prus plonis 'threshing floor', Lith plónas 'thin', Latv pláns 'flat'. Numerous Gaulish place and
personal names ending in -lano have been connected here,
most notably Medio-lánnum 'Milan', but this is uncertain and
some presume a homophonous name element related to the meaning 'full', cf. OIr lán, etc.; cf. also *plh₂-meh₃ > Lat *palmā (< *pala-ma) 'palm'.

See also Broad, Country. [A.D.V., J.C.S.]

**FLAX**

*linom* (central) ~ *linom* (western) 'flax (Linum usitatissimum'). [IEW 691 (*fl-no-); Wat 37 (*lino-); GI 568 (*lino-); Buck 6.23]. OIr *lin* 'net', Wels *lin* 'flax, linen', Lat *linum* 'flax, linen', OPrus *lynn* 'flax', Lith *lina* (sg.) 'flax plant', (pl.) *lina* 'flax, linen', Latv (pl.) *lin* 'flax', OCS *linēnā* 'linen', Rus *leni* 'linen', Grk *λίνον* 'flax, thread, linen'. The Germanic set of *OE *lin* 'flax, linen', (adj.) *linen* (NE *linen*), OHG *lin* 'flax, linen', Goth *lein* 'linen' has often been derived from Latin *linum* which is possible but not absolutely required by the linguistic evidence nor that from archaeology. A word at least of the west and center of the IE world.

Flax (*Linum usitatissimum*) is well known across Europe and western Asia where it was the principal plant involved in textile manufacture and its oil, which constitutes some 40% of the seed, was employed both as a foodstuff and for lamps. Domestic flax is derived from *Linum bienne* or *Linum usitatissimum* subsp. *bienne* (wild flax) which is distributed locally across southern Europe to the Caucasus and the Near East. The earliest wild flax in the archaeological record derives from the Near East in contexts of the ninth millennium BC onwards and domestic flax has been recovered from sites in southwest Asia from seventh millennium contexts. Actual fragments of linen have also been recovered from the seventh millennium BC in both Israel and somewhat later in Turkey. Flax is known to occur in small amounts in Neolithic sites in Europe, first in Greece, but then also in Swiss lakeside sites, the Linear Ware Culture, the early Neolithic of southern Britain, and in northern Europe in the TRB culture. Its earliest occurrence in the pollen record of Ireland is during the early Bronze Age, c.2200 BC. There does not yet seem to be evidence for it in India earlier than the Bronze Age nor is it recorded so far earlier than the Bronze Age in the Caucasus. The attested word may then be inherited or a borrowing from some central European language.

See also Agriculture, Textiles. [D.Q.A., J.P.M.]

Further Reading

**FLEA**

*plus*- 'flea'. [IEW 102 (*blou- ~ *plou-); Wat 52 (*plou-)]. Lat *pâlex* (< *pusek- ~ *plusek-*) 'flea', Arm *lu* (< *pluso-*) 'flea', Yidgha *frigo* 'flea' (< Proto-Iranian *plusV*), OInd *pliš- 'flea'. Grk *ψολλα* (< *psul(e)*₃-h₂) 'flea' probably belongs here, metathesized from an earlier *plus(e)*₃-h₂. A variant *bhulshē- 'flea' is found in Balto-Slavic: Lith *blusa* 'flea', Latv *blusa* 'flea', OCS *blūcha* 'flea', Rus *blokhā* 'flea'. Other variants are seen in OE *fleah* 'flea' (> NE *flea*), OHG *floh* 'flea' (the Germanic words, presupposing a putative PIE *plōukos, may owe their phonological shape to a folk-etymological relationship with 'to fly') and Alb *plešh* 'flea'. In one form or another widespread and old in PIE.

See also Flea, Frighten. [D.Q.A.]

**FLEE**

*bheug*- 'flee'. [IEW 152 (*bheug-); Wat 8 (*bheug-); GI 150 (*bheug-); Buck 10.51; BK 309 (*baw-ak* ~ *baw-ak?*). Lat *lugio* 'flee', Lith *būgstu* 'be frightened', Grk *πεφύγω* 'flee'. Sufficiently well-attested to be a word of the west and center of the IE world.

See also Fear, Frighten, Run. [D.Q.A.]

**FLEECE** see Hair, Wool.

**FLOAT** see Swim.

**FLOOR**

*det-pedom* 'floor'. [IEW 198 (*det-pedom*)]. ON *topt* 'place for a building', Grk *δέκατο* 'floor'. From *dem-* 'build, house' and *ped-* 'foot'.

The absence of a specific word for the 'floor' of a house belies the variety of possible floor types known in the archaeological record during the period of the Proto-Indo-Europeans. While most evidence indicates floors made simply of stamped earth, lime-plastered floors are already known since the late Mesolithic both in sites in southwest Asia and in Europe. In wetland regions such as lakeside settlements in Switzerland and southern Germany, timber floors are in evidence since the Neolithic period. And while single story structures are the norm in the Neolithic of Eurasia, two story structures have been suggested for both the Balkans and the Tripolye culture northwest of the Black Sea.

See also Ground, House. [A.D.V., J.P.M.]

**FLOTSAM**

*κόπος* 'flotsam'. [IEW 529 (*κάπο-*)]. Lith *šāpai* 'what remains in the field after a flood', *šāpas* 'stalk, dry branches, splinter', OInd *šāpa- 'what floats in water'. If Lith *šapi* (*sampui) 'disappear, fade away', or *šėpti (sępui) 'grow a stubble, grow a beard' belongs with *šāpa-, the connection between the Baltic and Old Indic form becomes doubtful.

See also Swim. [R.S.PB.]

**FLOW**

As in most modern IE languages verbs for 'run' could also be used of water and other liquids, e.g., NE *running water*. The words assembled here would appear to have been used primarily or exclusively of liquids.

*hiers*- 'flow'. [IEW 336 (*e-s-); Wat 17 (*e-s-)]. Lat *erō* (< *hi̯ers-je-o*) 'go astray', *erō* 'error', OE *eort* 'angry, embittered', eorsian 'make angry', OHG *irri* 'perplexed', *irron* 'be confused', Goth *airzesis* 'deceived', *airzjan
Formally related are Lith *hlreih-, 'flower'; Wels srava 'well up', OInd *leg-'a -) almu 'flow'. Cf. the 'move with speed or violence, rush' (*mu-); 'wheat, grains' but this seems rather distant &v<; also 'a drip'. A late word of the west and center of pEW 'flow'. Cf. Arm $kartati 'gnat, midge', OCS or-). The underlying verb is seen [D.Q.A.) d. VW *h2eimo-). POISON; 'perish', Av opoc;'whey'. [lEW 'strosti sravati moksa POUR; *hint-(at} andul 'stream', Oind *-h mukha {jaAav£lu; OHG 'pour out', Arm [D.Q.A.I (*gVhoer-); qJ8£lpm 'well up, flow'. [Mayrhofer I, 120]. OInd Wat 75 'flow', 'fly', OCS Wat 65 *h]reih araSm 'spring', blath {3Avm 'flow' (pres. *l)iss 'serum, pus', (*gVei-); 'fly'. It is probable that *mus- proo/J.al 'what flows; menstruation', OCS *sreue/o-). gjize 'seep, drip'. I1te « *rinete) musfl mus!ca « elIme RIvER. 'ooze out, (of a liquid) spread slowly'. mi-ze. 'flow'. (*stag-); 'bathmaster', 'gnat, midge, Wat 7 'mislead', Grk 'melt', Grk 'melt', ON '(Germany), the Wear(England), the Vistula (Poland). Old in IE.

See also Poison, Pour, River. [D.Q.A.]

FLOWER

*heændhes- '± flower'. [IEW 40-41 (*andhos); Wat 2 (*andh-es-); GI 770 {Hand'}, Buck 8.57]. Fris ändul 'marshgrass', Alb ende 'flower'. Grk δακος 'flower', Arm and 'field', OInd ändhas- 'an herb, the soma-plant; grassy ground'. The geographic distribution and the exact morphological equivalence of the Greek and Old Indic words seem to assure PIE status although its exact meaning remains difficult to determine. GL have sought to derive this word from Proto-Semitic *hunt-(at)-'wheat, grains' but this seems rather distant semantically.

*bhlohdhos 'flower'. [IEW 122 (*bhlo-); GI 389 (*bliH'); Wat 7 (*bhlo-); Buck 8.57; BK 11 (*bul-/*bol-u-). Mlr blath 'flower', Wels blawd 'flower', OHG blut 'flower'. Dialectally restricted to the western fringe of the IE world. From *bhel- 'a blossom, bloom'. Cf. also Lat fls 'flower', Flora goddess of plants, ON blomstr 'flower', OE blosoma 'flower' (> NE blossom), OHG bluomo 'flower', Goth blôma 'flower'.

See also Leaf, Plants. [D.Q.A.]

FLY

*mush-, 'fly; gnat, midge, mosquito'. [IEW 752 (*mu-); Wat 43 (*mu-); GI 452 (*mu(s)-); Buck 3.83]. From *mus-: Lat musca 'fly', OPrus muso 'fly', Lith musis (gen. pl. musų) – mus¹ – musia 'fly', Latu musa 'fly', OCS moska 'gnat, midge', Rus moska 'gnat, midge', OCS mucha 'fly', Rus mushka (< *mouseh-) 'fly', Grk μυτα 'fly', Arm mun (< *mus-no?) 'gnat, midge, mosquito', from *muh-. ON my 'gnat, midge, mosquito', OE mycg 'gnat' (> NE midge), OHG mucka 'gnat, midge, mosquito', Alb mize 'fly'. It is probable that *mus- is the more original form, and that possibly of imitative or onomatopoeic origin. *muh- was the result of sound-symbolic substitution of *h- for *-s- in certain parts of the IE-speaking world. The Lithuanian genitive plural musę strongly suggests an original consonant stem (as does the formation of Lat mus-ca) and, with *-h- rather than *-s-, does itself mi-ze. Homophonous in its root shape with *mus-
FOOT

*pôds (acc. *pôdám, gen. *pedós) 'foot'. [IEW 790 (*pôdós); Wat 47 (*pedós); GI 688 (*péd-); Buck 4 37; BK 44 (*pôd-)). Olr istr 'grain', OWS it 'grain', Lith pédas 'meal', OCS ríyts 'meal'. From *péd- 'be fat'. Another word where the resemblances are as likely to be the result of independent creation as common inheritance.

See also BEAN, BERRY, BROTH, CHICK-PEA, COOK, FAT, FEED, GRAIN, MEAT, MILK, PEA, PORRIDGE, STRENGTH, VEGETABLES. [D.Q.A.]
fôt 'foot', OE fôt 'foot' (> NE foot), OHG fuoz 'foot', Goth fôtus 'foot', Lith pôdas 'sole of foot', Rus pod 'ground', Alb per-pôsh 'down, under', below, poshtè 'down (below)', Grk πόδις (Doric πῶδος) 'foot', Arm oun 'foot', Hit pata- 'foot', Av pad- 'foot', OInd pâd- 'foot', TochA pe 'foot', TochB pâjyê 'foot'. This word is essentially pan-IE and clearly the PIE designation for 'foot'.

*lehpeta- 'foot, paw'. [IEW 679 (*lôpâ); Wat 36 (*lep-)]. ON lôp 'palm', OHG laffa 'palm', Goth lôfa 'palm', Lith lôpa 'paw', Latv lâpa 'paw', Rus lâpa 'paw', Turkish lâp 'paw'. Probably a later word than *pôds, normally designating an animal's paw rather than a human foot.

See also ANATOMY, HAND, HEEL, HOCK, HOOK. [D.Q.A.]

FORCE

*hæuges- 'strength'. [IEW 84–85 (*aueg-); Wat 4 (*aug-); cf. GI 53]. Lat augustus (< *augus < *auges- < *hæug- 'increase') 'sacred', Av aôjah- 'strength', OInd ojas- 'strength' (< Proto-Indo-Iranian *augas-). Derived from *hæug- 'increase'. With rhotacism, this root yielded in Lat augment, the priest in charge of the interpretation of divine signs (beside the flamen and the pontifex, connected more with the sacrifice and paving the way to ritual acts). The distribution suggests PIE antiquity and the word lies in the semantic sphere of the sacred. Like the Indo-Iranian forms, Lat *augus- was originally neuter, which Georges Dumézilinterpreted as 'the fullness of muscular strength that enables the warrior or the hero to perform his deeds', i.e., the underlying concept would appear to refer to the maximum in accrued potential (rather than kinetic) energy that might be expended. Thus, OInd ojas- is linked with physical force in the warrior function (e.g., applying to Indra) and also with the cosmic actions of the Vedic deities; it indicates the increment that results from praise. In the Latin usage, *auges- denotes the fullness conditioning future action, an action that is not yet manifest, and therefore not yet objectively verified (cf. Lat in-augur-atô 'inaugurate' < *to hallow with auguries, take omens from the flight of birds). The field it covers is wider than in Old Indic; it innovates in essence and in sign. The plenitude of power of the augur is a gift of the gods (cf. Rómulus who is endowed with quasi miraculous power in his [First] function as king and priest). Being augustus is a religious endowment, the title was given to Octavianus.

*yethus- 'vital force'. [IEW 1124 (*yêt-); Wat 74–75 (*weia-); cf. GI 391; BK 508 (*wuy/*-woy-)]. Lat vis 'strength', Grk Ἰζ'strength', OInd vayas- 'force'. From *yeth- 'be strong'. Distribution indicates PIE status. This word has been related to *iôtrôs 'man'.

*yêhig'ëha- 'power, youthful vigor'. [IEW 503 (*yêg¹a); Wat 79 (*yêg²a-)]. Lith jega 'strength, power', Latv jēga 'strength, power', Grk ἴβηβ' youth, vigor, puberty'. A word of the center of the IE world. The Greek form often designates the sex of men or women, in particular ἐπιβαστῶν 'pubic hair' (of a sixteen-year old youth), hence 'ardor', and it also supplies the name of the daughter of Zeus and Hera, Ἡβε. See also MAKE, MAN, SACRED. [E.C.P.]

Further Reading


FOREHEAD

*þgent- 'forehead'. [IEW 48–50 (*an-s); Wat 3 (*ant-); GI 713 (*Hantʰ-); BK 414 (*han-tʰ/*han-tʰ-)]. OIr étan 'forehead' (< *antono), Lat ante 'in front of, before', Grk εἰκόνα 'right opposite' (*eis + *antip), ἀντί 'in front of, opposite', Hit hat- 'face, forehead, front part', OInd anti 'in front of, opposite', āntā 'end, limit', TochA ant 'surface, forehead', TochB ânte 'surface, forehead'. Cf. the derivative *phantsio/eha-: ON ēnni 'forehead', OHG andi 'forehead'; also Lat antia 'hair falling on forehead'. Clearly the PIE word for the 'forehead, front', the forehead being apparently for IE speakers the 'front' par excellence (truer for animals than humans).

*þholom 'forehead'. [IEW 118–119 (*bhel-); Buck 4.205]. OPrus pallo 'forehead', Alb balie 'forehead', OInd bhâlam 'forehead'. Probably from *bhel- 'shine' and, in age, a word of the center and the east.

See also ANATOMY, FACE, HEAD. [D.Q.A.]

FOREIGN LANGUAGE see STAMMER

FOREST see TREE

FORGET

*mers- 'forget'. [IEW 737–738 (*mer-); Wat 42 (*mers-); GI 110; Buck 17.32]. OE mierran 'disturb, confuse, hinder' (> NE mar), OHG merren 'give offense, prevent, injure, mar', Goth marjian 'offend', Lith mirtua 'forget, overlook', Latv aismirtu 'forget', Arm moranam 'forget', OInd mpṣyate 'forget, neglect', TochAB mərs- 'forget'. Cf. the derivative *morsos: Lith maršas 'oblivion, forgetfulness', Av Marsvan- 'name of a demon, OInd maṛṣa- 'patience'. From *mær- 'disturb, forget'. The Germanic words are not always considered a part of this group because of the divergence of meaning. With or without them we have a word of PIE date.

See also REMEMBER. [D.Q.A.]

FORK (OF TREE)

*ghabollo/eha- 'fork, branch of tree'. [IEW 409 (*ghabh(o)l(o)‧); Wat 20 (*ghabholo-)]. OIr gabul 'fork', Wels gail 'fork', OE gaiol 'fork', OHG gabala 'fork'. The word, which appears to be confined to the extreme west of the IE world, would appear to have originally referred to a forked branch which might have a variety of uses. The semantic sphere of the Old Irish word ranges across any forked structure be it tree (gallows, gibbet, beam), part of the landscape (river, valley, paths) and even the bifurcation of the body, e.g., the thighs. When in reference to a tree, probably its original meaning, it describes a main branching (bough from trunk) rather than
something smaller. Although fork-like instruments have been occasionally discovered since the Neolithic and instruments known variously as flesh-forks have been recovered from later prehistoric sites, the actual table utensil (from Lat furca ‘pitchfork’) only emerged in modern Europe (the Romans also had forks) in Italy in the eleventh century and against considerable social resistance slowly spread across Europe achieving widespread popularity only in the eighteenth century.

See also Plants; Tree; Trees. [D.Q.A., J. P.M.]

**FORT**

*pelh* ‘fort, fortified place’. [IEW 799 (*pel*); Wat 49 (*pela*); GL 648 (*pel*); Buck 19.15; BK 55 (*pê*al/*pê*al)]. Lith pilis ‘fort’, castle’, Latv pilis ‘fort, castle’, Grk πόλις ~ πόλις ‘city; citadel; state or country’, ákróπολις ‘citadel’, Olnd pùr ‘wall, rampart, palisade’, pûram ‘wall, fortress, city’. Possibly belonging here also is Arm k’alak ‘city’. The existence of Grk πόλις and Arm k’alak suggests that the initial may have been *tp*- rather than just *p* (*pu*- and *pi*- have also been suggested). At least a word of the center and east of the IE world.

*bhergh* ‘height = fort’. [GL 648 (*bhergh*); BK 19 (*burg*/*bor-g*)]. OHG burg ‘fortress’, Gothis burigs ‘city, town’. Certainly belonging to this are Grk (Homeric) πύργος ‘town, fortress’ and Arm burgun ‘town’, however, both are phonologically unexpected, i.e., the Greek form should have been **πάργος** and the Arm **πύργον** and it has been widely assumed that these have borrowed the term from a poorly attested IE language such as Pelasgian which was credited to the inhabitants of Greece before the arrival of the ethnolinguistic Greeks. Cf. also OLat fortus ‘strong, hard’, Lat fortis ‘strong, hard’, Olnd hrmhāti ‘fortifies’, TochA prākār ‘hard, solid’, TochB prākē ‘hard’. The alternative possibility that this word has been borrowed from a non-IE source is suggested by similar words in Near Eastern languages, e.g., Urartian burgana ‘bulwark, fortress’, Syriac bārgūta ‘tower’.

*dənwaus (dənuh-nōs) fort’. [IEW 263 (*denu*); Wat 15 (*d none*); GL 649 (*d none*); Buck 20.35]. Olī dān ‘fort’, Wels din – dinas ‘fort’ (< ‘hill’), OE dān ‘down, Moor, height, hill, mountain’ (> NE down(s)), MDutch dâne ‘sandy hill’ (borrowed > NE dune). Germanic borrowed Celtic dūn before the phonological changes wrought by Grimm’s Law and thus it appeared in Proto-Gmc as *tāna- and is attested in OE tūn ‘enclosed place, homestead, village’ (> NE town), OHG zūn ‘fence, hedge’. A northwesternism confined to Celtic and Germanic. Also cf. Lat fānus ‘burial’ (< ‘burial hill’).


The various words for fort denote an enclosed place, wall or protected area but the specific appearance of the PIE fort is not recoverable. Old Indic offers the earliest attestations of *pelh* in the Vedas and other early Indic literature, the contextual analysis of which suggests that the Olnd pùr consisted of one or several concentric ramparts of round or oval plan; it might be built of mud or stone (but not brick), and included a combustible component (gate, wickerwork, prickly shrubs); enclosed wooden sheds as shelters, was stocked with provisions for man and beast, was occupied in times of danger, and probably required repair after the rainy season. Earlier suggestions that the pùr indicated the citadels of the Harappan culture which were destroyed by the Indo-Aryans hold little currency today as the Vedic and other descriptions make a very poor fit with the archaeological evidence for massive rectangular brick citadels and all the other aspects of urbanism attendant in the Indus citadels. It has even been suggested that the Old Indic descriptions are accommodated far better by the evidence of Bronze Age forts in Central Asia, an area which has been regarded as the staging area for later Indo-Aryan movements to the south. In Homeric Greek the term πόλις ~ πόλις means ‘city’, e.g., πόλιν Τροίην ‘the city of Troy’ which in both Homer and in the archaeological record was clearly a fortified citadel. Baltic forts were built of earth and timber palisades.

A fortified enclosure has been argued to be a diagnostic feature of Proto-Indo-European culture which spread through Europe with the expansion of the Indo-Europeans at the end of the Neolithic, i.e. c. the fifth-fourth millennium BC. This argument, an integral part of the “Kurgan solution” to the Indo-European homeland problem, presumes that the Indo-Europeans were a warlike society who formed military aristocracies over the populations upon whom they imposed themselves. But as the reconstructed forms are ambiguous about the precise construction of the PIE fort it is difficult to read all attestations of enclosing fortifications as evidence for Indo-Europeans. The enclosing of a settlement (permanent or otherwise) by a ditch, earthen bank or palisade is widely known since the Neolithic over much of Eurasia and before any putative Kurgan dispersals, e.g., stone enclosures around Greek settlements of the later Neolithic; timber palisades about Balkan tell settlements of the Neolithic; ditched enclosures surrounding Linear Ware and later settlements across central (Lengyel culture), western (Michelsberg culture) and northern (TRB culture) Europe; causewayed enclosures in the British Isles; concentric ditches around Neolithic settlements of southern Italy; and ditched fortifications surrounding the settlements of the Tripolye culture of the northwest Black Sea region. They are, of course, also known in the staging area of Kurgan expansions, e.g., timber fencing around the site of Dereivka of the Sredny Stag culture of the middle Dnieper region; stone fortifications about some Yamna settlements. Considerable discussion has been expended as to whether some of these enclosures were primarily defensive or were erected to mark territories or ceremonial precincts but evidence from several British Neolithic enclosures clearly indicates that such sites were attacked whatever their initial intention. It has been suggested that the evidence from the Linear Ware culture and its successors in central and western
Europe particularly match the descriptions of forts in Old Indic literature which are similarly curvilinear and concentric. That such constructions might be found in many parts of the world, however, warns against presuming that there must be a genetic connection between the literary evidence and that of Neolithic settlements.

The specific evidence for the spread of Kurgan fortifications rests with the appearance of stone-built citadels that are found from north of the Black Sea, west around the eastern Balkans and on into Anatolia, e.g., Mikhailovka, Ezero, Troy, which has been presented as a circum-Pontic development under the aegis of IE chieftains. The lexical evidence, however, only posits some form of fortification and not a specifically "stone-built fort" although it may have originally indicated such. The earthen and timber-built fortresses such as Sintashta that appear in the Bronze Age in the Asiatic steppe and forest-steppe may be ancestral to the types of forts indicated in Indo-Aryan literature.

In the west the earliest likely referent to the *dhūnās found in the Insular Celtic languages are the hillforts which appear by the later Bronze Age (c. 1200 BC) and continue through the Iron Age and, in some regions, into the early medieval period. A borrowing from Celtic into Germanic during the Later Bronze Age or at the beginning of the Iron Age would predate the commonly accepted dates for the first Germanic sound shift.

See also Ezero Culture; Fence; High; Kurgan Tradition; Troy; Wall. [A.D.V., J.P.M.]

Further Readings

FORTUNE

*kobom ‘success’. [IEW 610 (*kobo-m); Wat 32 (*kob-)]. OIr cob ‘victory’, Gaul ver-cobius (personal name), ON hap ‘luck’ (borrowed > NE hap ‘chance’), OCS kob ‘divination’. A northwestern word in late IE. From *kob- ‘suit, fit, succeed’.

*bhtus ‘bearing, winning’. [GI 193 (*bʰer-); Del 72]. Lat Fortuna ‘the goddess Fortune’, Olnd Pythu- (the first king). This comparison is linguistically insupportable. The name of the Old Indic god is a substantivization of the adjective pthu- ‘broad, wide, extended’ < Indo-Iran *prath- ‘extend, expand’. It reflects a *pthu-, zero-grade of *plethu-, all of which can have nothing to do with the IE root *bher- ‘that underlies the Latin form Fortuna (zero-grade *bhtus), beside *bhtus, cf. Olr breth ‘bearing, winning (< *bhuth off’). Lat furs ‘blind fate’.

??*dheugh- ‘fortune’. [IEW 271 (*dheugh-); Wat 4 (*dheugh-); GI 486 (*dʰeughh-)]. Grk Tûgûn ‘the goddess Fortune’, Olnd kâma-duhâ (wish-granting wonder cow). This comparison between Greek and Old Indic presumes a common IE stem *dheugh- ‘squeeze, milk’ and presumes a specific mythic complex of an underlying “wonder cow” that yields enormous quantities of milk which stands as a metaphor for wishes, as indeed is the case with the Old Indic form. But the comparison with Greek cannot stand as the Greek term cannot be separated from the verb tuuvaxû ‘succeed, happen by fate’, which, in turn, is clearly linked with têuvô ‘make’. Cognate with the latter are OIr dâil ‘convenient’, OE dohtig ‘competent, good, valuable’ (> NE doughty), OHG tûg ‘be useful’, tuht ‘value, power’. Goth daug ‘it is useful, profitable’, Lith daug ‘much’, Rus duzyj ‘strong, robust, powerful’. On the other hand, the second element of the Old Indic compound kâma-duhâ is obviously derived from the Indo-Iranian root *dogh- ‘milk’, whose connection with the Greek term remains most problematic, especially as it would imply the improbable semantic evolution: ‘touch’ (< *obtain [by fate!] > ‘press’ > ‘milk’.

Fortune Gods

Unlike “Fortune” as “chance”, which appears to be rather consistently represented by a series of goddesses, deities associated with the assignment of either wealth or the correct apportionment of goods tend to be personified as males. In the Ṛgveda, it is Bhaga ‘portion’ who is responsible for insuring the just distribution of things (RV7.41.2). In the Indian epic, the Mahâbhârata, Bhaga is reflected in the blind Dhâtarâstra who dispenses goods as blind fortune. According to Georges Dumézil, Bhaga is closely associated with Mitra who determines that people get their proper share. The dualism reflected in Mitra and Varuna’s realms of activities is carried over into that of their assistants where Varuna is assisted by Amsa who is concerned with the distribution of fate rather than wealth. The actual god of wealth in the sense of merely ‘goods, riches’ is Vasu.

In Iranian religion very little is left of the Old Indic Bhaga except the name baga which is generalized to mean ‘god’ but a hint of his more specific duties may be found in the Avestan Aši which means ‘redistribution’.

The Iranians (as Scythians, Sarmatians, Alans) were in direct contact with the early Slavs in the steppe regions north of the Black Sea and one of the terms possibly adopted from Iranian into Slavic was baga which is reflected in the OCS bogû ‘god’ (and the other Slavic languages). In addition to the word, the semantic sphere of this deity was also passed
Along with Dievas, the sky-god, Laima as her wealth, Sarasvati her the Parcae; in otherlopasa-was composed of all good things, and the represented the two poles of fortune: Sūgveda. 

The closest structural equivalent to the Indo-Iranian deities in Roman religion was the god Terminus who was charged with the equitable distribution of goods among people (Ovid Fasti 2.642).

**Fortune Goddesses**

Various IE groups also possessed a goddess of fortune or fate. Although certain common themes are in evidence, they are not so similar as to require a common origin nor is there any linguistic evidence upon which to posit a PIE goddess of fortune. Moreover, many of the thematic comparisons are with divinities who filled other functions. Among the most representative are the Latin Fortūna, the Baltic goddesses Laime and Laima, the Indic Lakṣmī, and perhaps the Iranian Spēnta Ārmaiti.

Fortūna, the Roman goddess of fortune, wealth, and abundance (Greek Tyche) is portrayed holding a cornucopia filled with all good things (e.g., Plutarch, *Moralia* 318 A-B). To the Romans, she was fickle, giving her gifts to a person one day, and withholding them the next. *Fortūna Primigenia*, 'first-born Fortūna', is the subject of many Roman inscriptions and the recipient of dedicatory gifts. In Rome, fortune and fate were distinguished, as Fortūna and the Parcae; in other mythologies, such as the Baltic, the Germanic, and the Indic, the two aspects were syncretized into one goddess.

The Baltic goddess of fate and destiny, associated with the day and the sky, was called Laimė in Lithuanian and Laima in Latvian. As a goddess of fortune and destiny her functions were similar to those of the Iranian Ārmaiti, Roman Fortūna and the Parcae, Greek Tyche and the Moirai, Germanic Norns, and Indic Lakṣmī. Along with Dievas, the sky-god, Laima determined who was to live and who was to die. Laima aided women in childbirth, and she determined the course which the child's life would take. Like the Roman Fortūna, she could grant an unhappy fate, but she was not decried for her "fickleness" to the same extent as Fortūna. Further, she was a more personal goddess than Fortūna; she could be embodied in mortals, while the remote Fortūna always remained an immortal. At times the Laimas are viewed as multiple goddesses (cf. the Parcae, Moirai, and Norns); each person is given a Laima, but not all recognize her. Laima sometimes appears as a bird-maiden. While Laima was goddess of life and the sky, her counterpart, Lauma, was goddess of the earth and the underworld, a shape-changer who was similar to a witch.

Lakṣmī was the Indic goddess of fortune, beauty, and love. The term lakṣmī originally indicated a "token" or "sign"; the personification, Lakṣmī, did not exist in the *Ṛgveda*. In the *Aṣṭāvaśvaveda*, the term indicated 'luck', good or bad; in the *Mahābhārata*, it indicated 'beauty', 'splendor', 'loveliness', and also the goddess, the personification of beauty, fortune, and love. Sri Lakṣmī was composed of all good things, and the Hindu gods therefore desired her. Agni therefore took her food, Soma her royal power, Varuna her universal sovereignty, Mitra her noble rank, Indra her strength, Bhārapati her holy lustre, Savitṛ her dominion, Puṣan her wealth, Sarasvati her prosperity, and Tvaṣṭṛ the builder, took her beautiful forms. Lakṣmī was thus the embodiment of the cornucopia; through her came all good things. (Cf. the Indic Dvīti who was given all good things by the Indic deities.) In this respect Lakṣmī syncretizes the functions of two Greco-Roman goddesses, Fortūna with her cornucopia, and Pandorrā, the 'gift of everything', or the 'all-endowed'. Lakṣmī had a son, Kāmadēva, a Love god similar to Eros/Cupid. Further, Lakṣmī was born from the foam of the primeval sea of milk as it was churned by the gods and the Asuras, much as the Greek Aphrodite (Roman Venus) was born from the foam of the sea. Lakṣmī represented the two poles of fortune: Lakṣmī as good luck, and Alakṣmī, 'not-Lakṣmī', as misfortune. (The Slavic Sreča and Nesreča are functionally equivalent goddesses.) It was understood that the one goddess had two polar forms. Lakṣmī was married to the god Viṣṇu; she was his sakti, his energizing consort. One of her epiphanies was as Rukmīni, the principal wife of Lord Kṛṣṇa, the avatar of Viṣṇu in the *Mahābhārata*.

Spēnta Ārmaiti, 'holy devotion', was a goddess of the Iranian Zoroastrian religion, considered to be an aspect of the 'wise Lord', Ahura Mazdā, rather than an autonomous deity. Ārmaiti is invoked in several *Yasnas*, dating from c 660 to 583 BC. She granted wisdom, and she taught the path of truth. She personified the earth and the fruits of the land, and through her destiny was invoked; she is thus comparable to destiny goddesses such as the Roman Fortūna. She granted wisdom and advice about the spirit (*Yasna* 31.12) as well as great strength (*Yasna* 33.12), and she was born androgenetically of Ahura Mazdā. She may thus be compared to the Greek wisdom and warrior goddess Athēnē, who was born androgenetically from the head of Zeus.

*See also* Love Goddess. [E.C.P., M.R.D.]

**Further Readings**


**FORWARD** see BEFORE

**FOX**

*ulop-* 'red fox (*Vulpes vulpes*)' += 'corsac fox (*Vulpes corsac*)' [IEW 1179 (*ulp-*); Wat 78 (*ulp-*)]; GI 432-433 (*ulp*)-; Buck 3.74]. Lat volpēs 'fox', volpēcula 'little fox', Lith lapē 'fox, vixen', vilpisys 'wild cat', Latv lapsa 'fox', Grk ākōmis- -ākōnis 'fox', Arm ātus 'fox', Hit ulip(pana)- 'wolf', Av urupil 'dog', raopi- 'fox, jackal', MPers ṭuipās 'fox', Khot ṭuva-sa- 'jackal', Olnd ṭoipās- 'jackal, fox'. Widespread and obviously old in IE. However, reconstructing the PIE form of
this word is extremely difficult. The attested forms would appear to presuppose a bewildering number of PIE antecedents: *ulopē- (Baltic), *ulopē- (Latin), *h(o)upi- (Iranian), *loupēk- (Indo-Iranian), *a-loupēk- (Greek, Armenian), *ulplik- (Baltic). Clearly this word has been subject to phonological deformation, perhaps because of some sort of cultural taboo, in many, if not all, traditions in which it is attested.

The distribution of the fox is widespread across Eurasia (Atlantic to Urals), including the Near East, and south to central India. Although it might be presumed that the fur of the fox was highly prized, most Neolithic and Copper Age sites yield the remains of less than five individuals which suggests chance encounters or vermin extermination rather than selective trapping. Even in areas of northern Europe such as Russia where the beaver was hunted in great quantity, the fox is only marginally attested. More relevant to some of the theories concerning the IE homeland, fox-hunting is attested to some degree in the Usatovo culture (Usatovo had eighteen foxes, Mayaki had fifteen) and in the Yamna culture (Mikhaylova with twelve foxes). Fox remains have also been recovered from Yamna burials and may include the teeth (pendants), bones, and on several occasions, the mandibles of a fox. The fox is also known from the Neolithic of Central Asia.

See also Mammals, Tail, Wolf. [D.Q.A., J.P.M.]

FRAMEWORK

*krēd- (*kreיהם-t-) ‘framework, beams’. [IEW 617–618 (*kred-).] Wat 32 (*kred-). ON hrōt ‘roof, attic’, OE hrōst < * KRōd-s-to- ‘woodwork of roof, roof, attic’ (OE NE roost), OHG rōst ‘pyre’, MHG rāz ~ rāze ‘honeycomb; pyre’, Goth hrōt ‘roof, house’, OCS krada < *KRōdESa with a centum development of the initial palatal stop—perhaps a very early borrowing from Germanic or some other western IE stock) ‘funeral pile’, Shughni xād (< Proto-Iranian *srād(y)a-) ‘summer pen for cattle’. Possibly belonging here, and with the same centum development of the initial palatal stop, are such Baltic words as OPrus creslan ‘armchair’, Lith krešlas ‘chair’, Latv kresls ‘chair’ (if < *krēd-st-lo-). With or without the Baltic words we have evidence for a term which referred to structures or substructures of interlocking wood and which is without any known root relations. Widespread and old in IE.

See also House, Post. [A.D.V., D.Q.A.]

FREE see PEOPLE

FREEMAN

*heρēs ~ *heρios ‘member of one’s own (ethnic) group, peer, freeman, (Indo-Iranian) Aryan’. [IEW 67 (*aro-?).] Wat 3 (*aro-?). GL 657 (*arti(y)a-), BK 387 (*ar-/ar-), 429 (*ar-/*ar-). From *heρes comes Hit ara- ‘member of one’s own group, peer, companion, friend’, with further derivatives arawa- ‘free from’, arawahh- ‘set free from’, arawanni- ‘free; freeman’, Lycian arawa- ‘free (from)’, arus- ‘citizens’, from *heρios: OIr are ‘freeman (whether commoner or noble); noble (as distinct from commoner)’ (the latter meaning may be rather from *prios, a derivative of ‘first’, the Gaulish personal names with Ario- e.g., Ario-manus, presumably contain ‘noble’), Av aiyra- ‘Aryan’, (i.e., ‘Iranian’ in the larger sense), OPers ariya- ‘Aryan’, Iran Alani (< *aryana) (the name of an Iranian group whose descendents are the Ossetes, one of whose subdivisions is the Iron (< *aryana-), *aryāvan (gen. pl.) of the Aryans (> MPers Iran), Olnd arī- ‘attached to, faithful, a faithful devoted person; z kinsman’ (and distinct from the homophonous arī- ‘enemy’), arīya- ‘kind, favorable; attached to, true, devoted’, arīya- ‘Aryan; one who is faithful to the Vedic religion’. From *heρ- ‘put together’. Oswald Szemerényi’s suggestion that it derives from an Ugartic word meaning ‘kinsmen’ is hardly compelling.

Clearly supposed in the original meaning is an emphasis on in-group status as distinguished from the status of the outsider, particularly those outsiders forcibly incorporated into the group as slaves. In Anatolian the base word has come to emphasize the personal relationship between individuals while the derivatives continue the more general focus on social status, as remains the case in Old Irish. In Indo-Iranian, presumably because the unfree were typically captured taken from other (ethnic) groups, the word has taken on a more purely ethnic meaning. Less likely, but still possible, is the assumption that this word was originally an ethnonym, the self-designation of (at least parts of) the Indo-European people, that was revalued as a term of social status.

An independent derivative of the same verbal root is *heρēs/ehē ‘fitting’ seen in Hit ara- ‘what is fitting, right, proper, fas’, natta ara- ‘it is not right, it is forbidden/illegal, nelas’, Av aram ‘fittingly, enough’, armāti (< *ara-mati-) ‘right thought’, Olnd aram ‘fittingly, enough’, arā-mati ‘right thought, devotion’, evra ‘truly fitting, just right’.

See also Booty, Friend, Kinship, Master, People, Physical Anthropology. [D.Q.A.]

Further Readings


Goth *hindana* 'from beyond' are more likely from *'rei-* 'here'. Even rejecting the weaker elements (the Celtic and Old Indic forms have been alternatively connected with a root *'kan-* 'small'), the broad geographical distribution points to probable PIE status.

See also Number. [J.C.S.]

**FRIEND**

*prih₂ós* 'one's own', thus 'dear' and 'free'. [IEW 844 (*prijo-); Wat 53 (*priy-o-); Buck 16.28]. Wels *ryĥd* 'free', ON *frī* 'beloved, spouse', OE *frēo* 'woman', *freō* 'love', *frēo* 'free' (> NE *free*), OHG *frī* 'free', Goth *freis* 'free', Av *fya/-dear*, Olnd *priyā*- 'dear', *priyā* 'spouse', *priyātā* 'desire'. Also the name of the Germanic goddess ON *Frīgg*, OE *Frig*, OHG *Frija*. It has been argued that *prih₂ós* of one's own may be a derivative of *pēr* 'house' (attested in Hit pēr 'house', thus 'of one's household' although this word may be of non-IE origin). Attested in the west, center and east of the IE world, this word is surely of PIE date. In Celtic and Germanic, the term means 'free' which points to parallel socio-political organization though borrowing from Celtic to Germanic has also been suggested. As is the case of Lat *liber* 'free' and Grk *αλεξάρεος* 'free' (< *'of lawful birth*), it indicates the legal position of an individual who is a full-fledged member of the ethnic community in contrast to outsiders or people subdued into servitude by war. The specific meaning probably developed originally among members of a particular social class as a mutual term of affection.

*keī̯ros~ *kī̯ros* 'friendly'. [IEW 515 (*kā-ro-); Wat 26 (*kā-ro-); Buck 16.28]. Olr *cara* 'friend', Wels *cår* 'friend', Lat *cārus* 'dear', ON *hora* 'adulterer', OE *hör* 'adulterer', *hûre* 'whore' (> NE *whore*), OHG *huor* 'adulterer', *huoera* 'whore', Goth *hûrs* 'whore', Latv *kārs* 'greedy'. Parallel derivatives of *keī̯a* (gen. *kī̯as* 'love', itself a derivative of *keī̯a* - 'to love'.

*keī̯os~ *kī̯ou* 'belonging to the household' (hence > 'friendly, intimate, dear'). [IEW 539–540 (*kei̯-ou-); Wat 27–28 (*kei̯-o-); Buck 7.122]. Lat *civis* 'citizen' (i-stem on the analogy of *hostis* 'host'), Osc *ceus* 'citizen', ON *hjón* ~ *hjôn* 'one of the household; (pl.) married couple', *hýský* household, *family*, OE *htwēn* ~ *hw-eaxden* ~ *hwisc* 'household', *hwætan* (pl.) 'members of a household', *hwicbę* 'domestic, familiar', OHG *hiu₄* 'married couple, parents; family members', *hi(w)o* 'husband', *hī(w)a* 'wife', *hwiscı́* 'family', Goth *hewa-frua* 'master of the household; host', Latv *siêva* 'wife', Olnd *sêva*- 'dear, intimate', *siva*- 'kind, friendly, auspicious, dear' (whence *Siva*- 'Shiva'). Lurking behind these words is either a root noun *Rei- or a u-stem *Rei-/*ki̯- 'household, village as social unit' from *'reī-*, either from *'za* those that sleep together or, since *'rei-+ *hjēn may mean 'depend upon', from *'za* collective dependants'. These words are widespread and old in IE. The change of meaning from 'member of the household' to 'dear' is possibly paralleled by *prih₂ós* 'dear' from *pēr* 'house'. The Olnd *sêva*- 'dear, intimate' and *siva*- 'kind, friendly, auspicious, dear' emphasize the sentimental relations between individuals or groups, unlike *sakhā*- 'companion'. Similar notions of intimacy lie behind the meanings 'family, spouse' seen in Germanic and Baltic. On the other hand, the particular semantic development that led to the Italic meaning may be explained by the use of this term as a form of mutual address among members of the same community, cf. the use of 'comrade' among citizens of the former Soviet Union.

See also Companion; Freeman; House; Love; Village. [E.C.P]

**FRIGHTEN**

*gheis- 'frighten'. [IEW 427 (*gheis-); Wat 21 (*gheis-)]. Olnd *gēska-* (in compound *gēska-fullt*) 'fear', Goth *gāsis- 'frightened', Av *gaizsna* - *gaizens-; OE *gæstan* 'frighten', *gast* 'spirit, ghost' (> NE *ghost*), OHG *geist* 'spirit, ghost', Olnd *heda*- 'anger'. Both the root and the extended form can be reconstructed to PIE with a moderate degree of confidence.

*terg*- 'scare'. [IEW 1076–1077 (*terg*-)]. Wels *tarfu* 'hunt', Latv *torvus* 'piercing, wild (of the eyes)', ON *hjarka* 'reproach, scold', OE *pracan* 'fear, feel dread, shudder', Grk *τραχέω* 'scare', Olnd *tärjati ~ tärjate* 'threatens, scolds'. Sufficiently widespread to guarantee its PIE status.

See also Fear. [M.N., D.Q.A.]

**FROG**

*volhd-1/0- 'frog'. [Fraenkel 1200]. Lith *vlar* (with secondary -l-) 'frog', Latv *varde* 'frog', Arm *gort* 'frog'. At least a word of the center of the IE world. A homophonous word for 'wart' (*volh₂o*-) is reflected in Germanic (e.g., OE *wearte* 'wart' (> NE *wart*), Baltic (e.g. Latv *ap-vide* 'abscess'), Slavic (e.g. Rus *veter* 'abscess, ulcer'), and Iranian (NPers *balt* 'wart'), suggesting that the popular connection between warts and the handling of frogs is of great antiquity. Alternatively, it may be that the frog derives its designation from its skin, the texture of which may resemble a series of warts.

See also Animal, Skin Disease, Spawn. [D.Q.A.]

**FROST**

See ice

**FRUIT** see Ice

**FULL**

*ph₂in̄ós* 'full'. [IEW 799–800 (*ph₂*-no-); GI 684 (*ph₂*); Wat 48 (*pela-); Buc 13.21; BK 54 (*ph₂*); L. *lán* 'full', Wels *laus* 'full', ON *fullr* 'full', OE *full* 'full' (> NE *full*), OHG *lof* 'full', Goth *fulls* 'full', Lith *piltas* 'full', OCS *plūn* 'full', Av *parana* - *fulled*, Olnd *pūrnā* 'full', TochB *palwe* (e.g. *plono-vent-) 'full (of moon)'. Cf. the similarly constructed *pleinó-* 'full'. Or *frainm* (a denominative verb presupposing a *'lin* 'full') 'full', Lat *plenus* 'full', Arm *li* 'full', Av *frāna*- 'filling', Olnd *prāna*- 'full'.

See also Abundant, Empty, Fill. [D.Q.A.]

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FURROW

*psykeh₂- 'furrow'. [IEW 821 (*perk-); Wat 50 (*perk-); Gl 595 (*pʰerkʰ-); Buck 8.212]. Wels reikh ‘furrow’, Gaul rica ‘furrow’, Lat porca ‘ridge between furrows’, ON for ‘furrow’, OE furh ‘furrow’ (> NE furrow), OHG furh ‘furrow’. Cf. also Lith pra-peša ‘unfrozen patch of water in ice-covered surface’, pra-pašas ‘ditch’, Olnd pårása ‘chasm, rift’. The word for the specifically agricultural ‘furrow’ would appear to have been confined to the western edge of the IE world. Cf. also PIE *pörkos ‘pig’ (as one who creates a furrow-like track while rooting in the earth).

*l(o)iseh₂- ‘furrow’. [IEW 671 (*loisā); Wat 36 (*leis-)]. Lat lira ‘furrow’, dé-lirus ‘insane, off the track’, OE list ‘fringe, border’ (> NE list), OHG leisa ‘track’, lista ‘border, hem’, OPms lyso ‘field bed’, Lith lýse ‘garden bed’, OCS lècha ‘field bed, furrow’, Rus lekhá ‘field bed’. A technical agricultural term found only in the west and center of the IE world. From *leis- ‘leave a trace on the ground’.

*yorvos ‘furrow’. [BK 489 (*wurʰ-/*wurʰ-)]. Lat urvāre ‘mark out a boundary with a furrow’, Osc uruvai ‘boundary-ditch’, Myc wo-wo ‘boundary-ditch’, Grk ὀφος (Ionic ὀφος) ‘boundary’, (pl.) ὀφοί ‘trench or channel for hauling up or launching ships’, ὀφον ‘limit, range (of area that could be plowed by a mule in a day); boundaries’. Lat urvum ‘the curved part of a plow’ is usually included here but the semantic distance invites caution. Though reflected in only two stocks this word still seems a likely candidate for PIE status, at least in the west and center of the IE world.

See Border; Plow. [D.Q.A.]

FURTHER


See also And, Far. [A.D.V.]

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GALL

*gheln- – *ghel- (Latin, Germanic) – *għelós (Greek, Avestan) 'gall'. [IEW 429 (*ghel-); Wat 21 (*ghel-); GI 715 (*għel-)]. Lat fel (with dialect f- rather than expected *h-) 'gall, anger', ON gall 'gall', OE gealla 'gall' (> NE gall), OHG galla 'gall', Grk χόλος – χόλη 'gall, anger', Av zara- 'gall'. Both attested forms are independent derivatives of *ghel- 'yellow, brown', and were, at best, regionalisms in late PIE. OCS žlūči – žluči 'bile', Rus želči 'bile' also presumably belong here, presupposing a late PIE *għjikis, but the palatalized initial in the Russian and second Old Church Slavonic form are not altogether well-explained.

See also ANATOMY; YELLOW. [D.Q.A.]

GAMEBIRD

*teter- 'gamebird'. [IEW 1079 (*tet(e)r-); GI 459 (*tētē(e)r-)]. Mrt tēthra 'hooded crow', ON þiðurr 'capercaille', OPrus tatarwis 'capercaille', Lith tetauva – tetuvas 'capercaille', Latv teteris 'capercaille', OCS têtrëv 'pheasant', Rus tetšëv 'capercaille', Grk τέταρτος 'capercaille', NPers tadharv 'pheasant', Olnd tittārā 'partridge'. Arm tetrak 'turtle-dove' is a loan word. These are all large and well-fleshed game birds. The capercaille is a northern bird while the pheasant is also found farther south, in the sub-Caucasus and northern Iran and India. The Irish cognate, the 'hooded crow' is normally of little interest to hunters and diners. The Arm tetrak 'turtle dove' is little hunted though it does have food value.

See also BIRDS; QUAIL. [J.A.C.G.]

GARLIC see VEGETABLES

GATHER

*ger- 'gather, herd, crowd'. [IEW 382–383 (*ger-); Wat 19 (*ger-); BK 286 (*k'ar-/*k'ar-)]. Mrt graig 'horse herd', Lat greg (c *gre-g-) 'herd, company', Lith gurgulas 'thickening, knot', OCS grūsti 'handful', Grk ἀγάπω 'gather', γάργαρα 'crowd'. Middle Irish, Latin, Lithuanian and Greek all show a reduplicated nominal form, suggesting that it may be reconstructed to the proto-language as 'herd, crowd'. The precise relationship between the nominal formation and Grk ἀγάπω is unclear; the initial a- may, however, reflect an old prefixal *h₁- 'in'.

*kra(u)- 'gather, amass'. [cf. IEW 616–617 (*kra(u)-); Wat 32 (*krā-); Buck 12.27; VW 235]. Grk κρῶττον 'hide', TochB kraup- 'gather, amass, herd'. The geographical distribution of this word is a strong argument for PIE status. With another enlargement, we have PIE *kr(e)u-h- in Lith krauju 'pile up, stack', krova 'pile', Latv krafā 'heap up, load', OCS kryja 'cover, hide', krova 'roof'. OIr cro 'enclosure, shed', Wels krau 'shed' have been sometimes adduced here but they have also been associated with *kropos 'roof' which is the more likely connection. Also dubious are attempts to link the forms cited here with the words for 'round', e.g., OIr cruinn 'round', Lat curvus.

See also ASSEMBLY; HERD; ROOF. [M.N.]

GAUDO CULTURE

Gaudo is a Copper or early Bronze Age culture (c 3500–2700 BC) of south-west Italy. Sites are almost entirely limited to burials in rock-cut tombs. These consist of an entrance shaft (which would later be blocked up with stone rubble) leading to a kidney-shaped chamber which might contain
two to twenty-five burials, accompanied by pots, flint daggers (sometimes copper), and arrowheads. Both males and females were found in the graves and there is some evidence for social stratification, e.g., the Chieftain's Tomb at Mirabello Eclano where a single male burial was accompanied by three copper daggers, two flint daggers, forty-two flint arrowheads, pottery and other stone tools. A dog was buried at the foot of the deceased. The physical type of those buried in the Gaudo tombs is more round-headed than what has been presumed to be the native Mediterranean population and this has led to the suggestion that the Gaudo culture was a product of immigrants. These have been variously derived from the eastern Mediterranean (Anatolia) or north or east of the Alps where they have been identified as an early wave of IE-speaking groups. Much of current opinion dismisses the concept of foreign intrusions and seeks the explanation for any correspondences between the Gaudo and other non-Italian cultures through exchange relations. If so, some connection between the very peculiar “joined bowls” of the Gaudo culture and distant parallels in Anatolia are among the more problematic. As “exchange” relationships may well disguise small movements of people, one cannot entirely rule out some form of foreign intrusions into Italy. The pattern of such a movement, at least one seen emanating from the eastern Mediterranean, would not provide much of a “fit” against the linguistic evidence for no one, including those who specifically advocate an IE homeland in Anatolia, suggest that Indo-Europeans entered Italy in the fourth millennium BC from the eastern Mediterranean by way of the sea. Other than satisfying, perhaps, a few of the proponents who derive the Etruscans from Anatolia (and who also believe, against the common opinion, that Etruscan was an IE language), such a model linking Italy and Anatolia does not explain the historically attested Indo-Europeans of Italy. Intrusions from the north, however, might accord better with interstock contacts between Italic and both Celtic and presumably the IE languages of the Balkans. But as the Gaudo culture is the most southerly of the major Copper Age cultures of Italy, one might require that some form of intrusion be established for the other Italian cultures as well.

See also ITALIC LANGUAGES; REMEDELLO CULTURE; RINALDONE CULTURE. [J.P.M.]

GERMANIC LANGUAGES

On their entrance into history in the last centuries before Christ, Germanic-speaking peoples inhabited what is now southern Norway and Sweden and a broad strip of the North European plain from Flanders to the Vistula. It is the consensus among linguists that in the middle of the first millennium BC their continental holdings had been more restricted,
comprising southern Sweden, Denmark, Schleswig-Holstein, Mecklenburg and immediately adjacent areas. In the western part of their area their expansion had probably come at the expense of Celtic-speaking peoples. Other groups, whether Indo-European or not Indo-European, that may have been in the area that was later Germanic vanished without any certain linguistic trace though some such precursor language(s) may have been the source of that part of the Germanic vocabulary not shared with other IE groups. Some 28% of the core vocabulary of Germanic has been estimated as of non-IE origin.

Linguistically Germanic-speakers were divided into three groups: North Germanic in Norway and Sweden, East Germanic from approximately the Oder eastward, and West Germanic to the west of the Oder (including Denmark).

North Germanic speakers, originally at home in southern Sweden and Norway, moved into Denmark very late in the prehistoric period and repopulated an area that was largely depopulated by the movement of the original West Germanic speakers to the British Isles. At a somewhat later period (800–1050 AD), as Vikings, their raids were the scourge of both western Europe (Vikings largely from Norway and Denmark) and eastern Europe (largely from Sweden). North Germanic speakers settled in large numbers in the British Isles, Normandy and Russia. In all of these places they were sooner or later assimilated linguistically to the surrounding populations. In England, however, they were sufficiently numerous to have left a permanent linguistic mark on their earlier West Germanic cousins, the English.

The earliest linguistic remains usually attributed to North Germanic speakers are brief inscriptions in a special Runic alphabet, found mostly in Norway and Denmark but also in scattered locations elsewhere. These inscriptions are in some cases datable as early as the third century AD. The language represented on these early inscriptions is sufficiently archaic that it is not even specially North Germanic and may be taken as the common ancestor of West and North Germanic and only little differentiated from the East Germanic that appears a couple of centuries later in Gothic. Classical North Germanic, Old Norse, appears, written in the Latin alphabet, in the twelfth century. North Germanic is divided into two groups on a rough east-west basis. In the east we have Swedish and Danish. In the west we have the very conservative Icelandic and also Norwegian (heavily influenced by Danish) and Faroese.

East Germanic speakers were the first to trouble the later Roman Empire in a major way. A number of East Germanic tribal groups wandered through Europe: Vandals, Burgundians, etc. However, of these it was the Goths who left us with the only linguistic record of East Germanic. The Goths moved first from the lower Vistula to what is now the Ukraine. Pressed in their new home by the onslaught on the Huns, they moved into the Balkans and then into western Europe. One group, the Visigoths, ended up in Spain, where they formed the basis of the post-Roman state there and another, the Ostrogoths, became caretakers for the last Roman emperors in Italy. The Goths of Spain and Italy were linguistically absorbed by the Romance-speakers surrounding them by the eighth century. The chief Christian missionary and later bishop of the Visigoths, one Wulfila, translated the Bible into Gothic while the Visigoths were in the northeast Balkans and it is this translation that forms the overwhelming portion of our linguistic record of Gothic, and of East Germanic as a whole. A small subset of the Ostrogoths, left behind in the Crimea, emerge linguistically in the sixteenth century in the form of a short wordlist (some eighty-six words) compiled by Ogier de Busbecq, the ambassador of the Holy Roman Emperor to the Sublime Porte. The Crimean Gothic speakers disappeared linguistically soon after de Busbecq recorded his vocabulary.

The West Germanic groups were also expansive though in general they wandered less far than the East Germanic groups did. The eastern flank of the West Germanic group, those living roughly in the former East Germany, moved to the south and west, ending up in southern Germany, Austria, and Switzerland. Because in medieval and modern times these West Germanic speakers lived in the more elevated parts of the German-speaking areas their speech is collectively called High German. Various High German dialects are attested in written sources from the eighth century AD. Old High German (OHG) is dated to c 750–1050, Middle High German (MHG) to c 1050–1350. Modern (standard) or New High German (NHG), which dates from c 1350 onwards, is based on certain dialects of the northeast of the High German area, dialects brought to prominence by the imperial chancery in Prague and Luther's translation of the Bible.

The western portion of the West Germanic group, those along the middle and lower Rhine, moved so as to straddle the Rhine and further, on into northern France. The leading group politically of these western West Germanic speakers were the Franks who gave their name to France and in the person of their greatest king, Charlemagne, founded the Holy Roman Empire. The Frankish (Franconian) dialects of the lower Rhine, rather strongly influenced by the emerging High German standard, gave rise ultimately to Dutch (with its South African outlier, Afrikaans). North of the Franks, in modern-day Lower Saxony and Schleswig-Holstein were the Saxons. Dialects from this area are collectively known as Low German and, while now reduced to the status of a local patois, they formed in medieval and modern times the dominant written language of northern Germany and were extremely influential in Scandinavia.

The West Germanic speakers originally living in Denmark, Schleswig, and along the North Sea coast provided the Germanic settlers who invaded Britain in the fifth century in the confusion following the withdrawal of Roman troops from the island. The Angles (from Angeln in Schleswig), the Saxons, the Jutes (from Jutland), and their neighbors formed the bulk of the new non-Celtic population of Great Britain whose language eventually came to be called English, attested in
written documents from the eighth century. The earliest period, Old English (OE), dates to c 700–1100 BC. It is followed by Middle English (ME) which runs c 1100–1450 and then New English (NE; c 1450–). English’s closest relative is Frisian, the speakers of coastal West Germanic who were “left behind” as it were by the migration of the ancestors of the English.

Description

From the morphological point of view Germanic shows both conservative and innovative tendencies. The noun preserves five of the eight cases (with traces of a sixth) reconstructed for Proto-Indo-European. It also preserves all three PIE genders but only two of the PIE numbers (singular and plural). The dual, save in personal pronouns, is lost and the distribution of dual and plural personal pronouns breaks down in the Middle Ages. The adjective shows a similar system of inflection to that of the noun but it has, in addition, an innovative distinction between indefinite (“strong”) and definite (“weak”) forms. The indefinite forms represent the inherited PIE endings while the definite represent n-stem extensions of the underlying adjectives. The distinction of strong and weak adjectives persists in all Germanic languages except English (which lost the distinction in Middle English, traces only remain in Chaucer’s language), though the distinction is very much reduced except in German and
Germanic is distinguished from other Indo-European groups by the manner of articulation of the PIE obstruents. Where Indic, for instance, has t, d, and dh, and Greek has t, d, and th for what is conventionally reconstructed as PIE *t, *d, and *dh, Proto-Germanic normally had *θ, *t, and *dθ, and likewise for all places of articulation. Thus where PIE had voiceless stops, Proto-Germanic had voiceless continuants; where PIE had voiced stops, Proto-Germanic had voiceless stops, and where PIE had voiced aspirated, Proto-Germanic had simple voiceless stops (probably originally voiced continuants, the various Germanic languages differ on this point). This relationship is usually called “Grimm’s Law” (after Jakob Grimm [1785-1863] its discoverer) or the First Germanic Sound Shift and it is the single most dramatic characteristic by which Germanic is distinguished from other IE stocks. Apparent exceptions to Grimm’s Law, particularly cases where PIE *p, *t, and *k became Proto-Germanic *b, *d, and *g rather than the expected *f, *θ, and *x, were explained by the Danish linguist Karl Verner ([1846-1896] hence “Verner’s Law”) as reflecting the influence of PIE stress (itself nowhere preserved in Germanic). His explanation says that PIE voiceless stops gave Proto-Germanic voiceless continuants, as Grimm had stated, when initial or after the PIE stressed vowel. However, they gave voiced continuants (or voiced stops) when non-initial and before the PIE stress. Thus PIE *ph₂t₂r̥* father gives Goth fadar while PIE *bh₂rh₂g₂r̥* ‘brother’ gives Goth brōbar. (The identity of the medial consonants in these two words in contemporary English is the result of later changes in English only.) The fact that cases which were irregular by Grimm’s Law (such as the Germanic word for ‘brother’) could be seen as regular when Verner’s Law was added to the description was perhaps the single most important building block to the notion that phonological change was exceptionless (if one knew all the rules) and that in turn made the reconstruction of unattested languages, such as PIE, a genuine possibility. Germanic is also characterized by the development of all vocalic resonants, whether or not followed by a laryngeal, to *u followed by a resonant. Thus *r(h)₂θ, etc., give Proto-Germanic *ur, etc.

High German is distinguished from the other Germanic languages, including Low German, its closest relative within Germanic, by a second consonant shift which is very reminiscent of the changes described in Grimm’s Law. Proto-Germanic voiceless stops become voiceless continuants after a long vowel or diphthong within a word and voiceless affricates elsewhere (in most varieties of High German Proto-Gmc *k remains a k except after a long vowel), Proto-Germanic voice stops become voiceless stops (though both *g and *b usually remain in most varieties of High German), while Proto-Germanic voiced continuants became voiceless stops. Thus a PIE *dheubos ‘deep’ gave Proto-Gmc *deupa­us (OE deep, Goth dúps) which in Old High German is tiō or PIE *tréjës ‘three’, gave Proto-Gmc *pra (OE þrē, Goth þreis) which in Old High German is dēr.

The rather radical changes, particularly the phonological changes subsumed under Grimm’s and Verner’s laws, that separate Germanic from its sister stocks and the large number of Germanic words that do not seem to have good IE etymologies, have led a number of investigators to assume that Proto-Germanic was heavily affected by a linguistic substrate (that is, a population of non-Indo-European speakers who were linguistically assimilated by the pre-Germanic speakers who were themselves a relatively small proportion of the resultant population of Proto-Germanic speakers). Probably the best evidence for such a substrate is the large number of apparently non-Indo-European words relating to the sea, sea products, and ships. The assumption is that the pre-Germanic speakers, coming from somewhere in the interior of Europe, first became acquainted with the sea somewhere on the Baltic and borrowed the words related to the sea from a more original population which was subsequently linguistically assimilated to the Indo-European newcomers. Since the linguistic substrate(s) disappeared without a trace other than these putative loanwords, their presence cannot be independently confirmed. In any case, it is important to point out that Celtic loanwords into Germanic during the latter half of the first millennium BC undergo the first Germanic soundshift and thus the attribution of the phonological changes subsumed under the shift to some substrate which must have disappeared a thousand or perhaps two thousand years before is impossible.

Within Indo-European Germanic is most closely related to Baltic and Slavic. With them it shares many vocabulary items, as well as the morphological peculiarity of certain case endings in *m-, where other Indo-European languages have *bh- (e.g., Goth wallan, Lith vilkams, OCS vikomú, but Olnd vrekhyah, all ‘to the wolves’), and the phonological peculiarity of o-stem nouns with mobile stress (nominative and accusative on the first syllable, otherwise on the last
Proto-Indo-European and Germanic Phonological Correspondences

<table>
<thead>
<tr>
<th>PIE</th>
<th>Gmc</th>
<th>PIE</th>
<th>ON</th>
<th>OE</th>
<th>Goth</th>
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<tr>
<td><em>p</em></td>
<td>f ~ B</td>
<td><em>phater</em> ‘father’</td>
<td>fadar</td>
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<td>*bhere/o- ‘carry’</td>
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<td>t</td>
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<td><em>dh</em></td>
<td>d</td>
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<td><em>g</em></td>
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<td>*genu ‘jaw, cheek’</td>
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GERMANIC LANGUAGES

 syllable). This latter feature is witnessed for instance by ON hestr ‘stallion’ but OE hengist ‘stallion’, the former reflecting Proto-Gmc *hanxista- while the latter reflects (with Verner’s Law) *hangista-. Later Germanic seems to have come in contact with pre-Italic and later yet, not long before both groups enter recorded history, with Celtic.

The accompanying phonological chart puts OHG last in the list of representative languages, so as to make clearer the operation of this second sound shift (in those words which were affected by it).

Origins

The earliest ethnographer to leave an account of the ancient Germans, Julius Caesar describing his Gaulish campaign in c. 58–50 BC, positioned the Germans to the east of the Rhine. By this time the Germanic peoples and language had clearly developed as an independent stock but not for long if the estimates based on the close affinity of the earliest Germanic texts to reconstructed Proto-Germanic is anything to go by. The inscriptive evidence and loan words between Celtic and Germanic such as *isarn- ‘iron’ suggest that the Germanic
stock may have formed quite late, the first sound shift often being set to around 500 BC. In short, the formation of Proto-Germanic is generally set to the Iron Age of western Europe.

Caesar's positioning of the early Germans on the east bank of the Rhine has long been suspected to have been a product of his political agenda and, in archaeological terms at least, the Rhine has been usually dismissed as an important cultural border at this time. Rejection of Caesar's assertion has prompted archaeologists to seek the early Germans in a more northerly culture. Traditionally, the starting point for locating the earliest historical Germans is the Jastorf culture of Denmark and north and central Germany as far south as the Aller and the Weser. The problem with this identification, one which is based to a large extent on establishing an archaeological dichotomy between La Tène Celts and Jastorf Germans, is that it does not account for the peoples in between, some of whom at least should have also belonged to the early Germans if the positioning of classical authors is anything to go by. On the basis of this approach, the Jastorf culture would be a major component of the early Germans but this ethno-linguistic group would also find other archaeological reflections in various Iron Age cultures around its periphery (e.g., the Hunsrück-Eifel culture of the middle Rhine), including La Tène groups which might variously be described as final Celtic or early Germanic, the two being indistinguishable.

Any attempt to retreat further into the prehistoric period carries us beyond the temporal definition of Proto-Germanic suggested by the linguists into the vague realm of northwestern Indo-European or late Indo-European. It is widely held that there is considerable continuity in both the archaeological and physical anthropological record of northern Europe from the earliest appearance of the Germans back into the Bronze Age. The Jastorf culture, for example, is regarded as a direct continuation of the local northern Bronze Age after the introduction of some iron metallurgy. The line of continuity extends throughout the entire course of the Bronze Age down to the transition between the middle and later Neolithic in south Scandinavia, i.e., between the earlier TRB culture and that of the Corded Ware horizon. The appearance of the Corded Ware culture (c 3200 BC) in this region is associated by many archaeologists with the earliest appearance of the Indo-Europeans in the north European plain. There is evidence for a new physical type in some regions at this time although the archaeological evidence for discontinuity is very hotly debated. As the Corded Ware horizon also expands over territories that would appear ancestral to both Baltic and Slavic ethnogenesis, it might also provide a reflection of the cultural sphere in which the Germanic-Baltic-Slavic isoglosses arose. The temporal definition of these isoglosses, however, might have been achieved later and as the Corded Ware horizon does extend south as far as Switzerland, it may also have included distant ancestors of the Celtic and Italic stocks. In this way, the Corded Ware horizon would have provided the linguistic arena for the earliest of those cognate sets described in this Encyclopedia as northwest Indo-European.

See also Corded Ware, Indo-European Languages, Jastorf Culture. [D.Q.A., J.P.M.]

Further Readings


Etymological Dictionaries

De Vries, J. (1962) Altnordisches etymologisches Wörterbuch. 2nd ed. Leiden, Brill

Origins


Gift see Exchange

Gird

*jeh3s-’gird’. [IEW 513 (*joluls-); Wat 79 (*yos-); GI 610; Buck 6.57; BK 472 (*ya-/*ya-)]. Lith juosti ‘gird, girdle, buckle on (a sword)’ (Lith 3rd sg. juostí), OCS po-jašō ‘gird’.
Alb n-giesh 'gird, fasten on, buckle on', Grk ζώντυμα 'gird', Av yāshhayēi 'girds'. The root-noun appears in Av yāh- 'belt' and, extended by the addition of the thematic vowel, in OCS po-jasā 'belt'. Nominal derivatives include: (1) *jehsin- 'belt' in Lith jūsmuō 'waist'; Grk ζώνα 'belt'; (2) *jehsin(m)nau/eh2- 'belt' in RusCS pa-jasni (< *jehsini-) 'belt', Grk ζώνη 'belt', Olnd rāsnā (crossed with rāsanā 'belt'); and *jehssto/eh2- 'belt' in Lith ķūjostā 'girdle, belt; sash, scarf', Grk ζωγοτός 'belt', Av yāstō 'belt'. The wide distribution of both verb and certain nominal derivatives makes this lexeme a strong candidate for PIE status. The nominal derivatives provide a name for one of the very few specific types of PIE clothing, one moreover with strong cultural connotations for both men and women. For the latter we might particularly note the string skirt, widely traceable in Europe from the Upper Palaeolithic and subsequent periods. It appears to have symbolized the nubile status of a woman, and was probably a badge of considerable honor. Distant, and a bit confused, echoes of the string skirt are probably to be found in Book 14 of the Iliad where Hēra sets out to seduce Zeus and bolts on a 'girdle crafted with a hundred tassels'. As an accoutrement over other clothes, it survives to this day as part of the woman's folk costume of many parts of the Balkans. Non-fringed belts were, and in some IE cultures still are, important in men's costumes as a sign of virility.

**gērdh-** 'gird, surround'. [IEW 444 (*gērdh– *gērdh–); Wat 22 (*gēhr–); BK 303 (*gēr–*gēr–)]. The underlying verb is preserved only in Germanic: ON gýrða 'gird', gýrðr– gýrðill 'girdle', OE gyrdan 'gird' (> NE girdle), gyrdel 'girdle' (> NE girdle), OHG gurten 'gird', gurtilla 'girdle', MHG gurt 'girdle', Goth bi-gairdan 'gird', gairda 'girdle'. What demonstrates that this word is a retention in Germanic, rather than an innovation, is the practically pan-IE distribution of the related root-noun *gōrdh’s 'fence, enclosure'.

**kēnkk-** 'gird, wrap around'. [IEW 565 (*kēnk–); Wat 29 (*kēn–); GI 85 (*kēn-k–); Buck 6.57]. Lat cīnō 'gird, surround', Lith kinkau 'bride a horse, harness', perhaps Grk (Hesychius) kάκακον (if < kákkalo-) 'wall' (if < *[that] which surrounds'), Olnd kūntāte 'bind', kantuka- 'cuirass, jacket, skin of snake, husk', kāntē- 'girdle'. Certainly of PIE date, though probably more general in meaning than just 'gird'.

**kērdh-** 'belt'. Olr cīs 'belt', Wels gwregys 'belt, girdle' (< Celt *tōrd-su–), Rus čere 'leather belt' (< Slav kerd-so–); cf. Olr fo-cridgedar (< *tupo-ktēd–) 'girds'. A possible Celtic-Slavic isogloss.

The belt may be associated with the attire of both males and females in IE tradition, e.g., Hēra's belt alluded to above but also the belt of Hēraklēs (Herodotus 4) which Scythes, the ancestor of the Iranian Scythians, must be able to put on in order to claim his inheritance. That the belt itself was invested with certain symbolic power is evident, for example, from the anthropomorphic stelae of both western Europe and the Pontic-Caspian region during the late Neolithic and early Bronze Age. In the Pontic-Caspian region we encounter the image of individuals in which the sole garment depicted is the belt while sexual organs and breasts clearly indicate that the individual is otherwise naked.

See also FENCE; STELAE. [D.Q.A., E. J. W.B.]

**GIIIE** see DAUGHTER

**GIVE**

*hezi- 'give'. [IEW 10–11 (*ai–); Wat 1 (*ai–); GI 656 (*ai–)]. Lat ae-mulus 'emulator, rival', Grk άιωμα 'take, seize, aἰωσα portion, fate', Hit pai (< *pe-ai) 'give', Av aeta- 'fitting portion, penalty', TochA e- 'give', TochB ai- 'give'. Whether or not the Latin form belongs here is debatable. The inclusion of the Greek verbal form here has been challenged on the basis of its semantics but it is frequently the case in IE that words meaning 'give' or 'take' often develop the opposite meaning.

*deh3- 'give'. [IEW 223–225 (*dō–); Wat 15 (*dō–); GI 37 (*tō–); Buck 11.21; BK 121 (*tuv-/*tow–)]. Lat dō 'give', OPrus dāsi 'give', Lith duoti 'give', Latv dōt 'give', OCS datsu 'give', Grk διδομι 'give', Arm tam 'give', Hit da- 'take', Av dadati 'gives', Olnd dadati 'gives'. This word may be problematically reconstructed to PIE. The reduplicated present stem, seen in Greek and Indic and also Latin compounds such as redō (< *re-dīdō) 'give back', is often posited for the proto-language as well, this assumption requires, however, the further assumption that in the majority of the daughter languages the reduplicated syllable subsequently vanished without a trace. The root also supplies the base of *deh3-ter 'giver'. OCS datelj 'giver', Grk δότα 'giver', Av datar 'giver', Olnd datar- 'giver, giving'. These may be inherited or parallel formations based on a relatively productive suffix.

*hēnkk- 'bestow'. [Gl 818 (*onk–); cf. Puhvel 3, 292]. The underlying verb is preserved only in Hit henkzi 'bestows' but cf. the widespread derivative *hēnkkōs 'what is bestowed': Grk ὤνος 'burden', Arm (pl.) hunjk 'harvest', Hit henkan- 'fate, death', Av asa- 'group of followers', Olnd ansa- 'portion, share'. Though sparsely attested, the geographical distribution of those attestations strongly suggests PIE status for this word. With the loss of laryngeals, the word has become phonologically confused with *hēnkk- 'attain'. It was apparently loaned from Iranian into Finno-Ugric, e.g., Finnish oxa 'part, portion', Veps oza 'luck, portion'.

It is a striking fact that a number of IE roots which can be reconstructed with the meaning 'give' surface in some daughter languages with the meaning 'take' as *hezi- and *deh3- indicate. The root *nem- 'take', in turn, develops the meaning 'give' in Grk νέμω 'distribute'. Several motivations for this striking semantic development may be suggested. Benveniste proposes that one motivation for the shift lies in the ambiguity inherent in the physical gesture of giving, comparing NE take with take to. More interestingly, Benveniste notes that the vocabulary of giving is also closely bound up with the concept of hospitality in PIE society. In this relationship, embodied in Lat hostis 'stranger, foreigner' or Grk ξένος.
'foreigner', there is a sort of reciprocal gift-giving known as potlatch in anthropology. In this relationship, one person is bound to another by the social obligation of a gift or service; repaying this gift would then create an obligation in the first giver to respond in kind, resulting in the circulation of wealth throughout the society. As Calvert Watkins notes, this relationship was manifested in many social bonds in PIE society: host-guest, patron-poet, and lord-client, etc. The semantic shifts between 'give' and 'take' could then be seen as the consequence of focusing on one side or another of these reciprocal exchanges. See also Exchange; Take. [M.N., D.Q.A.]

Further Readings

GLAND

Related are Nicg akkr ‘swelling, tumor’, OHG ankweiz ‘pustules’. Largely but not exclusively ‘western’ in its attestation. A reasonably good candidate for late PIE status.

*għelgheh₂- ‘gland’. [IEW 435 (*għelgħ-)]. OCS žěza ‘gland’, Rus železa ‘gland’, Arm gelj-k ‘gland’. This word would seem to have been restricted to certain ‘central’ dialects in late PIE times. See also Anatomy. [D.Q.A.]

GLASINAC CULTURE
Glasinac refers to the Bronze and Iron Age culture of Bosnia, especially noted for its substantial cemeteries on the Glasinac plateau, southeast of Sarajevo, that include an estimated 20,000 graves. Material culture associated with the Glasinac culture is found also in neighboring areas, including eastern Serbia and northern Albania. The evidence for settlement in this region is poorly known. Hilltop defensive sites. The primary evidence for the culture derives from its cemeteries. They involve multiple inhumation burials, surrounded by a stone circle about 10 m across, and covered by an earthen tumulus. These tumulus graves have produced very rich grave goods of more distant central European origin and the frequent
Globular Amphora Culture

The Globular Amphora (German *Kugelamphoren*) culture was distributed broadly across central and eastern Europe, from the Elbe to the middle Dnieper, c. 3400–2800 BC. This area was previously the territory of the TRB culture which certainly contributed to the formation of its Copper Age successor and in some areas was contemporary with the earlier phases of the Globular Amphora culture. Generally, Globular Amphora is much better known from its burials than its settlements although roughly rectangular surface dwellings

Presence of weapons has been interpreted as evidence of a military aristocracy. By the sixth and fifth centuries BC cremation becomes more common. The main floruit of the culture would appear to have been from the eighth to fourth centuries BC after which the number of burials falls dramatically. The Glasinac culture would appear to reflect the local evolution of societies that later emerged as the historically-attested Illyrians, the major IE group of the east Adriatic.

See also [Illyrian Language]. [J.P.M.]

**Glide**

*dhreg* - 'glide, pull (something) across'. [IEW 273 (*dhreg*); Wat 15 (*dhreg*)]. ON drak 'stripe', Lith drezōti 'tear apart', OInd dhrajati 'move, go, fly, swoop', dhraj- 'power to glide or move'. Attested as it is on the margins of the IE world, it must surely be old in IE.

See also Pull. [D.Q.A.]

**Globular Amphora Culture**

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[Map of the Globular Amphora culture distribution]

- **Globular Amphora a.** Distribution of the Globular Amphora culture.

- **Globular Amphora b.** Amber "sun disc";

- **Globular Amphora c.** Globular amphora;

- **Globular Amphora d.** Cist with multiple burials (the central burial is a male accompanied by two women and children, and two adolescents at feet with a separate burial in adjoining chamber);

- **Globular Amphora e.** House plan from Poland.
as well as round semi-subterranean huts are known from Poland. Normally, these occur singly or with several together suggesting a settlement pattern based on single families or several living together. At least one component in the settlement system would appear to have been relatively transitory.

Subsistence appears to have been based on stock-breeding—cattle, pig, sheep/goat, dog and some horse; red deer, hare, birds and fish were also exploited. There is a tendency for pig to predominate among the earlier periods of the Globular Amphora culture which is in marked distinction to the earlier cattle-based economies of the TRB culture although there are also Globular Amphora sites that have also yielded a predominance of cattle remains. Among the plant remains are wheat (*Triticum dicoccum* and *T. spelta*), barley and pea.

The culture takes its name from its distinctive globular vessels with two to four small handles mounted on a constricted neck, which is decorated in a variety of motifs; flint flat axes are frequently found in burials. The burials themselves were generally inhumations in a pit or stone cist. They were laid on their right or left sides in the flexed position with heads to the east. The stone cists are sometimes covered with incised decoration, among which the figure of a composite bow has been identified. Along with several amphorae and other vessels, grave goods included flint axes, knives, arrowheads, amber beads, and a variety of objects fashioned from bone. The lower jaw of a pig or boar tusk provided characteristic animal offerings. The burial of complete oxen is also known. Wooden remains from one site were interpreted as remains of a shield.

The Globular Amphora culture arises in discussions of Indo-European origins and expansions because of its apparently mobile economy (or at least transitory settlement), presence of (presumably) domestic horse, and distinctive pottery. The ceramics have been sometimes associated with that of the Maykop culture of the north Caucasus and the Lower Mikhaylovka Group of the middle Dnieper and some form of direct connection between the Caucasus and the north European plain has been controversially argued, especially within the context of the “Kurgan theory”. Burial ritual has been regarded as extremely important in linking the Globular Amphora culture with the Indo-Europeans. Here special emphasis is placed on the evidence for suttee, the execution of the wife on the death of the husband, which may be suggested from a number of Globular Amphora burials. The burial of livestock, particularly teams of oxen, has also been regarded as an Indo-European trait as well as the presence of amber “sun-discs”. Finally, the physical type of the Globular Amphora population, at least those in the easternmost territories, has been seen to be similar to those of the steppe region. Nevertheless, many of the more diagnostic attributes of the Globular Amphora culture, such as the horse, animal burials, axes, can all be found in the earlier TRB and Lengyel cultures and any attempt to connect the Globular Amphora with the steppe cultures genetically or through historical contacts is strongly disputed by those who find its origins to lie among local cultural developments, particularly in Poland. Recent detailed analyses of Globular Amphora origins tend to emphasize a complex set of relationships with earlier and neighboring cultures that render inadequate past schemes of simple genetic derivation. Given its area of occupation, the Globular Amphora culture has been claimed as the underlying culture of a Germanic-Baltic-Slavic continuum.

See also Corded Ware Culture, Kurgan Tradition, Maykop Culture, TRB Culture.

**Further Readings**


**GNAT** see *FLY, INSECTS*

**GO**

*heśi*-go’ (pres. *heśeti*). [IEW 293–294 (*ei-); Wat 16 (*ei-); Gl 627 (*ei-); Buck 10.47; BK 442 (*ay-/*ay-*)]. Wels
wyf 'am', Lat eō 'go', Goth iddja 'went', OPrus ēt 'goes', Lith eimi 'go', Latv eimu 'go', OCS iti 'go', Grk ἐὑρίς 'will go'. Hit yanzī 'they go', pāimī (< *pe-eimī) 'go', ʾiṭṭa (< *Pie middle *ḥi-e-t-o) 'goes', Av āeuti 'goes', OInd eti 'goes', TochAB ī-go. Cf. the widespread derivative *ḥiṭer-: Lat iter 'a going, walk, way', Hit itar 'a going', ToCh āyār 'road, way', ToChB yātrey 'road, way'. Practically universal in IE and old. This appears to have been the least marked verb of motion in PIE.

*ḥhet- 'go'. [IEW 69 (*ṣat-); Wat 4 (*ṣat-); GI 370; BK 366 (*ṣat[pl.]-/*ṣat[pl.]-)]. Lat annus 'year', Osc akeno- 'year, celebration, time of sacrifice', Umb acno- 'year, celebration, time of sacrifice' (Italic *atto-), Goth aþn 'year', OInd atati 'goes, wanders'. Sparsely attested, but the geographical distribution would seem to assure its PIE status. The semantic development *go > *cycle > *year' is a significant innovation common to Italic and Germanic.

*sed- 'go'. [IEW 887 (*sed-); Wat 56 (*sed-); Buck 10.47]. The underlying verb is attested only in Indo-Iranian, and then only with prefixes: Av pa되었다 'frightens off', *asnaotī (< *ā-sṇ-d-neu-) 'approaches', OInd ā-sād- 'enter', ut-sād- 'disappear'. Cf. OCS choditi 'walk', choditi 'go' (the Slavic initial ch- suggests these words formed the general once found in compounds such as pri- or u-), Grk ὀδὸς 'way', ὀδεῖον 'wander'. This verb is widespread and looks to be old in IE. No doubt because at least its root shape was homophonous with that of *sed- 'sit', it tended to be restricted to combinations with preverbs where the semantic distinction remained clear.

*sent- 'go'. [IEW 908 (*sent-); Wat 58 (*sent-)]. OGH sinnan 'go, travel, wander' (cf. ON senda 'send', OE sendan 'send' [< NE send], OGH senken 'send', Goth sendjan 'send' < PIE *sontějo/o-), Lith sumtū 'send', Latv suvu 'send', Av hantē 'go, travel, wander'. Sparsely attested, as a verb only in Germanic, Baltic and Avestan. However, that distribution would seem to guarantee at least late PIE status. Its derivative *sentos 'way' is more widely known.

*jeh₂-h₁ 'go, travel'. [IEW 296 (*jā-); GI 627 (*yaH-); Buck 10.66]. Lith jėjū 'ride', Latv jaļu 'ride', OCS jadjo 'ride', Av yā- 'go', OInd yāti 'goes, travels', ToChAB yā- 'go, travel'. Compare the derivative *jeh₂-h₁-nu- 'a going' in Lat īānu (arched) passageway', ToChA yom 'trace, footprint' (< *trace [of going]!), and the further derived *jeh₂-h₁-nu-h₁₂̣h₂̣- in Lat īānu 'passage (way, entrance)', ToChA ḣorki 'path, way, course', ToChB yōhiya 'path, way, course'. Widespread and old in IE. Perhaps this should be reconstructed *h₁je-h₂-h₁- and be regarded as an iterative-intensive derivative of *h₁jei-'go'.

*meh₃- 'go' [pres. *meh₃̣- ~ *mēh₃-]. [IEW 710 (*mei-); Wat 40 (*mei-); Buck 10.47]. MÆs ménet 'go', Lat meō 'go, wander', OCS minō 'pass by, pass away', Pol mię 'pass by'. A later word of the west and center of the IE world.

*steigh- 'step, go'. [IEW 1017–1018 (*steigh-); Wat 65–66 (*steigh-); GI 101; Buck 10.21, 10.47]. OIr tuag (DIL tēit) 'stride', ON stiga 'climb', OE stigen 'climb', OHG stigan 'climb', Goth steigen 'climb', Lith steigis 'hurry', Latv steigti (iės) 'hurry', OCS stigma 'come', Grk στήξω 'step, go', OInd stighnōti 'climbs'. Cf. the widespread derivatives: (1) *stighs in ON stig 'step', OHG steg 'plank, footbridge', OCS stūdica 'footstep, street', Grk στίγμα 'row, line', στίγμα (pl.) 'series', (2) *stīghvēha-r in OHG steiga 'step, way', Goth staiga 'way, path', Alb sthet 'path', Grk στῆξις 'row, line'. Widespread and old in IE. The root may also underlie Germanic expressions for 'twenty', e.g., NHG (dial.) siegen 'twenty items'. Crīm-Goth steiga 'score, twenty' which was borrowed into Slavic *staga 'score'.

*hjel- 'go'. [IEW 306–307 (*el-); Wat 17 (*el-); cf. Buck 10 47, 10.65]. MÆs el 'may go', Grk ἔλεγχω 'drive'. Arm el 'climbed, came out'. Sparsely attested but the geographical distribution of that attestation would seem to assure a word at least of the west and center of the IE world.

Go Out (Away)

*leih₂t(h)₂- 'go away, go forth'. [IEW 672 (*leih₂t(h)₂-); Wat 36 (*leih₂t-); ON liða 'go away', leísda 'lead', liðinn 'dead', OE lidan 'go, travel', līðan 'lead, bring' (> NE lead), OGH lidan 'go, travel, go away', leiten 'lead, bring', leita 'burial', MHG lielen 'burial', Goth galeian 'go, come', Grk (Hesychius) λοίπτω 'tomb', λοίπενε 'bury', Av rāū- 'die', ToChB hit- 'pass on, move away', litk- (< *leit-h-ske-o-) 'remove, avert', laut- 'depart, pass away, deviate'. Widespread and old in IE. This verb gives us evidence in PIE for the same metaphor as in English of 'pass on, pass away' for 'die'.

*hjleudh₁- 'go (out)'. [IEW 306–307 (*el-u-(dh)₁-); Wat 37 (*leudh₁-)]. OIr lod (DIL tēit) 'went', Grk ἔλεγχον 'went', ToChAB ĝat- 'emerge' (ToChB past ʌc 'he emerged'), lut- 'drive out'. The agreement of the thematic aorist, PIE *h₁leudhet 'he went (out)', in these three languages guarantees the PIE status of this particular verb. An enlargement of *h₁jei- 'go'.

Go Forward

*sech₁(0)- 'go forward, advance'. [cf. IWEV 892 (*sēch₁-(dh)₁-)]. Wels hawdd 'easy, feasible, prosperous', Grk ἔλειος 'direct, straight, upright', ἱθών 'press forward', Arm aj (< *sh₁thio-) 'right', ὡργία (DIL tēit) 'succeeded, achieved', Hit ašt (< *sh₁jēḫt) 'crosses over' (pl. ziyanzi < *sh₁jēnten), ziun- (< *sh₁-neu-) 'cause to cross over', Av -hād 'directing', OInd sādhate 'succeeds, prosper', sidhyati 'succeeds, reaches successfully', sāduḥ 'straight, direct, competent'. Reasonably widespread, certainly old in IE.

Go Beyond

*per- 'pass through' (pres. *porei). [IEW 816–817 (*per-); Wat 50 (*per-); Buck 10 47, 49B 69 (*p[pl]-lar-/*p[pl]-ar-)]. Lat portāre 'lead', ON fara 'travel', ferja 'travel, ship', OE faran 'set forth, travel; undergo' (› NE fare), gelaman 'die, attack, overcome', OHG laman 'travel', lējen 'travel, ferry across', Goth lanan 'travel, wander, pull, farjan 'travel, go by sea', OCS porjo 'cut off', na-perjo 'bore through', perjo 'fly', Rus perju 'fly', Alb sh-porj (› *p ręk(−ne-o-)) 'stab, pierce (with spear)', sh-pie (› *perje-o-)'send, carry, take to lead', Grk πέραω 'pass through, transverse' (trans/antrans.), πειρώ
'pierce, bore through', πορεύο 'bring, carry, convey', πορευομαι 'go, walk, travel; pass through', πορεύα 'bring to pass, offer, bestow'. Arm hordan 'go away', Av -par-'convey across', Olnd piparti 'conveys across; saves'. Cf. the widespread derivatives (1) *πέτος 'passage way'. OWels ñt 'ford', Gaul ritu 'ford', Lat portus 'harbor', ON fjórð 'estuary', OE ford ' (> NE ford)', OHG fort 'ford', Av parātu- 'bridge', Hu-paraθ- 'Euphrates' ( > *t that which is good to cross); (2) *ποροέθα 'passage, way', ON fôr 'journey', OE furu 'journey', Grk ἅρμα 'ford, ferry, way, track', Av pāra- 'bank, boundary, end', TochB skwamper- 'sprint and stalk'. Widespread and old in IE. From the adverb/preposition *περ- 'through'.

*τέρθ- 'bring across; overcome'. [IEW 1074–1075 (*ter-), Wat 70 (*tera-), GI 50, 176 (*tér-H-); cf. Buck 10.57; BK 149 (*tér-)ar-/*tér-)]ar-]. Pres. *τέρθετι Hit tarthi 'defeats', Olnd tárati 'tirati 'sets over, brings across, overcomes'; pres. *τρήθεια-: Lat innàrr 'enter', Grk τράπεζα- τράπεζα 'penetrating, clear', Av ἀβύσσον 'protect from, shelter' (< *lead across'), Olnd tárati 'protects, shelters'. Widespread and certainly old in IE. From the preposition/adverb *τέρ- 'through' which shows up again in some other nominal derivatives: Grk τέρπον 'end, point', τέρπα 'goal, endpoint', τέρπομεν 'boundary marker' (< *boundary pole'), Arm ĭrm 'endpiece', Hit tarmā 'tail, peg'.

*σερκ- 'pass, surpass'. [VVW 451–452]. Hit sarku- 'projecting, immense, powerful', TochB sār- 'pass, surpass, go beyond'. The agreement of Hittite and Tocharian would seem strong evidence for this word's PIE antiquity.

*κέδ- 'pass through'. [Wat 27 (*ked-)]. Lat cēdō 'go (from), give place, retire', TochAB kāk- (< *ked-š-e-š-o-<) 'cross over, commit'. Though not widely attested, its geographical distribution makes this word a likely candidate for late PIE status.

*περη- 'surpass'. [Del 273]. Grk περιπετα 'comes round', Olnd pary asti 'surpasses'. A compound of *hēs- 'be' which might be old but may reflect independent formations in Greek and Old Indic.

See also Across; Attain; Come; Death Beliefs; Ride; Run; Step; Through; Way, Year. [D.Q.A.]

GOAT

*diks (gen. *digos) 'goat (Capra hircus)'. [IEW 222 (*digh-); Buck 3.36]. OE ticcen 'kid', OHG ziga (< *diekha-), *goat (male or female), zicki (< with affective consonant gemination) 'female goat', Alb dhi (< *deigeh-t) 'she-goat', Grk (Hesychius) διζα 'she-goat', Arm tik 'leather skin', Wakhi tīy (a call to goats), Ishkashimi deg 'goat'skin bag. Though the text of Hesychius gives διζα as 'Laciona', others have thought that that designation was an error and that the word was actually Thracian or Illyrian. Widespread and old in IE.

*bhugos 'buck, he-goat (male Capra hircus)'. [IEW 174 (*bhūgo-s); Wat 10 (*bhug-); GI 501 (*bhūk-o-<); Buck 3.37]. Olr boc 'buck', Wels buch 'buck', ON bukker 'buck', OE bucca 'buck' (> NE buck), OHG bok 'buck' (Gmc < *bhūgno-<, the Celtic may be borrowings from Germanic), Arm buc 'lamb', Av bûza 'goat, he-goat', NPers bûz 'goat'. Related in some fashion but phonologically very irregular is Olnd bukka 'goat, he-goat'. Subject to expressive phonological rebuilding but certainly of PIE age.

*heégos 'goat (Capra hircus)'. [IEW 13 (*aig-); Wat 1 (*aig-); GI 501; Buck 3.36]. Probably Alb ëdh 'kid', Grk aίξ 'she-goat', Arm aíc 'she-goat', Av izaena- 'goathide'. Perhaps belonging here too is Olnd eda- 'a kind of sheep' (with the -d- generalized from such cases as ed-bhis where it would be regular from *g-<) but it is more likely to reflect a borrowing from Dravidian. A word of the center and east of the IE world.

*hegós 'goat (male Capra hircus)'. [IEW 6–7 (*aig-); GI 501; Buck 3.36]. OPrus wose 'goat', wosúx 'he-goat, wositian 'kid', Lith ožys 'he-goat, ožka 'she-goat', Latv ãis 'he-goat', Av aza- 'he-goat', MPers azak 'goat', Olnd ajā- 'he-goat', ajikā ~ ajā 'she-goat'. TochA as 'goat', TochB asyje 'pertaining to a goat' represent borrowings from some Iranian source. *hegós would appear to be a rather banal derivative, albeit one of PIE age, of *hēg- 'drive, lead'. However, the semantic specialization to 'he-goat' (through *a bell-wether-<) is obscure. In astronomy, the Olnd ajā- represents the zodiacal sign Ariës. A word of the center and east of the IE world.

*gahidos 'goat (Capra hircus)'. [IEW 409–410 (*gahido- ~ *gahido-); Wat 20 (*gahido-); GI 501; Buck 3.36]. Lat haedus 'young goat, kid', ON geit 'goat', OE gát (> NE goat) 'goat', OHG geiz (she-)goat, getiin 'kid', Goth gáits 'goat', gaitiin 'kid'. A northwest regionalism.

*kapros 'he-goat (male Capra hircus)'. [IEW 529 (*kapro-); Wat 27 (*kapro-); GI 501; Buck 3.37, BK 253 (*kapro-)]. Olr gabor 'he-goat', Wels gaf 'he-goat', Gaul cabro-magos 'goatfield' (with initial g-, rather than *k- that is not well understood—perhaps by conflation with *gab- 'lamb' otherwise seen in Umb habina - 'ewe-lamb'). Lat caper 'he-goat', ON hafir 'he-goat', OE heifer 'he-goat', NPers kahra (< Proto-Iranian *kahra-ka-) 'kid'. Widespread and old in IE. This word is a thematic derivative of *kapr 'penis' seen, extended by -th, in Olnd käpfhr- 'penis'. A similar extension, with a different though obviously parallel meaning, is Grk κάφηρ 'boar'.

*kōghēs 'goat (Capra hircus)'. [IEW 517 (*kagō<); GI 500–501 (*kōgar<); BK 213 (*kager-<<). OCS koza 'she-goat, koslá 'he-goat, koža 'leather, skin', Rus koza 'she-goat, kozel 'he-goat, koža 'leather, skin', Alb kēd 'kid' (Alb *koghós; instead of the expected *kadh we have kēdha after edh 'kid' or we have a rebuilt paradigm from the *kadh [sg.], *kēdha [pl.], that we would expect from *koghós [sg.], *koghōi [pl.]). Possibly a late dialect word of the center of the IE world. This word is often, albeit hesitantly, grouped with the earlier entry, *heégos 'he-goat' (though the initial *k- is not well explained by such a hypothesis), or with the Germanic group represented by OE hēcen 'kid', MDutch hoek(e) 'he-goat' (see *sēgos 'sheep, goat'). Neither hypothesis would appear to be certain since the lack of Winter's Law (whereby a PIE
short vowel is lengthened before original voiced stops but not before aspirates) in the Slavic words forces us to reconstruct a PIE *koghēha-, rather than the *koğēha- that either of these other hypotheses would demand.

Archaeological Evidence

The range of the wild goat extended from Anatolia across Central Asia to southern Afghanistan (with some evidence for wild goats also in Crete and other Greek islands) and following the Ice Age it was widely hunted along with the gazelle. It is in southwest Asia that the domesticated goat (*Capra hircus) first appears by the eighth millennium BC in the region of Anatolia and Kurdistan and perhaps only slightly later in Palestine. In archaeological faunas, the remains are often difficult to distinguish from those of sheep (except for the distinctive horns and metapodia), and the two are often combined as “ovicaprids” or “caprovines”. The utility of the goat lies in both its wider adaptability than sheep—a wider ranging diet that includes browse and greater tolerance of temperature and terrain—and the fact that it provides more milk than sheep; in fact, with respect to body weight it also yields more milk than cattle. For this reason, the presence of some goats is generally encountered everywhere across Eurasia during the Neolithic period and it is difficult to attribute its lexical diversity to a “late introduction” to speakers of IE languages.

The palaeozoological evidence offers some possibilities for explaining the diversity of ‘goat’ names but unless deeper meaning can be extracted from the various terms (other than the obvious association with the word for ‘penis’), this remains less than an hypothesis. For example, although the domestic goat appears to have emerged from *Capra aegagrus, the bezoar goat, the same species shows some variety in appearance across the range of its distribution from eastern Anatolia and Crete east across Iran and Afghanistan. The differences might be in size, color, and shape of horn and may have called for early lexical distinctions. Moreover, other species of wild goats of varying appearance, especially with respect to horns, did exist such as the West Caucasian tur (*Capra caucasica), the East Caucasian tur (*Capra clyndricornis), the markhor (*Capra falconeri) of Afghanistan, Pakistan and Tadzhikistan or the ibex (*Capra ibex) of Central Asia and the European Alps (*Capra pyrenaica). Contact with any of these other species of wild goats might explain some of the regional isoglosses. Regional breeding selection for some features might also account for lexical diversity. Goats with scimitar horns began to predominate in central and eastern Europe. Other levels of semantic distinction may have derived from the particular use of the goat. For example, the bezoar goat takes its name from NPers pād-zhar ‘counter poison’, reflecting the belief that a concretion extracted from the stomach of the goat could be employed as an antidote to poison while the markhor takes its name from the modern Iranian word for ‘snake-eater’.

GOD

*deiuos) ‘god’. [IEW 185-186 (*deiuo-s); Wat 10 (*deiw-); Gl 692 (*teiw-); Buck 22.12, BK 119 (*t‘a'/ *t‘a’)]. OIr dia ‘god’, Owels diuut-tit ‘divinity’, Lat deus ‘god’, ON Týr (name of war god), (pl.) tivar ‘gods’, OE Tū ('name of war god, cf. Tiwesceg ‘Tuesday’), OHG Zio (name of war god), OPrus deiw(a)s ‘god’, Lith diy̆as ‘god’, Latv diy̆es ‘god’, OCS diwo ‘demon’, Hit *suis (with assimilation of the initial dental) ‘(sky) god’, Av daeva- ‘demon’, Olmd deva- ‘god’. In origin a thematic derivative of *t‘eu- ‘sky, day, sun(god)’ meaning ‘luminous one, god (in general)’. It is often emphasized that the etymology of PIE *god’ indicates a distinction between the world of the gods who are bright, celestial beings (a deification of the diurnal sky) and humans who are terrestrial, e.g., Lat homo ‘man’ with humus ‘earth’ although there are also a set of deities whose names are built on *ne- ‘down(wards)’ that may be regarded as subterranean. The meaning ‘demon’ in Avestan and Old Church Slavonic reflects directly or indirectly the “religious revolution” of Zarathustra whereby the old gods were pushed aside and revalued as enemies of Ahura Mazda. Obviously widespread and old in IE, cf. the fairly widespread derivative *diu(os): Lat dius ‘divine’, Grk διός ‘divine’, Olmd divya- ‘heavenly’.

*diēus phôtær ‘sky-father’. [IEW 184 (*diēus-patær), Gl 680 (*t‘eu(s)-pʰtʰ-petær)]. Lat lūpiter – lūpiter, Umb lūpater, Illyrian Διήπετάς, Grk Ζεὺς πατήρ, Olmd dyius-pitā. From *diēus ‘sky’ and phôtær ‘father’. The expression also appears in Anatolian with the children’s word for ‘father’, i.e., Luv tātēs tiwās ‘daddy sky’, Palaic tiyaz...papaç ‘sky...papa’. In Hittite the name of the sky god was replaced by a Hattic loan although the structure of the phrase was kept intact, i.e., Hit attas Isanūs ‘father Sun-god’. Cf. also parallel Baltic formations.

The Goat in Indo-European Myth

The goat occurs in the mythological traditions of a number of IE stocks and there are some similarities that may suggest either common inheritance or (long distance) borrowing. The goat, for example, is the animal that draws the chariot of the Old Indic fertility god Pāsana (*RV 10.26.8) and also that of the Old Norse Ægir who is also closely associated with marriage and fertility and his Lithuanian equivalent, Perkūnas. The goat is also prominent in the Old Indic burial ritual where the deceased was laid on a goat skin and accompanied by its entrails as gifts to the hounds of the dead; goat entrails were similarly seen as sops for the Greek canine guardian of the underworld, Kerberos.

See also Hide; Horn; Mammals; Sheep.
such as Latv Dievs, Debess tēvs ‘god, father of heaven’. It has been argued that Rus Strigobog (name of a deity), also preserves the basic structure with (presumably Iranian loanword) bog ‘god’ replacing that for the sky, hence ‘father-god’. A Celtic reflex has also been suggested with regard to the Irish god, the Dagda, who bears the epithet ‘great father’, i.e., OIr in Dagdae Oll-athair (< *sindos dago-deivos ollo [platt]).

The distribution of this well known set of correspondences indicates PIE status.

*dhug(b)āter divoś ‘sky-daughter’. Lith dievo dukti ‘Saulyte’ (daughter of the sky), Grk θυάττρα Δίως ‘sky-daughter’ (epithet of Aurora, the dawn), OInd dhūtāti dīvah ‘sky-daughter. From *dhug(b)āter ‘daughter’ and *djęs ‘sky’. Cf also Lith sūles dukti ‘sun-daughter’, Latv saules meita ‘sun-maid’; OInd dhūtāti sūryasya ‘daughter of the sun’.

*dheh₁s (gen. *dhb₁sos) ‘god’. [IEW 259 (*dhēs-); Wat 14 (*dhēs)-; cf. GL 388, Buck 12.22; BK 70 (*diy-/*dey-)]. Lat fērae ‘festival day’, festus dies ‘a holiday, festive, festival (day)’. Grk θεὸς (< *dhb₁s-oi-) ‘god’, Ἐσθενάος ‘spoken by god, ordained, divine’, Arm (pl.) dik (< *dheh₁ses) ‘gods’, OInd dhisā ‘with impetuosity’, of *dhb₁s-en- ‘endowed with supernatural force’. Lat lānum (< *fasnom < dhb₁sno-) ‘temple’ (< *consecrated place), Oscīi līgnum ‘temple’, OInd dhīṣaṇa (epithet of various gods), Dhiṣaṇa- (name of a harmful demon), dhīṣaṇya (epithet of the Aśvins), Prakrit Dhīṣana ‘Bhistpati’ (god of devotion), Kati disāri ‘evil female deity’, Ashkun dāsāni (female monster). Widespread and certainly old in IE. Possibly *dheh₁s- is an enlargement of *dheh₁- ‘place, put, establish’ but the semantic connection is not overly compelling.

??*ghutōm ‘something evoked, god’. [cf.IEW 413 (*ghutō-); Wat 23 (*gheu(ɔ)-); Buck 12.22]. On god ‘god’, OE god ‘god’ (> NE god), KY god ‘possessed, insane’ (< *possessed by a god’; > NE giddy), OHG got ‘god’, Goth gūp ‘god’ (in the early Germanic languages this noun was neuter when transferred in sense to the Christian god). The only non-Germanic cognate suggested here is Tocha Ḧakat ‘god’, Tochb nakatte ‘god’ (Toch < *ni-ghuto- ‘one called down’) which seems phonologically improbable; we would expect Tochb **nakwate from *nihutōs or Tochb **nakate from *nihutos. The Germanic forms have been variously derived from PIE *gheu(hw)- ‘call, invoke’ or regarded as a substrate term.

The Indo-European Sky god

The *djęs ph₂tēr ‘sky-father’ is one of the very few deities that can be reconstructed to Proto-Indo-European purely linguistically (in contrast to structural) grounds. The underlying structure would appear to posit a ‘Father-sky’ who begets both the set of Divine Twins and a daughter. The Twins are themselves accompanied by or wed to the daughter of the Sun. Although the linguistic reflex is solid, the comparison of other mythic elements is relatively sparse due to the different evolutions of the Sky god in different IE stocks.

In Old Indic religion, the Sky god’s pre-eminence has been greatly diluted and he has become something of a shadowy ancestral figure. He remains the father of the Divine Twins, the Aśvins, a position paralleled by the Sun god Sūrya who fathers Yama ‘twin’ and Yami ‘(female) twin’. He is also the father of the goddess Usas, the ‘dawn’, who is of PIE date. Dyaus mates with Pṛthi ‘earth’ (cf. in Greek mythology the marriage of Zeus and Hēra or Ouranos and Gaia ‘earth’). In the Mahābhārata Dyaus is incarnated as Bhīma, an old warrior and both his characterization and his career have been regarded as filling in the “mythic portfolio” which is absent from the Vedas.

The linguistic cognates of the Old Indic Dyaus in Greek and Roman religion are Zeus and Jūpiter respectively. They are both clearly sky gods, e.g., Lat sub love ‘in the open (=under the open sky)’ who have also accrued the roles of weather deities, e.g., thunder, lightning, rain. In the cosmological model proposed for Proto-Indo-European by Jean Haudry deities of the diurnal sky such as the Greek Zeus could not transgress the night sky which was inhabited by its own sets of gods and the spirits of the dead.

Those who follow the Dumželian model of IE mythic analysis find better parallels between Dyaus and his structural equivalent, Heimdallr, in Old Norse myth. Like Dyaus, Heimdallr is a progenitor, in this case he is the ancestor of the three social classes, anthropomorphized in his three sons, Pœll (‘Slave’), Karl (‘Peasant’) and Jarl (‘Noble’). He guards the ‘dawn’, who is of PIE date. His opponent, in this case, is Fornjót, the Rainbow Bridge, against the onset of the monsters who will come against the gods at the end of the world and, when the Ragnarök does come, he will be the last of the old order to die.

In Anatolian tradition the lexical remnants of the Sky god, found in Hit Situ-, Luv Tiyaw- and Palaic Tyia- would appear to still occupy central place among the other deities.

See also COMPARATIVE MYTHOLOGY, ESCHATOLOGY, SACRED, SPIRIT [E.C.P., D.Q.A., J.P.M.]

Further Readings


GODDESSES

The only goddesses which may be safely assumed to be Proto-Indo-European are those which are not only mythologically comparable with one another but which are linguistically cogenate as well. There are few such goddesses, and they represent largely natural phenomena with slight personification.

Proto-Indo-European Goddesses

These include the goddesses of the dawn (*h₂eusos): Roman Aurora, Greek Eōs, Indic Usas, Latvian Auskulis, Lithuanian Aušrine; the sun-maiden/daughter of the sun (<
*seh₂tuh₁*: Indic Surya, described in some hymns of the Rgveda as the bride of the twin Aśvins, and in other hymns as the bride of the moon-god, Soma; and the Baltic Saules meita, described in folksongs variously as the bride of the moon, Meness, and of the twin Dieva deli. A third possible sun-maiden is Greek Hélène; her name is derived from PIE *tjelito* 'sun's warmth'. If Hélène is a sun-maiden, her original relationship to the Dioskouroi, the Divine Twin gods, was that of bride and not that of sister.

Both the indigenous cultures and the Proto-Indo-Europeans had earth-goddesses; the Proto-Indo-European Earth goddess was the Slavic Mati Syra Zemlja, Latvian Zemes Māte, Lithuanian Žemynų, Prhygian and Thracian Greek Semel, borrowed into Attic Greek as Σειερελή (cf. also Lat humus, Attic Greek χθόν, Hüt tekan, Olnb ksam-, TochaA tkam, TochB kem).

The Proto-Indo-European river (or watery place) has several personified cognates (*dhōnou* or *deh₂nu*): Indic Dānu, Irish Dān, mother of the Tūtha Dé Danann; Welsh Dôn; and with gender-switching, the Greek Danaus and his descendants, Dānae and the Danaides.

Greek Hestia, Roman Vesta, goddesses of the hearth, have no other cognates in other Indo-European stocks, so they cannot be considered Proto-Indo-European goddesses.

**Goddesses Assimilated from Pre-Indo-European Substrates**

The majority of Indo-European female deities have no linguistic cognates, and are the products of pre-Indo-European cultures indigenous to the areas to which the Indo-Europeans migrated. After the migrations, these goddesses were subsequently assimilated into the Indo-European pantheons. They were generally represented as transfunctional (cf. the Greek Athēnē Hygieia, Polias, Nikē, Roman Jūno Sēspēs, Māter, Rēgina; Irish Medb and the triple Machas; and Iranian Arādvī Sūra Anāhitā, the 'flowing, strong, spotless' one).

Whereas a male deity fulfilled one of the priestly, warrior, or nurturing functions, the goddesses fulfilled multiple functions; they were prophetesses and bestowers of wisdom; bestowers of sovereignty and martial energy; they aided conception and nurtured the populace. The goddesses largely fulfilled a passive role in the Indo-European pantheons, for example, bringing sovereignty to a male figure who would assume the kingship. The Indo-European male deities assumed more active roles in the pantheons.

Most of the goddesses in Indo-European pantheons were linguistically isolated, even though they shared attributes and functions. Whereas these pre- and post-Indo-European female figures, assimilated into the Indo-European pantheons, fulfilled a broad range of functions, and were diversely personified, a lack of personification and narrow functionality may be demonstrated for the goddesses of Proto-Indo-European origin.

See also Dawn Goddess, Divine Twins, Earth Goddess, Fortune, Goddesses (misc.), Horse Goddess, River Goddess, Sun Goddess, Transfunctional Goddess. [M. R. D.]

Further Readings


**Goddesses (misc.)**

*seren(j)uh₂s* (name of goddess). [Del 75]. Grk *Επριβοξ* (name of a Fury), Olnb Saranyū (name of Vedic goddess). The Greek form is already attested in Myc ε-ρι-να but without etymology. In Greek myth *Επριβοξ* (Erinyes) refers to one of an unspecified (later fixed to three) avenging furies who have been variously interpreted as spirits of murdered victims (according to Hesiod they sprang from the blood of the murdered Ouranos) or defiled curses. Saranyū is the daughter of the divine craftsman Tvasṭr and the wife of the Sun, to whom she bears the twins Yama and Yamā. She ran away, taking the shape of a mare and leaving in her stead Savarnā, a woman of similar appearance, with whom her husband Vivāsvat (the shining one = the rising sun) begets Manu. When Vivāsvat discovers how his actual wife escaped him, he assumes the form of a stallion, and arouses the desire of the mare Aśvini, as Saranyū is now called. They mate and give birth to the Aśvins. The term Saranyū is actually the substantivization of an adjective saranyū- 'speedy, quick' derived from the root *sar- 'hurry'. Although challenged in some etymological textbooks it is legitimately linked with Grk *Επριβοξ* on etymological grounds although it is another thing altogether to attempt to postulate a PIE deity of the same name, especially when there seems little if any reason to associate them in terms of mythological function.

*?*$i(l)eh₂r* (name of goddess). [Del 73]. Lat Ila (daughter of Numitor), Olnb Ila~Ida (daughter of Manu). Structurally, the only reason to posit such a comparison is that Ila was the daughter of the progenitor of Rōmulus and Remus, the Divine Twins who participate in the foundation myth of Rome, while the Olnb Ila is also the granddaughter of Vivāsvat who begets the Indic twins, Yama and Yamā. Beyond this there are no further mythic grounds for suggesting a comparison and linguistically this is an extremely unlikely connection. The Latin word is an appellative *illa*'guts, womb, feminine parts', related with Slavic *'jelito > Pol kelito 'guts, sausage'. An
assumed further link with Grk ἰδᾶ 'mud' has to be rejected. Olnd Ῥίδα (as also ἱλά and ἱρά) is the personified 'soothing drink, libation', corresponding to Av iza 'milk as soothing drink, libation personified' which are generally derived from *ishyros 'sacred' power'. Linguistically, the comparison between the Latin and Indic deities rests solely on phonetic resemblance.

As a goddess, Olnd ἱδᾶ is invoked to strengthen the offering, as she transfers the force inherent to the sacrifice; as an appellative, ἱδᾶ designates the rest of the milk in the Agnihotra, a part of the animal slaughtered in bloody sacrifices, a portion of the soma in libations. ἱλά means variously 'nourishment, libation of milk, power of praise' and ἱλᾶ is also a deity of speech and an earth goddess. ἱδᾶ participates in all offerings; she is full of mysterious forces and is said to symbolize the "completion of life" for the participants in religious processes. Legendarily she springs from the sacrifice offered by Manu to obtain a son. As he mispronounced the ritual formula, he got a girl instead. She later taught Manu new sacrificial rites, and Manu begat the various races of mankind.

See also DAWN GODDESS; DIVINE TWINS; EARTH GODDESS; GODDESSES; HORSE GODDESS; RIVER GODDESS; SUN GODDESS; TRANSFUNCTIONAL GODDESS. [E.C.P.]

GOLASECCA CULTURE

The Iron Age of northwest Italy is generally assigned to the Golasecca culture which flourished from a Proto-Golaseccan or Carnegrate group (c 1200–900 BC) through three main phases down to 15 BC when the area was effectively absorbed into the Roman world. Its origins have been sought in population movements from the north associated with the spread of the Urnfield culture. A combination of intrusive traits (urns, metal types [cremation burial had preceded the spread of urnfield types]) and local features fused, it is argued, to form the Golasecca culture. Early settlements are not well known but there is evidence of hillforts or the occupation of naturally defensive sites; later settlements became the nuclei of major northern Italian urban centers. The culture is better known from its cemeteries such as the eponymous site of Golasecca which was excavated in the early nineteenth century (and misinterpreted as a war-cemetery from Hannibal's defeat of Scipio). Burial comprised cremation in an urn which was set in the ground or a stone cist (chamber) and frequently surrounded by a circular setting of stones. Grave goods, including both weapons (swords, daggers, spears, horse gear, wagons, armor), situlae (metal buckets), and ornaments exhibit very marked distinctions in status. At the site of Sesto Calende, south of Lake Maggiore, were two chariot burials dating to the sixth century BC accompanied with weapons, ornaments and a large situla while an earlier burial at Ca' Morta (c 700 BC) included a four-wheeled wagon in the tomb.

Explaining the wealth of the Golasecca culture has engendered some discussion. The rich warrior burials have been interpreted as evidence for warlords who plundered surrounding peoples or trade parties. That trade was an important component in the culture is undoubted since the region itself lacks many essential resources such as metals and salt and it sits athwart the main north-south Alpine passes such as Saint Gotthard and Saint Bernard. For this reason, control of north-south trade between the Hallstatt culture to the north and the Etruscans to the south has been seen as a major factor in the accumulation of Golaseccan wealth.

The ethnic identity of the Golaseccans, at least those who were literate, was a matter of some dispute in the nineteenth and early twentieth century since some argued that it was Ligurian (presumed to be non-IE) while others suggested a Celtic identification. The latter is now secure with both the discovery of more inscriptions and the redating of previously discovered epigraphic evidence. The language spoken by the Golaseccans, or at least those who were literate enough to carve, was Lepontic which is recognized as one of the regional variants of Continental Celtic, or more specifically Gaulish. Its presence in northern Italy is secured to at least the sixth century BC and archaeologists have found it difficult to discover anything other than continuity since about 1200 BC and the appearance of Urnfield influences in the area. It is possible, therefore, that (Proto-)Celtic speakers were already penetrating northern Italy by the late Bronze Age. The fact that the peoples of this region maintained regular contact with Celtic-speaking populations north of the Alps would have
Golasecca Culture

b. Lepontic alphabet (left side is sixth–fifth century BC script, right side is third–second century BC script).

Golasecca Culture

assisted in both their language maintenance as well as opened them to continuous linguistic influences from the north.

See also Celtic Languages; Este Culture; Hallstatt Culture; La Tène Culture; Urnfield Culture. [J.P.M.]

GOLD

*thuesom 'gold'. [IEW 86–87 (*auges-); Wat 4 (*aurum); Gl 618 (*Hau-s), 773; Buck 9.64, BK 393 (*haw-/*haw-)].

OLat *aurum 'gold', Sabine ausom 'gold', OPrūs ausis 'gold', Lith aukas 'gold', TochA *was 'gold', TochB yasa 'gold' (< Toch *wesā < *thues- [with metathesis] < *thues-). Although some have sought to derive the Baltic forms from Latin, there is little to recommend such an assumption as early intervocalic voicing and subsequent rhotacism of [s] in Italic make an early borrowing unlikely.

K. Witczak has suggested that a possible Mycenaean reflex of this word is to be found in the ideogram *141 which he interprets as a ligature of two Linear B syllabic signs which would render a a4-wo (hence *afōc or *afo:). The distribution suggests the possibility of PIE antiquity for this neuter noun which might be derived from the same root as 'dawn'.

It is fairly clear that this and other early metal terms are some form of substantivized adjective, the original modifying the neuter noun *thues- 'metal'. Terms for 'gold' which bear a vague phonetic similarity to this word for 'gold', i.e., Basque urre(gorra) 'gold', Hurrian ushi 'gold', Sumerian GU5KIN 'gold', Arm (v)oski 'gold', reveal no regular sound change upon which to connect these with IE roots. It has been suggested that the Tocharian forms may have provided the original referent for a series of words relating to metals in general that occur among the Uralic languages, e.g., Balto-Finnic-Lapp-Mordvin *waske 'copper, brass', Proto-Ugric *was 'metal, iron' and Samoyed *wesa 'metal, iron'.

*ghel- 'yellow'. [IEW 429–430 (*ghel-); Wat 21 (*ghel-); Gl 618 (*ghel-); Buck 9.64, BK 228 (*gil-/*gel-)]. ON gull 'gold', OE gold 'gold' (> NE gold), OHG gold 'gold', Goth gulp 'gold', CrimGoth golz 'gold' (Gmc < *ghel tô-m), Lith želšas 'golden', Latv želts (>*ghel-to-)'gold', OCS zlato 'gold', Rus zoloto 'gold' (Slav < *ghol-to-m), Av zaranyam 'gold', OPers daranyam 'gold', OInd hiranam (Indo-Iran < *ghel-enjo-m). The distinctive yellow color of the native metal makes these derivatives from PIE *ghel- 'be yellow' rather banal. The forms with the -to-suffixes are confined to central Europe while the various ablaut grades indicate that they were created independently of each other. The Indo-Iranian forms, zero-grades with -njo- suffixes, are yet another such post-IE creation.

Grk χρυσός (Myc ku-ru-so) 'gold' is a loan from Akkadian hurāṣu 'gold' which form is occasionally used in Hittite beside the Sumerogram GU5KIN.

Archaeological Evidence

Most prehistoric gold occurred as a native metal rather than as a mineral ore that required mining and smelting. Its color might range considerably, especially as much native gold
has a high percentage of silver which whitens the metal. The lightness of these native metals led to the alloying of gold with copper during the Bronze Age in order to lessen the whitening effect of the silver. As the sources of prehistoric gold range from the British Isles, France and Iberia in the west across central Europe, particularly the Carpathians, and then through the Balkans to both the north Caucasus and Anatolia, it can play little part in delimiting the area of early IE settlement except that northern Europe, i.e., the Baltic Sea province, lies beyond the area where gold deposits are known.

As for the temporal horizon, the earliest gold objects in the Near East are generally found in contexts dating to the fourth millennium BC in Egypt and Mesopotamia, areas most unlikely to be associated with early Indo-Europeans. Gold appears still earlier in the circum-Pontic region which embraces or at least borders most solutions to the IE homeland problem. In a recent metallurgical study of early Bronze Age metallurgy of the region from Anatolia across the Balkans and Carpathians and east across the Black and Caspian seas gold accounted for over 23,000 out of c 32,000 metal objects. Its appearance in Greece probably predates the early Bronze Age and hence should date there at least to the fourth millennium BC while it is spectacularly well attested in the Varna cemetery on the Bulgarian coast where it should date c 4500–4000 BC. It is also found in the Gamelinića culture of c 4500–3500 BC. A Carpathian source is likely and gold is also known from Hungary in the Tiszapolgár (c 4500–4000 BC) and later Bodrogkeresztúr (c 4000–3500 BC) cultures. A gold bracelet from a TRB site in Lower Saxony indicates that gold was circulating as far north as the Baltic during the fourth millennium BC while its presence in the north Caucasus (Maykop culture) by the late fourth millennium and as far east as the Afanasevo culture on the Yenisei suggests a very broad horizon for gold artifacts by the end of the fourth and early third millennia. Gold begins to appear in India in the Indus Civilization of the third and second millennia BC. The spread of gold objects and gold working to the west tends to date to the third millennium BC where we encounter gold ornaments with the Beaker "culture" from central Europe to the Atlantic, and gold appears in the British Isles by c 2500–2000 BC. The archaeological record for Britain and Ireland indicates instances where we must presume that IE speakers must have abandoned their inherited word for gold. For example, despite the fact that gold is well known from archaeological contexts in Britain and especially Ireland from c 2300 BC onwards, the insular Celtic languages have all replaced their native words with a Latin loan, i.e., OIr orr 'gold', Wels aur 'gold' (< Lat aurum). The assignment of gold to the PIE community, if situated anywhere between Anatolia, the Balkans or the Pontic-Caspian region, would then seem to be at least archaeologically possible even if it does not assist us in defining the PIE homeland.

See also Color; Dawn; Honey; Metal; Silver; Wealth.

[M.E. H., J. P. M.]

Further Readings


GOOD

*yesu-* 'excellent, noble'. [IEW 1174 (*uēsu-); GI 683 (*'wesu-)]. OIr (dat.) leib (DIL leb 'excellence') 'in excellence', Gaul Vesu-avus (personal name), Bello-uesus (personal name), Sego-uesus (personal name) -uesus means 'worthy', Late Lat Vesuna (name of goddess), Germ Wisi ~ Wesi 'the noble people (earliest name of the Goths)', Wisu-rith (personal name), Luv wäsu- 'good', Av vohu 'good', OInd väsù- 'good, excellent'. Goth iusiza 'better' has generally been understood as a suppletive form with comparative -iza, based on *eu(e)s-. The case for PIE status seems good, and is enhanced by the parallel occurrence in personal, ethnic and/or divine names, in most dialects where it is attested. Derived ultimately from *hjêsu- 'to be' and related to *hj(is)-su- and -su-, assuming distribution of the initial glide. A long tradition of scholarship also sees in adjectival *yesu- a connection to nouns (cf. OInd väsù- 'the good'), based on vocalism and accent. Some sources assume historical realignments and mixing between the latter two forms. See following two entries.

*hj(is)-su- 'good'. [IEW 342 (*esu-s), Wat 17 (*esu-); GI 683 (*wesu-)]. Grk ἐὖ 'good, useful', Hit assu- 'good'. Assuming a further semantic development, Lat erus, era (< *esos, *esa) 'master, lord', and the Gaulish divine name Esus have also been placed with this group but the Celtic form is etymologically unclear. Another possible cognate is OInd ahâ-'master', again uncertain. Ultimately related to *hjêsu- 'to be' but while this connection is generally accepted, the vocalism and the fate of the laryngeal represent longstanding problems.

*husu- would represent an expected adjectival formation, and both the Greek and Hittite forms could be traced to that. Still, other scholars have posited a full grade here (e for the Greek and o for the Hittite), which cannot be excluded.

*su- 'good'. [IEW 1037–1038 (*su- ~ *su-); Wat 67 (*su-); GI 683 (*su-); Buck 16.71]. OIr so ~ su- 'good', Wels by ~ hu- 'good', Lith sudrîs (< *su-dru-'good' + oak, tree) 'luxuriant', sveikas 'healthy, good', Lat svēiks 'healthy, good' (< *su-ei-kas 'to move along powerfully'), OCS šdравъ 'healthy', Grk ἱγνή 'healthy', Av hu- 'good', OInd su- 'good, well, rightly'. These forms might also reflect *hj(is)-su-, as above, except for the Greek, where loss of laryngeal would have to be assumed.

*mel- 'good'. [IEW 720 (*mel-); Wat 40 (*mel-); BK 529 (*mal-/*mal-)]. Lat melior 'better', Lith malonūs 'nice, pleasant', Hit malât(l)- 'approve, be favorable'. The apparent agreement of Italian, Baltic and Anatolian would seem to make this word a very likely candidate for PIE status.

?*mehu(t)- 'good (especially religious or mystical)'. [IEW 693 (*ma-); Buck 16.71]. OIr maith 'good', Wels mad 'good', Lat mānis ~ mānus 'good', Matūra (goddess of Dawn and
GOLD

Ripeness). Grk μακός ‘great’ has been connected here but is highly doubtful and it is not even clear that the word is Greek. If this root was posited at all, it is confined to the northwest.

*pro-bhuh-s ‘good’. [IEW 814 (*pro-bhuh-s); BK 8 (*buh-/*buh-)]. Lat probus ‘good, honest’, Umb prufen ‘properly’, OInd prabh- ‘powerful’. In all likelihood these represent independent and parallel formations derived from PIE *bhuh-s ‘be’ rather than cognates of a PIE root.

*selh- ‘favorable’. [IEW 900 (*sel- -- *sela-); Wat 57 (*sela- ~ *sela-)]. OIr slán (< *sλh-<no>) ‘safe, healthy’, Lat sólor ‘comfort, relief’, ON selr ‘happy, fortunate’, OE sel ‘happiness, joy’, OHG sál ‘happy’, Goth sels ‘good, kind, useful’, Grk θάδοικος ‘appease, conciliate, expiate’. The core of this reconstruction rests with the Greek which is of uncertain heritage and the Latin which is difficult both formally (differences in vocalism) and somewhat semantically. The Germanic forms are even less certainly connected here. This is a possible but dubious IE root.

*behed- ‘good’. [IEW 106 (bhád-); GI 121; Buck 16.71]. ON betri ‘better’, OE bet(e)ra ‘better’ (> NE better), OHG bezir(t)o ‘better’, Goth batiza ‘better’ (Gmc < *batizōn), Av hu-bátra ‘fortunate’, OInd bhádra ‘fortunate, blessed’. While older sources proposed such a root based on these Germanic and Indic forms, both sets are now widely regarded as etymologically unclear and no IE form can be posited.

See also Bad; Be; Master. [J.C.S., D.Q.A.1]

Further Readings

GOODS see WEALTH

GOOSE


The species of the underlying referent is unclear. The greylag goose, Anser anser, is by far the most widespread, however, many other species, e.g., the bean goose, white-fronted goose, etc., are found on archaeological sites across Eurasia.

In addition to being the largest domestic bird with abundant though greasy meat, the bird is most watchful, and thus has been associated with intelligence, e.g., it was allegedly alert goose that saved Rome from a surprise attack of the Gauls in 390 BC while in India the goose was said to have taught the Vedas to Brahma.

The reconstructed term does not distinguish between the wild and domestic varieties of the goose and even in historical texts it is context rather than linguistics that provides an answer. For example, in the Iliad (2.460) the χίφυνε is numbered with the wild birds whereas in the Odyssey (19.536) we find Penelope tending her twenty geese about the house. In Greek religion the goose was sacred to Aphrodite. The Romans also raised geese for food as both meat (the front part being the only portion consumed by the upper classes) and for its eggs, the force-feeding of the bird to produced an enlarged liver was already in practice in classical times.

The domestic goose is generally believed to have derived from the greylag (Anser anser) which was widely found across Eurasia. The origin of its domestication is uncertain but it has been claimed for the Neolithic, particularly southeast Europe.

See also Birds. [J.A.C.G.]

GRAB see TAKE

GRAIN


*yaw- ‘grain’. [IEW 512 (*yeho-); Wat 79 (*yewo-); GI 565 (*yewo-); Buck 8.42; BK 469 (*yw-/*yew-)]. Lith (pl.) javai ‘grain’ (cf. jauja(s) ‘harm’ with secondary accent), Latv jaaja ‘threshing barn’, Rus ovin ‘granary’, Grk (pl.) ζηται an inferior sort of wheat (einkorn or emmer wheat, Triticum monococcum or T. turgidum), Hit ewan- ‘barley’, Av vava- ‘grain’, yovin- ‘grainfield’, NPers jav ‘barley’, Oss jay ‘millet’, Ashkun yw ‘barley, millet’, OInd yava- ‘bread, grain, particularly barley’. From *yew- ‘ripe, mature (intr.)’ otherwise seen in TochB yu- ‘ripen, mature’. TochB yap ‘millet’ may belong here as well if there was an early dissimilation of manner in *yewom to give *yehbom. The usual assumption that yap is a borrowing from OInd yava- is made problematic by the difference in meaning (‘millet’ rather than ‘barley’) and the unexpected phonological outcome (a borrowed vava- might be expected to give TochB *yap or even *yw). This is probably the oldest word reconstructible for ‘grain’ and ‘kernel’ in PIE.

*k’erm ‘grain’. [IEW 390–391 (*k’n-<no-); Wat 24 (*k’na-no); GI 600 (*k’n<no-); Buck 8.42; BK 284 (*k’n<ro-/*k’er<ro>). OIr grán ‘grain’, Wels grawn ‘grain’, Lat granum ‘grain’, ON korn ‘grain’, OE corn ‘grain’ (> NE corn), OHG korn ‘grain’, Goth gatun ‘grain’, OPrus syrne ‘grain’, Lith žirmis ‘pea’, Latv žirnis ‘pea’, OCS žrno ‘grain’, SC žrno ‘grain’, Alb grure ‘wheat’ (if not a borrowing from Lat granum), Pashio zanai ~ zarai ‘kernel, seed’. Cf. the morphologically identical, but independent, creation in OInd jitra- ~ jitra- ‘old, worn...
GRANDFATHER


See also AGRICULTURE, BARLEY, FOOD, GROW, MILL, OATS, PLANTS, RYE, WHEAT. [D.Q.A.]

Further Reading


GRANDDAUGHTER


In the northern and western stocks of IE the PIE word for ‘granddaughter’, *neptih2- also came to mean ‘niece’ (nowhere is it demonstrably only ‘sister’s daughter’). However, the fact that that change in Latin postdates the classical Latin period may suggest that the extension to ‘niece’, despite its widespreadness, was not of PIE date. If the extension was first to ‘sister’s daughter’ (whether in PIE itself or independently in the northern and western stocks) we have evidence for one of the characteristic features of Omaha kinship systems, the equation of daughter’s and sister’s children.

See also GRANDSON, KINSHIP. [M.E.H.]

GRANDFATHER

*heubos ‘grandfather’. [IEW 89 (‘*auo-s’); Gl 668 (‘*Hauho-’); Buck 2.46; Szem 7; Wordick 90–92; BK 416
GRANDFATHER

("haw-."). Lat avus 'grandfather' (and avia 'grandmother'), ON afi 'grandfather; forefather', NHG (dia1.) awwe 'grandfather' (ON and NHG as if < *h2euh2jo-on-), Goth awo (as if *h2euh2-eha-n) 'grandmother', Arm haw 'grandfather', Hit hůhhas 'grandfather', Hier Luv huha- 'grandfather', Lycian xuga 'grandfather', TochB awei 'grandfather' (or 'uncle'). Compare also Old Orv aue (DIL ʌa) (as if < *h2euh2尧jo-, later ʌa ~ ʌa ~ ə) 'grandson' (with semantic reversal through reciprocity of terms). Widespread and old in IE.

??*suhsos 'grandfather'. [Jolk 1923-28: BK 169 (*s'aw-/*s'aw-), Alb gysh 'grandfather, gybsite (as if < *suhsisijeho) 'grandmother', Oldn sūṣa 'paternal grandmother' (?). This Albanian-Indic word occurs but once in the Atharvaveda and has been translated (by contextual and etymological guesswork) as 'paternal grandmother' and 'parturient woman'. If 'paternal grandmother' should turn out to be correct, it is still not certain that the more restricted meaning in Old Indic is not an innovation in that stock. From *seuh2 'bear, beget'.

It has often been thought that *h2euh2os might originally have meant exclusively 'mother's father' rather than 'grandfather' in general and also to have meant 'mother's brother' as would be expected in an Omaha system of kinship terminology where the two relatives are often terminologically equated (though not, it should be pointed out, in Omaha itself). Certainly all the attested descendants of *h2euh2os clearly mean 'grandfather' (in general) rather than just 'mother's father'. Moreover, it seems quite remarkable that the early Indo-Europeans, who were normally virilocal and resided with paternal relatives, would have kept and, indeed, generalized a word for their 'mother's father' whom they might have seldom an occasion to see and so thoroughly abandoned the term for 'father's father' with whom they would have been in far more frequent contact. Particularly telling perhaps is that we find *h2euh2os joined with generation markers, e.g., Plautus (Miles Gloriosus 373) ibi mei maiores sunt siti, pater, avos, proavos, abavos 'there is where my ancestors live — father, grandfather, great-grandfather, great-great grandfather'. It would be very strange to presume that these originally referred to the maternal line when the entire reason for such terms was to trace one's descent through the paternal line.

The major piece of evidence that *h2euh2os may originally have meant 'mother's father, mother's brother' is that in many stocks derivatives of *h2euh2os do, in fact, mean 'mother's brother'. Thus we have MWels ewyθyr(y)r 'uncle', Bret conτr 'uncle', Corn ewnter 'mother's brother', Lat avunculus 'mother's brother' (Italic and Celtic as if < *h2euh2-n-t-lo- with Celtic showing a change of *-'- to *-r), OE ðaum 'maternal' (uncle) > NE eme [preserved in Scotland]), Fris ëm 'mother's brother', NDutch oom 'uncle', OHG ðieim 'mother's brother' (as Proto-Gmc *auin-haima- whose first element is *h2euh2o- but whose second element is somewhat obscure), OPrus avis 'uncle' (specifically 'mother's brother?'), Lith avena 'mother's brother', OCS uj 'mother's brother' (cf. the further derivative ukja 'aunt') (Balto-Slavic as if < *h2euh2io-). Just possibly belonging here is Alb vella (as if < *h2euh2o-dhel-eha-) 'brother' (and if originally a cousin term). It is noteworthy that none of these specific terms for 'mother's brother' can be reconstructed to PIE itself; at most we have Italo-Celtic, Germanic, Balto-Slavic innovations. It is, however, also noteworthy that these (north)western innovations consistently mean 'mother's brother' (occasionally generalized in historic times to 'uncle') and never 'father's brother'. That such terms which, from the point of view of their morphology, mean 'little grandfather' or 'he of the grandfather' does suggest that the word from which they are derived should mean 'mother's father' rather than 'grandfather' in general. It might also be suggested that that 'little grandfather' was restricted pragmatically to the 'mother's brother' because 'father's brother' had been pre-empted by a special term, e.g., Lat patruus 'father's brother' or OE lædera 'father's brother'. However, it is often forgotten that the Omaha tendency to equate 'mother's brother' with 'mother's father' can be operative even if, as indeed is more generally the case, 'mother's father' is not distinguished from 'father's father' (e.g., as in Tzeltal or Southeastern Wintun). GL, on the other hand, suggest that *h2euh2os meant 'father's father' (and not 'grandfather' in general) and 'mother's brother' because those two relatives had the same role from ego's point of view in a society whose preferred marriage pattern was that of the dual exogamous marriage of cross-cousins (where a man can marry his mother's brother's daughter or his father's sister's daughter, both of whom belong to the other lineal group). Their theory, like that of the 'strict Omahaists', is made difficult by the almost certain reconstruction of *h2euh2os as 'father's father' and 'mother's father'.

See also GRANDSON; KINSHIP, UNCLE. [M.E.H., D.Q.A.]

Further Readings


GRANDMOTHER

*h2en- 'father's mother'. [IEW 36–37 (*an-); Wat 2 (*an-); Gl 668 (*Han-); Buck 2.47; Szem 8, Wordic 96–97, BK 454 (*an-)]. OGH ana 'grandmother', Goth anô 'grandmother', OPrus ane 'female ancestor', OCS vînokû 'grandfather', Rus vnok 'grandfather' (< Proto-Slav *ononko- < PIE *h2en-h2en-ko-), Grk ἀνέκ 'grandmother', Arm han 'grandmother', Hit hannas 'grandmother', Lyčian xtnahe/i- of a grandmother, ÔPers nyâka (< *h2en-jeha-keh2o-) 'grandmother'. A word, probably ultimately derived from childhood language, which is widespread and old in IE. Only in Anatolian and Armenian is this word phonologically distinct from *h2en- (old) woman' as seen in Old ArNA 'mother of the gods', Lat annus 'old woman', Hit annas 'mother', Paläc annas 'mother', Luv anna- 'mother', Lyčian ènæ- 'mother', Lyčian ènæ 'mother'. It seems likely that the form of *h2en- 'grandmother' has been influenced by that of *h2euh2os 'grandfather'.
(compare the alliterating pairs in Hittite of atas annas 'father and mother' and hūhhas hannas 'grandfather and grandmother').

\*h₂eυθύζηθα - 'grandmother'. [cf.IEW 89; Wordick 100; BK 416 (*haw-)]. Lat avia 'grandmother'; Alb joshé (< *h₂eυθύζηθα-si̯e̯h̯) maternal grandmother, Grk (Hesychius) aia 'the aunt or foster-mother' (among the Cyrenaens). None of these equations is certain. The Latin word, for instance, may reflect an inner-Italic development, the creation of a feminine form to avus in the same way that frāter 'brother's wife' was created from frāter 'brother'. A possible word of the west and center of the IE world.

\*seno-mēhātēr 'grandmother'. [IEW 907-908 (*senomáter); Buck 2.47]. OIr senmáthair 'grandmother', Lith senmote 'grandmother'. Possibly independent creations in Celtic and Baltic.

Those who support the contention that Proto-Indo-European kinship terminology was originally unilineal and that *h₂eυθύζηθος originally designated only the 'mother's brother, mother's father' (and not a relative on the paternal line), cite the Latin, Albanian and Greek forms as obvious feminizations of *h₂eυθύζηθος. Another term, *h₂en-, is more widespread and may reflect an original patrilineal term although the Greek cognate may refer to either the maternal or paternal grandmother. Those who support the unilineal hypothesis would then argue that as bilaterality became more common, a compound, *old mother' was developed in Celtic and Baltic to cover both sides of the family. In other cases each stock either created a new term or expanded one of the old terms to take in the grandmother on the other side of the family.

See also Grandfather, Kinship. [M.E.H., D.Q.A.]

GRANDSON

\*nēpōtis (gen. *nēpōtoς) 'grandson; ?sister's son'. [IEW 764 (*nēpōt-); Wat 44 (*nēpōt-); Gl 669 (*nēpōth-); Buck 2.48; Szem 9; Wordick 155-165; BK 573 (*nēpōth-/*nēpōth-)]. OIr nēa = niae 'sister's son, grandson, descendant', Welsh nai 'nephew', Corn noy 'nephew', MBret ni 'nephew', Lat nepōs 'grandson, granddaughter, descendant' (in later Imperial and Medieval Latin also 'nephew'), ON nefi 'descendant', OE nefa 'grandson, sister's son, OHG nefo 'sister's son, (paternal/maternal) cousin', Lith nepuotis 'grandson' (once apparently 'niece', never 'nephew'), Alb nip 'grandson, nephew', Grk νέποδες 'descendants' (Od 4.404; the erroneous δ was backformed from *vēpōδις, the regular nominative, when identity of the stem-final consonant was no longer certain), Av napāt- 'grandson, descendant', OPers napā 'grandson, descendant', OlNct napāt 'grandson, descendant'. Clearly of PIE status. Derivatives: OCS netiţ 'nephew' (< *nept-jo-; Grk ἁνεπηγοίς 'cousin' (< *nept-jo-/*nept-jo-); Welsh cefnder 'male cousin', cefndher 'female cousin' (< *kom-nepōt- and *kom-nepti̯a̯- 'co-grandson and co-granddaughter' respectively).

This has been both widely and justly regarded as one of the more critical words concerning the reconstruction of the PIE kinship system. One of the major distinctions between the Omaha type, that which is attributed to PIE by a number of scholars, and other possible kinship systems, is that in the Omaha system one may expect there to be generational skewing where we should find the same term for 'sister's son' (NE 'nephew') as 'daughter's son' (NE 'grandson'). As the semantic range of the cognates derived from *nēpōtis appears to embrace both 'grandson' and 'sister's son', this composite reference has provided support for the ascription of the PIE kinship system to the Omaha type (generational skewing also occurs in the Crow type but as the Crow type is almost exclusively matrilineal there are no grounds for ascribing it to PIE). This interpretation, however, is by no means universally accepted.

The existence of this nepotic skewing rule has been challenged on the basis of the actual linguistic evidence. That *nēpōtis designated the 'grandson' is agreed by all; it is whether we have any right to assume also a meaning of 'sister's son, nephew' is what is at dispute. The evidence for such is proposed for Celtic, Latin, Germanic, Baltic and Slavic. Opponents to the extension of *nēpōtis to 'nephew' emphasize that this meaning is nowhere found in Indo-Iranian.

The Celtic languages uniformly attest the meaning 'nephew' although traces of 'descendant' may exist in MWels keiv(y)n (< *kom- + *nēpōtis) third cousin (< *co-descendant of a common ancestor). The use of Latin nepōs to designate 'nephew' is only found in texts of the third century AD and later and even then did not carry on into all the Romance languages where Spanish nieto and Portuguese neto both indicate only 'grandson'. This has suggested that the meaning 'nephew' was secondary and developed independently in Latin. A similar explanation has been extended to Germanic where OHG nefo (and its feminine forms) designate only the 'grandson, descendant' and 'nephew' only emerges in Middle High German. Only OE nefa means both 'grandson' and 'nephew' from its earliest attestation. The Baltic evidence rests on OLith nepuotis which almost invariably indicated 'grandson' (there is one very problematic reference to it designating 'niece'). This leaves Slavic which is already among the latest attested IE stocks and where, it is argued by critics of the nepotic skewing rule, the shift from 'grandson' to 'nephew' had already been completed. Hence those who challenge the reconstruction of the Omaha system for PIE argue that *nēpōtis originally indicated the 'grandson, descendant' and that the meaning 'nephew' is a later development occurring independently within some of the various IE stocks. Why such similar but independent developments took place across a number of stocks has been explained with reference to a similar shift, again controversially argued, where 'grandfather' came to designate 'mother's brother'. This occurs in the same dialects that saw the shift from 'grandson' to 'nephew'. Such a change between reciprocal categories of kin would be entirely expected; what is not so entirely convincing is the reason for this change. Heinrich Hetterich has suggested that the shift
from a more mobile settlement pattern to an increasingly sedentary one would have made certain relationships between groups related by marriage more continuous and intense and may have demanded the coming or extension of new kinship categories. This argument rests entirely on an underdemonstrated premise concerning the evolution of both the IE economy and residence patterns.

Efforts to etymologize *ne-pot- as 'powerless' (< *ne- 'hot' + *poti 'independent, dominating', i.e., young unmarried male of extended family) are pointless as the correct segmentation revealed by the feminine forms is *nep-ot- in which -ot- is the same nominal suffix found in Germanic *mēnōp- 'month' (from 'moon') or Hit šw-att- 'day' (from 'daytime sky').

See also Kinship; Nephew; Uncle. [M.E.H., J.P.M.]

Further Readings

GRASS

*gul* 'grass'. [IEW 1139–1140 (*gul-); Buck 8.51]. Wels gwellt 'grass', OPrus wolti 'head of grass', Lith valtis 'oat panicle', Hit weltus(want) 'grass'. Cf. also OCS vlado 'hair, particularly human headhair' and OInd valša 'branch, sprout'. Rather sparsely attested; however, its geographical distribution assures its antiquity within IE. Probably the oldest word we can reconstruct for 'grass'. Within the cosmological system of the early Indo-Europeans, grass is an alloform of hair, i.e., in the stories of the creation of the universe, grass is formed from the hair of the primeval giant. Similarly, in cures for baldness, grass is applied to stimulate the regrowth of hair.

*Koino- 'grass'. [IEW 610 (*koino-); Buck 8.52]. Lith sienas 'hay', Latv siens 'hay', OCS sēno 'fodder, grass'. Grk (Hesychius) koivá (pl?) 'grass'. At least a late term used in the central area of the IE-speaking world.

See also Cosmology; Feed; Plants; Field; Hair; Medicine. [D.Q.A.]

GRAY

*Kas- 'gray'. [IEW 533 (*Kas-); Wat 27 (*kas-); GL 136]. Wels ceinaich (< *kasni + ĺko-) 'hare', Lat canus (< *kasno-) 'gray', Osc cosnári 'old', ON hoss (< *kasuo-) 'gray, brown', herti 'hare', OE hastu (< *kasuo-) 'gray, brown', hara 'hare' (>NE hare), OHG haso 'hare', OPrus sasins 'hare', Khot sahu-'hare', Olnd šasā- (< *sasa-) 'hare'. The hare is originally the 'gray one' or the like (cf. Lith sirvis 'hare' to sirvus 'gray'). Widespread and old in IE. That the connections between this word and that of the hare are so close among the various stocks suggests that the word cannot be included as a "primary" color term as one might expect in a Stage VII system.

See Black; Color; Hare. [D.Q.A.]

GREEK LANGUAGE

The earliest certain evidence of the Greek language appears in the Linear B tablets known from Crete (Knossos) and mainland Greece (Mycenae, Tiryns, Pylos, Thebes) which date to about the thirteenth century BC. Written in a syllabic script, these tablets number several thousand and are largely confined to economic records of the late Bronze Age Mycenaeans whose palace-based civilization collapsed in the twelfth century. The Linear B texts are written in the official palace language, a chancery language employed uniformly by the late Bronze Age civil service both on Crete and in the mainland Greek palaces.

The collapse of Mycenaean civilization ushered in a "Dark Age" where the art of writing in Greek was lost. When written records in Greek resume, during the Iron Age between 825 and 750 BC, they are written in the familiar Greek alphabet, a script based on that of the Phoenicians. "Alphabetic Greek" had at first no uniform standard. Each city-state and its citizens wrote in the variety of Greek appropriate to the local area. These varieties can be grouped into several larger scale dialect areas. On both sides of the northern part of the Aegean Sea were the Aeolic dialects. Southward from them on the Asia Minor coastline and extending to many of the southern Aegean islands (including Euboea) were the Ionic dialects. In Attica was the very similar Attic of Athens. (Attic-Ionic are distinguished from all other Greek dialects by the change of original *â to *e.) Widely separated in Arcadia in the Peloponnese and on Cyprus was the Arcado-Cypriot group, a group which was linguistically closest to the Mycenaean chancy language. All of these, Aeolic, Attic-Ionic, and Arcado-Cypriot can in turn be arranged together as "East Greek" and contrasted with "West Greek". East Greek dialects are diagnostically distinct by a change of original *-ti to *-si (e.g., Attic ἵδουσι they give' but West Greek ἵδοντι). The West Greek group is composed of Doric, found in the Peloponnese and throughout the southern islands (including both Crete and Rhodes) and the closely related Northwest group extending up the western half of the Greek mainland as far as Corfu. The Doric dialect wedge looks to be intrusive, and was certainly spoken in areas that in Mycenaean times spoke a very different kind of Greek. It was traditionally assumed that it was a Doric migration/invasion that brought down the Mycenaean civilization. The Homeric dialect of the Iliad and the Odyssey stands somewhat apart. It is an East Greek dialect with both Aeolic and Ionic components (including a late Attic veneer in some cases) that was the speech of no local community but rather a pandialectal variety of Greek that had grown up on the coast of Asia Minor and in which epic poetry was composed.

The dominant variety of Greek from late classical times on was a form of Attic, influenced by the closely related Ionic, called koine or 'common' language. Its gradual acceptance as the normative variety of Greek, first in Ionia and later elsewhere, was aided by the cultural and military prestige of Athens and particularly by the adoption of the koine as the
In general, Greek, whether ancient or modern, is a conservative representative of Proto-Indo-European. Ancient Greek is arguably the phonologically most conservative IE the same or at least they were in close contact before the separation into independent stocks. More distant perhaps are similarities between Greek and the Indo-Iranian super-stock. Close similarities have also been suggested between Greek and its Phrygian and Macedonian neighbors; however, these latter are so poorly attested that any meaningful conclusions are difficult to substantiate.

Description

In general, Greek, whether ancient or modern, is a conservative representative of Proto-Indo-European. Ancient Greek is arguably the phonologically most conservative IE

official language of the Macedonian state and throughout Alexander the Great's conquests. All medieval and modern varieties of Greek are descended from the koine with the exception of Tsakonian, spoken in the east-central Peloponese, which is basically Doric (the Greek language spoken in the once Greek-speaking islands of southern Italy also shows some traces of Doric).

Greek is an independent IE stock but it does share certain similarities with other IE groups. A close relationship with Armenian has been regularly suggested (though not always accepted) indicating the possibility that at one time either the linguistic ancestors of the Greeks and Armenians were
Proto-Indo-European and Greek Phonological Correspondences

<table>
<thead>
<tr>
<th>PIE</th>
<th>Grk</th>
<th>PIE</th>
<th>Grk</th>
</tr>
</thead>
<tbody>
<tr>
<td>*p</td>
<td>p</td>
<td>*ph₂tēr ‘father’</td>
<td>πατήρ ‘father’</td>
</tr>
<tr>
<td>*b</td>
<td>b</td>
<td>*bel- ‘strong’</td>
<td>βέλτιον ‘better’</td>
</tr>
<tr>
<td>*bh</td>
<td>ph</td>
<td>*bhrehtēr ‘brother’</td>
<td>φίλτηρ ‘clan’</td>
</tr>
<tr>
<td>*t</td>
<td>t</td>
<td>*tritos ‘third’</td>
<td>τρίτος ‘third’</td>
</tr>
<tr>
<td>*d</td>
<td>d</td>
<td>*doh₁rom ‘gift’</td>
<td>δώρον ‘gift’</td>
</tr>
<tr>
<td>*dh</td>
<td>th</td>
<td>*dhur- ‘door’</td>
<td>θύρα ‘door’</td>
</tr>
<tr>
<td>*k</td>
<td>k</td>
<td>*dekā ‘ten’</td>
<td>δέκα ‘ten’</td>
</tr>
<tr>
<td>*g</td>
<td>g</td>
<td>*gōnu ‘knee’</td>
<td>γόνυ ‘knee’</td>
</tr>
<tr>
<td>*gh</td>
<td>kh</td>
<td>*gheimen- ‘winter’</td>
<td>χειμών ‘winter’</td>
</tr>
<tr>
<td>*k</td>
<td>k</td>
<td>*kor- ‘war’</td>
<td>κόρονος ‘war’ leader’</td>
</tr>
<tr>
<td>*g</td>
<td>g</td>
<td>*hylīgos ‘sick’</td>
<td>ήλιγος ‘little, small’</td>
</tr>
<tr>
<td>*gh</td>
<td>kh</td>
<td>*hymīghleha- ‘mist’</td>
<td>ήμίγλη ‘fog, mist’</td>
</tr>
<tr>
<td>*kW</td>
<td>p – t</td>
<td>*leikw ‘leave’</td>
<td>λέικω ‘leave’</td>
</tr>
<tr>
<td>*gW</td>
<td>b – d</td>
<td>*bōu ‘cow’</td>
<td>βοῦ ‘cow’</td>
</tr>
<tr>
<td>*gWwh</td>
<td>ph – th</td>
<td>*phelhus ‘womb’</td>
<td>φηλοῦς ‘womb’</td>
</tr>
<tr>
<td>*s</td>
<td>h ~ ὰ – s</td>
<td>*sepēn ‘seven’</td>
<td>σεπέν ‘seven’</td>
</tr>
<tr>
<td>*i</td>
<td>h ~ z</td>
<td>*iag- ‘honor, fear’</td>
<td>ιαγ- ‘stand in awe of’</td>
</tr>
<tr>
<td>*u</td>
<td>o</td>
<td>*uoghos ‘carrier’</td>
<td>υογός ‘wagon’</td>
</tr>
<tr>
<td>*m</td>
<td>m</td>
<td>*mēh₂tēr ‘mother’</td>
<td>μήτηρ ‘mother’</td>
</tr>
<tr>
<td>*n</td>
<td>n</td>
<td>*nokʷis ‘night’</td>
<td>νόκως ‘night’</td>
</tr>
<tr>
<td>*l</td>
<td>l</td>
<td>*leγₐ- ‘gather’</td>
<td>λέγα ‘gather’</td>
</tr>
<tr>
<td>*r</td>
<td>r</td>
<td>*hrudhros ‘red’</td>
<td>ἥρυδρος ‘red’</td>
</tr>
<tr>
<td>*g</td>
<td>a</td>
<td>*g- ‘un-’</td>
<td>γ- ‘un-’</td>
</tr>
<tr>
<td>*m₄</td>
<td>a</td>
<td>*mēp̣tōm ‘hundred’</td>
<td>μεπτόμ ‘hundred’</td>
</tr>
<tr>
<td>*l₁</td>
<td>al</td>
<td>*mldus ‘soft’</td>
<td>μλδύς ‘grow weak’</td>
</tr>
<tr>
<td>*r</td>
<td>ar</td>
<td>*ṛḍ ‘heart’</td>
<td>ῥδ ‘heart’</td>
</tr>
<tr>
<td>*l₁</td>
<td>i</td>
<td>*kʷts ‘who’</td>
<td>κτσ ‘who’</td>
</tr>
<tr>
<td>*e</td>
<td>e</td>
<td>*dekā ‘ten’</td>
<td>δέκα ‘ten’</td>
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<tr>
<td>*e</td>
<td>é</td>
<td>*ph₂tēr ‘father’</td>
<td>πατήρ ‘father’</td>
</tr>
<tr>
<td>*a</td>
<td>a</td>
<td>*sal- ‘salt’</td>
<td>σάλ ‘salt’</td>
</tr>
<tr>
<td>*ā</td>
<td>ā</td>
<td>*mēh₂tēr ‘mother’</td>
<td>μήτηρ ‘mother’</td>
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<td>*o</td>
<td>o</td>
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<tr>
<td>*u</td>
<td>u</td>
<td>*jūgōm ‘yoke’</td>
<td>ιογόν ‘yoke’</td>
</tr>
<tr>
<td>*u</td>
<td>ō</td>
<td>*mōs ‘mouse’</td>
<td>μός ‘mouse’</td>
</tr>
<tr>
<td>*h₁</td>
<td>ὰ</td>
<td>*hēs- ‘be’</td>
<td>ἡσ ‘be’</td>
</tr>
<tr>
<td>*h₂</td>
<td>ō</td>
<td>*h₂ōyς ‘sheep’</td>
<td>θίος ‘sheep’</td>
</tr>
<tr>
<td>*h₃</td>
<td>ō</td>
<td>*h₃ōkʷth₁ ‘eyes’</td>
<td>θίκω ‘eyes’</td>
</tr>
<tr>
<td>*h₄</td>
<td>ō</td>
<td>*h₄orghis ‘testicle’</td>
<td>θόργη ‘testicle’</td>
</tr>
</tbody>
</table>

Greek is also morphologically conservative in preserving three numbers (singular, dual, and plural) in both noun and

language attested. It preserves all five PIE vowels (i,e,a,o,u—both long and short), the PIE free accent (except in verbs), and the distinction between the plain voiced stops (*b, *d, *g, etc.) and their aspirated counterparts (*bh, *dh, *gh, etc.), though the latter group appears in Greek as voiceless aspirates (ph, th, kh, etc.). The only major systematic changes undergone by Greek was the complete loss of laryngeals, the change of *s and *j initially to h- and the loss of these two and *u in many other environments, and the change of *m and *n to a and the “distraction” *r and *l to ar/ra and ala respectively (the placement of the vowel relative to the consonant originally dependent on surrounding sounds), though there is evidence that this latter change was not completed by Mycenaean times.
verb (though the dual disappears during the course of classical times), three aspects (present, aorist, and perfect) and the distinction between active and middle/passive in the verb, and five cases (with traces of two others) in noun and adjective. It shares with Indo-Iranian and Armenian the presence of the "augment" (a prefix e-) before past tenses (imperfect, aorist, and plu-perfect). The presence of a subjunctive mood, distinct from the indicative and optative, also characterizes the southeastern group including Indo-Iranian and Greek but reappears in Celtic and Italic as well.

Greek Origins
The origins of the Greeks is a much debated topic and while there are a number of general issues that find some consensus, the specific issues of when and from where one may derive the earliest Greeks are very controversial. The presumption that the Greeks are intruders into their own territory is based on a number of lines of evidence. These include the Greeks' own tradition that they were later immigrants, having been preceded by a people known as the Pelasgians. There is also an abundance of non-Greek place names, e.g., Corinth, Knossos, Mycenae, Olympus, and allegedly non-Greek personal names, e.g., Athéné, which have all suggested that Greece was occupied by a prior non-Greek population or variety of populations. Another line of evidence are the inscriptions in Linear A, the writing system that preceded that of the Mycenaean Linear B. Although many of the signs are similar to the Linear B signs, it has so far proved impossible to read these earlier inscriptions and although they cannot be attributed with any confidence to any known language (Anatolian and Semitic are popular candidates), the structure of their word-endings does not support their identification as Greek. Finally, there is the evidence of the Greek lexicon. On the one hand, Greek is remarkably conservative and participates very widely in the basic cognate sets that we can establish between the various IE stocks and no serious case has ever been presented to support the hypothesis that either its morphology or syntactic structure has been heavily influenced by a non-IE substrate. On the other hand, there is a substantial portion, estimated by some at greater than 50%, of the Greek vocabulary that cannot be compared with that of other IE stocks. An exercise in comparing translations of selected passages of the Bible (Mt 2 and Lk 15) in various IE languages revealed that the lexical items of non-IE or obscure origin numbered 15 for Russian, 34 for Lithuanian, 48 for Italian but 171 for Greek. The non-IE vocabulary in Greek has been attributed to a variety of sources: some form of non-IE Anatolian language or Semitic has been suggested for a number of the loanwords and there is little doubt that certain semantic spheres relied heavily on non-IE loans. Already in the Linear B tablets we find, for example, words for spices such as Myc sa-sa-ma (Grk σπάζουμ 'sesame'), and Myc ku-mi-no (Grk κυμμίνον 'cummin') and there is little doubt that Semitic languages, particularly Phoenician, were contributing not only many products but also lexical items to their Greek trading partners and rivals. It is clear then that many of the foreign words found in Greek may well have entered after the Greeks themselves were established. Of more importance are items of vocabulary that have been attributed to indigenous non-IE languages, sometimes designated as "Mediterranean" or "Aegean". This latter influence includes terms for native flora, e.g., cypress, laurel, chestnut, olive, and technological terms, e.g., brick, jar, oil, flask, sword. That some of these terms reflect the names of either native plants or technological items that should have been known in Greece since the Bronze Age if not earlier has led to the supposition that the Greeks superimposed themselves on a non-IE substrate. The possibility of other IE stocks forming a substrate in Greece has also been suggested, e.g., Luvian or Pelasgian, the latter a largely hypothetical IE stock whose existence is supported primarily by elements of the Greek vocabulary that might be explained as IE if certain non-Greek sound laws are invoked, e.g., Grk τάφος 'grave' is cognate with Arm damban 'grave' and appears to continue PIE *dhmbhos but Greek also yields a word τάφυμος 'grave, tombstone'. This latter word cannot possibly be derived from the underlying PIE form according to the rules of Greek phonological development but proponents of the Pelasgian theory suggest that it is easily derivable if one employs a different set of phonological rules appropriate to Pelasgian, e.g., dissimilation of *dh > t and then to t, PIE *θί > Pelasgian ur; PIE *θή > Pelasgian b. Although each individual word suggested by supporters of Pelasgian may be challenged, there does seem to be sufficient material to support the hypothesis that there was some form of IE substrate or adstrate in Greek. The historical circumstances of these borrowings, both with respect to when and where, remain elusive.

In terms of occupation, human or at least Homo populations have existed in Greece since at least 350,000 years ago but the time depth of IE suggests that Indo-Europeans should not have been present in Greece any earlier than the Neolithic, i.e., c 7000 BC. Archaeologists have variously suggested the following "windows" for the entrance of those IE speakers who later emerged as the historical Greeks: 1) the beginning of the Neolithic c 7000 BC; 2) the later Neolithic c 4500-4000 BC; 3) the beginning of the Bronze Age c 3000 BC; 4) the transition from Early Bronze Age II to Early Bronze Age III, c 2300 BC, and 5) the transition between the Middle Bronze Age and the Later Bronze Age c 1600 BC. An earlier theory that the Greeks did not penetrate Greece until the collapse of the Mycenaean civilization c 1100 BC has been obviated by the decipherment of the Linear B tablets as Greek. The earliest of the proposed migrations derives circumstantially from Anatolia where the Neolithic economy and technology precedes that of Greece and is held to be the region from whence the agricultural economy penetrated Europe from the Near East. The evidence is circumstantial in the sense that while there are close similarities between early Anatolian farming sites and those of Greece, there is no clear "path" of migration from one territory to another, the western coast of
Anatolia being so far devoid of early Neolithic sites. Nevertheless, such an origin for the Greek Neolithic is widely held and it has proven far easier to accept than the proposal that the hunting-gathering populations of Greece independently domesticated plants and animals and developed the requisite agricultural technology.

There are a number of very serious problems with the Neolithic solution to Greek origins. By tying IE dispersals with the seventh millennium BC spread of agriculture from Anatolia, it requires the expansion and consequent differentiation of the IE stocks far earlier than is normally envisaged by linguists. It also would seem to require a chain of IE dialects/stocks such that Anatolian–Greek would be especially close, then Greek–Latin, all relationships unsupported by IE dialectology; conversely, such a model does nothing to accommodate the relationships between Greek and the stocks with which it does share many isoglosses, i.e., Armenian, Indo-Iranian. If the Greeks had occupied their historical seats since the seventh millennium BC, it is difficult to understand why we find apparently non-IE lexical items pertaining to the local environment and economic developments ascribed to the Neolithic and Bronze Age. Also, one might have expected the Linear A script to have been read as Greek if Crete had been (Proto- )Greek since the seventh millennium (when we find the Neolithic settlement of Knossos). Finally, there are certain basic items of the reconstructed IE vocabulary, established from cognate sets which include Greek evidence, that could not have been known to Neolithic Greek populations. The earliest evidence for both the horse and wheeled vehicles in Greece does not appear until after 3000 BC. For the Greeks to possess what would appear to be inherited words for these items, we must then presume that they borrowed them from an IE neighbor who still spoke Proto-Indo-European and that the language of the (Proto-) Greeks had also been preserved from any phonological change for millennia before they adopted these later words so that they remained undetectable as loan words. Later archaeological solutions to Greek origins may well fail because of a lack of persuasive evidence for intrusions while the Neolithic model fails because it seems conceptually incompatible with accommodating the linguistic evidence.

A second model would introduce Proto-Greeks at the beginning of the later Neolithic, c 4500–4000 BC. At this time there appears a shift in settlement type (there is admittedly limited evidence for this) where in place of earlier villages we find enclosed compounds with large structures which have been interpreted as the houses of elites. This pattern is seen in Thessaly at the sites of Dhimini and Sesklo. It is argued that this change from presumably egalitarian village settlement to the citadels of the elite reflects the type of social change that one might wish to associate with a new people superimposing themselves on the earlier inhabitants. More often, however, this shift in settlement type has been attributed to local evolutions of social complexity and there is no obvious foreign source for the later Neolithic cultures of Greece.

The third possible “invasion” is posed for the period of the fourth and third millennia BC, a period concurrent with at least some of the linguistic estimates for IE time depth. Elsewhere in southeastern Europe we find evidence for the horse and wheeled vehicles although we have no hard archaeological evidence for these items from Greece at this time. Nevertheless, Greece appears to participate in an interaction sphere which also embraces northwest Anatolia, the east Balkans and the steppe and forest-steppe regions north of the Black Sea. This interaction is evident, for example, in the appearance of similar metal daggers (of copper or arsenical bronze) across this region and the appearance of a brief horizon of silver ornaments. There is some controversial evidence for a cultural break in northern Greece while southern Greece is seen to offer a more gradual transition from the late Neolithic to the early Bronze Age. This model assumes that under the guise of exchange patterns we might also include some population movements that carried languages into the Aegean from the north Balkans.

The fourth suggested horizon is the break between the early Bronze Age periods designated Early Helladic II and Early Helladic III (c 2300–2100 BC) where cultural change is accompanied or followed by the destruction of earlier sites. Innovations usually cited as evidence for intruders include a shift in ceramic styles with the appearance of the so-called “Minyan” ware, the appearance of two-roomed houses with an apsidal end, perforated stone axes, small clay anchors, and by the Middle Helladic period tumulus burial and the appearance of the horse. These various elements do not form a unified complex of intrusive features but derive variously from Anatolia (new ceramic styles) or north of Greece and appear to move through Greece progressively from north to south arriving last in the Peloponnese. This is also a period in which destruction horizons are known from a number of sites which some would attribute to IE movements. Many would argue that into this window have been lumped a variety of features and processes, some local and some foreign, that suggest some form of long-term progression of north to south contacts rather than evidence for a distinct wave of invaders.

The fifth possibility of Greek invasions is set to c 1600 BC with the appearance of the chariot in Greece. In this model, chariot warriors, whose remains can be found in the shaft graves of Mycenae, entered Greece from Anatolia where chariot warfare was earlier attested. The Helleneization of Greece is regarded then as the superposition of a ruling elite on the indigenous population as has also been suggested for the Indo-Aryan conquest of India. It could be added that surveys of the physical anthropology of Greek populations of the Bronze Age have so far yielded no solid case for a new population although those buried in the shaft-graves of Mycenae do appear more robust than their predecessors. Other arguments suggesting that the Mycenaeans do not reflect a natural evolution on Greek soil but came from outside Greece is the very nature of the shaft-graves themselves. They involve an impressive assortment of status items derived from
abroad and an emphasis on conspicuous consumption unparalleled in earlier Greek burials.

The chariot-warrior hypothesis rests to a considerable extent on the nature of the wheeled vehicle vocabulary of Greek. William Wyatt has contrasted the terminology associated with Homer's description of a horse-drawn chariot (Iliad 5.722–730) with that obtaining for the mule-drawn four-wheeled wagon (Iliad 24.266–275). The chariot terms, Wyatt argues, are IE while many of the terms pertaining to the wagon appear to lack an IE etymology. He concluded that chariot-using Indo-Europeans (Proto-Greeks) obviously knew the chariot when they arrived in Greece and probably brought it with them; on arrival, they encountered an earlier society who employed wagons and the Greeks borrowed the terms for the wagon from the native population.

This theory is also not without its weaknesses. That part of the vocabulary of the chariot employed in Homeric Greek that reflects inherited PIE words, e.g., ἱκκλα 'wheels', ἰζον 'axle', ὑγνον 'yoke', are generic terms and in other IE languages may refer to wagons (or in the case of 'yoke', plow-teams) as well as chariots. All those words whose semantic field is specific to the chariot, e.g., κνήθην 'spoke', ἐπίσωσσαρα 'tires', may have underlying IE roots but these words do not have specific chariot-associated meanings in any other IE stocks. For this reason, while it is certain that we can reconstruct a PIE 'wheeled vehicle', there is no specific lexical support for a PIE 'chariot' and it seems likely that the Greeks shifted some of the the wagon terms to the chariot which was in existence in the steppe-lands since c 2000 BC if not somewhat earlier. The linguistic argument presumes that this shift is unlikely since this would require a model where the Greeks would so thoroughly have shifted their wagon terms to the chariot that they would have no inherited words left for the wagon and would then have had to adopt the non-IE vocabulary for the four-wheeled wagon. But this entire argument, as with so many arguments concerning loan-word vocabulary in Greek, implicitly presumes that the wagon terms in Homer come from a pre-Greek population in Greece. The Linear B tablets are of minimal use here since the only suggestion of a wagon is the appellative use of Myc a-pe-ne-wo (cf. Grk ἀπήνη 'wagon'). Given that the mule only began spreading across the Mediterranean into Greece from Asia in the first millennium BC, it is entirely possible that some of the specific terms relating to a mule-drawn wagon post-date the arrival of the Indo-Europeans in Greece. In any event, the other Greek word for the four-wheeled wagon, Grk ἀμαξα, may well derive from a PIE *h2em-h2ks-ilh2a 'wagon-chassis' (with cognates in Tocharian).

From an archaeological standpoint, an invasion of chariot warriors has only the appearance of the chariot to sustain it. The chariot begins to appear in Anatolia at about c 1950–1850 BC (seal impression from Karum Kanesh II) and chariots are known from the same period also in the Volga-Ural region. Other items of comparison are the disc-shaped bridle cheekpieces which are attested in Mycenaean from c 1600 BC and are found somewhat earlier in the steppe region. It seems difficult to deny that there were connections between the steppe, Anatolia and Greece, but precisely how these are to be explained is far from understood. A late Bronze Age intrusion of chariot-warriors might have introduced the Proto-Greek language from elsewhere but there is really no solid evidence of this intrusive culture other than the chariot and the cheek-piece, both of which could have represented technological diffusion. Other items suggesting long distant connections, e.g., the presence of Baltic amber in Mycenaean tombs, may well be explained by exchange systems and are difficult to link to either a steppe or Anatolian origin, and parallels such as the use of golden death-masks at Mycenaean and the modelling of clay faces on Catacomb skulls in the steppe region seem more than a bit distant without intervening evidence.

Subsequent evidence for population intrusion, such as the appearance of crude pottery in the twelfth century after the collapse of the Mycenaean citadels, is usually associated with north-south movements within Greece itself which may be tied to the Dorian invasions of Greek tradition but are too recent to explain the arrival of the Greeks. As to which, if any, of the proposed "intrusions" the Proto-Greeks should be attributed still seems impossible to determine.

See also Indo-European Languages, Indo-European Homeland, Macedonian Language

Further Readings


Etymological Dictionaries


Origins

GREEN

*Kieńh*- 'deep intense shade, * green'. [IEW 540–541 (*kieni*); Wat 28 (*kei-); Gl 200 (*krey~* *khy-hE)]. Buck 15:67. OE līw (< *kīh1-ū-o-*) 'color (> NE hue'), hāwen (< *kīh1-ū-no-o-*) 'blue, purple, gray', OPrus sywan (< *kīh1-ū-o-*) 'gray', Lith šūvus (< *kīh1-ū-*) 'light gray', šėmas (< *kīh1-ū-mo-*) 'blue-gray', OCS sīvō (< *kīh1-ū-o-*) 'dark gray', sīn 'dark blue', SC sinji (< *kīh1-ni-*) 'sea green', Alb thīnje (< *kīh1-ni-*) 'gray', AV sūva- (in Sävarssan- 'having dark horses' and other proper names), Khot sāva- 'copper', Sogd sīw (< *kīh1-ū-o-*) 'dark-colored', Olnd šāmā- (< *kīh1-mo- = Lith šēmas) 'dark brown, dark green', sūvā- (< *kīh1-ū-o-*) 'brown', TochB kwel (= *kīuolo-) 'black, dark gray'. Distribution indicates PIE status.

*slihū-* 'plum-colored'. [IEW 965 (*slihū-*)]; Wat 61 (*slh-); Gl 615]. OIr lī 'color', Wels līw 'color', Lat īver (< *slihū-es-) 'bluish color', OE slāh 'sloe' (> NE sloe), OHG slēha 'sloe' (Proto-Gmc *slæxwa- perhaps metathesized < *slohts-ko-), Rus svīla (< *slihū-ū-o-) 'plum', SC slīh 'plum-colored'. A word of the IE northwest. GI suggests that this color-term is derived from a word for 'lead' seen in Hit sali(y) 'lead' founders on phonological incompatibilities (we would expect Hit *saliwa-).

*Ker- ~ *Кещос* 'grayish blue, grayish green'. [IEW 573–574 (*ker- ~ *κεθο-*)]. Lith šīvus (< *kį-ū-o-) 'blue-gray', šīmas (< *kį-mo-) 'blue gray', Alb źhjer-me (< *ker-ū-o-*) 'blue/grey'), sūr-me (< *kį-ú-) 'dark gray, black', Grk θηρίδας 'mythical sea-bird, often identified with the Halycon, i.e., river kingfisher (which has greenish-blue plumage), Olnd sāra- (< *Soro-) 'colored', a word of the center and east of the IE world.

*modheros* 'madder; blue'. [IEW 747 (*modhro-*)]; Wat 43 (*modhro-)]. OIr mādra 'madder', OE modere 'madder' (> NE madder), OHG matara 'madder', Sc modar 'blue', Czech modrý 'blue', Hit antara (< *amara < *matar₂-) 'blue'. Although not widely attested, the geographical distribution of those attestations would seem to guarantee PIE status.

After yellow, some form of green is the next color expected in the evolutionary color sequence proposed by Berlin and Kay. Under the designation GRUE one might also expect that various shades of blue, gray, violet and brown would also have been included. The root *Kęih₁-, which is found from Germanic to Indic and thus can be ascribed to Indo-European, may accommodate our expectations as it signifies the range of colors expected of GRUE in a third-stage color system. This word was replaced in the extreme northwest (Celtic,Italic) by a second root, *slih₂-ū-, probably derived from 'plum' or 'berry' in the more easterly languages of Germanic and Slavic. Lith slīvas is a loan from Slavic. In all of these languages new words for 'green' (e.g., OIr glas, Lat viridis, Proto-Gmc *grōni-) are attested. The Celtic is a derivative of the root 'yellow', also found in Greek χλαρός, Baltic (Lit žalias, Ltv zals) and Slavic (OCs zelenǔ, Rus zelenỳ). In Hit hahlawan-, a root for 'grow', has given a term for 'green' as it did in Germanic. It has been suggested that Homeric Greek lacked a word for GREEN and possessed only a Stage II/III system (i.e., μέλας [black], λευκός [white], and ἐρυθρός [red], χλαρός is regarded as a term for desaturated greens and yellows (= GROW). The number of innovations for GREEN found in other languages also warns against full acceptance of a PIE GREEN.

The third root, *Ker-*, found from the Baltic to the Aegean and into India, was often confused with 'gray' and thus probably referred to a less intense or lighter, grayish blue or green that is to be assumed for PIE. The same color may have been designates in Germanic by Proto-Gmc *grōwa 'gray' perhaps cognate with Lat rūvus (if irregularly from *ghr(e)h₁-⁻⁻⁻⁻⁻> tawny'. If PIE GREEN is encoded in the above series of words whose attested meanings range from 'blue' and 'gray' to 'brown' and 'black', one can then posit a Stage IV system for PIE; without a PIE word for the primary color GREEN, we must presume a Stage III system.

The Slavic, Germanic, and Hittite words for 'blue' probably reflect *modheros* 'madder' a plant employed in the manufacture of blue dye. *bhīh₁i₂os*, the source of Proto-Gmc *bhīhwa- 'blue', is cognate with Lat flavus (< *bhīh₁i₂os) *yellow*.

See also COLOR, YELLOW. [M.E.H.]

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**Further Reading**


**GREENS** see VEGETABLES

**GRIEVE**

*reudha₄- 'mourn, lament' (pres. *reudha₄ti*). [IEW 867 (*reudha₄-*)]; Wat 54 (*preu-*)]. Lat rudō 'roar, bellow, bray', ON rauda 'roar' (borrowed > NE rout, root), OE réotan 'moan', OHG rıoza 'weep, cry', Lith raumi 'mourn, lament', Latv raudāt 'mourn, lament', Slav rydati 'weep, cry; sob', Av raod- 'lament, moan', Olnd ritti 'weeps, roars'. Cf. the widespread derivative *reudha₄os*: OHG rōz 'cry', Lith raudā 'cry', Olnd rūda- 'cry'. Widespread and old in IE.
grind, bruise, pound', 'am afraid'). Grk lLVA17 1tvv8a~-dh- > PIE status depends largely on the validity of 'grind', OCS agIo· [lEW agha- (pI.) 'planks at the bottom of a play table' (if dissimilated from *m6lh2ti). *ghrendheti). 'cry', 'weep, lament, moan'. [Buck 16.39; BK 279 'tribulation', 'fine, minute *Xpov8p6~) 'grind down'. *tJhx-) 'mill', Arm 1rv8IJr,v 'fiat' is likewise AGRICULUfE; QUERN; THRESH. -v8- 'am vexed, -I£pa1CVr/8va derivative *tJhx-o-) 'floor (of planks)?' A,EVraA,eO~ 'bottom' axo~ (gen.) 'grind', ON avrp6~ *IQ.Q.A. proves Macedonian origin for jJille aA,Eill 'crushes', IacM -1rErpa « Latin [IEW716-718 lugeo 'evil'. Cf. the widespread *hal-/*hJ1-)]. meJo'meal', 'lament, cry', Olnd FEAR; PAIN. *(s)celhx- axvVIJal 'plank, wall of planks', OE cannot be from Lat 'pain', OE (*meb-); Av 'bottom, depth, root', 'grieve' *haeghlol,Jo-) 3I)U- alad about', Av un-agands 'afraid', aglus 'harm', 'wound', MWe1s Grk *haeghlos: derivative *hak'-/*hJk'-). Nlr lament, groan', Arm *leug- 'grieve, be pained'. [cf. the widespread derivative *hseghlos: *a affiction in Mir alad (< *hseghloto-) 'wound', MWels aeeleu (< *hseghlouo-) 'pain', OE eg(e)le 'disagreeable, offensive', eglan 'grieve' (> NE all), Goth agis 'disgraceful', aglo 'tribulation', agljan 'harm', aglus 'difficulty', and the derivative *hseghes- in OE ege 'tear', egesa 'fear', OHG agiso ~ egiso 'terror', egisôn 'terrify', Goth agis 'fear, anxiety, terror', Grk *eoxo 'mental affliction or pain. Widespread and old in IE.

*leug- 'grieve, be pained'. [cf. IEV686 (*leug-)]. Lat liquœo (< *loungeo-o-) 'mourn, lament', Grk λευχαλέος 'sad, horrible', λυγρός 'baneful, mournful', TochB lakle 'pain, suffering'. A word of the center and east of the IE world.

*ţxem- 'weep, lament, moan'. [Buck 16.39; BK 279 (*k'am-/*k'm-)]. Nlr geamh 'prattle', Lat gedom 'sigh, moan, lament, groan', Arm cmirim 'grieve'. If all these words belong together, then we have evidence for a word at least of the west and center of the IE world. See also CALL; FEAR; PAIN. [D.Q.A.]

GRIND
*melh2- 'grind' (pres. *moltexei). [IEW 716-718 (*mel-); Wat 40-41 (*mel-); GI 598 (*mel-); Buck 5.56; BK 518 (*mul/*mol-)]. OIr melid 'grinds', Wels malu 'grind', Lat molö 'grind', ON mala 'grind', OHG malan 'grind', Goth malan 'grind', OPrus malunis 'mill', Lith malu 'grind', OCS meljo 'grind', Rus molot 'grind', Grk μολύς 'mill', Arm melam 'crush', Hit mal(a)- 'grind', Hit mrtt 'crushes', TochA malyw-crush, squeeze, lay waste', TochB mely- 'crush, squeeze, lay waste', mel- 'crush, repress'. An enlargement of this verb is TochB mlukt- (< *ml(h2)-eu-T-sk8-o-) 'grind'. Cf. the widespread derivatives meaning 'meat' or 'meatish': MWels blawt 'meat', ON mjööl 'meat', OE melu 'meat' (> NE meat), OHG melo 'meat', OPrus meltaan 'meat', Lith (pl.) miltai 'meat', Latv (pl.) milti 'meat', Rus melivo 'nourishment', Alb mjeil 'meat'. The Latin derivative immolare 'sprinkle with sacrificial meat' retains the religious associations bound up with agricultural fertility. The agreement of Hittite and the various European stocks (as well as, in part, Tocharian B) on the agricultural meaning 'grind' virtually assures us that that meaning is PIE in date.

*ghrendh- 'grind' (pres. *ghrendhethi). [IEW 459 (*ghrendh-); Wat 23 (*ghrendh-); Buck 5.56; BK 351 (*Gar/*Gar-)]. Lat frecido 'grub the teeth', ON grotti 'mill', OE grindan 'grind' (> NE grind), Lith grindu 'scraper, scratch (off)'. Grk ÷νόδος (if dissimilated from *χρονδος) 'grain'. A younger word than the previous one, found in the west and center of the IE world.

*hel- 'grind down'. [IEW 28-29 (*al-); Wat 2 (*al-); GI 598; BK 404 (*hal/*hol-)]. Grk άλέω 'grind, bruise, pound', Arm alam 'grind', OInd aţu- 'fine, minute (< *ground fine), Panicum milaceum' (OInd < *alntu-). A word of the southeast of the IE world.

See also Agriculture; Quern; Thresh. [D.Q.A.]

GROUND
*bhudhno- 'bottom' > 'ground, depth, foot, root'. [IEW 174 (*bhudh- mie); Wat 10 (*bhudh-); Buck 12 34]. MIR bonn 'sole of foot', Lat fundus 'bottom, piece of land', ON botn 'bottom', OE botn 'bottom' (> NE bottom), OHG bodam 'bottom', Grk παυμην 'bottom, depth, root', παυδαδό 'bottom, depth', Av buna- (< *bundna-) 'bottom, ground, depth, OInd budhṇá- 'bottom, foot, root'. Arm bun is a loanword from Iran, as is Mari pundas, which points to *bund(na)-. Later Indian languages also have -nd(h)-, e.g., Prakrit bundha-. The relation between the two Greek forms must be first established as they clearly have the same base and exactly the same meaning. Grk -ṿ- cannot be from - *ndh-. (The argument that the place-name Πυδνα proves Macedonian origin for δ < *dh is incorrect as the name Ιεράπωνινδα - πετρα on Crete indicates that the word was not Macedonian but a pre-Greek word probably meaning 'rock'). The old explanation that -no- < -mno- seems both unnecessary and improbable as all languages would have reduced -mno- independently (as Greek still retains the original form). The development *-dhn- > *ndh(n)- is quite understandable. The Germanic alteration of dentals is due to Kluge's Law (Cn > pp, tt, kk), the Germanic m is secondary. The original meaning in PIE seems to be 'bottom', i.e., the (flat) base of a hollow object or space; the meaning 'ground', which is not found in Greek, is secondary. *telh-om - *tλh-om? 'floor (of planks)?' [IEW 1061 (*tel-); Wat 69 (*tel-); Buck 1.21]. OIr talam (gen. talaman) (< *telh-on-mon) 'earth, ground', Lat tellis (gen.) telliōris 'earth', medullium (< *-toll-i-) 'inland, middle', ON nel 'ground', πλι (plank, wall of planks), OE pel 'floor', πιλλε 'plank of a floor', OHG dilo 'plank', OPrus talus 'floor of room', Lith tiles (< *tλh-) (pl.) 'planks at the bottom of a ship', Latv tilandi 'planks at the bottom of a ship', ORus tlo (< *tλh-o-) 'bottom', Rus tlo 'bottom', OInd tala- 'surface, bottom'. The Germanic, Baltic and Slavic forms appear to belong together, PIE status depends largely on the validity of the Old Indic cognate. The relation between 'planks' and 'floor' remains uncertain as well as other possible cognates, e.g., OCS stelo 'spread out (bed, roof)', Grk τιλικα 'playing table' should be rejected since a lengthened grade is most improbable and the underlying meaning may derive from 'sieve'. Connection with the PIE root *(s)telh- 'flat' is likewise uncertain.

*dhgh(e)men - *dhghhemh(-ep) 'on(to) the ground'. [IEW 414 (*dhgedem-), BK 81 (*diqdh/-deqdh-)]. Lat humi (<
ON-ground', OPms (on the ground); Grk χοραί (on the ground); OInd jmaɪ 'on the ground'; kṣamas ‘on the ground’. Adverbs derived from *dhghem- 'earth' are much debated. The form in -en is supposed to be *bjen 'in'; the word for 'man', *dhghemön (Lat homo < hemo, etc.), is supposed to be derived from this adverb. The Latin form is a normal locative from humus, the Baltic is a normal adverb in -ai < -oi. Grk χοραί is now suggested to contain a locative suffix -eh2(2-1) from a Lindeman variant *dhghim-. OInd kṣama might be a similar formation.

The wide semantic field of *bhudhño- which ranges from 'ground' to 'wooden stand', etc., was pressed by W Porzig to suggest that the various meanings could be best explained by presuming an original IE environment that involved marshy land and settlement raised on timber supports, in short, the so-called Swiss “lake-dwellings”, actually lake-side dwellings, where houses were raised above the wet ground on wooden piles. Even Porzig saw that this was hardly evidence to erect a new homeland solution which archaeologically would be regarded as fantastic and linguistically without compelling evidence.

See also Earth; House [R.S.PB.]

Further Readings


GROUP see LINEAGE

GROVE

*némés- ‘(sacred) grove’. [IEW 764 (*nomos-)]. OIr neimded ‘sacred grove, sanctuary’, Lat nemus ‘wood with pasture land for cattle, sacred grove’, OSax nimidas ‘sacred grove’, Grk νεών ‘wooded pasture, glade’. In terms of our firm evidence on the religious symbolism of trees, we have to infer that the sacred groves in question consisted in large part of oak trees bearing, of course, acorns and hung with mistletoe. There are frequent references to sacred groves among the various stocks offering cognate terms. In addition to OIr neimded, we also have Celtic place-names with the element ‘grove’ from British Aquae Arnumetiae to the sacred oak grove of the Galatians of Asia Minor at Drunemeton, while Tacitus describes both the sacred groves of the defiant druids on Anglesey as well as the sacred grove of the Germanic Semnones who believed their sacred grove to be the birth-place of their tribe and home of their highest god. It is possible but inherently unlikely that the whole *némés-set is derived from the verbal root *nem- ‘to bow, to reverence’, as reflected in Av namah- ‘bow, reverence’, OInd namas- ‘bow, reverence’. The distribution of solid cognates clearly indicates a word of the west and center of the IE world.

See also Bend; Trees [PE]
GUMS

(*Krűer-); Buck 12.53; BK 205 (*ghi∫/*ghi∫-). Lat crěsćo 'grow', cre'o 'create', Cērēs 'goddess of the fruitful earth', OHG hirse 'millet', Lith še Chu 'feed', pātāras 'fodder, feed', Alb thîrre 'lentils', Grk κοπέντρις 'satisfy', kōpōs (< *kōr-u-) 'adolescent', Arm serem 'bring forth'. From *kr-e-h-k-we have TočB kârk- 'sprout', karâk 'branch' (TočA kârkê 'branch'), karâs 'forest'. The focus of this word's meaning seems to have been the growth of plants.

*meh₁(ó) 'grow' (pres. *moh₁(ó)el). [cf. IEW 704 (*mê-); Gl 597 (*mēH(î)-); BK 422 (*mā/*mā-)]. Hit mā- 'grow', maya(nt-) 'growing man', Olnd minvîte 'is conceived, grows (of the uterus in the womb); reveals strength', TočB māiwe (< *moh₁iwe-) 'young man, youth'. Though the verb is attested in only two stocks, the derived *meh₁(ó)- *moh₁(ó)- 'large' is considerably more widely known, thus confirming the PIE status of this word.

*uredh- 'grow, stand, take shape' (pres. *urōðhe). [IEW 1167 (*ürēdh-); Gl 205 (*wredh-); Buck 12.53]. Lat rādit 'bear', OCS rēdu 'nourishment', rōdā 'race, tribe', Rus rōdit 'produce, offspring', Grk ὀβδόκος 'upright, straight, true', Av vərādātī 'grows', Olnd vṛdhati 'grows, increases, becomes strong', vrāhdant- 'upright', TočAB wrāt- 'shape, form'. With a new full-grade, i.e., as if from *ürēdh-: Av vərədātī 'grows', Olnd vārdhati - vārdhate 'grows, increases, becomes strong'. An abstract noun *urōðhi (gen. *urōdhnos) 'standing, taking shape' is reflected, with considerable analogical remodeling, in OCS ranā (< *urōdhnos) and Grk ὀβδικος both 'time just before or at daybreak, dawn' (i.e., the time the sun takes shape). More distantly related are ON rosksi 'ripe, mature', Goth ga-wrisan 'bear fruit' (Gmc < *qreskʷ-), Alb rēt (? < *qrt-) 'grow, enlarge'. At least a word of the center and east of the PIE world.

See also GRAIN; LARGE; SWELL. [D.Q.A.]

GRUNT

*Nghру(n)d- 'gurnt'. [IEW 406 (*gru-); Wat 24 (*gru-); Buck 18.14]. Lat grunniō - grundiō 'gurnt', OE grunnian 'gurnt' (> NE grunt), OHG grünzian 'gurnt', Grk ἰπόκω 'gurnt'. Almost surely independent onomatopoetic formations in the stocks where they are attested.

See also ANIMAL. CRY. [D.Q.A.]

GUEST

*ghostis 'guest, stranger, enemy'. [IEW 453 (*ghosti-s); Wat 23 (*ghos-ti-); Gl 657 (*gōs-ti-); Buck 19.56; BK 237 (*gus/*gos-)]. Lat hostis 'stranger, enemy', hospès (< *hostiz-pot-s) 'foreigner, guest, host' (< *guest-master). ON gēstr 'guest' (borrowed > NE guest), OE giest 'stranger, guest', OHG gast 'stranger, guest', Goth gasts 'guest', OCS gosť 'guest', gospodî 'master'. Possibly also Luv kasti-, if it means 'guest'. An outsider in IE society could be considered both as a guest and as a potential foe and this ambiguity is reflected in the semantic development of this root which pertains at least to the IE northwest. The neutral meaning 'stranger' was sometimes preserved, e.g., in ancient Rome where the stranger enjoyed the same rights as a Roman citizen. According to Benveniste, the Lat hostis was not a 'stranger' in general but someone with whom some sort of reciprocal recognition, such as gift-exchange, was established. This also helps explain the incorporation of the concept of hospitality within the semantic range of this term. It has been suggested that initially IE social customs required one to be more hospitable to strangers but with the progressive change in customs and experiences, especially the shift from societies based on interpersonal relations to ones governed by relationships within states, this duty was no longer observed and the original meaning of *ghostis changed dialectically according to the prevailing attitude towards strangers. It is evident from its usage in Latin that this involved an increasingly hostile relationship.

See also EXCHANGE; FREEMAN; FRIEND. [E.C.P.]

Further Reading

GULL

The ancients did not discriminate well between different varieties of seabirds and what has come down to us as words for 'gull' were probably not tightly used. Greek has both kavacg from a root 'to shriek' and λάδος 'gull', another onomatopoetic root (*lā-; IEW 650 (*lā-)) which is also said to underlie ON ló 'sandpiper' and Arm oro 'quail'. Lat mergus was most any waterfowl, but ultimately became the word for 'gull' alone: Late Lat larus 'gull' is a Greek loan. Some of the other IE stocks drew from roots denoting other birds, e.g., OPrus kerko 'sea bird' (< *kVe-r-C-) and Arm oror 'gull' from *tsker-'eagle'. It is clear then that there are no grounds for reconstructing a PIE word for 'seagull'.

See also BIRDS. [J.A.C.G.]

GULLET

*gut' 'gullet, throat'. [IEW 394 (*gut-)]. Lat guttur 'gullet, throat, neck', Hit kuttar 'nap of neck'. Although poorly attested, the Anatolian cognate suggests a word of considerable antiquity.

*bhur- 'gullet'. [IEW 145 (*bhur-)]. Lat frūmen 'gullet', Grk φάρα (y)ς 'gullet', Arm erbuc 'breast'. Probably also belonging here is ON bárki 'neck' though there is no trace of *u- in this latter word. Both these words appear to be old in PIE, though *gut may be the older.

See also ANATOMY; MOUTH. [D.Q.A.]

GUMUGOU CULTURE see QAWRIGHUL CULTURE

GUMS see MOUTH
HAIL see ICE

HAIR

Head Hair (Human)

*Kripo- (Albanian, Indo-Iranian) *kripes- (Latin, Albanian) 'head and facial hair'. [Buck 4.14]. Lat crinis (< *kripsni-) 'headhair', Alb krip 'short headhair, facial hair', krife (< *kriptihe-) 'mane', Av srla- 'plume', OInd śprā (dual) (< *śripa) 'moustache and beard, bearded lips'. An old word, one that does not appear to be derived from any attested verbal root, that seems to have been largely replaced by newer formations and geographically and semantically marginalized.

Beard

*smēk-[r] 'chin, beard'. [IEW 968 (*smek-); GI 96 (*smekh-); Buck 4.142]. OE smēras(pl.) (< *smahria-) 'lips', Lith smakras ~ smakrā 'chin', Lat smakras 'chin', Alb mjekēr (with new vowel) 'chin, beard', Arm mawruk 'beard', Hit z(a)mankur 'beard', OInd smāśru- (< *śmaśru-) 'beard, (especially) moustache'. From *smēk- 'chin'. This is the oldest reconstructible word for 'beard'.

*bhardh-eha- 'beard'. [IEW 110 (*bhardhā); Wat 5 (*bhardha); GI 61 (*bhardhā); Buck 4.142; BK 4 (*bar-/ *bar-)]. Lat barba (< *fārba) 'beard', ON bard 'beard', OE beard 'beard' (> NE beard), OHG bart 'beard', OPrus bordus 'beard', Lith barzdā (with secondary -z-) 'beard', Latv bārda 'beard', OCS brada 'beard, chin', Rus boroda 'beard, chin'. Compare the derivative *bhardh-eha-tos 'bearded': Lat barbatus 'bearded', Lith barzdotās 'bearded', OCS bradatā 'bearded'. Related ultimately to words for 'bristle' or 'point' (cf. NE bristle or OInd bhṛṣṭi- 'spike, point'). *bhardh-eha- itself is clearly a western regionalism within late PIE.

Body Hair (Human)

*pou-m-s- 'human body-hair'. Lat pūbēs 'pubic hair', pūbēs 'one adult enough to bear arms' (< *'one characterized by adult body-hair'), pūbescō 'attain adulthood, come to maturity', Lith (dialect) paustis 'animal hair', Rus pukh 'down, fluff, fine hair', Alb push 'hair, down, fibre, fur', pushem 'begin to grow a beard, body hair', Grk πόγων (< *poutp-gon-) 'beard', Shughni pūm 'down, fluff', OInd pūmān (gen. pūmsis) 'man, male' (< *'one characterized by adult body-hair').

*pulōs (a single) hair (of the human body). [IEW 850 (*pu-lo-)]. Mfr ul (< *pulō) 'beard', Grk πυλόγες 'hairs of the body', Pashto pal 'fringe of hair', Kurdish pūr 'headhair', OInd pulakās (pl.) 'bristling hairs of the body', pulastin- 'wearing the hair straight or smooth'. See discussion in next entry.

*pilo-s (a single) hair (of the human body)', *piles- 'felt'. [IEW 830 (*pi-lo-); Wat 51 (*pilo-); Buck 4.14]. Lat pilus (a single hair) (of the human body), pilēus (< *pilo- (adj.) 'felt', OCS plūst' 'felt', Grk πίλος (< *pilos) 'felt'. Probably in origin *pilo- is but a variant, via sporadic unrounding of *-u- in a labial environment, of *pulo-. A derivative, *piles-, seems early to have been specialized as 'felt'. *pu-lo- itself is obviously related to *pou-m-. This group, which is almost pan-IE, is clearly the word for '(human) body hair'.

Mane

*k(e)hēisVr- 'mane'. [IEW 520 (*kais-)]. Lat caesariēs 'long' headhair', OInd kēsāra- 'hair, mane', Tochar A sisrī (< *sirī-) 'mane'. Probably the oldest reconstructible word for 'mane'.

*gheit(so)- 'hair, mane'. [IEW 410 (ghait-ā); Wat 20–21
Body Hair (Animal)

*jóku or *ješu (gen. *jéšus) 'body hair'. Arm ās 'wool', Olnd ýs 'pubic hair', TochAB yok 'body hair, wool'. If all these words belong here, this would seem to be the earliest reconstructible word for 'animal hair'.

*gōur (gen. *gónus) (animal) body hair'. [IEW]397 (*geu-ros), Buck 4.14. Mlr gaurí ' (gen. *gourcheh-) hair (of animals), bristles', ON karr (< *gou-Vro-) 'curl of hair', perhaps Goth kunna- 'fibre', Lith gauras 'down, tuft of hair', Latv gaur (pl.) 'pubic hair', Av gaona- 'body hair, color', Olnd guná- 'thread, string'. Possibly belonging here are Bulg guina 'fuscoat', gunja 'goathair cloak', Rus guna 'womant garment, old fuscoat', though they are usually taken as loanwords from some Altaic language. Perhaps from *je- 'beent, curl' and, though more widespread, likely to be younger than the undervived *jéku.

*reúm- 'horse-hair or 'fleece'. [IEW]868 (*reu-); cf. Wat 55 (*reu-); Buck 4.14; BK 601 (<raw-*/row>). Ol rón 'horse's mane', Mlr raimmeach (< *reumenako-) 'long hair', Wels rhawn (< *reu(m)no-) 'horse's mane', Rus runo (< *reu(m)no-) 'fleece', NPers róm 'pubic hair', Sarikoli reb 'body-hair, fur', Olnd röman- ~ lomán- 'body hair of men and animals' (Indo-Iran *rauman-). Also related: ON rogg- ~ rogrgr (< Proto-Gmc *rawwo-rawwae-) 'long hair'. From *reueh- 'pluck', thus *reúm- 'that which is plucked'. *reúm- is a banal formation and thus may have been independently created at either end of the IE world, particularly in the Baltic terms seem to be 'horse-hair' while the eastern words look to be 'fleece' (whence 'body hair').

Hair (General)

*yendh- ('a single) hair', *ueyondhso- 'facial hair'. [IEW] 1148 (*yendh-); Buck 4.14; BK 511 (*wun-d-/*won-d-). Mlr find (DIL finna) 'a single hair (of humans or animals), fleece, fur', lès (< *yendhso-) 'lip; beard, pubic hair', OHG wint-bráwa 'eye-lash', OPtrus waso (< *yondhehso-) 'first beard', OCS vosu 'beard, moustache', Grk tóvōs 'hair root, young beard, acne', Khot vatca- (< *ueyondhso + -ca) 'facial hair'. Certainly of PIE date.

*dhrigh- 'a coarse hair'. [IEW] 276 (<dhrigh-); Buck 4.14. Mlr gairb-driuch 'bristle, rough hair', Grk *thīe (< *dhrighso-) 'a single hair (pl. 'hair [mostly of head], [pigs] bristles, wool'), Khot dro 'hair', TochB trksim (pl.) 'awns'. Another old term in PIE, one largely replaced in the central PIE area by the following word.

*ferese- 'a rough hair, bristle'. [IEW] 583 (<feres-); Buck 4.14; BK 204 (<dhrigh-er>). ON hár 'hair', OE hær 'hair' (> NE hair), OHG hæra 'hair' (all < *Kerst-), OHG hursti (< *Kerst-) 'crest', Lith šeris 'bristle, animal hair', Lith (diaL) širys 'hair', Latv sari (pl.) 'bristles, horseshair, mane, hair', OCS srsőti (< *Kerst-) 'hair', Rus šerst' 'wool, animal hair'. The wide variety of ablaut and formation suggests a respectable antiquity but its geographical spread suggests a status of a northwest regionalism within PIE.

*dek- 'thread, hair'. [IEW] 191 (<dek-); Wat 11 (<dek-); Buck 4.14; BK 159 (<t*ak[hl-]/t*ak[hl-]). Mlr doal (< *dolko-) 'lock of hair', ON tagl 'horse tail', OE tæg(e)l 'tail' (> NE tail), OHG zagal 'tail', Goth tagl 'a single hair' (all from *dolko-), ON tág 'thread, fibre', MHG zahc (< *dek(e)h-ja-) 'wick', Khot dasa- 'thread', Olnd dasa- 'fringe', TochA sako (< *deḳeheh-) 'headhair'. Probably here should also be SC dlaka (< *deḳeheh-) 'headhair'.

Cut Hair

*koik- 'cut hair'. Lith kaišišu 'scrape, shave', kaiša 'scrapings', Alb qeth (< *koik-e/o-) 'cut hair, give a haircut, shear (sheep)', Olnd kēsa- (< *koik-o-) 'head hair'. Though not widely attested, the exact phonological and semantic correspondence suggests at least a late PIE technical term.

*verg- 'shave, shear'. [cf.IEW]1168. Arm gercum 'shave, cut hair', TochA wark- 'shear', TochB wark- 'shear'. The distribution of attestations suggests a possible word of the center and east of the IE world; possibly related to *verg- 'work'.

There is a large number of PIE words that we can reconstruct for the semantic field 'hair'. This relative abundance suggests that this semantic domain had a high degree of cultural importance for PIE speakers. Certainly there is evidence from several IE stocks that both headhair and pubic hair were important signs of adult womanhood. Likewise body hair, particularly the presence of pubic hair (and a beard), was the sign of a youth's having entered into a man's estate. Thus in Latin we have pūbēs (gen. pūbris) 'pubic hair', the adjectival pūbes (gen. pūberis) 'grown up, adult', and another noun pūbes (gen. pūberis) 'grown up males, youth able to bear arms, young men'. The Old Indic cognate, pūman, has become simply 'man'. In addition, the relatively large number of terms apparently referring to animal hair (and 'mane') suggests the economic importance of animal hair, particularly horsehair.

Within IE creation myths, 'hair' is generally homologous with plant life, trees or grass. This association is extended to ritual behavior, including the proper disposal of shorn hair. For example, in the Old Indic Cādākārmān (Sanākhaya Gāyana Sūtra I.28) the ritual of the first tonsure involves both the placement of plant material, here the shoot of the kusa plant, in the child's hair and the deposition of the shorn hair
itself in a mound of bull dung mixed with the same grass. In the Avesta (Videvdar 17.1-6) shorn hair must be disposed of ritually in a pit in the ground where it will be enjoined to assist in the growing of plants rather than be casually dropped to the ground where it may yield demons. The Roman Flamen Dialis (Gellius’ Attic Nights 10.15) has his shorn hair placed in the ground under a fruitful tree while the Vestal Virgins (Pliny’s Natural History 16.235) “feed” a sacred (live hundred years old) lotus with their own hair.

Hair and Epic Literature

Epical and anthropological-historical evidence can maintain the parallelism of hair-growth to healthy vegetation, but also introduces animal images and parallels, especially the horse’s mane (Greek and Celtic warrior examples) and some wild animal hair. The long-haired image is especially marked in IE warrior contexts from the Iliad onwards, taking in Indic, Germanic, and Celtic warrior societies, and we should also note the correspondence between these long-haired warriors and the long-haired nobility whose hair-style is noted (and sometimes criticized) through the medieval period and later. In fact, a case could be made that within the Dumezilian scheme, an IE Second (Warrior) Function, marked by its long hair, often finds itself placed between two short-haired or cropped functions: the cropped or tonsured First (Religious) Function of the druid, brahman or priest and the short-haired Third (Fertility) Function figure of the farmer or herdman. However, Second Function long hair is expected to be controlled or kempt, while there is evidence that uncontrolled, as well as over-elaborate or over-styled long hair, was thought to mark a glissade toward Third Function degeneracy or effeminacy in a warrior (see Euphorbos in Iliad 17.51-52; Starkaår’s remarks in Saxo’s Gesta Danorum 6.28). The Germanic data, taken from Roman sources, tells us that war-chiefs (Suebian, Alamannic and probably others) styled their long hair into horns, crests and “roaches” to appear taller and perhaps even more monstrous in physical appearance (Tacitus Germania 38; Silius Italicus Punica 5.134; Ammianus Marcellinus 16.12.24).

Long hair rather than the beard of the mature warrior seems to be a more significant marker for an IE warrior-hero: a significant number of these heroes are “beardless” (the Irish Cú Chulainn and Conall Cernach, the Byzantine Digenes Akritas). The typical IE Second Function hero, in fact, can show marked adolescent characteristics, including long hair and an immature, even virginal, sexuality. The beard would be predicted for a First Function sovereign but this is by no means always the case. A graying or balding head would be anomalous in a hero, however fitting for a sovereign figure, because the hero expects to die young, and gloriously, in battle. Graying or missing hair then would mark an eccentric or effeminate; a graying or balding head would be a more significant marker for an IE warrior-hero: a sign of a graying or balding head would be a more significant marker for an IE warrior-hero: a sign of a graying or balding head rather than the beard of the mature warrior seems to be a more significant marker for an IE warrior-hero: a significant number of these heroes are “beardless” (the Irish Cú Chulainn and Conall Cernach, the Byzantine Digenes Akritas). The typical IE Second Function hero, in fact, can show marked adolescent characteristics, including long hair and an immature, even virginal, sexuality. The beard would be predicted for a First Function sovereign but this is by no means always the case. A graying or balding head would be anomalous in a hero, however fitting for a sovereign figure, because the hero expects to die young, and gloriously, in battle. Graying or missing hair then would mark an eccentric or Tricksterish IE warrior-figure or an Old Hero or one who, like the Irish Finn mac Cumail, has some First Function druïdic powers. Cutting the warrior-hero’s hair is disgracing and unmanning since it indirectly attacks the masculine essence (Lat caput), though Tacitus says that the Germanic Chatti allowed the cutting of hair and beard when a young male had killed his first enemy (Germania 31).

Hair color follows no perceptible IE code, at least in the epic canon; typical heroes tend to be blond (ancient and Byzantine Greek, Irish and Germanic evidence, e.g., the ‘blaxen hair’ of Jarl, the warrior-noble of the Rigspula (str. 35)) while red, the canonical IE Second Function color, commonly seems to be given a supernatural association. The hero Cú Chulainn, however, is at one point identified with hair tricolored in perfect consonance with the IE formula: dark-rooted, red in the shaft, golden at the ends (Táin 2268ff.).

See also Age Set; Anatomy; Chin; Cosmogony; Medicine; Wool. [D.Q.A., D.A.M.]

Further Readings


HALF

*sēmis ‘half’. JIEW 905–906 (*sēmi-); Grk 741 (*sēm-i-); Wat 57 (*sēmi-); Buck 13.24; BK 184 (*sam-/sam-). 198 (*sēh-/*seh-). Lat sémi- ‘half’, OGH sāmi- ‘half’, Grk ἱμ- ‘half’, OInd sāmi- ‘half’. Sometimes taken as a lengthened-grade derivative of *sēm- ‘one’, i.e., ‘that which forms the whole or the like. Others take it to reflect a derivative of *seh- ‘separate, divide’ seen otherwise in Lat sē(d) ‘without; apart (usually taken as a derivative of *sae- ‘own’), Av āhätt- ‘division’, Latī sēta ‘hedge, section, division’. Finally, at times it is left without any connection to other IE words.

*spteros one or the other of two. Wels hanner ‘half’, Bret hanter ‘half’, Grk (Attic) ἕτερος ‘one or the other of two’ (by assimilation < ἑτερος, preserved in other Greek dialects). The distribution would seem to guarantee at least late PIE status for this word.

See also Broad; Heap; Middle; Number. [D.Q.A.]

HALLSTATT CULTURE

The early Iron Age culture of much of temperate Europe during the period c 800–500 BC was the Hallstatt culture. Chronologically, it is confined to the final two phases of the Hallstatt period, i.e., periods C and D, the previous phases assigned to the late Bronze Age Urnfield culture. The culture marks the transition from primarily bronze-using societies to the increasing adoption of iron weapons and tools. Both open settlements, villages and farms, and defended hillforts, especially in the east or in the Hallstatt D period, are known and there were growing trade relations with the Mediterranean, first directly across the Alps and then via the early Greek colonies in Italy and France. External trade
probably helped stimulate social stratification and rich burials; warriors accompanied with weapons and ornaments, females with the latter, are well known. Among these, large tumulus burials often accompanied by the remains of wheeled vehicles are especially spectacular. There is some evidence that the eastern Hallstatt in Hungary and Poland may have experienced incursions from (?Iranian speaking) nomads from the steppe region. Over much of its territory the Hallstatt culture is replaced by the Iron Age La Tène culture.

In relation to the Indo-Europeans, the Hallstatt culture, at least in the west, is usually seen as ancestral to the Celts and many would describe it linguistically as Proto-Celtic. But Hallstatt is also known in east central Europe in territories which might be more easily assigned to presumably non-Celtic speakers. Moreover, the absence of Hallstatt remains in Iberia and their extreme paucity in Ireland have made it difficult to associate the Hallstatt culture with the spread of the Celtic language throughout these peripheral parts of Atlantic Europe.

See also Celtic Languages; La Tène Culture; Urnfield Culture. [J.P.M.]

Further Reading
'hand', Hit mānīyah- 'hand over'. Its exact shape is difficult to reconstruct (what is given here seems to be the most likely possibility). Though less well attested, it is clear that we have a word of PIE date. How it may have differed in meaning from *ghes-r- is unclear. Gl have suggested that the underlying meaning of *mēha₂r was 'hand, power, put into someone's possession', e.g., Lat manus 'hand, power' and Hit mānīyah- 'hand over'. All of these words are immediately from *pals 'palm'. Grk κεφάλαιον 'palm'. Anatomical terms.

*polh₂m(ə) (gen. *plh₂mos) 'palm of the hand'. [IEW 806 (*pλ-μά); Wat 49 (*pl-µ-); Buck 4.33; BK 49 (*p<λ>lαl-/p<λ>lαl-)]. Of lām 'hand', Wels llaw 'hand', Lat palma 'palm', palam 'openly', OE folm 'palm, hand', OHG folma 'hand'. Grk κεφάλαιον 'palm'. All of these words are immediately from the derivative *plhum-eh₂r, but the archaic underlying morphology speaks of great antiquity within IE. Presumably ultimately a derivative of *pelh₂- 'flat'.

*dēm(n) 'palm (of the hand)'. [IEW 249 (*dhεn-); Wat 13 (*dhεn-)]. OHG tenar 'palm', Grk θεωρ 'palm, sole of the foot'. Though not widely distributed, it looks by its shape to be an old word.

*pōlik(o)s 'finger, thumb' (*pōlikos 'pertaining to a finger'). [IEW 840–841 (*polo-); Wat 52 (*pol-); Buck 4.34(2); BK 56 (*p<λ>lαl-/p<λ>lαl-)]. Lat pollex (with secondary doubling of the -l-) 'thumb', RussCS palit 'thumb', Rus pālec 'finger, toe' (*pōliko-), šesti-palij 'six-fingered', bez-palij 'without fingers'; cf. also ON felma – felma 'grope about', OE fēlan 'touch, feel, perceive' (> NE feel), OHG fülmen 'feel' (Gmc < *polī<λ>o-), Bulg palam 'seek', NPrs pālida 'seek', and possibly more distantly Lat palpo 'feel'. Though only found in Slavic and Latin, the similarity in form and identity of meaning strongly suggests at least late PIE status for this word. Certainly no other word for 'finger' looks to be reconstructible for PIE.

*musti- 'fist'. [cf. IEW 745 (*meuk-)]. Av muṣti- 'fist', Olnd muṣti- 'fist', TochB māsc (cf. *mustiś) 'fist'. Possibly an "easternism" in late PIE.

*pokhr(ə) / *pokhr(β) 'fist'. [IEW 839 (*pokhr); Wat 49 (*pokhr); GI 747 (*p<bf>h>lαl-/p<bf>lαl-)]. OE fōst 'fist' (> NE fist), OHG fōst 'fist', Lith kūmste (< *punkste) 'fist', OCS пёсти 'fist', Rus п'ющ 'metacarpus'. Probably a derivative of *pokhr(e) 'five'. Possibly a "westernism" in late PIE.

See also Anatomy; Arm. [D.Q.A.]

Further Readings

HAPPY

*hesidh₂r 'handle'. [IEW 48 (*ansā ~ *ansi-); Wat 3 (*ansi-)]. Lat ansa 'handle', MHG öse ~ ose 'ring, loop', OPPrus ansis 'pothook', Lith āsa 'pot handle', Latv āsa 'handle'. A related word is perhaps to be seen in ON æs (cf. *ansi-) 'edge, outer border'. Presumably a derivative of 'hold, contain'. At least a word of the northwest of the IE world.

The original referent of *hesidh₂r may have been something like a strap to account for the semantic range among the various IE stocks. Its application to ceramics could date from anytime after the beginning of the Neolithic, e.g., handled pots are well known from the middle Neolithic in Greece and Italy and by 3500–3000 BC there is an explosion of high strap-handled mugs across much of southeastern and central Europe.

See also King; Pot; Reins; Tool. [D.Q.A., J.P.M.]

HANG

*konk- 'hang'. [IEW 566 (*kenk-); 614 (*konk-); Wat 32 (*konk-); BK 203 (*τ'ληφ/λον/τ'/λήφ/λον/τ'λήφ/λον/τ')]. Lat cunctor 'delay', ON hanga 'hang', OE hōn 'hang' (> NE hang), OHG hāhan 'hang', Goth hahas 'you hang', Hit kank- 'hang'. Olnd sānkte 'doubts, fears', perhaps TochB sānk- 'a delay, hesitate'. This form is securely reconstructible; both Latin and Old Indic show a shift from immobility to a state of emotional uncertainty. If the Tocharian form belongs here we may have evidence for a Narten present, strong-grade *konk-, weak-grade *kēnk-.

*lēmb- ~ *remb- 'hang down'. Lat limbus 'hem, border', OE lēmpē (cf. *lempi-halt) 'lame, limping', Lith rembsut 'am slow, immobile', Olnd rambate 'hangs down'. This root may be related to the following. If so, the Old English and Lithuanian forms may exhibit the same connection between hanging and hesitation that is seen in the cognate set for *konk-.

*leb- 'hang down'. [IEW 655–657 (*leb-); Wat 61 (*slēb-)]. Lat labo 'fall, sink', OE slēpan 'sleep' (> NE sleep), OHG slēfan 'sleep', Goth slēpīp 'sleeps', Lith slūbti 'become weak', Grk ἀλβάζω 'lobe, earlobe'. A problematic set of possible cognates. Some doubt whether Greek belongs here while others would add the series of words for 'lip', e.g., Lat labia, OE lippa (> NE lip), to this set although it is safer to assume that they do not belong here. The Germanic and Lithuanian forms have also been grouped separately from the Latin on semantic grounds.

[HAPPY]

*teus- 'be happy'. Hit duski- (< *tus-ske/o- 'be happy', dusgaratar 'joy', Olnd tūsytā 'is delighted with'. Though restricted in its attestations to Hit and Old Indic, the pattern of this distribution would seem to guarantee PIE status.

*gheu- 'revel'. [IEW 451 (*gheu-)]. On gý 'joy', glaunr 'noisy revels', OE gleo 'joy' (> NE glees), gleam 'revels, joy'. Lith glaudotis 'joke', Latv glaudātis 'joke', Rus glum 'joke'. Grk...
χλεύν 'joke'. At least a word of the west and center of the IE world.

gehddh- 'rejoice, swell with joy'. JEW 353 (*gau-); Wat 18 (*gau-). Mr ġiāre (< *gehdhuros) 'noble', Lat gaudē 'am happy, rejoice', gaudium 'joy'. Lith džiaugtiuš (metathesized < *gaužtiuš) 'be happy', Grk πάνυμαν (< *gha-

n-u-) 'rejoice', παύροις 'proud'. At least a word of the west and center of the IE world.

gehddh- 'rejoice'. Grk γηθεώ 'am happy, rejoice'. TochAB kātk- 'rejoice'. A variant with a more easterly distribution of the previous entry. Both derive by different enlargements from a more basic (and unattested) *gehəs-.

*mēud- 'be merry'. JEW 741–742 (*mēu-d-). Av mādānā-kara- 'lust-making', OlInd mōdate 'is cheerful', mōda- 'cheerfulness', TochB mutk- (< *mud-skē/o-) 'że strength, enliven'; cf. the widespread derivative *mudrōs: Lith mudrōs 'cheerful, lively', Latv mūdra 'cheerful, lively', OlInd mudra- 'merry, cheerful'. At least a word of the center and east of the IE world.

HARAPPAN CULTURE

One of the major centers of civilization of Eurasia, the Indus Valley or Harappan culture flourished c 2700–1900 BC along the Indus river and the coastal region to its south. The culture occupied an area of c 800,000 km² and settlement ranged from small villages to extensive towns. The largest of the urban sites, each averaging some 80–85 ha in size, were Harappa in the north, Mohenjo-daro on the middle Indus and the more recently discovered but unexcavated Ganweriwala in Bahawalpur. These major urban sites reveal citadels, large civic strong-holds. The invasion theory, at least as the cause of the collapse of the Indus towns was once credited to invasions of Indo-Aryans although this relied on a minimum of evidence—thirty-eight unburred corpses in the upper levels of Mohenjo-daro, some indicating violent deaths—and a liberal reading of the Rigveda which speaks of the sacking of strong-holds. The invasion theory, at least as the cause of the collapse of the civilization, is no longer given much credit and other factors, particularly environmental, are sought as more likely causes.

See also CEMETERY H CULTURE, INDO-IRANIAN LANGUAGES, PAINTED GREY WARE CULTURE, SWAT CULTURE.

Further Readings


HARE

*Kanos- *Kase- 'hare (Lepus europaeus)'. JEW 533 (*kas-); Wat 27 (*kas-); GL 440 (*R̃as- *R̃as-no-). Wels cėinach (< *kas- + -ako-) 'hare', ON heri 'hare', OE hara
**Harappan**

a. Distribution of the Harappan culture.

b. Indus Valley seal with seated figure.

c. Outline plan of Kalibangan with adjacent citadel.

d. The longest Indus Valley inscription.

e. House from Mohenjo-daro.
The hare (Lepus europaeus) is virtually ubiquitous in Eurasia (in India we have Lepus nigricollis) and occasionally found in quantities that suggest more than chance encounters, i.e., deliberate hunting or trapping of hares for meat or fur. The animal is wild and has never been domesticated although the ancient Romans did keep hares in their leporariones. This was far more easily done than the maintenance of rabbits as the hare, unlike the rabbit, lives above ground and does not burrow. The rabbit (Oryctolagus) was originally confined to Iberia and southern France and when the Phoenicians made its acquaintance in the twelfth century BC, they transferred to the new animal their own word for the closest animal to the rabbit in their own country, the 'hyrax', which also burrows. The name of the rabbit was extended to the coast of the land in which these small animals lived and hence Phoenician i-shephan-im was later latinized to Hispania. It was the Romans who carried the rabbit out of Spain and into the empire although its introduction into the British Isles is attributed to the Normans, hence OFrench (pl.) conin, and then ME cunin 'rabbit', MIr coinin, Wels cwningen. Lat cuniculus 'rabbit' is derived from an Iberian language; cf. Basque unchi. 

See also GRAY, MAMMALS. [D.Q.A., J.P.M.]

HARVEST

*bkerp-* 'pluck, harvest'. [IEW 944 (*s)kerp-]; Wat 30 (*kerp-); Gl 597 (*k*erph); Buck 8.41. MrIr corran 'sickle', cind 'mangles, maims' (if not from curr 'crooked'), Lat carpo 'pluck', ON harfr 'harrow', OE hærfest 'autumn' (> NE harvest), OHG herbst 'harvest', Lith kerpé 'cut, shear, clip (of hair or wool)', Latv cirpu 'shear', citpe 'sickle', OCS čtrpo 'ladle out', Grk kapnóς 'fruit' (< *what is plucked), krónov 'sickle', Olnd kfpánt 'dagger', kfpána- 'sword'. Widespread and old in IE. It apparently was a general word for 'harvest' (ultimately derived from *s(k)er-* 'cut') that had a tendency in some stocks to be specialized for the picking of fruit while in others for the reaping of grain.

*h2mehl-* 'mow'. [IEW 703 (*mé-); Wat 39 (*mé-); Gl 596 (*Ham*); Buck 8.32, 8.32; BK 516 (*mi-*me-)]. OE mawen 'mow' (> NE mow), mep 'mowing, mown hay'. OHG maein 'mow', mädd 'mowing', Grk áskos 'mow, cut', Hit valores- (< *h2mehl-š2h0-*) 'spring, ± early summer, i.e., ± April-July' (< *haying time*). The apparent agreement of Germanic and Anatolian in a word for 'mow' seems of some significance culturally, as it suggests that the Proto-Indo-Europeans cropped grass for winter hay. An enlargement of *h2em-* 'mow, reap', otherwise unattested, that also underlies the next two entries.

*h2met-* 'mow'. [IEW 703 (*m-e-t-); Wat 39 (*mé-); Gl 597 (*meH(i)-); Buck 8.32]. Olr meithel 'reaping party', meathiur 'reaper', Wels medi 'reaper', medel 'reaping party', Lat meto 'mow, harvest', OE meað 'meadow, pasture' (oblique case form NE meadow). An enlargement of *h2em-* 'mow, reap' found in the northwest of the IE world.

*h2merg-* 'gather, harvest'. [cf. IEW 738 (*merg-)]; Gl 486 (*merk-)]. Lat mergae (pl.) 'reaping boards (used in pairs for stripping the ears of standing grain)', merges (gen. mergitis) 'sheaf', Grk áképio gather, harvest, pull, pluck'. Though limited to only two stocks, this word would appear to be another enlargement of *h2em-* 'mow, reap'.

See also AGRICULTURE, GRIND, THRESH. [D.Q.A.]

HASANLU

This multi-period tell-site in Azerbaijan near Lake Urmia impinges on both the problem of Indo-Aryans in the territory of the Mitanni and in the possible iconographic representation of early IE mythology. The site is associated with West Iranian Grey Ware, a ceramic horizon dated to c 1500–1000 BC. With the appearance of this ceramic horizon, there is a major break in the cultural sequence which is often associated with early...
HATE


**HATE**

- **h~d-** 'hate'. [IEW 773 (*od-*); Wat 45 (*od-*)]; GL 113; Buck 16.41]. Lat *ādi* 'hate', *odium* (noun) 'hate', ON *atoll* 'atrocious', Grk ὀδύσσακται 'be angry at, hate', ὀδυσσεύς 'Odysseus' (< *Fearsome*), Arm *ateam* 'hate', Hit *hatużi* 'is terrible', *hatugnu-* 'terrify', *hatuki-* 'fearful'. Reasonably widespread, certainly old in IE.

- **J<e>hades-** '± concern; hate'. [IEW 517 (*kād-*)]; Wat 26 (*kād-*)]; GL 113; Buck 16.31]. Mlr *cais* 'hate', Wels *cawdd* 'offence', Osc *cadi-* 'enmity', ON *hatr* 'hate', OE *hete* 'hate, malice' (> NE *hate*), OHG *haz*hate', Goth *hats* 'hate, anger', Grk κῆδος 'care, concern; sorrow, mourning for the dead', Av *sād-ra* 'grief', perhaps Olnd *ri-sādas* 'caring for a stranger'. In "eastern" IE we find a more general meaning 'concern' while in "western" IE we find the negative concern, 'hate'.

- **halit-tu-** 'abhorrence', ON *leiok* 'disagreeable, loathsome', OE *lap* 'disagreeable, loathsome' (> NE *loath*), OHG *liei* 'disagreeable, loathsome', Grk ἀλείπτης 'sinner', ἀλοίπος 'sinner', ἀλιταίω 'trespass, sin', ἀλτρος 'evil'. A word of the west and center of the IE world.

- **peik/-** 'be hostile, hate'. [IEW 795 (*peiz-* *peik-*)]; Wat 47–48 (*peiz-* *peik-*)]; OE *fāh* 'hostile, outlawed, foe' (> NE *foe*), OHG *fēhida* 'hate, strife', *fehan* 'to hate', *gilē* 'hostile', OPrus *paikemmi* 'we deceive'. Lith *peiki* 'blame, rebuke, censure', *piktas* 'evil', Arm *hek* 'unfortunate, suffering', Olnd *pišuna* 'backbiting, wicked'.

See also Indo-Iranian Languages; Marlik; Three-headed Monster. [J.P.M.]

**Further Readings**


Hasanlu  Figures from the Hasanlu bowl. The scenes have been variously interpreted in terms of Indo-Iranian, Anatolian and Hurrian myth. Note the combat with the three-headed monster (common to both Indo-European and non-Indo-European traditions) on the lower right.

Indo-Aryan or Iranian movements south of the Caspian Sea. The site has yielded objects with artistic motifs which may be tied to those of either Iranian-speaking tribes of the steppe region, e.g., portrayals of individuals bearing mirrors, or to the mythological motifs found in Indo-Iranian religion. Most prominent of the finds is a golden bowl from a shrine at Hasanlu, dated to c 1500–1000 BC. Among the scenes depicted are one of a hero associated with a three-headed monster and in another scene with a bird of prey. G. N. Kurochkin has linked these scenes with Yašt 5 of the Avesta where the hero *Yrtauna* confronts the three-headed monster Aži Dahaka and then later assists Purvula to fly to heaven in the form of a bird of prey. The three-headed monster motif is also known from Indo-Aryan mythology (where Trita Apya slays Visvárūpta) and may also be found in other IE traditions. This richly ornamented vessel has been the subject of numerous other studies which have also sought links with Assyrian, Anatolian and Hurrian narrative and artistic motifs. If the motifs are broadly Indo-Iranian (or at least their narratives as new tales can be fitted to old pictures), given its location, the site is most likely to be regarded as a possible Indo-Aryan site associated with the Mitanni. Hasanlu was destroyed about 800 BC, presumably by the Urartians.

See also Indo-Iranian Languages; Marlik; Three-headed Monster. [J.P.M.]
Widespread and surely old in IE. Only Old Indic appears to reflect PIE *-k̂- rather than *-k- and this divergence may reflect some purely Indic development. Also here, reflecting PIE *peig-, are OE fican 'treachery, malice, deception', fico I 'sly' (> NE fickle), OHG feithan 'slyness, deception'.

See also Anger, Bad, Contend, Enemy, Grieve, Insult. [D.Q.A.]

HAUNCH

*klōnis is haunch, hip. [IEW 607-608 (*klou-ni-)]. Wels clůn 'haunch', Lat clūnis 'buttock, haunch (of animals)', ON hlaun 'buttocks, loin', Oppus slaunis 'thigh', Lith slaunis 'haunch, hip', Latv slauna 'haunch, lump', Grk κλόνις (with unexpected vowel) 'os sacrum', Av sraoni- 'buttock', OInd srōni- 'buttock, hip, loin'. A strong candidate for PIE status. *srenoeha- is haunch, hip. [IEW 1002 (*sreno-)]. Lith strėna (diaI. strėna) 'loin', Av rāna- 'thigh'. A Balto-Iranian isogloss that does not appear to have been widespread even in the east and must have had a very restricted role in the latest PIE.

See also Anatomy, Buttocks. [D.Q.A.]

HAVE see HOLD

HAWK see FALCON

HAWTHORN

*h2edin(b)- 'hawthorn'. Ofr *ad (gen. aude) 'z hauchorn, whitethorn', Hit hat(1)-alkinsas hawthorn/white-thorn branch. Although the distribution is limited to two stocks, their distance from one another and the fact that Hittite is included suggests PIE antiquity. In early Irish tradition, the whitethorn or hawthorn was employed in black magic, including the piercing of a clay image of one's enemy with its thorns. In Hittite religion, hawthorn was employed in a purification ritual, signalling that the plant may have played an important ritual role in PIE times.

The hawthorn (Craeagus) is relatively ubiquitous across Europe and southwest Asia and some varieties produced fruit which were clearly gathered from the Neolithic period onwards.

See also Sloetree, Trees. [J.P.M.]

Further Reading


HAZEL

*kos(V)los 'hazel (Corylus avellana)'. [IEW 616 (*kos(e)lo-); Wat 32 (*koselo-); GI 547 (*klos(e)lo-); Fried 73–77]. Ofr col 'hazel', OWels col 'hazel', Gaul Coslo- 'hazel', Lat corulis 'hazel', ON hasl 'hazel', OE hæsel('e) 'hazel' (> NE hazel), OHG hasal 'hazel', Lith kasulas 'hunter's spear, stick, bush'.

This word is supported by regular correspondences in three stocks: Celtic, Italic and Germanic, all meaning 'hazel', which attest a masculine o-stem. The dialectal, northwestern status is broken by Baltic where the meanings extend to 'spears' and other objects. It has been suggested that the 'hazel' word derives from a non-IE substrate term (< *ko-su-lo-?), cl. the proposed underlying substrate word for 'apple' *d-go-lo-). This is archaeologically plausible in that the remains of hazel nut shells on prehistoric sites and evidence for the possible maintenance of hazel tree growth through selective burning is widespread across northwest Europe during the Mesolithic period (c 8500–4000 BC). Hazelnut shoots, tough and pliable, have long been used for spears, spits, fishing poles and the like, and for wands to ward off lightning and to symbolize legal authority. The Old Irish tree-lists set hazel among the noble trees because of its use as rods. Aside from its withies, the hazel has also been long valued for its nuts, which are common on archaeological sites from the Mesolithic period onwards. The hazel (Corylus), after long coexistence, mainly as an understory, with pine and birch, spread sensationaly during the so-called 'hazel period' of the late Atlantic—which corresponds roughly to the late PIE and early dialectal IE period—and was virtually ubiquitous across prehistoric Eurasia.

See also Trees. [PF]

HEAD

*Krēh2 (gen. *krēh2os) 'head'; *Krēh2ar (collective) 'head'. [IEW 574–576 (*Ker-); Wat 29 (*ker); GI 712–713 (*K(e)h2(ə)rs-ən-); Buck 41.20, BK 200 (*tʃ[ʃ]-l/ir-/*tʃ[ʃ]-l/er). Grk (Ionic) κάρη (nom./acc.) 'head', ἐπικάρη (< *Krēh2) 'headlong', Av sara- (< *Krēh2-o-) 'head', OInd kāra (< *Kṛh2) 'head', Hit ku-tar (< *Krēh2) 'headlong'; Lat cerebrum (< *Krēh2ar-o-) 'brain', ON hjarsi (< *Kṛh2en-) 'crown of the head', OHG hirnu (< *Krēh2on-i-o-) 'brain', Alb kry(e) (pl.) krev (< *Kroh2on-o-) 'head', Grk κρατος (< *Krēh2on with -t- analogically added after the -n-) of the head', καραπά (< *Krēh2ar-eht-) 'head', κρατιόν (< *Krēh2on-i-o-) 'crown of the head', Hit harsar (gen. harsanas, nom./acc. pl. harsār) 'head' (< *harshar by assimilation < *karshar, the second -h- is lost in the cluster -rhs-), Av sarah- 'head', OInd širas- (gen. širasas) 'head' (the Indo-Iranian nom. is built on the oblique cases), TochB krənti (< *Krēh2on-i-o-) 'neck' (< *occiput'). This is an extremely etymologically entangled in many ways with words meaning 'horn', though there may be some evidence that 'head' is *krēh2 while 'horn' is *krēh2. In any case, these words for head are of great antiquity in IE.

*ghebhol 'head'. [IEW 423 (*ghebb-el-); Wat 21 (ghebb-el); GI 713 (*ghebb-); Buck 42.20, BK 219 (*gub-/*gob-)]. On gall 'gable, gable-side', OHG gibil 'gable', gebal 'skull, gable', Goth gibila 'gable', Grk κεφαλή 'head, top', Macedonian (Illyrian?) κεβα(λ)ή 'head', TochA spal 'head'. TochB spal-mem 'excellent'. More sparsely attested, but almost as widespread geographically as the previous entry; a good candidate for (late) PIE status.

*Kaput 'head'. [IEW 529–530 (*kap-ut); Wat 27 (*kaput);
Headband a. Copper diadem from Baden culture, Vors, Hungary; b. Headband from burial of Abashevo culture, Vilovatovo, Russia.

Further Readings

HEADBAND
*puk- 'headband'. [IEW 849 (*puk-)]. Grk āμυξ (c. *ana-puks) 'metal headband', Av pusā- 'diadem'. Though only attested in two IE stocks, it may be that we have reflexes of at least a late PIE word here. The Greek word refers specifically to a headband worn by women, e.g., one is worn by Andromache (Iliad 10.469).
*dēhīmp 'band'. [IEW 183 (*dē-mp)]. Wat 10 (*dē-). Grk διάονα 'diadem', OInd dāman- 'band'. From *dēh₁- 'bind'. A word of the IE southeast.

Although infrequent as an archaeological find, metal diadems do occur from as early as c 5000–4500 BC where golden diadems are recorded from the Copper Age cemetery at Varna, Bulgaria. Such finds do not appear to represent the beginning of a continuous development in Europe and it is generally about 3000 BC that we begin to find metal diadems over a broader area of Eurasia. A fine example derives from the burial of a male in the Baden culture cemetery at Vors in Hungary where a copper diadem some 67 cm long was wrapped about the skull. Gold diadems are particularly evident about 2500–2200 BC during the "Treasure Horizon" in Anatolia where they have been recovered from Alaca Hüyük and Troy II, the latter including the famous headdress bound by a golden band worn by Sophie, the wife of Heinrich Schliemann, the excavator of Troy.

See also CLOTHING [D.Q.A., J.P.M.]

HEAL
*pulC- 'headband'. [IEW 849 (*puC-)]. Grk αμυξ (c. *ana-puks) 'metal headband', Av pusā- 'diadem'. Though only attested in two IE stocks, it may be that we have reflexes of at least a late PIE word here. The Greek word refers specifically to a headband worn by women, e.g., one is worn by Andromache (Iliad 10.469).

*bubh₁eis- 'refresh (using a liquid), renew the strength of'. [IEW 299 (*eis-)]. Wat 16 (*isa-ro-). Grk ἱερό- 'manifesting divine power, holy; hallowed, consecrated'.

See also ANATOMY; HORN; POT. [D.Q.A.]
HEALTHY

*kolhlios 'healthy, whole'. [IEW 520 ("kai-lo-"); Wat 26 ("kai-lo-"); Gl 712 ("k\textsuperscript{h}ai-lo-"; Buck 4.83)]. Wels koel (< *kehli-o-*) (good) omen, ON heil 'healthy', OE hel 'hale', whole (> NE hale, whole), OHG hel 'healthy', Goth hails 'healthy', OPrus kails 'hail!', (acc.) ka\textsuperscript{d}l\textsuperscript{u}tisk\textsuperscript{n} 'health', OCS cel\textsuperscript{d}a 'healthy', Grk (Hesychius) κοιλιον 'good'. See following discussion.

*solwos 'whole'. [IEW979 ("sol-o-"; Wat 62-63 ("sol-")); Gl 711 ("sol-w-"; Buck 4.83); BK 162 ("sol-ae"-)]. Lat salus 'whole, well', Alb galle 'living, agile, deft', Grk ἀλὸς (< *holwos) 'whole', Aev aura- 'entire', OInd sýrva- 'all, whole', TochA salu 'complete' (cf. Arm o\textsuperscript{f} 'healthy, whole', TochB solme 'complete' with new suffixes). Together these two words cover the IE territory. Neither seems clearly older than the other. We find *solwos generally in the east and *kolhlios generally in the north and west. Only in Greek, if the Hesychian κολιον is really Greek, do we find both.

See also MEDICINE [D.Q.A.]

HEAP

*mēneuk\textsuperscript{k}on (gen. *mu\textsuperscript{h}neuk\textsuperscript{n}os) 'heap'. [IEW 752 (*m\textsuperscript{h}ik-); Wat 43 (*m\textsuperscript{h}ik-)]. ON mūg 'heap', OE muga 'heap', Grk (Hesychius) μύκον 'heap'. A possible word of the west and center of the IE world.

*(s)keup - 'bundle'. [IEW 956 (*skeup-); Wat 60 (*skeup-)]. On skauf 'sheaf', skēr 'tassel, bundle', OE sceaf 'sheaf' (> NE sheaf). OHG scoub 'bundle', Rus čup 'tuft, heap of hair, crest' (cf. also Slavic *kopa 'heap; batch of sixty' in numerals, e.g., Polab pol-t'upe 'thirty' (< *pol- 'half' + kopy 'sixty'). Perhaps a dialect word in late PIE.

See also ABUNDANT. [D.Q.A.]

HEAR

*Kleo - 'hear'. [IEW 605-606 (*kleu-); Wat 31 (*kleu-); Gl 33 (*kle\textsuperscript{u}e-); Buck 15.41; BK 260 (*kle\textsuperscript{u}e-)]. OIr coel 'hear', treatment', Wels iach 'wholesome, healthy', Grk ἀναξιος 'cure, treatment, medicine', ἄνωκατη 'treat'. It seems likely that these words belong together, though there are phonological difficulties (the *k- presupposed by Greek does not match the Celtic *-k- and the initial *t- of Old Irish is not well-explained). If so, then we have evidence for at least a late PIE word for 'curing'.

*bher- 'cure with spells and/or herbs' [cf. IEW 135 (*bher-)]. Lith būtī 'cast a spell, practice witchcraft, tell fortunes', Lat buit 'cast a spell, practice witchcraft, Alb bar 'grass, drug, medicine', Grk φάρμακα 'material, esp. an herb, bringing health or harm, drug, medicine'. It seems very likely that the Greek and Albanian words belong together, but whether the Baltic should be included is more dubious. There is at least the reasonable possibility that it should and that we have a PIE *bher- 'cure with spells and/or herbs'. Further related to *bher- 'bear' or *bher- 'strike, cut down? See also MEDICINE. [D.Q.A.]

HEART

*Kêrd (gen. *kêrdos) 'heart'. [IEW 579-580 (*kêrd-); Wat 30 (*kêrd-); Gl 701 (*kêrd-); Buck 4.44]. Lat cor 'heart', ON hjartar 'heart', OE herte 'heart' (> NE heart), OHG herza 'heart', Goth haiťtō 'heart', OPrus seyr 'heart', Lith širdis 'heart', Lith širdis 'heart', Latv sete 'marrow, heart', Latv širds 'heart', OCS srđce 'heart', Rus sérda 'heart', seređa 'middle', Grk κηρ 'heart', Arm srt 'heart', Hit ḳr 'heart'.
HierLuv zar-za 'heart', Av zurad- 'heart', Olnd hjör- 'heart' (Indo-Iranian < *ghyrd- with unexpected initial). Several groups show an old derivative *ğrđeh-: OIr cride 'heart', Wels craid (< *krendom) 'middle', Grk kapōdia 'heart, stomach', Olnd hjøyda- 'heart', TochA krti 'will', TochB kāryān (pl.) 'hearts'. Pan-IE in form and meaning.

The frozen expression to 'put' or 'place heart', i.e., *ğrđdheh- is strongly attested and indicates that in the period of PIE, the heart was regarded as the organ of belief or thought. See also Anatomy, Belief. [D.Q.A.]

Further Reading


HEARTH

*h2eh₁-seh₂-* 'hearth'. [IEW 68 (*-s); Wat 3–4 (*-s); Gl 605 (*Has-)]. Lat area 'hearth, fire-altar', Osc asaii 'on the altar' (the Osc -i- is difficult since we would expect -r- as in Latin rather than -s). Hit hāsasā 'fireplace, hearth', (cf. Osc asaia puriasat 'in the fiery hearth' and Hit hāsi pahhur 'fire in the hearth'), Olnd dā- 'ashes' (< *burnings). Cf. ON aska 'ash', OE asc 'ash' (> NE ash), OHG asca 'ash' (ON/OE/OHG < *h2bs-g-eh₂-), Goth aγασκ 'ash' (< h2bsg-eh₂-), Arm aćsiwn (< h2bs-g-i-) 'ash'. From *h₂eh₁- 'burn' (seen as a verb only in Palaic hā- 'be hot'). Cf. also OIr áith (< *h₂eh₂-3i-) 'kiln'. Distribution assures PIE status.

*h2eh₁-3hr-eh₂- 'hearth'. [IEW 69 (*at(e)r-); Wat 4 (*ater-)]. Lat atrium 'forecourt, principal room, room which contains the hearth' (< *chimney-way over a hearth), Alb vater 'hearth' (whence vatra 'hearth' in Slavic e.g., Czech vatra) and vatra 'fire' in Romanian. This is a derivative, limited to the west and center of the IE world, and not everywhere there, of *h₂eh₁-3hr- 'fire' (seen in Av atar- 'fire', and, further derived, in Lat ater 'black' (< *h₂eh₁-3hr-o- 'blackened by fire').

In Indo-European, the domestic hearth was often set at the center of the house and was the focal point of religious and social ceremonies. It was also an altar and therefore represented the expression of IE religious beliefs. These beliefs linked ancestor worship to the cult of the fire. The domestic hearth was the symbol of the basic social unit, the family. Through the rites and ceremonies around it the family hearth linked the members of a kin group both diachronically, through the cult of the ancestors, and collaterally. In the traditions of the Romans, Greeks and Indo-Aryans, a new, hearth could only be established with the beginning of a new household when fire was brought from the bride's family hearth and in ancient Greece a child was accepted formally into the family only after it had been carried ceremoniously around the fire. Among the ancient Germans, in Greece and India, at the death of the head of the household the fire was ceremonially extinguished. The significance of the hearth and the fire was also featured in Hittite tradition which related special instructions and rituals to keep the hearth fire.

As hearths were being built even before the emergence of anatomically modern humans, their presence in the archaeological record can hardly be attributed to any particular ethnolinguistic group. The discovery of hearths is one of the most frequent manifestations of human settlement and the range of the evidence is both archaeologically (and in terms of lexical formations) linguistically varied: simple fires (e.g., Arm hnt-oc 'fire-place'), fire-pits (e.g., Arm gehæn 'hearth' (< geh 'pit'), NPers gatu 'pit'), stone enclosures for the hearth (Olnd aŋghiha- 'fire-place' (< *fire-house')), plastered hearths. Those words for 'hearth' that can be reconstructed to PIE are far too vague to indicate the shape or appearance of a notional PIE hearth.

See also Burn, Fire, Fire Cult, Ground. [A.D.V., D.Q.A.]

Further Readings


HEAT

*g₃hernós 'warm (especially by fire, sun)'. [IEW 493–494 (g₃her-); Wat 25 (*g₃h-e-); Gl 589 (*g₃hér-); Buck 15.85; BK 314 (*g₃h-er-/*g₃h-ar-)]. Lat formus 'warm', ON varmr 'warm', OE wearm 'warm' (> NE warm), OHG warm 'warm', OFrus gorme 'heat', Lat gastrāme (slight) warmth, Thracian germo- 'warm', θέρμα (city characterized by hot springs), Alb jārm 'fire', Grk ἄθροις 'warm', Arm ārm 'warm', Av garama- 'hot', Olnd ɣarðma- 'heat, glow'. Clearly of PIE status. From *g₃h- 'heat'.

*g₃hrênsós 'warm'. [IEW 495 (*g₃hrē-n-3s-); Wat 25 (*g₃hér-); BK 314 (*g₃h-er-/*g₃h-ar-)]. OIr grets 'heat, fire', Wels gwres 'heat (of the sun, fire)', Olnd ghræm- 'heat of the sun'. From *g₃h- 'heat' with relatively rare suffix suggesting IE antiquity.

*tet- 'hot'. [IEW 1069–1070 (*tep-); Wat 70 (*tep-); Gl 589 (*tep-); Buck 15.85; BK 92 (*tep/-/tep-)]. Lat tepo 'be lukewarm', OE æfelian 'to pant, gasp', Rus topit 'to heat', Alb ftoh (o-grade causative < *heps-topp-eh₁-skẽo-0-) 'make cold', Av āpāti 'be warm', Olnd āpāti 'to warm, burn', cf. OIr te- - tē 'hot', Wels tān 'hot'. Also several suffixed forms such as *tep-(V)-: OIr tess 'heat', warmth, Wels tes 'heat', Lat tepor 'warmth', Umb tetr- (< *tep-ro-) 'burnt sacrifice', perhaps Hit tapissa- 'fever, heat', Luv tapassa- 'fever, heat' (which some treat as an Indo-Aryan loanword although it may also be from Proto-Anat *tapessa- < putative PIE
**HEAT**

*topes-o-* with new o-grade and thematic suffix, with metathesis of gemination, i.e., *-pp...s- > -*p...ss-*, Olnd tápas- 'heat', tápus- 'heat, glow', tapnú- 'burning, glowing'. The case for a PIE root *tep- is extremely strong.

*uel- 'warm, heat'. [IEW 1140 (*uél-); BK 495 (*wal-/*wal-)]. ON vella 'bubble, boil', ylr 'warmth', ylja 'to warm', OE weallan 'boil, be hot', wylm 'boiling, surging, raging', OHG walm 'boiling, fervor', wale 'heat', Goth wulan 'be aglow with, seethe', Lith vidieti 'make lukewarm', Alb vale 'heat, boiling', vloj 'boil, ferment, seethe', Arm gol 'heat', golanam 'warm oneself'. At least a word of the west and center of the IE world.

*khez-) 'hot'. [IEW 519 (*kái-); Buck 15:85]. On heitr 'hot', OE hát 'hot, burning, glowing' (> NE hot), OHG heiz 'hot', Goth heito 'liver', Lith kači 'to heat, to become hot, Latv kaitē 'to burn, to singe, heat'. The Germanic forms are based on a *-d- extension while the Baltic forms are based on *-r-. Even aside from this minor formal difference, distribution points at best to a northwestern dialectal term.

See also BURN, DRY. [J. C. S.]

**HEAVY**

*gwrēhh-u- ~ *gwrērr-u- 'heavy'. [IEW 476 (*gwrē-); Wat 25 (*gwrē-); GI 685 (*kwrēr-); BK 339 (*kwrēr-/*kwrē-)]. Mle bair 'heavy', Wels bryw (< *gwrē-) 'vivace, vigorous, strong', Lat gravis (< *gwrēr- or *graus) 'heavy', Goth *kaurjos (only by assuming loss of labialization, otherwise unlikely) 'weighty, oppressive', Lat grātus 'heavy', Grk βαρος 'heavy', Olnd gürru- 'heavy'. Cf. TochB krāmar 'weight, heaviness', whence TochB krāmarts 'heavy' and related TochA krāmarts 'heavy', which must reflect a putative PIE *gwrē-ohr- mr-. Av guurū- 'heavy' has often been suggested here, but can be found only in one compound where the reading 'heavy' for this element is unclear. Alb zor 'heaviness, trouble' has also been placed here. In spite of the weakness of several links, close correspondences from several stocks makes IE status likely.

*tenγh- 'be heavy, difficult'. [cf. IEW 1067]. ON punγr 'heavy, difficult, unfriendly', Lith tingtis 'idle, lazy, sluggish', tingu ~ tingu 'be slow, idle', OCS o-teštah 'become heavy, loaded', toga 'anxiety, trouble', Rus тяжки 'heavy, pressing', туга 'suffering', TochB tank'- hinder, obstruct'. Old in IE.

See also LIGHT². [J. C. S., D. Q. A.]

Further Reading


**HEDGEHOG**

*hēγhīs 'hedgehog (Etracnasus europaeus [+ Hemечinus auritus]).' [IEW 292 (*hēghī-); GI 444 (*ēghī-)]. On igull 'hedgehog', OE igel 'hedgehog', OHG igel 'hedgehog', Lith ežių 'hedgehog', Latv eziņ 'hedgehog', OCS jēzt 'hedgehog', Rus ež 'hedgehog', Grk ἴχνος 'hedgehog', Phrygian eγίς 'hedgehog', Arm ozn 'hedgehog, Oss wyżyn ~ uzun 'hedgehog'. Widespread and obviously old in IE. Traditionally this word is explained as a derivative of *hēγhīs 'snake', the semantic connection being that the hedgehog is a 'snake-eater'. Alternatively, we may have two largely homophonous and unrelated, though secondarily associated, words.

*ghehr hedgehog (Etracnasus europaeus [+ Hemечinus auritus?!)]. [IEW 445 (*ghehr-s), Wat 22 (*ghehrs-)]. Lat etr (< *hēr) 'hedgehog', Grk (Hemечinus) xīp 'hedgehog'. Apparently a regional word for 'hedgehog' in IE. A root-noun from *gher- 'pointed object, point'. It is at least possible that *hēγhīs and ghehr referred to the two different species of hedgehog but, if so, the exact semantic distribution is impossible to recover. The association of the word for hedgehog with a pointed object is a transparent reference to the animal's spines and there is a considerably body of folklore concerning the ability of the hedgehog to carry apples on its spines.

With the exception of the far north, the European hedgehog is distributed across Europe and most of Asia but only as far south as north-west Kazakhstan. The long-eared hedgehog (Hemечinus auritus) is known from the rivers Don and Volga southeast across Iran (where it has been recovered from Neolithic contexts), Afghanistan and well into India. The European hedgehog is present on Mesolithic and Neolithic sites across Europe but never in numbers that would suggest anything other than chance encounter and there is no evidence that it was eaten as it later was during the Middle Ages, e.g., the Normans appear to have introduced it into Ireland and it is already presumed domesticated by the time of Aristotle in the fourth century BC. Among naturalists (presumably ignorant of the suggestions concerning its deep etymology), the hedgehog has long had a reputation as a snake-killer whose spines protect it from fangs and it is also known that it is unusually impervious to snake poison (the macroglobulins in its blood help prevent haemorrhaging from adder venom). Interest in the association between snakes and hedgehogs has even produced a number of experiments where hapless snakes have been placed in boxes with a hedgehog. In some instances the animals have ignored one another while in others the hedgehog has efficiently killed the snake by systematically biting it along its spine, and in one case, devouring the snake, although its normal diet is earthworms and insects. Records of hedgehogs killing adders also exist where this ordinarily sluggish mammal has successfully defeated an adder very much in the manner of a mongoose, i.e., by bobbing and weaving and tiring the snake before it strikes. While this need not secure the etymological association between the name of the hedgehog and that of the snake, it does rest on something stronger than fanciful folklore.

Killing of the hedgehog was proscribed in the Avesta (in the Vidēvdat 13.2–4, it is known as Varahpata or, to the evil-speaking people, Duzaka, and is described as a 'shy, pointed-nosed dog') and for practical reasons, the use of its spines in preparing cloth, the Romans also attempted to curtail its slaughter.

GI have suggested that the original referent of *hēγhīs
was the mongoose (Herpestes ichneumon) which inhabited North Africa, Anatolia and Spain while the Indian mongoose (Herpestes edwardsii) occupies the subcontinent. While this animal was most certainly a 'snake-killer', it was primarily known only in ancient Egypt until the classical period when it was to be found in Greek naturalists' works and Rome where it became fashionable for ladies to keep mongooses. The Romans may have introduced it deliberately into Iberia to reduce the population of rabbits and it has been observed that there is a deficiency of small carnivores (e.g., the stoat and beech marten) generally in the Mediterranean. It is most unlikely that *h1eghis originally meant the 'mongoose' as the animal is conspicuous by its absence on European prehistoric sites (which do offer evidence for similarly sized animals such as martens, weasels, and hedgehogs), the meaning 'mongoose' is not attested in any of the IE stocks, its natural distribution is discordant with the general range of European cognates (Germanic, Baltic, Slavic, Greek), and the hedgehog satisfies any etymological demands required if one derives the animal's name from that of the snake.

See also MAMMALS, SNAKE, STIFF. [D.Q.A., J.P.M.]

HEEL


*šph₁h₁om ‘heel’. [IEW 992–993 (*sp(h)er-): Wat 64 (*sper-)]. On spor ‘footprint’, OE spor ‘footprint’ (< NE spoor), OHG spor ‘footprint’ (< *šph₁h₁om), OE spure ‘heel’, spora – spura ‘spur’ (< NE spur), OHG sporo ‘spur’ (< *šph₁₁-o-on), spūri-haž ‘lame’, Grk σπηρόν (< *šph₁₁om though both the aspirate -ph- and the vowel -u- are unexpected) ‘ankle(bone)’, TochB πράτε (dual) ± flanks (< *šph₁₁-o-on, the meaning < *hollow above hips < *hips < *hock) as similarly for Lat perna above). From *spēr(h₁)- ‘kick’. Also derived from *spēr(h₁)- are OIr seir ‘heel’ and Wels fēr ‘ankle’ (< *sperets). *šph₁₁om would appear to be at least of late PIE age.

See also FOOT, HOCK, KICK. [D.Q.A.]

HEIR see ORPHAN

HELLEBORE

*kemeros ± hellebore’. [IEW 558 (*kemero-)]. OHG hemera ‘hellebore’, Lith kėmėras ‘marigold’, ORus cemēra ‘poison’, cemēr ‘hellebore’, cēmer ‘pain, ache’, Grk κάμαλος ‘larkspur’. Olnd kāmālam ‘lotus’ is semantically distant and probably a Dravidian loanword. Both the hellebore and larkspur are members of the buttercup family. Probably a late word in at least the west and center of the IE world whose exact meaning is not recoverable.

See also PLANTS. [D.Q.A.]

HELL-HOUND

*Kerberos mythical dog of the underworld. [IEW 578 (*kerberos)-]. Grk Κέρβερος (hound of Hādēs), Olnd sárvara- (epithet of one of Yama’s dogs). From *kerberos ‘piebald, spotted’. The linguistic equation is exact between the Greek and Old Indic forms.

The association of dogs with death and the otherworld is a common IE theme. They appear, singly or in pairs, to guide the soul to the afterlife in Indic and Iranian, to guard the afterworld in Greek, Roman, Germanic, and Celtic, and as choosers of the dead in Indic and Celtic. In Hittite, although the connection is unclear, dogs seem to be associated with the spirits of the dead.

The Old Indic Yama has two four-eyed dogs, Šabala ‘Spotted’ and Šyāma ‘Black’. In Ṛgveda 10.14, they are referred to as guardian dogs and keepers of the path to the afterworld. Only the souls who have sacrificed properly may pass on to the happy afterlife. The Atharvaveda depicts the dogs as messengers of Yama, sent forth to choose those who are to die. In the epic tradition of the Mahābhārata, it is a dog that leads Yudhisthira and his brothers northwards where each dies as they approach the afterworld until Yudhīṣṭhīra himself is invited by Indra to enter the next world.

In Iranian tradition, a four-eyed dog was brought in to a dead body in order for its gaze to expel the demons, particularly Nasu the goddess of decay who disguises herself as a fly on the body. The Daēna, or ‘inner self’ of the dead person, in the shape of a beautiful woman, escorts the souls of the righteous to Paradise accompanied by two dogs whose function is to guide the soul to the proper path by barking.

The three-headed Greek Kerberos is the best-known otherworldly dog, first attested in the Theogony 311. His duty was to maintain the boundary between Hādēs and the world of the living, although he could be bribed or drugged. Another resident of Hādēs, Hekatē, was also called ‘Our Lady of Hounds’, leading a swarm of ghosts and demonic barking dogs through the underworld nightly.

The Norse hell-hound is Garmr, another guardian of the boundaries. The souls of those who have died of sickness or old age encounter him on their way to Hel; if they have ever given food to the hungry, they find a crust in their hands with which to propitiate him. The Elder Edda names two dogs, Gifr and Geri, guardians of the boundary between this world and another, who will keep watch night and day until the end of the world. One wishing to pass could give them food to the hungry, they find a crust in their hands with which to propitiate them. The Valkyries ride through the sky over battlefields on wolves.

In Welsh tradition, Gwyn ap Nudd, a god of the underworld, leads the Wild Hunt through the sky. He is accom-
panied by his dog Dormarth (‘Death’s Door’), perhaps another gate guardian. In Irish folklore, two dogs or wolves wait beside the dying person to pursue the soul at the moment of death.

Perhaps representing the devouring aspect of death, dogs have a clear role in Indo-European mythology as guardians of the path or gate to the otherworld and as choosers of the dead. In some traditions, e.g., Germanic and Greek, there is also evidence that the souls of those who for various reasons (suicide, childlessness, failure to marry, etc.) cannot enter the afterlife, must pass their intervening time in the form of dogs or wolves which regularly haunt cemeteries. Related is the belief indicated in the religion of Zara8ustra that dogs (and birds) consume the flesh of the deceased wherein rests the soul that it may pass to the afterlife. In various IE traditions the worst throw of the dice is known as the ‘dog’ which is associated with death and fills a semantic sphere similar to that of the Ace of Spades in cards; conversely, the best throw is known as the ‘dog-killer’.

The pairing or doubling of the dogs associated with mortuary beliefs is common and expressed either in pairs of dogs or the doubling of some feature of the dog, e.g., the four-eyed dogs of both Indic and Iranian tradition or perhaps a double-headed dog. These pairs are usually given contrasting colors, e.g., in Brittany and Armenia, they are black and white while in Indic tradition they are spotted and black. This pairing has been interpreted as an expression of the liminal aspect of the dog, resting on the junction between this life and that of the otherworld.

Some archaeological reflection of this network of beliefs has been recovered from prehistoric sites which have been associated by some with early Indo-Europeans. At Khly in the north Caucasus, a tomb of the Maykop culture dating to c 3300 BC yielded at the head of the deceased, among other things, two figures of dogs, one of bronze and one of silver, which are said to reflect the different colors of the two guardians of the dead in Indo-European myth. In a more general way, the burial of dogs with the deceased is so widespread that it can hardly be interpreted as a specifically IE rite. Burials accompanied by dogs are known at least since the Mesolithic period in Scandinavia where in southern Sweden they not only may accompany the deceased but in some instances have received individual interment and been provided with the same grave goods as found in the burials of humans. Dog remains are very infrequently found in Kurgan sites of the Pontic steppe, and normally in the form of teeth, jaws or occasionally a whole skull. There are exceptions, however, such as the burial of a dog over a grave of the Yamna culture. Dogs are also occasionally encountered in the presumably (Indo-)Iranian burials at Sintashta in the southern Urals. The suggestion by Gamkrelidze and Ivanov that the employment of dogs in burial rituals of the Shang dynasty derives from IE contacts is unpersuasive given the fact that dog burial and sacrifice is also found in the much earlier native Neolithic cultures of China.

See also Death Beliefs, Dog. [L.J.H., J.P.M.]

Further Readings

HELP

HEMP

Hemp is an important source of bast fibres for textiles. It grows up to four or five meters in height, producing longer and coarser fibres than flax (though they are otherwise very similar to them). These fibres may be used for coarse cloth but are even better suited for making ropes and sails. Hemp seed is also traditionally used for its oil or as an animal feed, and, finally, as a narcotic.

Hemp is found in the wild state in Central Asia and it occurs on Neolithic sites from Germany, Switzerland, Austria, the Czech Republic (seed impressions on pots), Romania, Moldova (seed impressions on Linear I culture pots) and the Ukraine. Its presence in all these areas is sparse and it does not seem to have been common in Greece until the classical period although Herodotus (4.74) does mention its use among the Thracians.

The various attested words, while similar to one another, cannot reflect a common PIE source and their similarity must reflect a later series of borrowings from one IE stock to another. E. Barber has suggested that a common source, perhaps Thracian or Scythian, provided the Greek form which was then borrowed into Latin. It was also lent first into Slavic and then to Baltic and on to Finnish, and Germanic apparently borrowed the word before the first sound shift. There is also a possible Old Indic cognate bhang- which has been explained as a reversal of the original word, with labial first and velar last, i.e., *kan(n)āB- -> *Ban(a)g-. The reversed position of the stops has been explained as an attempt to gain access to the spirit world by a reversal of order, comparable, for example, to a Black Mass where the mass is recited backwards. This borrowing of a new term for an old object could have been induced by an new variety of hemp which could be put to new purposes.

The old northern hemp that the PIE speakers and their neighbors had been using since 5,000 BC did not contain the narcotic THC. Presumably the “new and improved” hemp was improved precisely because it did contain THC. It has
been argued that the additional narcotic use of hemp is relatively late, appearing only in the first millennium BC. Herodotus, for example, records its use as a narcotic among the Iron Age Scythians and a complex of brazier, hemp seeds and wooden tripod to form a tent-like structure, all described as a confused Herodotus as a “vapor-bath”, has been recovered from the Iron Age royal tombs of Pazyryk in the Altai Mountains. It was by no means confined to the steppe region and hemp has also been discovered in Iron Age contexts in western Europe, e.g., a Hallstatt burial, presumably Celtic, at Hochdorf in Germany. It has been presumed that the narcotic uses developed in the steppe region and then diffused westwards during the Iron Age accounting for the particular pattern of loans. But it has also been suggested that this spread of hemp may date to a much earlier period. Hemp has not only been recovered from settlement sites in Romania but also from a Yamna burial at Gurbanești (Moldova) where traces were found in a “censer” (a shallow footed bowl believed to have been used in the burning of some aromatic substance).

It has been found in a similar context from an early Bronze Age burial in the north Caucasus. These “censers”, often highly decorated with “sunburst” motifs, are widespread across the steppe region in the third millennium BC (extending at least from the Dniester to the Yenisei) and may be a part of a ritual complex. The censers also diffuse westwards at this time in Romania, Hungary and further along the Danube. As cannabis can also be infused, i.e., served as a component in a drink, it has also been suggested that the spread of cord-(hemp?) decorated pottery from the steppe westwards may also have been part of the same complex.

While attractive, this theory that emphasizes purely the narcotic nature of hemp does not entirely explain the later spread of Cannabis sativa in Europe. Hemp, for example, appears to have been employed in the making of textiles in Anatolia by at least the eighth century BC, was widely employed in the Near East and Greece in the first centuries BC and spread to Italy c 100 BC. It was also introduced into both Britain and Ireland during the first centuries BC and AD and during the early mediaeval period its primary use was in textiles where it was regularly coincidental with a rise in flax. There are thus at least three chronological horizons to which the spread of hemp might be ascribed: the early distribution of hemp across Europe during the Neolithic c 5000 BC or earlier; a later spread of hemp for presumably narcotic purposes about 3000 BC; a still later spread or, at least, re-emergence of hemp in the context of textiles during the first millennium BC. Given the fact that the word appears to involve inter-stock borrowing after the collapse of PIE, the more recent horizon appears to be the more attractive period for the spread of the word.

See also Henbane, Plants, Poppy. [D.Q.A., J.P.M.]

Further Readings


HEN


The hen, a Neolithic economic miracle, a bird that lays an egg every day, originated as the Red Jungle Fowl, and was borne westward. Its point of origin is disputed and while traditionally held to be India where it occurs at Mohenjo-daro c 2000 BC, there appears to be much earlier evidence from southeast Asia which would project its appearance back to before c 6000 BC and already by the sixth millennium BC it has expanded far beyond its natural range to reach the plains of northern China. Remains of Gallus are known from north of the Black Sea by c 3000 BC which has prompted the suggestion that the hen may have spread from China via the steppe region into Europe. The other route, from India to the Mediterranean, cannot be excluded although this would appear to have been later than the spread across the steppe. There is also some evidence of the hen from Greece in the period c 3000 BC. In general, the main rise in the dispersal of the Gallus is to be found in the later Bronze Age and the Iron Age. The archaeological evidence might suggest the possibility of reconstructing a common IE word for the hen (*kerek*) across a number of stocks if not to PIE itself although the clearly onomatopoeic features of this word invites considerable caution.

See also Birds, Cock. [J.A.C.G., J.P.M.]

Further Reading


HENBANE

*bhel*- ‘henbane (Hyoscyamus niger)’. [IEW 120 (*bhel*)]. Gaul belinunitia ~ beléniu ‘henbane’, Belenos ‘Apollo’, OE beolone ‘henbane’, OHG bil(es) ‘henbane’, Rus belena ‘henbane’. The exact form which this word took in PIE is not recoverable, however, its existence, at least in the west and center of the IE world, is assured. The plant appears to have been indigenous across most of Europe (it is known from the Neolithic Swiss lake-side dwellings and traces of henbane have been recovered from a mortuary structure in Scotland) and much of Asia where it was particularly prized for its narcotic (it produces hallucinations) and medicinal properties (it is a pain-killer and muscle-relaxer); it was also employed by Danish chicken-thieves to stun their victims. It has been traditionally consumed both by smoking and, in India, as a beverage. It is a regular ingredient in witches’
HERD

*uřetos* (or *uřehtos*) 'flock, herd'. [IEW 1151 (*uřehto-*)]. ODan *wrath* 'herd of twelve swine', OE *wreth* 'herd (of swine)', Goth *wrēþus* (recte *wreþus*) 'herd', OInd *vṛata*-flock, swarm, troop (particularly the non-Brahminical section of society). The basic meaning here seems to be 'flock' or 'herd' as a derivative from the root *yer-* 'bind, array' (cf. OInd ṣṛṇa- 'cover, surround; ward off'). Compare also Gmc *warnan* in OE wearm 'troop, crowd' and similar Celtic forms, e.g., OIr *airen* 'indefinite number of persons, band, troop', Wels *gwerin* 'host'. Though *uřetos* is not widely attested, the geographical distribution of those attestations suggests PIE status.

*kerdheo-* 'herd, series'. [IEW 579 (*Kerdho-*)] Wat 30 (*k+erdh-*) Buck 3.18]. On hjordr 'herd', hindo 'herdsman', OE *heord* 'herd' (> NE herd), hierde 'herdsman', OHG herta 'herd', hirti 'herdsman', Goth *hirta* 'herd'. Gairdeis 'herdsman', OPclus kerdan 'time', Lith (s)kerdzius 'herdsman', OCS črēda 'herd, series'. A word of the northwest of the IE world. Related more distantly are MWels córd 'troop, crowd, family', Grk κόπτω 'heap, sheaf'. Though sometimes put here, Av *sārādana* 'avenger', OInd sārādha 'might, strength' (later also 'herd') are semantically (and phonologically, *k* rather than *z*) distant.

See also HERDSMAN. [D.Q.A.]

HERDSMAN

*usētōr* 'herdsman'. [IEW 1171 (*usētēr-*)] GI 601 (*wes-tēr-*) Buck 3.18]. Hit *uwestara- 'herdsman', AV vāstar-herdsman'. From *usē- 'graze'. Though not widely attested, the distribution suggests great antiquity in IE.

*gō-ou-kōlos* 'cowherd'. [IEW 483 (*gō-ou-* GI 601 (*khwel*) Buck 3.18]. BK 346 (*khwel-ou-*) 317 (*khwel-ou-*) MIr būchāl 'cowherd', Wels bugail 'shepherd', Myc qo-u-ro-ko 'cowherd', Grk βουκολός 'cowherd'. At least a word of the west and center of the IE world. A compound of *gō-ou-* 'cow' and *kōlos- 'one who turns, moves' (from *khwel- turn, move around').

*poh-imēn-* 'herdsman'. [IEW899 (*pō-imēn*) GI 601 (*pōH*) Buck 3.18]. Lith pienū 'herdsman', Grk ξονυμί 'herdsman'. A word of the IE center. From *poh-i- 'watch (after cattle).'

See also COW, FEED, HERD; PROTECT. [D.Q.A.]

HERNIA

*pelh- 'animal skin, hide'. [IEW 803 (*pelh-*)] GI 488 (*pēl-*). GI 227-228 (*pēl-*) Buck 4.12. BK 60 (*pēl-*) Lat pelis (*pelum*) 'animal skin, hide', ON jall 'skin', OE jell 'animal skin, hide, pelt' (> NE fell), OHG fell 'animal skin, hide, pelt' (Gmc < *pelū-), OPrus plevnis 'meninges', Lith plėnė 'film (on milk), scab', Latv plēne 'membrane', Rus plēn 'pelt' (Baltic and Slavic derivatives with new full-grade), Grk ἐρυθρόπελος (*pel-*) 'red inflammation of

See also COVER. [D.Q.A.]

HERON

*tjøtthoðehōr ~ *htjóðoðehōr* - some form of water bird, heron? [IEW 68 (*arōdo-*)] Lat ardea 'heron', ON ar 'teal', SC rōda 'stork', Grk ἄρδος ~ ἄρδος usually 'heron' but also confused with the 'stork'. Both geographical spread and uncertain semantics provide little support for a PIE 'heron'. Old Indic largely uses kankā- 'heron' though other names are used for particular species while Armenian employs a single term, jknak'āl literally 'fish gatherer' which is also the word for 'swan'. The NE heron is probably from an early onomatopoeic form derived from the much employed *ker-*. Whatever word is used for heron, the word was also used for the various water birds with longish necks who caught fish by darting their bill into the water.

See also BIRDS. [J.A.C.G.]

HIDE

*bhergh-* 'keep, protect'. [IEW 145 (*bhergh-*)] Wat 8 (*bhergh-*) GI 366; Buck 12.27]. On biarga 'keep, preserve', OE beorgan 'keep, preserve', OHG bergen 'keep, preserve', Goth *bijargib 'keeps', Lith bitginti 'be parsimonious', OCS bušti 'care for'. A northwest dialectal term.

*ghuegh-* 'protect, hide'. [IEW 450 (*ghuegh-) GI 84 (*gheugh-*) Buck 12.27]. Lith gūtai 'cover with something warm', Av gaoz- 'hide', OInd gūhatti 'conceals, covers'. A word of the IE center and east unless one accepts ON eik-gýrr 'abyss (crater of a volcano)' (< *something hidden').

*keudh- *hide'. [IEW 952 (*s)keudh-] Wat 60 (*s)kew- Buck 12.27]. OE hydan (< Proto-Gmc *hidana- with a new lengthened grade) 'hide' (> NE hide), Grk κυδίῳ ~ κυδόνα 'hide' (tr), Arm suzanem 'submerge, hide'. A form showing metathesis, namely *dheuk-, appears in OE deōg 'he conceived himself, deágol 'secret, hidden, mysterious', OHG tougan 'hidden', tougal 'secret', Tocharian auk- (< *wdehuk-) 'be hidden', Tochar auk- 'be hidden'. The awareness of Germanc and Tocharian in both metathesis and probably the prior existence of a present *dhouk* is very significant and clearly supports antiquity in IE.

See also COVER. [D.Q.A.]

HIDE2

*pelh- 'animal skin, hide'. [IEW 803 (*pelh-*)] GI 88-986 (*s)pḤḷ)el-); Wat 48 (*pel-); GI 227-228 (*pēl-). Buck 4.12. BK 60 (*pēl-). Lat pellis (< pelum- 'animal skin, hide, pelt' (Gmc < *pelū-), OPrus plevnis 'meninges', Lith plėnė 'film (on milk), scab', Latv plēne 'membrane', Rus plēn 'pelt' (Baltic and Slavic derivatives with new full-grade), Grk ἐρυθρόπελος (< pel- or perhaps rebuilt from < *pel-); a red inflammation
the skin, πελλόραφης 'sewing skins together'. Cf. OE fílmen 'film, membrane; foreskin' (> NE film), Grk πέλλαμα 'sole of the foot', or Lith plevė 'membrane, scab', Rus пле́вá 'membrane', Grk επιέλαιον(ό)ς 'omentum'. More distantly yet we have Lat spolium (animal) skin, hide', Grk σπόλια 'fine wool plucked from the legs of sheep'. From (*s)pel- 'tear off', though the underlying verb is nowhere attested as such. Widespread, though not universal, in late PIE.

*hēgōnom 'hide'. [IEW 7 (*hēg-); GI 501; Buck 4.12]. OCS (j)azno 'hide, leather', OInd ajimam 'hide'. Formally very similar but with a different, and more original, meaning is Lith ožienia 'goat flesh'. A derivative of *hēgōs 'goat'. A word of the east and center of the IE world.

*letrom 'leather'. [IEW 681 (*lētrot-); Wat 36 (*lētrot-)]. Olr lether 'leather', Wels ledré 'leather', ON leðr 'leather', OE lēðer 'leather' (> NE leather), OHG lēder 'leather'. A dialect innovation of the far northwest of the IE world. It has been suggested that the Germanic words for leather should be explained as a Celtic loan word, i.e., *pel-tro- (with metathesis) *plē-tro- > Gmc *lepra-. This would ultimately derive from *pel- 'cover' but the metathesis required here is not otherwise attested.

*nāk(es) - 'a pelt, hide'. [IEW 754 (*nāk-)]. OE nesc (< *nāks) 'dressed fawn-skin', OPrus nognan (< *noknan) 'leather', Grk κάπακος (stem nāk-es-) = νάκη pelt, fleece, hide of deer or goat', (Hesychius) νακώπος 'skin'. Perhaps a word of late, dialectal IE; perhaps a culture-word or trade-word from some source.

See also ANATOMY; GOAT; SKIN. [D.Q.A.]

HIGH

*bhērgh- - *bhērgent- 'high'. [IEW 140–141 (*bhergh-); Wat 8 (*bhergh-); GI 576–577 (bʰ(e)rgʰ-); Buck 12.31; BK 19 (*bur-g-/*bor-g-)]. From *bhērgh-: Arm baird 'high', Hit burku- 'high', Luv parrawa- 'high' in the collocation parrawanu 'high mountains', Tocharian bākār 'long', Tocharian pākār 'long' (Tocharian with regular replacement of *u-stem by o-stem; note that the Tocharian meaning results from a horizontal perspective as opposed to the original vertical one; the same semantic development can also be found in certain Iranian reflexes, e.g., Khot buýsá- 'long', Sogd birz- 'long'); from *bhērgent-: Olr Brigit (feminine proper name), ON Borgundarhornr 'Bornholm' (an island that rises high from the sea), OHG Burgunt (feminine proper name), Av barząnt- 'high', OInd bhānt- (surn bhānt) great, high'. Cf. OLat forcus 'strong', Lat lor(ī)us 'strong'. PIE *bherghs (gen. *bhērghos) 'height': Mīr brī (acc. brīc) (< *bhērg- 'hill'), ON bjargr- berg 'mountain, rock', borg 'height, wall, castle, city', OE beorg 'hill' (> NE barrow), burg - bath 'fortified place, castle, city' (> NE borough), OHG berg 'mountain', burg 'fort', Goth baịrga 'mountainous area', baịrgs 'tower, city', Av bars (gen. barzō) 'height'. PIE status assured. Germanic derivatives indicate both natural high places such as hills or mountains as well as fortified heights.

*varhdhús (gen. *varhdhōs) 'upright, high'. [IEW 339 (*er(2)d-); 1167 (*yerdh-); Wat 17 (*erad-), BK 500 (*war-/*war-)]. Grk ἄραβα 'upright, standing, straight; just', possibly AV ardava- 'high, erect' if by dissimilatory loss (i.e., *u ... u > o ... *u) from *varhava-, OInd ardvha- 'upright, erected, high', Tocharian or (from) 'above'. A word of the PIE southeast.

*arhdus 'high, lofty'. [cf. IEW 339, Puhvel 3:203]. Olr ard'high', Lat ardus 'steep, lofty, difficult', ON orngr 'steep', OCS rasrp 'grow', Rus rost 'height', Hit harduppī -a 'high', possibly AV ardvā- 'upright' (if it doesn't belong above), Roshani wārd 'irrigation canal built on a stone causeway', ardān 'embankment between irrigation canal and field' (< Proto-Iran *ardā- and *ardānā- respectively). The geographical distribution would appear to guarantee IE status.

See also FENCE; FORT; HIGH-ONE; HILL. [A.D.V. D.Q.A.]

HIGH-ONE

*bhērgphytēr- 'high one'. [IEW 140–141 (*bhergh-); Wat 8 (*bhergh-); GI 576 (*bhergh-); BK 19 (*bur-g-/*bor-g-)]. Olr Brigit (Celtic goddess), OBret Brigantia (Celtic goddess), OHG Burgunt ~ Burgunt (woman's name), OInd bhānti- 'high, lofty'. The derivation is clearly from *bhergh-high; hill, mountain' and the OBret Brigantia is cognate with the Old Indic adjectival form which may occur as a woman's name. The Celtic goddess is attested in both Britain and Ireland (cf. also the British and early Irish tribal name Brigantes of whom Brigantia would have been the titular deity). In the Roman interpretation of Celtic deities, Brigantia is equated with Minerva and hence is seen as a patron of the crafts, especially poetic or those pertaining to foretelling the future, while the Irish sources also associate her with crop fertility. Although recorded in pagan contexts in early Irish literature, characteristics of the pagan Brigit are also recovered after her Christianization into St Brigit, a sixth-century Leinster saint, whose sacred fire at Kildare suggests other rituals pertaining to the goddess. St Brigit was also a patron of agricultural fertility and her feast day fell on the Irish festival of Imbolc, the summer solstice. Although lexically cognate with the Old Indic adjectival form, there is no corresponding body of myth concerning an Indic bhānti- on which to sustain a mythological comparison.

See also GODDESSES; HIGH; HILL. [D.Q.A., J.P.M.]

HILL

*bhergh- - *bhērg- 'high; hill, mountain'. [IEW 140–141 (*bhergh-); Wat 8 (*bhergh-); GI 576–577 (*bʰ(e)rgʰ-); Buck 12.22; BK 19 (*bur-g-/*bor-g-)]. Mīr brī (gen. bregā) (< *bhērg- 'hill', Wels brei 'hill', Gaul -briga (< *bhērgā- 'hill'), ON bjargr- berg 'mountain', OE beorg 'mountain', OHG berg 'mountain', Goth baịrga (< *berga-) 'mountainous region', OCS břegů 'riverbank', Rus bereg 'riverbank' (Slavic with problematic -g), Arm erkna-berj 'sky-high', Av bars- (nom. bars < *bʰ(e)rgʰ- 'high; hill, mountain'), Oss bārzōnd 'high, mountain'. The PIE word for 'high', 'hill' or 'mountain'.

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HILL

*kolh₁-ón - *kjlh₂-tós 'hill'. [IEW 544 (*kel-), Wat 28 (*kel-); GI 577 (*kóel-); Buck 1.22]. Lat collis (with early loss of laryngeal) 'hill', OE hyll (< *hunl-t- < *kjlh₂-t-) 'hill', MDutch hill(e), hulle 'hill' (ON holmar, holmi 'island', OE holm 'wave, sea, island', OS holm 'hill'), Lith kalnis 'mountain', kalva 'hill', Latv kalns 'mountain', kalva 'hill, river island', Grk κολύννα, κολονώς 'hill'. Uncertain is ON hallr, OE heall (> NE hall), Goth hallius (< *kolthis-u-) 'rock'. Lat column 'top' is from *kelamen (< *kelh₂-mg (with syncope culmen). Very doubtful is Hit kalma - 'mountain'. From *kelh₂- 'project, tower up'. With Baltic, Germanic and Greek from one paradigm, this is certainly the PIE word for 'hill'.

*gʷoṯhr₁- ~ *gʷrth₁- 'mountain; mountain forest'. [IEW 477-478 (*gʷer-); Wat 25 (*gʷer-); GI 574 (*Hk r-i); Buck 1.22; BK 363 (*qʷur-/*qʷor-)]. OPrus garian (< *gʷorth₁-) 'tree', Lith giri (lem. giře) (< *gʷrth₁-) 'forest', Latv dzīta - dzīre 'forest', OCS gora 'mountain', Rus gora 'mountain', Alb gur (< *gʷrth₁-) 'rock, stone', Av gairi- 'mountain', OInd giri- 'mountain' (Indo-Iran *gʷrth₁-i-t). PIE had a root noun, probably *gʷorth₁-so (gen. *gʷrth₁-os). Perhaps the Indo-Iran i-stem originated in the nom. *garis (< *gʷorth₁-s). Grk βορέας 'northwind is uncertain here as well as Grk (Hesychius) δεῖπος 'hill' which is secondarily derived from a compound. The semantic shift to 'forest' in Baltic is not uncommon as forests tend to be associated with mountainous regions and parallel developments have been observed in other languages and language families.

*men- 'mountain'. [IEW 726 (*mgi-); Wat 41 (*men-); GI 574 (*me(n)-tʰ); Buck 1.22; BK 533 (*mun-/*mon-)]. Wels mynyd (< *mono-) 'mountain', Lat mōns (gen. montis) (< *mon-ti-) 'mountain', Av māt (< *mg-ti) 'mountain; mountain height'. These are all probably independent derivatives from a word for 'neck' which itself derives from *men- 'project, stick out'.

The existence of multiple words for mountains has been employed by GI to demonstrate that the earliest Indo-Europeans lived in a mountainous region (cf. also words for 'cloud', 'thunderstorm', etc.), specifically the highlands of the south Caucasus and Armenia. Such conclusions are ingenious in the extreme as possession of a virtually universal conceptual category can hardly have any bearing on the specific location of a population and there is nowhere in Eurasia where one could set the Proto-Indianos where they could be expected to have never encountered a mountain or hill.

See also HIGH, HIGH-ONE, PEAK. [R.S.P.B.]

HOCK

*kênk₁- 'hock, back of knee'. [IEW 566 (*kenk₁-); Wat 29 (*kenk₁-). ON hál 'heel', OE hela 'heel' (> NE heel) (Gmc *hanhila-), ON hám 'ankle', OE hōh 'hock, heel' (Gmc *hanhta-), Lith kenkël 'hock, back of knee', kinke (< *kêpke₁-)'hock, back of knee', Latv cinkšla 'nerve behind the knee', OInd kankālā- 'as if < *konkolo-; but attested only late and sparingly) 'bone, skeleton'. The original PIE word (a root noun?) has not survived. Rather we find several independent derivatives. If the Old Indic word belongs here, we have evidence for at least a late, but general PIE word. If it does not, then we have evidence for a "westernism" in late PIE.

See also ANATOMY, FOOT, HEEL, LEG. [D.Q.A.]

HOLD

*hērk₁- 'hold back (so as to prevent someone from doing something), contain'. [IEW 65-66 (*areq-); Wat 3 (*are-)]. Lat arceō 'shut in, keep at a distance, prevent', porcere (< *po- + *areo-) 'hold off', are 'stronghold, fortress', are 'chest, container', Grk ἀπήκω 'ward off, defend, assist; achieve; suffice' (denominative to ἀπεκχο 'defence'). Arm argelum 'hinder, restrain, hold back' (denominative to argel 'obstacle'). Hit harki- 'hold, have', pe hark- 'bring along, tend, deliver', possibly TochB ārk- 'be obliged to' (if, like NE have to (= must')). To these may be added Lith rakinti 'lock with a key' although the latter is more probably related to the root seen in Lith rakti 'to poke with a sharp object' (or rakinti may be an unexpected new full-grade, influenced by rakti). Olr accrann 'shoe, clothing' (< *that which holds the foot') has also been set here but this connection is extremely dubious. Nevertheless, the distribution of the other cognate sets seems to secure this word to PIE.

*dher₁- 'be immobile, support, hold up'. [IEW 252-255 (*dher-); Wat 14 (*dher-); Buck 11.15; BK 143 (*d'ar-/*d'ar-)]. Lat firmus (< *dher-mo-) 'solid, firm', OE darian 'be motionless, lurk', Lith derėti 'be useful, serviceable', Grk (aor. inf.) ἄρτισσα 'seat oneself', Arm dāram 'become quiet, stop', Av dāraityā 'holds fast', OInd (caus.) dāraityā 'holds, preserves'. The Greek form appears to be based on *dher₁-h₁r₁; the other forms show no signs of a laryngeal. Semantically, Old English, Greek and Armenian all point to a quality of immobility; such a meaning may have then developed into 'dependability', seen in the Latin and Lithuanian forms.

*heik₂- 'possess'. [IEW 298-299 (*teik₂-); Wat 16 (*teik₂); Buck 11.22]. On eiga 'possess', OE āgan 'possess' (cf. NE own), OHG eigan 'possess', Goth aih 'have', AV ise 'is lord something', OInd īse 'owns, possesses', TochB ārk - 'know'. The distribution and comparability of the Germanic and Old Indic forms suggests PIE status; the Old Indic must be based on a reduplicated perfect of the root *ts₁. The Tocharian form is semantically somewhat distant unless the meaning 'know' developed from 'have power over', a semantic field suggested in the Avestan form.

*skabh₁- 'hold up'. [IEW 916 (*skabh₁-); GI 101]. Lat scalumn (< *scabnum) 'stool, bench', Av upa-skabh₁m 'support, prop', Pashto skám 'tent pole', Khot skam- 'make, form' (< *prop up), OInd skabhātā 'supports, fixes'. Distribution suggests considerable IE antiquity.

*jem₁- 'hold'. [cf.IEW 505 (*jem₁-)]. Av yam- 'hold', OInd
HONEY

*melit* (gen. *melítos*) 'honey'. [IEW 723–724 (*melít*); Wat 41 (*melít*); Gl 517 (*melí-t*-); Buck 5.84; BK 535 (*mal*-/*mal-*)]. OIr *mél* 'honey', Wels *mél* 'honey', Lat *mel* 'honey', OE *mildæw* 'mildew' (< *sweet sap*) (> NE *mildew*), *milisc* 'honey-sweet', Goth *miliпись* 'honey'; Alb *bi*te (< *melitih*eta) 'honey-bee', Grk *μέλι* 'honey', *μελίσσα* (< *melitih*eta) 'honey-bee', Arm *mër* 'honey', *melu* (< *meliu*-) 'bee', Hit *mi*lli-t- (perhaps intended for *malit* 'honey'). Luv *malitih*- 'honey', Iranian *mélítov* 'a kind of Scythian drink'. The distribution indicates PIE status. The clearest and fullest of the attestations in the six stocks where it is found are in Greek. Here, a neuter noun for the substance (μέλι, a derivative noun μελίσσα (< *melitih*eta) 'honey-bee', and a zero-grade verb βιλίτιται (< *méli-jo-*) 'rob a hive', i.e., 'gather honey', preserve evidence of an ablauting athematic stem. Moreover, the same neuter noun is preserved in Germanic and Anatolian. Lat *mel* (gen. *melis*) probably represents an early Italic syncopation of the same form, i.e., < *melid* while OIr *mil* (gen. *melio*) is an *i*-stem, analogically refashioned after the *u*-stem *mead*. Although sometimes claimed to be a western innovation, its eastern appearance in Armenian and Iranian and especially the rare, ablauting athematic neuter root assures this word of PIE antiquity.

*médhu* 'mead'. [IEW 707 (*médhu*); Wat 39 (*medhu*); Gl 517 (*medh*-); Buck 5.84; BK 543 (*mád*/*mád*)]. OIr *mid* 'mead', Wels *medd* 'mead' (< Proto-Celtic *medu* and OIr *medb* 'intoxicated', Wels *medw* (< *medh-*). On *mýdr* 'mead', OE *medo* 'mead' (> NE *mead*), OHG *metu* 'mead', OPrus *medo* 'honey', Lith *medus* 'honey', Latv *medus* 'honey', meal', OCS *meda* 'honey, wine', Grk *μέθο* 'wine', Av *mádr* - 'berry wine', Oss *myd* 'honey', Sogd *môw* 'wine', OInd *mádr* 'honey, wine', TochB *mit* 'honey'. Greek may be assumed as well here from Byzantine glossary notices of *medo* and Lith *midus* 'mead', a loanword from Germanic. Tocharian offers a related word, *moti* 'alcoholic beverage' (< Buddhist Hybrid Sanskrit sura) which probably reflects a vṛddhīdi *médhyomin or the like although some regard this (with some phonological difficulties) as a borrowing from an Iranian *mádu*. Cf. also TochB *kuši-mot* 'grape-alcohol'. Although *médhu* has been glossed as 'honey', the sense of 'mead' is recoverable from six stocks, three of which, Celtic, Germanic and Baltic, preserve the original meaning. In three other more centrally located stocks (Baltic, Slavic, Indic) and Tocharian the innovation of synecdoche, the process of naming an ingredient from its product, has caused the word to mean 'honey'. In three stocks (late Slavic, Greek, and Indo-Iranian) the term has come to mean another type of alcoholic beverage by a common semantic association. In addition, Celtic use of the thematic adjective to mean 'intoxicated' points to an original intoxicant rather than a sweetener. The original meaning 'mead' is also clear from the contrast with *mélit* 'honey'.

*kŋhȫns* (gen. *kŋhȫn-insert*) 'honey-colored, golden'. [IEW 564 (*kŋo-no-*); Wat 29 (*kena*); Buck 5.84; BK 251 (*kŋ*/*lir*/*lir*). Lat (pl.) *canicæ* 'bran', OPrus *cucan* (a mishearing or miswriting for *cucan* 'brown', Grk κοινός (Doric κοινός) 'pale yellow', κνόσσα 'safflower [= Carthamus tinctorius]', OInd *kánaka-* (< *köṇga*-) 'gold', kánca- 'gold'. For all of these the immediate ancestor is *kŋhȫn-insert* with dissimilatory loss of the second *-n-* from *kŋhȫn-insert*. From *kŋhȫn-insert* 'honey, honey', OE *hunng* 'honey' (> NE *honey*), OHG *hunag* - *hunang* 'honey' with Old English and Old High German [in part] showing dissimilatory loss of the second *-n-* from *kŋhȫn-insert*. OIr *kronkse* 'bee' (either < *kŋhȫn-insert* which is morphologically expected, i.e., '(s)he of the honey', though phonologically a little difficult, or *kŋhȫn-insertkenken* - which is phonologically regular and might be a diminutive, i.e., 'little one of the honey' or 'little golden one'—in any case with dissimilation of *-n-* ...-*n-*) from *kŋhȫn-insert* with a different full-grade is OInd *kánaka-* 'gold'. A derivative of *köṇga* 'a, honey-comb', built on the n-stem derivative *kŋhȫn-n* with metathesis to *kŋhȫn-n*.

See also Bee, Ferment, Sacred Drink, Wax.
HOOF

*Kophyös 'hoof'. [IEW 530 (*kāphe-); Wat 27 (*kap(h)us); GI 28 (*Kopʰus-).] On hōp' 'hook', OE hōf' 'hook' (> NE hook), OHG huof' 'hoof' (Germanic with lengthened grade), Rus kop'yó 'hoof' (with a centum development of *k-, perhaps influenced by some more western IE language), Av satā- 'horse's hoof', Olnd sapha- 'hook, claw'. Attestations are sufficiently widespread geographically to assure PIE status. See also Anatomy, Foot, Horse. [D.O.A.]

HOOK

*ko(n)gos 'hook'. [IEW 537–538 (*keg-); Wat 27 (*keg-); GI 771 (*Kle şu w).] Lat clavis 'key, bolt'. Grk κλείς (Homeric κληίς) 'bar, bolt; catch or hook passed through the door from the outside to catch the strap attached to the bar on the inside; key; hook or tongue of a clasp', κλείον '(< *klei(h)je(ə)-) close'. Compare also OIr cló 'nail', MWels clo 'bolt', Lat clavus 'nail, spike', clāva '(< *kleiho(ə)-) knotty branch, rough stick, club', Lat claudiō 'close'. Also related in some way would be OCS kljuev 'hook, key'. The exact agreement of Latin and Greek has sometimes been attributed to borrowing (from Greek to Latin) but the existence of related words in Latin (and Celtic) makes the hypothesis of borrowing unnecessary. Admittedly the notion of 'key' in anything approaching its modern sense must clearly be an independent development in both languages from the more original notion of 'bar, bolt; hook'. GI suggest that it may be borrowed from Sumerian gig 'peg'.

*klethvüs 'bolt, bar, (wooden) hook'. [IEW 604 (*klew-); GI 771 (*Kle şu w).] Lat clavis 'key, bolt', Grk κλείς (Homeric κληίς) 'bar, bolt; catch or hook passed through the door from the outside to catch the strap attached to the bar on the inside; key; hook or tongue of a clasp', κλείον '(< *klei(h)je(ə)-) close'. Compare also OIr cló 'nail', MWels clo 'bolt', Lat clavus 'nail, spike', clāva '(< *kleiho(ə)-) knotty branch, rough stick, club', Lat claudiō 'close'. Also related in some way would be OCS kljuev 'hook, key'. The exact agreement of Latin and Greek has sometimes been attributed to borrowing (from Greek to Latin) but the existence of related words in Latin (and Celtic) makes the hypothesis of borrowing unnecessary. Admittedly the notion of 'key' in anything approaching its modern sense must clearly be an independent development in both languages from the more original notion of 'bar, bolt; hook'. GI suggest that it may be borrowed from Sumerian gig 'peg'.

*hunokos (gen. *hunokos) 'something bent, hook'. [IEW 45–46 (*ankos-); Wat 3 (*ank-); GI 626 (*Har₁kʰ-); Buck 9.14, 12.75.] OIr éacht 'lashhook', Wels angad 'grip', Lat uncus 'hook, barb', ancus 'one with a crooked arm', ON angi 'point', OE anga 'point', OHG ango 'fishhook', Lith anka 'knot', OCS okott 'hook', Grk ὀξυς 'barb (of an arrow)', Av aksa- ('< ὀξυο- 'hook', Olnd ankã- 'curve, hook' (in the dual: part of a chariot')). Widespread and old in IE. A root noun derived from *hunok- 'bend' seen in Olnd áncati 'bends'. Related are Grk ὀξυς 'valley', Olnd ankã- 'curve, bend', TochA ancael ('< *hunok el- o-) 'bow'. The underlying referent appears to be anything with a hook-like shape, including a barb. Fishhooks are known in Europe at least since the Mesolithic period where they have been found fashioned from the rib bones of red deer. See also Tool. [D.O.A.]

HOOPOE

*kepōp - *h1opop 'hoopoe'. [IEW 325 (*epop - *opop; GI 459 (*epʰopʰ-)]. Lat upupa 'hoopoe', NLG hupphupp 'hoopoe', Lith puputis 'hoopoe', Late papuku 'hoopoe', Pol hupek 'hoopoe', Grk ἐφου 'hoopoe', Arm popop 'hoopoe', NPers āppu. Though all the various forms are similar, it is likely that the word for 'hoopoe' is entirely onomatopoetic since those languages which show a sound shift do not exhibit it for this term. Further, in unrelated Georgian, we have oopopi 'hoopoe' and in Turkic hupüpp 'hoopoe'. These terms are built on the hoopoe's cry: hoo-hoo-hoop, or, as Aristophanes had it: ἐφουῖοι ποτομισόροσιν ἀποστειλεῖν. The bird is considered, along with the stork, a devoted child who cares for his aged parents which is reflected in Olnd putra-putra- 'hoopoe' but literally 'son-son' after its acknowledged love of progeny and parents. Where its name is not derived from its cry or paternal associations, it may be called a 'dung bird' from its feeding custom, e.g., French coq puant, NHG stinkhahn.

The hoopoe is notable for its dramatic crest and for its call. Although it is frequently included in myths and legends, references tend to be peripheral. See also Birds. [A.C.G.]
Horse

Widespread and old in IE.

*köru 'horn'. Again the underlying noun appears nowhere but it has left its trace in numerous derivatives: Wels carw 'stag', Lat cervus 'stag', cervix 'nape of the neck', ON hjótr 'stag', OE hearot 'stag' (> NE hart), OHG hirtz 'stag' (Gmc < *Kerudo-), ON hítr (with new lengthened grade) 'ram', OPrus sirwís 'roe buck', curvis 'ox', Lith kárve 'cow', Rus koróva 'cow' (it is noteworthy that these Balto-Slavic forms are widespread and old in IE). Grk κόρυς (‘crested’) lark, κορυφή ‘crest (of mountain or horse)’, κορυφέω 'but with horns', δικρόος (< *dúi-krou-jo-) forked, cleft', Av srv- - srva- 'horn, claw, talon', Ashkun só (< Proto-Indo-Iranian *sará- = Lat cervus) 'mountain goat/markhor'. Widespread and old in IE.

*Kem- 'hornless'. [IEW 556 (*kem-); Wat 29 (*kem-)]. ON hind 'hind', OE hind 'hind' (> NE hind), OHG hina 'hind', OPrus carstian 'sheep', caumen 'horse', Lith šimūnas 'hornless', šimūlis 'ox without a horn', šimūle 'cow without a horn', kamułę 'mare', OCS kont 'horse', Rus kont 'horse', komont 'horse' (< *komnjo- and *komon- respectively, meaning 'hornless one' (as opposed to cattle)), komolly 'hornless'. Grk κέαθος 'young dear', OLind sáma - 'hornless'. Old Prussian and Slavic presuppose a non-palatal *r, rather than *K. Widespread and old in IE. A noteworthy phenomenon in several stocks, most clearly in Slavic, is the replacement of the original words for 'cow' and 'horse' by 'horned' and 'hornless' respectively.

Horn or antler was widely used throughout Eurasia in the manufacture of tools, e.g. harpoons, mattacks, and as a hafting mechanism for stone or metal tools. It was also employed as a musical instrument where horns fashioned from bronze begin to appear by the late Bronze Age, particularly in northwest Europe. These latter may have been modeled on earlier prototypes made from the horns of either the aurochs or the domestic cow. The horn was also widely employed as a drinking vessel.

The semantic range of PIE *kem- 'hornless' in the various IE stocks is quite large and is employed to distinguish animals which would not naturally have horns, e.g., horses, from horned animals, and also the hornless varieties of otherwise horned animals. The latter begin to occur quite early. For example, hornless ewes are already present by 7000 BC in Iran and they also appear in Europe at an early date while hornless rams are not found until the Middle Ages.

See also Anatomy, Deer, Goat, Head, Sheep. [D.Q.A.]

Further Readings


Hornbeam

*(s)grēb(h)- 'hornbeam (Carpinus betula)'. [IEW 404 (*grēb(h)-o-s); GI 535-537 (*s)k’rōpʰ-o-); Fried 99-106]. Umb Grabovius 'oak-god', OPrus wost-grabis 'spindle-tree', Lith skrūbias 'hornbeam', Latv skābāle 'hornbeam', Rus grab 'hornbeam', Pol grab 'hornbeam', SC grab 'hornbeam', Alb shkoze 'hornbeam, oak', NGrk ραψοβιά 'hornbeam (loanword?)'. Cf. Lat carpinus 'hornbeam' with unexpected voiceless consonants and metathesis of vowel and -r, perhaps the result of some sort of taboo deformation or the result of borrowing from another IE group where PIE voiced stops had become voiceless.

The hornbeam is attested in Baltic, Albanian and above all in several of the three sub-stocks of Slavic. In Greek and Latin, is not well explained as the distribution of the pollen of Carpinus betulus during the period c 4000–2000 BC was largely concentrated in the region of these languages, i.e., all of peninsular Italy, the Balkans and Greece, as well as in eastern Europe, the presumed homeland of the Balts and Slavs. The shift to 'oak' and/or 'beech' in the three southern stocks may have been motivated metonymically—the hornbeam grows as understory to both trees—and metaphorically, in light of its gray bark and sensitivity to drought. The hornbeam term is phonologically problematic, involving an initial *g- (or *k- or *sk-) and a final *p or aspirated *bh; such variation might reflect its use in ritual.

During the Neolithic and Bronze Age, the hornbeam was found from Italy and Greece, across east Central Europe and the Baltic to the Ukraine and the Caucasus and south into Anatolia. Sometimes rising to twenty meters, the hornbeam produces an excellent harvest of nutritious nuts every two or ased year and its hard, elastic wood is ideal for weapons, armor and some tools.

See also Trees. [PF]

Hornet

*Krūsro-(h)jʌn- 'hornet'. [IEW 576 (*k्र-ou-); GI 453 (*k्र-ou-); BK 200 (*tʃm̥li~tʃm̥l̥i̅-er). Lat crābro 'hornet', NDutch horzel 'hornet', OPrus sirstlis 'hornet', Lith širšė 'hornet', šīršys 'hornet', širsuo 'hornet', Latv strīss 'hornet', OCS sranj 'hornet', Bulg strusel 'hornet' (all save Latin show some kind of dissimilation, including dissimilatory loss, of the sequence *r-). Cf. OE hyrnet(u) – humitu 'hornet' (> NE hornet), OHG huorzuz 'hornet' (< Proto-Gmc *hurznia/aut-). A derivative of *kēržis- 'horn', either as *having antennae (antennae = horns) or, more probably, *having a stinger (stinger = horn).

See also Horn, Insects, Wasp. [D.Q.A.]

Horse

*hekuos 'horse (Equus caballus)'. [IEW 301 (*ekuo-s).
HORSE

Wat 16 ("ekwo-"; GI 463 ("ekhos"; Buck 3.41). OIr ech 'horse', Wels ebol 'colt', Gaul epho 'horse', equos (name of a month), OLat equos 'horse', Lat equis 'horse', Venetic (acc.) ekvon 'horse', ON jor 'horse', OE eoh 'horse', Goth aīva-tundi 'brambles' (= 'horse-thorn'), OPrus aswinan 'horse-milk', Lith āšviens 'stallion', Myc i-go 'horse', Grk ἰασπος 'horse', Arm eš 'horse', HierLuv azu(wa) 'horse', Lycian esbe 'horse', Av aspa- 'horse', OPers asa- 'horse', Sogd šp 'horse', Oss jads 'horse', Olnd āśva 'horse', TochA yuk 'horse', TochB yakwe 'horse'. Cf. the derivative *hješu-t- in Lat eques (gen. equitum) 'rider', Grk ἵππος 'horse'. Practically universal (lacking only in Slavic and Albanian), it is surely old in IE. This word has been connected with the PIE word for 'swift' (cf. the formula in Grk ἰασπος 'swift horses', Av atu aspa- 'owning swift horses', Olnd āśvaḥ āśvaḥ 'swift horses'). Thus *hješuos would have been originally 'the swift one' or the like. However, the word for 'swift' always shows *Dr-, suggesting an original o-coloring laryngeal, i.e., *hnješ- or the like.

The Greek form for 'horse' has often been regarded as a loan word from an otherwise unattested IE language of the Mediterranean region since the rough breathing in ἰασπος is unexplained, as also i instead of the expected *e, and the gemination of the labial stops (¬ph-, or, in some dialects, the velar stops, e.g., ἱκκος 'horse'). The expected Greek form is generally taken to be *eiaos; however, as the Mycenaean form i-go (iikkos) can be explained as a distinctly Mycenaean development (e.g., *e > i in Mycenaean in the vicinity of a labial), there is no reason to look outside of Greece for the origins of the Greek term for 'horse'.

The Anatolian forms for 'horse' with sibilants, e.g., HierLuv azu(wa) 'horse', Lycian esbe 'horse' or the Indo-Aryan (Mitanni) forms have been sometimes seen as underlying the words for 'horse' found among a number of the non-IE languages of Anatolia and the Near East, e.g., Hurrian eši, Akkadian sītu, Ugarit sw, Abkhaz aćy and others. This is generally seen in the context of the spread of the horse and its name throughout the region by IE tribes.

*ष्ठेकष्ठेष्ठर 'mare'. [IEW 301 ("ekhos-"; Buck 3.44]. Lat equa 'mare', Lith asva ~ ašva 'mare', Av aspa 'mare', Olnd aśva- 'mare'. A regular feminine derivative, itself of PIE date, of the previous word.

*मानक *maṁk *horse (Equus caballus) and ?wild horse (Equus przewalskii or gmelini). [IEW 700 ("maṁko-"; Wat 38 ("marko-"; GI 472 ("markh-";; Buck 3.41). Olr mar 'horse', Wels march 'horse', Gaul Marco- 'horse', ON marr 'horse', OE mearh 'horse', OHG marah 'horse'. In Germanic there is a derived feminine *maṁkh- (cf. Buck 3.44) in ON merr 'mare', OE mere 'mare' (> NE mare), OHG mertha 'mare'. At least a word of the western region of the IE world. If the supposition that in animal names a derived feminine in *-ehr- denotes a domestic animal and a derived feminine in *-ihr- denotes a wild animal (cf. *ukk*ihr- 'she-wolf'), it may be the case that in the western IE dialects showing *maṁkos its meaning in those stocks was 'wild horse' and it was opposed to *ष्ठेकष्ठेष्ठु 'domesticated horse'. Beyond the certain Celtic and Germanic cognates it has been suggested that this putative PIE *maṁkos is related to a series of words for 'horse' that extend eastward, in non-IE languages, all the way to the Yellow Sea. Thus we have Mongol morin, Chinese mā, Korean mal, Burmese mān. Opinion is divided as to whether, if the PIE word belongs with the others, the PIE word is a borrowing from, say, pre-Mongol (which would also be the source of the Chinese word and that in turn the source of the Korean and Burmese) or the Mongol, Chinese, etc., words are ultimately borrowed from PIE. Under either borrowing scenario *maṁkos would have had to have been much more widespread in PIE than its Celtic and Germanic reflexes would suggest.

*घेतो *gheto 'horse (Equus caballus)'. [IEW 424 ("ghtei-"; GI 441; Buck 3.44). Arm āt 'horse', Olnd āsta ‘horse’. A derivative of *ghet- 'impels, stimulates, drives'. An innovation of the center and east of the IE world.

??मेंडोस *mendoš 'horse'. [GI 474–475]. Romanian (e. Dacian) mînz 'colt', Thracian Meṣgyos (name of horse-riding divinity), Illyrian mandos 'small horse', Mesapic jupiter Menzanas (name of divinity to whom horses were sacrificed), Alb mez 'foal'. Cf. Lat manus 'small horse'.

Distribution of Wild Horses

The horse (Equus caballus) was nearly ubiquitous in Eurasia during the Pleistocene and is commonly divided into two subspecies: the tarpan (Equus ferus ferus or gmelini) and the taki or Przewalski horse (Equus ferus przewalskii). The former was well known on the western steppe, particularly in the Ukraine, and because of its changing color during the winter, it has been identified with the 'white' horses that Herodotus describes north of the Black Sea. The tarpan was hunted to extinction in the eighteenth and nineteenth centuries, the last one dying in a zoo in 1918, although reconstituted...
tarpans, where horses have been specially bred to reflect the physical characteristics of the wild tarpan, do exist. It should be noted that there are those who argue that the tarpan is not a true sub-species but rather the result of very early feral horses. The Przewalski horse, somewhat larger than the tarpan, dominated the more eastern steppe in Asia, especially Mongolia, but has been virtually hunted to extinction in the wild although they survive in the hundreds in zoos.

Although the horse was widely hunted in the Pleistocene, after the Ice Age it became much more restricted in its distribution, a fact that weighs considerably both in the study of its domestication and in discussions of the IE homeland. In general, Europe and western Asia can be divided into three main areas with regard to the distribution of the horse. In some regions, it appears to have been altogether absent or, at least, does not appear in the faunal records of early Neolithic sites. From west to east, these areas would include Ireland, peninsular Italy, Greece, western Anatolia, the Near East, and India. In all these regions the earliest horses appear to arrive from somewhere else, usually after 6000 BC (western Anatolia) or later (c 2500-2000 BC in Ireland, Italy, Greece, and India [claims of earlier horses in India and Baluchistan have never been fully substantiated]). Some of these regions, however, were not devoid of equids since the 'wild ass' (Equus hydruntinus) did exist from Iberia across southern Europe and on into Anatolia although it probably became extinct in most of these regions by c 3000 BC.

A second region is characterized by the occasional presence of horses, in all cases presumably wild and hunted, usually in numbers that suggest marginal exploitation, i.e., 3% or less of the animal remains. This region comprises Iberia, Britain, northern Europe (the horse was extensively hunted here in the Mesolithic), and Danubian Europe (of the over 5000 bones recovered from Linear Ware sites in central Germany; only seventeen belong to horse) eastwards to the western Ukraine (early Tripolye culture). Wild horse remains have been recovered from some early Neolithic sites of Anatolia but by the fourth millennium their remains appear so far to have been confined to northern Anatolia (they do not appear at Troy until the second millennium BC). Generally, the quantity of horse remains recovered from sites falls off as one moves from east to west.

The third region of horse exploitation is the steppe and forest steppe of the Ukraine, southern Russia and Kazakhstan where the horse flourished in large numbers after the Ice Age. They are found to be particularly abundant in the Sredny Stog and Yamna settlements and contemporary sites in the south Russian and Kazakh steppe. On some sites, such as Dereivka, they were the most numerous mammals found and although the Yamna site of Mikhaylovka had greater numbers of ovicaprids and cattle, there were still the remains of over 650 horses on this site. On some settlements, they constitute almost the entire faunal assemblage, e.g., Khutor Repin, and the site of Botai southeast of the Uralis in northern Kazakhstan has yielded horse bones in the hundreds of thousands.

Horse b Perforated objects of red deer antler (8 to 14 cm long) from the Sredny Stog culture that have been claimed by some to have served as cheek-pieces for the earliest domestic horses.

**Domestication of the Horse**

Distinguishing between wild horses and domesticated horses and the various stages in between is exceedingly difficult as horses did not undergo the degree of morphological change experienced by the other livestock upon domestication. One of the primary prehistoric sites of Europe relevant to the entire question of horse domestication is that of Dereivka, a settlement of the Sredny Stog culture in the Ukraine, which in the "Kurgan solution" to the IE homeland problem has often been portrayed as an almost archetypal settlement of the earliest Indo-Europeans. Initial comparisons of the skeletal remains of a stallion from Dereivka with that of the tarpan, Przewalski horse, and what are presumed to be early domesticated horses led to the conclusion that the Dereivka stallion more closely resembled the domestic than the wild horse but such a proposition has been disputed on the grounds that we have a very imperfect knowledge of the range of variability among wild horses (the comparative tarpan sample comprised only two specimens). Another approach to distinguishing wild from domestic horses is the age-slaughter pattern since this is expected to differ between horses that have been simply hunted against domesticated horse, especially when they have been bred for other uses such as riding or even for their meat. Again the results have been contradictory with some claiming that the horses from Dereivka reflected the pattern of horse-keeping among Mongolians while others have argued that it could be better explained by hunting though possibly assisted by horse-mounted hunters.

Other approaches to determining horse domestication are technological. At Dereivka and other sites of the Sredny Stog and Yamna cultures, perforated pieces of antler have been recovered that have been interpreted as cheek-pieces (or
psalia), devices for securing the bit in the horse's mouth. The presence of horse-bits presumes horse-riding and it has been argued that it would be impossible to secure horses alive in the wild or to control and herd them without also being able to ride them. But it has also been argued that the objects interpreted as cheek-pieces may not have served in that capacity. There is no unequivocal association of a pair of such devices, for example, with horse remains (although two were found at Dereivka) nor do we find such devices after these Copper Age cultures for at least a millennium or more when indistinguishable metal cheek pieces appear in the Bronze Age. Nevertheless, experiments have been conducted that have demonstrated such antler objects could have served as cheek-pieces although that need not have been their intended function.

One further line of evidence for the use of the bit has been suggested by the analysis of bit-wear on the horse's teeth since it has been argued that it would be impossible to secure horses alive in the wild or to control and herd them without also being able to ride them. But it has also been argued that the objects interpreted as cheek-pieces may not have served in that capacity. There is no unequivocal association of a pair of such devices, for example, with horse remains (although two were found at Dereivka) nor do we find such devices after these Copper Age cultures for at least a millennium or more when indistinguishable metal cheek pieces appear in the Bronze Age. Nevertheless, experiments have been conducted that have demonstrated such antler objects could have served as cheek-pieces although that need not have been their intended function.

It is clear then that the precise date of the origin of horse-keeping and riding is still disputed. What is not at issue is the fact that in the southern Ukraine, south Russia and Kazakhstan there was intense and selective exploitation of the horse from at least c 4500 BC onwards. Whether it was based on selective breeding of horses, more generalized keeping, a combination of the two, or something far less structured remains problematic. So also does the assignment of the domestic horse to a series of late Neolithic or Copper Age cultures in northern and central Europe. It has been suggested that while horse remains are minimal on early Neolithic sites of the region, their numbers are such on some of the later Neolithic settlements to indicate that they may have been domesticated. The Altheim culture (c 3600 BC), Bemburg culture and some late sites of the TRB culture have been cited but the evidence has not been scrutinized in such a way to permit solid conclusions. The rise in horse remains on later Neolithic sites has also been attributed to climatic change that favored the expansion of wild horses at the time.

The current model of a steppe origin for horse domestication makes sense with respect to the abundance of the horse remains encountered in this region, the unequivocal development of horse-riding in this region in later prehistoric times, and the subsequent appearance of the horse in regions adjacent to the steppe region, e.g., the earliest domestic horses to the south appear first in the Caucasus and then eastern Anatolia while those in Central Asia appear to derive from the steppelands to the north. But analysis of horse remains from central European and north European sites of the later Neolithic and subsequent periods also suggests that there are marked differences between the steppe horses and those of other parts of Europe and one cannot speak of a replacement of the native European horses by steppe horses. In western Europe, for example, where the domestic horse appears by c 2500 BC in contexts of the Beaker culture, there is great variation in the size and presumably origin of horses from Ireland to Iberia. It is reasonable to suppose, therefore, that the spread of the domestic horse entailed not only the movement of the horses but, in some or many instances, merely the spread of the idea of horse domestication. Analysis of horse remains, for example, from Sweden suggests that the domestic horses of the Bronze Age here were derived directly from the native horses following the Ice Age and similar claims can be made for early domestic horses in central Europe. Although some have sought distant eastern links for *märkos 'horse', which in Indo-European is confined to the northwest stocks (Celtic and Germanic), it is difficult to see how one can match the western distribution of the IE cognates with the eastern distribution of its putatively non-IE borrowings or loans. The only major east to west movement of horses, after their initial domestication, was in the Iron Age where we have steppe horses which were introduced into the Carpathian basin by the Scythians. These were subsequently brought to Austria and Italy by exchange. At a withers height of over 136 cm, they were larger than the native Celtic horses of the time (126 cm) and so it is difficult to see how an "eastern" name would have been introduced into western Europe and assigned to a different variety of native horse. It seems more likely that such an isogloss could be better explained as the name of the local wild horses of western Europe or the name applied to the native domesticates of this same region.

Exploitation of the Horse
Irrespective of where one finds remains of Neolithic horses, it is clear that the horse was exploited primarily for its meat, and on some sites it constituted the primary, sometimes virtually the exclusive, source of meat. Prohibitions against eating horse-flesh do not seem to appear until the Bronze Age. At some time over the period c 4500-2000 BC, the use of the horse as a means of transport and for the management of herds was also developed. It is often presumed that the small size of the steppe horses, generally about 136 cm at the withers, would have left them unsuited to pulling the type of
heavy carts or wagons with disc wheels that we find in the Copper Age and it would not be until the invention of the lighter spoked-wheeled chariot that the horse became an effective draft animal. Another limiting factor in so far as the employment of horses for draft was the harnessing mechanisms that we find employed across at least the later Europeans which appeared to be designed to suit the physique of an ox rather than that of a horse, and were, consequently, extremely inefficient. Other than the possible carrying or pulling of loads (cf. the travois of the American Indian), the primary role of the horse in transportation was presumably riding.

It has long been regarded impossible to reconstruct to PIE a word for 'ride a horse' as we generally encounter new formations, themselves built on the word for 'horse', in the various IE stocks, e.g., Gaul marcosior 'I would like to ride' from *markos, and a series of words rebuilt on *h2ekysos 'horse', e.g., Lat equitare 'to ride', Grk ἵππος 'a horse', OInd avṣayaṇi 'rides a horse'. But Wolfgang Meid has suggested that *h2eky-os- 'rider', which is attested in Lat eques (gen. equitis) and Grk ἵππων, may point to a word of some antiquity.

The linguistic evidence aside, the existence of horse-riding among the early Indo-Europeans has been challenged as a comparatively late phenomenon as opposed to the use of the horse in pulling the light, spoke-wheeled chariot, which was developed in the centuries before 2000 BC and which accompanies much of the earliest equestrian evidence for the Indo-Europeans, specifically the Mycenaeans, Hittites, (Indo-Aryan element in) Mitanni, Iranian and Indo-Aryan. Nevertheless, there are also clear instances of horse-riding as well and it is exceedingly difficult to imagine a system of horse domestication that did not first involve the riding of horses in order to control herds. Among the Hittites the horse is most closely associated with the god Pirwa who is both described and, in the form of statues or on seals, depicted as riding a horse. Indic tradition also offers early evidence for a word for 'ride a horse' as we generally encounter new formations, themselves built on the word for 'horse', in the various IE stocks, e.g., Gaul marcosior 'I would like to ride' from *markos, and a series of words rebuilt on *h2ekysos 'horse', e.g., Lat equitare 'to ride', Grk ἵππος 'a horse', OInd avṣayaṇi 'rides a horse'. But Wolfgang Meid has suggested that *h2eky-os- 'rider', which is attested in Lat eques (gen. equitis) and Grk ἵππων, may point to a word of some antiquity.

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The impact of horse-riding has been regarded as revolutionary since it provided a high-bulk means of transport and permitted high-speed movement from one territory to another. It has been suggested on the basis of evidence from American Indian ethnographies that the introduction of the horse-riding in Eurasia would have permitted communities to exploit territories up to five-times larger than were previously occupied and the area of social groups might increase ten-fold. With the introduction of the horse, populations occupying river systems of the steppe could now exploit the open grasslands and begin incipient pastoral nomadism (the evidence for semi-mobile pastoralists has been employed as secondary proof of horse domestication in the fourth and third millennia BC). Horse-riding also would grant to those communities that possessed it a decisive military advantage over their neighbors, both in terms of swift raids and also in avoiding pursuit. As was the case with the American Indians, who gained the domestic horse only after European contact, horse-riding would itself stimulate the emergence of a complex of horse-associated system of values (wealth, prestige, and ethics of warfare).

The Horse in Indo-European Myth

The horse had developed a powerful imaginative presence in IE sources even before it became a prime mark there, as the ubiquitous mount of a warrior-noble (as expressed in the terms ritter, cavalier, caballer0 and others). As an adjunct to the warrior, the horse seems first to be presented (in the archaic Greek and Indic sources) as one of a chariot pair, propelling the hero-warrior toward his enemy. The Irish insistence on the war-chariot's use in their own heroic literature is not borne out by archaeology and may be a late borrowing. Eventually, as in the western medieval context, the horse shows up as the Second Function (F2) figure par excellence, as in the widely known trifunctional collective of Knight, Horse and Hound: Knight emblematic of directing intelligence or, better, esprit; Horse signifying warlike energy; Hound expressive of faithful service.

The association of horse and IE horse-riding hero can begin with the extraordinary birth of this hero, when a horse is "twinned" to him by being foaled at the same time he is born: this is seen, for instance, with the Irish hero Cú Chulainn and the Welsh Pryderi. The essential identity of the two is reinforced if the hero is called 'mare-suckled' (we have ancient Greek and medieval Serb evidence) or if, in reverse, the animal is given specifically human traits. So Xanthos, chariot-horse of Akhilleus, had oracular powers, and the horse of the legendary Serb hero Marko Kraljević, Sarac, knew human speech and drank wine like his master. Myth very often "mixes" the two, horse and hero: the Greek god Poseidon, in stallion-shape, sired at least three sets of human twins while Pegasus and a human hero, Krhrasor, were sired by Zeus, also in the shape of a stallion, on Medusa: the two were "born" together when their monster-monther was beheaded by Perseus.

Another set of beliefs connects the natural and animal powers of the horse to a natural locus of power such as the wind—and mares in ancient Thrace were thought to be impregnated by the North Wind—or by or in water.
Extraordinary horses in the Armenian and Serb epic-heroic contexts were ‘water-born’, emerging from a lake (or sired by a stallion who came from a lake), and so were the chariot-horses of the Irish Cú Chulainn. The theme of twinning of horse and hero also continues in Armenian epic where the founding figures of a great heroic line were born after their mother had been impregnated in a lake, so they were considered ‘water-born’ while the Old Indic Mahābhārata (1.31.54) relates how Indra “obtained the horse Vaisvānara, the ancient fruit of the waters, as his mount”. Water-horses may simply be hostile and monstrous, however, as they are in Norse folk-tradition.

The monstrous aspect of the horse indeed can show itself variably: in Greek legend there are flesh-eating horses that kill their master (these, too, were Thracian) and one of the widely-circulated tales about Alexander the Great had it that his horse, Bucephalos, was a man-eater. Other horses may be monstrous in their shape, like the eight-legged Sleipnir in Norse myth or the six-legged Lazky in the Armenian epos; the term ‘winged’ for a hero’s mount, especially known in the Serb epos, evidently may be taken either figuratively or literally. But the monstrous aspect of the horse is also most closely associated with its fatal significance as a “horse of death”, bearing its master on to his inevitable end. In Hades the Lord of the dead was ‘famous for his horses’ and is associated with the shades of the underworld. So, as the horse may be a sign in the IE-speaking world, of wealth, prestige, and rank, in the world of the imagination it occupies an ambiguous and often threatening and fatal place: in terms of the IE hero-figure—the primary horse-rider—and his various traditions the horse accompanies this human or superhuman exemplar from cradle to grave.

Other aspects of the horse, though widespread, are also found outside of IE traditions so that their specific attribution to PIE is suspect. For example, the concept of the sun (god or goddess) coursing the sky in a chariot or wagon drawn by white horses is widespread. Baltic tradition depicts the sun goddess Saule travelling across the sky in a wagon drawn by four white horses. Among the Greeks, the sun god Helios also travelled across the sky in a horse-drawn chariot while the Old Indic sun god Sūrya had seven horses to pull him across the sky. The antiquity of such a motif can be seen in late Bronze Age Denmark where the bronze model of a horse pulling a golden sun-disk was recovered from a bog at Trundholm. But this motif is hardly confined to the IE world, e.g., there is evidence for the association of the solar deity with a horse-drawn wagon also in Mesopotamia.

Another mythic motif that has been projected into the PIE past is that of the horse tethered to the Cosmic Tree. The Old Ind avātāha- ‘horse tree’ is interpreted as the Cosmic Tree or axis mundi of the ancient Indians and, it is argued, finds a Germanic parallel in the ON Ygg-drássl, the Germanic Cosmic Tree, the name of which literally means ‘Ygg’s by-name for Öðinn that means ‘terrible, rough’) horse’. 

Horse Sacrifice

Many if not most IE stocks reveal evidence for the sacrifice of horses. These may range from mortuary offerings to specific horse sacrifices, often as part of an inauguration ritual. This latter, it has been suggested, may well have its roots in PIE ritual since vestiges of it have been found in Celtic, Latin and Old Indic traditions. The clearest expression is to be found in the Indic aśvamedha, the inauguration ceremony of a king. Although a highly complicated affair, the pertinent comparative elements that are usually invoked are the following: 1) the sacrifice was concerned with the elevation of a member of the warrior-caste and although Prajāpati was the recipient, the original recipient is believed to have been the warrior deity Indra; 2) the ceremony took place in the spring; 3) the horse, a stallion, is described as grey or white; 4) the stallion selected was that which excelled on the right side of the chariot; 5) the stallion was bathed in water in which a dog was sacrificed and deposited; 6) the stallion was sacrificed along with a hornless ram and a he-goat (and many other animals were also dispatched); 7) the queen underwent a mock “coupling” with the stallion; 8) the stallion was then cut up, portions being awarded to different deities who bestowed the canonical three functional gifts of spiritual strength, physical strength, and wealth.

Parallels for this ritual have been sought in the Roman Equus October. These include: 1) the victim was offered to the warrior deity Mars; 2) the sacrifice took place during September-October, the Roman equivalent of the Old Indic month āśvayuja- ‘month of the yoked horses’; 2) the victim was a stallion which excelled on the right side of the chariot; 3) the victim was dismembered, the head and the tail (some would argue a euphemism for penis) going to different locations.

The Irish analogue to all this was recorded in the Middle Ages by the Norman Geraldus Cambrensis who described the inauguration ceremony of a king in Ulster. Similarities with the other rituals comprise: 1) the high probability (Geraldus is not entirely explicit) that the king couples with the mare to be sacrificed; 2) the victim is dismembered (and is placed in a large cauldron to be boiled and then consumed by the king who also enters the cauldron).

The underlying structure of this ritual, which is supported by elements of IE myth, involve the coupling of a king with a mare, the latter which is seen as a representative of the tri-functional goddess of IE myth, i.e., the goddess who can impart to her chosen mate the blessings of the three “functions” of IE society. Some lexical support for this ceremony is claimed by the similarity of the Gaulish personal name Epomeduos and Old Ind aśvamedha. The Celtic form is a compound of ‘horse’ and *medhu ‘mead, intoxicating drink’ while the Indic compound is composed of ‘horse’ and either ‘drunk’ (< *mad-dho-) or ‘strength’ (< *me-dho>). This coupling, incidentally, produces the Divine Twins of IE myth. There are also numerous problems involved here which have been widely debated, e.g., the Roman myth has nothing to
do with a royal inauguration, the manner of execution of the horse (strangulation in India and a spear in Rome), and the degree to which the various rituals would appear to be concerned with fertility rites. Some, such as Edgar Polomé, regard the reconstruction of the horse sacrifice to PIE as unjustified given the differences between the various traditions.

The primary archaeological context for the ritual use of the horse is in burials. The tradition of accompanying burials with the full or partial remains of horses extends from the Copper Age down well into the historical period. Nearly three hundred cemeteries with horse burials are known from England to central Europe during the Middle Ages, for example, while the Baltic region displays an abundance of horse burials as well. The execution of horses upon the death of a Scythian king is described by Herodotus and royal tombs of the Iron Age steppe may number horses in the hundreds. This practice is widely found from the Ukraine to the Altai mountains. The horse was also frequently deposited with burials in Iron Age India. Horse burials are by no means confined to IE populations and are also widely known among the Turkic peoples, including the Avars of eastern Europe.

The earliest evidence for horse burial, however, has been presented as a marker of IE-speaking communities by some scholars who have emphasized the importance of the horse among the earliest Indo-Europeans which should also find a resonance in ritual. Some of the earliest ritual evidence cited is the horse skull from Dereivka which was accompanied by the forelegs of another horse and the remains of two dogs. This evidence has been interpreted by those who see it as a ritual deposit as an example of a “head and hooves” cult, i.e., where the head and hooves of the animal were mounted upright on a pole which subsequently collapsed. Horse skulls have also been recovered from the soil overlying the Khvalynsk cemetery of the middle Volga region. In both cases, their attribution to a deliberate ritual has been challenged. More certain are the depositions of horse remains within actual burials. This practice occurs on occasion in both the Yamna and Catacomb cultures where we find the skulls, hooves, and “head and hooves” buried with the deceased; sometimes this is in conjunction with other animals (cattle, sheep/goat, dogs). Horse skulls have been recovered on occasion from burials of the Globular Amphora, Corded Ware and Beaker cultures. These attest the suitability of the horse in the mortuary ritual of these various cultures but do not insure that the depositions are of domestic horses since all of these cultures buried wild as well as domestic animals with their deceased.

See also Dereivka; Divine Twins; Horse Goddess; Mammals; Sacrifice; Sredni Stog Culture; Transfunctional Goddess.

Further Readings


HORSE GODDESS

Various Indo-European mythologies reflect the existence of a Horse goddess. Although the names of the deities are not always cognate with one another, there are enough shared linguistic elements to reveal a common structural theme that may have been absorbed into the existing mythology of pre-Indo-European peoples. The horse goddesses are best represented in Old Indic tradition and among the Celts as the Gaulish Epona, the Welsh Rhiannon and the Irish Macha.

Celtic

The Irish goddess Macha was personified as three distinct mythological female figures. The first Macha was a prophetess (= First Function), wife of Nemed, 'the sacred one'. Macha foretold the suffering of the Ulstermen who fought in the Tain Bó Cuailnge, the "Cattle Raid of Cooley". The second Macha, the warrior Macha Mongruad, 'red-maned Macha', fought the sons of King Dithorba for the right to finish her father's term of office as ruler of all Ireland. Macha was victorious, and she ruled for seven years. She later compelled the sons of Dithorba to build a fortress for her, the fort of Emain, shaping the boundaries of the fort with her brooch. That fort became the capital of Ulster. Macha later fell in battle, slain by the warrior Rechtaid 'red-wrist'. The color red underlines Macha's martial characteristics. (Similarly, the Indic goddess Devi becomes the 'red-toothed' after battling, and consuming, the Asuras; cf. Devimahatmyam 11 44–45).

The third Macha, she who fulfilled the Third Function, upon marrying a farmer, greatly increased his wealth, and became pregnant with his children. Superimposed upon her Third-Function fertility traits is the element of hiphomorphism found also in the Welsh Rhiannon and Greek Déméter. Macha was compelled to take on the function of a
horse, racing King Conchobor's horses, even though her pregnancy was at term. As she reached the finish line, victorious, she gave birth to twins, a mare and a boy, and then she died of the exertion (Metrical Dindshenchas "Ard Macha" 93 ff.), cursing the Ulstermen as she died. Each man and his descendants, through several generations, would in time of need be as weak as a woman in childbed, suffering the "pangs of Ulster". Later, when the Ulstermen battled the men of Connacht in the Tāin, the men were for a long time incapacitated by these "pangs".

Macha may be seen as a "transfunctional" or "tripartite" goddess, serving the three Indo-European functions of priest (prophetess), warrior, and fertility figure. To these functions was superimposed the function of horse, probably the horse which was sacrificed in the Indo-European horse sacrifice: the Indic aśvamedhā, the Roman Equus October. This association receives some linguistic support in the thematically cognate figure of Queen Medb.

The epic Queen Medb was depicted as two figures: Medb of Connacht and Medb of Leinster ('Medb Leithderg'). She has the same characteristic traits in both of her embodiments and she is obviously one female figure, a transfunctional goddess.

As queen of Connacht, Medb had several husbands, each of whom became king when he married her. She set rules for her husbands: they must be 'without stinginess, without jealousy, without fear' (Tāin Bō Cūailnge 27–28). In the Tāin, Medb's wealth was equal to that of her husband Ailill, save one bull; Medb, in order to match her husband, and to maintain an economic and thus social equalitarianism with him, decided to steal a brown bull which belonged to the people of Ulster, the brown bull of Cooley, and she therefore initiated the war of the Tāin.

Medb was queen in her own right (Metrical Dindshenchas, "Ath Luain" 17); a warrior who led the campaign against the province of Ulster; and a nurturing figure, 'the best (of all her sisters) in pledges and bestowal (of gifts)' (Tāin 15–16). She was in reality a transfunctional goddess who conferred sovereignty upon her mate. Lexically, OIr medb is 'strong, intoxicating'. Fláith, an Irish sovereignty figure, in Old Irish meant 'sovereign, rule', but in Modern Irish it also means 'ale'. In the Scēla Cano Meic Gartnāin 452–453, a man will not 'be a king over Ireland if the ale of Cuala does not come to him.' In the Book of Leinster (6416), Medb of Leinster is called 'the daughter of Conan of Cuala'. So Queen Medb is the ale of Cuala, and it is she who brings the sovereignty over Ireland.

Rhiannon, the Welsh goddess, perhaps 'great queen' (cf. Wels rhain 'maiden', OIr rigin 'queen'), was associated with birds and horses. She appeared in the first branch or chapter of the Mabinogi riding a white horse. She married the hero Pwyll, and subsequently gave birth to a son, later named Pryderi; the child was stolen at birth, and her serving women, swearing that Rhiannon had murdered her son, substituted the bones and blood of an animal for the body of the baby. Rhiannon was made to suffer penance for this crime: she must sit near a horse-block outside the city gate, and offer to carry passersby on her back to the king's lottress. In a later chapter of the Mabinogi, Rhiannon was made to wear around her neck the collars of donkeys. She was thus a horse-substitute. At the very time of Pryderi's birth, the horse of Teyrnon Twf Liant bore a colt. Moments later, Teyrnon Twf Liant found a child, of obviously noble birth, lying just outside his door. Liant and his wife raised the boy, along with the colt, and subsequently, hearing of Rhiannon's misfortune, brought the boy to her. Thus Rhiannon, herself treated as a horse, gives birth to a child who is reared along with a horse (cf. Dēmētēr and Macha, both of whom give birth to both a horse and a child). Rhiannon is also connected with birds; the birds of Rhiannon sing while the bodiless head of Bendigeidfran, son of Lyr, talks to his seven friends for seven years.

Epona was the Gaulish Horse goddess. Her name appears in a multitude of Roman Celtic inscriptions, and the goddess is depicted in about two hundred images as a female figure sitting upon a mare, or flanked by horses. She is depicted with cornucopiae, fruit, corn and sometimes dogs. Epona herself has no mythology, but the equine myths of both Macha and Rhiannon probably are similar to those of Epona. The Greek Apuleius described an image and shrine of Epona (The Golden Ass 3.27); according to the Roman satirist Juvenal, soldiers worshipped Epona, hanging her picture in their 'smelly stalls' (Satires 8.156.7). Plutarch gives her a mortal origin: she is the product of Fulvius Stella, who hated women, and a mare (Moralia 312E). The latter description, as well as Celtic myth, may point to the Indo-European ritual horse-sacrifice, known in India as the aśvamedha.

Greek

The Greek Dēmētēr (Roman Ceres), although essentially a cereal goddess, the goddess of vegetation, offers some parallels with the other horse goddesses. The most famous hymn to her is Homeric Hymn Two, which describes her daughter Persephone's abduction by the underworld god, Hādēs, Dēmētēr's world-wide search for her daughter, and her eventual arrival in Eleusis, where she established the Eleusinian Mysteries, a Greek mystery religion which probably celebrated death and regeneration. As long as Persephone was in the underworld with Hādēs, Dēmētēr allowed no vegetation to grow; the land and living creatures were barren. Finally Persephone was allowed to return to Dēmētēr and the upper world, albeit for only part of the year. While searching for Persephone, Dēmētēr was pursued by Poseidon; she transformed herself into a mare, in order to elude him, but he metamorphosed into a stallion and raped her. Dēmētēr subsequently bore twins: a daughter, the Despoina, and a horse, Areton. In this form the goddess was called Dēmētēr Erinyes. A similar myth is told of the Indic Saranyū, who fled from her husband Vivasvat, having assumed the form of a mare. Vivasvat metamorphosed into a stallion and caught up with her, and of their intercourse were born the twin Asvins.
Indic

Mādhavi, an Indic epic heroine, was given by her father Yāyāti to a young brahman, to enable the youth to fulfill a vow which he made to his guru: to obtain eight hundred horses, each the color of the moon, and each characterized by one black ear. The brahman gave Mādhavi in marriage to three kings in succession, receiving as purchase price from each king two hundred of the rare horses. Since these six hundred horses were the only moon-colored black-eared horses in existence, the guru accepted Mādhavi in place of the last two hundred horses. Mādhavi bore a son to each of her four husbands, and she recovered her virginity upon the conclusion of each marriage.

After the fourth marriage, Yāyāti held a svayamvara for Mādhavi. The svayamvara was a ceremony in which a young woman selected a husband from among a number of suitors. But Mādhavi chose vana, the forest, and an ascetic life, and she thus became a perpetual Virgin. In this virginal, autonomous state, she became recharged with energy and virtue.

Many years later, Yāyāti died and went to heaven; while there, becoming guilty of great pride, he fell back from heaven to earth. As he descended, he prayed that he might land in the middle of good men. He landed among his four grandsons, as they were performing sacrificial rites. The grandsons, along with Mādhavi, who came out from her forest hermitage, each gave to Yāyāti a portion of his virtue, and Yāyāti was enabled to ascend to heaven once again.

The name Mādhavi has the root found in the Old Irish Medb (and Gaulish Meduna and Medugenus). The Old Indic reflex of the root is madhu ‘sweet drink, honey, soma, milk’. The root underlying the Indic Aśvamedha which is sometimes compared here may be connected with OInd mad- ‘boil, rejoice, get drunk’, again indicating an intoxicating substance although by a different word; this substance played a part in the Indo-European ritual of the horse-sacrifice, the ritual which established the sovereignty of a king. The ritual of a sacrificed mare became the myths of Mādhavi exchanged for horses, of Medb the intermediary of sovereignty, and of the Celtic Macht and Rhiannon, forced to perform the functions of horses.

Although it is not possible to reconstruct a PIE *Horse goddess in the strict sense, there is considerable evidence for the existence of a bundle of IE themes concerning horse, twins, marriage or legitimation of a king and intoxication that were incorporated into the structures of previously non-IE pantheons.

See also Horse, Transfunctional Goddess. [M.R.D.]

Further Readings

Horse Sacrifice see Horse

Hostile

*āsmanēs* ‘hostile’. [IEW 727 (*men*); GI 683; BK 154 (*t'om*); Grk ἀσνανής ‘hostile’, Av āsmanah- ‘hostile’, OInd ārmanās ‘sad’. Distribution is limited to late IE innovating dialects. From *ās*- ‘bad’ and *men- ‘thought’. See also Bad, Hate. [E.C.P.]

House


*ādman (hada) ‘house’. [IEW 198–199 (*dono*); Wat 11 (*dema*); GI 645 (*t'om*); buck 7 12, 7 122; BK 133 (*tim-/*t'em-).] Lat domus ‘house’, dominus ‘master of the household’, Lith namas (with assimilation of *d*- to the nasality of the following *m*) ‘house’, OCS domu ‘house’, Rus dom ‘house’. Grk δόμος ‘house, course of bricks’, OInd *dama- ‘house’. Directly derived from *ādman(hada) ‘build’ or a thematicization of the previous word. Whatever the exact morphological history, clearly of PIE status.

*āvaśostu ‘dwelling’. [IEW 1170–1171 (*ves*); Wat 78 (*ves*); GI 645 (*Hwes*); buck 7 12, 7 122, BK 368 (*aw-/*sw*).] Grk (πέραστo ‘city’, OInd vāstu ‘place, seat, thing’, cf. vāstus- (< *āvaśostu*) ‘house, dwelling’, TochA wast ‘house’, TochB ost ‘house’. Cf. also OIr i *foss* ‘at home’, Wels gwes (< *āvaśostos* ‘abode’, ON visr (< *hvestis*) ‘sojourn’. A derivative of *āvas- ‘dwell, pass the night, stay’, as seen for instance in Grk κύκτω αἰ(φ)εία (I passed the night) or Hit hues- ‘alive’). Both Greek and Hittite presuppose a PIE *āvas- for the underlying verb which is incompatible with a direct relationship with Grk (πέραστo. Perhaps Proto-Greek *wastu, with its admittedly difficult root vowel, is a borrowing from some non-Greek but Indo-European language of the Balkans which had already lost the initial laryngeal. In any case, *āvaśostu would appear to be of PIE age. Difficult also is a relationship with Lat Vesta (goddess of the hearth) and Grk ἀετή ‘hearth, altar, house, family’, since they too show no sign of an initial laryngeal. Perhaps we have a variant *ves- of *āvaśostu ‘burn’ in this case.

The Proto-Indo-European House

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family, tribe', Wels tref 'village', a-dref 'at home', Lat trabs - trabs 'beam, timber, rafter, roof-tree' (with analogical zero-grade), Osc tribo- (< *treb₁₂), 'house', ON horp 'farm, estate, grave mound', prep 'vault', prep 'estate', OHG dorf 'village, estate', Goth haus 'field, land, property', Lith troba 'house, building', Latv traba 'building'. Cf. *trebno- in Umb tremnu 'augural tent', Grk tépauva - tépauva (< *térpau- with an intrusive medial vowel breaking up the difficult consonant cluster) 'house, dwelling'. Widespread in the west and center of the IE world.

*solo/vëh₂ - 'dwelling, settlement'. [IEW 898 (*sel-); Wat 57 (*sel-); Gl 649 (*sel-)]. From *solo/vëh₂: ON sal 'building, room', OE sæl 'room, hall, castle', OHG sal 'building, room', Goth saljan 'stay; be the guest of' (denominative verb to an unattested *sals 'dwelling, room'), Lith (dialectal) sala 'village', Latv saļa 'village', from *solivëh₂: OE sæl 'dwelling, house', OHG sælōd 'dwelling, house', Goth (pl.) salōwōs 'inn, dwelling', OCS selëva 'dwelling'; other formations: ON sel 'chalet, mountain dairy', OE sel 'hall, house, dwelling, prison', gesele 'tabernacle' (ON/OE < *solj̩-), sel 'hall, palace, residence', OCS selo 'field, village', Rus selo 'village'. Northwestern dialectal term.

*Kél (gen. *Kól Löš) 'store-room'. [IEW 553-554 (*Kél-); Wat 28 (*kel-)]. Lat cella (< *cela with length reassigned from vowel to consonant) 'store-room, cell, granary', clam 'secretly, privately', Grk καλήτα (< Pre-Grk *kal-is-iá-) 'woodendwelling, hut, nest, shrine, grotto', NPers sāray 'abode', Olnd sála 'building, house, room', salám 'at home'. Cf. Olr cuile (< *kolih₂) 'store-room, kitchen', and also ON holl 'great hall', OE heal 'hall' (> NE hall), OHG halla 'hall' (as if < *kolih₂). A root nominalization from *kel- 'protect, conceal' with a sufficiently wide distribution to suggest PIE antiquity.

*Ket- 'room'. [IEW 586-587 (*két-); Gl 126 (*kʰet-). OE heador 'enclosure, prison', Goth hēþjō 'room', OCS kotic'chamber', Rus kotec 'fishweir', Av kata- 'chamber'.

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NPers *kad 'house', Olnd *katla 'hidden'. Grk *kotralh 'cup'; has been also been assigned here but this may be disputed. Distribution indicates PIE status. This word was borrowed into Finno-Ugric, e.g., Finnish *kota 'dwelling, tent, hut', Estonian *koda 'house', Mordvin *kudo 'house'.

*gubhok- 'store-room, alcove'. [IEW 395 (*gupha); Wat 33 (*kuv-); Buck 7.13, 7.21]. On *koli 'room', OE *cola 'cove, bedchamber' (cf NE cove), OHG *kubisi 'hovel', Bajui *hidaij (*Proto-Iranian *pati-gubhaka-) 'lower part of storeroom'. The apparent agreement of Germanic and Iranian is strongly suggestive of PIE status for this word. Perhaps from the rather amorphous root *gev- 'a bend'.

*pēr (gen. *pēnos) 'house'. [Gl 645; BK 61 (*p[hi]-/*p[hi]es-)]. Ht *pēr (gen. *parnas) 'house', *parna- 'house', *parna- 'build', Luv *parna- 'house'. HierLuv *parna- 'house', Lycian *prinawa- 'build'. The nominative *pēr is the phonologically expected outcome of the morphologically regular *pērī. Attested as such only in Anatolian, the word is not securely PIE in status. In favor of such status is the obviously archaic shape of its paradigm and the possibility, allowed by some, denied by others, of relating to this word the widespread *prihkos 'dear, beloved' (cf *of the [same] household). There is also perhaps one possible cognate outside of Anatolian in Iranian where we find Khot *pira- ('*ppa-') 'house'. Against attributing PIE status to this word is, of course (if one does not accept the Iranian word is cognate), its restriction to Anatolian and the existence of words of a similar shape in non-IE languages of Asia and Africa, e.g., Egyptian pr 'house', Hurrian *pur(u)lit 'house'.

The range of architectural forms which a house might have taken during the period of PIE antiquity is considerable. The structure might be set either on the surface or sunk into the ground, i.e., semi-subterranean. Its walls may have consisted of stone, stone foundations with mud-brick superstructure, wooden planks, posts interwoven with wattle and daub, or walls constructed of stacked sods. The shape of the house might range from circular, small rectangular, rectangular with an apsidal end, to a long house and the number of rooms may have varied from a single to many. Other appurtenances may have included a porch or an interior court. Although most structures were single-storied, there is also evidence for two-storied structures as well. Entrance was almost always through a doorway although in Anatolia there is also evidence of entrance portals through the roof. Settlement in most areas of Europe and Asia was nucleated, i.e., a series of houses clustered together to form a village; although there is also evidence of dispersed single-house settlements, especially on the northernwestern peripheries of Europe.

The terminology associated with Indo-European domestic architecture permits at best the most general description of its structure. The primary words for 'house' would appear to have been *dōm or *dōm(h₁)os with *h₂óstu 'dwelling' as a term both vague in meaning and derivative in construction. Reconstructing words for the various parts of the house is more difficult. One can easily reconstruct a word for 'hearth' but the presence of a hearth is, of course, not diagnostic of any particular culture or construction type. The 'floor' of the house is limited to a Germanic-Greek isogloss, *dēm-pedon. For 'roof' we have much stronger evidence in the form of a reconstructed *h₁rebh- 'cover with a roof'. The more general *(s)teg- 'cover' is also used for 'roof' in several stocks and, by metonymy, for 'house' in general. This use of *(s)teg- for 'roof' may well be the result of independent developments in the several stocks that show it. In both Germanic and Greek words for 'roof' overlap with words for 'thatch' and that overlap may be significant but one should note that the Iranian descendant of *h₁rebh- means 'plank'. On the other hand, the TochB word for 'roof' is sim from PIE *siympo- 'what is bound together' and might well have originally referred to a bundle of thatch.

There are abundant terms for 'post' but none seems necessarily to have meant 'house-post' or the like. Nor do the words for 'plank', in any case restricted to the European branches of IE, demonstrate anything more than that the Proto-Indo-Europeans were familiar with worked wood of one sort or another, whether used in house-construction or for other things. More significant for the insights it might give us into PIE house-construction is *riedh- 'framework of wood'. The presence of such a word suggests at least one building technique. So does the best attested component of the house, namely the *dhgrō 'door' which is practically universal in the various IE stocks, and which was apparently set between *h₁enba(c)h₁os 'doorjambs', a term whose distribution also guarantees its PIE status. A house with doors and a wooden framework will, practically of necessity, also have walls. The word that would appear to fill this piece of semantic space may have been *dhgrhō though its original referent may have been to something other than the sides of a house. It seems more likely then that its association with words indicating 'dough' and hence 'clay' refers to an earthen bank surrounding a settlement though its extension to the wattle and daub component of a house wall would have been natural enough.

The structural terms associated with the house were also extended to the social unit inhabiting it. For example, as with the term 'house' in English, so does PIE *dom(h₁)os 'house' refer to both the structure and the family inhabiting it while the tatpura compounds with PIE *potis 'lord' designate the patriarch. Thus: Lat *domus 'house' and dominus 'head of household'; Grk *διόμος 'house' and διατηρούς 'householder'; Olnd *dāma- 'house' and dām-pati- 'master of the house', cf. also Grk διόμος 'slave' and διαμάθη 'female slave'.

Proto-forms have also been reconstructed for the unit formed by several joint families: PIE *wek-/*wek- from *wek- 'to settle'. The o-grade form gives *uoikos which designates the physical construction and even stresses topographic.

See also Build; Door; Family; Fence; Floor; Fort; Framework; Ground; Hearth; Master; Plank; Post; Roof; Village; Wall. [A.D.V., D.Q.A., J.P.M.]

Further Reading

HOUSEHOLD see FAMILY

HOW (MANY) see PRONOUNS (INTERROGATIVE)

HOWL

See also Animal CR; Bark2. [D.Q.A.]

HUB see NAVE

HUM
*kem- ‘hum’. [IEW 556 (*kem-)]; Wat 29 (*kem-)]. ME hummen ‘hum’ (> NE hum), MHG hummen ‘hum’, OPrus camus ‘bumble-bee’, Lith kimszu ‘become hoarse’, Latv kamines ‘be, bumble-bee’, Rus cmeth ‘bumble-bee’. Though possibly of onomatopoetic origin, there is reason to suppose that in this word we have something of late (northwestern) dialectal IE date.

See also Bee. [D.Q.A.]

HUMBLE

[E.C.P]

HUNGER
*Kast- ‘hunger’. [Gl 607; Del 84]. Hit kāst- ‘hunger’, TochA kast ‘hunger’, TochB kest ‘hunger’. Secure connection only between Hititite and Tocharian with a variety of questionable suggestions (reviewed in detail by Tischler). The most plausible, to OInd jāsuri- ‘hungry’, would find support in HierLuv astrar on the reading ‘by/from hunger’ and would moreover support a voiced initial. While this might lead to positing *ges-, earlier proposed connections to *gʷes- ‘extinguish’ are not tenable.

*kent- ‘hunger’ (< ‘to burn, hurt’). [IEW 565 (*kent-)]; Wat 29 (*kenk-); Buck 5.14]. ON hungr ‘hunger’, OE hungr ‘hunger’ (> NE hunger), OHG hungar ‘hunger’, Goth hahrus ‘hunger’, Lith kanka ‘pain, torment’, Grk (Hesychius) κήκει to be hungry, κέικανος ‘dry’, Olnd kakate ‘is thirsty’ is cited inIEW but is a ghost word. This represents more likely an independent semantic extension of the root *kenk- ‘to burn, hurt’ than a PIE form.

See also Eat and Drink; Pain. [J.C.S.]

HUNT
*leuhr- ‘hunt’. Preserved as such only in Slavic: OCS lovi ‘hunt’, loviti ‘to hunt’, Rus lov ‘capture, catch’, loviti ‘chase, hunt, capture, catch’. A derivative *leuhr-, on (gen. *luh:no) ‘the one of the hunt’ persists in Grk λέον ‘lion’ (< ‘the hunter’), TochA lu ‘animal’, TochB luwo ‘animal’ (< ‘the hunted’). (From Grk λέον was borrowed Lat leo, whence the word for ‘lion’ in most western European languages.) The Greek-Slavic-Tocharian distribution strongly suggests a PIE word.


*hūgrelā- ‘hunt’. [IEW 94 (*ūg-rl-); cf. Wat 1 (ag-)]. OIr är ‘carnage (especially by dogs), battlefield’, Wels aer ‘battle’. Grk ἄγρη ‘hunt’, Av azro- ‘hunt’. Although all are derived from *hūgrel-, ‘drive’, the antiquity of this loose set of comparisons is not clear. The Avestan term occurs in a compound hapax -azro-dāišm as an epithet of a she-wolf and is also translated as ‘roaming in the fields’, cf. also Olnd ghase-ajra- ‘stimulating the appetite’.

See also Lion; Release. [E.C.P., D.Q.A.]

Further Reading

HURRY

(a horse) jump; sprinkle, strew. Grk σπέρχω 'drive, press', σπέρχομαι 'hurry', Av a-spārāza- 'be excited'. OInd spāhyati 'desires', TochAB spārk- 'disappear, perish'. Sufficiently widespread to guarantee its PIE status.

*sel- 'move quickly'. [cf. IEW 899 (*sel-), 909–910 (*ser-)]. ON selja 'deliver, sell', sala 'sale', OE sellan 'deliver, sell' (> NE sell), sala 'sale' (> NE sale), OHG sellen 'deliver, sell', Goth saljan 'present, sacrifice', OCS sult 'messenger', saljo 'send', Arm ylem (if < *y-lem) 'send'. OInd ucchalati 'hurries forward', sisarti 'stretches out, extends', sistrate 'they rush off, stretch out', TochAB 1 sal- 'fly', 2 sal- 'throw (down)'.

Widespread and old in IE.

*krb- 'hurry'. [IEW 934–935 (*s)kre-b-; VW 196]. Mlr crip ~ crib (< *krb-) 'quick', ON hrapa 'fall, hurry', MLG rap 'quick', sik repen 'hurry' (Gmc < *krob-), TochAB karpa- 'descend, come down, step down' (Toch < *korb-). If all these words belong together, and the Tocharian is admittedly semantically distant, then we have good evidence for a PIE term. If Tocharian does not belong here, then we have evidence for a dialect term of the IE west.

See also Drive; Fast; Jump; Run; Set in Motion. [D Q A.]
ICE

*jeg* - 'ice, icicle'. [IEW 503 (*jeg-*)]; Wat 79 (*yeg-*); Gl 588 (*yelg-*); Buck 1.77. Oit aig (gen. ega) (< *jegi*-) 'ice', Wels ia 'ice', ON jaki (< *yan- < *yanak-*) piece of ice', jokull (< *ekula-*) 'icicle', OE gicel(a) 'icicle' (> NE icicle), OHG ithilla 'icicle', Hit eka 'ice'. Probably PIE status. A PIE origin would be more certain if Sarikoli yoz 'glacier', Wakhzhi yaz 'glacier', reflecting a Proto-Indo-Iranian *yažustainability*, comes from PIE *yegcha-.*

**h1e hé < *h2e *ice'. [IEW 301 (*ei-s-*)]; Wat 16 (*eis-*)]; Gl 588 (*eis-*); Buck 1.77. ON is 'ice', OE is 'ice' (> NE ice), OHG is 'ice' (Gmc < *isa-*), Lith ynis 'glazed frost', OCS intje 'hoarfrost', Rus inj 'hoarfrost', Av aëxa 'frost, ice', Isu- 'icy', Oss yex, ix (< *aixa-*) 'ice'. The Baltic and Slavic forms have *h2e(h2)-ni*, *h2e(h2)-i*. The Germanic forms may derive from either *h2e(h2)-ni* or *h2e(h2)-i*. Neither Avestan -x- nor -i- can derive from a PIE -*i-; they continue -khi- (< *kh2-i- < *keh2-?) and -k- respectively. This leaves only a root etymology for PIE 'ice'.

*ghe1(h2)di- (< *ghe1(h2)-ed-*) 'tail'. [IEW 435 (*ghe1(h2)-*); Wat 22 (*ghe1(h2)-*), OCS žlédica (< *eld-*) 'freezing rain', Rus žlédica 'freezing rain', Grk χάλαζα 'hail', NPers žala (< *alda-*) 'hail'. Greek points to *d*, which would agree with Slavic as this has an acute tone. The Greek form requires a laryngeal, *ghe1(h2)-ed-*. At least late PIE status.

**kaghlos 'hail'. [IEW 518 (*kaghlo-*); Wat 26 (*kaghlo-*).] On hagl 'hail', OE hagol 'hail' (> NE hail), OHG hagl 'hail' (< Gmc *hagla-*, Goth haal (name of a rune sign), Grk κάγλης 'small stone, gravel in a river', (late) κάγλης. This set should be abandoned as non-IE. As PIE had no *a, we would have to posit *kh2gh-, which does not inspire confidence. The Greek word has been considered onomatopoeic (of χάλαζα) or a substrate word, related to χάλαζα 'cup' (whence Lat calx). Cf. also Grk χάλαζα 'hail'.

**kerg(son)- ~ *Ror(mömeha)- 'hoarfrost, frozen snow'. [IEW 573-574 (*ker-no-*).] On hjarn (< *hertzo-*) 'frozen snow', Lith šarstas (< *kormha-*) 'frost', šerkšnas ~ šerkšnas (< *f(e)r-sno-*) 'hoarfrost', Latv satima 'frost', štrnas, Štrsnas 'frost', ORus seren (< *sern-*) 'frozen snow', Rus serein, seren 'frozen snow', Arm sarn (gen. saran) 'ice', sarnum (< *kor-* 'frost'. At least of late IE status.

**preus- - *prus- 'frost'. [IEW 846 (*preus-*)]; Wat 53 (*preus-*), Gl 589 (*préus-so-*)]. Lat pruina (< *prusunina?) 'hoarfrost', ON fretr ~ frer (< *fruz-*) 'frost', frust 'frost', OE forst 'frost' (> NE frost), OHG frost (< *frusta-*) 'frost', Goth frius (< *frieus-* 'frost', OInd prusva ~ prusva 'hoarfrost' (but perhaps rather 'dew, drop' < *prus- 'sprinkle'?). ON fretr and Gothic point to a root noun *preus- - *prus- with *préus-to- and *préus-uo- 'frozen'? Uncertain are the possible Celtic cognates: OIr rúad (DIL, reo) 'strong cold', and Wels rweh 'strong cold'. The root ultimately derives from *preus- 'to freeze'. With the Old Indic cognate uncertain, this need not reflect anything other than a northwest dialectal term in late IE.

See also Snow. [R.S.PB.]

ILLYRIAN LANGUAGE

Illyrian was the major although scantily attested IE language of the northwest Balkans spoken over the territory of ancient Illyria, later the Roman province of Illyricum. The Illyrians constituted a loose tribal confederation that occupied Albania, Dalmatia, Bosnia and Croatia although the earliest historical accounts and place names suggest that as an ethno-linguistic group, they were largely confined to the south of this territory while further north very different tribes were often incorporated into the geographical entity of "Illyria" by various
assumption and nothing more. In that the Albanians occupy part of the former territory of the Illyrians, it is also possible that the Albanian language continues the earlier Illyrian. Again such a connection is not demonstrable. Illyrian is too little known and Albanian is first attested only in the fifteenth century, already having undergone very substantial phonological changes.

Historically, Illyrian tribes such as the Dardani and Paeones appear in the Iliad as allies of the Trojans where they occupy a traditional position as one of the opponents of the Greeks due to their opposing interests in controlling the Adriatic seaways. The Greeks established a colony in the south of Illyria by the seventh century BC. The later Illyrian kings came into conflict also with the Macedonians while Queen Teuta, in the late third century BC, antagonized the Romans with her fleet and set in train a series of wars that brought about the conquest of Illyria by the Romans. In 168 BC Gentius (Genthius), the last Illyrian king, surrendered to the Romans. Illyricum became a military recruiting ground for the Roman Empire producing not only many of its troops but also some of its more notable emperors, including Diocletian and Constantine the Great. During the sixth and seventh centuries AD Illyrian territory was overrun by Slavic tribes who spread their language over the entire region, except for Albania.

Description
There is just enough evidence to make it relatively certain that Illyrian was Indo-European. The Illyrian personal name Teuta (⟨*Teutana) and the identical tribal name Teura, for example, are clearly relatable to aIr 'people', Wels 'country', Osc 'community', Umb (acc) totam 'citizenry', ON þóð 'folk', OE þeod 'folk', OHG diot 'people', Goth þiuda 'folk', OPrus tauto 'country', OLith tauta 'people', Latv tauta 'people', etc., all from PIE *teuteh a-.

Personal names, built on the numerals as in Latin, e.g., Tritanus, TTilano 'Third', Sestus, Sextus, Sexto 'Sixth', also appear to be fairly transparent. To go beyond this becomes increasingly difficult since all further evidence is largely confined to place- and personal names whose etymologies may be challenged. If, for example, the name of the Illyrian king Gentius (Genthius) is derived from *gen- 'be born', then we have evidence of a centum language; but if the name Zanatis is similarly derived (or from *gen- 'know'), then we have evidence of a satem language or, perhaps, later palatalization. Similarly, mixed possibilities may be seen in the place-name Asamum if from *h2ek- 'sharp' (cf. Olnd ažman- 'stone, rock'), an etymology that receives some support from a medieval reference to Asamum as Lápida 'stone' while the same root is also said to underlie the personal name Acrabanus where there is no evidence of palatalization. Edgar Polomé has summarized the existing phonetic rules of Illyrian as involving the merger of aspirates and non-aspirates (e.g., *gh > g), syllabic *r and *i > ur and ul, and preservation of only the diphthongs ai, au and eu. To these might possibly be added delabialization of the labio-velars and *o > a.
Illyrian Origins

The Roman author Appian (The Illyrian Wars 2) suggested that the Illyrians, along with the Celts and Galatians, all stemmed from three children of the cyclops Polyphemus and emigrated to their historical locations from Sicily. This theory is not much less creditable than that of the pan-Illyrian enthusiasts who sought the Illyrians specifically in the Urnfield culture as this is precisely the archaeological phenomenon that is unattested in those territories (Albania, Bosnia) with the greatest claim to being considered Illyrian from an historical perspective.

Generally, most recent discussions of Illyrian origins discern a mixture of autochthonous pre-IE elements over which a layer of intrusive IE elements was superimposed. Such models must be seen as reflexes of much larger solutions to IE dispersals in general and the best that can be argued is that items characteristic of IE lexical-cultural reconstruction do not appear in the region of the Illyrians until the early Bronze Age. A pre-Illyrian (non-IE) substrate is consequently sought in the earlier Neolithic. In the core region of the Illyrians, the Neolithic culture is identified as the Hvar-Lisicići culture whose own origins lie in the Impressed Ware cultures of the central Mediterranean. By the late Neolithic influences are seen from Saliča-Bubanj, a culture whose origins lie further east in the Balkans but which either expanded or was pushed westwards at the end of the Neolithic (fourth millennium BC). By the end of the Copper Age, influences are seen to derive from the northern Baden and later Vučedol cultures from Croatia and the Carpathian basin which have been identified by supporters of the "Kurgan model" of IE dispersals as early IE-speakers in the Balkans.

By the beginning of the Bronze Age c 3000 BC, tumulus burials are common across Illyrian territory, fortified sites begin to appear and a coarse ware is widely found and interpreted as primary evidence for the gradual expansion of a new people who mixed with the earlier inhabitants. These changes are regarded as evidence of the last major cultural intrusion which might explain the arrival of Indo-Europeans in the region. Putatively local Illyrian evolution is particularly seen in the continuous development of the Glasinac culture of the late Bronze Age and early Iron Age in Bosnia. Subsequent developments such as continuity of settlement and culture in the Albanian Bronze Age or further north in Croatia are interpreted by some as evidence of the stabilization of the Proto-Illyrian identity of the region. Also, during the Bronze Age there is evidence of the spread of ceramics and mortuary ritual across the Adriatic into southern Italy which may play some part in the presumed similarities between the Illyrian and Messapic languages. The later expansion of the Urnfield culture into the region was limited to the deep interior while the coastal region more properly associated with the earliest Illyrians developed as a series of local cultures derived from the early Bronze Age which preserved the inhumation burial rite. The creation of local cultural groups in the centuries around 1000 BC which continued into the Iron Age (eighth-sixth centuries BC) is seen to mirror the later presence of a number of the major tribal groups of Illyria.

See also Albanian Language, Glasinac Culture, Italic Languages, Messapic Language.

Further Readings


Harrassowitz.


Origins and Culture


IMPELLER

??*seuhdrţ ‘impeller’. [IEW 914 (*seu-)]. Lat. Saturnus (god), Olnd Savitār, (god). The two deities involved in this comparison have linguistically nothing in common. The deity corresponding to the Lat. Saturn in ancient India is rather Sani, the son of Sūrya ‘the Sun’ and Cāyā ‘the Shade’, whose cult is associated with occultism and the origin of the Vratyas. The name Savitār- is from *seuhdrţ ‘the impeller’ < *seuhdrţ ‘bend, impel’. He owes his immortality to the Rāhus; offers brought to him yield treasures, he ‘impels’ the sun (i.e., his golden arm pushes the sun between heaven and earth); he destroys the darkness and all ills tied with the sun. Related are Olnd sauva ‘not to be turned, immovable’, Lith sūkti ‘turn’ (with underlyning alternating stems: *seuhdrţ [Olnd sav-] and *suhdrţ [Olnd sau-]). Saturnus, on the other hand, is an old Italic god, whose name was connected folk-etymologically with Lat. sērō ‘cut’ or satus ‘sown’, i.e., god of the harvest. In the Roman interpretation, Saturnus is equated with the Greek Kronos and this provides the only structural basis for a comparison between the Roman Saturnus, Greek Kronos, and the Old Indic Savitār.

In the IE cosmological system proposed by Jean Haudry, the early Indo-Europeans envisaged a universe consisting of three skies: a diurnal sky which was home to the celestial
deities, a night sky which had its own specific deities and the spirits of the dead, and a third transitional sky which comprised both dawn and twilight. The transitional celestial deities are represented by the Greek Kronos (who in the theogony of Hesiod is intermediate between the representative of the night sky, Ouranos, and that of the diurnal sky, Zeus), the Indic Savitr whose association with the rising and setting of the sun are familiar motifs in the Vedas, and the Roman Saturnus. The feast of the latter, the Saturnalia, mark the period immediately preceding the winter solstice, i.e., the 'twilight' of the year (as Savitr is associated with the twilight of the day, cf. also the Old Irish feast of samain which marked the end of the Celtic year).

The derivation of Saturnus (and its doublet Saturnus) is obscure and also includes a possible Etruscan loan although Haudry mentions the possibility that it may be related to Savitr (cf. Hit sawātar 'horn' [as suwāt 'strike'] with an underlying *suh₂trōm) and come into Latín by way of Siculan, a poorly known Italic language.

See also Creator. [E.C.P. J.P.M.]

Further Reading

IN

\[ \text{*hjen(l)} \text{in, into}. \] IEW 311–314 (*en); Wat 17 (*en); BK 432 (*in-/*en-). Olr in 'in(to), Wels yn 'into), OlLat en 'in(to), Lat in 'in(to), ON i 'in, OE in (> NE in), OHG in 'in, Goth 'in (to), because), OPrus en 'in', Lith i- i-t 'in', Alb n 'in, on, inj 'up to, Grk ἐν – ἐν 'in, εἰς (< *en-s) 'into, to', Arm i 'in, Toch AB y- – yn- 'in, among'. A variant \[ \text{*hjon in} \text{occurs in OCS on 'in}, Hit an - 'in, TochA -am 'in, to, TochB -me 'in, to, enem 'within'. \] Cf. \[ \text{hjinijos in Goth njipjis 'relative}, \] Olnd njitia- 'one's own' (i.e., * within one's own group').

\[ \text{*hjen-do} \text{into}. \] IEW 198 (*dem-), 311–314 (en); BK 432 (*in-/*en-). Lat endo 'in, Alb nde 'in, Grk ενδο 'within, Hit anda(n) 'in'. Widespread and old in IE.

See also Adpreps. Between. [D.Q.A.]

INDO-EUROPEAN HOMELAND

One of the longest standing and still unresolved problems, not only of Indo-European studies but also general prehistoric research, is the time and place of origin of the Indo-European language family and the nature of its dispersal. Solutions to the problem have been derived from the Bible and mythology, linguistics, physical anthropology, genetics, and archaeology.

Background to the Problem

The Indo-European languages begin to appear in the written record in the Bronze and Iron ages. The earliest attested languages are first encountered between Greece and northern India and consist of: Anatolian, the proper names of which are first attested in Akkadian trading documents of c 1900 BC; Indo-Aryan first emerges in northern Syria in the Mitanni kingdom by c 1600–1500 BC; and Greek which is known from the palace documents of the Mycenaenans, in the so-called Linear B script, from at least c 1300 BC. By the Iron Age (c 700–1 BC) we have evidence for the Illyric, Messapic, Celtic and Germanic stocks in the west, the Balkan languages such as Thracian, Dacian and Illyrian, Phrygian in Anatolia and first hand evidence of Iranian. The other IE languages, other than occasional parahistorical references, do not appear in written records until the first millennium AD or later. Although this evidence allows us to see the full "historical" distribution of the Indo-European languages of Eurasia, there are substantial reasons for rejecting the notion that this distribution had been stable for many thousands of years.

First, there is some evidence for the existence of relic non-IE populations that preceded IE expansions into their territories. In the Iberian peninsula there are Iberian inscriptions in what would appear to have been two different non-IE languages known as Tartessian and Iberian while the modern (non-IE) Basque language, situated in northern Iberia and southern France, reinforces the notion that Spain and Portugal were the subject and not the source of IE expansions. Similarly, central and northern Italy offers the remains of the Etruscan, a language that is generally, although not quite universally, regarded as a non-IE language, while fleeting inscriptions in a number of other meagrely attested languages (e.g., North Picene) have also been held to reflect the existence of relic non-IE populations in Iron Age Italy. Central Anatolia, the historical seat of the Hittites, was apparently previously occupied by the non-IE Hatti who have left some texts, primarily religious. It is generally accepted that the Hittites themselves established their state in Hattic territory (from whom they borrowed their name) where they absorbed the previous occupants along with sections of their vocabulary pertaining to both the running of the state and religion. Eastern Anatolia, territories historically occupied by the Luvians and Armenians, were previously settled by the non-IE Hattians and their linguistic cousins, the Urartians, and so this territory is also traditionally excluded from the earliest IE-speakers, as is northern Syria where the earliest attested traces of Indo-Aryan appear among the Hurrian-speaking Mitanni. The Iranian languages emerge beyond the limits of the earliest historical records but expanded southwards into the kingdom of Elam in southern Iran whose language was clearly non-IE. Finally, the Indo-Aryan languages still share the Indian subcontinent with the non-IE Dravidian and Munda language families and their presence indicates that this enormous region was also the subject of later IE expansions. Thus, the written record tends to suggest that the IE languages spread from somewhere north of Iberia, Italy, central and eastern Anatolia, northern Mesopotamia, southern Iran and India-Pakistan.

The second line of evidence is primarily theoretical. There are finite limits to the size of area that any language may occupy without separating into different dialects and gradually unintelligible languages. Language is constantly changing and without a written standard and other artifices of modern media exchange, it is impossible for the various speakers of a
language, spread over a broad territory through time, to enjoy sufficient inter-communication that they experience the same course of linguistic change through time. This process is self evident among various IE stocks where Latin and Common Slavic of the early mediaeval period have both differentiated into the modern Romance and Slavic languages respectively. Studies of North American Indian languages suggest that the area they occupied ranged from about 530 to 660,000 sq km, averaging about 19,000 sq km, about the size of the modern state of Israel. The area occupied by a single language will be dependent on many factors such as terrain and the nature (and mobility) of the economy but the probable maximum upper range of a prehistoric language would be on the order of 250,000 to a million sq km (i.e., the size of the United Kingdom to about one and a half times the size of the Ukraine). The theoretical limits then suggest that the IE language family, at some time in its prehistoric existence, should have occupied a territory far more confined than that which is evident in its earliest historically attested distribution.

History of the Problem
Attempts to locate the earliest Indo-Europeans have existed since the discovery of the IE language family itself. Initially, the IE language family was explained by reference to the Bible where Japhet, one of the sons of Noah, was regarded as the source of all those languages neither Semitic (from Noah's son Shem) nor Hamitic (Ham) and hence Mount Ararat in Armenia, the reputed resting place of the Ark, served as a convenient homeland. The rise in interest in the early literature of the Indo-Aryans and Iranians, coupled with an exaggerated conception of their antiquity, encouraged the belief that the earliest IE peoples derived from the territory between the Caspian Sea and Bactria, part of Afghanistan, Uzbekistan and Tadzhikistan, and the cradle of the Indo-Europeans was set variously in mountainous areas such as the Hindu-Kush. Such a homeland stimulated romantic notions of how the earliest Indo-Europeans nurtured their language and culture in isolation and then burst forth from their homeland to spread their higher culture to Europe and the rest of Asia.

The consensus of an Asian homeland, although still widely accepted throughout the nineteenth century, received its first attack in 1851 when the English philologist, Roger Latham, argued on linguistic grounds that an Asian homeland was contrary to the linguistic evidence. Employing the biological model of the relationship between species and genus, Latham argued that the similarity between Indo-Aryan and Iranian, what today we recognize as the Indo-Iranian superstock, is such to suggest that it represented a more recent expansion from Europe where a much greater number of linguistic stocks (species) existed, suggesting that the original territory of the language family (genus) was Europe and not Asia. Although Latham's arguments were not widely accepted, they were augmented during the 1870s and 1880s by a variety of scholars who confused language and race and argued that the earliest Indo-Europeans, now frequently designated with the Indo-Iranian ethnonym "Aryans", must have derived from the lightest pigmented Caucasian physical type. Once the concept of the tall, long-headed, blue-eyed blond Aryan was accepted, the homeland was shifted to southern Scandinavia or northern Germany and a new consensus emerged.

By the turn of the century, this newer consensus began to crack and the various schools of thought emerged and set the course for most of the solutions of the twentieth century. Although Europe was almost universally accepted as the IE homeland, the precise location of the homeland became very much a matter of dispute. The case for northern Europe persisted and the earlier racial arguments were augmented by archaeology that associated the earliest Indo-Europeans with the Corded Ware (Battle-Ax) cultural horizon that covered northern and central Europe. A Baltic origin was further supported by linguists who found in Lithuanian the most conservative IE language. That conservatism suggested, in their opinion, that it had travelled least from the original homeland.

The northern homeland theories (in whatever guise) were opposed by those who became increasingly convinced that the earliest Indo-Europeans were primarily steppe pastoralists and the homeland was variously set to the Ukraine, south-western Russia, and occasionally as far east as central Asia. Other proposed homelands were within the territory of the Linear Ware culture that spanned the Danubian drainage from the Netherlands and France in the west to the Ukraine in the east or the Neolithic cultures of south-eastern Europe, centered on the northwest corner of the Black Sea and stretching from the Balkans again to the western Ukraine. The only part of Europe universally rejected as potential homeland territory was the Atlantic periphery and the Mediterranean, the former on geographical grounds and the latter on the exclusion principle as it was the one region that possessed evidence of non-IE populations. Now even this latter principle has been partially breached by a number of solutions that seek the IE homeland in Anatolia and Armenia, either on linguistic grounds that the IE language family is closely related to language families of the Near East and southern Caucasus, or on archaeological grounds that the Indo-Europeans should be linked to the earliest spread of agriculture from Anatolia to Europe.

The path to the current indecision has hardly been straight and in addition to the various broad schools of thought, there have been numerous less widely accepted solutions. These range from proposals to set the homeland at both the North and the South poles, North Africa, Egypt, India, and as early as the Neanderthals or as late as c 1600 BC.

Linguistic Solutions
Solutions to the IE homeland problem have often derived from the field of linguistics and these can be categorized into five different approaches.

The first approach involves the external relationships of the IE family. Just as the stocks of a language family may be
more or less similar (and presumably once geographically proximate) to one another, so also one may argue that similar relationships exist between different language families. Within the area of homeland studies, these types of relationships are argued either on a one-to-one basis or as part of a larger linguistic entity that itself comprises different language families. For example, there have been frequent attempts to demonstrate that the IE languages share broad grammatical features and individual items of vocabulary with the Semitic, Kartvelian, North Caucasian and Uralic families. The putative "super-family" that would include Indo-European and these other language families is usually called "Nostratic" (derived from Lat noster 'our'). On such evidence the location of the homeland has been set to the Black and Caspian sea areas because of the close relationship between Proto-Indo-European and Uralic to its north or North Caucasian to its south or the proposed relationships between IE and Semitic or Kartvelian have been employed to support an IE homeland south of the Caucasus, in Anatolia, or Central Asia. The "ultimate" homeland has even been pulled so far south as Egypt in some solutions to Nostratic origins although they generally lie somewhere in southwest Asia. Since all of these other language families are at least geographically proximate to the earliest attested IE languages, the solutions are possible but the levels of similarity which are proposed between the language families fall vastly short of those found between the individual stocks of Indo-European. Lexical items that reputedly link different language families are often dismissed as underdemonstrated or the products of widespread borrowing while grammatical similarities are often rejected as hopelessly vague. In short, no extra-familial relationship with Indo-European has been demonstrated at a level that would enjoy anything other than partisan support. The only exception here is that there is clear evidence for some form of substantial contact between the IE and Uralic families but these may have occurred at too late a date (i.e., pre-Proto-Indo-Iranian or later) to be relevant to the homeland problem.

A second linguistic approach derives from an examination of the mutual relationships of the different IE stocks under the assumption that their internal configuration will reveal their original position. Theoretically, such an approach usually embraces the "center of gravity" principle wherein it is assumed that where the IE languages have existed longest, we should expect the greatest differentiation since this would be the area which has had the greatest opportunity to experience language change. The corollary of this is that those stocks who seem to be most similar to one another have probably occupied their relative positions most recently hence their lack of marked differentiation. On the basis of this, the Indo-Iranian superstock, for example, would be regarded as a relatively recent expansion into their historical seats, presumably during the Bronze Age. Possibly much the same could be said of the Celtic languages that occupied much of western and central Europe during the Iron Age. The greatest density of IE languages seems to appear between about 20 and 40 degrees longitude, the area between Poland and Albania on the west eastwards to the Dnieper to central or eastern Anatolia. This area would appear to be central and, indeed, it tends to be the area where the IE homeland is most often sought with territories to the west and east being regarded increasingly peripheral to the homeland. There are, however, several problems with such a line of argument.

First, while the Indo-Iranian superstock may be regarded as relatively late, it is not specially related to the Tocharian languages to its east which have generally been regarded as more closely associated with the languages from the supposedly central zone. Second, any attempt to employ the "center of gravity" principle should be undertaken with languages that are contemporary with one another which is virtually impossible when studying the IE languages since some languages, e.g., most of the Anatolian stock, were already extinct long before other stocks, e.g., most of the European languages, had emerged in the written record. Very often the "center of gravity" proposed by linguists for Indo-European tends to be a palimpsest of different linguistic periods, particularly for those who argue a Balkans homeland. Here we have numerous marginally attested languages to pile into the IE nucleus. In actual fact, a similar exercise could put the homeland in Italy where the nucleus of (marginally attested) IE languages and stocks is even greater. Finally, the theoretical premise of the arguments rests on the notion that the only or at least primary factor in linguistic differentiation is time, and it therefore ignores other possible reasons for language change, e.g., some would explain the heterogeneity of the Balkan languages with reference to different non-IE substrates or to the mountainous topography that impedes communication and thus hastens linguistic fragmentation.

In addition to time then, another major factor often cited
Homeland II. The traditional representation of the "center of gravity" of the IE stocks has often been employed to support a homeland in the Balkans. However, it is filled with languages that are either minimally known, e.g., Venetic, Thracian, Illyrian, Messapic, or whose Balkan origins are assumed rather than demonstrated, e.g., Phrygian, Armenian.

in language change is the impact of foreign substrates on an expanding language. The theoretical assumption is that when a language spreads over an existing population, the native language with its presumably different phonetic and grammatical systems will influence the way its speakers articulate the new language. Conversely, where languages seem to preserve the greatest number of early IE features, this lack of change is credited to their speakers having occupied their home region the longest and involved the incorporation of few if any foreign speakers. The identification of foreign substrates is most easily accomplished when one also has documents in the foreigner’s language. Hence the presence of Hattic or Hurrian vocabulary in Hittite suggests foreign contacts in central and east Anatolian while the Armenian language appears to have borrowed terms for their own native environment from Hurrian or Urartian and the occasional Dravidian loanword is uncovered in Old Indic. These examples, however, do not gain much since there is already historical documentation for the various substrate languages in these territories. The evidence of foreign lexical items, however, has also been extended to Greek and many of the other languages of Europe where even cognate forms tend to throw up reconstructions that look suspiciously non-IE because of their root structure or (unstable) root vocalism or perhaps because of the instability of the reconstruction that suggests different IE groups adopting a foreign term from a substrate and assimilating it differently from one region to the next. A classic example is the designation for ‘hemp’. In the various Indo-European languages where this particular word is attested we have a variety of only partially compatible forms: Lat *kannabis, ON *hampur, OE *hanep (whence NE hemp), NHG *hanf, OP *knapios, Lith *kanapès, Grk *kainuβic. Old Ind *sana-. The Latin, Germanic, and Greek forms might reflect a putative PIE *kannabis which would be phonologically unusual in the two *-a’s, the double *-n- and the presence of the rare *-b-. Baltic shows *-p- rather than *-b- (borrowed from Germanic?) while Old Indic shows a palatal *-R- and no labial at all. (Similar words are found in non-Indo-European languages as well, e.g., Turkish kenevir, Karakalpak *kenep.) In addition to primarily lexical arguments, linguists have also proposed substrate influences on the basis of broader linguistic features such as the supposed restructuring of the insular Celtic or Anatolian languages from their IE ancestor, the Germanic sound shift, the abandonment of the free accent in west European languages, etc. Finally, linguists have frequently examined the other side of the coin and sought out the least altered IE language. Most often this distinction is awarded to the Baltic stock, in particular Lithuanian which, although only attested in the last four hundred years, still reveals a remarkable conservatism which has stimulated arguments for an IE homeland in the Baltic region.

Both the logical and methodological premises of the search for foreign substrates is open to serious questions. It assumes that language change is primarily a product of linguistic expansion across foreign substrates but in actual fact language change does not respond so symmetrically to substrate effects, even when they are well known. For example, Old English behaves very much as any other early Germanic language despite the fact that it was superimposed on a native British (Celtic-speaking) population. In any case, reference to possible substrates as agents of linguistic change can only be tested when the substrate is known. When the presumed substrate has been completely replaced long before the supposedly
According to W. Schmidt the shaded area bears early "Indo-European" river names while the dots indicate where the such "Indo-European" names might be found elsewhere in Europe. Schmidt suggested that the concentration of early names in the Baltic region supported this region's claim to have been the Indo-European homeland.

Hydronymic arguments for the homeland are empirically quite controversial since they are based on assuming that similarity of river names in different areas must derive from a common proto-form, a statement with very little hope of verification. Moreover, much of the evidence rests on river names with a root vocalism in which is widely thought to be either late, i.e., not PIE, or a marker of the assimilation of a non-IE word by IE speakers in Europe. Hydronymic evidence for the IE homeland (as opposed to the distribution of individual IE stocks) does not enjoy much currency beyond the limits of those few specialists concerned with such research.

Lexico-geographical Approach

In addition to purely linguistic approaches to resolving the homeland problem, there are also a series of arguments where linguistics is combined with some other discipline such as geography or archaeology to locate the territory of the earliest IE speakers.

Lexico-geographical analysis utilizes the reconstructed vocabulary to determine the geographical borders of the proto-language and is a technique widely applied not only in IE studies but also in determining the location of most other language families, e.g., Uralic, Semitic, Algonquin. The primary data is drawn from the semantic fields concerned with flora and fauna which tend to have restricted ranges. In the search for the IE homeland, special prominence has been accorded to the beech and salmon. The significance of the former is the famous "beech line", the eastern limit of the beech (Fagus silvatica) which ran from the Baltic (Kaliningrad/Königsberg) south to the northwest corner of the Black Sea (Odessa). It was widely accepted that the existence of PIE *bhágos 'beech' indicated that the Indo-Europeans could not have originated east of this line. However, this argument loses much of its force when it is noted that the reconstruction of the word is confined to European stocks, that its reconstructed semantic range is not unambiguous (the cognates yield 'elm' in Slavic and 'oak' in both Albanian and Greek), and the range of the Caucasian beech (Fagus orientalis) is known from the Caucasus region and could therefore extend the area of a potential homeland east to the Caspian Sea. The second term *lóks 'salmon' was generally taken to be the sea salmon (Salmo salar) which might only be found in the rivers draining into

Indo-European (Alteuropaisch) which was proposed by Hans Krahe. His hydronymic system comprised a series of frequently recurring river names that were believed to have been established by the common linguistic ancestor of the Celtic, Italic, Germanic, Illyrian, Venetic and Baltic stocks c 1500 BC. This construct was then pushed eastwards by Wolfgang Schmid to also include the Slavs as far east as the Dnieper and, more importantly, it was also pushed further back in time to Proto-Indo-European. Observing that the Baltic region seemed to be both the geographical center of the distribution and the territory possessing the most early river names, Schmid proposed that the homeland should then be sought in the Baltic region.

Finally, some linguists have argued that the most direct testimony of the location of the IE homeland can be found in the examination of river names. Other than a few attempts to situate the earliest Indo-Europeans either between the Kura and Araxes rivers in Armenia or along the banks of the Volga because the Indo-Iranians appeared to share a common name for these rivers, most attempts to employ rivers as indicators of the homeland have been based on systematic hydronymies. The logic of the approach rests on the widely recognized phenomenon that river names often appear to be the oldest and most conservative place names on a landscape and can, therefore, be used to indicate the distribution of earlier populations. The prehistoric limits of the Balts and Celts, for example, have been assigned on such a basis. The existence of such British river names as Thames and Severn in England is a historically verifiable case in point. The largest such system within the early IE-speaking world is generally known as Old

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the Baltic Sea and, therefore, argued for a homeland somewhere between north Germany and Latvia. This argument has proven even less robust than the beechn line since the semantic reconstruction would now seem to be the ubiquitous \textit{Salmo trutta}, the trout, that is found widely throughout much of Eurasia, thus denying this term any utility in determining the IE homeland. Other terms that have at least enjoyed some currency in the history of the problem are words for ‘eel’, which also reputedly demonstrated a north European homeland (despite the fact that it is not strongly ascribed linguistically to PIE nor is it restricted geographically to the Baltic) and the ‘tortoise’, whose distribution was seen to exclude the far north of Europe. Attempts to employ other environmental terms are numerous but even less consequential. Example can be found in the recent attempts of T. G. Gamkrelidze and V. Ivanov to assert that since the PIE lexicon shared words for mountains and fast running water, the homeland was most logically set to the Caucasus mountains.

The distribution of cognate sets and shifts in the semantics of reconstructed forms have also been employed to trace the location of the homeland. The reconstruction of a PIE term for the ‘bitch’, *bhethgos, for example, which would exclude Anatolia from the homeland, has been dismissed by one linguist because it is etymologically transparent, i.e., it indicates the ‘bright one’, and it is a late o-stem, therefore, it is ascribed not to the homeland but only to those Indo-Europeans who had left their Anatolian homeland and entered Europe. On the other hand, semantic shifts in the meanings of reconstructed arboreal terms in Greek and Latin, for example, the Latin cognate for the ‘bitch’ word denotes the ‘ash’, are employed to demonstrate that the Indo-Europeans originated north of the Mediterranean and when they did not find the same trees in their new environments, they reapplied the inherited names to different trees. The most extensive attempts to employ semantic shifts as a marker of the homeland appeared in the works of Wilhelm Brandenstein who sought to demonstrate that cognate sets between Indo-Iranian and the other European languages indicated that the former preserved the earlier non-agricultural meaning, e.g., OInd \textit{ajra}–‘open field, pasture’ but Lat \textit{ager} ‘cultivated field’, and that the Europeans had innovated with many terms for their new, wetter and more forested environment when they had moved from a homeland in Kazakhstan.

Finally, the lexicon has been employed to provide negative evidence for the location of the homeland where, for example, the presumed absence of terms for ‘oil’, ‘cypress’, ‘olive’, ‘ass’, ‘lion’, etc., have been employed to show that the Indo-Europeans did not originally inhabit the Mediterranean or Anatolia while the absence of terms for such items as ‘amber’ have been used to exclude a Baltic homeland.

\textit{Lexico-archaeological Approach}

The most direct testimony for the early culture of the Indo-Europeans is the reconstructed vocabulary which provides the only direct bridge between Indo-European as a primarily linguistic concept and the hard data of archaeology. The reconstructed vocabulary for domestic animals (sheep’, ‘goat’, ‘cattle’, ‘pig’, ‘dog’) and ‘grain’, coupled with terms for agricultural implements, e.g., ‘sickle’, ‘grinding stone’, ‘pottery’, all attest an agricultural or Neolithic economy which should not have existed anywhere proximate to the Indo-European world prior to c 7000 BC. Other terms suggesting the use of animals for draft or secondary products such as ‘wheeled vehicles’, ‘yoke’, ‘plow’, ‘milk’, ‘wool’, as well as ‘silver’ and the ascription to the PIE community of the domestic ‘horse’ tend to lower the earliest date for the common IE lexicon to c 4000 BC. This date does not necessarily pertain to the movements of IE-speaking communities but only marks the time by which those communities, whether they had expanded or not, still showed no signs of significant linguistic separation. By c 2500 BC, it is widely regarded that at least some of the IE stocks had already become so significantly different from the reconstructed proto-language that items of vocabulary should be recognized as loan words rather than inherited. In the intervening period, between c 4000 BC and 2500 BC there is hardly an item of culture, diagnostic for the reconstruction of PIE culture, that had not expanded from one end of Eurasia to the other, regardless of where it had first appeared.

The other terms relating to the culture of the earliest Indo-Europeans are not particularly diagnostic. Concepts such as the ‘house’ or even some form of ‘enclosure’, ‘village’ or even ‘fortified settlement’ are nearly ubiquitous across the Eurasian Neolithic. The PIE arsenal of ‘knife’, ‘spear’, ‘bow’, and ‘arrow’ are similarly found over all Eurasia while IE social institutions, including the detailed evidence for its kinship system, are not credibly retrievable from the archaeological record.

Assessing Homeland Solutions

One of the major reasons for the abundance of homeland solutions (and scepticism that any of them is correct) is the absence of a commonly agreed upon set of criteria by which one can evaluate the validity of any particular solution. There are, nevertheless, some criteria that appear so widespread that they constitute an essential suite of principles. A homeland solution should be robust enough to satisfy or, at least, not violate the following basic principles.

1. Exclusion principle. It is widely argued that the homeland should not be set in an area where there is evidence of prior non-IE occupation. This has generally provided grounds for excluding areas such as Iberia (Taressian, Iberian, Basque), Italy (Etruscan, Etruscan, ?North Picene), north-central (Hittic) and eastern (Hurrian) Anatolia, the Caucasus, almost the entire Near East (Semitic, Sumerian), southern Iran (Elamite) and much of not all of the Indian subcontinent (Dravidian, Munda). The limitations of this principle is that establishing the presence of non-IE speakers in a particular region does not necessarily establish their priority there, e.g., the current language of Anatolia is Turkic yet we know that it was previously Indo-European.
vocabulary is taken into consideration, including those items of material culture that only appear at the end of the Neolithic or early Bronze Age, the date of PIE should be broadly set to the period c. 4500–2500 BC.

3. Relationship principle. The interrelationships of the IE languages suggest that their dispersal was not unidirectional but appears to involve a series of interrelationships. While the specific nature of the "branching" of the IE stocks is subject to debate, there are certain broad patterns that are generally agreed upon. These would comprise the following:
   A. Anatolian would appear to have separated early from the other IE stocks (or the reverse).
   B. A core of "Late" IE stocks formed which comprised Greek, Armenian, Indo-Iranian.
   C. A "Northwestern" group of languages formed comprising Germanic, Baltic and Slavic.
   D. The western stocks of Celtic and Italic seem to be more closely associated with the Northwestern rather than the Late IE stocks.
   E. The position of Tocharian is disputed but it does not appear to be in any particular close association with Indo-Iranian.

   These broad relationships should be accommodated within any solution to the homeland problem and description of IE dispersals.

4. Cultural principle. The minimum cultural and environmental picture derived from the reconstructed PIE lexicon should be accommodated within a homeland solution. In general, much of the reconstructed lexicon attests environmental or cultural features that are found broadly over much of Eurasia and are not particularly diagnostic. In some instances, where we have an animal such as the horse which is both fully reconstructible to PIE (notwithstanding debate as to whether it was wild or domestic) and appears to have had a limited distribution in the prehistoric record, it may be employed as a test of a solution's plausibility. Such tests, however, are also dependent on time, i.e., although limited in distribution at 4500 BC, the horse was found over a much broader area of Eurasia by c. 2500 BC. Diagnostic cultural items are hence time factored, i.e., they only have meaning if one can control for time as well.

5. Archaeological principle. Although ignored in some purely linguistic solutions to the problem, it is difficult to accept any homeland solution that lacks some form of confirming evidence for dispersals in the archaeological record. While archaeologists will freely acknowledge that there is great uncertainty as to what constitutes evidence for population dispersals in the archaeological record (much less how that evidence should be "read" linguistically), the archaeological record does indicate trajectories that require some spatial and social mechanism of explanation and it also can evaluate to some extent the conditions of social change under which linguistic replacement may have occurred. Fragile although it may be, archaeology offers one of the
few forms of confirming evidence to purely linguistic arguments.

6. Total distribution principle. Probably one of the single greatest reasons for rejecting many solutions to the IE homeland problem are breaches of the total distribution principle. Any homeland solution must account for the dispersal of all the IE stocks. Numerous solutions proposed in the nineteenth and early twentieth centuries made vigorous defences of how Indo-Europeans spread from, for example, a Baltic homeland through the rest of Europe without providing the slightest evidence of how dispersals from this area carried IE stocks into Anatolia or Asia; conversely, the Asiatic homelands proposed in the nineteenth century and more recently by some scholars provide no explanation whatsoever how the IE stocks reached Europe. No solution is acceptable unless it explains the distribution of all IE stocks.

Current Homeland Solutions

From the great number of homeland solutions one can select four that enjoy fairly wide currency. Each differs not only with respect to where its sets the homeland but also when it initiates IE dispersals.

1. The Baltic-Pontic solution. This solution argues that a PIE linguistic continuum already existed during the Mesolithic, i.e., c 8500–5000 BC, in the area between the Baltic and Black/Caspian seas. The Neolithic cultures that emerge across this enormous region are then ancestral to their respective regional IE stocks, e.g., the northwest IE languages emerge in the TRB culture of the north European plain, while Indo-Iranian develops in the steppelands of the Ukraine and south Russia and pushes eastwards into Asia. A central tenet of this solution, at least as argued by archaeologists, is that there is a major cultural border between the steppe cultures and those of temperate Europe which provides the foundation for the split between Asiatic and European languages as this cultural border was not seriously transgressed at any period from the Neolithic onwards (except during the Iron Age where the late spread of Iranian nomads to eastern Europe is irrelevant to IE dispersals).

The Baltic-Pontic theory cannot be evaluated according to the exclusion principle. It fails both the temporal and cultural principles in that there is no way that a homeland set among hunter-gatherers can explain the agricultural and specific technological vocabulary reconstructed to PIE. It can accommodate the relationship principle but does not fully satisfy the archaeological or total distribution principles in that, other than the movement of IE-speakers to Asia, it does not account for their spread into the Balkans or Anatolia. In sum, this solution attempts to embrace two conflicting alternative solutions, i.e., the central Europe/Balkan and the Pontic-Caspian solutions, into a single model pushed back further in time.

2. The Anatolian solution. There are several variations on an Anatolian homeland. The most widely accepted is that which seeks to associate the dispersal of the Indo-Europeans with the spread of agriculture from Anatolia into Europe. This spread, set to the c 7000–6500 BC, is attributed to a movement of peoples (demic diffusion) over generations as farming populations increased and moved progressively through Europe at about a rate of 1 km per year. In this way putatively IE-speaking farming colonists absorbed (culturally, genetically and linguistically) the previous occupants of Europe as they expanded in a "wave of advance". Expansion into Asia is accounted for in one of two models. One requires that the Neolithic economy spread eastwards from Anatolia into Iran and India. The
other model continues that of the first (and all other solutions) by attributing IE dispersals into Asia to populations previously occupying the steppelands of the Black and Caspian seas. In this model, these steppe-nomads are ultimately derived from the same farmers who migrated from Anatolia through the Balkans and then eastwards around the northwest shore of the Black Sea.

This solution comes very close to violating the exclusion principle if it does not directly do so since broad areas of central and eastern Anatolia can be attributed to non-IE populations with the emergence of written records within the region from the third millennium BC onwards. It might be emphasized that the clearest evidence for a local transition from hunting-gathering to farming occurs in the southeast of Anatolia and that it is just as plausible to assume that if any new language spread to Europe with farming it was probably not an IE language. The solution can avoid violation of the exclusion principle only by shifting the IE heartland to western Anatolia where linguistic evidence for non-IE Bronze Age populations is lacking.

The Anatolian solution also seems to be a bit early to accommodate the temporal principle. Although Anatolia does produce evidence for basic domestic plants and animals, the cultural reconstructions which appear to date to the end of the Neolithic or early Bronze Age, e.g., wheeled vehicles, plow, wool, cannot be attributed to the seventh millennium BC. With respect to the cultural principle, there is no evidence of the horse (domestic or otherwise) in western Anatolia or in neighboring Greece, the first region “Indo-Europeanized” according to this solution, until c 2000 BC. Even the relationship principle, which can normally be satisfied with a little cartographical legerdemain, seems to be violated as this model suggests dispersals that run Anatolia > Greece > Italy, which implicitly suggests linguistic relationships unaccommodated by any linguistic evidence. The model has been adjusted by some who have argued that population movements were limited to the Balkans and central Europe and that later Bronze and Iron Age expansions must account for the distribution of the IE languages on the European periphery.

The archaeological principle has been the strongest element in support of this theory in that the spread of agriculture can be followed in the archaeological record and could offer the social conditions for large-scale language replacement. Insofar as the spread to Asia is concerned, the model that ties the Asiatic Indo-Europeans to the initial spread of agriculture seems very unlikely in that the transition to agriculture in Iran and India can be explained by sources far closer than Anatolia. This model falls on just about every possible matter of assessment, e.g., the exclusion principle as the area between eastern Anatolia and the Indo-Iranian world was clearly occupied by non-IE language families (Hurrian, Urartian, Semitic, Sumerian, Elamite), it is no better at satisfying the temporal and cultural principles, it does not explain the relationship between the “late” IE stocks of Greek, Armenian, Indo-Iranian. The alternative model of Asiatic expansions is questionable since there is some evidence that the Pontic-Caspian region received its Neolithic economy not from the Balkans but from the Caucasus.

Other solutions based on an Anatolian homeland are set later, i.e., c 5000–2000 BC. These mitigate the impact of the temporal and cultural principles but still do not resolve the problem of the exclusion principle. Nor is the archaeological evidence for such expansions particularly strong (in some cases it is non-existent).

3. The Central Europe-Balkan solution. This theory has generally been driven by recognition that the exclusion principle appeared to remove Anatolia and Greece (on the acceptance of the secondary evidence for a non-IE Greek substrate) from consideration and the positive fact that such a homeland fitted the “center of gravity” principle. It places the homeland in central Europe (the Linear Ware culture), including perhaps the Balkans, from the Neolithic onwards. It can be adjusted (if one accepts a late date of c 5000–3000 BC) to accommodate the temporal and cultural principles but suffers in terms of the archaeological and total distribution principles. It is difficult to employ this
model to explain the Indo-Europeans of Asia or Anatolia. In fact, by ignoring the relationships between Anatolia and Greece and the Balkans, it unaccountably attributes a non-IE language to the Neolithic cultures of Anatolia and Greece and yet finds grounds to assign an IE identity to their later descendants in the Balkans and central Europe.

4. The Pontic-Caspian solution. This is the theory that places IE dispersals in the most recent period, i.e., c 4500–2500 BC. It suggests that the homeland lay among mixed agricultural and increasingly mobile pastoralist tribes that emerged in the steppe and forest-steppe of the south Ukraine and south Russia and then expanded both to the east and west. The western expansion, seen as the “Kurgan model” of IE origins (the kurgan or tumulus is one of the typical markers of this expansion), involves the spread of populations into southeast Europe and their progressive domination or acculturation of non-IE peoples across Europe. This model meets almost all requirements except the archaeological principle where many would argue that the evidence for expansions from the steppe was limited (the hard evidence seems to end with the river Tisza in Hungary) and so it is very difficult to explain IE dispersals in much of Europe nor is the evidence for intrusions into either Greece or Anatolia particularly strong.

The solution to the IE homeland problem thus remains elusive despite periodic announcements to the contrary. Geographically and archaeologically, the major issue of dispute appears to occur north of the Black Sea between the rivers Dniester and Dnieper since this has traditionally formed a division between two cultural “worlds”. The Baltic-Pontic solution attempts to reconcile this division by retreating back in time to the Mesolithic and drawing a circle around both areas. The Anatolian and central European solutions argue that the Indo-Europeans transgressed this Dniester-Dnieper fault line from the west while the Pontic-Caspian solution suggests that it was transgressed from the east. How this particular issue can be resolved and whether its resolution can accommodate the other assessment principles invoked here will be essential to resolving the Indo-European homeland problem.

Further Readings


INDO-EUROPEAN LANGUAGES

Approximately two billion people or about a half of the world’s population presently speak an Indo-European language. Yet the Indo-European language family is but one of about twenty language families spoken throughout the world and is followed in numbers by the Sino-Tibetan (which includes Chinese) which numbers close to one billion speakers. Other major language families include Altaic (with Turkic and Mongolian) with 250 million speakers, Austro-Asiatic (which includes the Semitic languages) with c 175 million speakers, etc.

The concept of a language family expresses the genetic relationship of a group of different languages that shares a common ancestor. The Indo-European family consists of about 140 languages divided into approximately twelve major ‘stocks’ (and a number of isolated languages) which stand in
INDO-EUROPEAN LANGUAGES

Indo-European Generalized distribution of the major stocks of the Indo-European family (c 1000–100 BC).

varying degrees of relationship to one another. In some instances the relationship is so close that the languages are actually mutually intelligible, for example, Spanish and Portuguese or Norwegian and Danish while other language relationships are considerably more distant, for example, English and Polish. The similarity or dissimilarity is, to a considerable extent, dependent on their temporal and spatial distance from one another, i.e., how long their speakers (and the ancestors of their speakers) have been out of mutual contact with one another, and how distantly from one another they have been separated. Hence the relationships between the individual Scandinavian languages or the Slavic languages, which are not only mutually contiguous with one another but also began to diverge only within the last one to two thousand years, permits varying but significant degrees of mutual intelligibility. On the other hand, it is by no means easy to even recognize the affinity between languages separated distant in time such as Hittite, already extinct by about 1100 BC and Albanian, attested only from about the fifteenth century AD: Nevertheless, all languages that have been assigned to the Indo-European family are closely enough related that one can be confident that they do derive from a 'common ancestor, i.e., a prehistoric language or chain of mutually related dialects. This common descent, of course, does not deny that many of the various Indo-European languages or their earlier ancestral languages have also been in contact with one another and loan words abound between the various Indo-European languages.

Celtic

During the Iron Age the Celts were not only the westernmost IE-speakers but they were also attested over most of southern and central Europe and even parts of Asia Minor. They may be traced in the historical record of the classical world, sacking Rome in 390 BC and Delphi in 279 BC. These latter invaders settled in present day Turkey in 270 BC and became the Galatians to whom Paul addressed an epistle. The Celtic languages are traditionally divided into two groups—Continental and Insular Celtic. Less than one hundred inscriptions, mostly from France, survive to record the Gaulish language while Lepontic, a sparsely attested language of northern Italy, has also proved to be Celtic. The third main branch of Continental Celtic is variously known as Hispano-Celtic or Celt-Iberian and is recorded in inscriptions in the Iberian peninsula.

The surviving Celtic languages all belong to the Insular Celtic group and derive from ancient languages spoken in the British Isles. The Goidelic division consists of Archaic Irish, known from ogham inscriptions from about the fourth century AD, and Old Irish, known from at least the seventh century AD, and its more recent derivatives, Middle Irish, (New) Irish, (Scots) Gaelic and the recently extinct Manx. The Celtic language(s) of early Britain provides the ancestor of later Old Welsh, Middle Welsh and (New) Welsh as well as the now extinct Cornish, primarily known from late medieval dramas. The most widely spoken Celtic language is Breton, which was transplanted to northwest France by British settlers who may have encountered remnant Gaulish speakers on the continent.

Italic

The earliest Italic inscriptions date to the sixth century BC and indicate the existence of two sub-groups, Latino-Faliscan and Osco-Umbrian. Oscan was the native language of Pompeii and much of Campania. Umbrian is best known from a long series of ritual texts, the Iguvine Tables. Closely related to Osco-Umbrian are the Sabine dialects of Paelignian, Marrucinian and Vestinian.

The other major group consists of Faliscan and a series of archaic inscriptions such as those in Praenestine and Lanuvian. Latin, the language that ultimately came to dominate in Italy. As the official language of the Roman Empire, Latin was the only language of the Italic group to survive post-imperial times, becoming a lingua franca of the west European Middle Ages. From spoken Vulgar or Common Latin derive the modern Romance languages of Portuguese, Spanish, Catalan (all spoken in Iberia), French, Provençal (both spoken in France), Romansch (spoken in Switzerland), Sardinian, Italian, Ladin, Friulian (all spoken in Italy), and Romanian. Dalmatian, now extinct, was formerly spoken on the east Adriatic coast.

The Indo-European Stocks

The position of the Indo-European languages from their earliest historical attestation and prior to their historically recorded colonizations extended from Ireland in the west to Chinese Turkestan and India in the east. Most of the IE languages may be ascribed to the following major stocks, summarily described here from west to east.
A possible third sub-group of Italic, if not an independent Indo-European “branch”, is Venetic, recorded in a series of inscriptions from the Iron Age in the Veneto. Other Indo-European languages recorded in ancient Italy include Messapic, spoken in the sixth to first centuries BC in Apulia and Calabria and possibly closely related to the so-called Illyrian language of the east Adriatic. South Picene or South East Italic and the four Sicel inscriptions from Sicily are thought to be related in some fashion to Italic.

**Germanic**

The earliest attested Germanic languages derive from the East Germanic group. Extensive documents first appear in the fourth century AD in the form of a translation of the Gospels into a Visigothic dialect, usually called Gothic for short. Proper names from other Gothic tribes as well as the Vandals, Burgundians and other such tribes, a few runic inscriptions, a list of rune-names preserved in a later manuscript and a short list of Crimean Gothic words made in the sixteenth century before its last speakers died out complete the roster of East Germanic material.

North Germanic material consists of early Norse runic inscriptions, a considerable body of Old Norse literature, especially in its western or Icelandic dialect. The modern descendant of the more western variety of Old Norse are (New) Icelandic, Faroese, Norm (once spoken on the Shetland and Orkney islands off of northern Scotland), and Norwegian. The eastern subdivision of North Germanic consists of Swedish, Guttish and Danish.

Western or Maritime Germanic includes Old English and its later descendants Middle English and (New) English. Also in this group are Old Frisian with its modern descendant, Frisian, which was first continuously recorded in the late thirteenth century. The Old Saxon of the ninth century is the ancestor of the modern northern or Low German patois. The Continental West Germanic languages include Old High German, attested from the eighth century. Middle High German and (New) High German. High Germanic influence on other West Germanic languages such as Old Low Franconian and its later survivals—Dutch, Flemish and Afrikaans—obscure their relationship with Maritime Germanic.

**Baltic**

The Baltic languages Lithuanian and Latvian (or Lettish) are the sole surviving members of the eastern subgroup of a family that once stretched as far east as Moscow. The earliest Lithuanian text dates from 1503 with a catechism from 1547; Latvian texts begin somewhat later at 1586. Among the extinct East Baltic languages, recorded only in onomastical sources, are Curonian, Selonian and Zemgalian. A Western Baltic subgroup is reflected most extensively in Old Prussian which was first recorded in the fifteenth century and ceased to be spoken in the eighteenth, and Yotvingian, for which our sole evidence, apart from onomastics, may be a recently discovered wordlist with Polish glosses.

**Slavic**

Slavic names first appear in Byzantine records a century after the collapse of Attila’s empire as sixth-century Slavic tribes moved south to fill the political vacuum left in central Europe. By the time Slavic texts were first committed to writing in the ninth century (the traditional date of the mission of Saints Cyril and Methodius who converted the Slavs and devised an earlier form of the “Cyrillic” alphabet is 863), dialect diversity was already evident. Old Church Slavonic, the liturgical language of the Eastern Orthodox Church, is based on the Thessalonian dialect of Old Macedonian, one of the South Slavic languages. Modern South Slavic languages are Macedonian and the closely related Bulgarian, Serbo-Croatian and Slovenian. The present East Slavic languages consist of Russian, Belorussian (or White Russian) and Ukrainian. The Western Slavic languages are the closely related Moravian dialects of Czech and Slovak, the Pomeranian dialects of Kashubian, Slovenian and the extinct Polabian, and Upper Sorbian, Lower Sorbian (or Wendish or Lusatian) and Polish.

**Albanian**

The first short text in Albanian dates from 1462 and during the following centuries sporadic documentation occurs, generally in the northern or Gheg dialect. A continuous literary tradition was not established until the nineteenth century and the modern standard is based on the southern dialect. Tosk Albanian has a considerable number of loans from Turkish, Slavic and Latin and a few from classical Greek. The ancient language of modern Albania was Illyrian, attested only in glosses and proper names although quite possibly reflected also in the Messapic inscriptions of southern Italy. To the east of the Illyrians one finds Thracian and Dacian. The first is known from only a few inscriptions, glosses and proper names while even less is known of Dacian, the language of ancient Romania.

**Greek**

Greek has been documented since at least the thirteenth century BC in the form of Linear B, attested in territories controlled by the ancient Mycenaean. Greek is traditionally divided into two major divisions. The eastern dialects consist of Attic-Ionic, the most important dialectal group in Greek antiquity, Aeolic, as well as the more archaic appearing Arcadian and Cypriot; possibly the obscure Pamphylian may also belong here.

The western group is more diverse and comprises nine dialects. In the northwest is Phocian, the language of the Delphic oracle, Locrian, Elean and a northwest koiné or lingua franca used by the Aetolian League. Doric is a diverse group of eight local dialects that include Laconian, the language of ancient Sparta, Messenian, Megarian, Corinthian, Argolic, Rhodian, Coan, Theran and Cretan.

The Tsakonian dialect of Modern Greek has words derived from ancient Laconian; otherwise, Modern Greek or Dhimotiki continues the triumph of Attic over its competitors.
However, in earlier times the dialects had considerable value in literature and there are numerous unassignable dialect words, especially recorded in the compendium of the Greek lexicon compiled by Hesychius of Alexandria in the fifth century AD.

**Armenian**

Classical Armenian reflects biblical religious literature traditionally ascribed to the fifth but more probably dating from the ninth century AD. Situated between several of the ancient civilizations, the Armenian vocabulary has been extensively affected by Greek, Iranian, Caucasian and Semitic languages.

**Phrygian**

The ancient language of Phrygia, although situated in central Anatolia, is not closely related to the Anatolian stock and represents apparently a separate subgroup of Indo-European. From the eighth to the third century BC we have about 240 Old Phrygian inscriptions while about a hundred New Phrygian inscriptions belong to the first century AD. The latter texts, which are brief and repetitive, seem to reflect the funerary use of a dying language. Another language sometimes and without any real solid linguistic evidence presumed to be related to Phrygian is Mysian, a language attested in a single seven-line inscription dating from the third or fourth century BC.

**Anatolian**

The Anatolian languages of ancient Turkey provide the oldest traces of the Indo-European family. Hittite and Palaic texts written in cuneiform provide the terminus a quo in the eighteenth century BC for a documentation that extends to the fourth century BC with alphabetic inscriptions in Lycian and Lydian. Hittite, textually the most important of these languages, stands somewhat apart from the others. After the fall of the Hittite Empire at the beginning of the twelfth century BC, records in this official court language abruptly cease. In the south, the popular idioms, Luvian and especially its near relative—perhaps best regarded as just an eastern dialect—Hieroglyphic Luvian, formerly called Hieroglyphic Hittite before decipherment confirmed its closer relation to Luvian, continued for several centuries as spoken and written languages of the Neo-Hittite kingdoms. A more divergent western variant, Lycian, is recorded in about 150 inscriptions and another fifty coin legends in a Greek-derived alphabet of the Hellenistic era. Several of these inscriptions contain passages in a different, perhaps more archaic dialect, Lycian B or Milyan. Palaic, possibly already an extinct liturgical language, preserved only in a handful of religious texts among the Hittite archives at Bogazkoy, shows some similarities with both Luvian and Hittite. Unlike Lycian, Lydian, known from more than fifty inscriptions, has no clear antecedent or relative in the earlier cuneiform texts, and its closer relations within the Anatolian stock are unclear. Certain languages such as Cappadocian, Cilician, Isaurian, Lycaonian, Paphlagonian, Pisidian and Sidetic are known from proper names or glosses recorded in antiquity or, in the case of Carian, nearly seventy-six inscriptions, and they have been suspected of being members of the Anatolian stock, but such interpretation is still debatable.

**Indo-Iranian**

Indo-Iranian forms a superstock consisting of three substocks: Indic, Iranian and Nuristani, of which only the first two were recorded in antiquity. Indic is sometimes called Indo-Aryan to distinguish it from the non-Indo-European languages of India. The earliest Old Indic languages are frequently distinguished as Vedic Sanskrit, the language of the earliest ritual texts, and Classical Sanskrit. These texts were not recorded during their period of composition and were transmitted orally until the Middle Indic period. Other than traces of Indo-Aryan terms and names in Hittite and Mitanni documents, the earliest written evidence for Indic dates from the reign of the emperor Asoka (269–232 BC). During the later Middle Indic period emerged the Prakrits, the most significant of which was Pali, the language of the Buddhist scriptures. The other early Prakrit languages include Mahārāṣṭri, Ardhamagadhi, Magadhi, Sauraseni, Jaungada, Dhauli, Kalṣi, Girma, Mansehra and Shahbazjargi.

The modern languages of the Indian subcontinent derive largely from the earlier Prakrit languages. In the northwest are found Panjabi, Lahnda, Sindhi and the Pahari group, spoken near the Himalayas, which includes Nepal in the east, Kumauni and Garhwali in the center and western Pahari. Romany, the language of the Gypsies who migrated into Europe during the Middle Ages, appears to be a northwest Indic dialect as well. The central division is the largest and consists of a number of closely related dialects such as Hindi-Urdu, Bagheli, Awadhi, Chattisgarhi, Braj-Bhasa, and Bundeli, as well as the Bihari group, of which Magadhī, Maithili and Bhojpuri are representative. Also, members of the central division are the Rajasthani group, consisting of Mewati, Aharwati, Harauti, Malvi, Nimadi, Marwari and Rajasthani; to this also belongs the Bhili group as well as Khandeshi and Tharu. The southwest division consists of Gujarati, Marathi, Konkani, Sinhalese and Maldivian. The eastern division consists of Assamese, Bengali and Oriya. The Dardic languages did not derive from a Prakrit but seem to have evolved from an Old Indic dialect. The eastern Dardic languages consist of Kashmiri, the only Dardic language with a literary history, the Shina group consisting of Dumātk, Phalura and Shina proper and the Kohistani group—Baškarık, Maiyá, Tiráht, Törwall and Wotapǘr-Katarqalai. The western division consists of Damelt, Gwarbati, Shumashti and Pitai. The Chitrál languages, Kalaśa and Khowār, form the central division.

Isolated in the Hindu-Kush are the Nuristani (or Kafir) languages—Kati, Prasun, Waigali and Ashkun and their dialects—which constitute the smallest of the sub-stocks of...
Indo-Iranian. They derive from an ancient Indo-Iranian language or chain of dialects that was distinct from both Indo-Aryan and Iranian.

The Iranian sub-stock was already divided into three divisions when the first written monuments of Iran, the sixth century inscriptions of Darius the Great, were carved into the face of a cliff at Behistun. The Old Persian of the Achaemenian dynasty is the earliest representative of the southwestern division. The inscriptions also reveal occasional words derived from Median, a northwest Iranian dialect. In the Middle Iranian period, this or a similar northwest dialect formed the basis of the Arsacid Pahlavi of the Arsacid dynasty (250 BC–226 AD). During the Sassanian period (226–652 AD), the southwest dialect re-emerged as Sassanian Pahlavi and Middle Persian. The northeastern division is represented by the Avesta, liturgical texts originally transmitted orally like the Indic vedas. The Avesta is written in two slightly divergent dialects, one of which is Gāthic, the language of the prophet Zarathustra (or Zoroaster) who is reputed to have composed the hymns that reflect the earliest evidence of the Iranian language. The greater part of the Avesta, usually termed Younger Avestan or simply Avestan, is linguistically comparable to the earliest Old Persian inscriptions. The northeastern languages of the Middle Iranian period are Sogdian, Khorasmain, Khotanese Saka and Tumshuqese. The latter two languages are thought to be related to that of the Iron Age Scythians of the Old Iranian period.

Of the modern northeast dialects, Yaghmobi seems to be most akin to Sogdian. The Pamir dialects consist of Shughni, Yazghulami, and the extinct Wanchi. Pashto, the chief language of Afghanistan, is a northeast Iranian language as are also: Wakhi, of which Zebaki is perhaps a dialect, the Ishkashimi-Sanglechi group, Munji, the now apparently extinct Sargulami and Yidgha, and perhaps Pakhpoo for which there is no reliable data. Finally, the most displaced of the northeastern languages is Ossetic, thought to be the descendant of the language of the Alans of classical history, which is found now in the Caucasus, the territory otherwise occupied by northwestern languages.

The northwestern Iranian languages of the Caucasus include the Caspian dialects of Mazandarani, Gilaki, Talishi, Zaza, Harzan, Galinquaya, Gorani and Kurdistani. The tribal movements that propelled Ossetic into the Caucasus also help explain the appearance of northwestern dialects such as Baluchi in southeast Iran and Pakistan and Parachi and Ormuri in Afghanistan. Some confusion reigns over the dialectal placement of some Tati dialects (labeled northwestern but said to resemble Persian to the southwest), Semnani, Bashkard and Lur dialects which have been variously labeled northwestern or southwestern.

The main southwestern dialect is Farsi or Persian which is called Tajik in the former Soviet Union where it is also indigenous. Southwestern dialects closely related to Persian include Somghuni, Papuni, Masarmi, Buringuni and perhaps Luristani. Kumzari is spoken across the Persian Gulf.

Tocharian

The Tocharian group first became known to European scholarship when fragments of Buddhist texts from Xinjiang (Chinese Turkestan) began appearing in the 1890s. It was not until the 1906–08 expedition of Sir Aurel Stein that these texts could be placed in their proper context and dated between the sixth and eighth centuries AD. This group derives its name from the (probably) erroneous notion that they were the same people the Greeks called 'Tokhara', who in fact were more likely to have been an Iranian-speaking tribe.

Two Tocharian languages are recognized. Tocharian A, a liturgical language employed in the oases of Turfan and Qarasahr, the territory of the ancient kingdom of Agni, is also known as Torfanian or Agnean. The western language, Tocharian B, was employed in the kingdom of Kuci and is sometimes known as Kuchean.

See also Albanian Language, Anatolian Languages, Armenian Language, Baltic Languages, Celtic Languages, Dacian Language, Germanic Languages, Greek Language, Illyrian Language, Indo-European Homeland, Indo-Iranian Languages, Italic Languages, Messapic Languages, Picene Languages, Proto-Indo-European, Reconstruction, Schleicher's Tale, Slavic Languages, Thracean Language, Tocharian Languages, Venetic Language.

Further Readings


INDO-IRANIAN LANGUAGES

The Indo-Iranian branch is the only undisputed super-stock of IE languages, i.e., a stock comprised of two or more major language divisions. The divisions of the Indo-Iranian stock consist of Indo-Aryan, Iranian and a much smaller group of languages, Nūristānī, whose position as a separate division is agreed by many although perhaps not all linguists. The Indo-Iranian languages also have the largest territorial distribution and were spoken from north of the Black Sea eastwards to the Yenisei and south through Iran, Afghanistan, the western borders of China and the northern two-thirds of the Indian sub-continent. In the historical period, Iranian nomads of the Ukrainian steppe pushed into the Danubian basin: tribes belonging to the Sarmatian confederation settled in Hungary until they were absorbed by expanding German and Slavic tribes (some Sarmatians were even posted to Britain as part of the Roman army). The Alans, another east Iranian-speaking people, allied themselves with the Huns and crossed the entire length of Europe to Iberia and then moved on to settle in north Africa. A probable remnant group of the Alans, the Ossetes, is to be found in the central Caucasus.

The Indo-Iranian languages clearly derive from an ancestor intermediate between Proto-Indo-European and the earliest individual Iranian and Indo-Aryan languages, i.e., one can
reconstruct a Proto-Indo-Iranian language. The close similarity of the earliest attested Indo-Iranian languages is clearly evident if we extract several lines from the Avestan hymn to the Iranian god Mīθra, and provide it with an interlinear translation in the language of the Veda of ancient India (and the reconstructed Proto-Indo-Iranian forms).

Yašt 10.6

<table>
<thead>
<tr>
<th>Avestan</th>
<th>tam amavantam yazatam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Indic</td>
<td>tām āmavantam yājatam</td>
</tr>
<tr>
<td>Proto-Indo-Iranian</td>
<td>*tām āmavantam yājatam</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Avestan</th>
<th>sūram damohu savistam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Indic</td>
<td>sūram dhāmasu sāvīṣtham</td>
</tr>
<tr>
<td>Proto-Indo-Iranian</td>
<td>*cōram dhāmasu cāviṣtham</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Avestan</th>
<th>mīθram yazai zaθrābyo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Indic</td>
<td>mitrām yajai hōtrabhīyah</td>
</tr>
<tr>
<td>Proto-Indo-Iranian</td>
<td>*mitrām yajai jhaurābhīyas</td>
</tr>
</tbody>
</table>

Mīθra, I honor with libations

Our ability to reconstruct a Proto-Indo-Iranian intermediate between Proto-Indo-European on the one hand and Proto-Indic and Proto-Iranian is also supported by the self-designation, *ārya- (OInd ārya-, Av ārīya-, OE Pers ary-)'Aryan', shared by both Indic and Iranian. The old genitive plural *āryanām is preserved on the Iranian side in the name of the Alans, in Iron, the self-designation of the eastern Ostases, and most importantly in Iran 'Iran'. Linguists remark that the similarity between Iranian and Indic is not only one of grammar and general lexicon but even the references to the means of ritual offerings in the two languages derive from a common ancestor which speaks for a common cultural background. This common background is also reflected in the sharing of names for rivers and common deities (albeit some of the earlier deities common to both were demonized in the later religious reform of Zarathustra).

Indo-Iranian Phonology and Grammar

From a phonological point of view the Indo-Iranian languages, at least in their earliest forms, are relatively conservative. Indic, alone of the various IE stocks, preserves the three-way distinction in manner of the PIE stops in the way they are traditionally reconstructed: voiceless (i.e., *k), voiced (*g), and voiced aspirate (*gh). In Iranian the latter two series have become merged as simple voiced stops.

Indo-Iranian is innovative in four important ways. First, Indo-Iranian are satom languages, meaning that the dorso-palatals of PIE (e.g., *k) appear as affricates or continuants (OInd ģ, Av s) while the labio-velars (e.g., *kw) have lost all trace of their labialization (Old Indic and Avestan k). Secondly, Indo-Iranian has merged PIE *e, a, and *o (and *e, *a, and *o) as a (and ā). The merger had tremendous morphological impact, in that it abolished the frequently used distinction between *e and *o, e.g., the present tense of a verb might have *e while the perfect *o (since PIE *o was lengthened in an open syllable before a resonant [r, l, n, ml, at times the PIE distinction between *e and *o was preserved as Indo-Iranian a vs. ā). It should be noted that this merger occurred only after original (labio-)velars had been palatalized before original front vowels. PIE *kw*e gives OInd ca 'and' while *kw*ōs gives kāh 'who'. It was this 'law of palatals' that convinced nineteenth century Indo-Europeanists that the uniform a of Indo-Iranian was actually an innovation vs.-vs. the e, a, and ā found in Greek and Latin. Thirdly, there has been a strong tendency to merge *r and *l. The merger is complete (as r) in Iranian (ās found in later Iranian have a different origin). In Old Indic the situation is more complex. There appear to have been western dialects that merged the two as r, just as in Iranian, and eastern dialects that merged them as l, while central dialects preserved the distinction, at least in part. Finally, Indo-Iranian shares with Baltic and Slavic the so-called ruki-rule whereby PIE *s was retracted after *i, *u, *k, and *r. Thus PIE *h₂θkw*ś(i) (one form of the word for 'eye' appears as OInd ākṣi 'eye' and Av āsī 'eye'. Separate from Iranian, Indic has developed a series of retroflexed consonants, t, d, s, n. The second s comes from PIE *s when the latter has undergone the ruki-rule. The others come from borrowings or other internal developments (e.g., PIE *nisdōs gives OInd nīdā-'nest'). Iranian on the other hand is characterized by the change of stops to continuants before resonants (e.g., PIE *ktrh₁rōs 'bloody' gives Av xtura- 'bloody').

As in all branches save Anatolian and Albanian, the PIE laryngeals have been lost as separate phonemes in Indo-Iranian. However, that loss would appear to have been very late and both Old Indic and Avestan preserve a trace of their presence in uncontracted vowels (i.e., *ah₂d-a- remains as -a-a- rather than as *-a-a-). Between consonants Old Indic almost always vocalizes the laryngeals as -i- while in Iranian they are vocalized as -i- only in initial and final syllables. The choice of -i- as the vocalization of laryngeals sets Indo-Iranian apart from other IE stocks where the vocalization is -a- (though in Greek -e-, -a-, or -o- depending on the laryngeal). The results of these changes (and others of a less sweeping nature) can be seen in the accompanying Indo-Iranian phonological table.

The Nūristānī languages stand a bit apart from both Indic and Iranian in their phonological development. They share with Iranian (and Baltic, Slavic, and Anatolian) the merger of the voiced and voiced aspirates, series which in Indic remain independent. However, they preserve PIE *k as an affricate, unlike both Indic and Iranian where it has become a continuant (OInd dāsa 'ten' and Av dasa 'ten' compared to Kati duts 'ten'). There is also some evidence that they did not undergo the ruki-rule change (e.g., Kati mās 'mouse'. cf. OInd mās-'mouse'). All this may suggest that the Nūristānī group was originally peripheral to the rest of Indo-Iranian, presumably because the speakers of Proto-Nūristānī were already in the mountains of northeastern Afghanistan where
### Proto-Indo-European and Indo-Iranian Phonological Correspondences

<table>
<thead>
<tr>
<th>PIE</th>
<th>OInd</th>
<th>Av</th>
<th>PIE</th>
<th>OInd</th>
<th>Av</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>p</em></td>
<td>p</td>
<td>p</td>
<td><em>ph₂tēr</em> ‘father’</td>
<td><em>pātā</em> ‘father’</td>
<td></td>
</tr>
<tr>
<td><em>b</em></td>
<td>b</td>
<td>b</td>
<td><em>bēt</em> ‘strong’</td>
<td><em>bālam</em> ‘strong’</td>
<td></td>
</tr>
<tr>
<td><em>bh</em></td>
<td>bh</td>
<td>b</td>
<td><em>bh₂tēr</em> ‘brother’</td>
<td><em>brātār</em> ‘brother’</td>
<td></td>
</tr>
<tr>
<td><em>t</em></td>
<td>t</td>
<td>t</td>
<td><em>tūtām</em> ‘thou’</td>
<td><em>tuvām</em> ‘thou’</td>
<td></td>
</tr>
<tr>
<td><em>d</em></td>
<td>d</td>
<td>d</td>
<td><em>dorū</em> ‘wood’</td>
<td><em>dārū</em> ‘wood’</td>
<td></td>
</tr>
<tr>
<td><em>dh</em></td>
<td>dh</td>
<td>d</td>
<td><em>dh₂neh₂</em> ‘grain’</td>
<td><em>dāhā</em> ‘grain’</td>
<td></td>
</tr>
<tr>
<td><em>k</em></td>
<td>s</td>
<td>s</td>
<td>*dek̂t̂ ‘ten’</td>
<td>*dāŝ ‘ten’</td>
<td></td>
</tr>
<tr>
<td><em>g</em></td>
<td>j</td>
<td>z</td>
<td><em>gōnu</em> ‘knee’</td>
<td><em>jānu</em> ‘knee’</td>
<td></td>
</tr>
<tr>
<td><em>gh</em></td>
<td>h</td>
<td>z</td>
<td><em>ghimōs</em> ‘cold’</td>
<td>*himā ‘cold, frost’</td>
<td></td>
</tr>
<tr>
<td><em>k</em></td>
<td>k-c</td>
<td>x-c</td>
<td><em>kruhrōs</em> ‘bloody’</td>
<td>*krārā ‘bloody’</td>
<td></td>
</tr>
<tr>
<td><em>g</em></td>
<td>g-j</td>
<td>g-z</td>
<td><em>gō̊s</em> ‘who’</td>
<td>*kāh ‘who’</td>
<td></td>
</tr>
<tr>
<td><em>gh</em></td>
<td>g-h</td>
<td>g-z</td>
<td><em>dēhemōs</em> ‘long’</td>
<td>*dēhā ‘long’</td>
<td></td>
</tr>
<tr>
<td><em>kʷ</em></td>
<td>k-c</td>
<td>k-c</td>
<td><em>kʷos</em> ‘and’</td>
<td>*ka ‘and’</td>
<td></td>
</tr>
<tr>
<td><em>gʷ</em></td>
<td>g-j</td>
<td>g-j</td>
<td>*gʷu ‘cow’</td>
<td>*gav ‘cow’</td>
<td></td>
</tr>
<tr>
<td><em>gʰʷ</em></td>
<td>gh-hg-j</td>
<td>*ghnanti ‘strike’ (pl.)</td>
<td>*găn̂anti ‘strike’ (pl.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>s</em></td>
<td>s</td>
<td>h</td>
<td>*saptā ‘seven’</td>
<td>*saptā ‘seven’</td>
<td></td>
</tr>
<tr>
<td><em>i</em></td>
<td>y</td>
<td>y</td>
<td>*yugām ‘yoke’</td>
<td>*yugām ‘yoke’</td>
<td></td>
</tr>
<tr>
<td><em>u</em></td>
<td>v</td>
<td>v</td>
<td>*yaḥeti ‘drives, rides’</td>
<td>*vahāti ‘drives’</td>
<td></td>
</tr>
<tr>
<td><em>m</em></td>
<td>m</td>
<td>m</td>
<td>*mēhrēr ‘mother’</td>
<td>*mātār ‘mother’</td>
<td></td>
</tr>
<tr>
<td><em>n</em></td>
<td>n</td>
<td>n</td>
<td>*nas ‘us’</td>
<td>*nas ‘us’</td>
<td></td>
</tr>
<tr>
<td><em>l</em></td>
<td>l-r</td>
<td>r-r</td>
<td>*linēk̂tu ‘leaves’</td>
<td>*rinākī ‘leaves’</td>
<td></td>
</tr>
<tr>
<td><em>r</em></td>
<td>r</td>
<td>r</td>
<td>*krūhrōs ‘bloody’</td>
<td>*krūra ‘bloody’</td>
<td></td>
</tr>
<tr>
<td><em>t</em></td>
<td>a</td>
<td>a</td>
<td>*t̂ ‘un-‘</td>
<td>*a ‘un-‘</td>
<td></td>
</tr>
<tr>
<td><em>m</em></td>
<td>a</td>
<td>a</td>
<td>*sātā ‘hundred’</td>
<td>*sātam ‘hundred’</td>
<td></td>
</tr>
<tr>
<td><em>l</em></td>
<td>r</td>
<td>ar</td>
<td>*vyk̂wos ‘wolf’</td>
<td>*vja ‘wolf’</td>
<td></td>
</tr>
<tr>
<td><em>r</em></td>
<td>r</td>
<td>ar</td>
<td>*r̄ēr̄ ‘heart’</td>
<td>*r̄ē ‘heart’</td>
<td></td>
</tr>
<tr>
<td><em>k</em></td>
<td>i</td>
<td>i</td>
<td>*līnēk̂tu ‘leaves’</td>
<td>*rinākī ‘leaves’</td>
<td></td>
</tr>
<tr>
<td><em>g</em></td>
<td>a</td>
<td>a</td>
<td>*dēk̂ ‘ten’</td>
<td>*dās ‘ten’</td>
<td></td>
</tr>
<tr>
<td><em>h</em></td>
<td>a</td>
<td>a</td>
<td>*ḥērē ‘man’</td>
<td>*nā ‘man’</td>
<td></td>
</tr>
<tr>
<td><em>a</em></td>
<td>a</td>
<td>a</td>
<td>*ṭērē ‘drives’</td>
<td>*ājā ‘drives’</td>
<td></td>
</tr>
<tr>
<td><em>s</em></td>
<td>a</td>
<td>a</td>
<td>*mēhrēr ‘mother’</td>
<td>*mātā ‘mother’</td>
<td></td>
</tr>
<tr>
<td><em>o</em></td>
<td>a-a</td>
<td>a-a</td>
<td>*gōmbhos ‘tooth, peg’</td>
<td>*jāmbha ‘tooth, tusk’</td>
<td></td>
</tr>
<tr>
<td><em>a</em></td>
<td>ā</td>
<td>ā</td>
<td>*dōh₂neh₂ ‘grain’</td>
<td>*dāhā ‘grain’</td>
<td></td>
</tr>
<tr>
<td><em>u</em></td>
<td>u</td>
<td>u</td>
<td>*yuĝ ‘yoke’</td>
<td>*yugā ‘yoke’</td>
<td></td>
</tr>
<tr>
<td><em>m</em></td>
<td>ū</td>
<td>ū</td>
<td>*mōs ‘mouse’</td>
<td>*mōs ‘mouse’</td>
<td></td>
</tr>
<tr>
<td><em>h₁</em></td>
<td>ō</td>
<td>ō</td>
<td>*ṭēs ‘is’</td>
<td>*āsti ‘is’</td>
<td></td>
</tr>
<tr>
<td><em>h₂</em></td>
<td>ō</td>
<td>ō</td>
<td>*ḥr̄t̄os ‘bear’</td>
<td>*j̄sa ‘bear’</td>
<td></td>
</tr>
<tr>
<td><em>h₃</em></td>
<td>ō</td>
<td>ō</td>
<td>*ḥjyok̂(s)i ‘eye’</td>
<td>*āksi ‘eye’</td>
<td></td>
</tr>
<tr>
<td><em>h₄</em></td>
<td>ō</td>
<td>ō</td>
<td>*h̄orĝhí ‘testicle’</td>
<td>*ār̄ ‘testicle’</td>
<td></td>
</tr>
</tbody>
</table>
their descendants are found (at a time when the Proto-Indic speakers were still somewhere on the Iranian Plateau), and thus not subject to all the innovations that otherwise affected Indo-Iranian. Their current, geographically central, position with Indo-Iranian results from their being "outflanked" by the Indo-Aryan speakers who moved around them into the Punjab and ultimately throughout northern and central India.

The Indo-Iranian languages are also conservative representatives, at least in their earliest attestations, of the PIE morphological system. Old Indic and Avestan both preserve almost all of the PIE nominal and adjectival cases (vocative, nominative, accusative, genitive, dative, locative, ablative, and instrumental) as well as the three numbers (singular, dual, and plural) and three genders (masculine, feminine, and neuter) reconstructed for Proto-Indo-European. The verb is equally elaborate, having three persons (first, second, and third), three numbers (singular, dual, plural), three aspects or ways which the speaker can "view" an action ("present", aorist, and perfect), three tenses (present, past, future) and four moods (indicative, imperative, subjunctive, and optative). In this complexity it matches Greek and clearly reflects at least a late, dialectal situation in Proto-Indo-European though for Proto-Indo-European as a whole it is doubtful that we can reconstruct a future (tense), a perfect (aspect), or a subjunctive (mood).

**Indo-Aryan**

The earliest attested representatives of the Indo-Aryan languages are to be found in north Syria and in India. The evidence from northern Syria appears as loan words in the language of the Mitanni, a group of people speaking the non-IE Hurrian language who were in diplomatic and cultural contact with the Hittites and Egyptians. The Indo-Aryan element of the Mitanni vocabulary is evident in treaties and other works found in the archives of both their neighbors: the archives of the Mitanni themselves remain unknown. The relevant Mitanni texts date to c.1400–1330 BC. The evidence for an Indo-Aryan language rests primarily with the names of some Mitanni leaders, the deities they swore by (Mitanni Indara, Mitrasil, Nasatianna, and Uruvanassil = Old Indra, Mitra, Nasatya and Varuna), and terms associated with the horse-drawn chariot which are most notably found in a Hittite horse-training manual attributed to Kikkuli 'the Mitanni'. The evidence for Indo-Aryan terms are seen in the numerals preceding the various "turns" (Mitanni wa-ar-ta-an-na, Old Indra wa-ar-ta-an-na of the race-course, e.g., Mitanni a-i-ka 'one' (Old Indra eka-), Mitanni ti-e-ra- 'three' (Old Indra tri-), Mitanni pa-an-za 'five' (Old Indra pātca) and Mitanni na-wa 'nine' (Old Indra nava). The close association between the Indo-Aryan element and the war-chariot has generally prompted the conclusion that the Mitanni were briefly subjugated by Indo-Aryans who possessed the chariot and introduced it into northern Mesopotamia. After a number of generations, however, the Indo-Aryan element declined to the status of a (dead) linguistic residue in an otherwise Hurrian-speaking population.

The earliest evidence for the Old Indic language is to be found in the massive corpus of Indic religious literature, the earliest of which is the Iṣṭveda. The Iṣṭveda consists of 1028 hymns (more than 10,000 strophes or about the size of the Iliad and Odyssey combined), associated largely with various clans or families of northwest India, and is one of the four main branches of the vedas. As an oral literature, passed down through the generations by priestly memory and recitation, the dates of its original creation can only be vague but they are generally set to the period c.1500–1000 BC. The oral text was "edited" about the seventh century BC by Sākalya and the earliest written manuscripts date to the eleventh century AD. Other prominent Vedic liturgical texts include the Atharvaveda and the Brāhmaṇa (manuals for undertaking the sacrificial rites). There is also an enormous later classical literature, most prominent being the two major epics, the Mahābhārata, the longest epic poem in the word (with c.100,000 double verses) and the Ramāyana plus a vast quantity of other works. The language of ancient India was codified or 'put together', (i.e., Olnd sam-skṛta- > Sanskrit) by the great Indic grammarian Pāṇini c. 400 BC. All of this literature was originally produced orally and the earliest evidence for written Old Indic to survive is in the numerous inscriptions attributed to the reign of the emperor Aśoka in the third century BC. The corpus of the Old Indic lexicon is enormous and provides one of the main sources of comparanda for reconstructing the IE lexicon.

The Middle Indic languages or Prakrit (< Olnd prakṛt 'made before', i.e., 'natural' or 'vernacular' in contrast to the more artificially governed sanskrit) are the "natural" or vernacular languages of early India that were spoken before c.400 BC to 1100 AD. Their initial date is difficult to determine but they seem to have existed alongside some of the later Vedic compositions which reflect Prakrit influences. The Prakrits emerged during a period when the impact of the Dravidian languages on Indo-Aryan became much more apparent. Among the Middle Indic languages are Old Prakrit, the Prakrit language found, for example in, the Aśoka inscriptions and Pali, the liturgical language of Buddhism which also emerges by about the fourth century BC. Other Prakrits include Māgadhī, Saurasenī and Mahārāṣṭrī. In classical Sanskrit drama, kings and brahmins would speak Sanskrit while the dialogue of women, children and the lower classes would be written in Prakrit.

The modern Indo-Aryan languages began to emerge from Prakrit about 1100 AD. These provide the largest of the spoken languages of India-Pakistan today. The Midland dialectal group comprises Hindi-Urdu, Bhāri, Rajasthani while the Western languages are Gujarati, Marathi, Sinhalese (in Sri Lanka), and Konkani. Other major Modern Indo-Aryan languages comprise an Eastern group (Assamese, Bengali, Oriya), a Northwest group (Panjabi, Lahnda, Sindhi, Pahari) and the more isolated Dārīc languages (Kashmiri, Kalāsh, Khowar, Dameli, Gawarbhāti, Šumašt, Paṣā, Bāškar, Tūrwa, Mayā, Woṭāpūrī, Tirāhi, Sinā, Phalura, Dumākt). Occasionally, an IE cognate in Indo-Aryan will only be found among the
modern Indo-Aryan languages rather than in any of the earlier languages.

**Iranian**

The early Iranian languages are far more poorly attested that those of ancient India. The earliest evidence of the Iranian languages is the Avesta, the ancient religious texts associated with the prophet Zarathustra (the Zoroaster of the early Greeks) and the royal inscription of the Achaemenid kings, primarily Darius I (522–486 BC) and Xerxes (486–465 BC). The date of the Avesta has been long disputed but on the basis of its similarity with the earliest Indo-Aryan texts and the cultural background depicted in its hymns, it has been set to the eleventh century BC although much of the material included in it was added later. The earliest sections of the Avesta are attributed to Zarathustra himself and are known as the Gathas. These have been assigned to the period c 1100–600 BC (depending on who one trusts for devising a date for Zarathustra). The latter parts of the Avesta are variously set to c 800 BC to 200 AD. The Avesta was first written down about the fourth to sixth centuries AD and the oldest surviving manuscripts date to the thirteenth century and appear to derive from a tenth-century edition. The sixth and fifth century Persian texts written during the reigns of Darius and Xerxes are termed Old Persian. These were written in cuneiform and generally appear as trilingual inscriptions, which also include Elamite, a non-IE language of (southern) Iran, and Babylonian (Semitic). Dialectally, Old Persian is regarded as a southwestern Iranian language in contrast to the east Iranian Avestan which covered most of the rest of greater Iran.

The primary language of Iran until the Arab conquest of 642 was Middle Persian or Pahlavi, a markedly simplified version of Persian which spread over the territory of many of the other Iranian dialects of Iran. North of the Persian state, Iranian languages were spoken through the Middle Ages which belonged to the Eastern Iranian group. On the lower Amu Darya, south of the Aral Sea, Khwarazmian survived until the Turkic conquest of this region in the thirteenth and fourteenth centuries. The ancient land of Sogdia, which had its capital at Samarkand, was the home of Sogdian which was widely employed across Central Asia. Records in Sogdian date from about the fourth to eleventh century by which time Persian had generally replaced it, with the exception of Yagnobi which has survived to the present. The language of the Iranians of the steppe lands is generally referred to as Saka. The Saka conquered northwest India in the second century BC and also expanded into Xinjiang, the western province of China, where their language is best preserved in documents from Khotan, hence the designation Khotanese (Saka). Turkic expansions eliminated the Khotanese language, recorded from the seventh to tenth centuries. Khotanese has left no descendants. The related, but phonologically considerably more conservative, Sarikoli is spoken in some of the higher areas of southwestern Xinjiang.

Modern Persian emerged after the Arab conquest of Persia to become the state language of modern Iran and it is also widely spoken outside its borders, e.g., in Central Asia and Afghanistan (Tajiki). Other modern western Iranian languages include Kurdish, spoken in the mountainous territory of Kurdistan, and Baluchi in Baluchistan, the southern territories of Iran and Afghanistan, Tati and Talishi in Azerbaijan, Gilani and Mazandaran on the southern shores of the Caspian; Gorani is spoken in the region of Kermanshah and Zaza survives in eastern Turkey. The more conservative eastern Iranian languages comprise Pashto (Afghan), the state language of Afghanistan, and a series of minor languages: Yaghnobi (on the river Yaghnob), Munjani and Yidgha (Badakhshan), Parachi (north of Kabul), and Ormuri (north of Kabul and in Pakistan). The languages of the earlier steppe Iranians survives in mountainous regions such as Ossetic (which some regard as the descendant of the languages spoken by those Alans who did not migrate to western Europe with the Huns), in the Caucasus, and the Pamir languages (Shughni, Roshani, Bartangi, Oroshori, Sarikoli, Yazghulami, Wanchi, Ishkashim and Wakhi). The more limited literary remains of the earlier Iranian languages are frequently enough augmented by the linguistic residue that has survived in the much more recently attested modern languages.

**Nūristānī**

The Nūristānī languages have only been attested since the nineteenth century. They consist of five languages spoken in the Hindu-Kush, the territory formerly named Kafiristan by
their Islamic conquerors from Kāfīrī 'pagan' and Kafir has sometimes been applied to the Nūristānī languages but is generally abandoned now as politically objectionable. The Nūristānī languages are Ashkun, Kati, Prasun, Waigali and Tregami (the latter the language of three villages, hence its name tre-gami). The dialectal position of the Nūristānī languages has been a subject of some debate and their precise position with regard to the other Indo-Iranian languages is still undecided. Some, possibly most, argue that Nūristānī is an independent stock of the Indo-Iranian(-Nūristānī) superstock. Certain similarities with Old Indic have prompted some to suggest that Nūristānī was part of Indo-Aryan but unlike the rest of this stock, it did not enter the Punjab and the rest of India nor undergo the linguistic evolution of Old Indic. Others have argued on the ground of phonological similarities with Iranian that the Nūristānī languages were originally Iranian and that their speakers had moved into the vicinity of Indo-Aryan (here Dardic) speakers and were influenced by the other language division.

Indo-Iranian Origins

The distribution of the Indo-Iranians finds them spanning the Eurasian steppe from at least the Ukraine in the west (whence we have historically attested movements of Iranian-speaking peoples such as the Sarmatians and Alans into central and even western Europe) across south Russia, Kazakhstan and extending as far east as Xinjiang in western China (the Saka). They are also found in Iran, Afghanistan and the northwestern two-thirds of the Indian subcontinent. This distribution comprises the open steppe of the north, the oases, lake-side and river valley (Amu Darya, Syr Darya) urban centers of Central Asia, and the plains, mountains and major river systems of southern Asia.

The close linguistic association of the Indo-Iranians demands a common geographical origin before the separation that led them to occupy their historically attested positions. That they were intrusive into at least part of their area of distribution is suggested by the presence of non-IE language stocks in the southern part of their historical territories. The Indo-Aryans who were present among the Mitanni of north Syria operated in a milieu of non-IE Hurrian speakers who occupied the region of northern Mesopotamia and eastern Anatolia. In Iran, there is evidence of Elamite, a non-IE language attested since c 2300 BC, occupying most of southwestern Iran (modern Khūzistān); to what extent it existed further north cannot be determined with any certainty. Peninsular India still preserves two non-IE language families: Munda in central India and, more importantly, the Dravidian languages that presently cover the lower third of India but once occupied a much larger area. This larger area of occupation is suggested by the fact that Dravidian place-names are found in now Indo-Aryan regions of central India and one Dravidian language, Brahui, is situated in Baluchistan (although it has also been proposed that Brahui only achieved this position relatively recently). Arguments that it covered the Indus Valley itself are suggested by putative substrate effects of Dravidian on early Indo-Aryan (there are an estimated thirty to forty Dravidian loanwords in Vedic) and the possible identification of the Indus Valley script with the Dravidian languages. There are arguments that Dravidian was related to Elamite and that it was Dravidian speakers who carried the earliest agricultural economy through western India at the beginning of the Neolithic. The Neolithic of eastern India is generally associated with the western spread of Austro-Asiatic languages. Munda is the westernmost of these languages which also include Khasi, spoken in Assam, and Nicobarese in the Nicobar Islands. In the far north of the Indian subcontinent is Burushaski which lacks any demonstrable genetic connections.

It can be seen then that India was probably very linguistically diverse and it experienced the "Neolithic Revolution" from both the east and the west. That the non-IE component of the Indo-Aryan vocabulary for local plants and animals derives heavily from Dravidian and other "local" languages suggests that the Indo-Aryans superimposed themselves on existing agricultural populations. An estimated one third of the modern Hindi vocabulary pertaining to agriculture cannot be explained with reference to Indo-European.

A second reason for excluding the Indo-Aryan languages a local origin is that they share a range of lexical items with the other IE languages for flora, fauna, and technological items which are widely distributed over Eurasia but cannot be seen to have originated in India, e.g., wheeled vehicles.

Thirdly, any attempt to anchor the Indo-Iranians in their historical seats since at least the beginnings of the Neolithic c 7000–6000 BC requires two models, neither of which is persuasive. It might be argued (as a number of Indian linguists and archaeologists suggest today) that the IE homeland was in or near northwest India and that the other IE languages had emigrated from this region. This theory, which resurrects some of the earliest speculations on the origins of the Indo-Europeans, has not a shred of supporting evidence, either linguistic or archaeological. Alternatively, the spread of the Indo-Iranian languages has been tied to the spread of the Neolithic economy and hence, for example, some would credit Proto-Indo-Aryan farmers with introducing agriculture to India. This theory is proposed under two alternative models: the first would argue that the transition from hunting-gathering to agriculture took place in the vicinity of India and that the Harappan culture was a (linguistically) local phenomenon. Archaeologically, a possible case can be made for this as we do find the development of an agricultural economy from its hunting-gathering past in Baluchistan at the site of Mehrgarh and subsequent developments in architectural and social complexity that foreshadow the urbanized culture of the Indus. But if the identification is argued to reflect linguistic continuity until the emergence of Indo-Aryan texts, then we would have to look to this same region as the IE homeland itself which renders such a linguistic
model liable to the criticism above. Moreover, one can also witness a local transition to agriculture in the upland region of Iraqi Kurdistan and we can hardly have two separate origins for the Indo-Aryans.

The Anatolian model of IE origins offers a second agricultural solution where Indo-Aryans are explained as an eastward spread from a common IE agricultural heartland situated in the vicinity of central or eastern Anatolia. The problem here is that between the later speakers of Indo-European languages in Anatolia and those of India and Iran, we find non-IE language families, e.g., Semitic, Hurrian, Elamite, and possibly Dravidian. Moreover, the entrance of Indo-Aryans into the Indian borderlands at about 6000 BC (the appearance of agriculture in the region) renders it impossible to explain how later Indo-Aryan languages share the same vocabulary with western Europeans for items such as wheeled vehicles which would not even be invented for several thousand years later. Moreover, such a model ignores the evidence for local origins of agriculture in Baluchistan.

Finally, the Indo-Iranian languages show deep connections with the Uralic language family whose own origins are variously set to either the region immediately west or east of the southern Urals. There are numerous loanwords in the Uralic languages that were probably borrowed from Iranian but in some cases, an earlier Indo-Iranian loan is suspected, e.g., *kèstrost-*spindle’ (cf. Pashto căšai, Olnd cattrra) > Proto-Finno-Ugric *keštræ (cf. Finnish kešträ ‘spindle’). This contact suggests that the ancestors of the Indo-Iranian languages were once in contact with those of the Finno-Ugric languages of the Eurasian forest zone and that the distribution of the Indo-Iranian languages is best explained by a north to south movement.

The most widespread model of Indo-Iranian origins today finds their direct ancestry among the populations of the eastern steppe. From the end of the third millennium BC, cultures emerge in the southern Urals and Kazakhstan, which appear to have all the prerequisites of what one would expect of the earliest Indo-Iranians. These prerequisites include the domestic horse and the chariot, the latter which first appears at such sites as Sinashta in the southern Urals just before 2000 BC. The more mobile way of life, witnessed in the earliest Vedic hymns, is also seen in this region along with a primary stockbreeding economy. This region also provides a convenient contact zone with the Finno-Ugric languages. The culture most frequently associated with the earliest Indo-Iranians is that of the Andronovo culture, actually a blanket term for a variety of cultures situated across the forest-steppe, steppe, and later on the northern borders of Central Asia.

The theoretical model of Indo-Iranian expansions generally follows at least a variant of the scheme suggested by Thomas Burrow. According to Burrow, the Indo-Aryans were the first to diverge from the Indo-Iranian continuum or proto-language and they were the earliest to penetrate south of Central Asia. They moved both west (Mitanni) and east (toward northwest India). They were then subsequently pushed out of the central region by a second major wave of Iranian speakers who absorbed earlier Indo-Aryans, including some of their vocabulary, place names and deities (who were demonized as foreign gods).

**Indo-Aryan Origins**

As we have seen, the Indo-Aryans appear both in northern Syria and in northwest India. Those who found themselves among the Hurrian-speaking Mitanni probably did so by c. 1500 BC as the Indo-Aryan element in the Mitanni vocabulary has been regarded as a residue of a dead language. The archaeological evidence for such an Indo-Iranian presence among the Mitanni generally centers on the introduction of the horse-drawn chariot, evidence for some form of cultural movement from the east Caspian region that might be linked to Indo-Iranians, and the possibility of recognizing Indo-Aryan (or Indo-Iranian) mythological motifs in Mitanni art. The site of Marlik in northern Iran tends to meet such requirements as it is situated in a region associated with the location of the historical Mitanni and it contains Mitanni seals. Moreover, it yields West Iranian Grey Ware, a pottery type that appears about 1500 BC and whose origins lie southeast of the Caspian. The cemetery of Marlik yielded evidence for the horse and chariot, and items associated with Indo-Iranian religion, e.g., fire cult, mortars for pressing out the sacred *sauna* have also been recovered from the site. The contemporary site of Hasanlu near Lake Urmia has also yielded iconographic evidence that may have been inspired by Indo-Iranian mythology, e.g., the hero confronting the three-headed monster. All of this evidence has suggested an Indo-Aryan presence in the Mitanni region. How precisely this presence ties in with putative Indo-Iranians further north is uncertain although there have been attempts to derive this westward spread of Indo-Aryans from the Bactrian-Margiana Archaeological Complex (BMAC), a recently defined culture which a number of scholars have suggested may be associated with the Indo-Aryans.

The archaeological evidence for the earliest Indo-Aryans in northwest India is either controversial or ambiguous as it is difficult to define what precisely should be expected of an Indo-Aryan culture. The early Vedic hymns reflect a geographical knowledge of the *sapa-sundhava*, the ‘seven-rivers’ or tributaries of the Indus, which would place them between the rivers Kabul in the north and Ghaggar in the south. Their distribution would cross with that of the Harappan culture of the Indus region but we have seen that the latter culture would make a very poor candidate for early Indo-Aryans. The local continuity of early agriculturalists through the rise of Elamites and the Harappan culture renders it far easier to propose linguistic continuity from the Neolithic into the Bronze Age in both much of Iran and northwest India (Proto-Dravidian has an agricultural vocabulary of its own which includes rice and plow; also a more urbanised vocabulary in that it reconstructs a word for the second story of a house). Moreover, Vedic literature also makes it clear
Indo-Iranian II Archaeological cultures associated with Indo-Iranian migrations. The early phases of the Andronovo culture have often been seen to offer a “staging area” for Indo-Iranian movements. The BMAC offers the Central Asian cultural “filter” through which some argue the Indo-Iranians must have passed southwards to such sites as Mehrgarh and Sibri. The Yaz culture has been most closely associated with the culture depicted in the Avesta. The Swat culture may reflect either Indo-Aryan movements toward northwest India or the emergence of Nūristānī or Dardic populations. Candidates for early Indo-Aryan cultures include the Cemetery H, Copper Hoard and Painted Grey Ware cultures.

that we are dealing with a largely pastoral society which employed the horse and chariot; it makes no mention of towns yet is geographically situated where urbanism previously existed. Hence the emergence of an Indo-Aryan community in northwest India is traditionally dated after the Harappans or concomitant with their decline. That there was a decline and population readjustment is unequivocally supported by the archaeological evidence. In the period between c 2000 and 1800 BC there is a total collapse of urbanism in northwest India and a massive, almost total in some regions, abandonment of areas in the west and a relocation or at least population increase in the east, e.g., the eastern Punjab. Out of this Late Harappan period, numerous candidates have been invoked to represent the archaeological expression of Indo-Aryans.

Prominent candidates for early Indo-Aryans have included the Cemetery H culture, the Copper Hoard culture, the Painted Grey Ware culture and the Swat culture. The Cemetery H culture (c 2000–1400 BC) is reflected in a series of burials that clearly date to after the collapse of the Indus towns. Their ascription to Indo-Aryans is founded on their geographical location, some evidence for urn burial (indicated in the Vedas), and the depiction of peacocks and dogs on vessels which is reminiscent of motifs indicated in Vedic mythology (peacocks represent the spirit of the dead while the dogs are identified as the hounds of Yama, lord of the underworld). The material, however, is not entirely intrusive as local techniques of manufacture are employed. Furthermore, the physical remains of the deceased are indistinguishable from those of earlier “pure” Harappan cemeteries, the evidence for the culture is far too sparse to be regarded as an expression of an Indo-Aryan conquest of the region, and there are no external sources from which to derive the culture.

The Copper Hoard culture (c 2000–1500 BC) consists primarily of a complex of metal artifacts, largely weapons, including peculiar copper harpoons which some have identified with the vājra the special weapon of the Indo-Aryan wargod, Indra. That the primary distribution of these objects is in the Ganges valley rather than further west suggests that this culture cannot be seen as an archaeological expression of the earliest Vedic Indo-Aryans although their eastern spread may possibly be connected in some way with the Copper Hoard culture.

The Painted Grey Ware culture meets the requirements of distribution in so far as later Old Indic literature is concerned since it is found to match roughly the areas mentioned in the Mahābhārata. It is non-urban and it possessed the domestic horse (chariots are presumed) and dates from c 1200 to 400 BC. But its distribution is centered on the region between the eastern Punjab and the Ganges which does not correlate well with the geographical view of the earliest attested Indo-Iranian literature. Furthermore, it too lacks any clear external derivation and it is, consequently, difficult to link it to an intrusive group of Indo-Aryan speakers.

The Swat culture occupied the region of the Swat Valley, the northern approach to the Indus, and consequently, a territory through which one might expect Indo-Aryan intruders. It has a number of parallels with Vedic religion, e.g., both inhumation and cremation were practiced and there is evidence for the domestic horse, including horse burials and horse trappings. It dates from c 1800/1700 to 400 BC and some argue that its roots lie further to the north in the Bishkent culture of eastern Tajikistan which offers further parallels of Indo-Iranian religion. As a possible expression of early Indo-Aryans, this is a robust candidate but also a very limited one in that it cannot be convincingly linked to culture changes throughout northwest India but only in the far northwest corner. Its territory is the later seat of both the Dardic and Nūristānī-speaking peoples and it is with either of them that one must easily identifies the Swat culture. Arguments for connecting it with movements further south require some form of cultural assimilation into the post-Harappan cultures such as the Cemetery H culture.

Finally, the most recently proposed candidate as an archaeological expression of the early Indo-Aryans is to be found much further to the northwest. The spread of the
Neolithic economy to Central Asia was already achieved by the seventh millennium BC when agricultural villages appeared along the southern fringe of the Central Asian desert. From this period there is evidence of marked regional cultures that share some similarity from Central Asia in the north to the Indus Valley in the south but the amount of interaction, other than occasional exchange items, raw material trade, or generic similarities in ceramic styles and decoration, suggests only a weak interaction sphere. The major cultural change that cannot be simply credited to evolutionary factors is the emergence of the Bactrian-Margiana Archaeological Complex (BMAC) in the period c 2000–1750 BC. This complex represents the development of a series of colonies along the Bactrian and Margiana oases that formed primitive “khanates”, fortified citadels of elite farming groups. The culture is marked by a series of stylistic elements, represented in steatite seals, and other iconographic representations, and the BMAC absorbed imports of raw material from a vast area of Central Asia. Its importance regarding Indo-Aryan origins concerns the spread of burials with BMAC material further to the south. BMAC graves are found on the Iranian plateau and as far south as Quetta, Mehrgarh (VIII) and Sibri, on the approach to the Indus Valley. This intrusive material appears c 1900–1700 BC and offers another candidate for movements from north to south during the period generally presumed to embrace that of Indo-Iranian expansions.

That the BMAC was not specifically an urban society has been employed to suggest connections with the non-urban societies that characterize post-Harappan India. Against the supposition that the BMAC “resolves” the entire issue of Indo-Aryan origins and expansions is that it is very sparsely represented outside of its core territory (i.e., there is no evidence of an infilling of Iran and Afghanistan with BMAC material antecedent to movements into northwest India). In addition, the evidence that the BMAC was guided by Indo-Aryan-speakers requires it to have been linguistically assimilated by early Indo-Iranian steppe tribes (Andronovo culture). Although there is some evidence for contacts between the two cultures, the evidence falls far short of demonstrating that the BMAC had adopted an Indo-Aryan language.

**Iranian Origins**

The earliest historical reference to Iranian-speaking peoples occurs in the ninth century when in 835 BC the Assyrian king Shalmaneser received tribute from the twenty-seven tribes of the Paršwās, which is generally thought to indicate the Persians. The Medes are subsequently mentioned in the eighth century. The Avesta is an older document and provides enough geographical points of reference to indicate that its cultural milieu was east of the Caspian as far as the river Helmand. The Avesta also mentions the airdranam vaqjāu Aryan expanse, which is generally taken to refer to the Aryan “homeland”, a geographical concept that has exercised scholarship (and not a little imagination) since the nineteenth century. Although not rich in content concerning material culture, the general economic picture of the earliest parts of the Avesta suggests a primarily pastoral society with no evidence of agriculture or urbanism. The later Avestan texts do portray a society with mixed agriculture and acquainted with urbanism. Finally, the Iranian-speaking nomads of the steppes are described by Herodotus (Bk 4) as appearing in successive waves, moving east to west, across south Russia into the Ukraine.

Models of Iranian origins and dispersions refer back to the steppelands and presume that the difference between the Indo-Aryans and the Iranians is more a matter of chronology than cultural content, i.e., sites once occupied by the earliest expansion of the Indo-Aryans should have later been occupied by the Iranians who filled the same territory and may have “pushed” the Indo-Aryans southwards into India. As the Andronovo culture continued down until 900 BC, it may be presumed that its later phases were expressions of specifically eastern Iranian languages. The same might also be said for its western neighbor, the related Srubna culture of the Volga-Don region. The subsequent evolution to Iron Age societies across the steppe might then be regarded as the immediate ancestors of the Scythians and Sarmatians, the Iranian-speaking nomadic tribes mentioned in the earliest Greek historical texts.

As the Avesta reflects an increasingly more sedentized society, the likely candidate for it in the archaeological record is the Iron Age Yaz I culture (c 1500–1100 BC) which occupies the regions most closely assigned to the Avesta at a time roughly coincident with its earliest creation. Early farming citadels, steppe-derived metallurgy and ceramics, and the conspicuous absence of burials, which possibly reflects the Zoroastrian norms for disposing of the dead by exposure rather than burial, fit in well with the textual evidence for Avestan society. Later cultural continuity in Central Asia may then reflect the ancestors of the later East Iranian communities that emerged in the later historical period.

The western Iranians, the Medes and Persians, are the most difficult linguistic entity to trace in the archaeological record. Since the earliest historical records of the Iranians place them in territories proximate to those earlier assigned to the Indo-Aryan route into Mitanni, the earliest evidence for these Iranians is set to the period after the appearance of West Iranian Grey Ware (c 1500–1000 BC). The next cultural expansion moving southwestwards from the east Caspian is the West Iranian Buff Ware, a ceramic style that first appeared in the Gorgan region east of the Caspian c 1100 BC and then on sites of the Zagros region later attributed to the Medes and Persians. This ceramic style is intrusive wherever it occurs in Iran and is regarded as ancestral to the ceramics later attributed to the Achaemenid Empire of the Persians.

*See also BMAC, COPPER HOARD CULTURE, HARAPPAN CULTURE, HASANLU, INDO-EUROPEAN HOMELAND, INDO-EUROPEAN LANGUAGES, MARLIK, PAINTED GRAY WARE CULTURE, SWAT CULTURE.* [D.Q.A., J.P.M.]
Further Readings

LANGUAGE

ETYMOLOGICAL DICTIONARIES

ORIGINS

INJURE


*Thel- ‘assail, afflict’. [IEW 10 (*th-); Buck 16.75; Puhrvel 1984:366]. Hit inan ‘illness, disease’, Av aenah ‘violence, damage’, iti- ‘injury, offense’, OInd ēnas ‘sin, guilt’, iti- ‘plague, disease’. The root may also be found in Grk (Hesychius) ζηπος ‘executioner’, OInd yatār ‘avenger’. If the correspondence between Anatolian and Indo-Iranian is accepted, then a word of considerable antiquity. 

See also HARM, WOUND. [D.Q.A.]

INSECTS
*Kōris- ‘biting insect’. [IEW938–939 (*kori-)]. OCS kori ‘moth’, Rus kori ‘moth’, Grk κόρις ‘bedbug (Cimex lectularius)’. Probably a word of the center of the IE world, though it is also possible that the Slavic and Greek represent independent formations from *s(k)i- ‘cut’ in the two groups.

*Hjempis ‘gnat, stinging insect’. [IEW 311 (*embhi- – *empi-)]. OE ymb ‘swarm of bees’, OHG imbi ‘swarm of bees’ (Gmc < *hiempi-, OInd ēmij- ‘gnat’. This is an old equation, not universally acknowledged by any means. If it is correct, we have evidence for a word of the west and center of the IE world.


See also ANIMAL; ANT; BEE; BUTTERFLY, FLY; HORNET; WASP, WORM. [D.Q.A.]

INSPIRATION
*Isirōs ‘sacred power’. [IEW299 (*isara-)]. Wat 16 (*isara-); GI702 (*eisēro-); Buck 22.19. Myc i-je-ro ‘powerful’, Grk πειρός ‘sacred, powerful, vital’, OInd isira- ‘powerful, lively’. The Old Indic is an adjective derived from iyati ‘makes lively, invigorates’ which is a derivative of *is- ‘a drink which is consumed at an offering which invigorates’. The lexical relationship between the Greek and Indic is also underpinned by cognate expressions where Grk *peirō muνος ‘sacred strength’ = OInd (instr. isirēna... minasī) ‘fierce
in sacred spirit. Both of these apply to sacred religious power and indicate participation in the marvelous potency of the gods. In Greek, the sacred connotation is also to be found in the derivative  ἱερός 'priest',  ἱππεῖον 'sacrifice', etc. Attemps to bring in here also a series of Italic terms: Osc  aśīsīs 'sacrifices', Umb  esono- 'divine' are not accepted today; these words are rather to be derived from Etrusco-Latin aser'god',  aśīuna, āśīna 'divine' or something to do with sacrifice. Cf. Av āeṣa- 'powerful' and the phrase vāxā āeṣā 'efficacious voice'.

See also  HEAL; IRON. [E.C.P.]

Further Reading

INSULT
* (*nejid-) 'insult'. [IEW 760 (*nejid-)]. OE ge-nētan 'torment', OHG neizzan 'torment', Goth ga-naitjan 'treat shamefully', Lith nědėti 'despise', Latv nist 'hate', Grk ἰενδίζω 'revile', Arm anēc 'curse', Av naēd- 'insult', OInd nindati 'insult'. The prothesis in Greek and Armenian indicates that we may be dealing with an enlarged stem * (*nejid-) from * (*nejnod-) 'downward' as in * (*nejnod-)ni- 'insults'. The major difficulty with this hypothesis is that the Greek initial 0- (also in  ἰενδίς 'blame',  ἱερός 'sacrifice') requires PIE *h1 whereas one has to assume *h1 or, more likely no laryngeal at all, for * (*nejnod-)ni- 'downward'. Further zero-grade cognates in Old Indic include  nīd(a)- 'blame',  nindā 'abuse, slander'. Distribution clearly supports PIE status.

* (*pih1-)j- 'revile'. [IEW 792 (*peh1-)j-]. ON fja 'hate', OE  fēon 'hate', OHG  fien 'hate', Goth  fjan 'hate', OInd  pīyati 'insults'. The proto-form may be a suffixed zero-grade with a laryngeal metathesis of the stem *peh1- with the same root *peh1- seen in Grk  μιζό 'suffering, misfortune', Av  pāmān 'skin disease', OInd  pāmān 'skin disease'. As Vedic  pāmān 'misfortune, suffering' is considered to be reshaped from *pāmā- after  pā- 'bad', evil', a basic meaning 'misfortune' can be assumed for the underlying root  peh1-. Goths  faian 'blame' derives from  peh1-. Distribution supports PIE status.

See also  BLAME, CONTEND. [E.C.P.]

INTERJECTIONS
* (*j) 'O' (vocative particle). [IEW 772 (*j)]. OIr  (vocative particle), Wels  (vocative particle), Lat  (cry), MGH  (vocative), Goth  'ale', Lith  (vocative particle), Latv  (vocative particle), OCS  (vocative particle), Grk  (cry of astonishment, vocative particle), OInd  (vocative particle). Clearly old in PIE but also possibly subject to irregular reformation in the various stocks which preserve it.

* (*w) 'alas'. [IEW 1110-1111 (*w)]. Wat 73 (*wai); BK 479 (*way). Mlr  fae 'alas', Wels gwaive 'alas', Lat vae 'alas', ON  rai 'alas', OE wa' 'alas', OHG  'alas', Goth  'alas', Lith  vai 'alas', Latv  'alas', Alb  'lament', Grk  oivai 'alas', Arm  way 'woe, misfortune', Av  rāyū 'alas'. Basically a widespread onomatopoeic word, continually recreated (thus accounting for the irregular phonological developments in Albanian, Greek and Armenian).

* (*medhu-) 'intoxicator'. [IEW 707 (*medhu-), cf. Wat 39 (*medhu-); cf. Gr  517-518 (*medhu-), BK 543 (*medhu-)]. OIr  (queen of Connacht), Gaul Meduna, Medugenius, perhaps Olnd  Madhavi (daughter of Yayāti). Linguistically, the form certainly underlies the Celtic name where OIr  was originally an adjective meaning 'inebriating' beside  mid 'mead, intoxicating drink'. The same form, with lengthened grade, could also underlie the name of Olnd Madhavi. Conceptually related, it is argued, is  aśvamedha- 'horse sacrifice' which may be connected with OInd  mad- 'boil, rejoice, get drunk', again indicating an intoxicating substance although by a different word (cf. also OInd  madhvi 'sweet drink, honey, soma, milk'). In both the Celtic and Old Indic cases, an intoxicating substance played a part in the Indo-European ritual of the horse-sacrifice, the ritual which established the sovereignty of a king. The mythological correspondence between the two stocks also rests on the interpretation of two female epic characters by Georges Dumézil. Both the Olnd  Madhavi, the daughter of Yayāti in the Mahabharata and the Irish queen of Connacht  Medb involve specific speculations about the royal function. Olnd  Madhavi either designates a spring flower, rich in honey, or an intoxicating drink like the Vedic adjective madhvā 'sweet'. The geographical distribution of the semantically similar names and the structural similarities of the deities involved suggests we are dealing with a PIE concept.

See also  HONEY, HORSE, HORSE GODDESS, KING AND VIRGIN, SACRED DRINK. [J.P.M.]

IRANIAN see INDO-IRANIAN LANGUAGES

IRON
Although there are occasional traces of earlier meteoric iron and chance finds of iron objects in the third millennium BC, e.g., in Egypt, iron-working in general does not emerge until after c 2000 BC where it appears first in eastern Anatolia. From there it appears to have spread both through the Near East (at least partly with the help of the Phoenicians) and across Europe, generally after 1000 BC. It appears in Greece by 1000 BC and in northwest Italy shortly thereafter and it diffused through central and western Europe by about 800 BC, reaching Britain by about 500 BC. The spread of iron and its ultimate replacement of bronze for the manufacture of tools and weapons (although not of ornaments) was due to the fact that iron ore is far more ubiquitous in Eurasia (and the rest of the world) than copper and especially tin (needed to alloy with copper to produce the harder bronze) hence it
provided a much more abundant and also less expensive metal. Also, the carburization of iron, i.e., the production of steel by impregnating iron with carbon, produced a hard edge which was particularly useful in the production of both weapons and edged tools. It should be noted that in western Eurasia the earliest iron objects were forged, i.e., made of wrought iron by beating the iron into the intended shape; the casting of iron required higher temperatures than could usually be found in the west and so there was also a manufacturing shift from casting to forging for the primary utilitarian metal (in ancient China, cast iron was regularly employed). This diffusion of the new iron-based technology would date to a period long after the dissolution of PIE and it occurs no occasion that there is no common word for this metal between IE stocks other than occasional loans.

The Celtic forms (OIr *tarn [DIL. tarn] ‘iron’, Wels *haearn ‘iron’) are derived from the same adjective which yielded Grk ἱερός ‘sacred, holy’ but might equally be translated ‘mighty, powerful’. The Latin form *ferrum ‘iron’ was borrowed possibly from a Semitic language, e.g., Phoenician *ba resilience ‘iron’ that may also have given OE *bres ‘brass, bronze’ (> NE brass) and Fris *bres ‘copper’. The spread of iron through the central Mediterranean by both Greeks and Phoenicians might explain the Latin word but the shift in meaning of this word to ‘copper’ or a copper alloy (brass [copper + zinc], bronze [copper + tin]) is not so easily explained although northern Europe was to depend on foreign sources for its copper and bronze as it lacked native sources. The Germanic forms for *iron (ON *sirn ‘iron’, OE *s fern ‘iron’ [NE iron], OHG *sam ‘iron’) provide evidence that iron metallurgy was borrowed from the Celts who, controlling the Erzgebirge, were among the foremost metallurgists of the central European Bronze and Iron ages. Variance in vowel lengths indicates that, though related, the Baltic (Lith *geležis ‘iron’) and Slavic (OCS *zelzo ‘iron’) terms cannot be reconstructed to a common Balto-Slavic proto-form, and we seem to meet another loan word. Similarities to Grk χαλκός ‘bronz(e)’ (itself identified as a loan) and even to Sino-Tibetan *qhelegs ‘(cast) iron’ have been noted, but the significance of this data is unclear. (It is doubtful that ‘iron’ is the original meaning for the Sino-Tibetan *qhelegs since Sino-Tibetan unity must have been dissolved before the advent of iron metallurgy—in which case we seem to have another loanword). Phonetically Grk σόβιτος ‘iron’ resembles the Germanic (OE *solfær ‘silver’ [NE silver]) and Balto-Slavic (Lith *sidabras, OCS *strebro) ‘silver’ words; although both metals may be white, the phonological similarity may be fortuitous. The similarity to Germanic words for slag (OHG *sintar ‘sinter’), a necessary by-product of low-temperature iron-smelting, is more promising. However, the irregular relationship of the consonants in the putative equation of Lith *sidabras and OHG *sintar (defying Grimm’s Law) and the anomalous nasal of the Germanic form indicate a loan source in Balto-Slavic, Germanic, or both. These loans may suggest that an active (non-Indo-European?) metallurgical tradition survived in central Europe until the Iron Age.

The derivation of the term for ‘iron’ from an adjective meaning ‘black’ may explain the Armenian form where the first part of *erka ‘iron’ may be derived from ‘black’ (< PIE *hreg- ‘es-’) with the same suffix found in ‘silver’ (cf. Arm arc). Similar forms are widely disseminated throughout the Caucasus, and it is often difficult to determine which language is the borrower and which the donor. The Hittite form (h)apalk- bears only the most tenuous similarity to the Greek forms for ‘bronze’ and we are dealing with an Anatolian source. A situation similar to that of Armenian may be found in Indo-Iranian where an older term for ‘bronze’ was first given an adjective ‘black’ (OInd *ṣamām aya-) to designate the newer metal and eventually became the technological metal par excellence.

See also INSPIRATION; METAL; SILVER. [M.E.H., J.P.M.]

ITALIC LANGUAGES

The predominance of the Latin language in the Italian peninsula was an achievement of the first centuries BC and until that time Italy was occupied by a variety of both IE and presumably non-IE linguistic groups. In some cases, the linguistic position of various peoples is relatively secure but in a number of cases the inscriptive evidence is so meager that one can determine at best whether the language in question is IE and in some instances even the language family itself may be in doubt. The certain IE languages comprise those that are commonly designated Italic and several other languages, some Celtic or at least heavily influenced by Celtic, and some languages whose status with regard to the other IE stocks is disputed or indeterminable.

For comparative purposes, by far the most important of the Italic languages is Latin which was originally centered on Rome and then expanded over the entire peninsula in the first centuries BC and eventually over the Roman Empire to provide the foundation of the modern Romance languages. The earliest evidence for Latin are inscriptions that first appear c 620 BC. These are in Old Latin (OLat) and reveal certain archaism that are continued, at least in inscriptions, down to c 80 BC although Classical Latin (Lat) is found in earlier literary works, at least since the time of Cicero, i.e., 106 BC.

Closely related to Latin was Faliscan whose main town, Falerii Veteris (modern Civita Castellana), was situated 40 km north of Rome. The language was first recorded in inscriptions from about 600 BC and probably became extinct in the first centuries BC. When the Faliscans were defeated by the Romans in the third century BC and relocated to Rome, they were assimilated to the Roman language. Dialectally, Latin and Faliscan are generally grouped together as two closely related languages or, according to some, even dialects of the same language, e.g., a Faliscan inscription on the base of a wine cup reads: loied unio pipao cra carebo which would be rendered into Classical Latin as *hodie uinum bibam, cras carebo ‘today wine I will drink, tomorrow I will lack’.

Down the spine of Italy was spoken the language of the Samnites, Oscan, which survived on graffiti on the walls of
Pompeii as well as in the form of about two-hundred documents, generally quite short, except for the first-century BC *Tabula Bantina*, a bronze tablet. Sources of Oscan first appear about the fifth century BC and run to the first century BC.

The best represented Italic language after Latin is Umbrian, found north of the Oscan speech area and east of the Etruscans, which is known principally from the Iguvium tablets (named after their place of origin in Iguvium, modern Gubbio). These comprise a set of seven (of an original nine) bronze tablets. Those recorded in the Umbrian (< Etruscan) script are the earliest and date from the third century BC while those tablets in the Latin script have been attributed to the first century BC. The tablets are ritual in nature and provide not only a useful source for comparative linguistics but also early Italic religious practices. Other than the tablets, most other evidence for Umbrian is provided in glosses.

Latin and Faliscan are obviously very closely related, as are Oscan and Umbrian (and with Oscan and Umbrian are grouped a number of other scantily attested languages or dialects, e.g., Volscian, Sabine, Marsian). The exact relationship of Latin-Faliscan and Osco-Umbrian, however, is not altogether clear. The two are usually grouped together as the two halves of a unitary Italic branch of Indo-European, to which Venetic in the northeast of Italy is sometimes (but more often not) added as a third major subbranch. The many similarities of phonological and morphological development that Latin-Faliscan and Osco-Umbrian share, however, have also been explained as the result of the long-term mutual influence of Latin-Faliscan and Osco-Umbrian on one another but that the two were originally quite separate IE branches.

Briefly, the other ancient languages of Italy comprise Sicel (whence Sicily) which appeared to be spoken to the southwest of the Italic languages, in Calabria and Sicily. The southeastern side of the Italian "boot" was occupied by a number of peoples whose language is covered by the term Messapic and is granted a status independent of Italic. To their north lay the Picenes, an inappropriate ethnic term which includes probably two different languages. Southern Picene is clearly Indo-European and may well be closely related to or part of Italic while Northern Picene has defied interpretation, some regarding it as an Indo-European (but without actually being able to interpret its largest literary monument, the Novilara stele which yields twelve lines of unintelligible text which some have assigned to IE because of its sounds and endings) and others to an aboriginal non-IE language because of our inability to read anything on it with any certainty. To the north of Rome lay the Etruscans whose language is more commonly (although not universally) regarded as non-Indo-European. The northern Italian languages comprise Ligurian in the northwest which has been variously regarded as influenced by Celtic if not actually a Celtic language. The central region of northern Italy centered on Milan was the territory of the Lepontic language whose inscriptions date from the sixth to first centuries BC and are now assigned to the Celtic stock. Further east in the modern Veneto were the remains of Venetic, a possibly independent IE language (some would argue Italic) with (controversially) possible connections to Illyrian and Germanic. North of Venetic is Raetic, again known from a small number of inscriptions dating from about the fourth and third centuries BC and again defying certain classification although presumably Indo-European.

**Description**

From the point of view of PIE the Italic languages (Latin-Faliscan and Osco-Umbrian taken as one group) are fairly conservative. In phonology, the Italic languages are centum languages, merging the palatals with the velars, thus Lat *centum* with a *k-* but keeping this combined group separate from the labio-velars, e.g., Lat *quis* who (in Osco-Umbrian the labio-velars are subsequently merged with the bilabials, thus *pis* who). The Italic languages are distinct from all the other major IE groups in that the series *bh*, *dh*, etc., appear...
ITALIC LANGUAGES

in many positions as voiceless continuants (f, etc.). Indeed, the fact that Venetic shares in this development is an important argument for assuming that Venetic is an Italic language (although the same result is also found in medieval and modern Greek as well).

In morphology the Italic languages preserve six cases in the noun and adjective (nominative, accusative, genitive, dative, ablative, vocative) with traces of a seventh (locative), but the dual of both the noun and verb has completely disappeared. A certain amount of reworking of the inherited material has resulted in the restructuring of nouns and adjectives on the one hand and the verb on the other into five declensions and four conjugations familiar from Latin school grammars. More significantly perhaps, the verb has been restructured so as to emphasize the aspectual difference between completed actions (the perfectum) and uncompleted or on-going ones (the imperfectum). In the process the older IE distinction, in the past only, of aorist (for completed actions) and perfect (for actions with on-going relevance) has disappeared into the common perfectum.

From the position of both morphological innovations and uniquely shared lexical items, Italic shows the greatest similarities with Celtic and Germanic with some of the shared lexical correspondences also being found in Baltic and Slavic. The exact nature of these similarities is not entirely clear and there are no grounds to posit a special branch of the IE languages that would comprise all of these languages.

Origins

The fact that different IE sub-groups occupied the same general region renders the problem of the origins of any or all of the IE peoples of Italy extraordinarily complex. Where related languages are found occupying a confined territory, a linguistic-geographical pattern is naturally sought that might provide a clue to the direction from which the Italian peninsula received its IE speakers. The presumption that they did not originate in Italy itself is supported by several lines of evidence. The first emphasizes that one of the dominant languages of Italy was Etruscan which is generally regarded as non-IE and, although a number of both archaeologists and linguists have sought to derive the Etruscans from the east Mediterranean, this is not the hypothesis supported here. From the viewpoint of physical anthropology, there is little to distinguish the Etruscans from other Iron Age populations of Italy and this similarity may provide some support to the hypothesis that the Etruscans represent a local or autochthonous population.

Also, it might be argued that it is unlikely that a sea-borne invasion in the Bronze Age would have achieved such a position of predominance, and such a migration is undemonstrated (there is no single place in the eastern Mediterranean from whence the Etruscans can be convincingly derived from an archaeological standpoint). The primary evidence for an east Mediterranean connection, other than Herodotus’ reference to an east Mediterranean origin for the Etruscans, is an inscription on Lemnos in the northeast Aegean which is clearly related to Etruscan. However, with clear evidence for Etruscans in the eastern Mediterranean (the longest Etruscan manuscript was employed as a wrapping sheet about an Egyptian mummy), it is perhaps easier to derive the Lemnian evidence from the west than the Etruscans as a people and language from the east. Consequently, the Etruscans are more likely to be a remnant non-IE population of the central Mediterranean, occupying a role similar to that of the Basques of the Iberian peninsula and southern France but who clearly absorbed various art-styles and an alphabet from their eastern (Greek) neighbors. But to be fair, it should also be emphasized that archaeologists are not in a position to determine whether a migration did not happen and it cannot be entirely excluded that the Etruscan language was carried to Italy from the eastern Mediterranean by perhaps merchants, who like the Phoenicians, established colonies in Etruria where they superimposed their language on the local Indo-European population.

It is also proposed that within the Indo-European languages of Italy there are preserved numerous terms that derive from a native substrate “Mediterranean” language which may also be evident in Greece. Terms suggested as non-IE in shape and related to Mediterranean flora include Grk λειποι Lat lilium ‘lily’ or Grk σύκοι Lat ficus ‘fig’ while other alleged substrate terms in Latin include Lat papáver ‘poppy’, larix ‘larch’, frutex ‘shrub’, cōdex ‘tree trunk’, mūrēx ‘a shellfish’, pāpilio ‘butterfly’, etc.

The earliest period seriously regarded as a possible window for an IE intrusion into Italy is the Neolithic for those who hold that the IE homeland lay in central and western Anatolia and the IE languages were spread by populations moving westwards, first into Greece and then into Italy. This model is so sketchily presented with regard to Italy by its proponents that it is difficult to evaluate, although there are serious objections to any model that seeks the spread of the IE languages into Italy as early as the sixth millennium BC. Archaeologically, there is considerable evidence for the persistence of local populations from the Mesolithic to the Neolithic in Italy and hence a simple model of population replacement rather than the acculturation of native hunter-gatherers is suspect. More importantly, derivation of the Italic languages from a Neolithic expansion into Italy from Greece would appear to demand closer linguistic relationships between the Italic and Greek stocks than can be justified and the number of isogloss borders between the two stocks suggests that they had been in considerable separation during their development rather than close proximity. The Italic languages also retain a series of terms reconstructed to PIE such as the ‘horse’, ‘wheel’, etc., whose referents simply did not exist in Italy until the Bronze Age. Consequently, the origins of the Italic peoples is traditionally sought in a later period, generally the Copper Age or the Bronze Age with some possible later migration even during the Iron Age. This hypothesis is to some extent supported by the observation that Italic shares a number of isoglosses and lexical terms
with Celtic and Germanic, some of which are more likely to be attributed to the Bronze Age.

The next period in which IE intrusions have been suggested is the transition to the Bronze Age where a number of different copper-using cultures (c 3500–2500 BC) appear in both northern Italy (the Remedello and Rinaldone cultures) and in the south (the Gaudo culture). It has been suggested that these cultures are intrusive, and they witness the penetration of their respective regions by warrior-aristocracies. Reasons for ascribing these cultures to Indo-Europeans basically center on the appearance of weapons (copper or bronze daggers, arrowheads, stone battle-axes) with some of the burials, the appearance of the horse in Italy at this time, and proposed connections between the material culture of these cultures and central Europe. As a chronological horizon, the Eneolithic (copper-stone age) has more to recommend it than the...
beginning of the Neolithic in that it does not presuppose the existence of Indo-Europeans in Italy before the introduction of animals like the horse (and wheeled vehicles would easily fit into this time frame as well). On the other hand, there is no conclusive evidence for a migration and the ceramic traditions, especially between the Gaudio culture and the other two are so different that they can hardly be ascribed to the same source. Moreover, one of the cultures, the Rinaldone, occupies the area of the later Etruscans who are generally dismissed as non-IE. Many archaeologists today see in the development of these cultures local origins stimulated by more long distant contacts with other cultures in the Aegean, southern France or central Europe.

One of the most popular of the traditional models for IE migrations into Italy has been sometimes dismissed as "pigoriniana", a term coined after its major proponent. L. Pigorini suggested that the Italic-speaking peoples came across the Alps during the Bronze Age and introduced the Terramare culture (c 1500-1100 BC) in northern Italy. This model was consciously an extension of the historically attested movement of Celtic peoples in the Iron Age who also penetrated (and pillaged) Italy from the north. This model sees the Indo-Europeanization of the peninsula essentially in terms of a north to south movement. While there is no question that northern Italy was in close contact with developments north of the Alps, the spread of bronze metalworking traditions from the north or indeed across Europe need not be explained in terms of the movement of an ethno-linguistic group. Moreover, the pattern of language distributions in Italy, especially with non-IE Etruscan lying athwart central Italy, renders a simple north-south movement of language and people an unconvincing explanation for all the IE languages of the peninsula, unless linked to the evidence for other movements as well.

Later migrations from the north are proposed in the formation of both the Proto-Villanovan and Villanovan cultures. These horizons see the widespread distribution of bronze artifacts of general central European types coupled with the expansion of cremation cemeteries clearly associated with the Urnfield phenomenon north of the Alps. The problem with seeing these cultural horizons as reflections of IE migrations down the Italian peninsula is the fact that both the Proto-Villanovan (1100-900 BC) and Villanovan (c 900-500 BC) cultures clearly coincide with the distribution of the historical Etruscans as well as the IE Italic groups (hence some would still argue that the Etruscan represents a late intrusion into Etruria, perhaps coincident with the spread of east Mediterranean artistic styles). On the other hand, the Urnfield culture does provide a convenient background for the emergence of the Celts of western Europe, the Celtic-speaking Lepontians of the Golasecca culture of northern Italy, and it is also dispersed down the length of Italy where we might expect to find the ancestors of the Italic groups. Such a model of Italic origins would at least accommodate those linguists who suggest that Italic and Celtic shared a particularly close dialectal association before their emergence as separate stocks. But the problem of non-IE Etruscans participating in the same cultural phenomenon as well argues that there is no clear archaeological model in which one can discern either IE intrusions or differentiate IE-speakers from non-Indo-Europeans in the immediate protohistoric period.

Finally, a more recent model sees the IE groups of Italy as having been formed by an east-west (Adriatic to Italy) movement where the more archaic dialects of western Italic (Latin, etc.) were pressed against both non-IE Etruscans and the Tyrrhenian Sea by subsequent movements from the east. Possibly the Veneti of northeast Italy might also be seen as early arrivals. This earlier movement is then believed to be followed by the eastern Italic dialects (Osco-Umbrian) which are aligned across central and southern Italy. The final Indo-Europeanization was, it has been suggested, the most recent and included peoples such as the Messapi on the southeast coast of Italy who were presumably linked both archaeologically and linguistically with the Illyrians across the Adriatic. This model has an obvious archaeological attraction for the final wave of IE peoples since cross-Adriatic connections are
archaeologically evident but it does little to resolve the more fundamental problems of establishing the origins of the other IE groups of Italy.

See also GAUDO CULTURE; GOLASECCA CULTURE; MESSAPIC LANGUAGE; PICENE LANGUAGES; REMEDELLO CULTURE; RINALDONE CULTURE; TERRAMARE CULTURE; VENETIC LANGUAGE; VILLANOVAN CULTURE. [D.Q.A., J.P.M.]

Further Readings

LANGUAGE

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ETYMOLOGICAL DICTIONARIES

ORIGINS


JACKDAW

Other than Lith kōvas 'jackdaw' and Rus kävka 'jackdaw', both ostensibly from the onomatopoeic root *kau- [IEW536 (*kau-), cf. OInd kauti 'shrieks'], terms for the jackdaw vary with each major stock. Armenia sports no term until the Middle Ages when cayeak, formerly 'gull' became the standard term for the 'jackdaw'. Confusion with seabirds is also seen in Grk kolouς, which may signify a 'shearwater' or 'cormorant' though most commonly the 'jackdaw'. Lat monedula 'jackdaw' and OInd caurikaka- 'jackdaw' have no suitable etymology though the Old Indic form does exhibit onomatopoeic elements.

The jackdaw is another of the noticeable species of Corvidae. It is smaller than the crow, of dark brown color (though usually perceived as black) with a light brown underbelly.

See also BIRDS. [J.A.C.G.]

JASTORF CULTURE

The Jastorf culture is the earliest Iron Age culture of northern Germany and southern Scandinavia which emerges c 600 BC and continued until the end of the millennium. It is divided into three phases: Jastorf (c 600–300 BC), Ripdorf (c 300–150 BC), and Seedorf (c 150–1 BC). Its core area is northeastern Lower Saxony, Holstein, west Mecklenburg and then extends in diminishing “purity” north through Jutland and into southern Sweden and south toward the Weser-Aller region.

The Jastorf culture was spread over its territory in regional groups where small settlements were clustered into confined areas (settlement cells) separated from one another by forests or other natural barriers such as marshlands. The settlements tend to fall in the same regions as earlier Bronze Age settlements and are evidence for the local continuity of the culture. Actual house structures are better known from the peripheral than the central areas of the culture. These vary in shape, size and construction, ranging from small single room houses about 5 m on a side to long houses some 20 m or more long and subdivided into a series of rooms and stalls. Semi-subterranean structures are also known.

The economy was based on mixed agriculture. Wheat at this time was declining in popularity in some regions in the face of barley. Oats were also raised in abundance although their ultimate destination—people or livestock—is unknown. Millet and flax were the other main plants with rye forming a dubious addition. Among the domestic animals cattle predominated, followed by pig, sheep, goat, dogs and horses. A small amount of hunting (red deer, aurochs, wild pig, and beaver) was practised.

Most of the Jastorf sites are cemeteries. Often these consist of urnfields, i.e., cemeteries of urn burials accompanied by gravegoods such as bronze pins and other ornaments, in some instances unprotected cremation remains were deposited.

The Jastorf culture is regarded as the continuation of the native late Bronze Age culture (albeit under heavy Hallstatt influence) which subsequently adopted stylistic features of the La Tène culture to its south. The local continuity is seen in cemeteries that begin in the late Bronze Age and are used without apparent interruption well into the Jastorf period; the earliest ceramic forms also exhibit clear evidence for continuity. The Hallstatt culture introduced both a large assortment of bronze metal types and iron metallurgy which was adopted by native smiths.

The Jastorf culture is generally considered at least part of the core area of the Proto-Germanic peoples and there has been a tendency to date the first Germanic sound shift to the
JASTORF CULTURE

period of the early Jastorf culture, i.e., c 500 BC. Contacts between it and its Hallstatt and later La Tène neighbors may coincide with the borrowing of Celtic terms into Germanic as witnessed, for example, by the adoption of Celtic *isarno ‘iron’ into early Germanic as *isarna or the borrowing of a Celtic *rīgos ‘king’ to form Germanic *rikaz ‘king’.

See also Germanic Languages; Hallstatt Culture; La Tène Culture. [J.P.M.]

Further Readings

JAW


See also Anatomy; Chin; Knee; Mouth. [D.Q.A.]
**JAY**

*kiRa-Deh* - 'jay'. [IEW 598 (*kik-*)]. Italian (Calabrian) *cissa* 'jay', OE *hig(e)tra* 'magpie (or woodpecker?)', OHG *hehara* 'jay', Grk *kioss* - *kittaa* - *keaissaa* 'jay', Olnd *cisa* - 'roller'. The variable semantics are not difficult to explain: the roller is quite similar in shape and behavior to a jay, and is often confused with the jay. Just as the magpie and jay can be confused by the ornithologically untutored (as in Old English) so also can the Armenian term *ancel*, which stands for both species. An Olnd *kiki*- 'bluejay' is occasionally cited as cognate but this term is found only in the lexicographers. The term is no doubt onomatopoetic but it was in that shape in the proto-language and accordingly transferred thus to the dialects.

The jay is well distributed in Europe and the Middle East through to India. They are highly visible birds and, along with the magpie and roller, are quite chatty, a fact noted in all ancient writings that refer to the jay.

See also **Birds**. [J.A.C.G.]

**JOIN** see **BIND**

**JOINT**

*koKs-oehe*- 'hollow of (major) joint'. [IEW 611 (*koksa*); Wat 32 (*koksa*); Gl 85 (*koKsk*); Buck 4.35]. OIr *cos* 'foot', Lat *coxa* 'hip', OHG *hãsaa* 'back of knee', Av *kaša* - 'armpit', Khot *kaša* - 'loins', Olnd *kaksa* - 'armpit, groin', TochB *kakse* (< *koKks-o-6-*) 'z midriff, loins'. From *koKs- 'inner part, nook' (cf. Olnd *kásas- 'inner part', Khot *kasš- 'inner part, nook'). Geographically widespread and of PIE status.

See also **Anatomy**; **Arm**; **Leg**. [D.Q.A.]

**Further Readings**


**JUICE**

*sûleh*- 'fermented juice'. [IEW 912-913 (*su-lá-*); cf. Gl 563; BK 191 (*saw-al/*saw-al*). OPrs *sulo* 'curdled milk', Lith *sula* 'sap/wine from birch trees', Latv *sula* 'birch sap', Av *húra* 'kumiss', Olnd *sûrah*- 'intoxicating beverage'. Cf. OE *sol* (< *sulom*) 'mud, wet sand, wallow'. At least a late PIE word in the center and east. From *seu(h)* - 'express (a liquid)'.

See also **Beer**; **Broth**; **Ferment**; **Sacred Drink**. [D.Q.A.]

**JUMP**

*preu*- 'jump'. [IEW 845-846 (*preu-*)], Wat 53 (*preu-*); Gl 452 (*prêu*); Buc .4.43]. The underlying verb is attested only in Rus *pyrt*'run quickly', Olnd *pravata* 'jumps, hastens'. Cf. ON *frár* 'quick', OHG *fro* 'strenuous, quick; glad, joyful', Olnd *plava-* (with dialect I-) 'frog'. Attested only on the peripheries of the IE world, this word is undoubtedly old.

See also **Gill**; **Skull**; **Foot**. [D.Q.A.]

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widespread and surely old in IE.

See also COME, CRAWL, DRIVE, GO, HURRY. [D.Q.A.]

JUNAZITE

Junazite is a tell site in Bulgaria with evidence for settlement extending from at least the Eneolithic period to the early centuries AD. The site is the westernmost of the five hundred or more large Bulgarian tell sites whose occupation began in the Neolithic. Junazite is some 12 m high and measures c 100 to 140 m in diameter. Its importance in the discussion of Indo-Europeans lies in the evidence for a marked cultural break at about 3500 BC between the Eneolithic Krivodol-Salcuta layers and the succeeding early Bronze Age levels which in terms of architecture, ceramics and metallurgy, have been tied into a wider Circum-Pontic province that extended from the northwest of the Black Sea to northwest Anatolia, e.g., the Ezero culture, Troy. Within the “Kurgan theory” of IE origins, this cultural break marks the establishment of IE chieftoms throughout the Balkans with the emergence of citadels such as Ezero and Junazite. The importance of the latter site is emphasized by the fact that the final Eneolithic settlement was not only destroyed and burnt but the remains of forty-six individuals have been found deposited in the collapsed dwellings before the early Bronze Age settlers had established themselves. Such evidence has been employed by supporters of the Kurgan theory to illustrate the violent nature of the IE conquest of the Balkans.

See also CERNAVODA CULTURE; EZERO CULTURE; KURGAN TRADITION. [J.P.M.]

Further Reading


JUNIPER


The ambivalent meaning, ‘juniper’ or ‘cedar’ is necessary for three reasons: 1) members of cognate sets that are phonologically probable sometimes refer to one or both trees; 2) a non-cognate word like Theophrastus’ κέδρος is used for either tree; 3) the similarity of the trees in terms of berries and tough rubbery wood. In some cases the word seems to have shifted to the ‘fir’ or ‘spruce’ (e.g., because the cedar/juniper was lacking in the area, or for functional reasons—the use of fir/spruce in boat-building). The main reflexes of *hjel- on phonological grounds appear to be a Slavic set (including Russian dialectal jalovec ‘juniper’), Armenian elevin ‘cedar’, Slavic, as in Rus jel ‘fir’, and the Greek word which was employed not only to designate ‘fir’ (Odyssey 5.239) but also for ‘oar’ and ‘canoe’ or a similar boat by a metonymic extension (like ‘spear’ for ‘ash’ or ‘bow’ for ‘yew’) that is close enough to the universal to be found in other parts of the world, e.g., among American Indians.

The Grk κέδρος ‘juniper, cedar’ is sometimes compared with OPrus kadegis ‘juniper’, Lith kadosis ‘cedar’, and Latv kadegs ‘cedar’ but the connection between the Greek and Baltic forms is unclear and the latter are most probably borrowed from the Uralic languages, particularly Balto-Finnic, e.g., Finnish kataja ‘cedar’, Estonian kadakas ‘cedar’.

Both cedars and junipers extended from the frozen moors of northern Europe southwards to the Mediterranean and formed an understory to coniferous stands or acted as pioneers on dry, barren soil.

See also REED, TREES. [PF]
KARASUK CULTURE

This Bronze Age culture of the eastern steppe lands ranged from the Aral Sea on the west to the Yenisei on the east and south to the Altai Mountains and Tien Shan. This distribution covers the eastern portion of the Andronovo culture which it appears to replace. The culture is dated to the period c 1500-800 BC.

The evidence for settlements is minimal. The few that have been excavated indicate both small semi-subterranean houses and larger (100–200 m²) “winter” houses, typologically similar to those erected among Siberians with domed or pitched roofs covered with earth to protect against the cold. The houses reveal storage pits and hearths and a variety of domestic artifacts. The economy was based on mixed agriculture and stockbreeding: cattle, sheep and horse are all found, and there has been a presumption at least that the Karasuk culture was more markedy mobile than the earlier Andronovo. On the other hand, querns are also found as well as bronze sickles which indicate plant processing and whatever form of mobile economy might have existed, it would appear to have been only seasonal with permanent agricultural settlements as well. It is presumed that the Karasuk communities pastured their sheep at higher elevations in the summer and then returned to somewhat more permanent settlements in the river valleys during the winter.

The Karasuk culture is almost exclusively known from its cemeteries from which two thousand burials have been excavated. Although there are regional varieties of mortuary practice, the typical burial is placed within a cist built of stone slabs which may be covered by a small mound. The burial was then surrounded by a rectangular enclosure built of stone slabs. The deceased was generally placed in the extended position or with legs slightly flexed; orientation was often to the west or southwest. Grave goods included one or two vessels at the head and remains of a sheep at the feet; the latter might be accompanied by a knife and was regularly divided into four basic cuts: shoulder, ribs, thigh and shin.

The culture is especially known for its knives and daggers, sometimes with ornamented hilts. Other tools are also produced of (arsenical) bronze and include axes, awls, and arrowheads (of flint or bone). Bronze and copper ornaments (bracelets, rings, pendants) are also recovered from female burials.

The origins of the Karasuk culture are complex but it is generally accepted that its roots lay both with the Andronovo culture and the local cultures of the Yenisei.

The ethnic identity of the Karasuk culture is extremely
KARASUK CULTURE

Among the early Neolithic cultures southeast of the Caspian Sea was the Kelteminar culture that dates c 4000–2500 BC. The sites were distributed largely over what is now desert but during the period of its existence clearly more favorable conditions prevailed. There are some thousand Kelteminar sites known although these consist almost entirely of lithic scatters. A few settlements have been investigated such as Djanbas 4 which revealed a very large (24 x 17 m) post-built hut. The size of this structure has suggested some form of large co-operative social unit very much different than that obtaining from neighboring agricultural villages of Central Asia or the Near East. Economic remains from the sites include primarily evidence of hunting and fishing although some domestic animals have also been recovered. In general, the Kelteminar populations are believed to have survived by a mobile form of economy which included both hunting and stockbreeding although some later sites have also produced sickle blades and grinding stones. Later sites have also yielded evidence of copper and turquoise working.

The Kelteminar culture has on occasion been connected with the development of early stockbreeding societies in the Pontic-Caspian region, the area which sees the emergence of the Kurgan tradition, which has been closely tied to the early Indo-Europeans. This association was based on the discovery of sheep remains in cave sites in the southeast Caspian and the later appearance of sheep in the southern Urals and north of the Black Sea; also, general similarities were seen between the round-bottomed pottery of the Kelteminar culture and those of the earliest Neolithic cultures of the steppe. Links between the two regions are now regarded as far less compelling and the Kelteminar culture is more often viewed more as a backwater of the emerging farming communities in Central Asia than the agricultural hearth of Neolithic societies in the steppe region.

See also Djeitun Culture. [J.P.M.]
KEMI OBA CULTURE

One of the constituent elements of the Kurgan tradition, the Kemi Oba culture dates c.3700–2200 BC. It occupied the Crimea (it derives its name from a kurgan burial in the peninsula) and the area immediately north, particularly the area between the lower Bug and Dnieper rivers. The economy was based on both stockbreeding (cattle, sheep/goat, pig and horse) and agriculture (sickle blades, stone querns). Tools and weapons were manufactured primarily out of stone and included arrowheads, dagger blades, scrapers, and sickle blades. Most metal artifacts appear to have been imported from the Maykop culture as they were made of arsenical bronze and included typical Maykop forms, e.g., shaft-holed axes, double-edged knives, spear-points. But there is some evidence for local production of pure copper implements, e.g., a fork-like instrument and an ax; moreover, metalworking tools have been found in a Kemi Oba burial.

The culture is best characterized by its flexed burials, in pits or stone cists, which were covered by a kurgan. The stone cists were sometimes decorated with engravings or paintings among which tree-like motifs are common. Pit-graves may also have been lined with wooden slabs. The ceramics are more finely made than those of their steppe neighbors and exhibit possible connections with the Lower Mikhaylovka and Maykop cultures.

Of particular interest are a series of stone stelae or statue-menhirs, human figures up to life-sized shape, which were apparently erected in religious sanctuaries. These are distributed over the Crimea and the steppe region of the Ukraine in the hundreds and are generally found as coverings of Yamna burials and, occasionally, Catacomb burials. Most of these are schematic and their position as roofing slabs appears to be secondary to their original use. As their distribution coincides broadly with the Kemi Oba territory, it has been suggested that they were originally an important ritual component of this culture and then only secondarily employed to cover graves by their successors.
In addition to the many schematic or simple stelae are also a small series of finely carved statue-menhirs depicting human figures, mainly males but also females, which are covered with human and animal figures, weapons, anatomical features and ornament. The presence of weapons and animals on them has led to their interpretation as iconographic reflections of IE sky and thunder gods or of the Puruṣa of Vedic mythology.

See also Catacomb Culture; Cosmogony; Kurgan Tradition; Maykop Culture; Stele; Yamna Culture. [J.P.M.]

KHVALYNSK CULTURE

The Khvalynsk culture is a Copper Age culture (c. 4900–3500 BC) of the middle Volga region. This culture appears to be the eastern contemporary of the Sredny Stog culture of the Ukraine, with which it shares a number of similarities in both material culture and ritual behavior. Its name derives from the two Khvalynsk cemeteries (near the modern town of Khvalynsk) where there were both individual burials and group burial pits, perhaps related to family groups. The burial rite, deposition on the back with knees drawn up, is also typical of the Sredny Stog culture. Horse, sheep and cattle remains were discovered as ritual deposits overlaying the burials while animal remains were found with 17% of the 158 skeletons of Khvalynsk I.

Many of the burials were accompanied by grave goods, e.g., bead necklaces, pots, and arrows. Copper grave goods, particularly rings, had been imported from the Balkans and

Kem Oba Culture
stone "maceheads", also attributed to Copper Age cultures in the west, were recovered. Among the more unusual finds was a stone "scepter" which has been compared with other "horse-headed" scepters that have been found across the steppe into the northeast Balkans.

The Khvalynsk culture appears to be a regional reflection of a large interaction sphere over the European steppe during the Copper Age. It is recognized as one of the constituent elements in the formation of the Yamna cultural-historical region and forms one of the fundamental components of the Kurgan tradition from which many derive the earliest Indo-Europeans.

See also KURGAN TRADITION; SREDNY STOG CULTURE; YAMNA CULTURE: [J.P.M.]

Further Reading

KICK

*{sperh}1- 'kick, spurn'. [IEW992-993 (*sp(h)er-); cf. Wat 64 (*{sper-}), Gl 48 (*{sp}er-)]. Lat spernō 'separate; spurn', ON sperna 'kick, spurn', OE spurn 'kick, spurn' (> NE spurn), OHG spurnan 'kick, spurn', Lith spirtis 'oppose, defy', Latv spert 'kick', Grk σπαίπος 'palpitate, give a start', Hit ispar 'tread down, destroy, spread out', Av spar 'spring, tread', Olnd spurði 'springs, spurns'. Unproblematic and distribution supports PIE status. The Hittite form may be the result of conflating two separate IE roots, one meaning 'strew' and the other 'kick'. The underlying meanings of both 'kick' or 'move the feet' and the more abstract 'spurn' are attested in the daughter languages.

See also HEEL, JUMP. [M.N.]

KIDNEY

*{h2eh2(e)r}- 'kidney'. OIr armies 'kidney, gland', Wels aren 'kidney, testicle (Celtic < *år-en-), Hit haba(ri)- 'lung' or 'a kidneys' (some paired internal organ), TochA ārinc 'heart', TochB arantse 'heart' (Toch < *āra-nc-); perhaps here also Lat rēnēs (pl.:) 'kidneys' (if < unreduplicated *h2r-en-). The oldest reconstructible term for 'kidney' in PIE.

*{h1}neg*{h2}ros 'kidney'. [IEW 319 (*neg*h-ro-s); Wat 44 (*neg*h-ro-)]. ON nyrā 'kidney', ME nēre 'kidney', OHG nīro 'kidney', Grk νεφρός 'kidneys'. Cf. the derivative Lat (Praenestine) nefrōnes 'testicles' (because of their kidney-like shape). Perhaps from *h2rжngw- 'swell'. A newer word than *h2reh2(e)r-, occupying a dialectally central position vis-à-vis the more peripheral *h2reh2(e)r-.

See also ANATOMY. [D.Q.A.]

KING

*{u}nātks (gen *unātkos) 'leader, lord'. [Gl 654–655]. Myc wa-na-ka 'king', Grk (*d)ávαξ 'ruler, lord, prince', (*d)ávακες (pl.) 'the Dioskouroi', (*d)ávασσα 'queen', TochA nātak (pl. nākī) 'lord', nāsī (pl. nāssān) 'lady'. Greek has generalized *unātks. Greek forms such as (*d)ávακες 'Dioscuri' without a -t- may be back-formations from the nominative (*d)ávαξ (< *wanakts < wanatsks) and/or the feminine (*d)ávασσα (< *wanatcś < *wanatkyā) since the stage *-cā- would imply a masculine *-k-. (The recessive stress of (*d)ávαξ is analogous to the morphologically regular recessive stress of (*d)ávασσα and/or the recessive stress of the vocative.) The shape of *unātks looks rather un-Indo-European and it may betoken an early borrowing from some unknown source. However, a root of that shape is not totally unprecedented (cf. *h2rēt- 'harm' in Av raš- 'harm' and *h2rēt-ē- 'danger' [OIr raksas/-damage, injury, raksas- 'tremor', Av rašah-/damage, ruin] and *h2rēt-ōs 'bear') and thus may represent a purely IE inheritance. In any case, the agreement of Greek and Tocharian A is certainly striking and argues for at least a dialectal existence of this word in late PIE.

*h3rēg- - *h3rēg-on - 'ruler, king'. [IEW 855–856 (*rēg-); Wat 54 (*rēg-)], Gl 654 (*rēk-), Buck 19.32, BK 591 (*rak-/*rak-)]. From *h3rēg (gen. *h3rēgos) we have: OIr rt (gen. rtg) 'king', Gaul -rix 'king' (in personal names), Lat rex 'king', Av baraz-ra- 'ruling in the heights', Khot kathirāsas- 'master' (< *hown-rufer-rufer-rufer-rufer-, <Proto-Indian *rak(i)-pūthra- and *rak(i)-dugdar- (respectively), OInd rāj- 'king', sam-raj- 'overlord', adhi-raja- 'overlord'. From *h3rēg-ōn- we have: OIr rigam (DIL rigan) 'queen', Wels thain 'maid', An. *h3rēg-ōn- (< *h3rēg-ōn-), Lat regina (L. *rēgnītā-) 'queen', Khot rāṣas 'lord, ruler' ('king' is a different word), rītā 'queen', Olnd rājan- 'king', rājanīt 'queen', sam-rājanī 'wife of an overlord', rājanītā- 'royal.' Other widespread derivatives are *h3rēg-ō-m 'kingdom, power' [IEW 855–856 (*rēgōm)] in OIr rīg 'kingdom', Khot rāśa- (< *rāṣa-) 'power, might', Olnd rāja- 'kingdom', *h3rēg-ō-jo-s 'royal' [IEW 855–856 (*rēgōs)] in Lat rēgus 'royal' and Olnd rājā- 'royal'.

The traditional and still majority view is that in the word for 'king' we have an agent noun derived from *h3rēg- 'stretch out the arm; direct' (cf. the derived *h3rēgōs 'right, correct'). The traditional view is bolstered by certain of the Khotanese forms (those for 'prince', 'princess' and 'queen') which show the short vowel originally appropriate to the non-nominative forms; elsewhere the long vowel of the nominative has been generalized in this word and its derivatives.

This traditional explanation has, however, been challenged on several grounds. Andrew Sihler found both the form (the apparent invariant *-e-; he did not take into account the Khotanese forms) and the semantic difficulties in deriving the concept of 'king' from 'stretching out one's arms' problematic. He resolved the problem by postulating the existence of two separate roots, *h3rēg- 'stretch out' and *reihg- 'be efficacious'. The latter root would, in Sihler's opinion, also appear in Olnd urj- - urj- 'strength, nourishment'. Moreover, Hartmut Scharfe has suggested that we cannot be entirely certain that Olnd rāj- means 'king'; it is

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possible that this word is a feminine abstract meaning 'strength, power'. Thus whether or not this complex of words is derived from *h₂reg-, there would not, under this hypothesis, be a direct, formal equation between Old Indic and Italo-Celtic on the other thus throwing the existence of a PIE 'king' into further doubt.

However, neither of these 'revisionist' hypotheses is really compelling. If OInd āṛj- were really a zero-grade *ṛih₂g-, we might expect āṛj- instead, while the actual āṛj- is explained if we reconstruct *ṛih₂g- and compare Sogd wzr̂yw'haughty' (< *swollen) and, more distantly, Hit wargani- 'lat'. So too, starting from *ṛeh₂g-rather than *h₂reg- makes it difficult to account for certain Iranian forms such as Khot trāspārā- 'prince' or the obviously related (and quite archaic) paradigm of Av rāzāra (gen. rāzāng, instrumental raśna) 'directive, statute'. Finally, collocations such as rāñ āgnis (RV 6.12.1) would certainly seem to demand a translation 'a king Āgni'.

The linguistic evidence is supported by certain cultural data. Thus the complex set of Roman rituals connected with the Rēx sacrōrum 'the sacred king', including the ritual of the Equus October 'the October Horse', in which a winning racehorse is slaughtered and cut apart, its tail brought to the Rēga, matches in their essentials the ancient Indian rite of the asvamedha, performed at the coronation of a king. In ancient Irish tradition also the king is symbolically wed with a slaughtered horse. The agreement of these geographical peripheral traditions in connecting a particular horse sacrifice with kingship (and sharing the same designation for 'king') is striking. It should be noted that the pre-Christian kingship of the various IE groups involved both the secular and the sacred monarchy. Indeed, even in situations where the monarchy itself disappeared, as in Rome or Athens, the title (rex and βασιλεῖς respectively) and office remained in its priestly function.

The underlying verb appears in OInd rāṣṭi 'rules' and Lat regō 'guide, direct, govern, administer'. Together these suggest a PIE paradigm (3rd. sg.) *h₂regh₃i, (3rd. pl.) *h₂regh₃i (cf. the derivative ' statute, directive' *h₂reg-, gen. *h₂regh₃, preserved in Avestan). It is possible that this *h₂reg- is distinct from *h₂reg₃-stretch out the arm'. (In which case we should reconstruct *h₂regh₃ for 'king'.) The latter is generally explained by the practice observed in various IE traditions where the priest lays out the sacred precinct (the extended arms employed either to lay out the lines straight or used as a unit of measurement [cf. NE span]). Alternatively, the former root is also quite plausible as there seems to be no reason not to see 'direct, rule' as a metaphorical extension (of PIE age) of 'stretch out the arm'.

*h₂ensus (gen. *h₂sous) 'god, spirit; vital force' < *'king'. [IEW 48 (*ansu-); GI 653; BK 369 (*an-ah-/*an-ah-)]. On āṣō 'god' (gen. āṣir, nom. pl. āsir) OE āsō (gen. pl. ās) 'god', Goth (as reported by Jordanes) anses 'half-gods', Av aha- 'lord, overlord; life (period) of existence', ahura-(< *h₂sou-ro-) 'god, lord', Ahura-mazda- (the highest of gods), OInd āṣu- 'powerful spirit', āsura- 'divine, mighty; god, lord' (also a designation for a particular class of gods). Sometimes put here is Venetic āhṣu-, supposedly 'idol'. However, it does not exist, having been 'created' by wrongly putting two fragmentary inscriptions together which do not belong with one another.

Further connections are a matter of controversy. This *h₂ensus has long been thought to be related to *h₂em(h₂)- 'breathe' (and thus might mean 'spirit' or 'inspirator' or the like). Probably the most widely accepted hypothesis, on the other hand, is that which sees this set related to Hit hassu-'king', hass- 'procreate, give birth; engender, bear', hassa-'progeny', and TochB ās- 'produce', all from *h₂ens- 'engender'. (Luvian hamsašt- 'grandchild' is also often taken as related to Hit hass-; if so, it is evidence for an original *h₂ens-.) The original meaning under this hypothesis would be preserved in Anatolian and Tocharian, while the semantic development of Hit hassu- would be similar to that seen in the relationship of NE kin and king. The development of 'spirit, god' in the rest of Proto-Indo-European would reflect the creative powers inherent in the gods—as when Ódinn, embodying the creative power of the Æsir, blows the spirit of life into the prehuman logs, Askr and Embla. (Though Ódinn's action could also be taken as mythological support of a relationship with *h₂ens(h₂)-'breathe' as well.) In a variation of this hypothesis, GI take the semantic development of *h₂ensus to be 'procreator' > 'ruler' > 'god' (the last step paralleling the history of Myc wa-na-ka 'king', Grk (p)ávας, but classical Grk 'divine king' or even the history of lord in NE). Finally C. Watkins has connected the Indo-Iranian and Germanic words with Hit hassu- but separated the latter from hass- 'give birth'. He takes *h₂ensus then to be an agent noun from a putative *h₂ens- 'hold, control' (the agent noun would, outside of Anatolian, have undergone a shift from 'ruler' > 'god'). In his view *h₂ensus would be further connected with *h₂ensielh₃- 'reins'. (Under this hypothesis *h₂ens- 'hold, control', though nowhere attested as such as a verb, might be an enlargement of *h₂em- 'hold', with assimilation of *m-s to *n-s, seen in Lat ampla 'handle', OInd amatra- ' (drinking) vessel', and otherwise extended as *h₂em₁h₃ in OInd amiti 'grasps, swears', Grk ἀμφῶτος 'swear'.)

See also God, Leader, Master, Mistress. [D Q A.]

Further Readings

KING AND VIRGIN THEME

Indic, Roman, Scandinavian and Celtic mythology contain stories in which the well-being and succession of a king depends on the assistance of a virgin.

Celtic

Celtic mythology has several versions of this theme, but they are presented far less straightforwardly than in other traditions. In the fourth branch of the Mabinogi, Math the king of Gwynnedd needed a virgin to hold his feet in her lap in time of peace. When his usual footholder was disqualified from her position after she was raped by his nephew, his niece Aranrhod offered herself for the position. When her claim to virginity was tested, however, she gave birth to two children, one of whom (Dylan, a sea god) plunged into the sea and swam away, while the other, still in an embryonic stage, was preserved in a chest by his uncle Gwydion until the proper time for birth. Despite many hindrances from her mother, the child grew up to become Lleu Llaw Gyffes, succeeding Math as the ruler of Gwynnedd. Here the IE elements are distorted: the “virgin” aided the king against her will and only two sons were born in a triple birth process, but still the virgin supported the king against his bad heirs and the succession was preserved since the Celtic tradition passed sovereignty through the king’s sister’s son.

Irish tradition too is confusing, being both distorted and multiplied. In the Cath Boinde, Eochaid, the high king of Meath, is challenged by his four sons, a set of triplets named Nar ‘Modesty’, Bres ‘Tumult’, and Lothar ‘(Feeding) Trough’, and a fourth son, Conall. The night before they were to fight him, the sons committed incest with their sister, resulting in a child named Lugaid Three Red Stripes. Apparently weakened by this sin, the triplets are killed by their father and the fourth son is banned from the succession. In other versions, the sister is shown to be deliberately inviting her brothers to commit incest in order to aid her father by weakening their virtue. Again we see the IE motifs: the sons of the king threatening his welfare, the good daughter coming to his aid by means of three acts of sexual intercourse, and the resultant birth of a grandson who can continue the king’s bloodline on the throne. To make the tripartite nature of this grandchild clear, the three red stripes for which he is named are actually two lines dividing his body into three parts, each of which resembles one of his sires, and by extension represents the virtues of the three functions: a virtuous mind, ferocity in battle, and generosity.

Latin

In the Roman version, the virgin was Rhea Silvia, who was made a Vestal Virgin by her usurping uncle so that her father, King Numitor, would have no direct descendants. However, she was impregnated by Mars, producing the twins Romulus and Remus, who grew up to overthrow their great-uncle and restore their grandfather’s throne. Romulus represented warrior courage as the son of Mars, and was also the protege of Jupiter; deified after his death, he became Quirinus, patron of men in their peacetime role as producers of offspring and society. In this way, by embracing the three social aspects of IE society (priestly, warrior and herder-cultivator), Romulus fulfills the tripartite function by himself, with Remus adding the element of sacrifice in his own person.

The forms of Roman religion designed to support and aid the king, with their reliance on the service of virgins, continued even after Rome became a republic. The Flaminica Dialis, the wife of the high priest, took care of the cult of Jupiter, while the Salian Virgins and the Vestal Virgins looked after the cults of Mars and Ops respectively, ensuring military readiness and a store of food on behalf of the king, to whom they had reported annually.

Germanic

In Norse mythology we again find a virgin ensuring the well-being of the king by bearing sons, and a number of maidens assisting the three functions of the deities. In the Prose Edda, Gefjun, a virgin goddess, was sent by Odinn to ask for land when he first arrived in Scandinavia. When Gylfi, the king of Sweden, offered her as much as four oxen could plough in twenty-four hours, she went to the Giants to be impregnated, bore four sons, turned them into oxen, and ploughed the island now known as Zealand for Odinn’s benefit. Odinn was also served by the Valkyries, warrior maidens, and less directly by Fulla, whose name means ‘plenty’, a handmaiden and friend to Odinn’s wife Frigg. Here again we see the virgin aiding King Odinn, as a harvest supplier in Fulla, as a group of battle maidens, the Valkyries, and, through Gefjun as the physical means by which the sovereignty is established.

Indic

In the Indic story (Mahabharata 5), King Yayati offers his virgin daughter Madhavi to aid a brahman who needs eight hundred moon-white horses with one black ear to give to his former teacher. The brahman is to give this desirable woman, whose virginity is renewable and who is destined to be the mother of four kings, to a childless ruler in return for the horses. Since no king has enough horses, Madhavi spends one night with each of three kings in return for two hundred horses apiece, and bears each king a son. To make up for the last two hundred horses, she spends the night with the teacher, bearing him a son as well. Finally Madhavi retires to the forest in the form of a doe. The four sons represent the tripartite virtues: generosity (the virtue of the herder-cultivator estate or function), courage (the warrior function), truth and sacrifice (the two aspects of the first, judicial and priestly, function). They eventually save their grandfather Yayati from
posthumous disgrace by sharing with him the virtues they represent so that he may re-enter heaven.

Patterns
From all of these indications we may posit an IE myth in which a king whose well-being is threatened by his unsatisfactory sons is saved through the offspring of a virgin daughter. The virginity is clearly not a physical attribute, but symbolizes a woman who has no loyalties to any man other than her father; to further emphasize this, the offspring is begotten not by a husband or potential mate but through incest, virtual prostitution, or divine intervention. The child she produces is also loyal only to his royal grandfather, and is able to utilize his tripartite virtues to benefit the king directly or indirectly.

See also Horse Goddess. [L.J.H.]

Further Readings

KINGSHIP IN HEAVEN see ANCESTOR GOD

KINSHIP
Kinship terminology reflects the social structures that are imposed upon human society by birth, both natural and fictitious, and marriage alliances. The former relationship produces a series of consanguineous terms, e.g., ‘father’, ‘mother’, ‘son’, ‘daughter’, ‘brother’, ‘sister’; the latter a series of affinal terms, e.g., ‘husband’, ‘wife’, ‘husband’s father’. Further distinctions can be made between terms of address, those used only when speaking to the kinsman, and terms of reference, those used when speaking about the kinsman to others. In some kinship systems these are quite sharply distinguished, and a term like English dad could never be used interchangeably with my father. Another important distinction that is sometimes made is that of age grades, in which different terms are used of kinsmen, chiefly brothers and sisters, in reference to whether they are younger or older than the speaker. Taking all of these into consideration, a great variety of systems for referring to kinsmen is possible.

Nevertheless, human kinship systems do occur in a limited number of basic varieties, which, like all human institutions and customs, are subject to change and development over the course of time. There are basically six possible kinship systems which comprise almost all examples in the ethnographic record, though it must be kept in mind that none of these systems is monolithic but rather each is a congeries of subsystems sharing certain system-defining tendencies (e.g., "Omaha tendencies", "Hawaiian tendencies"). One of the frequent goals of IE research has been the reconstruction of the PIE kinship system and its assignment to one of the six primary kinship types. The difficulties involved in such a task are numerous since kinship systems change through time and hence the referent to any particular term may remain stable or may change from one stock to another over time. Moreover, the very evolution of kinship systems may require the replacement or extension of terms beyond their "original" semantic range. Finally, there are few areas of IE reconstruction where arguments for negative evidence, i.e., the absence of specific terms for kinship positions, may be quite tempting since the distinctions between some of the various types requires the absence of certain kinship terms.

Before examining the basic kinship systems recognized in the ethnographic literature, the so-called “Patriarchal” system, formerly quite popular in handbooks of IE studies, requires some discussion. The term “Patriarchal” is made not with reference to any specific kinship system but is founded on the general observation that while terms for consanguineal and affinal relationships can be reconstructed from the husband’s viewpoint, there are supposedly no corresponding terms from the point of view of the wife. It was, therefore, imagined that when a woman married within "PIE society", she moved not only into the household but also the kinship reckoning of her husband. She possessed terms for his family but he lacked the corresponding terms for the in-laws on his wife’s side, e.g., ‘wife’s father’, ‘wife’s mother’, ‘wife’s sister’, or, as seen from the viewpoint of the son, there were no words for ‘mother’s brother’ or any of the other relations on his mother’s side. This argument was founded not only on what appeared to be the distribution of cognate terms among the IE stocks but also the presumption that because there is solid evidence that PIE was virilocal, i.e., that the woman went to live in the house of the husband (or his family) rather than that of her (father’s) family, and that inheritance appeared to be through the male line, then the kinship terminology should also reflect this exclusively male “bias” and one would not expect, therefore, that the husband/son would possess words for his wife’s/mother’s family.

There are two arguments against the case for reconstructing a “Patriarchal” kinship system to PIE. The first is based on ethnographic observation that the putative system reconstructed to the proto-language of the Indo-Europeans has never been encountered in the ethnographic record. While societies may invest almost all power in male family heads and where post-marital residence is invariably with the male and/or his family, terms for the wife’s relations, seen from the viewpoint of the husband, are still universally encountered. The second argument is empirical and rests with terms such as *mēh₂₄truh₄₄-‘mother’s sister’, *suei₄onen- ‘sueilh₂₄on-‘wife’s sister’s husband’ and *g(e)m₄₄(h₂₄)xos ‘sister’s husband, son-in-law’ which indicate some antiquity for words referring to the mother’s or wife’s kimgroup.

The Proto-Indo-European Kinship System
Among the kinship systems commonly recognized by ethnologists, the first to be considered is the Eskimo system which is most familiar to English speakers since it is the one
they employ themselves. Here the primary emphasis is on the members of ego's family and no distinction, other than sex and generation, is made between the names of the other relations, i.e., no distinction is made as to whose side one's aunt, uncle, or cousins are on. In terms of the naming of aunts and uncle this is termed a lineal system as ego classifies only members of the nuclear family as lineal relatives and all non-lineal relatives (aunts, uncles) are regarded as equally related to ego without respect to which side the relationship is derived. There is also a term for cousin. This is clearly not the system we reconstruct for most early IE groups since here lexical distinctions are often made between patrilineal and matrilineal kin. Also, there is some evidence for skewing generations, e.g., where 'brother' may be applied to ego's own brother and to the son of his father's brother. The absence of any reconstructible word for 'cousin' is also not in support of the Eskimo system.

The Hawaiian type fails to distinguish siblings from any cousins and uses one label for all, e.g., the word for 'brother' might be extended not only to one's biological brother but also to all the sons of one's aunts and uncles. In terms of aunts and uncles, this system is termed generational since the only distinctions made appears to be between generations and, other than sex, no distinctions are made within generations. This system cannot accord with the reconstructed evidence for PIE since here we find distinctions between paternal ('father', 'father's brother') and maternal ('mother' and 'mother's sister') relations and nowhere is there evidence that the term for 'brother' or 'sister' can be extended to all males or females of the same generation although 'brother' and 'sister' may have been extended to the children of 'father's brother'.

The Descriptive or Sudanese type is the exact converse of the Hawaiian and has specific labels to distinguish siblings from cousins and each type of cousin from each other. In terms of its naming of aunts and uncles, the Sudanese system is termed bifurcate-collateral. This is because the collateral relations are bifurcated (i.e., split, distinguished) from both the lineal relations and each other. One would expect then that the son and daughter of father's brother would be distinguished from the son and daughter of father's sister, etc. The terms used for these relations may be descriptive, i.e., terms such as OIr *brachair machar 'mother's brother' rather than a single unanalyzable word.

The founders of the study of kinship systems, Lewis Henry Morgan, argued that the IE kinship system was Descriptive, i.e., PIE was believed to possess single word terms only for the most basic concepts, e.g., father, mother, brother, sister, son, daughter, husband and wife, and all other kinship terms were compounds of these basic "units". This theory was dismissed by Frank Wordick in his study of IE kinship who cited counter examples of such terms as *PQatru(lJ)os 'father's brother' (although this word is clearly of some antiquity in the center and east of the IE world, it is not certainly ascribed to PIE). More recently, Heinrich Hetterich has argued that the reconstructed PIE kinship system does come closest to the Descriptive type. His argument rests on a
rejection of the major alternative system, the Omaha type, where one might expect skewing of generations in kinship terms (e.g., *h2euh2os as both the 'grandfather' and 'mother's brother'). Hetterich observes that as we are unable to reconstruct the terms for cousins in PIE and that this is the area which would offer the most diagnostic evidence for assigning PIE kinship to a particular type, we are unable to assign it with certainty to any of the classic kinship types known from ethnography. The absence of special terms for the various cousins, he argues, is best explained by the assumption that PIE society did not possess such terms rather than that they had lost them without a trace. Instead, where we might expect to find names for various kinship positions outside the nuclear family, we generally find descriptive formations in the daughter languages, e.g., Lat fratrius 'brother's son' (instead of 'nephew') or OIr *siur athar 'father's sister' or suffixal derivations, e.g., *bhrehater 'brother's son', *mehtruhathy 'mother's sister'. Such a system most closely accords with that of the Sudanese or Descriptive type. The problem with this conclusion is that it is not entirely demanded by the lack of evidence for cousin terms since these could also be filled by existing terms ('brother', 'sister', 'son', 'daughter', etc.) as indeed is the case in the Crow and Omaha types (and to a lesser extent in the Iroquois).

The Iroquois (or Dravidian, although distinctions are made between these two) system has a cousin term for cross cousins (father's sister's children and mother's brother's children only), but does not distinguish parallel cousins (father's brother's children and mother's sister's children) from siblings. In terms of the aunts and uncles, this system is described as bifurcate-merging in that some of the terms for uncles and aunts are merged with those of the parents, e.g., the same word may be employed for both father and for father's brother (and, by extension, for one's own siblings and those of one's paternal uncle). The Iroquois type is widespread and is the principal type of bifurcate merging system in the ethnographic record. The evidence from the reconstructed PIE vocabulary finds the term for the 'father's brother' formed descriptively from that of the 'father', e.g., *pbairehy(os), but by no means identical with it (nor can we presume that this term extended back to PIE although it obviously enjoyed antiquity in the center and east of the IE world). While it cannot be certainly determined, *bhrehater- was arguably extended to cousins such as the son of father's brother.

The Crow and Omaha types, both bifurcate-merging systems, also equate parallel cousins with siblings but have no special terms for cross cousins. In the Crow type, the father's sisters children are regarded as the corresponding patrilateral aunts and uncles (father's sister and brother), while the mother's brother's children are regarded as brother's son and brother's daughter. Omaha, the mirror image of this system, equates father's sister's children with sister's children and mother's brother's children with mother and her brother.

The Crow system is easily excluded as accommodating the evidence for PIE kinship in that it is a matrilineal system and almost all historical evidence of the early Indo-Europeans would suggest a patrilineal descent system. In any event, characteristic features of the Crow system such as applying the same word for ego's father also to father's brother and to father's sister's son (cousin) and even father's sister's daughter's son (nephew) because they are all males of mother's husband's descent group finds no correspondence with the lexical evidence of the reconstructed PIE kinship system.

Currently, one of the most widely accepted hypotheses is that the PIE kinship system was of the Omaha type, the patrilineal version of the Crow system. Although none of the recorded societies employ a complete Omaha system, supporters argue that only the Omaha system explains a number of terminological anomalies found in the surviving kinship terms. These include a number of terms that merge generations under common terms, e.g., the same term (*h2euh2os) is employed both for 'grandfather' and 'mother's brother' which is then reciprocated by the use of the same term (*nepots) for both ego's 'grandson' and ego's 'sister's son'. Another merging is argued to occur between the term for (*suesor) 'sister' and a 'woman's brother's daughter'. We also find the lack of a reconstructible unitary term for 'cousin'. The typical society that employs Omaha kinship terms is patrilineal and exogamous. These conclusions are supported by the analyses of terms for 'marry', which indicate that Indo-European marriage was exogamous and virilocal.

The ascription of the PIE kinship terms to the Omaha system is, however, also difficult to demonstrate since every line of diagnostic evidence is liable to challenge or there is no reconstructible term for a diagnostic category. While *h2euh2os unquestionably did designate the 'grandfather' in PIE, it is much more difficult to prove that it also was applied to 'mother's brother' although a derivative of *h2euh2os was widely employed in forming this term in different IE stocks. In the case of *nepots, the word unquestionably designates the 'grandson' but its assignment to the 'sister's son' is seen to be late in some IE stocks (e.g., Latin) and critics of assigning PIE to the Omaha system argue that it did not take in this extended meaning until after the collapse of PIE "unity". Finally, the extension of *suesor beyond 'sister' to 'brother's daughter' is rarely found in the IE stocks and cannot be solidly ascribed to PIE.

On the basis of this review, we can exclude certain kinship types from consideration (Eskimo, Hawaiian, Crow) on the ground that the categories predicted by such kinship systems are clearly filled differently in the reconstructed PIE system. The other three types (Descriptive, Iroquois, and Omaha) do not fail so much on the basis of positive evidence providing an incongruity between the reconstructed PIE system and the ideal ethnographic types but rather because the linguistic evidence is either lacking, indeterminate or weak for those categories that are most diagnostic.

Kinship categories are at best ideal constructs which, in the ethnographic record, are seldom filled out precisely according to the canonical model. Moreover, there is a
considerable amount of evidence that speakers of the same language may not even share the same kinship terms or terminological system. The temporal distance between PIE and the attestation of many of the IE languages has clearly obscured the precise nature of the PIE kinship system. There do seem to be elements of generational skewing that are easiest explained by assuming that either some IE languages had either once possessed them or were making the transition towards an Omaha kinship system. But it is another thing altogether to attribute the Omaha or any other kinship system to PIE.

See also Age Set; Aunt; Brother; Brother-in-Law; Child; Cousin; Daughter; Daughter-in-Law; Degrees of Descent; Descendant; Family; Father; Father-in-Law; Freeman; Friend; Granddaughter; Grandfather; Grandmother; Grandson; House; Kinsman; Lineage; Man; Marriage; Master; Mother; Mother-in-Law; Nephew; Niece; Sister; Sister-in-Law; Son; Son-in-Law; Uncle; Widow; Wife. [M.E.H., J.P.M.]

Further Readings

KINSKMAN
*pbatrōús (gen. *pbatruwos) *paternal kinsman, (particularly) paternal uncle. [IEW829 (*pbatrujo-s); Gl 669 (*p mógłwio-); Buck 2.51; Szem 11; Wordick 124–125]. Lat patrius (if < *pbatruo-s rather than *pbatru-jo-s) *father’s brother, Grk πατρος *paternal kinsman, father’s father, father’s brother. Cf. the further derived *p(h)truo-jo-s *paternal, pertaining to the paternal line: Lat patrius (if < *pbatru-jo-s rather than *pbatru-jo-s) *father’s brother, Lit stražys ‘grandfather, old man’, stražys ‘father’s brother, mother’s sister’s husband’, OCS strijy ‘father’s brother’, ORuss strijy ~ strajy ‘father’s brother’, Rus stroy ‘father’s brother’, Grk πατρίους ‘step-father’, Arm yawray ‘step-father’, Av tůrya- ‘father’s brother’, OlInd pituwa- ‘father’s brother’. The semantic specifica
cation of Greek and Armenian, on the one hand, and Baltslavic and Indo-Iranian, on the other, are possibly independent but both may reflect late PIE dialectal developments. Alternatively, the possibility that the same word might mean ‘father’s brother’ and ‘step-father’ might argue for the existence in PIE society of the levirate where a brother (i.e., ‘father’s brother’) would marry the wife of his deceased brother to become ego’s step-father. Among IE groups, some remnants of this custom are recorded in the Law of Gortyn for Greeks and survived among the Albanians until after World War II. The phonologically difficult initial cluster *ptr- was simplified by the loss of *p- in Iranian and by the change of the latter to *s- in Balto-Slavic. The forms in the other languages reflect *pbatr- The Germanic forms such as OE federa ‘father’s brother’, Fris federa ‘father’s brother’, and OHG latureo ‘father’s brother’ are derivatives of the semantically similar *pbatr-jo-s *paternal.

*mehatruós (gen. *mehtruwos) *maternal kinsman, (particularly) maternal uncle. [cf.IEW701 (*mētrou); Wat 39 (*mater-); Buck 2.52]. Grk μητρός *maternal kinsman, maternal uncle’. While attested as such only in Greek, the further derivative *mehtru(jo)-jo-s *maternal, pertaining to the maternal line is found more widely: OE mōdrige ‘mother’s sister’, Fris modere ‘mother’s sister’ (Gmc < *mētherjehan-). Grk μητρία ‘step-mother, Arm mawru ‘step-mother, mother-in-law’. As in the case of the previous entry, the differing semantic developments seen in Germanic, on the one hand, and Greek and Armenian, on the other, may be of late, dialectal IE age. Or, again as with the preceding word, the combination of ‘mother’s sister’ and ‘step-mother’ might be seen as giving evidence for the sororate, whereby a man may marry two or more sisters successively, often after the death of the first wife. Thus a second wife, a ‘step-mother’, might be ego’s own mother’s sister.

Both this word and the previous one show an extremely rare extension of a noun in *-ter-by a u-stem and a particularly archaic u-stem formation with a nominative singular in *-ōus. This formation is found only (rarely) in Greek, Avestan, and Hittite. That a noun with this particular morphological shape should be formed after PIE unity had broken up is most unlikely.

See also Aunt, Uncle. [M.E.H., D.Q.A.]

KISS
*kus- *kiss. [IEW 626 (*ku~ ~ kus-); Wat 33 (*kus-); Buck 16.29]. ON kyssa ‘kiss’, OE cyssan ‘kiss’ (> NE kiss), OHG kussen ‘kiss’, Grk κυσσα ‘kiss’. ‘Hit kuwaszi ‘kisses’. The initial *k- in Germanic is problematic; possibly it was retained for sound-symbolic reasons. The phonological problem indicates the need for caution in reconstructing this to PIE.

See also Love. [M.N.]

KITE
Armenian isogloss is the only secure cognate between two stocks although Av saēna- 'eagle' and OInd śyenā- 'eagle, falcon' are also sometimes included. Armenian also employs uryur from an early period, and this word might be related to the Arm oror 'gull' (< *h3or-nis). Neither the Lat milvus nor the OInd sākūni- are demonstrably IE.  

See also Birds, Eagle, Falcon. [J.A.G.G.]

KNEE

*ĝēna- (gen. *ĝēnu-) 'knee'. [IEW 380–381 (*ĝēnu-); Wat 19 (*ĝēnu-); Gl 688 (*Řēnu-), Buck 4.36]. OIr glān (< *glūh-nil-< *gōnu-nil-) 'knee', Lat ġēnu 'knee', ON knē 'knee', limb', OE cnēo(w) 'knee' (> NE knee), OHG knio ~ chinu 'knee', Goth kniu 'knee' (Gmc < *gīēnō-), Alb gōn (< *glūno-< *gōnu-nil-) 'knee', Grk ἱἀν 'knee' (cf. also ἣμα [pres. Grk ἱαμα] 'corner, angle'), Arm cnūr 'knee', Hit ānu 'knee', Av ânu- 'knee', OInd ānu 'knee', TochA kanwem (dua- 'knees', TochB keni(ne) (dua-) 'knees'. Pan-IE in distribution, wanting only in Balto-Slavic. Most probably related to *ĝēnu- 'chin, jaw', both being sharply angled parts of the body. Clearly of PIE status. Words for the 'knee' were often used euphemistically for the genitals.  

See also Anatomy. [D.O.A.]

KNIFE

*veben- 'cutting weapon, knife'. [Wat 76 (*vebēnam); VW 596–597]. ON väpn 'weapon', OE weān 'weapon' (> NE weapon), Goth (pl.) wēpna 'weapons' (Gmc < *veb-no-), TochA yepe (A is borrowed from B) (< *ueb-en-) 'cutting weapon, knife'. Though found in only two stocks, this word has no known root connections and must be at least late PIE in date. The underlying semantics here are vague in the extreme. The ON väpn was a generic term and in one text *(s)kel- 'cut'. If the lndic word belongs with the Latin it is because it shows a Middle Indic phonological development of expected -r-. Such a development is by no means impossible but it has also been suggested that the Indic word is a borrowing from some Dravidian source. In short, a possible but by no means certain PIE word.

By the earliest historical attestations of the various PIE stocks knives were made of bronze or iron; however, across Eurasia there were stone equivalents at least since the Neolithic. At that time long blades fashioned of flint or some other suitable stone were fixed within a wooden haft. Despite the weak lexical evidence, it is impossible to imagine that the earliest IE speakers did not possess 'knives' of some sort, either stone or copper.  

See also Cut, Razor, Sword, Tool. [D.Q.A.]

KNOT

*nēd- 'knot'. [IEW 758–759 (*nēd-); Wat 44 (*ned-); cf. Gl 224 (*not-); Buck 9.192; BK 559 (*natr-/*nat-)]. OIr naíscid 'binds', naídm(m) 'bond', Lat nectō 'knot, bind' (the shape of the Latin verb has apparently been influenced by pectere 'comb [wool]', nōdus 'knot', nassa (< *h₃d-teh₂?-? 'weel, wickertrap for fish', ON nót 'net', OE nett 'net' (> NE net), OHG nezz(zi) 'net', Goth natt 'net' (perhaps also ON nest 'needle, clasp', OE nostle 'fillet, band', OHG nestula 'brooch', nust 'connection'), Av naska- (< *nad-ska-) 'bundle', OInd nāhāyati 'bind' (the apparent -dh- of the Old Indic word may be due to crossing with the synonymous badh-). A widespread and presumably old word in IE.

Also probably part of this etymon are certain words for 'nettle': Mit renāid 'nettle', OE netel 'nettle' (> NE nettle), OHG nezzila (< *nod-il-eh₂-?) 'nettle', naza 'nettle', Grk ἀδικν (cf. *τιδ-ηκ-eh₂-) 'nettle'. Best fibres, particularly those of tree bark, were used from Mesolithic times on for the construction of nets. It would seem that even in late PIE times, the name for bast fibre was transferred to the nettle which has also been used for weaving of fine soft cloth, though not apparently for creating nets.

See also Textile. [D.Q.A., E.J.W.B.]

KNOT

*hýōgos 'knot (in wood), joint of branch with tree'. OIr odb 'knot (in wood)', Wels odd 'knot (in wood)', Grk ὀξός 'sucker, shoot, vine-branch' (< skh- rather than expected -zg- by crossing with ὀξός with the same meaning). MPers ṣg 'branch', MPers ẓg 'branch', NPers ẓg 'branch', NPers ẓg 'branch', OInd adga- 'knot, joint; stalk, (stem of) bamboo'. Widespread and old in IE.  

See also Plants, Trees. [D.Q.A.]

KNOW

*gnēh- 'know, be(come) acquainted with'. [IEW 376 (*gen-); Wat 23–24 (*gno-); Gl 32 (*Řen-); Buck 17 17; BK 295 ('kān-/*kān²-'). The most widespread present is *ggh-eh₂-. OIr ad-gnē 'recognizes', ON kunna (pres. kann) 'know, be able to', OE cunnan (pres. cann) 'know, be able to' (> NE can), OInd kunna (pres. kann) 'know, be able to', Goth
KOLOCHIN CULTURE

The Kolochin culture is the eastern regional element of the Prague-Penkov-Kolochin complex of cultures that date from the fifth to seventh centuries AD. The Kolochin culture, attested by about a hundred sites, was situated primarily along the Dnieper drainage. Settlements were undefended clusters of small single-roomed houses; burial was by cremation. The culture has been variously identified as an element of the Baltic culture on the evidence of Baltic river names in this region or Slavic peoples shortly before their emergence in historical records. If the culture were indeed Baltic, and the area of its distribution does not seem to lead to typically Slavic finds, then it along with its southern relations who are...
generally regarded as Slavic, might have provided an appropriate environment for Baltic-Slavic linguistic exchanges. See also BALTIC LANGUAGES; PENKOV CULTURE; PRAGUE CULTURE; SLAVIC LANGUAGES. [J.P.M.]

KOMAROV CULTURE
Bronze Age culture dated to c 1500–1200 BC which occupied the region along the middle Dniester. Although a few settlements are known, e.g., Komarov with its twenty small single-roomed houses, the culture is primarily known from its inhumation burials, set into a timber- or stone-covered grave and covered with a tumulus. Flat grave burials and cremations are also known. The existence of a sun cult has been postulated on the basis of decoration found on ceramics and the presence of cromlechs, stone rings, around the base of tumuli. Its origins are sought in a local development of the Corded Ware horizon with which it shares similarities in ceramics, metallurgical traditions and burial rite. Closely related to the Trzciniec culture, the Komarov is generally assigned to a phase in the evolution of the Proto-Slavs or the Thracians.

See also SLAVIC LANGUAGES; THRACIAN LANGUAGE; TRZCINIEC CULTURE. [J.P.M.]

KURGAN TRADITION
The Kurgan Tradition is a blanket term for a series of Copper and Bronze Age cultures of the Black Sea-Volga region. As a cultural designation, the term is primarily associated

Komarov b. Distribution of the Komarov culture.
with the works of the late Marija Gimbutas and supporters of her Kurgan solution to the IE homeland problem and, therefore, the term "Kurgan Tradition" is often used synonymously with the earliest Indo-Europeans. In the system employed locally by Russian and Ukrainian archaeologists, the Kurgan tradition or culture embraces the Khvalynsk culture of the Middle Volga, the Sredny Stog culture of the Middle Dnieper, the Kemi Oba, Lower Mikhaylovka and Usatovo cultures and contemporaneous cultures of the western steppe and forest-steppe region, the Novosvobodna and Maykop cultures of the north Caucasus and the entire Yamna cultural-historical complex of the Pontic-Caspian and its regional variants.

According to Gimbutas, the Kurgan Tradition is characterized by seasonal settlements, semi-subterranean dwellings, pastoral economy, hierarchic social structure, strongly patriarchal familial system, aggressive warfare, burial of the dead in a hut-like chamber beneath a tumulus (Russian kurgan), animal sacrifice, utilization and veneration of the horse, use of wheeled vehicles, and worship of solar deities. The culture is held in contrast to that of her "Old Europe", the consensus of Neolithic and Copper Age cultures of Europe, especially evident in southeastern Europe, before the penetration of the Kurgan tribes. These cultures are typified as peaceful and sedentary agriculturalists living in large villages or townships in egalitarian and matrilineal societies with special emphasis on female deities.

The Kurgan Expansions
Gimbutas argued that the Kurgan culture expanded from its homeland in the steppe and forest-steppe of the Ukraine and south Russia carrying with it the IE languages. This dispersal took place over an extended period from 4500 to 2500 BC. The expansion of the Kurgan culture or, at least, Kurgan traits, is seen eastwards in the form of related steppe cultures such as the Afanasevo and Andronovo cultures of the Asian steppe and forest-steppe; southwards through the Caucasus; and westwards in a series of three waves into southeastern and central Europe.

The first wave (4500–4300 BC), according to Gimbutas, begins with the development of horse domestication in the Volga-Ural region and the subsequent expansion of pastoralists westwards from the Kurgan "heartland". They achieved domination of the steppe and forest-steppe regions of the Ukraine, e.g., the Dnieper-Donets culture, where they emerge as the Sredny Stog culture. They pushed further west where their presence is indicated by Kurgan graves such as that from Suworovo in Moldova and Casmircea in Romania where high-status males were buried with horse-head scepters. As the Kurgan people entered the Balkans they precipitated a crisis which saw the collapse of the local agricultural communities who had occupied stable villages for over a millennium. These tell sites were abandoned and new cultures such as Cernavoda I appeared which reflected a hybrid of local agricultural traditions mixed with those of the steppe.

The second wave of intrusions is set to the period c 3500 BC. It sees the appearance of hybridized Kurgan cultures from the northwest Pontic across the Balkans. The Tripolye culture, whose origins lay in the indigenous Balkan Neolithic, was transformed by this time into Kurganized cultures such as Usatovo which mixed the ceramic, metallurgical and mortuary traditions of the Tripolye culture with those of the steppe. This is also the period of the emergence of a "Balkan-Danubian" complex where similarities in ceramics (high-handled drinking cups, etc.) and the use of (Caucasian derived) bronzes appears across the northwest Pontic and Balkans in the Baden, Cotofeni, Ezero and Troy cultures. Most of these cultures also reflect the emergence of stone-built citadels.

It is also at this time that there are major cultural changes in central and northern Europe with the expansion of the Globular Amphora culture over the earlier territory of the TRB culture. Gimbutas argues that this latter culture, which marks a shift to increasing pastoralism and less permanent settlement, derives ultimately from influences from the Maykop and Lower Mikhaylovka cultures of the north Caucasus and Ukraine (hence her use of the term "Maykop culture" for all of these different cultures). The connections between the Globular Amphora and Maykop cultures, she argues, is especially to be seen in ceramic forms and the use of stone in the construction of mortuary chambers.

The third wave (c 3100–2900 BC) is associated with the spread of the Yamna culture from the steppe and forest-steppe of the Pontic-Caspian to the Danube basin and east Balkans. This is the best attested of the three "waves" and is marked by thousands of kurgans across the Balkans which have close if not exact parallels with burials of the steppe lands. Tumulus burials spread southwards into Albania and northern Greece.
and Gimbutas credits the cultural changes between Early Helladic II and III (c 2300–2200 BC) in Greece with the arrival of Kurgan populations bearing IE languages to Greece.

The expansion of the Kurgan culture to western Europe is also seen in the spread of the Beaker culture whose origins, she argues, lay in the Vučedol culture of the Danube basin (most would rather derive it, at least partially, from the Corded Ware culture of the Rhineland). Similarities are cited with the presence of the domestic horse, that link the Beakers with the Danube from whence they spread over the western half of Europe. Central and northern Europe were “Indo-Europeanized” by the Corded Ware culture which Gimbutas derives from the Globular Amphora and Yamna cultures.

The Caucasus

Gimbutas also argued that Kurgan tribes penetrated the metallurgical centers of the Caucasus. This spread is witnessed by the close association between the steppe cultures and those of the north Caucasus such as the Maykop culture which exerted an influence in metallurgy, ceramics and in mortuary ritual over a broad area of the steppe, e.g., the Kemi Oba culture, the Lower Mikhaylovka culture. More direct connections between the two regions, Gimbutas argued, were to be seen in the spread of Kurgan tribes through the Caucasus into the territory of the Kuro-Araxes culture (here marked by the presence of tumulus burials). Some suggest that the Kuro-Araxes region provided a convenient staging area for Kurgan expansions into eastern Anatolia which might be employed to explain the arrival of the Anatolian linguistic stock.

Asia

Kurgan expansions east of the Volga are also part of the general explanation of Indo-European dispersals. Generally, these expansions are attributed to the period of the Yamna culture (c 3500 BC onwards) although in the recognition that horse domestication may have also occurred in the southern Urals and western Kazakhstan, the origins of the Kurgan tradition as a whole may be set to an area that included the far west of the Asiatic steppe. If the Afanasevo culture of the Yenisei and Altai mountains is also an offshoot of the European steppe cultures, this too would speak for a very early (fourth millennium BC) expansion of the Kurgan tradition eastwards. The subsequent development of the Andronovo culture with its strong links with European developments (Potapovka, Srubna culture) also speaks for a general cultural trajectory from the European steppe eastwards that formed the staging area for subsequent Indo-Iranian migrations.

Evaluation

There are core elements in the theory of Kurgan expansions that are founded on generally recognized canons of archaeological evidence and are widely accepted. The third wave of Yamna expansions into the Balkans, for example, is abundantly supported by thousands of burials in Romania, Bulgaria and Hungary, and it would be difficult to deny that there was an influx of steppe pastoralists into the Balkans at the end of the third millennium BC. Similarly, connections between developments in Kazakhstan and those of the European steppe also speak for some form of cultural trajectory emanating out of the Volga-Ural region. Where there appears to be a spread of steppe elements or populations into adjacent steppelands or neighboring regions, the evidence seems fairly solid.

On the other hand, depictions of major cultural changes beyond these regions or the attribution of new cultures to steppe intruders becomes increasingly difficult to sustain the further one is removed from the open grassland environment in which the steppe cultures formed. Gimbutas’ arguments for more distant Kurgan expansions often rests on evidence that moves from the specific comparison between (almost) identical cultural elements to increasingly generalized and, possibly generic comparisons. Hence the spread of Kurgan populations west and north of Hungary, for example, is marked not by specific similarities of mortuary ritual but by fairly vague comparisons, e.g., tumulus burial, stone battle-axes, warfare, defensive or merely enclosed settlements, “solar” motifs on ceramics. In almost all cases, examples of these Kurgan “traits” can also be found in European cultures that precede any putative Kurgan expansions. For example, the Baalberge tumuli cover early TRB burials which are regarded as a pre-Kurgan culture of northern and central Europe; similarly, stone battle-axes are well known in the non-Kurganized TRB culture. Solar motifs can be clearly discerned on early Neolithic ceramics in Italy. The evidence of warfare can be found in the earlier Linear Ware culture (again non-Kurgan) as well as among Mesolithic populations of both the Baltic and Dnieper-Donets regions and the presumption that inter-societal violence was initiated in Europe by a specific linguistic group (the Indo-Europeans) to the exclusion of all others seems extremely unpersuasive. Such broad assertions reflect one of the core problems of the Kurgan theory: the presumption that major social and economic changes must be attributed exclusively to a new ethnic component rather than natural (e.g., climatic change) or internal processes (environmental degradation, social evolution). The collapse of Balkan settlement patterns at the end of the Neolithic, for example, is laid entirely to intruders who “traumatized” local populations.

In the face of some of Gimbutas’s general arguments, critics have assembled specific arguments to indicate the local origins or the non-correlation between the steppe cultures and those elsewhere in Europe. The Corded Ware culture, for example, reflects a strict sexual polarity where males are deposited on the right side and females on the left, a ritual observance not encountered among the steppe pastoralists but found among local Neolithic and Copper Age cultures of east Central Europe. Battle-axes, often regarded as a marker of the Kurgan culture, are conspicuous by their absence from graves of the steppelands.
As a single explanatory model, the concept of an expanding Kurgan tradition as currently presented is still not robust enough to provide a convincing solution to the problem of Indo-European origins. One cannot, of course, hope to follow any single "Kurgan" marker such as the horse, tumulus burial, or solar representations, as a direct proxy for Indo-European dispersals. Nor can a combination of these features (e.g., hillforts, warfare), when unsupported by a clear chain of cultural connections in a chronologically validated pattern, be employed to chart the process of linguistic movements. Through its use of the concept of "Kurganized" cultures, the model of Kurgan-IE expansions does suggest the type of future direction its supporters might take if they wish to demonstrate that a linguistic process, emanating from the steppelands of the Ukraine and south Russia, eventually embraced much of Europe and Asia.

See also CERNAVODA CULTURE; EZERO CULTURE; INDO-EUROPEAN HOMELAND; KHVALYNSK CULTURE; MAYKOP CULTURE; SREDNY STOG CULTURE; TROY; USATово CULTURE; YAMNA CULTURE. [J.P.M.]

Further Readings

KURO-ARAXES CULTURE

The Kuro-Araxes culture is the major early Bronze Age culture centered on the southern Caucasus but with sites extending also into the northeast Caucasus, eastern Anatolia and northwestern Iran. It dates to c 3500–2200 BC and is known from more than three-hundred sites. Its origins are uncertain although at least one component would be the local Eneolithic cultures of the region.

Settlements of the Kuro-Araxes culture tend to be small, about one to two hectares in size, although some large ones exceed ten hectares. There is also evidence of defensive architecture including large stone walls surrounding a settlement. Only one site (Kvatskhelebi) has been excavated fully and offers evidence of about twenty-five rectangular houses arranged in rows; round houses are known from the majority of other sites.

There was a mixed agricultural economy with the raising of cattle, and sheep/goat. Agriculture is well reflected also in the material culture with stone querns and hundreds of metal sickles. The culture appears to have been an early center of
KURO-ARAXES CULTURE

wheeled vehicle production, and exhibits a precocious metallurgical development which strongly influenced surrounding regions. Bronze tools included axes, awls, sickles and knives; the characteristic metal weapon was the dagger and large bronze spearheads are also known. Bronze ornaments included pins and spiral rings. Other than pottery, clay was also used to fashion figurines and what have been presumed to be altars.

Burials are to be found both in flat graves and under kurgans (tumuli). The graves are generally inhumations on their side (a few cremations are known) and the flat graves may include stone cists while the kurgans may be surrounded by a stone circle (cromlech). Both single burials and collective graves containing what are presumed to be family groups are encountered.

The presence of large tumulus burials in the territory of the culture along with the appearance of rectangular dwellings have been attributed by Marija Gimbutas to a penetration of Kurgan tribes from the steppe. For this reason the Kuro-Araxes culture is sometimes drawn into discussions concerning the migrations of the Anatolian stock into their historical seats. However, the area of the Kuro-Araxes culture and its close cultural contacts with southwest Asian cultures support its association with the Hurrian-Urartian family, one of the major non-IE groups south of the Caucasus. Alternatively, some have claimed that the Kuro-Araxes culture is best identified as linguistically Kartvelian (Georgian).

See also Armenian Language, Kurgan Tradition.

Further Readings
**LACK**

*deu(s)- 'be lacking'. [IEW 219 (*deu-); Wat 12 (*deu-); Buck 4.91]. OE teorian 'lament, grow weary; fade (of colors)' (> NE tire), Grk δεόμαι – δεόμαι (< *deuo-o- and *deuse/o- respectively) 'feel the want of, lack', OInd dosa- 'crime, fault, vice, want'. Reasonably widespread and probably old in IE.

*hleg- 'be in need, lack; be extinguished'. [IEW 290 (*eg-); Wat 16 (*eg-); BK 447 (*ak[h]-/*dk[h]-)]. Lat egeo 'need', egestas 'lack', egenus « *eges-no-) 'lacking', ON ekla 'lack', OHG ekoko 'only', Hit akilagkanzi 'dies/they die' (< *hjegel/*hjegati 'be extinguished'), TochAB yak- 'neglect, be careless about' (< *hjeghera) 'lake'. If all these words belong together, we have evidence for a word that was widespread and old in IE.

*menk- 'lack'. [IEW 729 (*men-); VW 289]. Lat mamus 'amazed, surprised' (< *lacking'), OHG mengen « Proto-Gmc *mangian- 'be without, lack, miss', mangolōn 'be without, lack, miss', MHG mane – mang 'lack', Lith menkas 'frightened, weak; scant; insignificant', OInd manku- '± wobbly', TochAB yak- 'neglect, be careless about' (< *menk- 'be lacking with regard to'). If all these words belong together, we have evidence for a word that was widespread and old in IE.

*das- 'lack'. [IEW 178 (*d-es-)]. Norw (dialectal) tasa 'unravel', Hit das(u)want 'blind', OInd dasyati 'suffers want, becomes exhausted'. Even if the Norwegians does not belong here, the agreement of Indic and Anatolian would seem to assure the PIE status of this word.

See also SMALL; THIN. [D.Q.A.]

**LAKE**

*lokus 'lake, water, pool, pond, cistern'. [IEW 653 (*laku-); Wat 35 (*laku-); Buck 1.33]. OIr loch (< *lo/aku) 'lake', Gaul penne-locos (head of lake), Lat lacus 'lake, cistern', ON logr 'water, lake', OE lagu (Gmc < *lakut-) 'water, river, lake', OCS loko 'pool', Grk λάκκος 'pond, cistern'. The Latin derivative lacuna 'cavity, hole, pond' has the generalized Latin -ina/-ina- and does not attest an old -uh- as in OCS loko. The Latin and Greek forms are difficult. If Greek had a zero-grade *hisko-, it should have given *ałak- (or álak- or álak-); the development of *isko- is unknown but may well have been lako-. Perhaps late PIE or possibly a loanword.

*teneg- – *tnah- 'shallow water?'. [IEW 1067 (*tenagos); cf. Wat 65 (*stag-)]. Latv tīgas (< *tīgas) 'deep spot in water', Grk τεναγος 'shoal, shallow water'. If the two forms are cognate, the ablaut requires a consonant stem. Lat stānum 'standing water, pool, pond, swamp' could be from *stnānum or *stnānum < *stnhog- (after *stā- 'stand').

??*hjegherom 'lake'. [IEW 291–292 (*eghero-); Wat 16 (*eghero-); Buck 1.33]. OPrus assaran 'lake', Lith ežeras 'lake', Latv ezers 'lake', OCS jezero 'lake', Rus ozero 'lake'. These forms are limited to Baltic and Slavic (< *ēzer-) and the only other cited cognate is Grk Αχέπος (river of underworld), which is quite improbable. Uncertain is the connection with Lith ežē 'frontier', Latv eža 'frontier', ORus jezu 'fish-pond', Rus jaz 'fish-pond', from a root noun *hjiēh-.

*υοφ- – *uoph- – *uoph- 'pond'. [IEW 1149 (*uep-); BK 392 (*hap[^1]/-hap[^1]-)]. Lith upe 'river' (more likely from *hsep- 'water'), OCS vapa 'pond', RusCS vapa (< *uoph-?; doubtful) 'pond', Hit wappu 'riverbank', OInd vaipl (< *uoph- or *uoph- 'pond') 'large pond, pool, tank'. The reconstruction is most uncertain as all the possible cognates have been challenged.

See also FIRE IN WATER; MARSH, SEA. [R.S.PB.]

**LAME** see DEFECT
La Tène, named after a site at Lake Neuchâtel, Switzerland, refers to the major Iron Age culture of western and central Europe c. 500–1 BC. The culture, primarily identified by its art style, coincides with the early distribution of the Celts, and has been used to identify their movements into Italy, the British Isles and eastwards into Hungary and Romania where La Tène remains are particularly well known from cemeteries. Settlements range considerably. The largest are the hillforts and fortified (proto-)towns or oppida which exhibit considerable evidence for craft specialists as well as purely agrarian economies. The production of weapons, including long iron swords, and defensive architecture, coupled with considerable evidence for Greek and Roman writers, demonstrate the existence of a hierarchical society with kings, warriors, priests (druids), merchants, farmers and slaves. Moreover, an abundance of ritual evidence, especially seen in watery depositions or votives, and later iconography, provide an invaluable source for the study of Celtic religion and ritual behavior.

The borders of the La Tène culture, however, are not entirely coincident with the historical distribution of all the Celtic languages as, for example, Iberia does not indicate any substantial La Tène presence nor are there many La Tène artifacts known from the southern third of Ireland. For this reason, its predecessor, the Hallstatt culture, which is found over an even broader area, is also often seen to represent the archaeological expression of the Proto-Celts. The expansion of the La Tène art style has also been attributed to exchange and cultural diffusion rather than folk movements. Such an explanation has an obvious validity in some circumstances but is unlikely to explain the entire distribution of this culture.

See also Abundant, Grow. [D.Q.A]
Law in early IE society was apparently designed to maintain the "order" of the universe, the underlying concept that a harmony must be maintained, be it in the physical universe or the social world. Precisely how this order was to be effected may vary from one IE stock to another, most of which reveal some systematic codification of their laws so that we can speak of the law texts of the early Irish, Roman law, the Luuwine tablets, law codes of various Germanic tribes (Burgundian, Salic, etc.), the 'Law of Jaroslav' among the Russians, Albanian traditional law, Greek law, Hittite legal texts, and the Indic law texts, particularly the Manu-smrṛtī 'Code of Manu'. To what extent any comparison of these texts leads us to genetic rather than generic reconstructions is moot (frequent...
comparisons can also be made with [non-IE] Mesopotamian law codes) and the establishment of the specific legal vocabulary of Proto-Indo-European has been more elusive, or at least less studied, than that of literary texts.

One of the few terms providing some interstock comparison are those built on *dheh₁- 'place, set, establish'. The concept of 'establish' here would appear to refer not to human but divinely established and guaranteed norms of behavior. Hence Emile Benveniste has argued that Grk ἰματις or a set of rules established by the gods and implemented by the βασιλεύς 'king'. These rules controlled the whole social fabric, though ἰματις applied specifically to situations within the family group. It finds a close parallel in the OInd dhātmān- 'law', which again referred to the maintenance of order within households which was particularly associated with the divine wills of Mitra and Varuna. There is some evidence then that late IE had a concept of 'household law' built on the root *dheh₁-.

Laws that governed wider relationships in society are more difficult to recover. The root *dei-k- 'show' provides some comparative evidence as it underlies essential legal terminology in both Latin and Greek. In Lat dicere the word has come to mean 'speak' but this may apply to specifically legal contexts, e.g., multam dicere 'pronounce a fine', and the word is compounded with the other widespread legal term *jēy(o)s- 'law, ritual norm' to make iūdēx (< *jous-dik- 'law pronouncer') 'judge'. The semantic sphere of 'show', Benveniste has argued, indicated a 'verbal showing' of what the norms or laws must be (cf. Old Indic forms built on *dei-k- such as disti- 'instruction', desi- 'direction', disa- 'direction'). The latter is directly cognate with Grk δική 'custom, usage; right, law, judgement' and suggests that here the underlying concept was the showing or recitation of a legal formula specific to a particular case. It is clear from many of the earliest written legal codes that we are dealing with earlier oral formulas, memorized by a member of the legal profession and passed on from one generation to another to provide guidance in interpersonal disputes such as those involving compensation (in terms of wealth or blood). Unlike the terms built on *dheh₁- which refer to divinely sanctioned norms, those built on *dei-k- appear to have been recognized as laws created by society itself.

The semantics of the second primary legal term *jēy(o)s- 'law, ritual norm' also hints at distinctions between divinely inspired and secular law. The apparently divergent semantics of Av yaoz-dā- 'make (ritually) pure' and OInd yōs- 'happy' are explained by the notion that the Avestan term, a compound 'place yaoz', indicated the putting of something into a comfortable state in accordance with ritual prescription, i.e., ritual integrity, and that the Old Indic word indicated not so much happiness but 'physical integrity', i.e., being 'on form'. The compound formation found associated with Lat iūs 'law' such as iūdēx suggest that we are again dealing with formulas, i.e., the iūs is originally to be construed as a formula to be recited which is intended to guarantee or restore the norm.

In Latin, the iūs refers to the norms or laws governing relationships within human society and is distinguished from ius 'divine law' (and nefas 'contrary to religious law') which is derived from *bheh₁- 'speak' (cf. Lat for 'speak', fātum 'utterance, oracle'). According to Benveniste, the semantic derivation is explained by the fact that *bheh₁- is typically employed to indicate depersonalized speech, i.e., what is said, name, rumour, the mystic power of the 'word'.

Although sometimes cited here, there are no grounds for positing a PIE *lēgs- 'law' ([Del 78] as Lat lex 'law' is not cognate with the proposed Indo-Iranian forms: Av rāz- 'religious law', OInd rājāni 'under the law of'. The latter term actually means 'under the conduct of' and the all the Indo-Iranian forms cannot be separated from OInd rājan- 'king' as 'ruler, leader' while Lat lex can be better explained as a root noun to lēgēre 'read' perhaps by way of 'summation' > (confirmed and binding) ordinance).

See also Compensation, Oath, Order, Show, Speak, Swear.

Further Readings


LEAD¹

*neih₁- 'lead' (pres. *nōih₂el). [IEW 760 (*nei-); Wat 44 (*nei-); Buck 10.64]. Hit nāi 'leads', Av nayēti 'leads', OInd nāyate 'leads'. Very restricted in its geographical attestation but its appearance in Anatolian and Indo-Iranian would seem to assure its PIE status.

*bhōyed(h₂)- 'lead; take to wife'. [IEW 1115-1116 (*wedh-); GI 658 (*Hwed⁵h-); BK 474 (*wad-/*wad-)]. OIr ledh (Dl ledh) 'leads, goes, wears, brings', Wels arweddu 'lead, bring', cywedda 'lead, bring in', dywedhó 'marry', OE weotoma 'brideprice', OHG widema - widoma 'bride-price', Lith vedu 'lead, marry (said of a man)', vedelke 'daughter-in-law', OCS vedo 'lead' (rarely 'marry'), voždp 'lead', ORus voditi 'zhenu 'bring home a wife', Grk ἱδον 'nuptial gifts (from suitor to bride or her parents, from bride's parents to suitor, or from guests to couple)' (by assimilation from *sedna, ἄναδόνος 'without bridal gifts', Hit huett(īya)- 'draw, pull', Av vaśayeti 'leads, pulls', upa-vaśayeti 'gives a woman in marriage', vaśu- 'young woman, bride', vaśyga- 'nubile', OInd vaḥdū- 'young woman, bride'. Widespread and old in IE. Though not attested with marriage within its semantic field in Anatolian, the connection of this verb with marriage, more particularly marriage from the man's point of view, is obviously very old in PIE.

See also Bride-price, Drive, Marriage.
LEAD

There is no reconstructible PIE term for ‘lead’ although there are some terms that cross the boundaries of individual IE stocks. The absence of a word for ‘lead’ is interesting in view of the presence of a term for ‘silver’, a metal which is chiefly extracted from lead ores. For archaeologists the distribution of silver in antiquity may often provide proxy evidence for the distribution of lead.

The ancient Romans do not seem to have distinguished the toxic lead from the far safer tin, identifying both as low-melting ‘solder’. That term can be etymologized as *pleu-dhom* ‘flowable’, apparently a substantiated neuter adjective (modifying a presumed PIE *h₂-ti-es- ‘metal’). This etymology is found in both italic (Lat *plumbum* ‘lead’) and Celtic (OIr *lúide* ‘lead’), and seems to have been loaned from Celtic into Germanic (OE *lead* ‘lead’ > NE *lead*), OHG *lot* ‘solder’), another sign of the metallurgical status of the early Celts. The Roman author Pliny the Elder noted the use of the descriptive adjectives *nigrum* ‘black’ and *album* ‘white’ to distinguish the grayish lead from the brighter and more tarnish resistant tin. Undoubtedly the same technological terminology spread to other people in contact with the Celts. ON *blý* ‘lead’, OHG *blí* ‘lead’ are derived from ‘blue-gray’ (cf. OE *bleo* ‘blue, violet, lead’ [> NE *blue*]) which must refer to the oxidized grayish cast of the metal.

The Baltic (Lith *alvas* ‘lead’) and Slavic (Rus *olovo* ‘lead’) terms have been the subjects of much speculation concerning possible Finno-Ugric loans. However, loans from this relatively metal-poor and technologically backward region are less likely than a loan from the metal-rich Erzgebirge which was inhabited by the Celts. The Slavic term *olovo* (Rus *olovo*, SC *olovo*, Pol *olow* ‘lead’) and its Baltic counterpart represented by OPus *alwis*, Lith *alvas* (the alternative *alva* is a loan from Slavic), and Latvian *alvs* are semantically ambiguous, signifying either ‘lead’ or ‘tin’. The correspondence of initial Slavic [o] and Baltic [a] points to an ambiguous non-front, non-high IE vowel which may be symbolized as *a*. The accent revealed by the Lithuanian form and the post-resonant vowel point to a lost Indo-European laryngeal, denoted by the symbol *h*. Our Baltic and Slavic terms then reconstruct to *ah₄dom*. Such a word may be a borrowing from central European Celtic (stem-accented *o*-adjectives in IE are usually o-grades which would have given Proto-Celtic *ol₁h₁₄yo*) though no actual Celtic descendant is known, or from some non-Indo-European, metallurgically sophisticated group in central Europe.

The commonest Greek form for ‘lead’ is Myc *mo-ri-wo-do* ‘lead’, Attic-Ionic *molúbdoς* (Homeric *molúbboς*) while Delphic *bólímuς* ‘lead’ most closely resembles the Basque form, *berin*, in its general phonetic shape, but with such a repetition of labials, liquids and sonorants, any number of metatheses are possible. Nevertheless, the Greek forms have frequently been connected with Basque, and there is nothing inherently improbable in such an inner Mediterranean relationship given the importance of the Iberian peninsula as a source of metals. The Greek and Basque terms might reflect an “Aegean” word for ‘lead’, which, like many of the items regarded as part of this stratum of the Greek lexicon, has syllables of open sonority and indeterminate liquids. Thus the original Mediterranean word for ‘lead’ could have been something like *ho-lu-mo*- However, the efforts to add OIr *lúide* and Lat *plumbum* or even Slavic *olovo* and Lith *alvas* to this set of cognates complicate phonetic matters far beyond what is necessary and these words have been explained differently above. Moreover, the motivation for a Basque > Aegean loan is not altogether clear. For example, Iberian lead is found primarily in Cartegena, Portugal, and the Huelva province in Spain, all areas distant from the Basques while we know from the beginning of the Bronze Age that the Greeks were already exploiting local sources of lead far earlier than their first millennium entry into the Iberian market. Hittite reveals a Near Eastern orbit in its Semitic designation, A.GAR₅ and A.BAR. The full form, Hit *sulī(y)a*- seems to be an adjective ‘dark’, again a reference to the grayish oxide coating that lead develops upon exposure to air.

Archaeological Evidence

Lead is distributed more widely than either copper or tin in nature and may be found from the Atlantic right across Eurasia. It is generally obtained in the form of the ore galena whose gray/black color may help explain its association with color terms in some IE languages. Lead artifacts are known in the Aegean from at least the third millennium BC, e.g., a double-ax fashioned in lead from Mochlos and bars of lead and a lead figure from the Cyclades, while it is also found on mainland Greece at the same time. Some objects of lead are also known from the north Caucasus (Maykop culture) from c 3000 BC. Lead objects are also found in the Harappan culture. One might expect that there would be widespread loan words concerning lead by the late Bronze Age, c 1200 BC. By this time lead was deliberately being alloyed with bronze in order to reduce the bronze’s melting temperature and thereby ease casting difficulties. In the areas of Asia occupied by the Indo-Europeans, the deliberate alloying of lead is seen in the Harappan culture and earlier in the third millennium in Turkmenistan (in Vedic texts, OInd *síśa* ‘lead’ is found coupled with copper and tin). In the west such alloys would have diffused from central and western Europe and the possibility of a widespread Proto-Celtic term for lead might receive some archaeological support. While lead objects themselves were normally not made in any great number, the one major exception is the Armoricans (Britanny) axes of the late Bronze Age, i.e., c 700 BC. Here, a series of shaft-hole axes, usually with an exceptionally high lead content (30–60%) or entirely fashioned from lead, were manufactured in Brittany and Normandy. Their find contexts are often hoards with as many as 4000 in a single deposit and they are found widely over western Europe. There are sound reasons to dismiss these as non-functional axes—they are often too soft, incapable of holding a cutting edge, lacking their shaft-holes, etc.—and, consequently, are more easily interpreted as a form

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of ingot or currency. While it is probable that these axes circulated within a general Celtic environment (the British Isles to north Germany and Switzerland), there is really no evidence that they may have penetrated those regions traditionally ascribed to the early Baltic and Slavic settlement.

See also Gold, Metal, Silver, Tin. [M.E.H., J. P. M.]

LEADER
*hekgos 'leader'. [IEW 5 (*ag-); cf. Wat 1 (*ag-); BK 397 (*hek-/*hak-)]. Lat pròd-igus 'lavish', Grk ὁδός 'leader', OInd ajā 'driver'. The semantic field indicating 'leader' is confined to Greek and Indo-Aryan and may suggest a southeastern term. The Greek term applies specifically to heroes. From *hēk- 'drive, push'.

*korjanos 'leader'. [IEW 615 (*korjo-no-s); Wat 32 (*koro-); GI 644]. On Herjjann 'army-chief, i.e., Oōīnā', Grk κοιπανός 'army leader'. The word is derived from *kornos 'army' with the IE suffix *-no- denoting leadership (cf. Lat domus 'house and dominus 'head of the house'). Goths piuda 'folk' and piudans 'head of the people'). The Greek word specifically referred to the king in time of war. In the king in peacetime seems to have been designated by (p)áνος and ἄριστος; but survives perhaps in the name of Mycenaean officials ko-te-re. Attempts to set Hit kuriwanas 'independent' here are dubious and it may be argued from the meager distribution of this word and the productive formation that it was independently created in several stocks sharing the PIE word for 'army'.

*tagos 'leader'. [IEW 1055 (*tág-); cf. Wat 69 (*tág-)]. Grk ταύγος 'leader', TochA tássí (pl.) 'leaders', TochB sē-tas 'mountain-commander', ywär-tas 'commander of the central region' (Toch < *tagus). Compare Lith pa-togus 'agreeable; ordered' (the long vowel in Baltic is regular before an unaspirated voiced stop). From *tág- 'put in order, arrange'.

*ukipots 'master of the clan'. [IEW 1131 (*uik-eK-potaS; GI 646)]. Lith viëspatis ~ Lith viëspats 'master of the clan', Alb zot (< *dzwāpt < *wtsa + pōt-) 'lord', Av viśpātiś 'master of the clan', OInd viṣpātī 'master of the household'. Cf. also the feminines: OPrus (acc.) waispattin 'woman of the house', OInd viś-pātini 'woman of the house'. From *uik- 'clan, extended family' (cf. *uokos 'settlement') and *pots- 'master, lord'. The Avesta lists various the leadership terms in ascending rank of authority as dmāna-pātī- 'master of the household', viṣpatī- 'master of the clan', zantu-pātī- 'master of the people' and dāhyu-pātī- 'master of the world' with viṣpātī- as the highest rank for which one may derive other PIE cognates. Distribution indicates at least a word of the center and east of the IE world.

See also Army, Companion, Drive, King, Master, Put in Order, Social Organization. [E.C.P., J.P.M.]

LEAF
*bhōliom 'leaf'. [IEW 122 (*bhel-); Wat 7 (*bol-yo-); GI 389 (*bhōloH-); Buck 8.56; BK 11 (*bul-u-/*bol-u-)]. Lat folium 'leaf', Grk φύλλον 'leaf, plant'. Cf. Mīr bileō 'little leaf'.

*bhīl̥ād- 'leaf'. [IEW 122 (*bhel-); GI 389 (*bhōloH-); Buck 8.56; BK 11 (*bul-u-/*bol-u-)]. ON blād 'leaf, blade of grass', OE blæd 'leaf, blade of grass' (> NE blade), OHG plät 'leaf, blade of grass', TochA palt 'leaf', TochB plita 'leaf'. Both of these words are restricted to two stocks. Both may have been present dialectally in late PIE. From *bhel- 'blossom, bloom'.

*dhal- 'sprout'. [IEW 234 (*dhāl-), Wat 13 (*dhal-)]. Mīr duille 'leaf', Alb dal 'arise, appear, emerge, leave', Grk δάλλω 'bloom', Arm dalar 'green'. A word of the west and center of the IE world.

See also Flower. [D.Q.A.]

LEAN
*Klei- 'lean'. [IEW 600-602 (*klei-); Wat 31 (*klei-); Buck 9.14]. Mīr clė 'left; defective, bad', Wels cledd 'left', Lat clivus (noun) 'slope', clivis 'inauspicious', OE hlinian 'lean' (> NE lean), OHG hlinēn 'lean', Goths hliedumei 'left', Lat sīliēr 'lean against', Latv slet 'lean against', Rus sloj 'layer, level', Grk κλίνω 'cause to lean', Av srav- 'lean', OInd sravate 'clings to, leans upon', Tochar Alia kūw (with secondary -w-)'fall', Tochar klāy- 'fall' (< an iterative-intensive *kloī- 'lean over [so as to fall]? or 'decline very much' > 'fall'?), Tochar klāsk- 'set (of the sun)' (< *kli-sko/so; cf. Grk τὸ κλίνεται 'the day wanes'). Tochar Alia klin- 'be necessary' (< 'depend on' > 'lean against'). Although the present stems vary from one language to another, the basic root is well attested and can be reconstructed with confidence. Note the particular semantic development in western Indo-European 'to left, inauspicious', probably from the notion of 'crooked, wrong' > 'lean, not straight'.

*Knei-g̥h- 'lean'. [IEW 608 (*kneig̥h- < *knei-; b); Wat 3 (*kneig̥h-)]. Lat cōnīveō (< *com-nigō 'lean together [the eyelids]') 'blink', ON hni̯ga 'to bow', OE hnniug 'to bow', OHG hni̯gan 'to bow', Goth hneiwan 'to bow'. Distribution suggests a late west European dialectal form.

See also Direction, Left. [M.N.]

LEARN
*men(s)-dh(e)cH1- 'learn' (< *place in the mind'). [IEW 730 (*mendh-); Wat 41 (*mendh-); Buck 17.24; BK 519 (*man-/*man-)]. Wels mynnu 'wish', ON munða 'strive for, aim', OHG mendon 'rejoice', muntrī 'zeal', munter 'lively', Goth mунdun 'pay attention to, observe', mundrei 'goal', Lith muniaras 'lively, awake', Latv muōdris 'lively, awake', OCS modr̥ 'wise', Alb mund 'be able', Grk μαθήματα 'learn', Av mazda 'wisdom', māz-da- 'stamp in the memory', mādwa- 'wise', OInd mēdhā 'wisdom'. A compound, old in IE. of *men(es)- 'mind' + *dheH1- 'place, put'.

See also Think. [D.Q.A.]

LEATHER see HIDE²

LEAVE
*leik⁴- 'leave (behind)' (pres. *li-nē-kw̥-ti). [IEW 669 (*leik⁴-); Wat 36 (*leik⁴-); GI 39 (*leik⁴-)]. OIr léicid 'leaves'.

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Lat lingvō 'leave', liceō 'be for sale', ON ljá 'lend', OE leon 'lend' (> NE loan), OHG lihan 'lend', Goth leihan 'lend', OPrus polhäuser 'remains', Lith liekū (~ dialectally with linkū) 'leave', Grk λείπω 'leave', Arm լքենե 'leave', Av inriñ vátx 'releases', Oldn rinátki 'leaves', gives up, releases, perhaps TochB plank-(if < (th)epi-li-n-kw-) 'be for sale'. Widespread and old in IE.

*deu̯h4- 'leave, go far away'. [IEW 219–220 (*deu̯h-); BK 139 (*tʰaw-/*tʰaw-)]. OHG zouwen 'hasten, proceed, succeed', Grk δύναμις (*dýnamis) 'long, for a long time; far', Hit tuwa 'to a distance, afar', tūwala- 'distant, remote', Av dārā 'far', Oldn dāvati 'goes', dāvāyati 'makes distant, removes', dūtā- 'message, envoy', dūrā- 'distant, remote'. Widespread and old.

*geh1- 'leave' (pres. *(gh/v)geh1). [IEW 418–419, (gh-)- Wat 21 (*ghēh-), GI 33 (*G̣ēḥ-); Buck 10.47]. OE gān 'go' (> NE go), OHG gān 'go', CrimGoth geen 'go', Grk κηλέω 'light upon, meet with, arrive at', Av zazāmi 'leave off'. Oldn jahāti 'leaves'. Sparserly attested but the geographical distribution of the few attestations would seem to guarantee its PIE status.

*leih1d- 'leave'. [IEW 666 (*lēi-); Wat 35 (*lē-)]. ON láta 'leave', OE léttan 'leave' (> NE let), OHG lázan 'leave', Goth léttan 'leave', Lith leidžti 'leave', Latv laist 'leave' (the -i of the Baltic forms is without a good explanation), Alb le (< *lēh1d-ne>o)- 'leave, let, abandon, allow'. Perhaps originally identical with the homophonous *leih1d- 'be tired'. Unextended by *-d- we have Hit láti- 'let go, allow'. With Anatolian, sufficiently widely attested to guarantee PIE status.

See also Long; Remain; Tired. [D.Q.A.]

**LEECH**

*gēlu- 'leech'. [cf. IEW 365 (*gel-)]. OIr gil 'leech', Wels gel 'leech' (< Celt *gēlu-), NPers zalā 'leech', Kurdish zalā 'leech', Oldn jaluťka 'leech', presumably from a verb *gēl- 'swallow' (compare OIr gelid 'grazes, consumes'). If the Celtic and Indo-Iranian words belong together their distribution would seem to guarantee PIE status for this item. See also Animal; Fish; Insects. [D.Q.A.]

Further Reading


**LEG**

*kōn̥h2m (gen. *kox̥h2mos) 'lower leg, shin'. [IEW 613–614 (*kon̥mo-); Wat 32 (*kon̥mo-)]. OIr cnám 'leg', ON hóm 'lower leg', OE hamm 'ham' (> NE ham), OHG hamma 'hollow of the knee, ham', Grk κνήμη (Aeolic/Doric κνώμη) 'tibia, spoke of wheel'. Though only attested when extended by *-i- or *-o-, the underlying morphology (apparently an old m-stem) is very archaic and it is likely that this word is of PIE date.

*sak2w (gen. *sek2wnős) ('upper) leg'. Rus stegn (segdno-< *sektno-) 'hip, groin, thigh', Hit sakutta(a)- 'upper leg', Av haxiti- 'hip', Oldn sákhi (gen. sakthnas) 'thigh'. Sufficiently widespread as to guarantee PIE status. It is tempting to add Wels heg (sektlo-) 'leg' to this group but the lack of labialization on the *-k- is difficult. See also Anatomy, Foot, Haunch, Limb. [D.Q.A.]

LENGYEL CULTURE

The Lengyel culture was the eastern successor to the Linear
Lengyel b. Reconstruction of a Lengyel village in Poland; c. Lengyel painted "fruitstand"; d. Lengyel female figurine.

Ware culture, especially in the lands west of the Tisza river, i.e., southern Poland south to Croatia and from Hungary, Slovakia and northeast Austria. The culture dates to c 5000-3400 BC. Lengyel settlements include both ditch-enclosed and open villages where small houses and the much longer houses of the earlier Linear Ware culture are well known. In some instances the large enclosures lack evidence for settlement and a ceremonial purpose is supposed. Cattle predominates in faunal remains followed by pig and small quantities of sheep/goat. Both wheat and barley are also known and the settlements are presumed to have had much the same economy as the earlier Linear Ware sites although some faunal samples produce markedly higher percentages of wild animals. Proximity to southeast European ceramic traditions may help account for the popularity of painted wares among the earlier phases of the Lengyel culture; also, the Lengyel culture participated in the production of cult vessels and figurines, again characteristic traits of the more southerly cultures. Burials are found in cemeteries, some of which are quite large. They are typically flexed inhumations on either side accompanied by pottery, ornaments, stone and sometimes copper implements. In some instances male burials lack their skulls or have their jaws replaced by the mandible of a pig.

The Lengyel culture is largely dismissed as non-Indo-European by proponents of the Kurgan solution to the IE homeland problem; however, it plays an integral part in defining the early distribution of the Indo-Europeans by those who support a Danubian origin. It is also a possible component in the origins and dispersals of both the TRB and Globular Amphora cultures.

See also Linear Ware Culture. [J.P.M.]

LEOPARD

??*singhōs 'leopard (Panthera pardus)'. [Gl 427 (*singho-); Buck 3.72]. Arm inj - inc 'leopard', Olind simha-'lion'. TochA šišak 'lion' and TochB sekače 'lion', although sometimes placed here, do not belong but may be related to Lat saeta 'bristly hair'. The correspondence between Armenian and Indic has led a number of scholars to postulate an inherited PIE word for 'lion', here assuming that it is Indic that has retained the original meaning of this word. There are considerable difficulties with this proposition. If the pre-Armenians, as is generally supposed, entered Anatolia from the west, having moved south through the Balkans in association with their nearest IE relatives the pre-Greeks, they would constantly have been in areas where lions were native. There would have been little reason to reassign a word for 'lion' to another, quite different, felid. On the other hand,
pre-Indic speakers should have sojourned for a long period of time on the Kazakh steppes and areas around them that have never been the habitat of lions. It would be remarkable if they kept an old word for ‘lion’ alive in some fashion (as the designation of another feld or a mythical beast?) and then just happened to reassign it to lions on re-entering areas inhabited by lions (Iran, Afghanistan). Perhaps the simplest hypothesis, assuming that the Armenian and Indic words belong together, is that the Armenian word retains the original meaning, and it is the Indo-Aryans who applied it to the lion upon entering northern India.

Evidence for leopards is not common although remains have been recovered from the Anatolian Neolithic site of Çatal Hüyük where they are also depicted on the walls of shrines. That part of their historical range pertinent to the IE stocks includes the north Caucasus, Anatolia, Iran and Baluchistan across southwest India and much of China. To any discussion of the leopard should also be added the Ounce or Snow Leopard (Panthera uncia). While its recent distribution is limited to Turkestan, the Altai and south to the Pamirs, it was a regular motif of the art of the eastern Iranian steppe nomads who occupied the entire Pontic-Caspian steppe during the Iron Age.

See also LION; MAMMALS. [D.Q.A., J.P.M.]

LESS

*mei- 'less' (adjective *minus 'small', verb *minēuti 'lessens'). [IEW 711 (*mei-); Wat 40 (*mei-)]. Corn minow 'lessen', Lat minus 'small', minūō 'lessen', ON minnstr 'smallest', OHG minnisto 'smallest', Goth minnis 'smallest' (Gmc < *minyist-), Grk μικρόν 'short-lived', μικρότα 'lessen, decrease', OLnd minni - minnú 'lessens', mýyate 'gets smaller', perhaps TochAB mi- 'hurt, harm (grievously)'. Widespread and of PIE status.

See also LACK; NUMERALS (FOUR); SMALL. [D.Q.A.]

LIBATION

*spend- 'make an offering, perform a rite; engage oneself by a ritual act' (pres. *spōndei [middles *spoudō(toi)]. [IEW 989 (*spend-); Wat 63 (*spend-); Gl 562 (*spōnti)]. Lat spondeō 'promise, vow', Grk σπένδω 'pour a libation; conclude a pact' (i.e., to make the gods guarantors of a certain action), σπένδωμαι 'take one another as mutual guarantors; enter into a mutual agreement; accept a guarantee', Hit sipand- ~ ispand- 'pour a libation', TochAB spānt- 'trust' (≠ "accept a guarantee"). Widespread and ancient in IE.

*gheumŋ 'libation'. [IEW 447 (*gheu-); Wat 22-23 (*gheu-)]. Grk xēumα 'that which is poured', Pthryg ξευμάν 'libation', Olnd hōman- 'libation', hotā- 'offering', hōtār 'priest', cf. Arm jawnem 'offer, consecrate', Av zaotra-'sacrifice', zaotar-'priest'. From *gheu- 'pour'.

*leib- 'pour, make a libation'. [cf. IEW 664 (*léi-); Wat 36 (*léi-)]. Lat libāre 'taste, sip; pour out, make a libation', libum 'sacrificial cake (soaked in honey)', Grk λειβό 'pour out (drop by drop)'. Although attested in only two stocks, it would appear that we have the reflex of something of some antiquity in IE in this word.

PIE *spend- poses certain problems of interpretation. As E. Benveniste observed, the Hittite word indicated purely a religious act, i.e., a part of a sacrifice, while the Latin was entirely juridical, e.g., it is used characteristically in the wedding ceremony where the response to being asked whether one gives one's daughter or takes one's daughter to be someone's wife is spondeō 'I do (pledge)', cf. the derivative sponsus 'husband' and sponsa 'wife' which by way of French gives NE spouse. The Greek cognates include both concepts, i.e., 'pour a libation' and 'conclude a pact' and the context of the former meaning does not always suggest that the libation was at the conclusion of an agreement. In its earliest attestations, in Homer, the term indicates 'to pour a libation' on the occasion of some particularly difficult situation as a way to invite the support of the gods to protect someone. The middle form σπενδωματι indicates that it is not so much the gods but the individuals involved who take each other as guarantors. Benveniste argued that the underlying semantic development began with the 'libation' and then developed its juridical sense of 'make an agreement, accept a guarantee'.

The proper libation is indicated by *gheumŋ which derives from a well attested verb *gheu- 'pour'. While the Greek word suggests the pouring of any liquid, the Old Indic form refers specifically to the pouring of the melted butter on the sacrificial fire. It has also been observed that *gheu- 'pour' is employed in Latin, Greek and Old Indic not only for the pouring out of liquids but also speech, particularly that concerned with sacrifices in Indic, e.g., 'these songs of praise...I pour (juhomi) to the Adityas...with an offering spoon' (RV 2.27.1), and elevated poetic passages in Greek, e.g., 'may you hear from me pouring forth (ξεόδας) prayers...' (Aeschylus Suppliants 631), and Latin, e.g., 'had Cloanthus not poured forth (fudisset) prayers...' (Aeneid 5.234). These may either be independently developed metaphors or reflect an earlier IE motif that associated the 'pouring out' of both liquid offerings and prayers.

The form *leib- suggests the dripping of a liquid in offering. In Homer it is employed in contexts suggesting that it represented a few drops poured from a cup before its consumption in order to appease the deities.

See also PRAY; SACRIFICE. [D.Q.A., J.P.M.]

Further Readings


LICK

*leigh- 'lick'. [IEW 668 (*leīg-); Wat 36 (*leīg-); Buck 4.5]. OIr līgd 'licks', Wels līfu 'lick', Lat lingō 'lick', OE lecan 'lick' (> NE lick), OHG leccion 'lick', Goth bli-gōn 'lick', Lith lieti - laizau 'lick', OCS ližati 'lick', Grk λείξω 'lick',

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LICK

Arm lizem 'lick', Av raæza- 'lick up', Olnd leh- 'lick'. Widespread in IE, it is likely to have been the primary word for 'lick'.

*leb*- 'lick'. [IEW 651 (*leb-); Wat 34 (*leb-); Buck 4.59]. Lat lambó 'lick', Nlice lepa 'spur', OE lapian 'lap' (> NE lap), OHG laffan 'lick', Grk λάγων 'spur, drink', Arm lap'el 'lick'. Reasonably widespread and at least a word of the west and center of the IE world, but phonologically marked as a "popular" word by both the /a/ and /λ/ See also *leb- 'lip'.

*lak*- 'lick'. [IEW 653 (*lak-), BK 589 (*lak[pl.]/*lak[fl.]-)]. Lith lakú 'lap up', OCS loc ju 'lick', Arm lakem 'lick'. Probably in origin an onomatopoetic word in late PIE where it was confined to certain central dialects.

See also Eat and Drink; Kiss; Suck. [D.Q.A.]

LIE

*kei*- 'lie'. [IEW 539 (*kei-); Wat 27-28 (*kei-); GI 256 (*kei-); Buck 12.14; BK 259 (*k[pl.]/*k[fl.]-)]. Grk κείμαι 'lie', Hit kittari 'lies', Av sāete 'lies, rests', Olnd sāye 'lies'. All cognates agree in conjugating this verb in the middle voice rather than the active. Distribution secures PIE status at least to the center and east of the IE world. In IE poetic language this root also conveys the sense of lying deceased, e.g. Grk (Homeric) κείμαι Πάτροκλος 'Patroklos lies', Olnd aihih 'sayate 'the serpent lies'.

*legh*- 'lie'. [IEW 658-659 (*legh-); Wat 35 (*legh-); Gl 186 (*legh-); Buck 12.14; BK 587 (*lag-/lag-)]. Mlr laigd 'lies', Lat lectus 'bed', OE līgan 'lie' (> NE lie), OHG līgan 'lie', Goth ligan 'lie', OCS lēzati 'lie', Grk λέγεται 'lies', Hit lāki 'lays aslant', lagāri 'lies aslant', TochA lake 'bed', TochB leke 'bed', lyāk- 'lie'. Although most languages treat this verb as thematic, the Homeric Greek aorist form λέγετο suggests that the verb originally belonged to the athematic conjugation. It is striking that in several languages this root parallels *sed­sit', e.g., OIr saidid 'sits with laigd 'lies', Goth sitan 'sits' with līgan, OCS sīdo 'sit down' with lēzō 'lie down'. Distribution secures PIE status. A suffixal o-grade form of the root *legh-o- may underlie ON lög (pl.) 'law', borrowed into English as OE lāgu (> NE law), via the meaning 'something laid or fixed'. A similar semantic development is exemplified by OE dōm 'statute, law, judgement' (> NE doom), which is based on the root *dēh₁- 'put, place'. A lengthened-grade form of the root *legh- underlies Germanic and Baltic forms meaning 'low, flat, level' (< *lying down flat'): ON lafr 'low', OE lah 'low' (> NE low), MHG lēge 'flat', Lith lėksnas 'flat', Latv lēzns 'flat'.

See also Bed. [M.N.]

LIE²

*leugh*- 'lie, tell a lie'. [IEW 686-687 (*leugh-); Wat 37 (*leugh-); Buck 16.67]. ON ljôga 'lie', OE leogan 'lie' (> NE lie), OHG liungan 'lie', Goth liungan 'lie' (cf. ON lokka 'allure, entice', OE loccian 'attract, entice, soothe', OHG lokhōn 'entice' (< *lühghe₂), Lith lūgōti 'ask', Latv lūg 'ask', OCS lūžo 'lie'. A word of the northwest of the IE world.

See also Deceive. [D.Q.A.]

LIFE

*ðaiōjas (gen. *ðaiōs) 'vital force, life, age of vigor'. [IEW 17 (*ðaiu-), Wat 1 (*ðau-); Gl 702 (*ðauw-/*ðaw-)]; OIr ãis 'life', age', Lat aes 'life, age', æ (< *ðaiōs)- 'always', OE æ(w) 'law, marriage', a 'always', OHG ewa 'eternity, law', ëwin 'eternity', io 'always', Goth aiwa 'time, eternity', Grk aïω δ 'vitality, lifespan, ἀν ψ 'law, marriage', Olnd áyu- 'always', 'life, lifespan'. To the original meaning 'vital power, life' is the connotation of duration which can be seen in Grk διαλείπων 'having a long life', Av darag-áyu- 'long-lasting', Olnd dirgh-áyu- 'long-lasting'. Widespread and old in IE. The root *ðai-, in the zero grade, with the same n-enlargement as in Olnd (instr.) áyuni and (loc.) áyuna 'life' is found in PIE *ðaiuənun- 'youth': Lat iuvenis 'youth', OHG jugand 'youth', Indo-Iranian *həuti­en- 'youth', etc., or with the "possessive" suffix -*hi­en-, *həu­hi­en- The association with law and religious issues in Germanic seems to be a late semantic development.

See also Strength, Young. [E.C.P., D.Q.A.]

Further Reading


LIFT

*telh₂- 'lift, raise' (telh₂-ti). [IEW 1060-1061 (*tel̂-); Wat 69 (*tel̂-); GI 152 (*pel̂-); Buck 10.22; BK 98 (*p[pl.]/*p[fl.]-)]. Mlr tlenaid 'takes away', Lat tollō (< *tl-no-) 'lift, ON ‹pela› 'endure', OE ‹pelan› 'endure' (> NE theole), OHG ‹dalen› 'endure', Goth ‹plulan› 'endure', Grk (aor inf.) ταλάξωνι 'bear, suffer, endure', Arm tōw 'let, permit', Olnd tula- 'scales', TochAB tal- 'uphold, keep raised, raise, lift, acquire' (TochB present talla- < *tala­). Distribution indicates PIE status. Note that Celtic, Latin and Tocharian all point to a nasal suffix in the stem, suggesting that the stem can be reconstructed as well.

*kelh₁)- 'lift, raise up'. [IEW 544 (*kel-); Wat 28 (*kel-); Buck 10.22; BK 305 (*k[pl.]/k[fl.]-)]. Lat ante-, ex-, pra­cello- 'surpass' (< *kel-), Lith kelti/kel­iu 'raise up', kilt­ kylu 'raise oneself up', Grk κελ­ηται 'vertical beams in the upright loom', TochAB kaly- (< *k[pl-]e-o-) 'stand, stand still; last' and nominal derivatives (with the meaning 'hill, etc.') in Celtic, Germanic, Slavic and Greek.

See also Hill, Put, Stand. [M.N., D.Q.A.]

LIGHT

*louk(es)- 'light'. [IEW 687 (*louko-); Wat 37 (*leuk-); GI 40, Buck 1.61; BK 580 (*law-/*law-)]. Lat fux 'light', Arm loys (gen. luso­y) 'light' (Armenian from palatal variant *leuk-), Av raocah- 'light', Olnd rocs- 'light', TochB lyuke 'light'. Widespread and old in IE. From the highly productive verbal root *leuk- 'shine'.

*bhbēza(s)- 'light'. [IEW 104-105 (*bh-); Buck 1.61; BK 20 (*bh-/*bh-)]. Grk φως 'light, daylight', Olnd bhās- 'light'. It seems natural to see in this Greek-Old Indic equation
an inherited s-stem derivative of *bheh₂- 'shine'. The Greek is usually taken to be from *bh₂h₂-u-es- but there is no trace of a *-u- in any of the dialects that normally preserve it. The correspondence could be the result of independent creations in both Greek and Old Indic but the unproductive morphological shape would favor common inheritance. Cf. Luv piha- 'splendor, might' (< *bhēh₂-). From *bheh₂- 'shine'.

*bhēh₂tis (gen. *bhēh₂tēs) 'light'. [IEW 104 (*bhā-); Wat 5 (*bhā-); BK 20 (*bah-/bash-)]. Grk ἅλκης 'star rise', Olnd bhātī- 'splendor, light, perception'. From *bheh₂- 'shine'. The Greek-Old Indic equation may be a mirage, as it is entirely possible that the two words are independent creations in the two stocks.

See also Bright, Color, Shine, White. [D.Q.A.]

LIGHT²

*h₁lė(n)gʰh₁- 'light (of weight), light (on one's feet).

[IEW 660-661 (*legʰh₁-); Wat 35 (*legʰh₁-); GI 685 (*legʰh₁-);] Buck 15.82. Olr laig(h) 'lighter, poorer', MWels le(i) 'less', Lat levis (< *h₁legʰh₁-u-i-) 'light', ON leit 'light', OE leocht 'light (< NE light), OHG lith(t) 'light', Goth leiths 'light' (Gmc < *h₁lē(n)gʰh₁-t(i)-o), OE lungre 'rapid', OHG lungar 'rapid', Lith leitgvas ~ lengvas 'light, easy, slight', Latv lieks 'light', OCS ligátka (< *h₁legʰh₁-u-ko-) 'light', Alb lehte 'light, soft, slight, nimble', Grk ἅλκης (< *h₁legʰh₁-u-) 'small, little', ἅλκνος 'light, fast', Oss ĭrēwog (< *h₁legʰh₁-u-oko-) 'light', Olnd raghū- ~ laghū- (< *h₁legʰh₁-u-) 'fleet, fast', TochB lankiše (< *h₁legʰh₁-u-o-) 'light'. Cf. ON lungo 'lung', OE lungen 'lung' (< NE lung), OHG lunga 'lung', Arm lanjk 'breast' (< *lunjk-s), as the lightest internal organ, one that floats; cf. the dialectal NE lights 'lungs'. It may be that there were originally two roots here: *h₁legʰh₁- 'light of weight' and *(h₁)mėngʰh₁- 'swift' (cf. Olr lingid 'leaps, lémm 'a leap', Wels lám 'leap' [Celtic < *légʰ-s-men-], Av ranjati 'spreads', Olnd lánghati 'leaps, ráimhate 'hastens') but it seems likely that, if so, the semantic and phonological similarity had caused the two to be confused even in PIE times. In any case, widespread and old in IE.

See also Fast, Heavy. [D.Q.A.]

LINDEN

*lenteh₂- 'linden (Tilia spp.)'. [IEW 677 (*lenta-); Wat 36 (*lento-); Fried 90–92]. On lind 'linden', OE lind 'linden' (> NE lime with dissimilation), OHG linta 'linden', Lith lenta 'linden' (linden) board), Rus lüt 'linden', lustie young linden ready to be stripped'. Alb lende 'wood, material', lende (< lenta) 'linden', lbs (< lento-)'oak'. To this might be added Lat lentus 'pliant, sticky'. A word of the west and center of the IE world.

*lēpeha₂- 'linden (Tilia spp.)'. [Fried 90–92]. Lith licep 'linden', Lat lēpa 'linden' (< Proto-Balto- *leipa), Ukr lēpa 'linden' (< Slav *lipa). To the Baltic and Slavic set has sometimes been compared MWels llwyf(en) 'elm, linden', and Celtic place names in Limo- etc. (< Celt *leimo-) although this is more likely from *lēlema 'elm' because of the similarity between the two trees. Also dubious are attempts to relate Grk (Hesychius) ἀλίκα 'a kind of oak' (if < *linden). The word may derive from *lip- 'to stick to, to slip, smear' with a shift to the tree name because of its special properties.

There is a sharp contrast between botany and linguistics. The tree was present in many forms and used in many ways in any case, widespread and old in IE.

See also Fast, Heavy. [D.Q.A.]

LIGNING

*meldh- 'lightning'. [IEW 72 (*meldh-); Buck 1.57]. Wels melit (< *meldh₁is-) (pl.) 'lightning', ON Mygnir (< *meld₁una-) (Pörr's hammer), OPrus meald (< Proto-Balto *meld₁a-) 'lightning', Latv melna (< Proto-Balto *mild₁a-) (hammer of the Thunderer), OCS mlan 'lightning', Rus molniya (< *mild₁nija < *mldh₁ni-) 'lightning'. A northwest dialectal term in late IE.

See also Oak, Thunder. [R.S.P.B.]

LIMP

*h₂pēpes- 'limb, part of the body'. [cf. IEW 50–51 (*ap-)]. Hit happessar 'limb, joint, part of the body', Oss alēxeg 'projecting part of body, neck', Olnd apsa- 'protruding body

part, breast, forehead, tusk', TochA āpsā (pl.) 'limbs'. From *h₂pēp- 'fit, fasten (oneself to)'. Though rather a banal derivative, *h₂pēpes would appear to be old in IE with this meaning.

*mēlos- 'limb'. [IEW 720 (*mel-); Wat 40 (*mel-)]. Bret mell (< melseh₂-) 'knuckle', Grk μέλος 'limb'. Whether Lith melmenys 'flesh surrounding the kidneys', melmuo 'small of the back, backbone', Latv melmenī 'region of hips, sides, groin', Olnd mārman 'vital spot, joint, organ' belong here or not is unclear. In any case the agreement of Celtic and Greek would appear to guarantee at least PIE status for this word.

See also Anatomy, Arm, Joint, Leg. [D.Q.A.]

Further Reading

during the Atlantic period: the linden was an essential part of the early IE world.

See also Soft; Trees. [P.F]

LINEAGE

**ser-** 'line up'. [IEW 911 (**ser**-); Wat 58 (**ser**-); BK 170 (**s'ir/**s'er**-)]. OIr *sernaid* 'arranges', *sreth* (**s'stå**-) 'row', Lat *sērō* 'line up, join, link', *sors* (**s'ti**) 'lot', Lith *sēris* 'thread', Grk *e̱pō* (**sēriō** with loss of initial aspiration) 'line up', Hit *sarrā* - 'break', OInd *sara*- 'thread'. Distribution suggests PIE status.

**reik**- 'scratch, line'. [IEW 858 (**reik(h)**-); Wat 54 (**rei**-); Buck 12.84]. Wels *rhwyg* 'break', OE *raw* - *raw* (**roik-**-**yō**-) 'row, line' (> NE row), MHG rih 'line', Lith *rieké* 'slice (of bread)', ?Grk *ēpeixw* bend, bruise, OInd *rekha* - *lekhā* 'line'. From **rei-k**-, extended form of **rei**- 'to scratch, cut'. This extension has only a limited distribution suggesting late IE status.

**yorhgs** (gen. *yorhgos*) 'chain, row, series'. [VW 545]. Alb varg 'chain, row, string, strand; series', Grk *ὑργος* 'row of vines', TochB warke 'chain, garland'. At least a word of the center and east of the IE world.

See also Border; Right; Tear. [A.D.V, D.Q.A.]

LINEAGE

**s(w)ebh**- 'lineage'. [IEW 883 (**s(u)ebh(o)**-); Wat 67 (**s(w)e**-); Zem 6.13.5]. From **sabh-** we have OE *sibb* (> NE *sib*) 'relationship; kin', OHG *sipp(e)a* 'group', Goth *sibja* 'group', Thrac *Zaβdzcis* (epithet of Dionysus, cf. Grk *Ελευθέριος and Lat Liber*), OInd *sabhā* 'assembly'. From **svebh**- we have OCS *svobodo* 'free' and perhaps OLat *suodalis* 'associate', Lat *sodalis* 'associate' (if not from **suedho**- below), and to these may be added tribal names as the German tribe of the *Suub* (OHG *Swabā*) 'Swabians' and Semnones (< *Seb(a)names*) 'Semnones'. Distribution suggests that this word is of at least PIE antiquity.

**suedho-** 'lineage'. [IEW 883-884 (**suedh**-); Wat 67 (**s(w)e**-)]. OLat *sudalās* 'associate', Lat *sodalis* 'associate' (if not from *svebh* above), Grk *θέσος* (Laconian *θέος*, i.e., Proto-Grk *θιθός* 'custom, habit', possibly OInd *svadhā* 'homestead, kindred group'. If these words do go with one another, the distribution would suggest PIE status.

Alternate terms for the lineage such as **sabh**-, from which NE *sib* derives, and *svedh-* emphasize the commonality of residence as a feature of shared kinship. It appears that Proto-Indo-European family-life was centered around a "great family" of two or three generations occupying neighboring but separate residences which formed the **yik**- or homestead, the physical representation of the extended household, *yōikos."

See also Family; Kinship. [M.E.H.]

LINEAR WARE CULTURE

The Linear Ware (German *Linearbandkeramik*) culture is the major Neolithic culture of temperate Europe which spanned the region from the Netherlands, Belgium and northern France on the west to Romania and the Ukraine on the east. The culture flourished during the period c 5500-4500 BC, the terminal period seeing the emergence of various regional derivatives (e.g., Rössen in the west and Lengyel in the east). Settlements are typically distributed over loess soils and consist of small villages that spread horizontally over large areas through time. The Linear Ware sites mark the earliest intrusion of farmers into much of temperate Europe.

Both open sites and ditch-enclosed sites are known. The individual villages consisted of perhaps five to ten houses at any time. Settlements frequently include long houses measuring about 6 m wide but 20 to 45 m in length, divided into what would appear to be functionally different rooms (living, storage).

The economic system was based on mixed agriculture and stockbreeding. Among the arable component the following plants are recovered: wheat (*Triticum monococcum, T. dicoccon, T. aestivum, T. spelta*), barley (*Hordeum vulgare*), millet (*Panicum miliaceum*), and small amounts of both rye (*Secale cereale*) and oats (*Avena sativa*); other cultigens include peas (*Pisum sativum*), grass pea (*Lathyrus sativus*), lentils (*Lens culinaris*), flax (*Linum usitatissimum*). Poppy (*Papaver setigerum*) is conspicuous in the western regions but generally absent from the eastern part of this culture's distribution. Occasionally, hemp (*cannabis*), cherries (*Prunus*) and Cornelian cherry (*Cornus mas*) are recovered. Most samples indicate that the main crop was wheat while barley tends to be attested in smaller amounts or in somewhat later phases. Among the domestic livestock cattle predominates while the second position may be filled (in terms of number of individuals) by either ovicaprids (sheep/goat) or pigs. The domestic dog is generally present in small numbers. There is a considerable range of wild animals, the most prominent numerically being red deer, roe, aurochs, wild pig, wild horse. Other species include beaver, bear, badger, wolf, fox, hare, and hamster.

The culture takes its name from its ceramics, which are...
decorated with linear geometric or curvilinear designs. Cemeteries are found close to villages with burial in the flexed position accompanied by pottery, tools and ornaments as grave goods. Analysis of the physical type of the deceased indicates that the population of the Linear Ware culture belonged to the gracile “Mediterranean” type.

The Linear Ware culture has always played a critical role in the discussion of a possible IE homeland in Europe. Its appearance over a vast area suggested that it was initially spread by a highly mobile population, expanding by slash and burn agriculture, where forests were cleared by fire, and soil exhaustion continually drove farming communities to open new lands (an economic model now widely rejected). There was also little evidence for the incorporation of local Mesolithic communities whom these earliest farmers putatively replaced. The culture occupied the same territory which, by the Bronze and Iron Ages, would have incorporated many of the local territories of various IE-speaking stocks. Its very virtues, however, were turned against it since its marked cultural uniformity over a broad region was seen to be confined to that very area hence it could not be employed to explain movements into the Mediterranean and the steppe regions of eastern Europe much less Anatolia, Iran and India. Moreover, it was seen as a typically peaceful farming society incapable of subjugating foreign lands (death by violent acts has now been recorded among Linear Ware burials). The realization that Linear Ware settlements were also enclosed by ditches helped mitigate the later problem and a Linear Ware solution was favored in monographs on the IE homeland by G. Devoto and P. Bosch-Gimpera.

Currently, the most vigorous case for a Linear Ware association with at least a major segment of the Proto-Indo-Europeans is being made by János Makkay who has detailed the reasons for assigning it to PIE speakers: 1) agricultural economy; 2) similarity over wide region attesting close linguistic and ethnic ties; 3) marked difference between itself and its neighbors; 4) continental rather than coastal nature of PIE society; 5) temperate rather than Mediterranean environment of PIE society; 6) proximity to Uralic languages; 7) distribution coincides with early IE agriculturalists in contrast to those tribes east of the Linear Ware culture who should be seen as Indo-Iranian pastoralists; 8) area includes the Old European hydronymic (river name) system; 9) area of distribution is outside those areas easily excluded as non-IE, e.g., Iberia, Mediterranean coast, but close to same areas which would require colonization by IE groups; 10) area is only possible staging area for later migrations into Italy; 11) most likely staging area for absorption of non-IE substrates in western Europe; 12) only probable staging area for spread of IE languages to northern Europe; 13) cultural similarity and proximity with Balkan and perhaps Anatolian Neolithic cultures which should have proved ancestral to other IE groups.

See also Indo-European Homeland; Lengyel Culture (J.P.M.)

Further Readings
LION

**?l(w)-** 'lion (Panthera leo)'. [Cf. Gl 427–428 (*leu-*)]. OCS *ltva* 'lion', Rus *lev* 'lion', cf. Grk *λιον* 'lion'. If the Slavic reflects *l*-*w*-o, then Greek would reflect a root noun *lw*. If Slavic is *l*-w-o, then Greek would be *lw*-i (cf. *týrōs* 'tiger' and πάρδαλις 'leopard'). (From OCS *ltva*, via an unattested Goth intermediary, comes OHG *leu* 'lion'; from Rus *lev* comes Lith *lėvas* 'lion'). Traditionally the Greek word is taken to be a borrowing from Hebrew *leyis* 'lion'. While this is possible there is no clear motivation for such a borrowing as lions lived in Greece and were also to be found in both the Balkans and Anatolia, the two areas commonly ascribed to the pre-Greeks before their arrival in their historical seats.

The cave lion (*Felix leo spelaea*) ranged rather widely from Italy and north of the Alps eastwards across Asia during the Pleistocene but had become extinct in many areas by early historic times. It was, however, known from the Neolithic period through the Iron Age in the Balkans (Herodotus speaks of lions in Thrace) and western Ukraine, and native lions are also known from Bronze Age deposits in Greece. The distribution of the lion also extended through western Asia (it was formerly known in both Iraq and Iran) and into India (Gujarat) although there lions may have ultimately derived from Africa. It does not seem accidental then that the two IE groups longest in continuous contact with lions (Slavs and Greeks) should have a similar word for them. The figurative associations of Olnd simhā 'lion' involves kinship as is also the case from various Near Eastern and by derivation European traditions.

See also ANIMAL, LEOPARD, MAMMALS. [D.Q.A., J.P.M.]

LIP

*gheunlocka* - lip'. [IEW 436 (*gheluna*); Wat 22 (*gheluna*); Buck 4.25]. ON *gipnar* (pl.) 'jaws', Grk *χειλον* 'lip' (*έχειλον* ['Aeolic *χέλλον*] 'lip' may be from an apocopated *ghelun*; otherwise from *ghele-s-o-*. Arm *jethn* 'palate'. Though not widely attested, the oldest reconstructible word for 'lip' in PIE.

*leb* - lip'. [IEW 655–656 (*leb*); Wat 35 (*leb*); Buck 4.59]. Lat *labium* 'lip', *labrum* 'lip', OE *lippa* 'lip', OHG *leffur* 'lip'. Cf. Hit *lipp- *līcka'. As 'lip' a 'wasternism' in late PIE.

See also ANATOMY, KISS, LICK, MOUTH. [D.Q.A.]

LITTER

*thelton* litter'. [IEW 128–129 (*thoral*); BK 6 (*bar-* / *bar-*)]. Lat *lerculum* litter, frame', Grk *φέρπτηρ* 'bier, litter', Olnd *bharitra- 'arm'. Both the verbal root *bher- 'to carry', i.e. 'that by which something is carried' and the suffix are widespread and may have been independent formations. Moreover, the Old Indic meaning seems very distant to be cognate. The form of both Greek (with *-e*) and Old Indic (with *-e*) suggest later creations, as if from PIE *bher-trom* where the *-h* has been misdivided from verbal roots originally ending in a laryngeal.

See also BED, CARRY. [A.D.V.]

LIVE

*ge* *eih3* - 'live'. [IEW 469 (*geie*); Wat 24 (*gei*); Gl 387 (*k* *le*); Buck 4.74]. Present *ge* *h3* *ue*-o-: Lat *vivō* 'live', OPrus *gwa* 'live', Lith *gyjū* 'become healthy', Latv *džju* 'become healthy', OCS *živō* 'live', Av *jvāti* 'lives', Olnd *jvati* 'lives'; present *ge* *h3* *ye*-o-: Grk *ζώω* 'live', TochnA *so*- 'live', TochB *sāw*- 'live'. Cf. also the widespread derivative *ge* *h3* *uos* 'living': Olfr *bėo* 'alive', Wels *byw* 'alive', Lat *vivus* 'alive', Goth *quis* 'living', Lith *gyses* 'living', Latv *dzīvs* 'living, fresh, healthy', OCS *živō* 'living', Grk *βίω* 'life', Av *jva*- 'alive', Olnd *jīvā* 'living'. (Related in some way are ON *kvikr*, OE *cwic* (> NE *quick*) as in 'the quick and the dead', OHG *quek*, also 'living'). Nearly universal in the IE languages (though lacking in Hittite) and clearly of PIE antiquity. The term apparently referred to all classes of living things, both plants and animals. [D.Q.A.]

LIVER

*jekw* *r(t)* 'liver'. [IEW 504 (*jekw*-r(t)-); Wat 79 (*yekw*-r); Gl 715 (*yekwʰ-r(t)-r(t)-); Buck 4.45]. Lat *secur* (gen. *secoris* ~ *iocineris*) 'liver', OPrus *iagnó* 'liver', Lith *(j)eknos* (pl.) ~ *(j)aktnos* (pl.) 'liver', Latv *aksnas* 'liver', Grk *γκόπ* 'liver', Av *yákara* 'liver', NPers *jgar* 'liver', Olnd *yakht* (gen. *yaknas*) 'liver'. Presumably the most likely candidate for the PIE word for 'liver', but see below.

*lesi* - 'liver'. [Gl 715]. Arm *leard* (*lesi*- with the ending of the competing *jekw* *r* 'liver', Hit *liss* - 'liver'. Either this word represents a very old word for 'liver', replaced almost everywhere by *jekw* *r* or, more likely, an Anatolian innovation that, like a number of Anatolian words, was borrowed by Armenian.

See also ANATOMY. [D.Q.A.]

LOINS

*isghis* - 'loins'. Grk *iscixov* 'hip', Hit *iskis(a)- 'loins'. Cf. also metaphesized *i₇s*- 'loins, groin'. Lat *ilia* (pl.) (< *i₇s₇a₁*-) abdomen below the ribs, groin, flanks', Grk *ίππς* 'loins, groin'. Though rather spottily attested, surely the PIE word for 'loins'.

*londh* (gen. *lpdhōs*) 'loins'. [IEW 675 (*lendh*); Wat 36 (*lendh*).] Lat *lumbus* (< *lpdhōs*) 'loin', OE *lendenu* (pl.) 'loins', OHG *lentiz* 'kithneys', OCS *lętvjé* 'loin', Rus *ljädveja* 'loin, hip' (Gmc and Slavic < *londhýa*), Olnd *rândhram* (by assimilation < *rándhvin* ± 'loins'). Also related are ON *land* 'loins, kidney-lat' (pl. 'flesh under the backbone'), OE *lynd* 'fat', *lundlag* 'kithneys', *gelyndu* 'loins', OHG *lund* 'fat, tallow'. With the Old Indic cognate, clearly of PIE status.

See also ANATOMY, HAUNCH. [D.Q.A.]

Further Reading


LONG

*duhe₂-roś ~ *dyehe₂-roś* long (of time, space). [IEW 210–
220 (*dū-ros-); Buck 12.44; BK 139 (*taw/*taw-). Lat dūrāre 'to last', Grk ἀμφότερος, ἀμφότερον 'long, too long', Arm erkar 'long (in time)', Av dūre 'far', Olnd dūrā- 'far, distant'. Hit tūwā- 'far, distant' has been placed here, reflecting a different formation in -io-., i.e., *duhī-, rather than -ro-. Olr cunrdad 'commerce, act of buying and selling, contract' has been placed here but is very unlikely. A zero-grade is found in Latin and Indo-Iranian while Greek and Armenian point to *duhī-. Still, wide distribution supports PIE status.

*dhughos 'long'. [IEW 197 (*delegh-); Wt 11 (*del-); Gl 685 (*t'elh(n)ĝoh-); Buck 12.57; BK 123 (*t'al/*tal-)]. Lat in-dulgeo 'am long-suffering, indulgent', OE tulege 'rather', Goth tulgus 'firm, steady', OPrus ilga 'long', Lith igas 'long'. Latv ilgs 'long (the initial *d- lost in Baltic in combination with the immediately following *-l-), OCS dlugā 'long', Rus dolgiy 'long', Alb gata (*dhugho-) 'long', Grk δολίχος 'long, εὐδολίχης 'long-lasting, uninterrupted', Hit daluki- 'long', dalagasti 'length', Av daraga- 'long', dājra- 'length', Olnd dirghā- 'long', draghāyatā 'lengthens'. Cf. the derivative *dhughothēk- in OCS dlugota 'length', Olnd dirghatā 'length'. Widespread and old in IE.

*dlonghos 'long'. [IEW 197 (*d)longho-); Wt 11 (*del-); Gl 685 (*t'elh(n)ĝoh-); Buck 12.57; BK 123 (*t'al/*tal-)]. Lat longus 'long', ON langr 'long', OE lang 'long' (> NE long), OHG lang 'long', Goth laggs 'long', MPers drang 'long'. Related in some way to the previous entry. Not as widespread but clearly old in IE.

*mērk- 'long, especially thin, slender'. [IEW 699 (*māk- ~ *māk-); Wt 38 (*māk-); Gl 179 (*t'elk̂-ro-); Buck 12.57]. Lat macer 'thin', ON magr 'thin', OE mag(e)r 'thin', OHG magar 'thin', Grk μακρός 'long, thin, μύκτος 'length', Hit maklant- (< *mak-ro- with -ro- > -lo-) 'meager', Av māk- 'long', *māk- 'length'. Olr mēr 'finger' has been suggested but is unlikely. The close correspondence in form and meaning has led some to propose that the Germanic forms were loaned from Latin but that, while possible, remains speculative. The semantic development would appear to be: 'long > 'thin, meager'. While much of this etymology is shaky, enough remains to suggest probable IE status.

*setos (*scheros) ~ *setos (*scheros) 'long'. [IEW 891 (*se-ro- ~ *se-ro-); Wt 56 (*se-ro-); Buck 12.57]. Olr str 'long lasting', Mil sith- 'long', Wels hir 'long, tall, lengthy', Lat sēreus 'late', setius 'less, worse', ON sīd 'late', OE sēd 'long, wide', OHG sēd 'late', Goth seisus 'late'. The inclusion of Olnd sāyam 'evening' here is uncertain. It is best to regard this as a northwestern development of late PIE *seh₂(i)- 'throw, neglect' with both -r- and -t-forms.

See also LEAVE; NARROW; THIN. [J.C.S., D.Q.A.]

LOOSE see RELEASE

LORD see MASTER

LOUSE

*lū- (*lus-) 'louse'. [IEW 692 (*lūs); Wt 37 (*lūs-); Gl 453 (*lūs-)]. Wels llau (< *luu-) 'louse', ON lūs 'louse', OE lūs 'louse' (> NE louse), OHG lūs 'louse' (Gmc < *lūs ~ lūs, the old nominative singular), Lith vievsa 'goose or cattle louse', viū- 'hādū louse', Latv uts ~ uš ~ uščē louse', OCS věš 'louse', Rus vosť 'louse', Olnd yōkā 'louse'. Even more than in the case for 'ant', this word for 'louse' has been reshaped phonologically because of its heavily affective meaning.

*Kōnid- 'nuit, louse egg'. [IEW 608 (*knīd/*knid-); Wt 32 (*knid-); Gl 453 (*knīd-)]. Olr snēd 'nuit', Wels nedd 'nuit' (Celtic < ŝknedh-,?) ON gnit 'nuit, louse eggs', OE hniţ 'nuit (> NE nuit), OHG (h)nīz 'nuit' (Gmc < *knīdeh-2), Lith glinda 'nuit', Latv gnīda 'nuit', Rus gnīda 'nuit', Alb theire (< *konid-) 'nuit', Grk κοινίς (κοινίς) 'nuit, eggs of fleas and bugs', Arm anic 'louse' (by dissimilatory loss < *sanic < *konid-). From a preform something like Lith glinda probably comes Lat lēns (gen. lendis) 'nuit'. Though its exact PIE shape is difficult to reconstruct because its various descendants have undergone phonological deformation of one sort or another, this word seems clearly to have been originally pan-IE. Its exact semantic relationship to the next threesome of words is hard to reconstruct as well.

*rīk- 'nuit, tick'. [IEW 335 (*erek-)]. Lat ricinus 'tick, sheep louse', MPers rīkš 'nuit', Oss liskā 'nuit' (Iranian < *risk-, metathesized from *riska-), Olnd likā 'nuit'.

*horkgh- 'nuit'. [IEW 335 (*erek-)]. Alb ergjēz 'nuit, Arm orjīl 'louse, nīt.'

*horkh- 'tick'. [IEW 335 (*erek-)]. Lith ērke ārke 'tick', Latv ērce 'tick', Arm orkhw 'ringworm, tetter, scabies, mange'. By its distribution on the eastern and western fringes of the IE world *rick- would appear to be old in PIE. Both *horkghi- and *horkhki- appear to have been words of the center of the IE world and the latter to have been the result of "crossing" *horkghi- with *rick-.

*dīgh- 'tick'. [IEW 187-188 (*deigh-); Wt 10 (*deigh-)]. Mil dēga 'stag-beetle', OE tíac 'tick', MHG zēche ~ zēcke 'tick', Arm tí 'tick'. Germanic implies a final *-g- while Armenian implies *-gh-; Irish is ambiguous. Though the exact shape of the word is not recoverable, it is clearly one that was current at least in the west and center of the IE world.

See also INSECTS. [D.Q.A.]

LOVE

*kehr- 'love'. [IEW 515 (*kā-); Wt 216 (*kā-)]. The underlying verb is attested only in Indo-Iranian: Av kā- 'long for', kāma- 'desire, wish', Olnd kāyama- 'liking, kāma- 'desire, wish, love'. From a verbal noun *kehr- (gen. *khr-, rós) we find the widespread derivatives: Olr carayd 'loves, care 'friend', Wels caraf 'love', cār 'friend', Lat carus 'dear', ON hōrr 'adulterer', OE hōr 'adulterer', hōre 'whore' (> NE whore), OHG hūor 'adulterer', huora 'whore', Latv kārs 'greedy'.

*kem- 'love'. [IEW 515 (*kā-)]. Lith (pl.) kamarū 'lasciviousness', Latv kāmēt 'hunger'. Olnd kāmāyari 'desires, longs for, is in love with, copulates with', kama- 'charming, beautiful', kamana- 'greedy', TochB kānim- (< *kom-nō-<) 'play'.

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*ken-* 'love'. [IEW 515 (*kä-*)]. Ml r cin (< *kenu-*) 'love, tendency', Av cakan 'be pleased'; canah- 'demand, request', Olnd caka 'is pleased', canas 'pleasure'. These three (*kelu-, *ken-, *ken-) represent different enlargements of the same theme (cf. *gwelh- and *gewem- 'come'). Widespread and old in IE.

*prih(j)-ehu- 'love'. [IEW 844 (*prai-*)]; Wat 53 (*pr-*); BK 622 (*plojjar/*plojar-). On fjra 'love', friendi 'relative, friend', OE frigan 'love', freond 'friend' (> NE friend), OHG friunt 'friend', Goth frixon 'love', frijonds 'friend', OCR prija-jo 'am favorable', Olnd prijyaty 'befriends'. In Indo-Iranian we also have *prih(j)-neh in AV frinatī 'loves, praises', Olnd priniati 'pleases' (cf. priyate 'is pleased'). Attested in the west, center and east of the IE world, this word is surely of PIE date.

Originally a denotative verb from *prih(j)ös of one's own, thus 'dear' (ON frö 'beloved, spouse', OE fró 'woman', freód 'love', AV frīa- 'dear', Olnd priya- 'dear', priya 'spouse', priyātā 'desire'). To this may be added the names of a Gennanic PIE *wif, *wife, Lycian coat, gold, as *vanas-others have sought an IE etymology for the name of this Cern goddess, e.g., 'foam-bright' with Grk ἴτη < PIE *dhē- 'shine' or, most recently, ἄπό- < PIE *abhō- 'very', i.e., < *exceedingly-bright'. It is also suggested that she is a reflection of the IE goddess of the dawn. According to Hesiod (Theogony 190-197), she was born in the sea, out of the foam which arose from the severed genitals of Ouranos. Thus she is given the "popular etymology", the 'foam-born', ἄπό-ίτη. Hesiod writes that she floated to Cythera, and then to Cyprus; many later authors called her "Cypria". The story of her origin as the 'foam-born' is similar to that of the Indic Śrādhā. The latter also had a son, Kāmadeva, 'love-god', whose function was similar to that of Aphrodite's son Ērōs.

Roman Venus (= Greek Aphrodite) was a goddess of love and beauty. Although her name is related to Indo-European words, e.g., OHG wini 'friend', Hit wenzī (she has sexual intercourse), Av vanta- 'won, desired', and Olnd vānas-'loveliness', this name was superimposed upon an indigenous Italic goddess, who later attracted the mythology of Greek Aphrodite. Although cognate terms abound, there are no other cognate goddess names. There were many forms of the goddess, including Venus Verticordia, the goddess who converted the minds of virgins and chaste matrons 'from pleasure to modesty' (Valerius Maximus, Dictionarium Factorumque 8.15.12), and Venus Genetrix, the mother of all. According to Ovid, she created all of the gods, and she gave laws to heaven, earth and sea (Fasti 4.92 ff.). The duo Venus and Cupid (Aphrodite and Ērōs) may be compared to the Indic Śrādhā and her son Kāmadeva, 'love-god'.

Freyja, 'the lady', was a Germanic love goddess, similar to the Greek Aphrodite. Just as Aphrodite, she was identified with gold, as Gullveig. She taught the magic called seiðr. She was thought to enjoy love-poetry, and her assistance was invoked in love affairs. She was also a battlefield goddess, and to her fell half of the slain in battle (compare Baltic Laima). As battlefield goddess, she was the first, or proto-, Valkyrie. She was twin sister of Freyr. Freyja is cognate with the New High German term frau 'woman, lady'. Her chariot is drawn by two cats, descendants of the lions which flanked many Neolithic European female figures. Epithets of Freyja are Gefi 'the giver', and Syr 'sow'. She had a golden necklace, the necklace of the Britsings, which was crafted by four dwarves, with each of whom she passed a night in payment for the necklace. She had a 'falcon coat', and she lent her 'leather form' to others. She thus received the bird imagery of the Neolithic European bird goddess. Her functions and attributes are similar to those of the Near Eastern Ishtar. Recently, she has been compared with both the Slavic deity Prone who was worshipped by the twelfth century Polabians and the Mycenaean Pe-re-w2z. Grk (Pamphylian) Prēiēa, all of which may derive from *prēuheh2-.

See also FAVOR, LOVE GODDESS. [D.Q.A.]

Further Reading

LOVE GODDESS

There is no certain evidence for a PIE Love goddess, although the individual goddesses who fulfill this function may have transparent but unrelated IE names.

Aphrodité was the Greek goddess of love and beauty. Her origin is obscure with many arguing that her worship most likely originated in the Near East, as a form of Mesopotamian Ishtar, eastern Mediterranean Ash'tarte. On the other hand, others have sought an IE etymology for the name of this goddess, e.g., 'foam-bright' with Grk ἴτη < PIE *dhē- 'shine' or, most recently, ἄπό- < PIE *abhō- 'very', i.e., < *exceedingly-bright'. It is also suggested that she is a reflection of the IE goddess of the dawn. According to Hesiod (Theogony 190-197), she was born in the sea, out of the foam which arose from the severed genitals of Ouranos. Thus she is given the "popular etymology", the 'foam-born', ἄπό-ίτη. Hesiod writes that she floated to Cythera, and then to Cyprus; many later authors called her "Cypria". The story of her origin as the 'foam-born' is similar to that of the Indic Śrādhā. The latter also had a son, Kāmadeva, 'love-god', whose function was similar to that of Aphrodite's son Ērōs.

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See also FAVOR, LOVE. [M.R.D.]

Further Readings

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LOWER MIKHAYLOVKA GROUP

Constituent element of the so-called Kurgan tradition that occupied the steppe region of the lower Dnieper to the north Don during the Copper Age, c 3600–3000 BC. It takes its name from the lower level of the fortified site of Mikhaylovka (otherwise known as Mikhaylovka 1) whose upper deposits are ascribed to the Yamna culture. It is known from both settlements and some tens of burials. The faunal remains include sheep/goat, cattle, horse and pig; querns attest agriculture. Burials are typically under low tumuli (kurgans) and small ceremonial enclosures and anthropomorphic stone stelae are also known. It is closely related to the Kemi Oba culture and possibly also the Maykop culture.

See also KEMI OBA CULTURE; KURGAN TRADITION; MAYKOP CULTURE. [J.P.M.]

LUNG

*pleumon (gen. *plumnos) 'lung'. [IEW837–838 (*pl(e)u-mon-); Wat 52 (*pl(e)u-mon-); GI 715 (*pl(e)u-mon-)]. Lat pulmo 'lung', Grk πλευμον ‘lung’, OInd klōman- (< *plōman-) 'right lung'. A derivative of *pleu- 'float'; the lung was the 'floater' because it would not sink in water. Despite its transparent morphology, its wide (if sparse) distribution makes it a reasonably good candidate for (late) PIE status. Another derivative is to be seen in Balto-Slavic *plo-tio-ech: OPrus plauntis 'lungs', Lith plačtis (pl.) 'lungs', Latv plausts 'lung', OCS plusta 'lung'.

*hleht- 'lung, internal organ'. [IEW344–345(*eter-)]. OIr inathar (< *hleht-o-) 'entrails', ON ædr 'vein', OE ædre 'artery, vein, sinew' (pl. 'kidneys'), OHG adra 'vein, sinew' (pl. 'entrails'), OHG inn-ethron 'suet, lard', Grk ἄφρος 'heart', ἄπρο 'belly, abdomen', AV ἄφρος 'comfort, ease'. Adjectival derivatives (*hlehtrós) are ON Ædr 'earliest, previous', OE ædre 'immediately, completely', OHG ãtã 'wise, sharp, quick', Latv ãt 'quick, passionate, hot-tempered' (crossed with *h2ehtr- 'fire'). Though never attested as 'lung'; it seems reasonable to suppose that this organ was included in the sphere of its original designation since it obviously related to *hleht- 'breath'. Perhaps it was the interior of the body in general, the source both of breath and life, and of emotion in general. In any case an old PIE word.

See also ANATOMY; BREATHE. [D.Q.A.]

LYNX

*luk- 'lynx (Lynx lynx)'. [IEW690 (*leuk-); GI 431 (*leukh-); BK 580 (*law-/*law-)]. MIr lug 'lynx' (base meaning, generally figurative meaning 'warrior, hero, fighter'), OŚwed łó (< *luko-) 'lynx', OE liox 'lynx', OHG luhs - luchs 'lynx' (the -ks- of West Germanic may reflect the influence of fox), OPrus lysis 'lynx', Lith lāsis 'lynx', (dial.) įnis 'lynx', Latv lāsis 'lynx', Rus rys 'lynx' (whose r- may come from a

Lower Mikhailovka a. Area of the Lower Mikhailovka culture.

b. Lower Mikhailovka vessel; c. "Censer".
crossing of this word with an adjective meaning 'red'), Grk
\( \lambda \dot{u} \gamma \xi \) 'lynx' (borrowed > NE lynx), Arm (pl.) lusanunk' 'lynxes'. Perhaps belonging here also are Khowar rusk 'marten', Yidgha lu 'marten'. At least a word of the west and center of the IE world. This word is commonly taken to be a derivative of *leuk-'see'. Thus the lynx is named 'the looker' or the like, cf. the sharp-eyed pilot of the Greek Argo, Lynkeus, and the epithet 'lynx-eyed' with reference to extra-sharp eyesight.

Once widespread over Eurasia, the lynx today is confined largely to central and eastern Europe (with pockets in Iberia) although it still extends across western Asia, Iran and throughout Siberia. It does occur in Neolithic faunas of northern, western and southern Europe as well although in quantities that suggest that it was seldom or never hunted for its fur. It is also known from sites in the Pontic region. No matter where one locates the earliest Indo-Europeans, they should have known the lynx. That they might have preserved the name in regions where it had become extinct is suggested by its presence in both Middle Irish and Old English since the lynx had died out in the British Isles quite early in the prehistoric period, the most recent find being only of Mesolithic date.

See also CAT, MAMMALS. [D.Q.A., J.P.M.]
The name of the territory which comprises the modern Macedonian Republic, and bordering territories in south Bulgaria and northern Greece, has been applied to a number of variants of IE languages. Slavic Macedonian represents one of the branches of the South Slavic language stock whose linguistic relationship is reasonably secure. As a (possibly) independent IE language or even stock, the term Macedonian is also employed to describe the language spoken there before the fifth and fourth centuries BC when the rise of the Macedonian state also saw its gradual "Atticization". According to Strabo, the ancient name for the land of the Macedonians was 'HMATHIA' and the name of its people has been explained as derived from μακεδόνς 'tall, taper', with possible reference to either the population's stature or the hills in which they dwelt.

The evidence for a Macedonian substrate rests on coin inscriptions and glosses and our reliable Macedonian vocabulary is limited to about a hundred words plus a series of place and personal names. The majority of these words can be confidently assigned to Greek albeit some words would appear to reflect a dialectal form of Greek. There are, however, a number of words that are not easily identifiable as Greek and reveal, for example, voiced stops where Greek shows voiceless aspirates, e.g., Maced ὁδοὺς but Grk ὤφρος 'eyebrow', Maced δᾶνων but Greek theáνατος 'death' or the Macedonian royal name Βερνίκη 'Bernice' ('± bearing victory') which in Greek would have been 'Φερενίκη'. In some cases there is no corresponding Greek form and Macedonian contributes its own cognate to an IE series, e.g., Maced γόδα 'intestines' is from *gudom 'intestines' (cf. LowGerm kūt 'intestine', Olnd guda- 'intestine, anus'). The evidence, extremely meager as it is, has spawned no less than four historical interpretations for Macedonian. It has been seen as an "Illyrian" language mixed with Greek; a Greek dialect mixed with Illyrian and Thracian; a Greek dialect with a non-Greek substratal influence; and a close cousin of Greek but not part of the Greek stock (and also related to Thracian and Phrygian).

See also Greek Language, Illyrian Language, Thracian Language. [J.P.M.]

Further Readings

MAGGOT see WORM

MAGIC

*keudes- 'magic force'. [IEW 587 (*keud-); Wat 31 (*kewa-); Gl 734–735 (*khewa-)]. OCS čudo 'miracle, wonder', Grk κύδος 'renown'. In a study of the Greek term, Benveniste has shown that in Homer the term does not mean 'glory' but rather indicates the edge given to a hero by the gods which gives him an advantage over his adversaries. It denotes the magic force, the irradiation of power a god can bestow upon a king or hero. It is also something that is recognized by his adversaries, i.e., they perceive that one with κύδος cannot be defeated. Thus it fits better with the Slavic term which indicates 'magic'. From *keuht-, 'pay attention to', cf. Lat caveo 'am careful', OE hieran 'hear' (> NE hear), OHG hör(r)en 'hear', Goth haujan 'hear', OCS čujo 'perceive', Av kavay- 'leader', Olnd kavi- 'wise man'. The underlying semantic development, Benveniste suggests, is 'perceive' > 'perceive something strange' > 'marked with magic power,
charmed'.

*soi1威 'sorcery'. [IWE 892 (*soi-to-)]. Wels hud (< *soito-) 'magic', ON seið 'magic'. Compare also ON sida 'practice sorcery', OE -siden 'magic' (ælfsliden 'fever' < elf-magic). The term may be limited to the northwest although attempts to extend it have been made, e.g., ?TochA nesset 'magic', ?TochB nesit 'magic'. It has also been suggested that the underlying etymology is to be found in the root *seh₁(-)'bind', i.e., 'magic' is something that "binds" or "fetters" someone, cf. ON seisdr 'band, belt', OE sada 'band, noose, cord', Lith salas 'band, fetter', etc., and other etymologies have been proposed. It has also been claimed as a pre-IE substrate term of northwest Europe.

*hолу or *алу 'spell'. [cf. IWE 33 (*alu-), Wat 2 (*alu-); GI 708]. Runic alu 'magic spell', ON al- run 'a myth' (or 'a taboo') — the meaning of neither the Runic nor the Old Norse word is known very precisely but they have some sort of magical import. Hit alwanzar 'witchcraft, sorcery, spell, spell, hex, alwanzah- 'bewitch, hex' (presupposing an unattested *alwanza- 'affected by sorcery, bespelled'). Possibly these are later also Látv aluot 'be distraught', Grk ἀλω 'be beside oneself, lose self-possession under extreme emotion, be delirious' if the meaning has been "secularized" so to speak from *be bespelled'. The Germanic-Hittite equation seems reasonably secure, thus guaranteeing the word's PIE status. Sometimes included here are the Germanic, Baltic, Slavic, and Iranian words for 'beer' (cf. NE ale) since drinking beer may induce a 'bespelled'-like state of drunkenness. However, it is at least possible that the words for 'beer' are to be kept separate.

See also Beer, Binder God; Sacred Drink. [E.C.P, D.Q.A.]

Further Readings

MAGIC

*эрк-kehr- 'magpie'. [IWE 569 (*ker-)]. OPrus sarke 'magpie', Lith šarka 'magpie', Rus soroka 'magpie'. Although sometimes attributed to PIE, the only sure cognate for this word is confined to Baltic and Slavic. Armenian cognates are sometimes suggested but Arrt sarık (< *ker-, *Kr-) designates the 'rose-colored starling' and is perhaps a New Persian loan (< sār 'starling') while Arrt sarek is a 'thrush, blackbird and MArrt sarek is the 'blackbird'; the Armenian word for 'blackbird' kač'akal is a loan from NPers kajala 'magpie'. Similarly, OInd šärka- 'starling' although deriving from the same root *ker- is semantically difficult (the Old Indic name of the magpie was kusakutha- or kālakāda-). Though bird name roots in *ker are suspect of being onomato-poetic, PIE *ker- with a palatal velar was a parent form for various IE dialects, e.g., Grk kόπαζ raven, Lat cornix 'crow'.

The magpie (Pica pica), noted for its forceful personality, arrogant chattering and boldness, is well distributed throughout Europe, southwest Asia and in India, where there are several species. It is generally smaller than the crow, but with a longer tail; its color is black with white patches under the wings and body.

See also Birds. [J.A.C.G.]

MAKE

*kʷer- 'do, make, build'. [IWE 641–642 (*kʷer-); Wat 34 (*kʷer-); GI 151 (*kʰer-); Buck 9:11; BK 331 (*kʰor-)]. Olt cruft 'form', Wels pryd 'form, time, paral work, shape', Lith kurit 'make, build, create', kēras 'magician', kereti 'bewitch, enchant, charm', OCS kručit 'smith', Rus čary 'magic', čarovat' 'bewitch, enchant, charm', Av karaanoi 'does, makes', OInd kāri- 'kpōt 'does, makes, performs; executes; builds'. Widespread and old in IE.

*jeh₁- 'do, make; act vigorously'. [BK 468 (*ya-)]. The underlying verb is seen in Hit šeṭti (< *jeh₁-ti) 'do, makes, performs, acts, signals (with the eyes)', iss(a)- (< *th₁-se-) 'do, make', TochA ya- 'do, make'. Various derivatives are seen in Latin in Jessa 'strength, force', Lat jēga 'mind, thought; wit', OCS jara 'stem, severe, sharp, tart, sour', Rus jaryj 'violent, furious, fiery', Grk ἰππος 'hero (< *one imbued with vigorous activity)', 'Hpa 'Hera' (the embodiment of vigorous activity, (late) Doric ἵππην (= ἱππήν) 'adolescent youth', ἱφῆ youthful power, youth; pubic hair' (the outward sign of youthful maturity), AV yató- 'witchcraft, sorcerer', OInd yatu- 'witchcraft, magic; ghost, apparition'. Surely old in IE.

*kon- 'do, make'. [IWE 564 (*ken-); Wat 29 (*ken-); BK 270 (*kʰor-)]. OWels digioni 'does, makes', Lat cōnus 'put myself in motion, attempt', OCS ukōta 'execution, deed', Czech konat 'do, achieve', výkon 'achievement', Myc κα-σι-κο-νο 'servant, companion', Grk διόκωνεόν 'minister to, serve', διοκονός 'servant' (borrowed > NE deacon), ἱππόν 'make haste', Oss ken- 'do, make'. Widespread and old in IE.

*her- 'prepare, make ready, put together'. [IWE 55-57 (*ar-); Wat 3 (*ar-); Buck 9:943, 12:22, 14:29, 16:73, BK 383 (*har-/*ʌr-)]. Grk ἀπαίπιον 'put together', Arm armem 'make', Av arante 'they set themselves, remain', OInd arā 'spoke' (< *that which is fitted in), TochA ar'avar 'ready', TochB ārver 'ready'. The verb itself looks like it is restricted to the southeast of the IE world but derived nouns indicate that it was once more widely distributed. (1) *hērītos (gen. *hērītis): Lat ars (gen. artis) 'practical skill, (work of) art, artio 'insert tightly, wedge; am a tight fit, crowd', Lith arti 'near'; (2) *hērītos (gen. *hērītōs): Lat (pl.) artis 'joints, limbs, artus 'a narrow place', MHG art 'way, manner', Grk (Hesychius) ἀπαίπτω 'putting together, arranging', ἀπαίπτω 'put together, make ready', Arm ard (gen. artu) 'structure, ornament'. OInd put- 'fixed time, time appointed for some purpose' (cf. also Av aśa- 'what is right or true', OPrs arta- 'law, right', OInd ṭā- 'afflicted with; right, proper', ṭām 'fixed rule, divine law; sacred or pious action').

See also Tool, Work. [D.Q.A.]

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MALE

*ṭṣen* 'male (as opposed to female)' [IEW 336 (*ṭṣen-*); Buck 2.23, 2.12]. On orri 'capercaillie', OHG or(e)huon 'capercaillie'. Grk ἀρασίν 'male', Av arasaŋ 'male' (note also such compounds as aspa-arasaŋ- 'stallion' vs. aspa-daēnu- 'mare', of gau-arasaŋ- 'bull' vs. gau-daēnu- 'cow'), Olnd ṣabaḥa- 'bull; male animal in general'.

*ṭeṛsen* 'male (as sire)' [IEW 81 (*ṭeṛsen-*), G1 484 (*wṛsen-*)]. Buck 2.23, 3.12; BK 427 (*aw-ar/*aw-ar*). Lat vērēs 'boar', OPrus *wěs* 'calf', Lith vēris 'calf', Latv vērsis 'ox', Av varaśā- 'male', varāsī- 'male; ram', Olnd vēsan- 'male, manly; man, male animal (e.g., bull, stallion)', vpsabha- 'manly, vigorous, strong', TochA kāyūrs 'bull', TochB kāwūrse 'bull' (Toch < *gʷou-ṭeṛsen*). Both this word and the previous one are widespread and old in IE and liable to phonological and semantic confusion (particularly in Old Indic) owing to their near identity on both counts. See also MAN. [D.Q.A.]

Further Reading

MAMMALS

Proto-Indo-European speakers knew and named many species of mammals, both wild and domestic, and we are able to reconstruct a substantial list of those names. Unlike the case for plant names where the gaps (terms for plants that we know the PIE speakers must have known) outnumber the instances where we can reconstruct a proto-form, the names of mammals, particularly the larger ones which were economically important or environmentally salient, appear to be much better represented. By and large it is the smaller mammals who lack names or provide us with a reconstructible name that appears to comprise more than one species, or even a range of different, and occasionally disparate, species. Since the same phenomenon can be found in the older attested IE languages, e.g., Lat felis 'small carnivore, e.g., marten, polecat, wildcat', there seems no reason not to impute it to PIE itself.

The existence of mammals known to the Proto-Indo-European community may also be proposed from archaeological or bio-geographical evidence. Certain widely distributed animals such as the badger must have been known to the Proto-Indo-Europeans, no matter where they were situated, even if we are unable to reconstruct with any certainty a common word for it. In evaluating the distribution of these mammals, however, both lines of evidence have certain limitations. For example, animals present in the environment and well-known to prehistoric communities may not have been killed frequently nor their remains brought back to settlements where they might be uncovered by archaeologists. The reasons for this lack are various and range from the economic unimportance of the animal, e.g., various types of mice, voles, shrews, to the understandable desire for human communities to avoid rather than seek out lions, panthers, bears or other large predators. Modern or historical distributions of animals may also be biased in that often the modern range of an animal is only a fraction of the earlier range because of the hunting of animals to extinction, e.g., bears, beavers and wolves in western Europe, or climatic and environmental changes. The reverse situation, although less frequent, may also occur where mammals may have established new ranges, e.g., fallow deer, rabbits, mongooses, since the dispersion of the IE stocks. Finally, where animals were not economically or mythologically salient to a community, there may have been little attempt to provide them with a precise name and just because we can point to an animal in the environment does not necessarily presuppose that the human occupants of the same environment had a special name for it.

The order of presentation here follows that of traditional zoological taxonomy, beginning with the order of insectivores and ending with the ungulates.

INSECTIVORA

Among the insectivores, the 'hedgehog' (*Erinaceus europaeus*) (*ṭheqhihs*) is the best reconstructed where it is found from Germanic to Armenian although it is lacking in the eastern languages. A second possible word (*ṭheqher*) is restricted to Latin and Greek. This restricted distribution of reconstructible terms cannot be explained on environmental grounds as the hedgehog was known in Asia as well as Europe and its killing (under a different name) was specifically proscribed in early Iranian law. The only other insectivore to provide some case for reconstruction is the 'shrew' (*ṭsyqeraks*) where cognates may be found in Latin and Greek. The varieties of shrews known to the earliest Indo-Europeans, should they have cared to distinguish them, is probably extensive and would include the common shrew (*Sorex araneus*), the European water-shrew (*Neomys fodiens*), Savi's pygmy shrew (*Suncus etruscus*), the lesser white-toothed shrew (*Crocidura suaveolens*), the common European white-toothed shrew (*Crocidura russula*), the bicolour white-toothed shrew (*Crocidura lutetiana*), possibly the lesser shrew (*Sorex minutus*) and Alpine shrew (*Sorex alpinus*).

Without reconstructible designations but surely part of the faunal environment of PIE speakers, wherever in Eurasia they made their home, was the mole (either or both the common mole [*Talpa europae*] and the Mediterranean mole [*Talpa caeca*]). This animal has defied reconstruction despite its marked physical characteristics, its unusual behavior, and the importance of this animal within the realm of IE medical beliefs as attested in both Greece and ancient India. The range of the Russian desman (*Desmana moschata*) would have fallen within a proposed Pontic-Caspian homeland.

CHIROPTERA

The entire order chiroptera (bats) is missing from the reconstructed lexicon but bats could hardly have eluded the
MAMMALS

attention of the earliest IE speakers. The probable types known should have included the greater horseshoe bat (Rhinolophus ferrumequinum), the lesser horseshoe bat (Rhinolophus hipposideros), the whiskered bat (Myotis mystacinus), large mouse-eared bat (Myotis myotis), and a variety of other species.

LAGOMORPHA

The lagomorph with the most obvious economic use is the *kasos - *kasen- 'European hare (Lepus europaeanus)', which is not only ubiquitous across Eurasia but occurs on archaeological sites in numbers that suggest deliberate hunting or trapping rather than just chance encounter. A Volga-Ural homeland might presuppose knowledge of the steppe pika (Ochotona pusilla). The rabbit (Oryctolagus) would not have been known to the early Indo-Europeans as it emerged only in the Iberian peninsula and was first domesticated during the historical period and spread through Europe during the Middle Ages.

RODENTIA

While the larger rodents could provide a useful source of both meat and, more particularly, fur they are seldom encountered on archaeological sites in large numbers that might suggest specific exploitation. Nevertheless, some of the larger rodents are reasonably well reconstructed to PIE. Thus we have cognates ranging from the Atlantic to Iran for the *verjer- 'red squirrel (Sciurus vulgaris)' and possibly the Persian squirrel (Sciurus anomalus), and the *bhebhrus 'European beaver (Castor fiber)'. Although the mouse played no economic role and its remains are generally absent from archaeological sites, its widespread presence across Eurasia is reflected in the abundance of cognates providing us with three terms for 'mouse': *mūs - *mūss, *pelus, and *gλh₁īs, the last of which might have designated the 'dormouse'. Among the possible referents would be the garden dormouse (Eliomys quercinus), the forest dormouse (Dryomys nitedula), the fat dormouse (Glis glis), the common dormouse (Muscardinus avellanarius), the harvest mouse (Micromys minutus), the yellow-necked field mouse (Apodemus flavicollis), the common field mouse (Apodemus sylvaticus), the striped field mouse (Apodemus agrarius), and the house mouse (Mus musculus), all of which have enormous ranges across Eurasia.

Missing are any reconstructible terms for the common hamster (Cricetus cricetus), the migratory or gray hamster (Cricetus migratorius), the golden hamster (Mesocricetus auratus), the ground squirrel or European souslik (Citellus citellus) which has a range from Germany to the Ukraine and into Anatolia, the spotted souslik (Citellus suslicus) which ranges from Poland and Romania to the Volga, the little souslik (Citellus pygmaeus) which ranges from the Ukraine across Kazakhstan, the bobak marmot (Marmota bobak) which ranges from Poland across the Ukraine and south Russia and then south to northern India; the range of the southern birch mouse (Sicista subtilis) runs from Central Europe to Kazakhstan, the great jerboa (Allactaga major) from the Ukraine to the Altai, the little earth hare (Alactagus pumilio) from the north Caucasus and Volga across Kazakhstan, the northern three-toed jerboa (Dipus sagitta) from the northern Caucasus to the Altai steppe, the thick-tailed three-toed jerboa (Stylodipus telum) from the Crimea to Mongolia, also missing are any reconstructed words for the common redbacked vole (Clethrionomys glareolus), the water vole (Arvicola terrestris), the European pine vole (Pitymys subterraneus), the snow vole (Microtus nivalis), the social vole (Microtus socialis), the common vole (Microtus arvalis), possibly the field vole (Microtus agrestis). A steppe origin might presuppose knowledge of the northern mole-vole (Ellobius talpinus) and the steppe lemming (Lagurus lagurus). In addition, we have no common term for the mole rats, either the Russian mole rat (Spalax microphthalmus) which is known from Greece and Poland in the west across the Ukraine and Russia, or the lesser mole rat (Spalax leucodon), known from eastern Europe and the Balkans to the Ukraine and Anatolia, despite the fact that, like the moles, they play an important comparative role in Greek and Old Indic medical tradition.

CETACEA

There are no terms for any of the cetacea (whales, dolphins and porpoises) which is hardly unexpected. However, the range of the common dolphin (Delphinus delphis) extends from the Atlantic, through the Mediterranean and into the Black Sea, rarely to the Baltic, which would put it in the vicinity of most solutions to the IE homeland problem.

CARNIVORA

One of the most solidly attested mammal names is that of the canid ‘dog’ (*K(ū)uōn), the first wild animal to be domesticated. Much more dubious are attempts to reconstruct an early IE term for ‘puppy’ or ‘young dog’ (?*s*koli-). Names for the more widespread wild canids are also solidly reconstructible. These comprise the *u(k)ō;p-, fox (Vulpes vulpes) with considerable phonological alteration and the ‘wolf (Canis lupus) (*uβk*os) and ‘she-wolf’ (*uβk*ih₂s). Other canids that may have been known would include the Asiatic jackal (Canis aureus) which is known from the Balkans to India, possibly the corsac fox (Vulpes corsac) which was known from the Volga to Iran, and Blanford's fox (Vulpes cana), found from Anatolia, southwest Russia to Baluchistan.

The single ursid that one might expect is that of the *h₂kôkos ‘brown bear (Ursos arctos) whose name is clearly old and solidly reconstructed to PIE.

As relatively smaller mammals, the mustelids are less strongly reconstructed to PIE antiquity than many of the larger mammals. Probably the best is the *udrōs ‘common otter (Lutra lutra) whose name is a transparent derivative of the word for ‘water’. Otherwise, the reconstructed terms are either areally specific such as the central IE designation for the ‘weasel, ermine/stoat’ *Kormon- or a (western?) word for ‘weasel’, *(h₂)luselos or ‘marten’ (possibly ‘wildcat’)? *bhel-.
or more widespread terms whose underlying meaning is even less certain, e.g., *kek*—which underlies *polecat* (in the center) but *'weasel* (in the east). Setting aside the lexical confusion between the different species, the mustelids most likely to have been known to the PIE community would include the pine marten (*Martes martes*), the stone or beech marten (*Martes foina*), the stoat or ermine (*Mustela erminea*), the weasel (*Mustela nivalis*), the European polecat (*Mustela putorius*), and the marbled polecat (*Vormela peregusna*). The distribution of the wolverine (*Gulo gulo*) ranges across northern Europe but may have been too far north for the earliest IE speakers (although its prehistoric range extended as far south as the Tripolje culture and the early Neolithic of the Ukraine); however, the distribution of the badger (*Meles meles*) is so widespread across Eurasia that it is difficult to imagine it not being known. Its presence on European Neolithic sites ranges from chance (remains of one to five individuals) to deliberate hunting, e.g., over twenty from various lake-side Neolithic sites in Switzerland. It is reconstructible at the level of IE stock in Celtic, Germanic, Baltic and Slavic but, with the possible exception of a Latin-Slavic isogloss, no further, all of which suggests a series of late formations, possibly based on pre-Indo-European substrates.

Among the cats, the least controversial animal to be reconstructed is the *'juk*—European lynx (*Felis lynx*) for which a common word is attested in the west and center of the IE world. The caracal lynx (*Felis caracal*) ranges over the distribution of the Asiatic IE stocks. A perennial cause of debate are the possible cognate terms for the large cats, the *'lehn*—lion (*Panthera leo*) and the *'singhôs*—leopard (*Panthera pardus*). An animal far more ubiquitous on archaeological sites across Eurasia, the European wildcat (*Felis silvestris*) and the Asiatic African wildcat (*Felis Lybyca*), lie beyond reconstruction (unless preserved as *'bhel-*) although it must have been known to the earliest Indo-Europeans. The jungle cat (*Felis chaus*) was known from the Volga and Anatolia southeast to India as is also the Pallas cat (*Felis manul*).

**UNGULATES**

The major equids, indeed one of the mammals most closely associated with the Indo-Europeans, is the *'hjeKyos*—(presumably domestic) horse (*Equus caballus*), which is also attested in the female form *'hjeKyeh2*—‘mare’, and in more regionally confined terms: *'márkos*—domestic horse (*Equus caballus*) and/or wild horse (*Equus przewalskii or gmelini*) and *'ghéjós*—horse (*Equus caballus*). Two other equid terms are preserved in specific regions; from the east is *'gordebhós*—‘ass/donkey (*Equus hydruntinus*) or ‘onager/kulan (*Equus hemionus*)’ of domestic ass (*Equus asinus*) and from the west and center of the IE world comes *'mít-khóskos – 'mukslós*—‘ass/donkey (*Equus hydruntinus*) or ‘onager/kulan (*Equus hemionus*)’.

Pigs are attested under a number of names: *'sáms*—‘pig (wild or domesticated) (*Sus scrofa*)’ which along with *'pórkos*—‘young pig, piglet’ is strongly reconstructed and *'hjeporos*—‘boar (*Sus scrofa*)’ which is confined to the west and central regions of the IE world.

Terms for deer, among the most widely hunted animals of Eurasia, are relatively abundant and include the strongly reconstructed *'hjelh2én*—‘red deer’(*American) elk (*Cervus elaphus*) and its feminine derivative (here found in the west and center) *'hjelh2nih2*—‘hind/cow-elon’. Presuming that the underlying meaning is best retained in the west and center, we also have the *'hjolKís*—‘elk/American moose (*Alces alces*)’ which tends to mean some form of sheep or antelope in the east. Geographically more much confined terms would include *'bhrenóts*—‘stag’ and *'b(h)roid(h)ís*—‘red deer; elk’.

Widely attested archaeologically is also the roedeer whose name in IE survives at least in the far west and center as *'jorks*—‘roedeer (*Capreolus capreolus*)’. If the IE homeland existed on the east Russian steppe, then the saiga antelope (*Saiga tatarica*) should have been known. If the homeland lay somewhere further west, i.e., anywhere between Spain and the Caucasus, including the Balkans and Anatolia, one might have expected the chamois (*Rupicapra rupicapra*) to have been known. The absence of a word for the fallow deer (*Dama dama*), which is confined to southern Europe is not unexpected.

The bovids comprise primarily but not exclusively the main domestic livestock of the early Indo-Europeans and terms for both cattle and sheep/goat are abundant and very strongly attested. Words for the domestic cow include *'gòús*—‘gen. *'g^òous*’—‘cow’ (in both the English senses: ‘adult female bovine’ and ‘bovine of any age or sex (*Bos taurus*) which is found in most IE stocks and words like *'hjégh-‘caw’, *'yökéh2-‘cow* and *'uk^w^sén*—‘ox’ which are found on the peripheries of the IE world. Wild bovids are found under the names of *'tauros*—‘aurochs; bull (*Bos primigenius*) which is widespread and old in IE and the regionally more confined *'uis- and/or *'ghombrhos*—‘bison (*Bison bonasus*)’.

Sheep and goats may be discussed together for a number of reasons. It is not only the fact that palaeozoologists who study their remains from archaeological sites find it difficult to distinguish them (except for horns and certain bones) but it is clear that the PIE speakers themselves may have grouped them together under the category of *small domestic animal* (*'mehj-l*) and opposed them to large stock, cattle and horses. This can also be found in modern IE languages, e.g., NHG kleintvieh ‘small livestock’ (although here pigs may be included), and Rus melkíj (*rovagtyj*) ‘skot ‘sheep and goats’.

The linguistic evidence, however, for the two kinds of animals is rather different in that sheep terminology tends to be both persistent and pan-IE while there is no single word for ‘goat’ although the goat’s presence is supported by numerous regional isoglosses. Words primarily associated with sheep comprise *'h2ouis*—‘sheep (*Ovis aries*)’, a word virtually ubiquitous among the IE stocks and the less strongly but still PIE feminine derivative *'h2oykeh2*—‘ewe’. The young sheep is found in regional terms, *'hsegw^hños*—‘lamb’ and *'hier-
'lamb, kid' in the west and center, and *uth[h]en- 'lamb' in the center and east. Further terms associated with sheep are *moisos 'ram, sheep, fleece, skin', found in the center and east, and *?(s)kego- 'sheep/goat' which is known on the peripheries. The terms for goats include one widespread and clearly PIE term: *bhugos 'buck, he-goat (male Capra hircus)', and a series of regionally specific words in the west: *ghaidos 'goat (Capra hircus)', *kāplos 'he-goat', the west and center: *diks (gen. *digōs) 'goat (Capra hircus)', the center: *kogheh₃ 'goat (Capra hircus)', and the center and east: *hēigis 'goat (Capra hircus)' and *hēigos 'he-goat (Capra hircus)'. The ibex (Capra ibex) ranges across the mountainous regions of northern Italy to the Caucasus and south to northwest India.

In addition to the genus or species labels for the various mammals, the early Indo-Europeans also had a number of more generic terms for animals/mammals that contrasted them with other categories, e.g., fish, insects. These comprise the transparent compound *kwetypor-pod- 'animal' (i.e., 'quadruped') which is strongly reconstructed as well as designations for both the *ghuēr 'wild animal' and the domestic *pekũ 'livestock', both old and widespread in IE. Other cognate series suggest the existence of *ghuēyōm 'animal' (< *living thing') and *lēuχōn 'animal' (< *the one of the hunt'), both of possible PIE date. Mammals were also divided by categories of size and we can reconstruct to PIE general terms for both large and small animals: *steuros 'large (domestic) animal' and *mnēhūl- 'small animal'.

See also Animal; Ass; Badger; Bear; Beaver; Cat; Cow; Deer; Dog; Elephant; Elk; Fox; Goat; Hare; Hedgehog; Horse; Leopard; Lion; Lynx; Marten; Monkey; Mouse; Otter; Pig; Polecat; Sheep; Shrew; Squirrel; Weasel; Wolf.

Further Readings


MAN

*ughrons 'man, husband'. [IEW1177–1178 (*uiro-s); Wat 78 (*wō-); GI 391 (*wir-); Buck 2.21; Wordick 210–211]. OIr fer’man, husband’, Wels gwr ‘man, husband’, Lat vir ‘man, husband’, Umb uiro ‘man’, ON varr ‘man, husband’, OE wer ‘man, husband’ (> NE werewolf), OHG wer ‘man, husband’, Goth wair ‘man’, OPrus wjirs ‘man’, Lith vyra ‘man, husband’, Latv vīrs ‘man, husband’, AV virta- ‘man, person (opposed to animals)’, Olnd virta- ‘hero, (minent) man, husband’. A derived adjectival form of this word is to be found in TochA wīr ‘young, fresh’, possibly Alb ri ‘young’, which might also be placed here as a metathesized form of *uih₃rōs (i.e., > *urh₃rōs). Clearly PIE status.


*mortos ‘man, mortal’. [IEW 735 (*mōr-to-); Wat 42 (*mer-); GI 396; BK 525 (*mir–*mer-)]. Grk (Hesychius) μοπτός ‘man, mortal, Arm mard ‘man, Av marsta– ‘mortal, Olnd mārta ‘mortal’. From *mer- ‘die’. Banal derivation from very productive root coupled with distribution among southeastern stocks often sharing isoglosses suggests that this is a late dialectal term in IE.

*vīnus ‘man’. [IEW 700 (*vīnus-s); Wat 38 (*man-); GI 396 (*manu-); Buck 2.1]. ON maðr– manus ‘man, OE mann ‘man’ (> NE man), OHG mann ‘man, Goth manna ‘man (?Gmc < *monon-). Olnd manu- ‘man, person’ (< *mēnu-). Often derived from *men- ‘think’. The nature of the relationship between the Germanic and Old Indic is not entirely clear as the Germanic words are derived n-stems. Distribution on the peripheries of the IE world suggests PIE status.

The most common word to designate the adult male human, *uih₃rōs, may be connected to a root ‘strong’. A similar passage in both Umbrian (uiro pequo) and Avestan (Ys. 9.4) (pasu vatra), which finds ‘men’ joined in context with ‘flocks’, indicates that the PIE *uih₃rōs was also seen as a worker. In the stocks where it co-occurs with the second term, *hunrēr, it is always the less honorific. The second term for man, also relatable to the concept of strength, often has a sense of honor or prestige about it and the semantics of *uih₃rōs and *hunrēr may perhaps be compared to German mann and mensch. In addition to seeing men as sources of
Proto-Gmc *dhgmun- 'earthing' is recorded in northwestern Manu. Germ *Mannus (ancestor of the Germans), Av Manus-čiđbra 'descendent of Manu', Olnd Mánů (ancestor of mankind). The correspondence, although confined to Germanic and Indo-Iranian, appears both phonologically and structurally sound.

The story of the Germanic Mannus is recorded solely by Tacitus (Germania 2) who relates how the ancestor of the Germans was Tuisto 'Twin' who had a son Mannus 'Man' who then begot the three primary Germanic tribes, the Ingveones, the Herminones and Istaevones. In the Old Indic account, Vivasvat couples with Savarnā 'Same Looks', a 'double' of his wife Saranyū, and begets Manu 'Man'. He then goes on to father Yama 'Twin', the ancestral figure of all mortals. Manu also initiates sacrifice and human laws, the Law of Manu. Structurally, both tales relate the foundation of human society by a single PIE *kR-n-.

Further Reading
Oettinger, N. (1994) Der Ablaut von *h2arker- or *h3ekekerm-, probably derived from the root for 'sharp', as in Lat acer (whence NE acrid). In the Germanic area, at least, the reflexes of this 'maple' name were probably used for the Norway or sharp-leaved maple, complementing the uses of the other term for other maples present. The second name, speculatively but probably, is related to an Old Indic (*gyvedic) form akra. At first blush, this denotes something high that the sons of Aditi grew into, but closer analysis makes it likely that the Vedic poet, drawing on his cultural memory, meant 'the sons of Aditi grew upward like the mighty maples', which, as it happens, flourish in the central and eastern Caucasus near to where the ancestors of the Indic and Iranian speakers lived. It is possible that both maple forms go back to a single PIE *kR-n-, but this is highly conjectural.

See also Tress, Trees, MAN.

MAPLE

*kleinus (gen. *klinóus) 'maple' (Acer spp.). [IEW 603 (*kleno-); Frie 64-69]. From *klein- OE hlun 'maple', OHG hlun-boum 'maple-tree', Lith klėvas - klėvąs 'maple', Latv klavs 'maple' (Baltic < late Proto-Baltic *klieva- < earlier *kleva-, from *kleiva-?); from *klinu- ON hlymr (< Proto-Gmc *hluni-by metathesis from *hlunu-) 'maple', Rus klen (< Proto-Slav *klinu-) 'maple', Maced (Hesychius) κλίνω(σ)τρωχος 'kind of maple'. Perhaps Grk χλινο- 'a kind of maple' (perhaps = Acer sempervirens [aka A. orientale or A.creticum]) belongs with *kleinu-, though the initial g- is not well-explained. Certainly a word of the northwest, possibly also of the center of the IE world.

*kekt (gen. *kektōs or *kekpto) 'maple' (Acer spp.). [IEW 20 (*sáker); Frie 64-69]. Lat acer (gen. aceris) 'maple', Dan ær (< Proto-Gmc *ātrha-) 'maple', OHG ahorn (< Proto-Gmc *ahurna-) 'maple', Grk (Hesychius) ἀκαρπον 'sweet bay', ἀκαρσιός (< *akarstos) 'maple', Hit hiqWar- 'maple'.

The maple, valuable for bowls and other wooden artifacts, was present throughout early IE times in much of Europe, with subgeneric diversification that, depending on the area, included the common, Norway, sycamore, and, in the Caucasus, the mighty maple. It is also known from southwest Anatolia. Consonant with this great spread and variety, there are two early names for this tree, which overlap in German, where there is much botanical subspeciation as well. One of these names, *kleinus is reflected in Germanic, Baltic and many Slavic languages—all of which denote the 'maple'. Sometimes set here are the Celtic forms (OIr culleen, Wels celyni(en)) but these both mean 'holy' and the British Isles lies outside the native prehistoric distribution of the 'maple' and 'sycamore'.

The second name is reflected in Latin, Germanic, Greek, Hittite and probably Indic; one can posit a PIE *h2eker- or *h3ekerm-, probably derived from the root for 'sharp', as in Lat acer (whence NE acrid). In the Germanic area, at least, the reflexes of this 'maple' name were probably used for the Norway or sharp-leaved maple, complementing the uses of the other term for other maples present. The second name, speculatively but probably, is related to an Old Indic (*gyvedic) form akra. At first blush, this denotes something high that the sons of Aditi grew into, but closer analysis makes it likely that the Vedic poet, drawing on his cultural memory, meant "the sons of Aditi grew upward like the mighty maples", which, as it happens, flourish in the central and eastern Caucasus near to where the ancestors of the Indic and Iranian speakers lived. It is possible that both maple forms go back to a single PIE *kR-n-, but this is highly conjectural.

See also Trees.

MARLIK

This Iranian cemetery, dated to the mid second millennium BC, is situated near the Caspian Sea. It yielded funeral altars and fifty-five burials in stone lined chambers with a wide range of gifts of bronze and gold, including figures, vessels, weapons and horse-gear. Many of the objects are regarded as prestige goods obtained from the western parts of the Near East. G. N. Kurochkin has proposed that the identification of
the Indo-Aryans in this region would be secured if one can find evidence for the horse-drawn chariot, widespread trading relations, the presence of typical Hurrian goods (as the basic language of the Mitanni was Hurrian), and elements typically displaying Indo-Aryan motifs. He has attributed Marlik to the Mitanni (it contained seals typical of those found in the Mitanni region) as it met all of his criteria. The graves produced both the remains of horses and models of war-chariots which attest the specifically equestrian Indo-Aryan element in Mitanni. Of the ritual elements, Kurochkin cites the evidence for ritual mortars with spouts which he likens to instruments that might be employed in pressing the soma, the sacred drink of the early Indo-Aryans, and to similar devices found in contemporary Hindu shrines. Further afield, Marlik has yielded a golden bowl with scenes depicting the birth and torment of hoofed animals which corresponds to a widely attested artistic motif found not only on Mitanni seals but also among the Iranian-speaking nomads of the Eurasian steppe.

See also Hasanlu, Indo-Iranian Languages; Sacred Drink. [J.P.M.]
Further Reading

MARRIAGE

*gemh- 'marry (from the male point of view)'. [IEW 369–370 (*gem(e)-); Wat 19 (*gema-); Gl 775; Buck 2.33; Szem 20 3.1; BK 215 (*tjim-/*tjem-)]. Grk γαμεω 'marry (of males)', γαμεωτα 'marry (of females)'. Derivatives: Lat gener (< *gemros < *gemros) 'son-in-law', Alb dhender (Gheg dhändër) 'groom', Av zamātar- (< *gomhx-ter-) 'son-in-law', Olnd jämätar- (< *gomhx-ter-) 'son-in-law', jātā- (< *gāmhd-ter-0-) 'suitor'. This productive root would appear to be of PIE status. A possible continuation of this root in Pashto zamān 'payment of wages, stipend' has suggested that the underlying meaning of this word may have referred to the payment by the suitor for the bride of the bride-price. Others, however, have taken the semantics of this word (NGrk γαμεων is the obscene register of 'coouple') to suggest that it reflected the actual consummation of a marriage.

*sneubh- 'marry (from the female point of view)'. [IEW 977–978 (*sneubh-); Wat 62 (*sneubh-); Gl 663 (*sneubh-); Buck 2.33]. Lat nubere 'marry (of females)'. Derivatives: OSC snubiti 'to pander', Grk νυμον 'bride'. A word confined to the west and center of the IE world. If *sneubh-, then perhaps related to *snusos 'daughter-in-law' (< *bride').

*h2uedh(h2)- 'lead in marriage, marry (from the male point of view)'. [IEW 1109 (*uedh-), 1115–1116 (*uedh-); Wat 73 (*wadh-); Gl 658–660 (*weddh-); Buck 2.33; BK 474 (*wad-/*wad-)]. Wels dyweddio 'marry', OE wedian (< *h2uedh(h2)eio/o-) 'marry' (<NE wed-), ORus wedde 'wed'. Lith vedę 'lead, marry (of a man)', Latv vedu 'lead, marry'. Derivatives: Lith vedėkė 'son's wife', Av vađa- 'bride', Olnd vadhū- 'bride', udhā (< *h2udh-terh-0-) 'married woman, wife'. Perhaps ORus něsvěta 'husband's brother's wife, brother's wife, son's wife' with analogic lengthening from ORus věno 'bride-price'. Cf. Olt ledid (DIL leidid) 'leads', OCS věd 'lead', ORus vōdiri 'get married', Hit hutiye- 'pull, drag', Av vađaśeti 'pulls'. A productive root which is clearly old in this meaning among the northwest stocks and with the Indo-Iranian derivatives probably of PIE status.

Indo-Europeans did not possess a single term for marriage; instead, a number of different verbs were employed for male and female subjects and various aspects of the marriage process. The active verb *gemh- is preserved only in Greek γαμεω 'marry (of male subjects)', but a variety of derivative nouns signifying males (cf Alb dhender 'bridegroom', Lat gener < *gemros and Olnd jämätar- both 'son-in-law') assures its Indo-European presence. The original connections of this root are doubtful. A relation to Lat geminus 'twin' and an original concept of 'pairing' has been suggested, but others have seen in Latin geminus a special development of the root *jem- 'twin'; therefore, it is best to assume that 'marry' is the primary meaning. The widespread use of phrases with the concept 'lead' as in Lat uxorem ducere 'to lead a wife' in the sense to 'marry' and especially derivatives of the root *h2uedh(h2)- 'lead' in this use, best seen in the English verb wed < *h2uedh(h2)eio/o-, confirms the Indo-European practice of virilocal post-marital residence and native idiom probably used causatives of the verb *h2uedh(h2)- 'lead' in this sense. A second verbal root *sneubh-, is seen in Lat nubere 'marry', used of female subjects and RusCS snubiti 'pander'; it also provides the basis for a number of feminine nouns, e.g., Grk νυμον 'virgin', bride' and Alb nuse 'bride' (< *sneubh-thē, the same source as Lat nuptiae 'marriage rites'). The existence of this second verb for women points to the fact that the Indo-European couple had markedly divergent marital roles, 'although it would be unwise to assume that these were necessarily those of dominance and subservience. In Albanian and South Slavic great families of the nineteenth century, elder females exercised considerable independent powers within the family. Younger females were certainly restricted in their decision making, but so too were younger males, who often possessed no private property beyond their clothing and weapons.

Eric Hamp has suggested that we can recover (at least) four terms relating to the institution of marriage in PIE. The well-attested root *perk- (¬ *prek-) 'ask, beg', also carries the specific meaning of 'initiate a proposal of marriage', e.g., Lat proculus 'wooer', Lith persiū 'propose in marriage', Arm harchanem 'ask', harshn 'bride'. This would be followed by the exchange of presents, the *uedmo- 'bride-price'. As part of the wedding the bride would be literally led away into matrimony, i.e., *h2uedh(h2)- 'lead (into marriage)'. Finally, he argues that *gēmhd- is more precisely translated 'consummate a marriage' which may well explain the particular bias of this word towards males in the various IE stocks (in a central and eastern dialect area we can also reconstruct *jebhe/o- 'copulate', a semantic specialization of *jebhe/o- 'enter' preserved in Tocharian and Anatolian).

Types of Marriage

The system of analysis applied to IE mythology has also been extended to the structure of IE marriage institutions, particularly in Roman and Old Indic traditions. Georges Dumézil noted that the eight types of marriage listed in early Indic traditions can be divided into essentially three basic social types. There were four associated with the priestly function (brahma [¬ 'priest'], daiva [¬ 'of the gods'], ārṣa [¬ 'priest'] and prajāpātya [¬ 'of Prājapati']) that were surrounded with religious ceremony and sanction and associated with the priest class. Dumézil found their correspondence in the Roman confrarēatio the marriage union of priests which was sanctioned by the highest priest and held before Jupiter. In ancient India the warrior function found its expression in the marriage types known as gāndharva, the co-habitation of man

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and women without ceremony and raksasa 'marriage by capture'. The Roman equivalent was held to be the āsuras which, like the āndharva, involved co-habitation for a year preceding the official marriage bonds. The third or fertility function in India was marked by śūs which involved the purchase of the wife, it was specific to the third estate vaśya and the lowest estate, the śudra. In ancient Rome it found its parallel in the *coemptio, marriage by purchase. Similar extensive systems of marriage can be found in Ireland where they descend from legitimate marriages sanctioned by both families to marriages based on cohabitation (cf. the Old Indic gāndharva and Lat āsus) and marriage by capture (OIr *lánnamnas eicne).

The range of types of marriage within different IE societies tends to be large (and on a world-wide ethnographic sample would be extended many times over). A number of early IE societies exhibit sufficient evidence to presume formal arrangements of marriage involving the payment of a 'bride-price', a word reconstructible to PIE. The forcible abduction of the bride (which may include the bride's consent in the absence of her parents') is so widely seen in both the early literature and the ethnographies of the IE (and other) peoples that it would be difficult to deny its possible existence in PIE even if there are no specific lexical grounds to demonstrate it. GI have suggested that the verbal root *h₂yezd(h₂)-, commonly translated as 'lead away (in marriage)', expressed rather greater force and that abduction may have been the earliest form of marriage. As some institution of marriage is likely to have long predated the form of the PIE community, it is much more likely that marriage by abduction, still practiced into the present century, was always an option but hardly the earliest known in PIE society. We should be cautious about trying to assign a single type to the speakers of the proto-language which, if like their later descendants, probably themselves recognized a considerable variety of marriage forms.

Cross-Cousin Marriage

One specific form of marriage has been attributed to PIE antiquity: cross-cousin marriage where the preferred marriage partner is sought with a cross-cousin, i.e., one who is related through a kin of different sexes (father's sister's son, mother's brother's son). In its simplest form, symmetrical cross-cousin marriage, a male in family A will invariably marry the sister of a male in family B who in turn will marry A's sister. This process may be continued for generations between the two families. Other variations, particularly popular among patrilineal groups, is to select by preference one's partner from the other's line, i.e., matrilineal selection. The existence of cross-cousin marriage in PIE rests largely on certain solutions to the problem of *h₂yezd(h₂) 'grandfather' and *népōtis 'grandson'. It has been argued that the best way to explain why the word for 'grandfather' should also yield derivative meanings for 'mother's brother' (and conversely why 'grandson' should also yield 'nephew', perhaps via *sister's son') is that the terms were created in a system of cross-cousin marriage. In this way one would simultaneously be the grandson (father's father) of ego and his mother's mother's brother; the term for 'grandfather' would then be employed to derive another term for the 'mother's brother', i.e., the 'little grandfather' (cf. Lat avunculus 'mother's brother' from avus 'grandfather'). This explanation has been embraced by GI who regard the dualism of two intermarrying families as one of the underlying frameworks for the binary opposition in IE mythic structures. As the basis of the problem has not been firmly established, i.e., the validity of projecting the different semantics to the PIE forms, the ascription of cross-cousin marriage to the PIE speakers (among probably other forms of marriage as well) may well be possible but is hardly required by the existing evidence. Against such a proposition also is our failure to reconstruct specific terms for the cross-cousins in PIE, the paucity of examples of this type of marriage occurring within the individual IE stocks (and where it does occur such as India, it is largely confined to the east and south, i.e., those areas where we have the greatest reason to suspect a non-IE substrate), and, finally, where it does occasionally occur, it does so in the very stocks which do not show evidence of the shift from 'grandfather' to 'mother's brother' or the nepotic skewing rule.

See also Bride-price, Husband, Kinship, Sexual Organs and Activities, Wife. [M.E.H., J.P.M.]

Further Readings


MARBROW

*mjosphos' marrow, brain'. [IEW750 (*moz-g-o-), Wat 43 (*mzo-go); GI 713]. ON mergr 'marrow', OE mearg 'marrow' (> NE marrow), OHG mar(a)g – mar(a)k 'marrow', ÖPrus musgeno 'marrow', Lith smagenės 'marrow', smegenys 'brain', Latv smadzenes 'brain, marrow', smedzene 'brain', OCS mozgō 'brain, marrow', Av mozga- 'marrow, brain', Olnd majjan- (for expected *majjan-) 'marrow'. Widespread geographically, at least a late PIE word for 'marrow'. See also *mōstr 'brain, marrow'.

See also Anatomy, Bone, Brain. [D.Q.A.]

MARSH

*sel-es- 'marsh'. [IEW901 (*sel-es-), Wat 57 (*sel-es-)]. Grk ἕλιος 'marsh, meadow', Av Halavvati, ÖPers Harauvati, Olnd Sārasvati (< *saras-vant- 'marshy') all river names, sāras- 'lake, pond'. Perhaps here Wels heliedd (< *sel-ihed), hel' meadow along the side of a river'. Clearly of some IE antiquity. *pen-' water', *ponjom 'swamp'. [IEW807–808 (*pen-)].
MARTEN

ππαληλα ώ μαρτεν (or *μαρτεν). (IEW 119). Wels bele 'marten', Lat felis 'small carnivore, e.g., marten, polecat, wildcat'. Possibly a word of the far west of the IE world, with a meaning much as is attested by Lat felis (cf. Nrl cat cranin 'marten' [literally 'tree-cat']). A possible Indic cognate bhārījī (some kind of unidentified animal) might suggest the center of the meaning was 'wildcat' rather than 'marten'. The current distribution of both the pine (Martes martes) and beech marten (Martes foina) embraces almost all of Europe with the exception of southern Iberia and the Aegean. There is also evidence of the pine marten in Iran while the beech or stone marten is also known in Iran, Afghanistan, Baluchistan and northwest India. Martens are known from prehistoric sites from Britain to the Crimea and in the Near East. In the Baltic region there is evidence for selective hunting of martens where large numbers are recovered on sites in Estonia and Latvia while some sites of the Tripolye culture also show more than occasional numbers of martens. It is also known from riverine sites of the steppe region. The linguistic evidence notwithstanding, the earliest Indo-Europeans would have known the marten, probably both the pine marten and the beech marten.

See also CAT; Mammals; Polecat; Weasel. [D.Q.A., J.P.M.]

MASTER, MISTRESS

The words gathered here appear to be those used to describe the first level of leadership in Indo-European society, the master of a particular household.

*potis 'husband'. (IEW 842 (*poti-s): Wat 52–53 (*poti-); GL 661 (*pothr-); Buck 2.31; Wortick 214–215]. Bret ozah (< *potis stegegos) 'husband, master of the house', Lat hospes (< *ghos(t)-pot-) 'host', Goth hrug-lyfs 'bridegroom' (whence Alb far 'husband'), Lat pats 'husband, self', Latv pats 'master of the house, self', Rus gostop (< *ghos(t)-pot-) 'host', Alb zot (< *dżoxt- < *ż wisz + *pot-)'master of the house', Grk ποσις 'husband', Hit pat 'self', Av patti-

husband', Olnd pati- 'husband, master', TochA pats 'husband', TochB petso 'husband'. Distribution clearly indicates PIE status.

*pot-nihr- 'mistress, lady'. (IEW 842 (*potn); cf. Wat 52–53 (*poti-); GL 661 (*potn); Buck 2.32; Wortick 196–197]. OPrus (acc. sg.) waspattin 'wife, mistress', Lth viešpatai 'lady', MMC po- ti-na-ja 'lady, wife, mistress', Grk xotvira 'lady, wife', Alb cunje (< *doptij <- *uša + *potná) 'lady, wife, Av -patana 'lady, Olnd pättna 'lady'. Although clearly derived from the masculine form above, the distribution suggests that it is likely to be old in IE as well.

Terms for 'husband' and 'wife' often reflect the general Indo-European terms 'man' and 'woman', but the terms *potis and *potnahr- 'lord' and 'lady' seem to have functioned in this sense, although when combined with the feminine noun *ukl- 'settlement, homestead' the terms come to assume a quasi-political sense. It is perhaps significant that *potis has a persistent feminine counterpart in the form of *pot-nihr- with a non-productive suffix. Both terms are probably related to a root for 'power', PIE *po- and referred to the control over the household. It is possible that the feminine did not refer to the wife of the *potis but his mother as was still the case of Albanian zonje 'lady the feminine of zot 'lord' even in the last century.

*dom(h)u-no-s 'master'. (IEW 198–199 (*dem-); Wat 11 (*dem-); GL 646]. Dom dominus 'master of the house'. Lith namtinaitis (< *namunas < *damunas; cf. Av nmuna- 'house for the dissimulation') 'son of the proprietor', Olnd damuna-master of the house. A common -no derivative for leader of the house, parallel to such constructions as Proto-Gmc *peuhadaz 'leader of the tribe' (OE þōden 'chief of a tribe, ruler', Goth piudan 'ruler') and Grk κυριακον (< Proto-Grk *kortanos 'leader of the army' is inferred from the presence of an identical derivative of the archaic u-stem noun 'house' even after the replacement by thematic nouns was complete in Baltic and Indic and the u-stem remained only vestigially in Latin.

*dems-pot- 'master of the house'. (IEW 198–199 (*dem-); Wat 11 (*dems-pot-); GL 646; Buck 7.12, 7.122; BK 133 (*trim/-*t'em-)]. Grk δεσπότης 'master, lord, owner', Av dāng pati- 'master, lord, ruler', Olnd dam-pati- 'master, lord, ruler' (in the dual 'heads of the household, husband and wife'). Notionally the same as the previous entry, i.e., 'ruler of the household', but limited to languages of the southeast. Still, the archaic shape of the compound virtually assures its presence in this dialect area of late PIE. An originally wider distribution may be suggested by Bret ozah (< *potis stegegos) where we have the same semantic combination but with a newer word for 'house'.

*hjeshzēs 'master', *hjeshzhēr- 'mistress'. (IEW 342 (*est-s); GL 400–401; BK 434 (*uša/-*as-)]. OlLat esa 'mistress', Lat erus 'master of the house or family, lord, owner', era 'mistress, lady, owner', Hit isha- 'master, lord, owner; mistress, lady', ishassara- 'lady, mistress'. This Latin-Hittite connection has been affirmed and denied in about equal
measure. In its favor are the almost exact semantic equation and the possibility of exact phonological equation. Adding weight to the latter point is the fact that Hittite has very few end-stressed thematic nouns, this one and ara- 'companion' and yukan 'yoke'. Since both of the latter are unequivocally inherited from PIE it is likely that ishā is as well. Arguing against the equation is the fact that there is no obvious root etymology: *h₁es₂-*os 'one who is' from *h₁es- 'be' does not explain the *-h₂- and relating it to *h₁esh₂ 'blood' as 'one of the blood' does not explain the semantics.

See also Home. [M.E.H., D.Q.A.]

Further Reading

MAYKOP CULTURE

The Maykop culture, which takes its name from the famous royal burial of Maykop, was the major early Bronze Age culture of the north Caucasus. Its area of distribution extended from the Taman peninsula in the west across the plains and valleys of the north Caucasus as far as Dagestan. The Caucasus mountains served as a natural barrier to its south while to its north lay the steppelands which served as the home of the Novotititovka and Yamna cultures. The center of Maykop development is generally situated in the Kuban region. The dates of Maykop are still a question of dispute but it falls very broadly within the range c 3500–2500 BC.

There are about thirty known settlements belonging to the Maykop culture. They tend to be on the order of one to two hectares in size, the largest reaching some ten hectares. Some of the settlements such as Meshoko were defended by stone walls (here 2 m high and 4 m thick). Settlements reveal semi-subterranean houses, measuring 10 by 5 m arranged in small villages of seven to ten houses. Circular structures are also found and may be the result of influence from the Kuro-Araxes culture. Stockbreeding is indicated by the remains of pig, cattle, sheep, goat and horse while hunting (red deer, wild pig, etc.) played a minor role in the economy.

Maykop is known primarily for its burials. The standard burial rite was inhumation in a pit (which might be stone lined and timber roofed) which was surrounded by a stone cromlech (ring) and covered by a kurgan (tumulus). The central chamber at Maykop was very large (it measured 5.3 x 3.7 x 1.4 m in size). Other Maykop burials were of similar dimensions (e.g., the kurgan at Nartan was 100 m in diameter and stood some 13 m high; its burial chamber was 7 x 4 m in size). Later Maykop burials tended to employ a stone cairn in their construction. Stone cists were also utilized. When not found in a destroyed state, burials tend to be flexed on their sides.

Burial goods in large amounts have been recovered from a number of the Maykop kurgans. A wide range of stone tools and weapons (axes, arrows, spears, knives) as well as ceramics are recorded but the major interest lies in the abundance of metal artifacts which is almost unprecedented for its period. Bronze was employed in axes (over forty known), awls, chisels, daggers (about a hundred are known), what have been presumed to be psalia (horse bridle-pieces) and other tools while vessels were also manufactured of bronze as well as gold and silver. The gold and silver vessels are noted for their artwork and attest external influences (Iran, Mesopotamia, Anatolia, the Aegean are all cited) as well as local creations.

The Maykop culture impinges on various solutions to the IE homeland problem. Its ethnic identity is entirely unknown although it is often assumed to be Indo-European according to some models of IE origins. For example, wall paintings from a late fourth millennium BC burial at Klady have been interpreted in the light of Indo-European or Indo-Iranian religion. Within the Kurgan theory, Maykop is used as a covering term for not only the Maykop cultural remains of the north Caucasus but also the Lower Mikhaylovka and Kemi Oba cultures north of the Black Sea. Some archaeologists also suggest that the Maykop culture had genetic links with the TRB, Globular Amphora and Corded Ware cultures and thus represented an extensive cultural region from the Baltic to the Caucasus. Such a theory, it must be emphasized, is highly speculative and controversial although there is a recognition that this culture may be a product of at least two traditions:

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Maykop a. Distribution of the Maykop culture.
Maykop b. Plan of the Maykop tomb; c. Aurochs standard; d. Decoration on silver vessel; e. Gold vessel; f. Clay pot; g. Horse cheek-piece (psalia); h. Bronze "battle-ax"; i. Bronze and silver dogs from Klady; j. Bronze dagger. The metal dogs have been compared to the two differently colored dogs of Yama, the Vedic lord of the dead.
the local steppe tradition embraced in the Novosvobodnaya culture and foreign elements from south of the Caucasus which can be charted through imports in both regions.

That Maykop was the recipient of artistic influences from the Near East might also be employed to explain the occasional appearance of what have been presumed to be Near Eastern (largely Semitic) loanwords in Indo-European. Alternatively, in the theory of Indo-European origins proposed by T. Gamkrelidze and V. Ivanov, the Maykop culture may be presented as a movement of IE-speaking groups from a homeland in Armenia-eastern Anatolia northwards to a secondary "European" homeland in the north Caucasus. But it should also be observed that the Maykop culture lies within the present distribution of the non-IE north Caucasian languages and that its ascription to the early Indo-Europeans is merely an assumption by some scholars while others prefer to attribute the Maykop culture to non-IE groups of Anatolia such as the Hatti or Kaska.

See also KEMI ORA CULTURE; KURGAN TRADITION; LOWER MIKHAYLOVKA GROUP. [J.P.M.]

Further Readings

MEASURE


See also MEDICINE, MOON. [D.Q.A.]

MEAT

*mē(m)s (gen. *mēmsōs) ‘meat’. [IEW 725 (*mēmsos); Wat 41 (*mēms-), Gl 604 (*mēms-o-)]. Goth mimz ‘meat',
MEDICAL GOD

The structure of IE medicine appears to reflect the tripartite social divisions of society and just as there are three classes of medical practitioners attending three different socially-associated types of diseases and injury, so also were deities arranged to both inflict and lift pains appropriate to each class. In Vedic India, for example, Varuna, the deity associated with the priestly class and the one charged with the maintenance of order, punished trespassers of his realm with bonds, identified as jalodararoga-, i.e., dropsy ('water-belly'), which, appropriately enough to his social role, could only be lifted by prayers. The deity assigned to the warrior class who was concerned with disease was the archer Rudra who inflicted disease in the form of fevers, coughs. Finally, the Asvins, the Divine Twins who were linked to the third estate, were the general practitioners who renewed sexual vigor, healed broken limbs, and were generally concerned with the restoration of health. The etymology of their Iranian counterparts Haurvatat 'wholeness, health' and Amaratat 'long life' also suggests such concerns and as these two were particularly associated with water and plants respectively, one might conclude that potions and healing herbs were the particular stock of the Indo-Iranian Third Function medical deities.

Possible comparative data derive from Greek mythology where Apollo, like the Indic Rudra, is both an archer who Yoq'...
(suppurating) wound'. More general wounds are attested in... *volnokeh₁ Isu, *vornokeh₂ 'bloody wound', *h₁h₁eru(s)-wound', and *pelos'-wound'.

Finally, among the physical ailments, there are several terms relating to the eyes, e.g., *h₁endh₁os 'blind', *kolhos 'one-eyed', and kaikos 'one-eyed, cross-eyed'. Hearing and speech defects are seen in *bhodh₁r₁os 'deaf' and *mʊ₃-dumb'. Other physical disabilities are seen in *mendo/eh₂- (bodily) defect', *lord(sk)os 'crooked of body', *(s)keng-limp' and *(h₁)ŋgü'en- 'swollen gland'.

Cures
There are both general terms for curing an individual and occasionally suggestions as to how this might have been done. For example, *h₁leis- 'refresh (using a liquid), renew the strength of' yields specifically medicinal connotations in Grk iáouan 'heal, cure' and ītrpós 'doctor, and Olm is-khti-'healing', while *jak(k)- 'cure, make well' provides another cognate set. The specific medical use of *med- 'heal, cure', a root which is widely enough attested, is seen only in Italic and Iranian and is derived from a base with the meaning of restoring a particular situation to normal by following a customary set of practices. A possible late term for more direct medical treatment may be found in *bher- 'cure with spells and/or herbs' which is limited to Baltic, Albanian and Greek. There is also the verbal root *h₁engę- 'anoint (with salve), (be)smear'. The expected result of such remedies would be to render the patient healthy again, i.e., *koh₁hus 'healthy, whole, complete' or *solios 'whole'.

Sick Maintenance
The care of the injured in many of the world's systems of traditional law requires that the individual who inflicted an injury also be responsible for the recovery of the injured, either by undertaking the nursing himself or employing a medical practitioner to effect the cure. It has been argued that there are both structural and lexical reflections of such a system in Indo-European, specifically in the legal texts of both the early Irish and the Hittites. The evidence from Hittite (KBo 6 2 1-19) states that if someone injures another, he shall take care of him and provide a replacement for him in his household until the injured party recovers. He shall also make a payment to the injured party and pay any necessary medical expenses. In the Old Irish legal tracts relating to medicine we find a similar system involving the injury of the individual and their sick maintenance, the substitution of the injured party during convalescence, and payment to the injured and for attendant medical expenses. The structural similarities, as Calvert Watkins argues, suggest an inherited expression of customary law from Proto-Indo-European. He also argues that there is some lexical support in that the Hittite term 'to take care of, perform sick maintenance', i.e., saktatüzi, is a denominative from an unattested *sakta- (< PIE *sokto-) which may also be reflected in OIr socht (< *soktos) 'stupor, silence'.

The Medical System
The tripartite or trifunctional conceptual system seen in other IE social behavior is also reflected in its medical system. The Iranian Videvdát (7.44) lists three medical specialists: those who heal by the knife (karoto-baesaza-), those who heal by herbs (urvaro-baesaza-) and, the most effectual, those who heal by spells (mḥtrō-baesaza-), where the three methods are associated with diseases and the appropriate medicinal cures of the warrior class (healing with the knife), the herder-cultivator class who would utilize herbs and other plants, and the priest class (healing with spells).

A parallel set of cognate medicinal lore is to be found in Old Indic tradition where the Asvins (RV 10.39.3) are credited with curing blindness with spells, fractures with knives and emaciation with herbs. The evidence for tripartition is particularly strong in Indic mythology where the divinities Varuna, Rudra and the Asvins have clearly defined spheres of disease and healing. Varuna, the god charged with maintaining religious order punishes transgressors with debilitating diseases, in particular dropsy (jalodataraga), which can only be healed by prayers, the "tool" of the First Function. Rudra, known in Vedic texts as the 'first divine physician' also inflicts and cures disease. He is closely associated with Indra and the second or warrior estate of IE social tripartition and he inflicts disease with his arrows. In this and other features, he shares parallels with the Greek Apollo who, in the Iliad (1.50) also inflicts disease with his bow Apollo is associated with the rat (suvivthos) while Rudra is closely associated with the mole (akhu-) as is also the case with Apollo's son Asklepios (σκάλαιο). The third estate or function is connected with the Asvins who undertake general curing, and who had a close link with healing waters and herbal cures.

Other than the parallels already mentioned, the archetypal Greek healer Asklepios (Pinda's Third Pythian Ode 40-55) apparently heals spontaneous sores with incantations, weapon-inflicted wounds or injury from stone-throwing with external medications or incision, and fevers with potions, again reflecting both diseases and cures appropriate to the social tripartition of society. Parallels may also be adduced from Old Irish tradition where the physician Maich (Cath Maige Tuired 33-35) restores a severed hand by incantation, he is then killed by his father's own sword stroke, and herbs subsequently grow out of his grave.

In addition to evidence for an underlying medico-religious system, there are occasional traces of common healing charms found widely throughout the IE area. In Old Indic tradition we find a charm in the Atharvaveda (4.12) for healing (a lame horse?) where marrow is to be put to marrow, skin to skin and flesh to flesh. In ninth to tenth century German tradition we find in the Second Merseburg charm the words by which various deities attempted to heal the sprain to Bald's horse: Ben zi bena, bluot zi bluoda, lid zi geliden, sase gelimida sin ('bone to bone, blood to blood, limb to limb, so let them be joined') while the Irish physician Maich (Cath Maige Tuired 34.135-136) attempts to rejoin the severed arm of Nuadu.
with the incantation ault fri halt di & feith fri fèth (‘joint to
joint of it, and sinew to sinew’). The antiquity of this charm
is insured by its presence in a Hittite-Luvian document (CTH
760) where the spells of the “Old Woman” conclude: ‘bone
to bone is fitted, sinew to sinew is fitted, blood to blood is
fitted’. Traces of this charm are also found in the traditions
of Norway, England, Russia and Greece.

A second widely attested medical solution to a problem
concerns cures for baldness. In Indo-European cosmology
where the universe is created from the parts of a primordial
巨, plants are formed from the giant’s hair. There appears
to be a specific relationship between grass and hair within
this system with the former behaving like hair in that it is
long, appears on the surface (flesh = earth in the cosmogonic
system) and the two materials both grow longer. This nexus
of associations helps explain not only the widespread beliefs
concerning disposal of hair in the ground (as if it were a plant)
but also the cures for baldness. The Atharvaveda (6.136-137)
describes how baldness should be cured by sprinkling the
remains of a plant with strong roots on the head while Pliny
(Natural History 26.30) recommends the application of
Iadanum, an extract from the Cistus plant. Germanic folk
practice advises the use of burdock root and fireweed to restart
the growth of hair through the nourishment of plants. The
permanence of such cures until today hardly requires comment.

In the cure for baldness and other maladies or injuries,
there is clear evidence that the etiology of Indo-European
disease required the application of the cosmogonic principles
to restore the “wholeness” of the individual. As the universe
was created from the body of a giant, the appropriate members
or parts of the body possessed correlates in the material world
which might then be applied for their restitution. The
Atharvaveda, for example, explains the healing properties of
the Arundhati plant (AV 5.5) from the fact that the first man’s
(Yama’s) horse spattered blood on it which can then, in turn,
be employed to restore broken limbs in a horse (AV 4.12).
Similarly, healing plants and herbs are attributed to the
dismembered parts of a primeval Irish healer, Dian Ceacht, or
a primeval Iranian ox, the herbs’ efficacy being related to the
particular body part from which it originally derived.

Finally, comparative evidence also suggests a recurring
pattern of removal of a disease or infestation from the body
of the diseased. In the Indic cure (AV 2.33.6) for the decaying
disease yakṣma, it is charmed out of the body from the bones
to the marrow to the sinews to the veins and out the
extremities (hands, fingers and then nails) while an Old Saxon
charm drives the ‘worm’ of disease out from the marrow, to
bone, to flesh, to skin, and then out through the sole of a
horse’s hoof. Corresponding examples can be found in Slavic
and Iranian traditions which again show how the cosmogonic
dissection of the universe is brought to bear to restore health.
Hence, one drives the disease from the central core, the bone
and marrow (stone) through the flesh (earth) and blood
(water) and out one of the extremities. The restitution of
health, in short, constitutes a restoration of the cosmic

“wholeness” to revive that of the body.

See also Anatomy, Blind, Cosmology, Deaf, Defect, Hernia,
Measure, Medical God, Sick. [D.Q.A., J.P.M.]

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MEET
*mod- - meet. [IEW 746–747 (*mod-); Wat 43 (*mod-);
Buck 19,65], ON meota ‘meet’, môt ‘meeting, public assembly’,
OE mètan ‘meet’ (> NE meet), gemôt ‘meeting, public
assembly’ (> NE moot), OHG muoten ‘meet as enemies’, MHG
muoz ‘meeting, public assembly’, Goth ga-mōjan ‘meet’.
Arm matći- (< *mad-e-ske/o-) ‘approach’. At least a word of the
west and the center of the IE world.

MEHRGARH

Long lasting settlement in Baluchistan spanning the period
from c 8000 to 2500 BC. The site is of critical importance for
determining the origins of the Neolithic economy in the Indian
borderlands. Already by the eighth millennium BC there is
evidence of einkorn (Triticum monococcum), emmer
(Triticum dicoccum), bread wheat (Triticum durum/aestivum),
and barley (Hordeum vulgare) along with utensils
such as sickle blades and grinding stones. Initially, the primary
mammalian fauna was hunted, e.g., chinkara (gazelle) (Gazella
dorcas), wild sheep, wild goat, swamp deer (Cervus
duvaucellii), nilgai or blue bull (Boselaphus tragocamelus) and
wild cattle (Bos namadicus). Through time the percentage of
cattle, sheep and goat increases at the expense of wild fauna.
Domestic goat may have been kept from the very beginning of
the site.

The importance of Mehragarh is that it appears to exhibit a
local transition to agriculture or, at least, a transition that was
almost as early as that experienced in western Asia and
Anatolia. For those who propose that the Indo-Europeans
spread with the expansion of early agricultural communities,
Mehrgarh renders it unlikely that the earliest farmers in the
territory of later Indo-Aryans and those of the west, e.g.,
Anatolians, southeast Europeans, would have had any cause to have spoken the same language. Rather, it makes it more likely that the Harappan culture or Indus Valley civilization was rooted both economically and perhaps linguistically (i.e., a non-Indo-European language) in local developments of the region.

Mehrgarh also plays a prominent role in arguments for later Indo-Aryan migrations to India. In Mehrgarh 7 (and also at the site of Sibri) there have been found graves which have been regarded as intrusive from the Bactrian-Margiana Archaeological Complex (BMAC) which a number of other scholars have suggested is to be identified with Indo-Iranians. Such evidence, dated to c 1800 BC, has been employed to suggest the movement of Indo-Aryans into northwest India in the late or final period of the Harappan culture.

See also BMAC; HARAPPAN CULTURE; INDO-IRANIAN LANGUAGES. [J.P.M.]

MELT

*teh₂r- 'to melt'. [IEW 1053–1054 (*tā-); Wat 69 (*tā-); BK 111 (*tā)- / *tāh-). Wels toddi (< *tā- or *tau-) 'melt', Lat tābeō 'melt', ON þeyja 'thaw', OE þáwan 'thaw' (> NE thaw), OHG douwen 'thaw' (Gmc *þaujan), OCS tajo 'melt', Grk ἔπνω 'melt', Arm t'ān (formation unclear) 'moisten', Oss taîn ~ tajun (< *tā-) 'melt'. The Germanic forms represent *þau- which may derive from *teh₂-u-. Distribution and formation clearly indicate a PIE root.

*(s)meld- 'to melt'. [IEW 718 (*mel-d-); Wat 40 (*mel-)]. OE meltan 'melt' (> NE melt), OHG smelzan 'melt', Grk μελλόμαι 'melt'. The meaning 'to melt' is clearly derived from a more general 'dissolve' (cf. ON melta 'to melt, to digest', etc.) from PIE *mel-(d) '(become/make) soft'. A word of the west and center of the IE world.

See also ICE; SOFT. [R.S.P.B.]

MESSAPIC LANGUAGE

Messapic is the designation usually given to the Indo-European language of southeastern Italy, spoken by a series of Iron Age peoples such as those designated by the Greeks as Messapians or known locally as the lapyges. Other peoples of the region included the Apuli, Calabri, Daunii, Peucetii and Sallentini. Messapian proper is attested in c 250 inscriptions which date from the sixth to first centuries BC. The inscriptions are short and generally comprise only the names of the deceased inscribed on a gravestone but there is sufficient evidence to indicate that they comprise an IE language, e.g., an inscription found at Vaste which includes the name of the town Basta (cf. Grk παρτήρ 'town', OInd vāsatī 'dwell'), and which, like a number of other inscriptions, begins klaohi presumably 'hear!' (< *kleu- 'hear'). Other possible words of IE origin include Mess penke- 'five' (< *pēnekʷ-e-), Mess barzidihi 'birch' (< *bherh₂gos). Ancient traditions held that the ancestors of the speakers of Messapic (including their immediate neighbors) had come to Italy in the not too distant past from Illyria, the Adriatic coastal region of Croatia, Bosnia.
and Albania, and modern linguistic tradition may be in agreement. In fact, Messapic is considered by some to be the best attested variety of Illyrian, a fact of little distinction as Illyrian proper is virtually untested. What we actually have is a series of personal and place-names on both sides of the Adriatic Sea whose similarity suggests a close genetic relationship, e.g., Illyrian Δαγανός and Messapic Dazes, Illyrian Λασσάνας and Messapic Ladi- and Illyrian Παστόρ and Messapic Plator-. The Peucetii are found in Apulia and also northwest across the Adriatic in Liburnia; Apuli is a tribal name in southern Italy while Apulus is a personal name in Illyrian territory; Dalmathus is a personal name in Messapia which, it is claimed, corresponds to the Illyrian personal names Dalmata and toponyms Dalmatas, Dalmanā. Such comparisons have been adduced to support the idea that the Messapians spoke a dialect of Illyrian and that they migrated to Italy sometime before the eighth century BC. In any case Messapic represents a kind of IE that is quite independent of the Italic languages and its Balkan relationships, whatever they might be precisely, have been employed to suggest east to west movements in the establishment of IE-speaking populations in Italy.

See also ILLYRIAN LANGUAGE. [J.P.M.]

Further Readings

METAL

*hroudhes- ‘metal > copper > bronze’. [IEW 15–16 (*ajos-); Wat 4 (*ayes-); GI 614 (*Haye-os); Buck 9.66]. Lat aēs ‘bronze, copper’, Umb aheses ‘copper mine’, Ocs eisemim ‘copper mine’, ON eir ‘ore’, OE ār ‘ore’ (> NE ore), OHG er ‘ore’, Goth aiz ‘money, metal coin’ (<? Germ *ayiz). Av ayaḥ ‘metal (probably bronze)’, Olnd ayaś ‘copper; iron’. The geographical distribution assures PIE status for this word but its underlying meaning is difficult to specify. Although the Iranian form has sometimes been taken to indicate ‘iron’, there are references in the Avesta (51.9b) to ayaḥa xōñst ‘molten metal’ which accords far better with copper or a copper-alloy than presuming the technology of cast iron for the early Iranians. Reference to Miθra carrying a mace zarōtis ayaḥō, frahīstom ‘cast of golden metal’ is surely a reference to copper or bronze rather than iron. Similarly, in Old Indic the earlier meaning of ‘copper’ for āyas- is well attested, e.g., reference to a milk vessel made out of āyas- without an admixture of ‘tin’ (Kapīṣṭha-Kaṭha-Sāṃhitā 4.2, Mātrāyantisamhitā 1.8.2), which clearly indicates unalloyed copper in contrast to bronze (an alloy of copper and tin) and in no way can be construed as ‘iron’. Early Indic literature also reveals no word for ‘bronze’ but requires a circumlocution where both constituent elements are mentioned together. The absence of PIE terms for either of the other two constituent elements of bronze, i.e., tin and arsenic, as well as the absence of a term for ‘alloy’ all suggest that the IE metal term may predate bronze metallurgy. The original referent was probably simply ‘metal’ which in practical terms first meant ‘native copper’ or ‘smelted copper’, then only later ‘bronze’. Among the Indo-Iranians *hroudhes- eventually came to mean ‘iron’ but in Germanic it came to mean ‘ore’ suggesting that *hroudhes- was a generic term and not a specific element among a constellation of other metals.

*hroudhos ‘the red metal, i.e., copper’. [IEW 872–873 (*roudho-); GI 616–617 (*r(e)udh-), 773; Buck 9.66]. On raudh ‘red iron ore’, OHG aruzz-i ‘ore’, OCS ruda ‘ore, metal’, Rus ruda ‘ore’, MPers rod ‘copper’, Olnd lōhā ‘copper’ (also ‘red’ iron). These are transparent and banal extensions of *hroudh- ‘red’ and cannot be employed to reconstruct a PIE ‘copper’. Lat rādus is frequently placed here but this stem neuter actually means ‘jump’, the material, stone, bronze, iron or lead, being identified by an attributive genitive sāxi ‘of stone’, aeris ‘of bronze’, ferri ‘of iron’, or plumbi ‘of lead’. The true cognates of Lat rādus may lie with OE greot ‘gravel’ (> NE grit) and Rus grudy ‘breast’. If so, we have evidence of a borrowing on the part of pre-Latin from some IE language of central Europe. The Sumerogram URUDU which provides the Hittite form has frequently been linked to the PIE word under the presumption that either it or a pre-Sumerian form was borrowed into PIE. But this may well be a chance similarity since PIE *hroudhos is clearly an adjectival term and the only solid term in PIE for ‘red’. In Hittite the Sumerogram appears phonetically as kūwannu and is probably related to Grk κόρος ‘blue’, perhaps with reference to the color of copper ores; further suggested affinities such as OCS sviñec ‘lead’ and Lith svines ‘lead’ (the latter a loan from Slavic), are phonologically and semantically distant.

For the modern metallurgist, bronze is a generic term for an alloy whose principal constituent is copper which is coupled usually with tin, more rarely with arsenic. Lexically, the terms for ‘bronze’ are late or are restricted to specific regions. Myc ka-ko ‘bronze’, Grk χαλκός ‘bronze’, points to a non-IE source, for PIE did not tolerate a root with both a sonority and the characteristic suffixes of other “Aegean” lexical items. The Greek word is perhaps related to Lith gleižis ‘iron’ and OCS želzo ‘iron’, which themselves may be related to Sino-Tibetan *qholeks (‘cast’) iron, though the direction and details of the borrowing are obscure. The Hittite word for ‘bronze’ is indicated by a Sumerogram ZABAR but its phonetic equivalent is unknown. Lat cuprum ‘Cypriot’ came to mean the raw material found on Cyprus as native copper (it has been suggested that the name Kupris ‘Cyprus’ was derived from Hurrian kabhali ‘copper’), and gave rise not only to Romance forms such as French cuivre, Spanish cobre and Romanian cupru but also loans in Germanic such as OE copor (> NE copper), and NHG kupler ‘copper’. Latv kapars is from
a Low Germanic trade language. The name of the town of Brundisium, a leading center for the manufacture of bronze mirrors, is the probable source of Italian bronzo ‘bronze’, French bronze ‘bronze’ (borrowed > NE bronze) as well as Byzantine Grk βορνύσιον, whether this word was carried through Roman trade into the Near East (where for example the Roman denarius remains today as the dinar of Bahrain, Kuwait and Iraq) and resulted in Arm pliny ‘bronze’, NPers birini ‘bronze’ is unlikely for the phonetics are inexact and more likely candidates occur in the Caucasus, i.e., Kartvelian *pi len3i, e.g., Georgian spil en3i ‘bronze’. These and a variety of other terms for copper and its alloys are clearly late, post-PIE terms whose affinities are not always easy to determine.

Archaeological Evidence
Copper as a diacritic of early PIE culture has but limited value as it occurs quite early and appears over a considerable area of Eurasia already by c 3000–2500 BC. Copper could be acquired either as a native metal, i.e., as pieces of metallic copper, or through the reduction of copper ores to metallic copper by smelting. Native copper could be worked into beads or other small ornaments and tools through beating. In order to strengthen the copper, annealing is required whereby the copper is subjected to temperatures of c 200–400 C although annealing might be achieved as low as 150 C.

Copper is already present at Çatal Hüyük in Anatolia by c 7000–6000 BC. Copper beads were found in association with slag which may have derived from either the melting of native copper or the smelting of copper ore (it is exceedingly difficult to distinguish the two processes). By the fifth millennium BC copper objects are known from both Iran and the Balkans. Copper mines dating from the fifth millennium BC are known at both Rudna Glava in Yugoslavia and Ai Bunar in Bulgaria and the Vinča and east Balkan Eneolithic cultures reflect the consumption of copper in the form of axes, awls and ornaments. Copper exchange systems are in evidence where the Balkan centers supplied the area northwest of the Black Sea, e.g., the Karbuna hoard in Moldova of the fourth millennium BC which yielded over 850 copper objects, and copper objects of Balkan derivation are found across the entire European steppe region, notably in the cemeteries at Khvalynsk on the middle Volga. The steppe region was also served by the development of copper-working in the Caucasus and by the beginning of the early Bronze Age a local copper center was established in the southern Urals associated with the Yamna and neighboring cultures. Further east, copper appears in the Afanasevo culture in the Minusinsk-Altai region where another major copper and bronze industry would later emerge.

From the Balkans we can trace the spread of copper elsewhere in Europe. It was employed in the Eneolithic Tiszapolgar and Bodrogkeresztür cultures in the Danube region, and in northern Italy by the late fourth millennium BC. Copper was exported northwards from central Europe into the Baltic region by the period of the TRB culture where it may have been used in exchange to acquire flint. A particularly thriving copper industry developed in Iberia also by the fourth millennium BC. In Atlantic Europe, copper is often associated with the Beaker horizon which appears by c 2500 BC, and copper mines are known as far west as Ireland by the late third millennium BC. From this pattern, it should not be surprising that a considerable number of stocks share a common word for ‘copper’ or ‘metal’ although it is still very much uncertain whether the distribution of its lexical cognates was a product of expansion from an early copper-using center or whether a common term circulated over a wide area of closely associated IE dialects.

See also Gold, Iron, Lead2, Silver, Tin. [M.E.H., J.P.M.]

Further Readings

MIDDLE


See also Adpreps. [D Q A.]

MIDDLE DNIEPER CULTURE
The Middle Dnieper culture is an eastern variant of the Corded Ware cultural horizon (c 3200–2300 BC) and was situated primarily in the north Ukraine between the other Corded Ware regional groups and the forest-steppe and steppe zone cultures. The culture is known from over two hundred sites, primarily tumulus barrows, some of which have been inserted into earlier Yamna burials and the cultural substrate is seen to be both Yamna and late Tripolye. Settlements are poorly known but would appear to have been small villages with surface dwellings. Burials were within kurgans with the deceased usually in the extended, more rarely in the flexed, position; there is also evidence of cremation from sites in Belarus. The burials were accompanied by pottery (amphora and beakers), stone battle-axes and possibly ornaments. Metal imports appear in the late stages along with ornaments of amber. As the primary contenders for staging areas of major
IE migrations are the Corded Ware culture and the Yamna culture of the steppelands and forest-steppe, the Middle Dnieper culture occupies a pivotal role in attempts to define the interrelationships between these two vast cultural blocks. The territory of the Middle Dnieper culture would appear to have been later occupied by the Proto-Slavs.

See also Corded Ware Culture; Fatyanovo-Balanovo Culture. [J.P.M.]

MIDGEC see FLY1, INSECTS

MILK

We can reconstruct a rich vocabulary for PIE concerning milk and milk products, a testimony to the importance of these things to a people who were heavily dependent on animal husbandry for sustenance. In some stocks, Indo-Iranian particularly, milk and its products come to be the type example of both food and richness in general. Curiously, perhaps, it is difficult to reconstruct the original PIE words for 'milk' itself, most PIE stocks using derivatives of the extremely widespread verb for milking.

*hemelg- 'to milk'. [IEW 722–723 (*mēg-); Wat 41 (*melg-); GI 486 (*melk-); Buck 5.86; BK 552 (*mal-/*mal-). From pres. *melgiti/*meljeneti: Mr bligid (< *mlig- < *μλγ-) 'milks', ON molka 'milk', mylkja 'suck', OE melcan 'milk' (> NE milk), OHG melchan 'milk', Lith melžiu 'milk', ORus malzu 'milk', Grk áµèλγω 'milk'; from pres. *hmolègeo-: Mr bluid (< *hmolègeio- with metathesis) 'milks', Lat mulgeō 'milk', Lith malži 'to milk', from pres. *hmolēh₂-: Lith malžau 'milk', TochA malkā- 'will milk'. Cf. derived words for 'milk' (noun): OIr mliecht, ON mjolk, OE meolc (> NE milk), OHG miluh, Goth miluks, OCS mlęko, Rus moloko (Slavic < Germanic), Alb mjel 'milk', TochA malke, TochB malkwer. In Latin, perhaps also in Celtic, this verb came to have, in addition to its basic meaning, a more general one 'bring to light, make public', e.g., Lat promulgare 'to promulgate a law'. Widespread and old in IE. We do not know the Hittite word for 'to milk'; in Indo-Iranian the original word has been replaced by a verb whose earlier meaning was 'to make/become useful'.

*g(é)lakt (gen. *glaktos) 'milk'. [IEW 400–401 (*glag- < *glak-); Wat 41 (*g(a)lag- ~ (g)lakt-); GI 85; Buck 5.87]. Lat lac (gen. lactis) (< *lakt < *dlakt with regular reduction of dental stop + -l cluster < *glakt with regular dissimilation) 'milk', Grk γάλα (gen. γάλακτος) 'milk' (with generalization of the Lindeman variant *glakt), γιάλακτος/γάλακτος 'living on milk' (without the *-t we have γιάλακτος [pl.] 'full of milk', γάλαγος [with voicing assimilation] 'milk'), Hit galaktar (= ḫgiktar) 'sap, milky fluid from trees and plants'. Since Latin, Greek, and Hittite are all centum languages the reconstructed initial is ambiguous; it could be *g- or *g-. If the latter, it is very
tempting to add the various Nūrisānti words for 'milk': Ashkun zō, Kati zu, Tregamī dзор, Waigali ژور. These words reflect a Proto-Nūrisānti *dzara-*, Proto-Indo-Iranian *z(h)ara- or *z(h)ra-*. A *zra- would match Grk γάλα exactly. There is also an Ancient Chinese *lak* 'dairy product, cottage cheese, or similar commodity, imported from northern barbarians' that would appear to reflect an even older Chinese *g*ктра or the like and it has been suggested that this word reflects a borrowing on the part of Chinese from some IE group in eastern Central Asia. With or without the evidence from Chinese, both the archaic morphological shape and the geographical distribution would seem to guarantee this item as at least a regional word in PIE. Possibly the original noun 'milk' since it has no known root connections within PIE.

*sdzedihi* (gen. *sdzedins*) 'coagulated (sour) milk'. [IEW241-242 (*sdzedm*); GI 487]. OPrus *dadan* 'milk', Alb *djațhe* 'cheese', Olnd *dādi* 'coagulated milk, thick sour milk, curds and whey'. A reduplicated derivative of *dhehji*- 'suck(le)'. Related are the unreduplicated Grk ṣήνος 'milk', Arm del' 'colostrum, milky liquid'. At least a word of the center and east of the IE world.

*ksihxrōm* 'skim milk, whey'. [GI 487]. Alb *hirre* (< *ksihxr-neh*> 'whey', MPers/NPers ștr 'milk', Yidgha șṭra 'milk', Oss aęxyr 'milk', Olnd kstrām 'thickened milk, milky sap'. A word of the center and east of the IE world. If *ksihxrō-* is metathesized from *skihxrōm* it might be possible to connect this word with Lith skiedžiu 'weaken, dilute', skystas 'liquid, thin (of soup)', Latv šķiedu 'dissipate' [cf.IEW 921 (*škēl-di*)] but the connection is obviously most speculative.

*pipihusih* 'rich in milk'. [IEW793 (*pi-pi-us*-l); BK 40 (*pi̯la-/*pi̯la-*)]. Lith papičių 'cow who produces milk', Av a-pipiyäš 'milkless', Olnd pipyäš 'rich in milk'. At least a word of the center and east of the IE world. A participle of *peihj*- 'be swollen, overflowing', other derivatives of which are *pihšir/'fat(ness)', Lith pienas 'milk', Latv piēns 'milk', Av paeman- 'mother's milk', Olnd pāyas- 'milk'.

*ş(k)seid- 'milk'. [IEW 1043 (*szėid*). Lith sviestas 'butter', Latv sviests ~ sviests 'butter' (Baltic < *š(k)seid-to- 'milk product?'), Av xšved- 'milk'. It is not certain that the Baltic and Iranian words belong together. If they do, we have evidence for a word of the center and east of the IE world.

*ş(k)ph(e)n- 'milk'. [IEW 4146 (*ţenk-); GI 486; cf. Buck 5.89]. Mīr ĝrt 'product of cattle (not calves) but especially milk and manure', Olnd ĝfta- 'cream, butter, ghee'. An equation that is both phonologically and semantically less than perfect; very dubiously a PIE word.

*ßenk* (gen. *ṭenklōs*) 'buttermilk'. [IEW 1068 (*ţ(e)nklō-m*); cf. Wat 70 (*tenk*-)]. On ĝel 'buttermilk', MPers takr 'bitter' (< *sour*), Olnd takrām 'buttermilk mixed with water'. From *tenk- become firm, curdle, thicken'. Though attested only on the fringes of the IE world, and there only late, there is a reasonable chance that we have in these attestations the reflexes of a PIE word.

*ţeughmen- 'cream'. [IEW673 (*ţeuğ-m(e)n*); cf. Buck 5.89]. On ĝel 'cream', OE rēam 'cream' (> NE ream), OHG raum 'cream' (OE and OHG < *ţeughmo-*), Av raquma- 'butter' (< *ţeugh(m)n-o- 'pertaining to cream'. The apparent agreement of Germanic and Iranian suggests but does not guarantee PIE status for this word.

*ţhęṃg* 'butter'. [IEW779 (*ţg*-e-n-); Wat 46 (*ţng*-); GI 609 (*ţng*-); Buck 5.89]. OIr imb 'butter', Wels ymenyn 'butter', Lat unguen 'fat, grease', OHG ancho 'butter', OPrus anctan 'butter'. Cf. Olnd antjas- 'ointment'. A word of the west and center of the IE world. From *ţhęng*- 'anoint'.

*ţvohg* (gen. *ţvargaras*) 'curds, curdled milk'. [IEW 1083 (*ţuro-*); Buck 5.88]. OCS tvorog 'curdled milk', Rus tvorog 'curds, soft cheese', Grk τιρός 'cheese', βούτρος 'butter' (> Lat būtrum, whence ultimately NE butter), Av türi- 'curdled milk, whey'. This looks to be a nominal derivative of
an underlying verb *tueh₂- which, however, is otherwise unknown (it is sometimes connected with *teu(h₂)- 'swell, grow strong'—from the notion of the curds "swelling" in the whey?). At least a word of the center and east of the IE world.

The identification of milking and dairy products in prehistory rests in general on secondary evidence that is frequently disputed. The earliest milked animal was probably the goat or the sheep, the former providing the greater quantity of milk. Iconographic evidence from the eastern Mediterranean suggests that cattle were milked only after goat and/or sheep dairying had been established as the earliest cattle-milkers are depicted to the rear of the animal (as one might milk a goat) rather than at the side as one customarily milks a cow.

That sheep and goats may have been milked since the early Neolithic is rarely disputed unlike the evidence for exploiting cattle for milk which is a common cultural and also mythic motif among many IE stocks. Arguments for cattle dairying rests primarily on two lines of evidence. The first is the age-slaughter pattern of livestock where it has often been assumed that calves were competitors for milk with humans and thus a dairying economy would be indicated where there is evidence of a very high slaughter pattern of calves. Such criteria, however, may be proceeding from an invalid assumption and there is also considerable ethnographic evidence among African cattle-milking populations and early medieval European sources to argue that in prehistoric and early historic times cows would not give milk in the absence of their calves. Some empirical evidence, such as the examination of animal remains from historically attested dairy economies such as that of early medieval Ireland, suggests that the latter may well be true and hence most claims for Neolithic cattle dairying on the basis of the slaughter of young animals may not be secure.

The second group of evidence is technological and rests primarily on the presence of a series of clay strainers (and for the Bronze Age, "milk boilers" and open strap-handled vessels) which were presumed to be part of the dairy economy. The identification of the function of these utensils is based largely on their similarity with modern metal strainers which were employed, for example, in separating curds from whey. As fragments of ceramic strainers have been found on early Neolithic sites in central Europe, e.g., Linear Ware sites, it has been suggested that the raising of cattle for their dairy products as well as their meat was known already in the early Neolithic. But it should be emphasized that the modern strainers which suggest this interpretive scheme are employed in the production of cheese from sheep's milk and there is no reason to assume that they must have been utilized for cow's milk in the early Neolithic. Generally, on the evidence of age-slaughter pattern and similar strainers, and the increase in the numbers of cattle in some areas, the origins and dispersion of cattle-based dairying is set to the period c 3500 BC, i.e., at the transition from the late Neolithic to the Bronze Age, when a series of other "secondary products" such as the use of animals for draught, the plow, and the appearance of woolly sheep are recorded.

Dairying, at whatever date, has certain genetic implications as well as economic. Many of the world's populations, after the age of four, do not produce sufficient quantities of the enzyme lactase which breaks down lactose (milk sugar). The consumption of milk by an adult who cannot process the lactose results in a variety of unpleasant side-effects—flatulence, belching, upset stomach, and extreme diarrhea. The enzyme is present among populations of Europe and north Africa extending eastwards to east India but even here there are large areas where people are lactose intolerant, e.g., about half the population of the Mediterranean. Some have argued that the gene for producing lactase developed in northwest European populations, when their diets shifted to cereal agriculture in an environment low on sunlight. The consumption of milk, which is high in calcium and would have helped mitigate against vitamin D deficiency, would have presented them with a selective advantage. Those lacking the necessary enzyme can still consume cattle-based dairy products provided that they have been processed to make butter or cheese.

See also Anatomy, Cow, Food, Goat, Sheep.

Further Readings

MILLET

?*melh₂- 'a grain, millet'. [IEW 718 (*mel-i-/*mel-es); Wat 40-41 (*mel-s); Gl 567–568 (*mel-); BK 518 (*mul-/*mol-)]. Lat milium 'millet', Lith mæla (mostly pl. mælnos) 'row of mown grain or grass, Italian millet', Grk μελίνη 'millet'. It may be that these are all rather banal derivatives of *melh₂-'grind', in which case the apparent agreement of these three stocks is not very significant. It is, however, also possible that the Latin and Greek words reflect different derivational enlargements of a PIE *melh₂i- or even, as theIEW supposes, that all three reflect different rebuildings of a heteroclitic (nom./acc.)*melh₂i, (gen.)*melh₂nos. Certainly the presence of the latter type of paradigm would be strong evidence for the existence of this word in PIE but positing such a paradigm would be speculative.

?*pano- 'panikov(h₂)-millet'. [cf.IEW789]. Lat panicum 'millet' (borrowed > NE panic grass), Shugumi penj 'millet', Sarkoli penj 'millet', Khufi rusbijn (< *rusta- 'reddish' + word for millet) 'a kind of millet', Yaghulami xorban 'millet', (particularly Panicum italicum'), Wanjixarban 'millet',
Millet

See also Agriculture, Grain. [D.Q.A., J.P.M.]

MINNOW see Fish

Mistletoe

*yikso- 'mistletoe, birdlime'. [IEW 1] 34 (*yiks-); GI 555 (*wikal-). Lat viscum 'birdlime', OHG wichtena 'black cherry (Prunus cerasus)', Rus vishnya 'cherry', Grk εϊκος 'mistletoe'.

This dialectal form is mainly supported by the Latin and Greek cognates although the latter primarily denotes the golden, parasitic plant which cloaks the wand of druids and shamans discussed in James Frazer's The Golden Bough, whereas in the former stock the primary meaning is 'birdlime', a kind of sticky stuff smeared on branches by fowlers to catch (perching) birds. Viscum, incidentally, is the source of NE viscous. The classical language forms have been linked to Germanic and Slavic although the two latter stocks all yield the meaning 'cherry'. Given the low similarity between the mistletoe and the cherry (granted that both bear berries) and the absence of any information on the value of any part of the cherry for making birdlime or glue, the Germanic and Slavic forms must be questioned and *yikso- be classified as very late and dialectally limited.

See also Grove, Oak, Plants, Trees. [P.F.]

Mix

*yeu-* 'mix something moist'. [IEW 507 (*yeu-); Wat 79 (*yeua-); GI 608 (*yeu-s-)]. OIr ith 'porridge'. MWels wið 'porridge', Lat tiis 'sauce, soup', ORus jūse 'fish-soup', Lith jauti 'mix, entangle', Latv jautī 'mix, mix dough', Grk ζύμη 'leaven', OInd jāuti 'binds, unites', yās- 'soup, broth'. The zero-grade of the root provides the base for the nominal forms meaning 'soup' or 'porridge'. Distribution suggests PIE status.

*kerh- 'mix'. [IEW 582 (*kerh-); Wat 30 (*kerh-)]. Buck 5.171. ON hr̄rena 'move, stir', OE hrutan 'move, stir', OHG hrutojan 'move, stir', Grk κύρπην 'mix', Av sar- 'associate with, mix with', OInd sṛṇāti 'mixes, mingles'. Cf. the participle *kṛh- to-s attested in Grk ἀ-κρατος 'unmixed, pure', and OInd sṛṇā- 'mixed'. The Old Indic form is unexpected but may be explained as an attempt to avoid homophony with śpāṭi 'smashes'. Both Greek and Old Indic show a nasal infix -sKe/O-. There is no reconstructible word for 'monkey' or 'ape' in PIE although there are several borrowed forms that underlie words in various IE languages. [IEW 2 (*əbō(m); GI 442 (*qe/oph-); Buck 3.76]. Celtic (Hesychius) ṛphaṇaːs 'monkey, ape', ON apa 'ape', OE apa 'ape' (> NE ape), OHG aflo 'ape', ORus orića 'monkey, ape'. Grk κηφός ~ κηβός 'long-tailed monkey', OInd kapi- 'monkey'. The Greek and Indic words are cognates by borrowing with other Near Eastern words for 'ape' such as Hebrew qōph and Egyptian qepbi but what language was the ultimate donor and what the exact route of transmission was remain unclear. The Germanic words are generally taken to be borrowings from Celtic, presuming ṛphaṇaːs, recorded by Hesychius, is a mistake for ṛphaṇaːs. Again the ultimate source of the Celtic word is not known, but surely it does not reflect anything PIE.

See also Thunder. [D Q.A.]

Moan

*sten- 'moan'. [IEW 1021 (*s)ten-]; Wat 66 (*s)tena-]. On stōn 'moaning', OE stenan 'moan, Lith stęnę 'moan', OCS stenjo 'moan', Grk στένω 'roar', OInd stanati 'thunders'.

Cf. Rus stōn 'moaning', Grk στόνως 'moaning', OInd abhi-stanā- 'din'. Sufficiently widespread to be a likely candidate for PIE status. Related to *tenh- 'thunder'.

See also Thunder. [D Q.A.]

Monkey

There is no reconstructible word for 'monkey' or 'ape' in PIE although there are several borrowed forms that underlie words in various IE languages. [IEW 2 (*əbō(m); GI 442 (*qe/oph-); Buck 3.76]. Celtic (Hesychius) ṛphaṇaːs 'monkey, ape', ON apa 'ape', OE apa 'ape' (> NE ape), OHG aflo 'ape', ORus orića 'monkey, ape'. Grk κηφός ~ κηβός 'long-tailed monkey', OInd kapi- 'monkey'. The Greek and Indic words are cognates by borrowing with other Near Eastern words for 'ape' such as Hebrew qōph and Egyptian qepbi but what language was the ultimate donor and what the exact route of transmission was remain unclear. The Germanic words are generally taken to be borrowings from Celtic, presuming ṛphaṇaːs, recorded by Hesychius, is a mistake for ṛphaṇaːs. Again the ultimate source of the Celtic word is not known, but surely it does not reflect anything PIE.
The only monkeys to survive in Europe until the time of humans was the macaque (Macaca) whose remains are found from Britain to the Caucasus from five million years ago to c 200,000 BC. The Barbary ape (Macaca sylvestris), if not a relic, was re-introduced to Gibraltar from North Africa. The earliest context for monkeys in Greece is their depiction on the walls of Minoan palaces in Crete during the Bronze Age. Their earliest appearance in west European contexts is when they appear as the result of long-distance contacts, presumably prestige gift-exchange, with North Africa. Barbary apes have been uncovered from both Ireland and Luxembourg in apparently "Celtic" (i.e., La Tène) contexts during the last three centuries BC.

[D.Q.A., J.P.M.]

**MOON**

*meHl-nOt (~ meHl-n(e)s-) 'moon'. [IEW 731–732 (*men̂Ot); Wat 39 (*mê̂n̂Ot); Gl 590–591 (*meHl-s/ *meH(H)-n-); Buck 1.53]. OIr *mi* 'month', Wels *mis* (*mê̂ns*) 'month', Lat *mensis* (gen. pl. *mensum*) 'month', ON *máni* 'moon', OE *môna* 'moon' (> NE *mône*), OHG *mêna* 'moon', Goth *mêna* 'moon' (cf. ON *máns*/ *máns*), OE *môna*/ *mân* 'month', Goth *mêNôps* 'month'), Lith *mênuo* 'moon, month', Latv *mênesis* 'moon', OCS *mesic* (< *mes-ko-*) 'moon, month', SC *mësëc* 'month', Alb *muaj* (< *mûn- < *mên-*) 'month', Grk *mê̂n* 'month', Arm *amis* 'month', Av *wa *= (maah) 'moon, month', Olind *mâs* 'moon, month', TochA *maH* 'month', TochB *mête* 'moon, month'. Lithuanian probably retains the old paradigm *meHl-nOt* (acc. *meHl-nës-). The PIE word meaning 'shining, gleaming' (cf. AV *raoxsna-: gleaming') from the root *leuk-: light*, was no doubt an epithet for the 'moon' and adopted by a few languages as one of the words for the 'moon', e.g., Arm *luisin* (< *leoukenos*) 'moon'. The OPrus (pl.) *laukxos* means 'stars'.

**mos**

*meHl-nOt (~ meHl-n(e)s-) 'moon'. [IEW 687 (*louk-s-no-); Wat 37 (*lêuk-s-nä-), Gl 591 (*lêukb-s-nä-); Buck 1.53; BK 580 (*law/*law*). Mír *dha liúin* 'Monday' (or Latin loan?), Lat *lûna* (< *leouksnä*) 'moon', OCS *luna* (< *louksnä*) 'moon (Latin loan?). A word meaning 'shining, gleaming' (cf. AV *raoxsna-: gleaming') from the root *leuk-: light*, was no doubt an epithet for the 'moon' and adopted by a few languages as one of the words for the 'moon', e.g., Arm *luisin* (< *leoukenos*) 'moon'. The OPrus (pl.) *laukxos* means 'stars'.

**mother** (later 'wife'), Latv 'mother', Grk *mê̂ntos* 'mother', Osc *mehlnes* 'mother', Lydian *maH-er* 'mother'. A word, probably ultimately derived from the root *an-*, doubtless an epithet for the 'mother' (as in the root *matr- 'mother'), Lat *matr- 'mother', OCS *máH-tér* 'mother', Alb (Gheg) *hâne* 'moon', (Tosk) *hêne* (< *skondHâ* 'moon'), Olind *candrá-máš* 'the Moon (god)', Sindi *candru* 'moon'. Grk *kândepôs* 'charcoal' does not belong here. From the root *skend* 'shine'.

Within the structure of reconstructed IE cosmogony, the moon tends to be derived from the mind or from the seat of thought, the breast. Unlike most of the other cosmogonic transformations, e.g., wind is from the breath of a primordial giant), the heavens are from the head, the association between the moon and human anatomy, found in Indic, Greek, Slavic and Romanian sources, lacks a transparent connection. Bruce Lincoln has suggested that it may have been motivated in early IE times on the vague phonological similarity between *meHl-nOt (~ meHl-n(e)s-) 'moon' and *mê̂n*- 'to think, mind' and its extensions.

See also **Cosmology**. [R.S.PB.]

Further Readings

Beekes, R. S. P. (1982) GA v mä, the PIE word for 'moon, month' and the perfect participle. JIES 10, 53–64.


**MORNING** see **EARLY**

**MOSQUITO** see **FLY**

**MOSS**

*meHus (gen. *musHos*) 'moss, mould'. [IEW 742 (*meHus*); Wat 42 (*meHus*); Gl 572 (*meHus*); Lat *muscus* 'moss', ON *mosi* 'moss', *myrr* (< *meHusi*): mould'), Dan (dialect) *musk* 'mould', OE *mês* 'moss', *môs* 'bog, marsh' (> NE *moss*), OHG *mos* 'moss, bog, mios' 'moss', Lith (pl.) *mûsos* 'mould', (pl.) *mûsai* 'mould on sourd milk', ORus *mûči* 'moss', Rus *môk* 'moss'. Restricted to the west and center of the IE world. Probably a late and dialectically restricted word in IE.

See also **Plants**. [D.Q.A.]

**MOTHER**

*meHtér (or *meHtér or *mâtér) (gen. *meHtrôs*) 'mother'. [IEW 700–701 (*mâtér-); Wat 39 (*mâtér-); Gl 667 (*maHb-); Buck 2.36; Szem 2; Wordick 103–104]. OIr *máthair* 'mother', Lat *mâtér* 'mother', Osc *mateis* 'mother', Umb *mater* 'mother', ON *móðir* 'mother', OE *modor* 'mother' (> NE *mother*), Fris *moder* 'mother', OHG *muoter* 'mother', OPrus *mothe* 'mother', Lith *mote* 'mother' (later 'wife'), Latv *mâte* 'mother', OCS *mati* 'mother', Rus *mat* 'mother', Czech *mati* 'mother', Grk *mêtrâ* 'mother', Doric *µêtrâ* 'mother', Phryg *µêtrâ* 'mother', Arm *mây* 'mother', Av *mâtâr* 'mother', OPers *mûtâr* 'mother', Sogd *mit* 'mother', Osv *mòd* 'mother', Olind *mâtâr* 'mother', TochA *mâcâr* 'mother', TochB *mäcer* 'mother', Phryg *µêtrâ* 'mother', Arm *mây* 'mother', Av *mâtâr* 'mother', OPers *mûtâr* 'mother', Sogd *mit* 'mother', Osv *mòd* 'mother', Olind *mâtâr* 'mother', TochA *mâcâr* 'mother', TochB *mäcer* 'mother', Phryg *µêtrâ* 'mother'. The stress pattern we find in Indic and Germanic for 'mother' is probably analogical to that of 'father' and 'daughter'. Derivatives: Wels *modreb* 'mother's sister', Alb *moter* (< *mêHtr-ehâ*- [maternal] sister) 'sister'. The PIE word for 'mother'.

*men (or *an*) 'old woman, mother'. [IEW 36 (*an-); Wat 2 (*an-), BK 454 (*an-)]. OIr *Ana* 'mother of the gods', Lat *anus* 'old woman', Hit *anna* 'mother', Palaic *annas* 'mother', Luv *annâ/- 'mother', Lydian *ênâ/- 'mother', Lycian *ênê/- 'mother'. A word, probably ultimately derived from child-language, which is widespread and old in IE. Only in Anatolian and Armenian is this word phonologically distinct.
from *h2en-* 'grandmother' as seen in OHG ana 'grandfather', Goth ana ‘grandmother’, OPrus ana ‘female ancestor’, OCS vunok ‘grandfather’, Rus vnuk ‘grandfather’ (Proto-Slavic *ononko- < *h2en-h2en-ko-), Grk ἀνήγερος (Hesychius) ‘grandmother’, Arm han ‘grandmother’, Hitt huwas ‘grandmother’, Lydian xtnahēti- ‘of grandmother’, OPers nyākā (< *h2en-jeha-keh3-?) ‘grandmother’. It seems likely that the form of *h2en-* 'grandmother' has been influenced by that of *h2en-jezogs ‘grandfather’ (compare the alliterating pairs in Hittite of attas annas ‘father and mother’ and hutthas hannas ‘grandfather and grandmother’.


In any case, widespread and old in IE.

*h2em- (or *am-) ‘mother’. [IEW 36 (*am(m)a); Wat 2 (*amma); BK 439 (*am(m)-/*am(m)-)]. Late Lat amma ‘mother’, ON amma ‘grandmother’, OHG amma ‘mother’, Lith ambā ‘nurse’, Alb eme ‘mother’, Grk μητέρα ‘mother’, Olnd ambha ‘mother’, Toch B amma-kki ‘mother’. Another word that reflects child-language. By its widespread distribution, it is likely to reflect a pet form for ‘mother’ of PIE age.

*m-h2em- (or *am(m)-) ‘mother’. [IEW 694 (*mā ~ *māma); Wat 38 (*mā-); Buck 2.36; BK 439 (*am(m)-/*am(m)-)]. Nfr mam ‘mother’, Wels mam ‘mother’, Lat mamma ‘nurse; mommy, grandmother’, OHG muoma ‘aunt’, Lith māma ‘mother’, Latv mamma ‘mother’, Rus māma ‘mother’, Alb mame ‘mother’, Grk μαμά ‘mother’ (later ‘grandmother’), Arm arm ‘grandmother’, NPers mām ‘mother’, Olind mā ‘mother’. Possibly a reduplicated form of the previous entry and may obviously derive from the universally observed pattern of children’s references to their mother, e.g., NE ma, Chinese mā ‘mother’.

*h2ekkeha- ‘mother’. [IEW 23 (*akkā); BK 417 (*ak[p]l[kp]/*ak[p]l[kp]-)]. Lat Acca ‘mother’ (Roman goddess), Grk ἀκκόσ (nurse of Demetēr), Olnd akkā ‘mother’. Although less widespread than many of the other popular words for ‘mother’, it is possible that this one too is of (late) PIE antiquity.

*yh2en- (or *gen-) ‘mother, procreatrix’. [IEW 374 (*gena); Wat 19 (*gena-); BK 275 (*kun-/*kun-)]. Lat genetrix ‘procreatrix’, Grk γενετέρα ‘procreatrix’, Olnd janet ‘procreatrix’. Since the morphology is productive, it is not certain that these words reflect a PIE ancestor.

The most common Indo-European term for ‘mother’ was *mehdār, a formation absent only in Hittite. Speculations on whether this term was built on an existing semantic root or derives from a common human tendency to use labials and alveolars for parental terms is even more fruitless than most etymological speculation of kinship terms although it has been shown on a cross-language family basis that stops, nasals and a-vocalisms predominate in the words for ‘mother’ and ‘father’. If the deep etymology of PIE ‘mother’ is indeed only the ‘one who gets addressed ma-ma’, then we might presume that the reconstructed laryngeal is hardly etymological.

In addition to this formal term, PIE also possessed a number of pet terms, *an- and *am-, identified by a-vocalism; often these appear in variants (*n-an- and *m-am-) which reflect a peculiar reduplication in which the stem is added to the beginning of the word. Finally, there may also have been a biologically precise term, *genhithriya- ‘progenitrix’ (if the Latin, Greek, and Old Indic words are not independent creations). The need for a specific term for biological mother suggests that the social term ‘mother’ included more than the biological mother, possibly the mother’s sister and mother’s brother’s daughter.

See also Grandmother, Kinship, Sister. [M.E.H.]

** MOTHER-IN-LAW**


The forms for parent-in-law undergo extensive deformation in virtually all Indo-European branches which makes determining the original shape and nature of the velar stop and the position of the accent difficult. It seems clear that the word for ‘mother-in-law’ was derived from that of the ‘father-in-law’ (*suekrih1a-/) and that the original feminine contained a palatal stop and was an end-stressed u-stem. In Baltic, Greek and Armenian, the feminine has been remodeled after the masculine. Albanian has suffered regressive assimilation, while Germanic has shifted the form to the typical o-stems except Norse which has a refashioned n-stem based on the masculine with initial accent. The original u-stem is preserved only in Italic, Slavic and Indic. An alternative explanation, suggested by Uli Linke, analyzes the word as *sea- ‘own’ + *kruh1- ‘(outside) blood’, i.e., ‘own outside-blood-woman’. This ingenious explanation, which is supported by evidence from IE beliefs, unfortunately not only ignores the likelihood that the feminine form is derived from the masculine but also the palatal velar in the kinship term which is decidedly not present in *kruh1- ‘(outside) blood’.

See also Father-in-law, Kinship, Mother. [M.E.H., J.P.M.]
MOUSE

*mōs ~ *mōss (gen. *musōs) 'mouse'. [IEW 752–753 (*mōs); Wat 43 (*mōs); GI 449 (*mōs–); Buck 3.63]. Lat mōs 'mouse', ON mōs 'mouse', OE mōs 'mouse' (> NE mouse), OHG mōs 'mouse', OCS myś 'mouse', Rus mys 'mouse', Alb mī 'mouse', Grk μῦ 'mouse', Arm mukan 'mouse', NPers mūs 'mouse', Oss mys 'mouse', Olds mōs 'mouse', Tocharian (pl.) māscistis 'mice, rats'. Widespread and clearly old in IE. Possibly originally a root noun, *the stealer', from *meus- 'steal', remove'. A similar semantic association is perhaps to be seen in Hittite where the word for 'mouse', kapirt, may reflect a PIE *kom-bhēr-t, a derivative of *bher-, usually 'carry, bear', in its secondary meaning 'steal' (cf. Lat fūr 'thief'). An apparent denominative verb, derived from the Proto-Anatolian ancestor of kapirt, may exist in Lydian kabrodokid 'steal'.

*pēlus (gen. *pōluος) 'mouse'. [cf. IEW 804–805 (*pēlo-)]. Olr luch 'mouse', Wels łyg 'mouse' (Celtic < *pluko-), Bulg plach 'rat', SC pū 'dormouse', Rus polokhōk 'dormouse' (Slavic < *plukō < *plūka < *pluko-), Wakhī pūrk 'mouse', Shughni pūrg 'mouse' (Iranian < *paruaka- < *peluko-). The distribution of attestations suggests that we have here at least a late PIE word for 'mouse' < *gray one (from *pēl- 'be gray'). OSus pele- 'mouse', Lith ple 'mouse', Latv pele 'mouse' represent an independent Baltic creation from the same root.

*ghlīs 'dormouse?'. [IEW 367 (*gli-)]. Lat gli 'dormouse', Grk γαλάζ 'weasel' (< *a mouser; cf. Lat mūstēla 'weasel' < *mūs-dhers-leha- 'mouse-grabber'), Ormuri gilak 'rat', Bakhtiari girza 'rat' (Iranian < *ghlījo-), Old E Iranian giri- - girka- 'mouse'. Sufficiently widespread to reflect PIE age.

We evidently have three words that can be plausibly reconstructed as meaning 'mouse' in PIE, *mōs, *pēlus, and *ghlīs. If the distinction in Latin is anything to go on, one might suggest translations as 'mouse' and 'dormouse' respectively for *mōs and *ghlīs, the latter including any one of a group of species, among which we could number the garden dormouse (*Eliomys quercinus), the forest dormouse (*Dryomys nitedula), the lat dormouse (*Glis glis), and the common (= hazel) dormouse (*Muscardinum avellanarius). Such a distinction, however, is by no means certain and there are at least nine other species of rodents, living in relevant parts of Europe, that may well have been called 'mouse' by early IE speakers. In all contemporary IE languages *mōs has as its focal point of its meaning the species *Mus musculus which is ubiquitously commensal with man. However, it is not altogether clear that that commensality had begun with man in those parts of Europe where PIE may have been spoken at the time when it was spoken. The rat, of course, is an animal of Asia and only introduced into Europe in historically recent times.

The distribution of the mouse covers all Eurasia; however, it is rarely, attested on archaeological sites of the prehistoric period, no doubt because it fulfilled no evident economic role. Later, in early Greece, mice were employed for both fortune-telling (Pliny) and medicinal purposes, e.g., mouse blood, cock's gail and a woman's milk was the recommended remedy for cataracts according to Galen while mouse blood also was used to cure warts (Hippocrates). Mice also had broadly healing uses in Hittite ritual. In the folklore of a number of a IE stocks the mouse is conceived of as blind and hence related to the mole.

See also MAMMALS, MEDICINE, MUSCLE, STEAL. [D.Q.A., J.P.M.]

Further Reading

MOUTH

*h₁/j₁ouh₁(s)- (gen. *h₁/j₁ouh₁sōs) 'mouth'. [IEW 784–785 (*ōs-); Wat 46 (*ōs-); GI 714 (*ōs-); Buck 4.24]. Mīr a 'mouth', Lat ās 'mouth', ON ās 'mouth of river', Hit a(y)is (gen. isās < *h₁/j₁ouh₁sōs with prothetic vowel *i-) 'mouth' (nom./acc. reflects putative PIE *h₁/j₁ouh₁jes), Luv ās-'mouth', Av āh-'mouth', Old ās-'mouth'. Widespread and old in IE.

*h₁/j₁oušt-eh₁- 'mouth, lip'. [IEW 784–785 (*aus-tā); Wat 46 (*ōs-to-); GI 714 (*ōs-ʰ-); Buck 4.24]. Lat ōstum 'mouth of a river', OPrus austo 'mouth', Lith uostā 'mouth of river', ūostas 'port, harbor', Latv ūosts 'harbor', ap-āūtis (< *auštis) 'halter', OCS (pl.) usta 'mouth', ustis 'lip', Rus ustisje (< *ouštisjē) 'mouth of river', Av aostis(ia)- 'lip', Oldn ŭṣthā- (< *h₁/j₁oušt-k₁-ōs) 'lip'. The initial vowel in Latin, Lithuanian, and Latvian (ūosts) has been influenced by that of *h₁/j₁ouh₁sōs 'mouth'. It is conceivable, if not demonstrable, that *h₁/j₁oušt is ultimately related to *h₁/j₁ouś- 'ear', perhaps both from a more general meaning 'a orifice'.

*stomps 'mouth'. [IEW 1035 (*stomen-); Wat 67 (*stamen-); Buck 4.24]. Wels safn 'jawbone', Grk στόμα 'mouth', Hit istaman- 'ear', Luv tūm(m)an(t)- 'ear' (Anatolian < *orifice), Av staman- 'maw'. The Germanic group represented by NHG stimme 'voice' (< Proto-Gmc *stemnō 'voice' [< *that of the mouth]) represents a derivative. Another derivative is to be seen in Hit ista(n)b 'taste, try (food or drink) from PIE *stem-h₂-.

*gheh₁(a)-mt (gen. -mnōs) 'interior of mouth (e.g., gums, palate). [IEW 449 (*gheu-); Wat 23 (*gheu-); BK 234 (*ga/*go-). ON gomr 'palate, gums', OE goma 'inside of mouth or throat; gums' (> NE gums), OHG guomo ~ guomo ~ giomo (where giomo is certainly secondary and guomo may be) 'palate', Lith gomurys 'palate', Latv gāmurs 'windpipe, larynx'. A "northwesternism" in late PIE.
"gums". Grk ὀυλόν 'gums', OlNd bársva- (dissimilated from *wársva-)'gums'. Apparently a dialectal term in late PIE. From *uels- 'bulge, be padded'.

See also Anatomy, Chin; Jaw, Lip, Tongue, Tooth. [D.Q.A.]

Further Readings

MOVE

*meu(h)₂- 'move'. [IEW 743 (*meu-); Wat 42 (*meu-); Buck 10.11]. Lat moveó 'set in motion', Lith mą̂ju̇ 'put on or off', Grk (aorist) ἀμοινάντω 'surpass, outstrip', ἄμινω 'ward off', ἀμίνων 'defend oneself against', Hit muasu 'falls', Av ava-nitva- 'take away', OlNd mivati 'shoves, pushes, sets in motion', TochA miv- 'shake, quake', TochB miv- 'shake, quake' (the Indo-Iranian and Tocharian < *meih₃-u- by dissimilation from *meuh₃-u-). Widespread and old in IE.

*meu- 'move; remove'. [IEW 743 (*meu-s-)]. OlNg chřeomósido 'grave-robbery', Khot musā̀ ( < *mus-y-) 'robbers', OlNd musnātā- mosati 'steals', TochAB musnā- (TochB subj. musa-/muse-) 'lift, move (aside)', musk- 'disappear', TochB musā- (< *mus-) 'go'. An old enlargement of the preceding verb which was also widespread in IE. On both the eastern and western fringes of the IE territory, it shows a tendency (not shared by Tocharian) to come in mean 'steal'; cf. PIE *mús 'mouse'.

*dheu(h)₂- 'be in (com)motion, rise (as dust or smoke)'. [IEW 261-263 (*dheu-); Wat 14 (*dheu-); GI 177 (*deu-)]. Lat sul-țio 'smoke', ON dyja 'shake', OCS dūpō 'blow', Rus dúju 'blow', Alb dea ~ dej (< *dheu-skē-o- ~ *dheu-nje-o-) 'intoxicate, make drunk', Grk θυω 'rush on', θυνά 'dart along', Arm de-dev-im 'shake', Av dvaizati 'flutters', OlNd dhunātī ~ dhunātī 'shakes, moves about, kindles a flame'. The basic meaning is illustrated by some nominal derivatives: ON daunn 'stinch', dūrn 'down' (borrowed > NE down), Goth dauns 'smoke, dust', Lith dują 'dust', duje 'down', OlNd dha-li- 'dust', TochA tve 'dust', TochB tveye 'dust'. Widespread and old in IE.


*†hjeig- 'move' (pres. *hjeig-o-). [IEW 13-14 (*aig-)]. ON eikinn 'furious', OCS igrati 'play', Grk ἐκείνῳ 'drive on', OlNd ejatī 'stirs, moves'. It is not altogether certain that all these words belong together. If they do, the geographical distribution would argue for a word of PIE date.

See also Come; Flow; Go; Hurry, Mouse; Set in Motion; Smoke, Steal. [D.Q.A.]

MOW see HARVEST

MULBERRY

*meurōn 'blackberry'. [IEW 749 (*moro-); Wat 43 (*moro-); GI 555-557 (*moro-); BK 532 (*murt-*mor-)]. Wels merwydd(en) 'mulberry', Lat morum 'mulberry, blackberry', mōrō 'mulberry tree', Grk μοῦρον 'mulberry, blackberry', μοῦρα 'mulberry tree', Arm mōr 'blackberry', mōri 'blackberry vine', Hit muri- 'bunch of grape(s)', despite the unexplained difference of vowel.

The two main meanings of the cognates are motivated by the fact that the tender and juicy fruits of the blackberry are similar in taste and shape to those of the mulberry. Thus Lat morum denotes or has at least been translated as 'mulberry' in Horace and 'blackberry' in Virgil. The Greek form has been glossed 'mulberry', 'blackberry' and, even more specifically 'black mulberry'. Armenian helps supplement the classical languages and the Celtic cognate is unlikely to reflect a Greek loan as has sometimes been alleged. In both northern and Mediterranean Europe, the mulberry was grown for what is in general its main use: sericulture. At another cultural level, Greek myth has it that the red mulberry had its origin in the white when the roots of the latter were stained by the blood of the suicidal lovers Pyramus and Thisbe.

See also Berry, Plants, Trees. [PF]

MUSCLE

*mus₂(lo) 'little mouse; muscle'. [IEW 752-753 (*mûs); Wat 43 (*mûs)]. Lat musculus 'little mouse; muscle', Khot mûla- 'mouse; muscle', mûlāna- 'calf (of leg)'. Cf. also OHG müs 'mouse; muscle' (especially of the upper arm), Arm mûk 'mouse; muscle', Grk μῦς 'mouse, muscle'. The metaphorical leap from 'mouse' to 'muscle' (based presumably on the perceived similarities of certain muscles, such as the biceps, when contracting, to a mouse's movements, say, under a cloth) is sufficiently odd that it is unlikely to have happened independently in so many IE groups. Therefore, the metaphor must be of PIE antiquity. The form *mûs₂-lo- may very well also be old since *-lo- is not common as a diminutive marker.

See also Anatomy, Mouse, Tendon. [D.Q.A.]

MUSSEL see SHELLFISH

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NAIL

*h3noh[(u)- (finger- or toe-)nail'. [IEW 780 (*onogh-); Wat 45 (*noh-); cf. Gl 60; Buck 4.39]. Ltr ingen 'nail', OWels eguin 'nail', Lat unguis 'nail, claw', ungulus 'hoof', ON nagl 'nail', OE nægel 'nail' (> NE nail), OHG nagal 'nail', OPrus nage 'foot', Lith nágas 'nail, claw', nagá 'hoof', Latv nags 'nail', OCS noga 'foot, leg', nogūti 'nail', Rus nogá 'foot, leg', Grk ὄνυξ 'nail', NPers näxun 'nail', OPrus negotiated 'foot', nakhá- (with -kh- for expected -gh-) 'nail, claw', TochA maku (pl.) 'nails', TochB mekwa (pl.) 'nails' (< *nekwa). The PIE word for 'nail'.

See also ANATOMY; FOOT; HAND. [D.Q.A.]

NAKED see BALD

NAMAZGA

The site of Namazga-depe is the type site for the Namazga culture and with its 24 m of material provides the backbone of periodization for southern Turkmenistan, an area critical for the discussion of the movement of early Indo-Iranian speakers. Namazga I dates to the fifth millennium BC and marks the early Eneolithic period. Sites have yielded domestic animals (cattle, sheep/goat and some pig) and evidence for the hunting of onager. Namazga II (c 4000–3500 BC) sees more impressive architectural evidence of stone-built fortifications (with circular towers) and the erection of shrines with their corners oriented to the cardinal directions, raised altars and an ash-ump for offerings. Although wheat was raised, it was in insignificant amounts compared with barley and cattle were outnumbered by sheep/goat. Namazga III (c 3500–3000 BC) sees the appearance of extensive irrigation systems and the rise of urbanization in the region which increases markedly in the next period, Namazga IV (c 3000–2500 BC). Namazga IV also sees the first unequivocal evidence for wheeled vehicles, models of vehicles drawn by camels or bulls. Metallurgy is more advanced and involves the deliberate
alloying of copper, lead and silver. Namazga V (c 2500–2100 BC) sees the final urban expansion in the region with major sites such as Alyn-depe which occupied an area of some 25 ha. Namazga VI (c 2100–1700 BC) represents an urban collapse in the local region although it is also coincidental with the rise of the Bactrian-Margiana Archaeological Complex (BMAC). Reasons for the collapse are diverse (environmental deterioration, over-urbanization, shifting trade-routes) and include incursions of steppe tribes (Andronovo culture) which are generally connected with some phase of Indo-Iranian expansions. The smaller Namazga VI settlements indicate the introduction of the horse to the region and also there are traces of spoked-wheeled vehicles. All of these have been taken to indicate an intensification of an Indo-Iranian presence in southern Turkmenistan.

See also BMAC, Djeitun Culture, Indo-Iranian Languages.

Further Reading

NAME

*h₂ṇöm (or *h₂nēh₃mp or *h₂nēh₃mp?) 'name'. [IEW 321 (*e(o)m–); Wat 45 (*h₃o–mp); GI 732 (*nom(e)/o)n), Buck 18.28; BK 569 (*in-im-/*in-em-)]. OIr anim (DIL animm) 'name', OWels anu 'name', Lat nōmen 'name', ON nám 'name', OE nama 'name' (> NE name), OHG namo 'name', Goth namô 'name', OPrus emens 'name', OCS ime 'name', Rus imja 'name', Alb emër (Gheg emen) 'name', Grk ονόμα 'name', Arm anum 'name', Hit lāman 'name', Olnd nāma 'name', TochA nām 'name', TochB nēm 'name' (Toch < *h₂nēm or *h₂nēh₃mp metathesised from *h₂h₃nēmp). We can also reconstruct a phrase *h₂nōm dheh₁ 'to set a name, give a name' [GI 732] found in several stocks: OCzech dieti jmé, Grk ονόματολήτους 'name-giver', Hit lāman dā-, HierLuv atamain tuha 'gave a name', Av nāman dā-, Olnd nāma dhā-, TochA nōm tā-, TochB nōm tā-. These constructions, which employ the root *dheh₁ 'put, set, establish' (cf. 'Believe', 'Law') often have a particular sacred or ritual association and there is widespread evidence that the giving of a name also established the identity of the named, i.e., was an essential part of his/her own persona and power and expressed an individual's true essence. There is also a widespread denominative verb 'to name': ON nefna 'name', OE nemnan 'name', OHG nemmen 'name', Goth nammjan 'name', Grk ονόματων – ονόματος 'name', Hit lam(ma)niya- 'name', but these are all likely to be independent formations in the various stocks in which they occur. The distribution of the noun 'name' clearly supports PIE status; however, the reconstructed form(s) underlying this series of cognates has long been discussed and argued and the exact phonological relation between all the attested forms remains disputable.

Indo-European Personal Names

A broad similarity among the personal names of the earliest attested Indo-European peoples reveals a series of patterns that can probably be projected back to the proto-language itself. Unfortunately, the system is so pervasive and productive (and personal names are continuously "invented") that it has generally been found very difficult to demonstrate that forms in two or more stocks, no matter how similar, are necessarily inherited from PIE rather than independent creations.

Personal names among the early Indo-Europeans may consist of either a single lexeme or two elements, e.g., ON Ulfr 'Wolf' or Kveld-Ulfr 'Evening Wolf'. A "long" name consisting originally of two lexemes may be abbreviated, e.g., Olnd Rudra-ta (< *Rudra-bhat(t)a). The source of names would be drawn from various classes of phenomena. Deities (and names expressing relationships with deities) are particularly common, e.g., Gaul Lugus (the Celtic god Lug), Lughedec 'chosen by Lug', Luguselva 'possessed by Lug', Lugenicus 'born of Lug'. The relationship may also be with a metaphysical quality associated with the world of the sacred, e.g., Olnd Medb 'intoxication', Lat Augustus 'possessed of spiritual power', AV X'aronbaxa 'having well being as his share', Olnd Bhātaṃsa 'having living beings as his share'. Some of the few names suspected of being cognate between stocks are built on an element meaning 'fame', e.g., Grk Ἐυρίκης, Olnd Sutriva- both 'whose fame is wide'; OCS Sobeslav, Grk Σοβεσλάβος both 'wise-famous'. Physical attributes may also be selected, e.g., Lat Dentātus 'big-toothed', ON Grani 'slender'. Names of weapons and arms (e.g., Olnd Jymagha- 'who fights with a bow') were popular as well as animal names which frequently supply one of the elements of a name, e.g., words for canines seen in Olnd Čud 'Hound', Olc 'Wolf', OE Wulf 'Wolf', Grk Λύκος 'Wolf', Αὐκοφόντης 'Wolf-killer', Olnd Vjka- 'Wolf'; 'cow' seen in the comparable forms of Olr Boand (cf. the name of the Boyne, Boivinda) 'White-cow', Olnd Govinda- 'White-cow', or the horse, e.g., Olr Echua 'Horse'. The names of plants, e.g., Lat Cicerō 'Chick-pea', are also to be found. Numbers are frequently found as elements in names and, as there appears to be a general trend for the widespread use of numbers in earlier texts and lesser use in later, it has been suggested that the use of naming with numbers was an archaic practice, e.g., Lat Quarta, Luth Keruari, Rus Cetvertoj, Myc Qe-ta-ra-je-u, Grk Τετραπτιόν all 'Fourth', or the mythological figure of Olnd Trīta 'Third'. With respect to the employment of deities in IE names, T. Markey has suggested that while we find clear instances of the names of deities in IE personal names and what we may presume to be totemic references, e.g., Olr Bodb 'Raven' (a bird especially associated with the god Lug), we do not find totem and deity together in the same name, e.g., ON Ódinillr 'Ódín's wolf' (but cf. Grk Ἄρης 'Wolf for Arés'), and this argues against the presumption that the early Indo-Europeans employed totemism, i.e., divided themselves into clans or other descent groups which had specific ritual associations with animals or plants.

See also NAME, POETRY. [E.C.P., J.P.M.]
Further Readings

NARROW
*h₁emhų 'narrow'. [IEW 42 (*angh-); Wat 2 (*angh-); Gl 683 (*Hanghu-); Buck 12.62]. Olr cumung 'strangling, suffocation', cumung ( < *kom-<ghu- 'narrow, restricted', Wels cang ( < *eks-ghu-) 'wide', Lat angi-portus 'narrow street, cul de sac', ON ongr 'narrow', OE eng 'narrow', OHG angi 'narrow', Goth aggws 'narrow', Lith ankštas 'narrow', MPers hinzwag- 'narrow', Oldn amhū 'narrow'. Other possible cognates include: OCS ožkū 'narrow', Grk ἀμφῆς 'neck' although doubtful, Arm anjuk 'narrow' appears to be an Iranian loan. Even excluding the Greek form, this word is likely to be PIE. The concept of narrowness or construction also underlies the PIE notion of 'fear' which is reflected in the modern German cognate angs 'fear' and Oldn ἀμφάς- 'fear'.

?*sten- 'narrow'. [IEW 1021–1022 (*sten-); Wat 66 (*sten-)]. ON stinnr 'stiff, hard', OE stīp 'stiff' (Gmc < *sten-to-), Grk ὀστεός 'narrow'. Restricted to two branches, with both the Germanic and Greek etymologies unclear, although possibly connected, but still very weak grounds for positing a PIE form. See also FEAR, LONG, NECK, PAIN, THIN. [J.C.S.]

NAVE
*bənoth- 'nave'. [IEW 314–315 (*nōbh-); Wat 45 (*nōb-); Gl 716 (*nobh-); Buck 4.43]. ON nōf 'nave of wheel', OE nafu 'nave' (> NE nave), OHG naba 'nave', OPrus nabis 'nave', Lat ambulicus 'nave', umbō 'boss on shield', ON naffi 'nave', OE naela 'nave' (> NE nave), OHG nabalo 'nave', amban 'belly', Grk ὀμψαλός 'nave', boss of shield', Oldn ἄβηθ- 'nave'. The semantic and morphological relationship between the words for 'nave' and 'navel' is similar to that between the words for 'axle' and 'shoulder(-joint)'. The metaphorical extension of 'nave' to 'nave' is widespread and old in IE. In Germanic the word for 'auger' derives from a special technical term for the tool employed in boring the nave, i.e., ON naftar, OE nafo-gār, OHG naba-gār ( < Gmc *naba-gaizaz) 'nave(-) auger'; cf. NE auger < *a nauger by false analysis.

See also AUGER, AXLE, WAGON, WHEEL. [D.Q.A.]

Further Reading

NEAR
*bhepi ~ *hōπi 'near, on'. [IEW 323 (*epi ~ *opi); Wat 17 (*epi)]. Olr tar (DL, tar) 'after', Lat ob 'towards', OPrus ep 'about', Lith ap- 'about', Latv ap- 'about', OCS ob 'on', Alb ἐπέρ ( < hōπi-reh) 'upper', eper-upper, superior, eiper (adj.) 'top', Myc o-pi 'on, near', Grk ἔντει 'on, upon, up to', οὖσιθεδί 'behind', Arm ev'and, also, Av arpi 'upon', Oldn api 'also, in addition', TochAB ρ- (verbal prefix). Old in IE. See also ADPREPS. [D.Q.A.]

NECK
*monis ~ *moneh₃- 'neck'. [IEW 747–748 (*mono-); Wat 43 (*mone-); Gl 715 (*mono-)]. Olr mwnn 'neck', Wels mwn 'neck', ON mond 'mane', OE manu 'mane' (> NE mane), OHG mana 'mane', Av manaoh₃ 'neck', Oldn mānaya 'nape'. Not extraordinarily well-attested, this word is the most likely to be the PIE word for 'neck'. Cf. also the extensions of this root that indicate 'necklace': Lat montile 'necklace', OCS monisto 'necklace', Av minu- 'necklace', OPrs bara-man- 'one who wears a necklace', Mitanni mani-(nn) 'necklace'.

*gr(a)mbh₂w-eh₃- 'neck'. [IEW 474–475 (*gr(a)mbh₂w-), BK 361 (*qʷur-/*qʷor-)]. Latv griva 'river mouth', OCS griva 'mane'. Rus griva 'mane', Av grivā 'neck (of demonic being)', Oldn griva 'neck'. Related is Grk δέσσι (< *qʷeriw-eh₃-) 'neck'. Related in some way to *gr(a)mbh₂w-eh₃- 'swallow'. At least a word of the...
NECK

NECK

NECKLACE

*mono- 'neck ornament'. [IEW 747–748 (*mono-); cf. Wat 43 (*mon-); O.Wel. mënzi 'collar, necklet' (borrowed > OIr muimse 'collar, necklet'), Gaul (in Greek) maeváidzôs 'Celtic necklace', Lat monile 'necklace, collar', ON mën 'necklace', OE mene 'necklace, collar', OHG mene 'neck ornament', OCS monošto 'necklace', Av zaruni-manti- (bird) with golden neck ornament', OPers ba-ra-man-nu-iš 'horse' bearing a collar', Olnd mani-gríva 'carrying a necklace'. From *mono- 'neck'. A metaphorical extension or a derivative of a word for 'neck, mane', probably of at least late PIE date.

Necklaces are well known in the archaeological record since the Upper Palaeolithic, i.e., since the appearance of anatomically modern humans, and self-adornment has been regarded as one of the characteristic behavioral shifts from earlier forms of human (Neanderthal) society to those of modern populations. Necklaces are encountered widely in all subsequent periods and it would be nearly impossible to imagine that the speakers of the proto-language did not know and employ them. For the Neolithic period, the evidence for necklaces is extensive. By the Bronze Age we find the use of bronze beads as well as precious metals (gold, silver) with bone, animal teeth such as deer incisors, claws, shell, and stone, some of which may have been acquired through extensive exchange systems. By the Bronze Age we find the use of bronze beads as well as precious metals (gold, silver) in the manufacture of beads. At this time there was also an emphasis on the use of amber beads in both amber beads and, occasionally, in beads made of faience, a primitive form of glass. Necklaces are encountered widely in all subsequent periods and it would be nearly impossible to imagine that the speakers of the proto-language did not know and employ them. For the Neolithic period, the evidence for necklaces is extensive. By the Bronze Age we find the use of bronze beads as well as precious metals (gold, silver) with bone, animal teeth such as deer incisors, claws, shell, and stone, some of which may have been acquired through extensive exchange systems. By the Bronze Age we find the use of bronze beads as well as precious metals (gold, silver) in the manufacture of beads. At this time there was also an emphasis on the use of amber beads in both amber beads and, occasionally, in beads made of faience, a primitive form of glass. Necklaces are encountered widely in all subsequent periods and it would be nearly impossible to imagine that the speakers of the proto-language did not know and employ them. For the Neolithic period, the evidence for necklaces is extensive. By the Bronze Age we find the use of bronze beads as well as precious metals (gold, silver) with bone, animal teeth such as deer incisors, claws, shell, and stone, some of which may have been acquired through extensive exchange systems. By the Bronze Age we find the use of bronze beads as well as precious metals (gold, silver) in the manufacture of beads. At this time there was also an emphasis on the use of amber beads in both amber beads and, occasionally, in beads made of faience, a primitive form of glass.

Further Reading


NEEDLE (OF A TREE) see BRANCH

NEPHEW

*népôt* (gen. *népotos*) 'grandson, nephew'. [IEW 764 (*népôt-); Wat 44 (*népôt-); Gk 669 (*népòth*); Buck 2.48; Szem 9; Wordic 155–65; BK 573 (*népóth/)/*népóth/). In the meaning ‘nephew’: O.Ir nia ~ *niae* 'sister’s son', Wels *nai* 'nephew', Corn *nay* 'nephew' (glossed by Lat nepōs, presumably in the latter’s medieval meaning ‘nephew’ rather than its classical meaning ‘grandson’; there is no warrant for ‘sister’s son’). M.Bret *ni* 'nephew', Lat *nepós* 'grandson; granddaughter; descendant' (in later Imperial and Medieval Latin also ‘nephew’), ON nefi 'descendant', OE nefe 'grandson', sister’s son’, OHG nefo 'sister’s son; (paternal/maternal) cousin', Alb nip ‘grandson, nephew’. Derivatives: OCS neti+i? nephew’ < *nepi-i+jos* and Grk ἄνεψιος ‘cousin’ (< *smnepi–joi–co-grandson*), Wels *cinfndr* ‘male cousin’, *cfnther* ‘female cousin’ (< *kom-nepo–* and *kom-nepo–t*–co-grandson/daughter respectively). This word also may mean ‘grandson, descendant’. In the meaning ‘nephew’, the word is confined to the west and center of the IE world.

*suéres– *suérijo– 'pertaining to a sister, sisterly, sister’s son’. [IEW 1051 (*sueres–); cf. Wat 68 (*swesor–); Gl 666 (*swesor–); Szem 6; Wordic 144–145]. O.Swed *svun* ‘mother’s sister’s son’, OE *swor– (ge)swor* ‘mother’s sister’s son’, *geswiro* ‘sister’s son; mother’s brother’s/sister’s son, father’s sister’s son’, Arm *keri* ‘mother’s brother’. *Sanglechi xir* ‘sister’s son’, Manji *xur* ‘sister’s son’, Shughni xir ‘nephew, niece’. Yaguzylami *xwer* ‘nephew, niece’ (< Proto-Iranian *hwahrya–a–i*), Ashkun pasi ‘sister’s daughter’, Olnd *svsriya–sister’s daughter*, svasriya–‘sister’s daughter’, Gawar-Bati *pesh* (a man’s) sister’s son, sister’s daughter’ (< *Nëiristan* and Indic *svsriya–a–i*). Assuming ‘sister’s son’ as the oldest meaning allows us to explain Arm *mother’s brother* as an example of reciprocal naming (cf. O.Ir aue ‘grandson’ from *hæzhos* ‘grandfather’ or OHG *enikl* ‘grandson’ from *ano* ‘grandfather’). In Germanic we find the further derivative *ga-swerjan–* ‘co-sister’s son’ (much as in Lat *consobrinus* ‘mother’s brother’s/sister’s son, father’s sister’s son’ < *co-sister’s son*), though there has been considerable confusion and overlapping of the earlier and later meanings. Widespread and old in IE.

*suérihno–sister’s son’. [IEW 1051 (*suere–inos*), Wat 68 (*swes–inos–), Lat *sobrinus* ‘second cousin’, *consobrinus* ‘mother’s sister’s son; (any) cousin’, Lith *seserénas* ‘sister’s son’, OCS *senvra* ‘the sister’. The Latin and Old Church Slavonic words agree in form, but it is probably the Old Church Slavonic word that preserves the original adjectival meaning of which Latin is a nominalization. The Lithuanian word given here is, in any case, morphologically distant, though showing the same kind of semantic development seen in Latin. The meaning ‘sister’s son’ for *suérihno–* is probably not of PIE age, though ‘sister’s son’ as the nominalization of another adjective meaning ‘pertaining to a sister’ is seen in the evidence of the preceding word.

*bhrêhtrujos* ‘brother’s son’. [Szem 13–14]. Late Lat *fratrulius* ‘brother’s son’, Av *brāturiya–brother’s son’, Olnd *bhrâtriya–brother’s son*. Cf. also Lith *brólénas* (‘first’ cousin). Independent creations in Latin and Indo-Iranian from an adjective meaning ‘pertaining to the father’.

The first term, *népôt*, exhibits a semantic range that within attested IE languages embraces both ‘grandson’ and ‘sister’s son, nephew’ and the antiquity of this semantic complex is
one of the major issues with regard to reconstructing the nature of the PIE kinship system. Those who argue that the original meaning of this word was confined to the 'grandson' suggest that the meaning 'nephew' was secondary in all the (north)western languages in which it occurs and was a semantic innovation of the various individual IE stocks. The fact that we can see the change of Lat nepos from 'grandson' to 'grandson, sister's son' taking place within the history of Latin may suggest that 'sister's son' (or, more generally, 'nephew') is everywhere a late development. Those who support the assignment of both 'grandson' and 'sister's son' to PIE see this word as primary evidence for the ascription of PIE kinship to the Omaha system where the generations would be skewed. Clearly there is a tendency to make an Omaha-like equation of 'grandson' and 'sister's son' but whether that tendency is PIE in date or post-PIE is not easy to see. The equation of 'grandson' and 'sister's son' is a sort of mirror image of the equation of 'grandfather' and 'mother's brother' though only Middle Welsh actually shows both such equations at the same time. The other terms are late and are built from the words for 'brother' and 'sister' as seen above or from 'son', e.g., SC sinóvac – sinóvac 'brother's son' (< *little son').

See also GRANDSON; KINSHIP; SON. [M.E.H.]

Further Reading

NEST
*niisor* 'nest', (literally) 'sit-down (place). [IEW 887 (*ni-sdo-); Wat 45 (*ni-zdo-); GI 101 (*ni-st-o-); Mrl net 'nest', Wels nyt 'nest', Lat nidus 'nest', OE nest 'nest' (> NE nest), OHG nest 'nest', Lith lizdas 'nest', Latv ligzda 'nest', OCS gnézd 'nest'. Arm nest 'site', Olnd nída 'resting place, abode, nest'. Clearly PIE in status and derived from *ni- 'down' or 'alone' + *sed- 'sit', hence a 'sit-down place'.

See also BIRDS; SIT. [J.A.C.G.]

NET
*hiχkt- 'net'. Myc de-ku-tu-wo-ko (=dektu-worgo-) 'net-makers', Grk δικτυον 'hunting/fishing' net (with the vowel perhaps influenced by δικτυον 'throw'), Hit ekt- 'net', Luv aggati 'catch-net', Olnd akstu 'net'. The Greek forms represent neuter nouns with (prefixed?) *d- as in the word for 'tear'. The Greek-Anatolian-Indic correspondence makes it likely that we are dealing with a PIE word here.

Nets are preserved in the archaeological record only under extraordinary conditions (waterlogging, extreme aridity) although net weights of stone or clay are frequently enough encountered; occasionally, impressions of nets in clay have also been recovered. Traces of nets are known since at least the Mesolithic and are also attested in Swiss lakeside settlements of the Neolithic period along with floats and weights. The Swiss evidence reveals nets of various mesh sizes appropriate to the size of the fish being sought. The use of the net is not confined to fishing (or hunting) but may also have been employed in carrying things as is still attested in many parts of Europe today.

See also FISH; KNOT1; TOOL. [D.Q.A.]

Further Reading

NETTLE
*ned- 'nettle'. [IEW 758–759 (*nedo-); Wat 44 (*ned-); GI 224 (*not-)]. Mrl nenaid 'nettle', MWels dynat 'nettle' (Celtic < *niniati- with dissimilation in Welsh), OE netele 'nettle' (> NE nettle), OHG nezzila 'nettle', Grk αύξη 'nettle'. Presumably related in some fashion are: OPrus noatis 'nettle', Lith nötere 'nettle', Latv närte 'nettle', Slov nait 'nettle', though the -t- (rather than *-d-) is not explained. Though showing some uncertainties of form that may reflect inter-group borrowing, this would appear to be a word of the west and center of the IE world. The nettle has a wide variety of uses. It has been employed as a textile (nettle fibres have been recovered from a Bronze Age burial in Denmark) and it can be spun into coarse sheets like hemp. Medicinal uses derive from the high iron and vitamin C content and beer and soups are prepared from nettles. From *ned- 'knot'.

See also KNOT1; PLANTS; THORN. [D.Q.A.]

NEW
*néyos 'new'. [IEW 769 (*neyos); Wat 45 (*newo-); GI 685 (*newo-); Buc 14.13; BK 561 (*nawo-/*naw-)]. Lat novus 'new', OPrus neuwen 'new', Lith najus 'new', OCS novu 'new', Grk νέφος 'new', Hit nēwas 'new', Av nava- 'new', Olnd nava- 'new', TochA nuv 'new', TochB nhwe 'new', and with extension: *neyos in Olr nãw - nãwa 'new', Wels newydd 'new', ON nýr 'new', OE niwe - nēowe 'new' (> NE new), Goth niūs 'new', Lith najus 'new', Grk (Ionic) νευος 'new', Olnd nãeva- 'new'. Both forms are pan-IE in distribution and are of certain antiquity; the root is related to *nu 'now', a thematic with a new, accented, full-grade vowel inserted in the first possible place, i.e., *nu > *nu-o- > *néy-o-.

See also NOW, OLD. [P.B.]

NIECE
There are no terms reconstructible to PIE that specifically denote 'brother's daughter'. For a male speaker, the 'brother's daughter' may have been simply termed a *dhug(h)ter 'daughter', resulting in later specialized forms like Irish ingen 'begotten' to refer to the biological daughter as opposed to the sociological 'daughter' who may have remained as der 'girl, daughter'. Female speakers might refer to her as 'sister', a use preserved in a single passage of Old Irish where súir (< *súisíor) was employed to render 'woman's brothers daughter' and possibly reflected in the Greek confusion of the two terms recorded in Hesychius' gloss ἐφθατηρ ἀνενιο 'brother's daughter', (male) cousin' (perhaps intended as ἐφθατηρ ἀνενιο 'cousin's daughter'). Otherwise, most words for the 'niece' are
associated with the word for 'granddaughter'.

*neptis*-granddaughter; niece'. [IEW 764 (*neptis*); Wat 44 (*nepti*); GI 670 (*nepotia*); Buck 2.49, Szem 10, Wordick 166–167; BK 573 (*nepotis*)]. Where the meaning is 's niece': OIr necht 'granddaughter; (?niece)', Wels nith 'niece', Corn nynth 'niece', Bret niz 'nephew; niece', Lat neptis 'granddaughter' (in later Imperial Latin also 'niece'), ON nipt 'sister's daughter', OE nith 'granddaughter, sister's daughter', OHG nith 'niece, granddaughter, sister's daughter', Lith nepė 'granddaughter, niece', ORus nestera 'niece', Alb mbese (< *neptihes> 'granddaughter, niece'. Derivatives: Grk (Hesychius) νεόπτης, νιόν. The form of the word is more widely found but in the meaning of 'granddaughter'. Although derived from the masculine form of this word (*neptóns*), the distribution indicates that the word is of PIE status in terms of morphology although confined to the west and center of the IE world according to meaning. The arguments concerning whether both the meaning 'granddaughter' and 'sister's daughter' can be attributed to the same PIE word are rehearsed in the discussions of 'grandson' and are one of the critical pieces of evidence for determining the kinship system of Proto-Indo-European since the identity of 'sister's daughter' and 'daughters' daughter is a feature of the Omaha kinship system.

See also Daughter; Granddaughter; Grandson; Kinship; Nephew. [M.E.H.]

**NIGHT**

*nēkʰtʰ* - *nōkʰtʰ* - 'night'. [IEW 762–763 (*nēkʰtʰ-(*t-)); Wat 44 (*nēkʰtʰ-);] Del 195]. OIr innoch 'tonight', Wels peuonoth 'every night', Lat nox 'night', ON nōt 'night', OE neah 'night' (> NE night), OHG naht 'night', Gothic nahts 'night', OPrus (acc.) naktin 'night', Lith naktis 'night', Latv naks 'night', OCS nošt 'night', Alb nät 'night', Grk νυκτίς 'night', Hit nekuz (gen. sg.) 'at night', Olnd nakt- 'night', TochA nokte 'at night', noktim 'last night', nakcu 'last night, at night', TochB nekcyte 'last night, at night' (the last two < *nōktʰ (*teujo)os). Pan Indo-European, and clearly reconstructible for the proto-language.

*pkʰtʰus* - 'end of the night'. [IEW 763 (*pkʰtʰ-(*t-)); - cf. Wat 44 (*pkʰtʰ-(*t-)); Del 195]. On òta 'early morning', OIr outha 'early morning', OHG utha 'early morning', Gothic uthwo 'early morning', Grk ἀκτής (problematic in that one might expect *aktʰi*-ray of sunlight), Olnd aktu- 'night, end of the night'. The word is quite possibly a suffixed zero-grade form of *nēkʰtʰ* - 'night'; so it is of PIE date.

*kʰsepʰ* - 'night'. [IEW 649 (*kʰsepʰ-); Buck 14.42]. Grk φύγας 'dark', Hit ispant- 'night', Av všap- 'darkness', Olnd kšap- 'night'. Though somewhat limited geographically, the unanalyzable nature of the root suggests PIE status.

See also Evening. [P.B.]

Further Reading


**NIPPLE** see BREAST

**NIT** see LOUSE

**NOD**

*neu*- 'nod'. [IEW 767 (*neu-); Wat 44 (*neu-)]. Lat ad-nuo 'agree by nodding', Grk νουό 'nod', Olnd navate 'goes, moves'. It is uncertain whether the Old Indic form belongs here. The correspondence between Latin and Greek is sufficient to postulate at least a word of the western and central region of the IE world.

[M.N.]

**NOISE**

Gathered here are a number of onomatopoeic formations whose exact meaning in PIE, if they are of PIE antiquity, is generally unclear.

*mug-*= make a (low) noise, low, mutter, grumble'. [IEW 751–752 (*mʊ-*)]. Lat magio 'low, bellow', OHG muckazen 'grumble', Grk μυζό 'mutter, moan, growl', Hit mugā(i)-'entreat', Olnd mūjatti 'makes a noise'. The distribution of attestations strongly suggests PIE status for this word. An enlargement of *mu*- (cf. [IEW 751 (*mʊ-*)]; Wat 43 (*mu-)); Lat mātare 'make a mmm sound', OHG māwen 'cry', Latv maunu 'growl', Czech myjáti 'low (of cows)', Grk μῦ 'a cry'.

*?*(s)prēg- 'crackle, chatter'. [IEW 996–997 (*sp(her)ereg-); cf. Wat 64 (*spreg-), GI 101 (*spreg-); Buck 18.21]. On spraka 'crackle, rattle', Lith spragėti 'crackle', Grk σφραγεύων 'crackle, chatter, hiss', Olnd spērijati 'thunders, rumbles'. While it is fairly certain that the Old Norse and Lithuanian words belong together and, likewise the Greek and Old Indic words, it is phonologically difficult to reconcile the two pairs. Perhaps independent onomatopoeic formations. Possibly related to *spreg- 'speak'.

*?*ju- - 'shout (for joy)'. [IEW 514 (*jʊ-); Wat 79 (*yu-)]. Mir ilach 'victory cry', Lit iūbītā 'shout', ON yla 'yell', ME yalen 'yowl' (NE yowl), MHG holm - holten 'yell', Grk ἰου 'shout'. Probably onomatopoeic and only possibly of PIE age.

*?*snær- - 'rattle, growl'. [IEW 975 (*snær- - (s)hor-); Wat 62 (*snær-)]. ME snore 'snore (> NE snore), NE snarl, MHG snarren 'rattle, rasp', Lith niūma ž 'growl, grumble', Latv purāt 'growl', Grk (Hesychius) ἐφιπε' ας cried out'. Probably onomatopoeic and only possibly of late PIE age.

*?*meht₁(0)- - 'mumble, speak indistinctly (?). [IEW 711 (*mei-*)]. OCS mūmati 'stammer', Grk (Hesychius) μυχίζω 'to hear', Olnd mayem 'bleat', Hit memma - (c *me- (mih₁-i)-) 'speak', Olnd mimati 'bells, roars, bleats'. The differences in meaning invite caution. The apparent possibility of reconstructing a reduplicated present and the fact that this possible verb is also attested in Hittite suggests that this collection may reflect something of PIE age.
NOVODANILOVKA GROUP

The Novodanilovka group is a Copper Age culture (c. 4400–3800 BC) of the Ukraine situated along the lower Dnieper and the steppe adjacent to the northeast. It is primarily defined by a series of small cemeteries or individual burials. These parallel the rites of the neighboring Sredny Stog culture, i.e., flexed supine burial, ocher, orientation to east or northeast, but the burials are more elaborate with stone coverings or chambers. Moreover, the burials are distinguished by relatively rich grave goods comprising flint, stone and copper weapons and copper bracelets. Some have argued that these may reflect an aristocratic component of the Sredny Stog culture rather than represent a separate cultural group. In the Kurgan theory, these burials are often presented as evidence of the patriarchal warlike society of the early Indo-Europeans.

See also SREDNY STOG CULTURE. [J.P.M.]

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**NOSE**

*h₂nas – h₂nas* (gen. *h₂nasos*) 'nose'. [IEW 755 (*nas-); Wat 43 (*nas-); Gl 713–714 (*nas-); Buck 4.23; BK 165 (*nas-*/nas*).] Lat naris 'nostril' (pl. 'nose'), nāsus – nāssus 'nose', ON när 'nose', OE nosu 'nose' (> NE nose), OHG nasa 'nose', OPrus nozy 'nose', Lith nōtis 'nose', Latv nāss 'nostril', OCS nosť 'nose', Av nāh- 'nose', OPers (acc.) nāhan 'nose', Olnd nāst (dual) 'nostrils' (cf. urūnas- 'wide-nosed' and tūnas- 'straight-nosed'). The PIE word for 'nose'.

See also ANIMAL CRY; BIRD CRY; SOUND. [D.Q.A.]

**NOT**

*mē 'not'. [IEW 703 (*mē-)]. Alb mos 'not', Grk μὴ 'not', Arm mi 'not', Av mā 'not', Olnd mā 'not', TochA mar 'not', TochB mā 'not'. Widespread and old in IE.

*ne 'not'. [IEW 757–758 (*ne); Wat 43–44 (*ne); Gl 221–222 (*ne); BK 562 (*nā/*nā, *nī/*nē, *nu/*nō)]. Lat nōn (< *nōn/*om) 'not', ne-fās 'what is contrary to divine command', ne-sciō 'not know, am ignorant of', Osc ne 'not', ON nē 'not', OE ne 'not', OHG ne 'not' (nein 'not' < *nōinom), Goth ni 'not' (ON nei 'not', OE nä 'not') (> NE noi; OE nä + wiht 'not at all' (> NE not), OHG nio 'never', all < Proto-Gmc ne + aiw 'not + ever'), OPrus ni 'not', Lith nē 'not', OCS ne 'not', Hit natta 'not', Av ni 'not', Olnd nā 'not'. From *nē, OIr nī 'not', Gothic nē 'not'; from *nei: OlLat nei '(that) not', if not', Lat nl '(that) not', if not', Osc nī 'not', OHG nī 'not at all', Goth nei 'not'. From *η- 'un-', OIr in- ~ é- ~ an- 'un', Wels an- 'un-', Lat in- 'un-', Osc an-'un-', OHG an-'un-', Grk α(ι)ν- 'un-', Hit a-'un'-.

Av a(n)-'un-', Olnd a(n)-'un-', TochA a(n)-'un-', TochB e(n)-'un-'. Widespread and old in IE. Where there is a distinction, this negative is the "ordinary" negative, while *mē is used with prohibitions and the like.

[D.Q.A.]

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Novodanilovka a. Distribution of the Novodanilovka group.
NOVOTITOROVKA CULTURE

Near the Maykop culture of the north Caucasus and the Yamna culture of the steppelands was the newly defined early Bronze Age Novotitorovka culture (c 3300–2700 BC). The culture, specifically situated immediately east of the Sea of Azov and north of the Kuban river, is known from over five-hundred burials. These are found flexed on their sides in pits, the floors of which may have been covered with rushes and roofed with timber. Early period grave goods consisted of pottery, bronze knives, awls, axes, the astragali (knucklebones) of sheep, querns, and flint tools; later burials also had rings of bronze and silver. Animal remains are frequently encountered in graves and, in descending frequency, include sheep/goat, cattle, horse, boar, canine (dog or wolf), red deer and birds. Querns may provide evidence for agriculture. What marks the Novotitorovka culture out in particular is the presence of wheeled vehicles which would be placed in the burial pit. Some ninety have been found among the five-hundred graves and they may be presumed to reflect people of high status; they may be found with both adult males and females. The Novotitorovka culture has been included within the Yamna cultural-historical area but distinguishes itself from the Yamna culture by its polished ceramics. It is presumed to be the culture of semi-nomadic pastoralists occupying the transition zone between the agricultural and metallurgically more advanced Maykop and other north Caucasian cultures and the steppe cultures to its north.

See also Maykop Culture, Yamna Culture. [J.P.M.]
NUMERALS

-397- 'numbers', ON rim 'reckoning, calculation; calendar', OE rim 'number, calculation' (> NE rhyme – rime), OHG rim 'number, series'. It is possible that the Germanic words are ultimately borrowed from Celtic but, even so, the agreement of Celtic and Greek would appear to assure the PIE age of this word. An enlargement of *harei(h) 'put together, arrange'. From the same *harei-dh- that lies behind Grk ἀριθμός 'number' is a Germanic set represented by OE rīdan 'advise', OHG rīda 'speech, word, account', Goth garaidon 'arrange'. Other enlargements with similar meanings include Lat rādio 'calculation, reckoning', Goth rāipjō 'account, explanation', OE -red in hundred '± hundred-count', or Lith rinda 'row, line', Latv rīda – rīdams 'in rows'.

*Nu* 'now'. [IEW 770 (*nū-); Wat 45 (*nu-); BK 561 (*naw/*naw-)]. Lat num 'now', ON nā 'now', OE nā 'now' (> NE now), OHG nā 'now', Goth nu 'now', OPrus -nu 'now', Lith nū 'now', Latv nu 'now', OCS nā 'now', Grk νῦν(v) 'now', Hit nu 'now', Av nā 'now', OInd nū 'now', Tocharian A nu 'now', Tocharian B no 'now'. Pan-IE and clearly of PIE date. It is related to *nēyōs, *nēyous 'new'.

*Hu'm 'now, already'. [IEW 285 (*hām)]. Lat iam 'now, already', OE ju 'already', OHG juu 'already', Lith jau 'already', Latv jau 'already', OCS ju 'already'. This word is apparently built on a pronominal stem, of which Latin represents an accusative case (cf. Lat tam 'so much' and quam 'how much'), and the Baltic, Slavic, and Germanic words are constructed from a locative case (cf. Goth nu'm now). Dialectal IE, confined to the northwest of the IE world.

See also New, Time. [F.B.]

NUMBER

*harei(h)-'number, count (out). [IEW 60 (*a-ri-); Wat 3 (*ar-); Buck 13.12; BK 383 (*ar-/*här-)]. From *harei-. OIr aram (DIL areim) (< *ad-ri-ma-) 'number', Grk νπροτος (< *p-hari-to-') 'countless, unnumbered', (Arcadian) ἐνδριτοι 'the chosen ones', ἀριθμος 'number, quantity'; from *harei(hy)-. OIr rtm 'number, computation', rīmid 'counts', bōraime (bō + rime 'cattle-count') 'cattle-tribute', Wels rthil 'number', cyf- rif 'count, recount, narrate', Corn (pl.) ryvow

Further Reading

NOW

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*del- 'aim, compute'. [IEW 193 (*del-); Wat 11 (*del-); Buck 13.12]. ON tal – tāla 'talk, tale', OE tal 'tale, number, series', talu 'talk, tale', tellan (re)count, tell' (cf. NE talk), MHG zal 'number', OHG zalōn '(re)count, tell', Goth talzjands 'teacher', Grk δολος 'guile, bait', Arm tol 'row'. At least a word of the west and center of the IE world.

See also Numerals. [C.F.J., D.Q.A.]

NUMERALS

Similarities in the form of IE number words along with similarities in words for kinship, body parts, and morphological patterning served initially as a major argument for the hypothesis that there was once a people who spoke an IE parent language that no longer exists. Similarities among the number words attested in older and more recent IE languages suggested that the Indo-Europeans of an early period had similar words for the digits 1-10. The internal evidence suggests that this system evolved over time, traces of the
NUMERALS

development still evident in the comparison of the cognate terms among the various stocks. There was actually no abstract number 'one' but rather two different roots which were required to indicate "singleness". Proper counting only began later with 'two', and the numerals from 'two' to 'four' are usually inflected for gender and are etymologized as archaic adjectives, i.e., 'two' (c 'further away'), 'three' (c 'still further'). That a later stage of Indo-Europeans counted on their hands is suggested by the deep etymology of 'five' which appears to derive from a word lor 'hand'. It is from 'five' to 'ten' that we find possible loanwords from other language families. These larger units also behave like nouns rather than adjectives and their more recent origins are suggested by the possibility that 'eight' is a dual form and that the underlying meaning of 'nine' is 'new', i.e., the new number.

The IE languages also reveal similar words for the tens and decades, and for 'hundred'. Belief that the Proto-Indo-Europeans had the decimal system is based on: (a) linguistic forms for the lower numerals in the daughter languages that show reflexes of inherited forms, (b) the assumption that forms underlying modern 'ten' and 'hundred' were the inherited numeral bases for building the higher numerals, and (c) that both the lower numerals (digits) and the bases 'ten' and 'hundred' are, for the most part, semantically unmotivated, at least as far as we can tell.

Examination of both the number words and the cognitive strategies by which IE numeral systems build their higher numbers, however, shows that the facts are not nearly so straightforward. While Neogrammarian sound correspondences do argue for inherited forms, a form often changes meaning over time. Irregularities in the systems of teen and decade formations also raise doubts about the inheritance of a system based on ten, as such irregularities are likely to preserve relics of earlier systems (cf. 'sing, sang, sung' which preserves the old verbal system that has been regularized in verbs like 'jump, jumped, walk, walked'). But our modern thinking about numeral systems is, with few exceptions, so influenced by the decimal system that it is difficult to imagine a system that has words for 'ten' and 'hundred' in which higher numbers are not formed by successive multiplication by ten. The relative chronology of the IE numerals is now in the process of being reappraised in the context of what we know from early economic documents written on clay tablets in the fourth millennium BC in the valleys of the Tigris-Euphrates and Indus rivers. Before c 3400–3100 BC calculation was not yet based on a unified system of 'ten' or any other single base unit. Clay token forms standing for different commodities were initially impressed into clay, once for each unit of commodity suggesting a system based on one-to-one correspondence between the unit of goods and a token. So five undifferentiated impressions of a jug-shaped token would represent five jugs of wine, a fusion between concepts for quantity and commodity. By the late fourth millennium BC substitution of five neutrally-shaped marks plus one jug-shaped token impression came to differentiate the quantity from the commodity, thus separating number as an abstract concept from the commodity quantified. This break in notation strategy represents a cognitive shift in thinking about the quantification of goods.

Early Near Eastern base units included '2', '6', and '10', among others, depending on the commodity counted. (As late as the twentieth century we still have not regularized factors 12 and 60 for measuring time and 12 and 30 that, irregularly, divide the year.) Sumerian and Elamite systems that evolved along with early agriculture were based on factors 6 and 10 but did not exponentiate on either, as the decimal system does with ten. If our best records for the rise of numeracy show abstract counting only in the third millennium BC, it would be surprising to find Proto-Indo-Europeans before the late fourth millennium using a decimal system based on exponentiation by ten.

Among number forms, base units or multiples have elsewhere been reinterpreted when a system changed the value of its base. The most pervasive IE base unit form, *kintoim, is widely attested in the meaning '100', yet disturbing uses of it occur where one would expect a form of 'ten', perhaps even 'five', instead. Did it once mean 'base unit' with a different numerical value in a pre-decimal system? Despite clear evidence for IE numeral forms, there remain tantalizing mysteries about their interpretation.

In the following data the units are given first with cardinal, ordinal, and (in the case of the 'two' and 'three') the multiplicative. Oldest deictic forms underlying the digits 'one' to 'three' may reflect concrete counting, while 'four' and 'five', to the extent that they reflect a system based on hand counting, may show an early stage of abstract counting. If 'eight' is derived from 'four', it reflects a stage when 'four' was a base number. 'Six' and 'seven' may be borrowed, while 'nine' and 'ten', with the borrowing of 'seven', take on roles in the new decimal series based on atoms 'one' to 'ten'.

Uns

One

The number 'one' was represented in the proto-language by two roots. The current hypothesis is that *oi-no- referred to an individual object alone while *sem- referred to the group as a whole: a 'unity' formed from a 'joined together' multiplicity. The fact that no one form stood for the cardinal number 'one' suggests that at the earliest stage of PIE the concept of 'one' as an abstraction of unitness or cardinality had not yet evolved, but that it arose independently by two separate, semantically motivated paths of development. The absence of a single word for 'one' has also been recorded for other language families, e.g., Semitic, Kartvelian, Sumerian, and is explained by the observation that single objects do not require a numeral and that actual counting begins with the number 'two'.

*oi-no-s = *oi-vo-s = *oi-ko-s (or *hjoi-no-s = *hjoi-vo-s = *hjoi-ko-s) 'one'. [IEW 281–286 (*oi-nos); Gl 741 (*oi-no/*oi-wo/*oi-kh'; Wat 45 (*oi-no'); Buck 13.32]
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< *e/-*o- deictic pronoun [IEW 281-286 (*e-; *e-, *i-)]; *o-, locative *oi- 'with the one, in the one, on its own' (1) *oi- + particle *-no-. OIr onn 'only one, single', oena 'units' (not adj. nor numeral in early Irish), Wels un 'one'; a, an (indef. art.), Lat unus 'one, alone', ON einn 'one', OE án 'one' (> NE one, a, an), OHG ein 'one, an, a', Goth ains 'one', OPrus ains 'one', Lith vienas 'one', OCS ino- 'one' in ino-rogů 'unicorn', *jed-in- 'one', Rus odin 'one' (< *jed-inu), perhaps Alb (Gheg) nji, (Tosk) një 'one' (< stressed *ni- < *eni-oino- 'deictic + numeral' or < *smihr-); (2) *oi- + particle *-uo-. Av aeva- 'one', OPers aiva- 'one, alone', (3) *oi- + particle *-ko-. Mitanni aika-wartanna 'one turning, one lap (in horse race)', OInd ēka- 'one', with pronominal inflection(< Indo-Iran *aika-< *oi-kō-); (4) *e/-*o-: perhaps Alb (Gheg) nji, (Tosk) një 'one' (< *eni-oino- 'deictic *e- + numeral *oi-no-). Hit *a- pronom: Hit stem *â-'one'. The roots also have the meaning 'one alone, one single one'; it is deictic in origin, i.e., *oi-, *ei-, *i- < *-e/o- 'that one'. OIr ē, hé 'that one', Lat is 'that one', ON es 'which, that one', OHG er, ir 'he', Goth is 'he', CrimGoth ita 'one', Lith jis 'he', Grk (Homeric) (fem.) ΄α 'she, the one, the same', iēs 'that one', OInd ayām, iyām, idām 'he, she, it'. The deictic form *o- and its derivatives *oi-, *oi-no- referring to singularity are old PIE forms. Use of this root with variant suffixes in *oi-uo-, *oi-ko- for the cardinal numbers 'one' represents independent dialectal innovations.

*sem-s ~ sem ~ *smihr-a 'united as one, one together'. [IEW 902 (*sem-); Wat 57 (*sem-); Buck 13.32: BK 184 (*sam-/*sam-)]. Perhaps Alb (Gheg) nji, (Tosk) një (< *smihr- or stressed *nj-< PIE *eni-oino- 'deictic + numeral') one'. Grk ές, ίς, έν 'one', *(masc., fem., neut.) one', Myc ές, έν 'one', Arm mî (< *smihr-a) one', TochA sas (masc.), sam (fem.) one', TochB se (< Proto-Toch *sems) 'one'. Clearly widespread and old in IE.

*per- ~ *pro- (in derivatives) 'first'. [IEW 811-815 (*per-); GI 741 (*ph(e)r-H); Wat 49 (*per-); Buck 13.34: BK 41 (*pj Harbour-Jar). From *phrygos: OE forwost 'captain, chief', OCS prvòta 'first', Alb parè (< *phry-uo- or *phryyo-uo-) 'first', Av paraurya- 'prior', parauryya- 'prior, first', OPers parauryya- 'prior, first', Oldn paraurya- 'to the fore, foremost, paryya- 'prior, first', TochA pârwat 'first', TochB parwe 'earlier', parwešse 'first' (cf. ON Freyr [name of god]), Goth fraja'lord' as if < PIE *grouo-; OE frea'lord', OHG frô 'lord' (as if < PIE *grou-); formations with the suffix -mo-. Lat primus 'first' (< superlative *pri-is + -mo-), Umb promom - primum 'at first', ON frumbrô 'first-born', OE frem 'primal, original, first, fruma 'origin', Goth fruma- 'frumists 'first', OPrus pirmas 'first', Lith pirmas 'first', Lat pirmas 'first' (Baltic, and perhaps Gmc, < *phry-uo-); formations with a *-t- suffix: Grk πρώτος 'first, foremost' (< old instrumental *prothi- 'by the front side'), πρότερος 'in front, earlier, superior', Av fratara- 'prior', fratama- 'first', OPers fratama- 'first', Oldn (adv.) prataram 'further, future', prathamā- 'first' (the Indo-Iranian forms with *ta-ma- show the influence of the general Indo-Iranian superlative suffix s-.

*sekw- 'follow', Grk δεύτερος ('δευτερον' [expect?]).

Two

Forms relating to 'two' and 'twoness' are of old IE origin, possibly from an older demonstrative meaning 'that one farther away', with the abstract cardinality of 'twoness' developing later. Cardinal 'two' from dual forms *duēh₂(u)- ~ *duēh₃(u) is inflected as a pronom or adjective in languages with case, number and gender inflection. Singular *d(u)uoro- 'two', with collective meaning, suggests that IE 'twoness' was first collective then cardinal.

*duēh₂(u) ~ *duēh₃(u) 'two' (dual). [IEW 228-229 (*duō(u); GI 742-743 (*two-); Wat 15-16 (*two-)]. *duēh₂(u): OIr dū - dou 'two', OWel dou 'two', Lat duo 'two', ON (masc.) tweir, (neut.) trä 'two', OE (masc.) tē 'two', (fem.) tā 'two' (> NE two), OHG (fem.) zwa, zwo, (neut.) zwo 'two', Goth (pl.) tāw 'two', CrimGoth tua 'two', OPrus (pl.) dwa 'two', Lith (masc.) dū, (dual) dv 'two', Latv (pl.) dv 'two', OCS (masc.) dǔ 'two', Rus dva, (fem.) dve 'two', Alb dy 'two', Myc dwo 'two', Grk ὁδός 'two', Arm erk 'two', Av dv 'two', OInd (masc.) dv (fem./neut.) dve 'two', TochA (masc.) wu, (fem.) we 'two', TochB wi 'two'; *duēh₃(u): Hit tiwā 'distant'.

*dūjos ~ *dūtos 'belonging to two, second'. [IEW 230 (*dujī)]. From *dūjo- 'that one farther away'. Hit dūjana 'officer of the second rank', Lycian ḫijπ 'foreign, other', also with *-jo-: NPers davvom, dōvym 'second', Pashto dwayam 'second', *dōjos, variant of *dujo- 'two, twofold'. Hit (loc.) tādā 'for the second time, again, secondly', from *dujo-: Alb dyte 'second', Khot šata- 'second', OInd dvātā 'doubly so', Tochā wat 'second', Tochb wate 'second', on analogy with *-tio- in third: Umb *du-tio- as dutt 'a second time', Av dvātā - biyā 'second', Parth byd (< OIran *dātyā- 'second') on the model of *tṛtyā- 'third'), OInd dvātī 'second'. Cf also *ui-teros: OCS vūtorī 'second', OInd vitava 'the next, later'. Clearly separate semantic innovations include: OIr tānase (< *do-āna 'expects') 'second', Lat secundus 'second' (< *sekʷ- 'follow'), Grk δεύτερος (< *deu 'here +

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*tepo-*) second, on this side'. Variation in source and original senses of 'second' suggests that PIE had no single form.

*dwoi-* d(u)wojos 'two, group of two' (cardinal collective). [IEW 229 (*dwoi-), 231]. OIr dus 'unity of two peoples, couple', Khot dvi- 'two'. Phonological variant *dwojos: Hit *udāi- 'two' (cf. da-iuga 'two years old, two-fold, double year)' usually written 2 + phonetic complements; *udān (adv) 'second time, secondly', Luv tuwanza, tuwinza (formerly read tu-wa-i) 'two'.

*dwi- (prefix). [IEW 229 (*dwi-)]. Lat bi- 'two' as in bi-pēs 'two-footed', OE twi- as in twi-fēte 'two-footed', Grk δί- 'two' as in δί-του 'two-footed', Av bi- 'two' as in bi-zangra 'two-footed', Olnd dvi- 'two' as in dvi-pad- 'two-footed'.

*dwiis 'twice' (multiplicative). [IEW 230 (*dwiis); GI 743 (*twisis)]. OIr fo di 'twice', OLat duis 'twice', Lat bis 'twice', MHG zwir'twice', Grk δί-τις 'twice', Arm erk'twice, second', Av biis 'twice', Olnd dviis 'twice'. Also *dwi-t- 'twice, double': Olnd dvitā- 'twice, double', dvitiya- 'secondly'. Cf. *dwi-uo 'other, twice' in Milyan tbisu, Lycian kbihu 'other, twice'. The widespread coincidence of form and meaning among reflexes of this old multiplicative form for 'two', beside the fact that other words such as 'apart, twin, between, doubt' are derived from it, suggests that it is inherited.

*dwojos 'double(d), twofold'. [IEW 231]. OCS duvoji 'twofold, two', duvoje 'a set of two things', Grk δώδεκος 'doubled', Hit dān-ki (<< *duoim + kò 'twice, to a double level (written 2-an-ki) Olnd dvayā- 'duplicity'. Widespread and probably old in IE. The Germanic genitives of 'two' are sometimes put here, e.g., ON tveggja 'of two', OE twegen 'of two' (> NE twain), OHG zwe(i)o 'of two', Goth twaddje 'of two', but they mean something different and are better taken as remains of a morphological dual in Germanic than as a derivative formation.

*dvojlos double, twofold'. [IEW 802 (*dvojlos); GI 682 (*twi(p)-lo-]). OIr diulub 'double', Lat duplus 'double', duplex 'twofold', Grk διπλός ~ διπλάς 'twice', Milyan tbīple 'twofold, double', possibly also Av bitra- 'comparison, similarity'. This multiplicative of 'two', formed with the verb *pel- 'fold', undoubtedly belongs to late IE conceptual structures as multiplicatives; the more pervasive suffixes, -ko-, -no- are older, and *dwiis 'twice' is older still.

*bhoū both'. [IEW 34-35 (*ambhō(u);) GI 59, Wat 2 (*ambho)]. Av uba- 'both', OPers uba- 'both', Olnd ubhā 'both'; Gmc. *bai: Goth (pl) bai 'both', cf. Lith abiem 'both', Lat abiem 'both', OBS abema 'both'; with pronominal suffixes: ON bōðir 'both', OE bēgan 'both', NHG heide 'both', Goth baihps; with emphatic prefix *am-. Lat ambo 'both', Lith abū 'both', OBS aba 'both', Rus oba 'both', Grk ἄμφω 'both'; and *am-bhī, *m-bhī 'on both sides, around' [IEW 34 (*ambhī)]. OIr imb ~ imm 'about', Gaul amb~ 'about', Lat ambi- 'about', OHG umbi 'about', Grk ἄμπη 'around', Olnd a-bhī 'about', TochA ampi 'both', TochB ant-ap 'both'. The form for the collective numeral root is clearly old as seen from its widespread presence from one end of the IE dialect expanse to the other, and the semantic development of a concept 'both' is probably a shared phenomenon, albeit one that proceeded independently by more than one path in the individual dialects with the addition of a suffix in Germanic, the prefix *am- elsewhere.

See also divide, follow, other.

Three

*trījes (pl) 'three'; perhaps older *ter- ~ *tr-'even further', cf. *tr- 'upper, above (two)', last number of a pre-manual count system. [IEW 1090-1091 (*trīes); GI 743 (*trī-es); Wat 71-72 (*trī-i); Buch 13.41-52]. OIr (masc) tri ~ tri 'three', Wels tri 'three', Lat trē 'three', ON prē 'three', OE (masc.) þrē 'three (> NE three), OHG dhī 'three', Goth (masc.) fērē 'three', (neut.) þrīja 'three', OPrus trī 'three', Lith trys 'three', Lat tris 'three', OCS (masc.) trīje, (fem.) trī 'three', Alb (masc.) tre 'three', Myc *trī-in ti-ni-po-tripod', Grk τρεῖς 'three', Arm erk 'three', Hit tēri- 'three', Lycian tri- 'three', Av (masc.) bryā 'three', Olnd (masc.) trāyas, (neut.) trī 'three', TochA (masc.) tre 'three', TochB (masc.) trai, (fem.) tarya 'three'. In languages with inflected lower numerals, the cardinal numeral 'three' is inflected for gender. Widespread agreement in form and meaning suggests that this is an old IE root, probably originally 'upper, above' with derivatives meaning 'group of three, three'. Tocharian forms reflect a blend of *trījes and *trījones 'trio, triad', clear recent innovations on the older root. An old late PIE dialectal feminine tīres ('< *trī-er-/*trī-er or *tris-r-/*tris-or- [IEW 1091]) is preserved, with r... dissimulation, in OIr teir, OWS teir, Av tśrō, Olnd tśrās (< Indo-Iran *tśr-), competing with feminine-neuter (collectives) 'trī-er- (< *dui-plo-); cf. GI 743; Wat 2-71,72 (*trī-er). OIr tri 'three', Arm eri-er, eri-red 'thrice, third', Hit teriyān 'third', teriyannā (+ *-ono-) 'for the third time', teriyalla- 'third ranked', Luv tarryanali- 'third rank', with *-to-: Alb trete 'third', Grk τρείς 'third', (Homeric) τριτέρος 'third', Olnd trīta- 'third', TochA tri- 'third', TochB tirte 'third'. From *trijonas, *trijones: Wels tryddyd 'third', Lat tertius 'third', Umb tertiu, tertī (< *tr-,) ON þrīð 'third', OE þrīda 'third' (> NE third), OHG drittio 'third', Goth þrīja 'third' (< Proto-Gmc. *þrājan), OPrus tirs, tirs 'third', Lith trečias 'third', Lat case ('third', OCS tretij, tret 'third', Rus trëti 'third', Av θητία- 'third', Olnd tštja- 'third'. *tīšo- quite likely reflects a later development in which abstract ordinal *jo- renews an older ordinal in *tī-, it would not be surprising to find shared words for the abstract ordinal 'third' of late PIE date if abstract counting was also late and cardinal 'three' itself was from an original root meaning *trī- 'above, upper' that was adapted for use as an abstract numeral when the numeral system developed. Clearly outside the numeral system proper and perhaps of PIE date are forms reflecting *tristis, *tystos with meanings relating to 'third' and the role of a third person.
in a transaction: OIr *tris 'third', Lat testis 'witness', Osc *trisus 'third standing by', or *terio-: Hit *teriyalla- 'mediator'.

*tris 'thrice'. [IEW 1091 (*tris); Gl 743 (*tri)res]. OIr *tris 'three', Lat *tres (< *trs < *tris 'thrice'), tritus (< *tris-no- 'three each', Grk *trois 'four', Attic-Ionic *tropos). Despite the similarity of appearance, NE thirc is an innovation of ME thres and similarly MGH thres 'thrice'. Though typically replaced by newer formations in the various IE groups, the remaining attestations of *tris would seem to guarantee its PIE status.

See also Three-headed Monster.

### Four

*kwetwr- *kwetw- *kwetw- *kwetw- 'four'. [IEW 642-643 (*kwetwr-); Gl 743 (*kho)teriwe/or-]; Wat 34 (*kwe-). OIr *cwetwr 'four', Lith keturi 'four', Latv *cetrti 'four', OCS cetyre 'four', Alb kater 'four', Myc (inst. q-e-to-ro-pi 'with four feet', Grk (Homeric) téyopar 'four', (Attic) téyopar 'four', (Doric) téyopar 'four', Arm čork 'four', Av čáthwaró 'four', OInd cátvára- -caturā- 'four', TočA švar 'four', TočB šver 'four'. From *petwr- (< *kwetwr- under the influence of *penkwe 'five'): OIr *pedwar 'four', Wels pedwar 'four', Osc pedora 'four', ON fjórr 'four', OE féower 'four' (> NE four), OHG fir 'four', Goth fidwōr 'four', CrimGoth fyder 'four', Grk (Lesbian) téyopar 'four', (Boeotian) téyopar 'four'. From this root are various derivatives, e.g., *kwetwr-: Lith ketveri 'quartet', OCS cétver 'quartet', OInd cátvára- 'four-cornered (place)'. In compounds we have *kwetwr-: OInd cátus-pal- 'four-footed' and various derivatives: Lat quadru-ped- 'four-footed', Myc q-e-to-ro-pi-pi 'four-footed (animals)'. Dialectal innovations on the form and irregularities in correspondences, e.g., the oddity of Lat quattor and Germanic and Celtic innovations, leave open the possibility of borrowing. Proposals for analysis range from Finno-Ugric *kwet-pair (variants *kwetwer-, *kwetesor- plus suffixes *yer- 'man', *sor-woman') to *kwe-tur, formally 'indefinite particle + grasp (with the hand), whatever grasped, four' with false sandhi split in a counting series *tri-, *kwe tur 'three-indefinite, four', cf. ordinal forms without *kwe-: Grk (personal name) Tuptaicós similar to Lat Quintus 'Fifth', Av türnya, OInd turiya 'fourth'.

As with the feminine of 'three', by late PIE, dialectal feminine ablaut variants in *s(o)r- compete with feminine (abstract collective) forms in -i(i)h₂ (Lat trio, OCS *fem.-neut. i ćetri, Grk tétyrapa). These competitors, *kwe-tosr-, *kwe-tesor- are preserved as *kwe-tesore- in OIr cethoir, cethéir, Wels pedair, and *kwe-tesor- in Av cátuwar, OInd cátaras, with dissimilations of -w- and r...r before the much discussed ablauting suffix, *s(o)r-. The concrete meaning of *s(o)r- is Hit hasussara- 'queen (hussu-'king'), isha-ssara- 'lady' (isha- 'lord', perhaps also pie *sue-sor 'sister' (< ?own woman) argues that *s(o)r- was established as a separate feminine marker before the separation of Anatolian from the rest of Indo-European. Only later, after that separation, did *s(o)r- become an agreement marker for these numerical adjectives.

*penei-words (adj.) belonging to the little hand? or 'increased above "3"'. [IEW 711 (*penei-), cf. Gl 743; Wat 40 (*penei-)]. Myc me-wo-jo 'smaller, younger' (if not also 'four'), Luv māwa 'four', māwati 'with four sides', māwanta 'harnessed in fours (?)', Hit metya-, miya-, miw- (u-stem noun) 'member of a group of four', miwamantia- 'harnessed in fours'. Comparison of the Mycenaean form with Lat minor 'less', Goth mins 'less', Greek με(φ)ιοι 'smaller' has suggested relations with PIE *penei 'be little, small', i.e., the 'smaller (hand)' in a system based on hand counting, as a semantic proto-type of 'four'. Forms for the number 'four' pose problems that point to IE innovation and borrowing. Reflexes of a *penei-words in Luvian and Hittite argue for an old IE alternative to the usually accepted *kwetwr- and related forms.

*pwenwetw- *pwenwetw- *pwenwetw 'fourth' (ordinal). [IEW 643 (*pwenwetw-); Gl 743 (*kho)thwo-). Lat quadrus 'fourth', ON fjórr 'fourth', OE féorra 'fourth' (> NE four), OHG fiordro 'fourth' (< Proto-Gmc *fíurþa-), OPrus ketwirits 'fourth', Lith ketvittas 'fourth', Lat cetturitas 'fourth', OCS cétvrtis 'fourth', Rus ceťverti 'fourth', Alb ketert 'fourth', Grk téepotatos 'fourth', (Attic-Ionic) téepotatos 'fourth', OInd cátvára- 'fourth', TočA švar 'fourth', TočB šver 'fourth'. With *-so-: Av türnya- 'fourth', OInd turiya- 'fourth'. Arm cörr-ir 'fourth' is an innovation on the analogy of erkr-ir 'second', erir 'third'. Other derivatives include Lat quadrus- 'fourth', Av čáthwar- 'fourth', and possibly non-numeral Hit kutruwan (< *kwet-turj-m) 'witness (< *the fourth party to a transaction). Cf. OIr tress 'third' but Lat testis 'witness', the third party. Ordinal forms for 'fourth' derived from *kwetvr- and its variants are of late PIE or post-PIE origin.

See also Grow, Less, Numerals (Eight).

### Five

*pempe 'five'. [IEW 808 (*penkwe); Gl 743, 746–747 (*penkwe)]; Wat 49 (*penkwe). Grk nêve 'five', Arm hing 'five', probably Luv 5-w(a) (< *paŋku) 'live', Av paŋca 'five', OInd pâncâ 'five', TočA pari 'five', TočB pîs 'five'. Suffixed forms are also found: Lith penki 'five', OCS pet 'five', Rus piatih 'five', Alb pese (Gheg pese) 'five', Mitanni pazna-wartanna 'five-laps (of a horse around a track)', OInd pankti- 'group of five' (cf. also pra-paça- 'diversity', prapaça-na- 'detailed exposition'; *penkwe with assimilation of *p- to *k-: OIr cóic 'five', Lat quintus 'five', 'pempe with assimilation of *k- to *p-: OIr OWSels pimp 'live', OF furn 'live', OE lif 'five' (> NE five), OHG linf 'five', Goth linf 'five', CrimGoth fuf 'fyll- 'fyll- 'fylû 'five' (< Proto-Gmc *fimm), Grk (Aeolic) nêine 'five' (cf. also Grk πεννάζει 'count'). The form for 'five' is clearly PIE in origin although comparisons with *penkwe- an IE word for 'hand', and Grk nêine send < *escort, lead by hand', for example, may suggest that 'five' is secondary, derived from the original meaning 'hand'.

*pengw-tonos - *penkwe-tonos - *penkwe-tonos 'fifth'. [IEW 808 (*penkwe); Gl 743 (*penkwe-pó-)]. *pengw-tonos: Av puxda-
Six, seven.

**Six**

*s(s)eks~* (k)seks~ *skeks~ six'. [IEW 1044 (*skeks), Gl 743 (*seks); Wat 68 (*skeks); BK 193 (*s*ak*ks*/*s*ak*ks*/*s*ak*ks*).] From *s(s)e~ *s~eks: OIr se 'six', seis 'six men', Wels chwec'h 'six', Myc we-pa-za (table with) six feet', Grk (p)ēξ~ ēξ ~ six', Arm vec 'six', from *skeks: Lat se 'six', ON sex 'six', OE six 'six' (> NE six), OHG seks 'six', Goth saihs 'six', TochA šak 'six', TochB škas 'six', from *k(ks)eks: Lith šeš 'six', Lat saeš 'six', OCS sešt 'six', Alb gashte 'six', from *skeks: AV xēs 'six', OInd sās 'six'. The range of the IE forms may suggest independent borrowings rather than an inherited notion. One might recall here words for 'six' in East Semitic Akkadian (šešum, šešet), not Egyptian s'is'w beside s'is'w.

**Seven**

*septim* 'seven'. [IEW 909 (*septim), Gl 743–744 (*septim-mo), BK 188 (*sab-*sab*).] From *septim-mos: Lat septimus 'seventh', OPrus septmus 'seventh', Lith sekmas 'seventh', OCS sedmou 'seventh', Grk ἕβδομος 'seventh', Hit 7-an-na 'but for the seventh time', sa-ta in the Cappadocian place-name sapitn-gira 'Seventh sister' (with nasal assimilation), MPers haltom 'seventh', OInd saptama 'seventh', from *septim-*s, *septimatos: OIr sechtim 'seventh', Wels seithim 'seventh', OE siotha ~ sioloda 'seven' (> NE seventh), OHG sibonto 'seventh', Lith seiptitās 'seventh', Lat septitas 'seventh', Alb shate 'seventh', Grk (Homeric) ἔβδοματος 'seventh' (cf. τριάτος 'third'), Av haptaθa 'seven', OInd saptaθa 'seven', TochA saząta 'seven', Lith sazątante 'seventh', *septim-*s: ON sjonde (~ Proto-Gmc *sjund-*) 'seventh', sjand 'set of seven, seventh day after a death, wake'. Productive IE ordinal (*-to-, *-eto-) and abstract (*-tu-) suffixes are innovating formations that replace older ordinal derivations with only the theme vowel.

Eight

*ōktō ~ oktōu (or ὥκτοι ~ ὥκτοι) (dual) 'eight' (< two fours?). [IEW 775 (*ōktōu), Gl 744 (*okθuou), Wat 45 (*ōktōu)]. OIr ocht n-'eight', Wels wyθ 'eight', Lat octō 'eight', ON atta 'eight', OE eahθ 'eight' (> NE eight), OHG ahto 'eight', Goth ahtua 'eight', CrimGoth ohta 'eight', Lith aštuon 'eight', Lat astuōn 'eight', OCS osmēt 'eight'. Rus vošem 'eight', Alb tte 'eight', Grk ὥκτῳ 'eight', Arm uτ '-(p)τ-, influence of *septim-*s 'eight', Av aṣṭa 'eight', aṣṭi- 'length measure, breadth of four fingers, palm'. OInd (dual) aṣṭā ~ aṣṭau 'eight', TochA aktar 'eight', TochB okt 'eight'. Dual forms for 'eight' suggest that the root form was related to 'four', a suggestion reinforced by Av aṣṭi- 'breadth of four fingers, palm' beside Av aṣṭa 'eight'. Alternatively, *ōktōu 'eight' may be derived from full-grade roots: *e̞k*etō-~ *ok*etō- or *e̞k*etōs, *ok*etōs (from which PIE *k*etuor- 'four' may be a zero-grade. With addition of a numeral determinative *-r, this zero-grade form, *k*etuor- 'four', would have become ordered into the new numeral system. A dual of such
an early IE form for 'four' would thus be the prototype for the dual *oktou 'eighth'. Instances in which older numeral systems formed higher numbers by duplicating forms for lower numbers are well known. For example, an Old Sumerian system formed 'six' peš-pes from pes 'three', and Finno-Ugric *kwt 'two' is the basis for *kvet-kvet 'four'. It is thus not unreasonable that IE would use the dual of the lower number for its double value.

**ōkōs ~ *ōkōs** 'eighth'. [IEW 775 (*okto(u)).] Lat octāvus 'eighth', Grk ὀκτάων 'eighth'. OPhryg ὀφτειν 'eighth year', Luv 8-wa-a-i 'eighth'. With early *informations on analogy with *septim- o-re-analyzed as *septem-. OPrus asman 'eight', Lith ašmas 'eight', perhaps Latv asmitie 'measure of land', OCS osma 'eighth', Rus vostomoy 'eighth', Av astama- 'eighth', Olnd aștama- 'eight'; with later abstract and ordinal suffixes: *-t-, *-ti-, *-to-, *eto-: Olr ochtmad 'eighth', Wels wythfed 'eighth', ON atti 'eighth', att 'group of eight runes', OE eahtoda ~ eahtedca 'eighth' (> NE eighth), OHG ahtodo 'eighth', Lith astūtasa 'eighth', Latv astotais 'eighth', Alb tete (dialectally tetet) 'eighth', Grk (Homeric) ὀκτάων 'eighth', HierLuv 8-wa-a-i = 8-wa-za ( *

See also NUMERALS (FOUR).

Nine

*ēnyn (or ḫēnyn (i.e., *ēnyn)) 'nine'. [IEW 318–319 (*e-neuen); GL 744 (*neu(e)n-); Wat 45 (*newp)]. Olr not n- 'nine', MWels naw 'nine', Lat novem 'nine' (ending influenced by sequentia 'seven'), (inscription) nove 'nine', ON ntu 'nine', OE nigon (on analogy with seofon 'seven') 'nine' (> NE nine), OHG niun 'nine', Goth niun 'nine', Grmc *neu-tzos 'nine', Lith devyni 'nine', Latv devipi 'nine', OCS deveit 'nine', Rus devjati 'nine' (initials of Balto-Slavic forms on analogy with 'ten', i.e., *-tn-, Alb nendra ~ nente 'nine' (Gehg nändë ~ nänë) 'nine', Thracian evey 'nine', Myc e-ne-wo pe-za 'nine-footed (table)', Grk eivēx 'nine', Arm inn 'nine', Lycian n-inh-iniht-ata (< *nin-ant 'derivative of nine', Hit 9-nt-it happyssni 'to the nine limbs', Av nava 'nine', Mitanni na-wartana (< *nava-wartanna) 'nine laps of (a horse around a track)', Olnd nava 'nine', TochA hū 'nine'. A common IE form, perhaps from 'new', the new number, with innovations under the influence of neighboring numbers.

**neyn-os ~ *neyn-os (nasional dissimilation or influence of 'seventh' and 'tenth') 'nine'. [IEW 319 (*e-neuveno); GL 744 (*neu(e)n-). Lat nōnus 'nineth', ON niund 'nineth', Hit 9-na 'but the ninth', 9-an-ki 'nine times', Av naoma- 'nineth', Olnd navamā- 'nineth'; later *neyn- (e)tos: Olr nōmad 'nineth', MWels nawuet 'nineth', Gaul nāmef /j 'nineth', ON niund 'nineth', niund 'set of nine', OE nipo 'nineth' (> NE ninth with influence from cardinal number), OHG niunte ~ niunte 'nineth', Goth niunda 'nineth', OPrus newunts 'nineth', Lith devjatis 'nineth', Latv devītases 'nineth', OCS devēra 'nineth', Rus devjatyj 'nineth', Alb nentė ~ nente 'nineth', Grk ἐναέντω 'nineth', Luv 9-un-za 'nineth', HierLuv 9-t, nu-1 = 9-za' or nu1/2 'nineth', 9-wa-a-i = 9-wa-za or nuwai 'nineth', TochB nunte 'nineth'.

Ten

*dekam ~ *dekam-t ~ *deku- 'group of ten, ten'. [IEW 191 (*dekam); GL 744 (*tekam̂); Wat 11 (*dekam); BK 132 (*tak̂l̂)-/*tak̂l-)]. From *deku, *deken Olr deich n- 'ten', Wels deg 'ten', Lat decuria 'group of ten'; from *dekam: Lat decem 'ten', ON tuu 'ten', OE tien 'ten' (> NE ten), OOH zehan 'ten', Goth taihun 'ten', CrimGoth thīne 'ten', Grk δέκα 'ten', Arm ašan 'ten', Av dasa 'ten', Olnd dasa 'ten', TochA šak 'ten', TochB šak 'ten', from *dekam-t- (> group of ten, ten). OPrus desims 'ten', Lith dešimtas ~ desims 'ten', Latv desim 'ten', OCS desēti 'ten', Rus desiat 'ten', Alb dhjete 'ten'. PIE *dekam may be from *de- kont- ~ *de-kont- 'two units, two hands, unit of ten' (< *kni̯om 'unit, large unit, hundred'). At least as plausible is a relation to *dek- 'take' from which *dek-, an old word for 'hand' or 'right hand', etc., if IE hand counting started with the left hand and ended with the tenth finger on the right hand.

**dekam-os ~ *dekam-mos ~ *dekam- (e)tos 'last member in a set of ten, tenth'. [IEW 192 (*dekam-mo); GL 744 (*tekammo); BK 132 (*tak̂l̂)-/*tak̂l-)]. *dekam-os, *dekam-mos: Corn dēgēs 'tenth', Lat decimus 'tenth', Av dasama- 'tenth', Olnd dasama- 'tenth', from *dekam-mo- = *dekam-t-: Olr dehmad 'tenth', MWels decuet 'tenth', Gaul decametos 'tenth', from *dekam-tos: ON tūu 'ten', tiuā 'tenth', OE teoda, teveda 'tenth', OOH zehante 'tenth', Goth taihunda 'ten', OPrus desims 'tenth', Lith dešimtas 'tenth', Latv desimtas (with metathesis, cf. dial. desimtas) 'tenth', OCS desēti 'tenth', Rus desiatyj 'tenth', Alb dhjete (dialectally dhjete) 'tenth', Grk δέκας 'tenth', Luv 10-ta 'ten-fold', TochA skant 'tenth', TochB skante 'tenth'.

Teen Formations

Most linguistic expressions of the teens combine the digit word with a 'ten' form using the mathematical function of addition. The syntactic order may be 'digit + ten' (cf. Lat duodecim 'twelve', lit. 'two-ten', and similarly Greek, Armenian, Avestan, Old Indic) or, less commonly, 'ten + digit' (Crimean Gothic, Tocharian, e.g., TochB śak-wi 'twelve', lit. 'ten-two'). While these two examples show the addition function by simple juxtaposition, there may also in some languages be a connecting word such as 'and', e.g., Lat decem et duo 'twelve' or decem tris-que 'thirteen'. Non-additive formations include the Germanic and Lithuanian type exemplified by Goth twālih 'twelve', lit. 'two left (after ten)' or the subtractive type exemplified by Lat duo dé viginti 'eighteen', lit. 'two from twenty'. As can be seen even from these examples a particular language may simultaneously use more than one system side by side. Regularities result from creation at a period when the internal numeral system had already attained its inner decimal coherency. Irregularities, by contrast, represent
valuable relics of the older system(s) now lost to us. The tantalizing relic pieces may be IE or the result of IE contact with non-IE systems. They may even reflect the generalization of a system that was used to quantify a specific kind of commodity (e.g., a ‘dozen’ for eggs, ‘sixty’ for time measurement) for more general uses in a particular language. Examples are given for ‘twelve’ and ‘fifteen’.

Twelve


Fifteen


Decade Formation

Most IE languages show more or less extensive reflexes of an old decade formation that is a variant of PIE *kemptóm, either *kom-tet(ba) in ‘thirty’ through ‘ninety’ or *kempt- in ‘twenty’ (*uik-mptih). These formations are found in Latin, Greek, Armenian, and Tocharian, and to ‘fifty’ in Avestan and Old Indic. For its lower decades (to ‘sixty’) Germanic has substituted Proto-Gmc *-tigō, which may reflect a PIE *dek̑u-decade (cf. Lat decuria ‘decade, group of ten’) or a contamination of this word, or something similar, with a Germanic word for ‘score’ (cf. CrimGoth stega ‘score’). Germanic clearly went its own way with the upper decades. Without abandoning (Proto-Gmc) *tigō of the lower decades, the Germanic languages added a *kēptōm, arguably from *kom-tet(-), to the upper decades, all the way to ‘120’. Thus we have OE hundsendoentig ‘seventy’, hundseofontig ‘eighty’, hundnigontig ‘ninety’, hundtioentig ‘hundred’, hundendēaftig ‘110’, huntwilftig – hundwilftig ‘120’. From ‘sixty to ‘ninety’ Avestan and Old Indic show a different formation, one made by the suffixation of *-ti.

Besides multiplication (e.g., ‘fifty’ as ‘5’ X ‘10’) there are occasional cases of division, e.g., Celtic and Slavic where ‘fifty’ is ‘half-hundred’, or of multiplication using ‘20’ rather than ‘10’ as the multiplier. Thus Albanian made use of a ‘twenty’ unit (‘zet, formally reflecting PIE *uik-mptih) in ‘twenty’, ‘forty’, ‘sixty’, and ‘eighty’, but digit + ‘ten’ for the uneven decades.

Given the wide variation in the use of otherwise old base unit forms and the comparative asymmetries among decade systems in the daughter languages, one may conclude that the decades, like the teens, arose independently from a PIE system in which decimal decades were unlikely to be the only system. East Semitic Akkadian texts, for example, predating our earliest IE texts, show competing decimal and sexagesimal systems. The asymmetries in fact are valuable relics of successive remakings of numeral systems that stand to tell us more about how numeral systems evolved from an IE that post-dated the late fourth millennium BC technologies of the Ancient Near Eastern towns.

Examples are given for ‘twenty’, ‘thirty’, ‘fifty’ and ‘sixty’.

Twenty


See also Cut.

Thirty

*tr-(kom-tet(ba) (< *-tr-(d)kom(tet(ba)) ‘thirty’. [IEW 192; GI 745 (*thri-kemptihb)-]. Olr tricho (DIl. tricha) ‘thirty’, OWels trimeinti ‘thirty’, Lat triginta ‘thirty’, Grk triakosa ‘thirty’, Arm ivers ‘thirty’, Av thrasa ‘thirty’, Olnd trimsat ‘thirty’ (Old Indic has transferred the nasal from the second to the first syllable), ToChA taryak ‘thirty’, ToChB taryaka ‘thirty’ (at some point in the history of Tocharian the *-omt of the decades fell together phonologically with the common neuter singular ending *-om, prompting its replacement by *-a, the common neuter plural ending). Other formations in Germanic: ON þrij tiger ‘thirty’, OE prittig ‘thirty’ (> NE thirty), OHG dritzug ‘thirty’, Goth prins tiguns (acc.) ‘thirty’; in Baltic and Slavic: Lith trisdesimtis – treis dešimtys, Latv trīdesmitis (with *-dekšti ‘-group of ten, ten’).

Fifty

*penkʰe-kom(tet(ba)) (< *penkʰ-e-(d)kom(tet(ba)) ‘fifty’. [IEW 808 (*penkʰ-e-komta); GI 745 (*penkʰ-e-kemptihb)]. Olr
NUT
cotc 'filty', Lat quinquagintā 'filty', Grk πεντήκοντα 'fifty', Arm yisun 'filty', Olnd pancāsat 'fifty', TochA pnāk 'fifty', TochB psāka 'filty'. Other formations, in Germanic: ON fimn tiger 'filty', OE fitig 'fifty' (> NE fifty), OHG hun-lgug 'filty', Goth hinti tiguns (acc.) 'filty'; in Baltic and Slavic: Lith pentkios dėsimsytys 'filty', Latv pedesmetsi 'filty', Bulg pedecei(t) 'fifty' (with *-dekgiti- 'group of ten, ten'); in Alb pesēdhjete 'fifty' (lit. 'five-ten').

Sixty
*(k)s(u)eKs-Kom(t)h(ɔ) 'sixty'. [G1 745 (*s^ek^h-s-kom^h^).] Olr sesca 'sixty', Lat sexaguntā 'sixty', Grk εξήκοντα 'sixty', Arm vat'sun 'sixty', TochA səsak'sixty', TochB skaska 'sixty', other formations in Indo-Iranian: Av xśasītī 'sixty', Olnd sastī-sixty (digit + abstract forming suffix -ti)-, in Germanic: ON sex tiger 'sixty', OE sextig 'sixty' (> NE sixty), OHG seh(s)zug 'sixty', Goth saı̂s tígum 'sixty', Balto-Slavic: Lith šēsiasdeimt - šėsios dėsimsyt 'sixty', Latv sešdesmit 'sixty', Ukr šış-desjat 'sixty'.

See also HEAP.

The Higher Numbers
The well-known common IE form *Kiptōm, we have seen, has not always been unambiguously used to mean '100'. In historic times the base unit in Gmc *hunda- means '120' in the long hundreds but '100' in the system of decimal calculation. It is not unlikely that this form has undergone reinterpretation many times over as different groups of IE-speakers needed a word to express the canonical base unit in their current number system. Opinions have been divided as to whether early Indo-Europeans had a word for the numeral '1000'. In the eastern languages we have *ghes-lo-, apparently related to *ghesr-'hand'. In the northwest of the IE world we find *teh2-s-Kiptjōs, literally 'swollen hundred' or 'large hundred', used for '1000'.

Hundred
*Kiptōm 'unit, large unit, hundred'. [IEW 192 (*Kiptōm); GI 744 (*k^ipt^om^); Wat 11 (*dkp^om^).] Olr cēt n- 'hundred', Wels cant 'hundred', Lat centum 'hundred', OE hund 'hundred', OHG hunt 'hundred', Goth hunda '100, 120' (Germanic also *hunda- + *tāda-'number' in ON hundra '100, 120', OE hund 'hundred' (> NE hundred), OSax hunderd ('long') hundred), Lith simtas 'hundred', Latv simts 'hundred', OCS sīto 'hundred' (sometimes considered a borrowing from Iranian), Bulg sto 'hundred', Grk ἕκαστον (sēm + *Kiptōm) 'hundred', Lycian sīta 'unit of 10 or 100', Av satam 'hundred', Olnd satam 'hundred', TochA kant 'hundred', TochB kante 'hundred'. Formally widespread and clearly old in IE. Perhaps *Kiptōm was originally (numerical) unit, i.e., 'five' and related to Gmc *handu- 'hand', and thus *de-Kipt two units, i.e., 'ten', and *(d)Kiptōm 'tenth decade', i.e., 'hundred'.

See also NUMBER. [C F J]

Further Readings

NUT
*Kneu- 'nut' (more particularly 'hazelnut'?). [IEW 558-559 (*kneu-); Wat 2 (*ken-), GI 547 (*k^neu-); Fried 77-80]. Olr cnā 'nut', Wels cneuen 'nut', Lat nux (< *knuk-) 'nut', ON hnaut 'nut', OE hnaut 'nut' (> NE nut), OHG hnuaz 'nut' (Gmc < *knut-). Northwestern dialectal term.
*Hēr- 'nut'. [IEW 61 (*ær-), GI 547 (*q^ær-); Fried 77-80]. Lith ruosūtys 'nut', OCS orčētu 'nut', Rus orek 'nut', Alb artë (< *hæreneh₂) 'walnut, nut tree', Grk (Hesychius) ἄπων 'nut'. Hit gsha- (polis) is phonetically a regular correspondent of the Slavic, Albanian, and Greek words, but the semantic distance is very great. A term at least of the central region of the IE world.

There are two terms for the nut and/or nut trees. The first of them, *kneu-, although only attested in the generic meaning as 'nut', may have been limited to the 'hazelnut' because that tree flourished in western Europe during the Atlantic period and later, and the term for hazel, *kosVlo-, is reflected in the same three western stocks.

The second term, *hēr-, on the other hand, may have been used only for the walnut or the chestnut, in the respective zones where they flourished: southeastern Europe, the Ukraine, the Caucasus, and the circum-Mediterranean. The minimal shape of this second term has been inferred from the many forms in Slavic, several Baltic forms, the admittedly
problematic Greek form from Hesychius and even Albanian arrē—variously denoting 'nut', 'nut tree' or 'walnut'.

Whatever the linguistic evidence, pre-PIE peoples and PIE peoples were surely aware of the major and minor nut trees as valuable sources of food and almost as surely had various terms (or terms with qualifying adjectives), some of which may have been in complementary distribution over the area of the homeland and later migrations. The linguistic evidence, however, is not particularly consonant with a course of migrations. The dialectally most restricted form, *kneu-, if denoting the nut of the hazel, is inexplicably confined given the distribution of the hazel and hazel nuts all over Europe and much of Asia which were heavily exploited at least since the Mesolithic period onwards. The prehistoric distribution of the walnut, on the other hand, was quite limited. At dates prior to 3000 BC in Europe it would appear to have been largely confined to north Italy and the northwest Balkans, the Alps and possibly south-central Europe and it only extends into the south Balkans and Greece in the first millennium BC. It is also reported as having survived the last glaciation in a refuge in the north Pontic area. Its major expansion has sometimes been credited to human introduction from north-east Turkey, the Caucasus and north Iran but this expansion did not occur until well into the Bronze Age, i.e., well after the initial expansion and divergence of the IE languages.

See also Hazel; Oak; Trees. [P.F., J.P.M.]
OAK

*perkwus* 'oak (Quercus spp.).' [IEW 822–823 (*perkwu-s); Wat 50 (*perkwu-); GI 526–528 (*p*erkbhuu-); Buck 8.61; Fried 133–140]. Gaul ἐρχοϛ 'oak-forest', Lat quercus (with assimilation of *p...k* to *k*...k*) 'oak', ON fjør 'tree', OHG fereh-eih 'oak'. From a derivative *perkwuth₂* we have Gaul Hercynia silva, the Celtic and then Roman name for the forested mountains of central Germany (OE firgen- 'mountain', OHG Ferfunna 'Erzgebirge', Goth fairguni 'mountain(-chain) may be native cognates or early borrowings from Celtic', ON Fjorgynn (the mother of Port), OPruss perunis 'thunder', Lith perkūnas 'thunder', perkūnias 'thunder-storm', Latv pērkuons 'thunder'. The Baltic forms particularly, but the Old Norse to an extent, seem to show a semantic crossing of *perkwu₃* with *perkh₂* '± the oaken one' with *peruh₁* '± he of the thunder-stone', e.g., ORus Perūnā 'thunder god', Hit peruna- 'cliff', all from *per- 'strike'. OInd parjanyā- 'rain, raincloud, god of rain' would be a similar but independent formation from *per-g- 'strike'. OInd pargaṭī- 'holy fig-tree' is sometimes placed here but is only attested in classical Sanskrit and, because of its very late attestation and its meaning, is a doubtful reflex of *perkwu₃* 'oak'; tempting, but altogether isolated in Indic, is Panjabi pargaf 'holly oak (Quercus ilex)'. Without the Indic cognates, the word would be restricted to the northwest group of stocks. The role of the oak tree in (early) Germanic psychology and religion would seem strongly to support including a set of metaphorical extensions meaning 'life' and the like, i.e., ON fjør, OE leeoth, or 'man' and 'world', i.e., Goth fairstvus.

In Germanic we also find Ouna 'pīne', OE lūth-wudu 'pine wood' (> NE fir), OHG for(r)aha 'pine', Italian (dialect of the Trentino) porca 'fir' (borrowed from Raetic?) which would seem to derive from a dialectal PIE *pårk(w)eh₂- or *pårk(w)eh₃-. If the former, it might be a substantivized adjective. A century of unanimity says that, despite the categorical semantic incompatibility between 'oak' and 'pine', *pårk(w)eh₃- belongs to the oak set (and missing links may be found—for example, the occasional cross-over between these genera in other languages).

*hæig*- 'oak'. [IEW 13 (*aig-); GI 531 (*aik*-); Buck 8.61; Fried 132–133]. ON eik 'oak', OE éa 'oak, ship' (> NE oak), OHG eih 'oak', Grk aiyialow 'oak'. Possibly Lat aesclus 'mountain oak'. Late dialectal status for the west and center of the IE world


The Lat quercus 'oak' is, by regular phonological rules, clearly a good cognate of many Germanic forms meaning 'oak' or also 'mountain(chain)' as in Gothic (perhaps earlier denoting 'oak forest') which is perhaps cognate with Celtic phrases for 'oak forest', e.g., Hercynia silva. There is, incidentally, natural typological evidence for semantic shifts between these various 'oaken' meanings. Some of the strongest linguistic evidence is from Baltic and Slavic with links, especially, to 'thunder', 'thunder-god', or 'high god' and credible correspondences in sound, e.g., ORus Perinu and Lith Perkūnas. The various Baltic and Slavic forms, to continue, are surely cognate with OInd (Vedic) Parjanyā- 'god of storm', who impregnates the earth with rain, and a related set of Indic forms for 'tree', 'mountain' and 'cliff'. The final and perhaps most problematic link in the chain leads us to include forms in Hittite for 'cliff' and 'strike' which fall into a mythological
OAK

equation that is almost isomorphic to one in Old Norse: in Hittite, a great cliff, Perunías, gave birth to a lithic monster who was obliged to kill the enemy of his father, whereas in Old Norse Þjórgyn (< *perkwʷ-) gives birth to bòrr who is called upon to slay his father's enemies with a stone hammer. Pulling together the many strands in seven stocks, we may conclude that *perkwʷ- meant 'oak' but by diverse routes became associated with or even applied to a syndrome of meanings including 'stone', 'storm', 'mountain', 'cliff' and a god. The motives for the associations are various, e.g., the tree is connected with thunderstorms because it attracts lightning and tends to be a source of names for mountains, e.g., Das Eich in German. While most strongly attested in five "central" stocks, *perkwʷ- has enough other outliers and buttresses in Indic to make this etymon PIE. The 'oak' as a 'thunder-deity', incidentally, was borrowed into various Uralic languages, e.g., Finnish perkele 'devil, Satan', Estonian pergel 'devil'.

The second oak name, *h₂eig-, is mainly supported by two stocks, Germanic and Greek, in which there is a metonymic extension to artifacts for which oak wood is singularly suited, e.g., ship, spear, shield. Probably cognate was the first element in Lat aesculus 'mountain oak'. In sum, *h₂eig- is dialectally limited and probably a late form, possibly used for a particular species of oak.

Finally, the word for 'acorn' is widely reflected and almost universally accepted as very early IE, it is often cited in support of the phoneme *gʷ. The meaning is at least once extended metonymically to the tree itself and this was probably the basic connotation of the term in PIE. The meaning is also extended metaphorically, as in classical Latin to 'an acorn-shaped bullet' and 'glans penis' as was also the case in Old Indic and it seems likely that 'head of the penis' was another secondary connotation of this term. The fact that acorns and acorn mast were important in ancient times as food for both humans and pigs is correlated with the solid archaeological and philological evidence for hog-raising in early times. The acorn was integral to the oak complex in the early religion of the Celts, Germanic peoples and Greeks and probably others; the consumption of acorns by the Celtic druids was believed to provide them with their powers of divination. Consistent with this, the root *gʷelh₂a- is of the animate gender, unlike the names of other edible fruits.

That the oak was central in PIE myth and religious ritual is shown by the presence, in half the IE stocks, of sacred oak groves, sacred oakwood fires, and rites involving, concretely, the ingestion of acorns (by druids) and the cultivation of mistletoe and, more generally, by the interwoven symbolic complexes of priest/shaman and, on the other hand, the association of the oak with such things as thunder and the high god. The oak was the main nexus between a set of ideas about the supernatural and a set of ideas about the arboreal habitat.

Pollen evidence indicates that the oak, which is represented in Europe by at least 9000 BC. By c 6000 BC it had covered northwest Europe although it would never penetrate further north than the southern portion of Scandinavia. The oak is also well attested in Anatolia, the Caucasus and in the Near East and is, consequently, without value as a diagnostic marker of the location of the early Indo-Europeans (although some facts of semantic nuance and rates of distribution may be suggestive). Charred remains of acorns are widely known across Eurasia through prehistory and attest its use as fodder or, with appropriate roasting, boiling, or grinding with leaching, as food for human consumption. Oak was also widely employed in archaeological contexts, especially as a structural material in houses, trackways, etc., as well as in the manufacture of a variety of implements.

See also Grove, Mistletoe, Thunder God, Tree, Trees. [PF]

Further Readings
Gimbutas, M. (1973) Perkunas/Perun, the Thunder god of the Balts and Slavs. JIES 1, 466–478.

OAR

?h₃erh²trom 'oar, paddle'. [IEW 338 (*era-ter-); Wat 17 (*era-); Gl 582 (*erj-); Buck 10.85]. Lith įrklas 'oar', Grč aritra- 'oar'. Though confined to only two stocks, this word may be of late PIE antiquity. It is regularly formed by the addition of the instrumental suffix to the verb *h₂erh²- 'row'. Different in formation but identical in meaning are OIr rám(a)e (DIL rámá) 'oar', Lat rēmus 'oar', ON rôðr 'steering oar', OE rôðar 'steering oar' (> NE rudder), OHG ruoda 'oar', Grk ἐρημίμον 'oar', ἐρήμης 'prower'.

Oars and paddles (of birch and ash) are known from the Mesolithic period onwards and with the reconstruction of a PIE 'boat', their ascription to the proto-language is certain, even if the lexical evidence is minimal. See also Boat, Row, Tool. [D Q A]

OATH

*h₂elitos 'a going, oath'. [IEW 295 (*oi-to-), Wat 45 (*oi-to-)]. OIr oeth 'oath', OWel an-utonou a 'perjury', ON eitr 'oath', OE ēulfilled 'oath' (> NE oath), OHG eid 'oath', Goth āils 'oath', Grk οίτος 'course, fate', TochB aittanja 'directed toward'. Specialized in Celtic and Germanic to 'oath' because swearing practices indicate that oath-takers would walk (PIE *h₂el- 'go') between pieces of slaughtered animal to give force to the oath. Although lacking cognate terms, this practice was also known among the Hittites and is recorded as late as the fourteenth century in Lithuania where one walked between the two halves of an ox slaughtered as a sacrifice. In the case of the Celtic and Germanic lexical correspondence,
both < *hjoitos, there is no need to assume Celtic priority in this matter and it rather suggests a set of common institutional patterns. A late word of the IE west in this meaning although related to the Greek word for 'course, fate', where *hjoitos 'a going' shows a different semantic specialization.

One recurrent theme concerning the taking of oaths in the traditions of various IE stocks is swearing by a sacred water, the Old Indic Ganges, the Greek Styx and the Old Norse Leitr providing the best examples. Although it has been suggested that these are all rivers of the underworld (hence, one swore by the waters of the realm of the dead), there is some evidence to suggest that one should look elsewhere for the underlying meaning of this belief. In Old Indic tradition the source of the Ganges has been seen to be the heavens (Mahābhārata 3.107; Ramayana 1.41–43) and it has been visualized as a waterfall from the sky while early Greek sources identify the Styx with a small river in Arcadia which has its origin at the base of a two-hundred-meter water fall. The name of the Old Norse river by which one swears, Leitr, means 'lightning'. Hartmut Scharfe has suggested a common semantic core whereby one swore, not by underground rivers, but by the 'water-of-lightning', i.e., the downpour (cf. the waterfall imagery) of a thunderstorm, the lightning guaranteeing the oath.

See also BLAME; PRAY; SACRIFICE; SWEAR; UNDERWORLD. [E.C.P., D.Q.A., J.P.M.]

Further Reading

OATS
*heus'oats'. [IEW 88 (*auij-); Gl 568; Buck 8.46, Bailey 497]. Lat avêna (wild oats'), OPrus wyse 'oats' (the lack of an initial vowel, i.e., *awysė, is either a hearing or scribal error), Lith (pl.) avës'oats', Latv (pl.) ausas 'oats', OCS ovsô 'oats', Rus ovsô 'oats', Khot hau 'a oats' (the exact referent of the Khotanese word is not certain, in the contexts where it occurs it is clearly opposed to 'barley' and as there are other, well-identified, words for 'wheat' and 'millet' it is unlikely to be either of those). The exact PIE form of this word is difficult to reconstruct. Lat avêna would appear to reflect a PIE *hheuisineha- while Khot hau would reflect Proto-Iranian *aviš-, PIE *heuiso-. The Baltic words appear to reflect a PIE *heuikgs, gen. *heuikas; or, the Slavic might reflect PIE *heuiso- and the failure of the *-s- to retract to *-s- as expected after *-i- (and *-ur-, *-ur, and *-k-) might be the result of the influence of some other variety of IE speech (as with the case of *trus- 'reed' and *tris- 'vine'). Possible support for PIE *-g- comes from Grk arýtãow (if < *heuigi- láok's 'that which looks like oats') 'wild oats', though it is usually assumed that the Greek should be discounted (and taken rather as containing *hheuigi- 'goat', cf. OHG halter (< PIE *kápros 'goat') 'oats'. Just possibly PIE *heui- is *heuisi- 'sheep' and we have different derivatives meaning ± sheep-fodder'.

Certainly oats were not highly considered as a grain in ancient times and it enter Greek and Roman history as horse fodder. However, Pliny the Elder reports that oats were used both for bread and in the form of porridge in the central Europe of his time. The semantic and phonological equations existing among Latin, Baltic, Slavic, and Iranian strongly suggest that this word was a widespread one in the PIE speech community.

In its wild form, oats (Avena) were widely distributed across the Mediterranean and eastwards to the Zagros Mountains. It appears infrequently on archaeological sites from the Neolithic period onwards and its occurrence in Neolithic contexts is generally explained in terms of weeds infesting cultivated crops of wheat and barley. As farming moved north into poorer soils and colder climates, the harder 'weed' (= oat) component of the crop became more important. The earliest appearance of domestic oats is set to Europe and not until after the second millennium BC, i.e., the Bronze Age. In Italy, as the linguistic evidence suggests, oats were generally wild and remains of oats recovered from both pre-urban Rome and Pompeii have been classified as wild/weeds although a single impression in daub from an Iron Age site has been identified as domestic. Oats are also known from Bronze Age contexts in Afghanistan. The popularity of oats in the north is largely due to their ability to thrive in moist temperate climates where they were able to replace wheat.

See also AGRICULTURE; GRAIN; PLANTS; RYE. [D.Q.A., J.P.M.]

OBVIOUS see VISIBLE

OLD
*senos 'old'. [IEW 907–908 (*sen(o)-); Wat 57 (*sen-); Gl 685 (*sen-); Buck 14.15; BK 167 (*pín/-*s'en-)]. OIr sen 'old', Wels hen 'old', Lat senex 'old', senatus 'senate' (= a group of old men, like Grk ἱεροῦσια council of elders < yêpov 'old'), Goth sinista 'eldest', Lith senas 'old', Grk ἐβαθε 'last year's', Arm hin 'old', Av han- 'old', OInd sâna- 'old'. A suffixed form *senehje/o-. [IEW 907] occurs in: Lat senè 'age, become old', Lith senēju 'age, become old', and OInd sanâya/- 'growing old'. Possible here also is Hit zana- 'decline, decrease, waste (of the moon)'. With representation in at least three regional groups, this seems a good candidate for PIE status.

See also OLD MAN, YOUNG. [P.B.]

OLD MAN
*gerhont- 'old man'. [IEW 390–391 (*ger-ont-); Wat 20 (*gera-ont-); Gl 151 (*FerH-); Buck 14.15; BK 284 (*kípr/- *kér-)]. Grk yêpov 'old man', Oss xeront 'old', OInd jârânt 'old man', possibly TochB xârâ- (< *gerhôs-?) 'old man'. A word of the eastern part of the IE world.

*gerhôs 'old man'. [IEW 390–391 (*ger-), cf. Wat 20 (*gera-); BK 284 (*kípr/- *kér-)]. Arm cer 'old man'. NPers zár 'old man'. Since the formation is productive in both stocks
where the word is attested, it may be an independent creation in both. At best we have evidence for a word of the IE southeast.

Both terms referring to ‘old man’ are from a verbal root *gerh₁- ‘age’ used as a verb only in Indo-Iranian. ON karl ‘old man’, OE ceorl ‘freeman of lowest class’ (> NE churl), OHG karal ‘old man’ (Gmc < *gerh₂-lo-), while Alb grua ‘woman’ and Grk γηγος ‘old woman’ (< *gerh₁-u-) are from the same root. The suffix is a common one, but the verb root ‘to be old’ is rather restricted, assuming that the formation is an old one. From this word are built terms such as Grk γηγονος ‘assemblage’. The observation that older men were the community leaders is hardly established in light of parallels in primitive societies and the unique Greek term does not entitle us to imagine an Indo-European ‘senate’.

See also Age Set, Death. [M.E.H.]

ONCE


See also NUMERALS (ONE). [C.F.J.]

OPINION

*meino-‘opinion’. [IEW714 (*meino-); Wat 40 (*mei-no-)]. OIr máin ‘wish, desire’, Wels mwyn ‘enjoyment’ (Celt < *meino-), OE mán ‘meaning, mention, call’, métran ‘mean, say’ (> NE mean), OHG meina ‘sense, meaning, mean’; ‘mean (say)’, OCS ménjo- ‘mention’, TochB onnim (< *hópóimenon) ‘remorse’. Possibly late PIE.

See also Think. [D.Q.A.]

OR

*[yē] ‘or’. [IEW 75 (*yē-); BK 476 (*xw-, *wā/*a), 477 (*wā/*wa)]. OIr nó ‘or’, OBrect nou ‘or’, Lat -ve ‘or’, Grk ἕ- (p)’e’or’, VAv va’or’, Olnd vá’or’, TochB wat’or’. Widespread and old in IE.

See also And. [D.Q.A.]

ORACLE see PRAY

ORDER

*hártus (gen *hártoús) ‘fitting, order’. [IEW 56–57 (*t-); Wat 3 (*ar-); BK 383 (*har/*har-)]. Lat artus ‘joint’ (< *fit tight together’), ON ein-áðr ‘simple, correct’, OE eard ‘country, land, condition, fate’, MHG art ‘innate feature, nature, fashion’, MDutch aert ‘way, situation’, Grk ἔπρως ‘fit together’, ἔπρωσ ‘arrange, prepare’, Arm ard (gen *ardu) ‘ornament, shape’, Av arata- ‘order’, Olnd pú- ‘right time, order, rule’, TochA árt- ‘praise, love’, TochB átt- ‘praise, love, be agreeable to’ (< Proto-Toch *attw-, a denominative of [PIE] *hér+ettu-). From *hér- ‘fit’. Cf. Lat ritus ‘rite’, Av aša (deity). Olnd tám ‘(cosmic) order’. The underlying meaning would appear to be ‘fitting’ which had already developed metaphorical connotations in Indo-Iranian ‘cosmic order, fitting in time and space’, i.e., the cosmos must be kept in harmony by rituals and sacrifices which adjust the relationships between the microcosm and the macrocosm. Such an underlying concept may have already existed within PIE.

*yēu(e)s- ‘order or normality required by the rules of ritual’. [IEW 512 (*yuğ-); Wat 79 (*ywewes-); GI 706 (*ywewo-)]. Olr uisse ‘just’, OLat ious, Lat ius ‘law’, Av yaoz-da- ‘purification ritual’, Olnd yých- ‘prosperity’. While the Old Irish connection with these other forms has been challenged, there is still sufficient material between Latin and Indo-Iranian to suggest a PIE form. The Avestan term has been shown by Emil Benveniste to be the counterpart of spanta in the Iranian dichotomy of the sacred, referring essentially to ritual purity. The Latin concept of legality expressed by ius means ‘conformity with the prescribed normality’ while the related rātire ‘swear an oath’ actually means ‘promise in the face of the gods to comply with definite rules’. The Latin is accordingly connected with the ethical and religious foundations of law. In a penetrating study of the Latin and Indo-Iranian terms, Georges Dumézil has also stressed the differences between the Avestan and Vedic usage of their cognate terms. For example, Vedic sām yoh ‘well-being, salvation’ is almost exclusively a gift of the gods, but its content is less “religious” than that of Avestan yaoz which stresses the connection between healing and fertility (i.e., progeny); Vedic sām yoh always favors human beings, whereas Av yaoz applies to ritual objects or mythical concepts; Vedic sām yoh relates to prosperity in general while Av yaoz-da- is conditioned by its object: the same formula is not used for the liquid or the wood offering as for “cleaning” with cow urine or water a man defiled by touching a corpse. For Dumézil, Indo-Iranian *yaoz may be polarized in two ways: a) magically where a situation is achieved ritually, mystically or corporally, and b) normally where a normal situation is restored after defilement or illness. Thus, the underlying Indo-Iranian phrase *yaošdāhá- describes the progress toward an optimal situation or the correction of a defect (illness or defilement).

Lat iús, however, developed in a totally different stage of social relations. Basically, it delimits the maximal area of judicial action or claim determined by the nature or conventional juridical position of a group or individual. When a client claimed a right (iús petit), the jurisconsultus indicated to him what he could claim under the circumstances. Thus, iús indicated relations and everyone’s iús corresponded to
the iūs of someone else. As Dumézil stressed, Rome was a legally oriented society where each iūs was explicitly stated. The Roman iūdex indicated which iūs applies, e.g., before he inflicted punishment, he investigated whether there was a reason to punish. In contrast, the Av yaośdāṭar- 'the one who dispenses yaoś' was a purifier who provided a person or object "automatically" with yaoś by means of rites. It is obvious that the Latin reflexes of the IE noun *jeu(e)s differ substantially in their meaning. But this does not exclude that a careful perusal of their sphere of use and socio-culturally determined semantic evolution should indicate that it belongs originally to the sacral domain, and should be listed among the legal terms of religious origin.

See also LAW, PUT, PUT IN ORDER. [E.C.P.]

Further Readings

ORPHAN


Clear cognates meaning ‘orphan’ are found inItalic and Armenian. In Slavic and Indic the term has shifted to ‘child’ (and further in Slavic to ‘servant’), indicating either a concern for the underaged survivors and their usual fate, a fact also revealed by many fairy-tales of the Cinderella type, or possibly that the underlying semantics was ‘separated, put asunder, bereft (not only of one’s parents but also of free status)’. Celtic and Germanic use a ja-stem derivative, perhaps originally an adjective, for the word also means ‘inheritance’, while Greek employs an original no-adjective which was later borrowed into Late Latin and thence into Albanian, where the native term had been lost.

See also WIDOW. [M.E.H.]

OTHER

*ʰ₁h₂闸yos ‘other’. [IEW25 (*alys); Wat 2 (*alyo-); BK 464 (*hal-/*hal-)]. OIr aile ‘other’, Wels ail ‘other’, Lat alius ‘other’, ON ellar ‘otherwise’, OE elles ‘otherwise’ (> NE else), ellicor ~ elcor ‘otherwise’, OHG elles ‘other’, ellihor ~ ellichor ‘further’, Goth alis ‘other’, Grk ἀλλός ‘other’, Arm ayl ‘other’, TochA ālak ‘other’, TochB alyek ‘other’. Perhaps here belong also Olnd ar- ‘stranger’ (< *the other), aryā- ‘hospitalable lord’ (< *he of the other). Cf. Lat alter ‘second’. Widespread and old in PIE.

*ʰ₁h₂onteros ‘other’. [IEW 37 (*anteros); Wat 2 (*an-tero-)]. ON annarr ‘other, second’, OE ðœr ‘other’ (> NE other), OHG andar ‘other’, Goth angar ‘other, second’, OPrus anters ‘other, second’, Lith antras ‘other, second’, Latv tūtis ‘other’, OCS vūtōr ‘second’, Czech úteř ‘Tuesday’ (< ‘second day’). OSorb wutory ‘other’. From *h₁en- ~ *h₁jon- ‘that’ (cf. Grk ἕν the day after tomorrow, Olnd ana- ‘this, that’, etc.) + *tero- ‘± of two’. Related are AV anya- ‘other’, Olnd anya- ‘other’. The parallelism of the doublets *h₁ontero- ~ *h₁jon-jo- on the one hand and *h₁tel-tero- ~ *h₁tel-jo- on the other suggests that we might have relatively late, perhaps even post-PIE, creations on the basis of productive derivational processes. Alternatively, given the relative rarity of *h₁tel-tero- and *h₁jon-jo-, these two may have been post-PIE creations in the stocks that show them, created through the crossing of the PIE “competitors”, *h₁tel-jo- and *h₁ontero-.

See also NUMERALS (Two). [D.Q.A.]

OTTER


The otter is ubiquitous over Eurasia (Atlantic to the Pacific) although it is not recorded for large areas of Kazakhstan and lowland Central Asia. It is known, however, in Iran, India, and Chinese Turkestan. Such a distribution suggests that it would have certainly been known to the earliest Indo-Europeans. Archaeologically, it is variably attested according to region. In northern Europe it is well represented on both Mesolithic and Neolithic sites and the numbers on some Baltic sites suggests specific hunting of the animal.

See also MAMMALS. [D.Q.A., J.P.M.]

OUT


See also ADPREPS. [D.Q.A.]
OVER

*hu-per(ː) 'over'. [IEW 1105 (*upēr); Wat 72 (*uper); GI 104]. Olr for- 'over', Wels gor- 'over', Lat s-uper'on', ON yfir 'over', OE ofer 'over' (> NE over), OHG ubir 'over', Goth ufar 'over', Grk únpo 'over, beyond', Arm i ver 'onto', Av upāri 'over', Olnd upārī 'over'. Old in IE.

See also ADPREPS, UP. [D.Q.A.]

OWL

?*kâu- 'owl; owl'. [IEW 536 (*kau-); cf. Wat 27 (*kau-)]. MWels cuan 'owl', Gaul (via Latin) cavannus 'owl', OHG hüwo 'owl'. This clearly onomatopoeic root is also distributed in verbal form in Baltic, Greek and Indic as the word for 'shriek'. This same root also provides terms for 'jackdaw' and 'gull'.

?*be(e)u- 'owl'. [IEW 97 (*be(e)u- ~ *bh(e)u-); Wat 5 (*beu-)]. Lat búbó 'owl', Bulg buh 'owl', Grk βóas 'owl', Arm bu ~ bučč 'owl', NPers bám 'owl'. Clearly onomatopoeic and carried further in Semitic languages such as Arabic bumm, Syrian bava or the Caucasus where we find Georgian bu, buvi, Chechen buha, and Agul buhu-.

?*ulu- 'owl'. [IEW 1105 (*ul-); Wat 72 (*ul-)]. Late Lat ulucus 'owl', Olnd ulaka- 'owl'.

All the terms are expectedly onomatopoeic and do not require a direct derivation from a PIE form.

See also BIRD CRY, BIRDS. [J.A.C.G.]

OWN

*seysos 'own'. [IEW 882 (*seyes-); Wat 67–68 (*s(we)-); GI 292]. Lat suiš 'own', Osc suveis (gen. sg.) 'of one's own', OPrus swais 'own', Lith sāvas 'self', OCS svaž 'own', Albv ve-

tē 'self', Grk (ἡ) 'his', Av x'ā- 'ownself', OPers huvā- 'ownself', Olnd svā- 'self'. This reflexive possessive pronoun is widely recorded. The word apparently could be applied to all persons in early IE but today that practice is limited to Balto-Slavic and Albanian whereas in the other stocks one can only employ it with reference to the third person. It has been suggested, on the basis of Latin and Vedic texts, that the original meaning was not 'one's own' but rather 'all that pertaining to the (joint/extended/communal) family', i.e., what was held in common among the family members in contrast to what was personal property. Hence a noun *sū- 'joint family' has been proposed and an adjective *sye-. Attempts have been made to etymologize a number of kinship terms that begin with a similar initial *sye-, for example, Szemerényi explains *suesor 'sister' as *sua- 'pertaining to the joint family' + *esor 'woman', i.e., 'woman of the joint (one's own) family'. This explanation might be defended on the grounds that one's sister was an agnate, a member of one's own lineage, but it becomes more problematic when one attempts to derive *syečuro- 'father-in-law' from *sye- and *Kor 'head, i.e., head of the joint family' since he would be an affine and most certainly not a member of ego's own lineage. Szemerényi has attempted to avoid this problem by arguing that the word was created and employed from the perspective of the wife but there are sound reasons to doubt that this was the situation in PIE.

See also FATHER-IN-LAW, PRONOUNS. [M.E.H.]

Further Reading

PAIN

*sehd - `be angry at, afflict'. [IEW 877 (*sāi-); Wat 55 (*sai-); Buck 16.31]. Oir saeth 'pain, sickness', Wels hoed 'pain', Lat saevus 'fierce', ON sær 'wounded', OE sār 'bodily pain, wound, sore' (> NE sore), OHG sār 'sore', Goth sair 'pain', Latv sīs (< *saiwo-) 'sharp, biting', Grk aίμωδα 'kind of tooth-ache', Hit sā(i)- 'be angry at, resent', sāwar 'anger, ill-will', TochB sāiwe 'itch'. This would appear to be a word of high antiquity in IE. Only in certain parts of the IE world, however, has it taken on meanings related to health.

*haegleh - `affliction'. [IEW 8 (*agh-Oo-)); Wat 1 (*aghes-); BK 302 (*nagY-I*fj;JgY-)). OE eg(e)e 'disagreeable', Goth agio 'affliction', Av ayra 'type of a disease', OInd aghra 'affliction'. Attested only at the extremities of the IE world, with its original underlying verb nowhere to be found, this word is likely to be old in IE.

*haenghes - `suffering, grief, fear'. [IEW 42-43 (*anghos-); Wat 2 (*angh-)]. Lat angor 'fear', ON angr 'grief, anger' (borrowed > NE anger), OHG angust 'fear', Av azah 'oppression', OInd amhas- 'fear'. From *hængh- 'narrow, constrict'. Fairly widely attested, almost certainly a late PIE word.

*hædylol (gen. *hædunus) 'pain, evil'. [cf. IEW 287-289 (*ed-); BK 418 (*at-/*at-)]. From the stem in *-l: Luv ädduwal- 'evil' (noun), ädduwal- 'evil' (adj.), Hit idalu- 'evil' (adj.), TochB yolo (< *hædylol-on-) 'evil' (noun or adj.). From the stem in *-n: Oir idu 'pains, birthpangs', Grk ὀξύνη 'pain, suffering', Arm տրք 'birthpangs, great pain'. Usually taken as being from *hæd- 'eat', as that which eats at one although it has also been suggested that it may derive from a separate root 'to bite', i.e., a 'biting' pain. There is some evidence in the Celtic and Armenian forms that even in the late PIE period, the plural of this form specifically indicated 'birthpangs'.

Although largely eastern in its distribution, it is surely old in IE.

*kʰent(h) - 'suffer'. [IEW 641 (*kʰenth-); Wat 34 (*kʰent(h)-); Buck 16.31]. OIr céasaid (< *kʰ(e)nt-s-eh- ') 'suffers', Lith kent' 'suffer', Latv ciesū (< *kʰent-je-o-) 'suffer', Grk πασχω (< *kʰeth-ske/o-) 'suffer', πένθος 'grief, sorrow, mourning for the dead'. Sparsely attested but the attestations are geographically widespread. A word at least of the west and center of the IE world.

*pë_RMq 'misfortune, suffering'. [IEW 792–793 (*pëmpt)]. Grk πνευμα 'misfortune, suffering, misery'. Av paman- 'dryness, scab', OInd paman- 'skin disease', probably pàmpàmn- 'misfortune, suffering' (if crossed with pápa- 'bad, evil'). Not strongly attested, but probably moderately old as the underlying verb is nowhere attested. A word of the IE southeast.


*hæm(h)-1-üeha - 'suffering'. [IEW 778 (*omo-)]. Grk ἀβία (< *amiva, dissimilated from *amivā) 'grief, sorrow, trouble', OInd amivā 'suffering, sickness'. Cf. ON ama 'bother, pester, molest', Nice ami 'anguish, torment, vexation', OInd amiti 'torments, presses', TochB amiskaññe 'unpleasant', amiske 'bad-tempered, despondent'. The specific form is only attested as an 'easternism' in IE. The underlying verb, however, is also to be found in Germanic and another derivative in Tocharian. At least late PIE in date.

*(p) Rohingos - 'grief, shame' (and perhaps *(p)Kormos 'causing grief, shame'). [IEW 615 (*kormo-); Wat 32
PAIN

(*kormo-); Buck 11.28; BK 206 (*θary-/*θar-). ON harm ‘sorrow’, OE hearm ‘harm, grief, insult’ (> NE harm), OHG har(a)m ‘sorrow’, OCS sramă ‘shame’, Rus сórom ‘shame’, Av šarama- ‘shame’. Cf. the underlying verb only in Iranian, e.g., Khot kšar- (< *šar-) ‘be ashamed’. It is not certain that all these forms belong together. However, the exact semantic equation between Iranian and Slavic and the apparently exact phonological relationship between Slavic and Germanic seem persuasive. If related, surely of at least late PIE status.

See also Eat and Drink, Medicine, Narrow, Sick. [D.Q.A.]

Further Reading

PAINT

*pelik-‘paint, mark’. [IEW794-795 (*peig-→ *peik-); Wat 47 (*peig-→ *peik-); Gl 543 (*phikb)]. Lat pingō ‘paint, color’, ON fā ‘colored’, fā runar ‘carve runes’, OE fāh – fāg ‘colored’, OHG feh ‘colored’, OPrus peisā ‘write’, Lith pięšas ‘freckle’, pięsti ‘draw, write’, OCS pištrā ‘variegated’, pišō ‘dog’ (< *spotted’), pisati ‘paint, color’, Grk ποικίλος ‘colored’, Av paśa- ‘color’, Ira-pišštā- ‘painted’, Olnd péša- ‘form, color’, pišánaga- ‘reddish’, piṃšati ‘colors, paints’, TochAB pik- ‘write, paint’. This root, which is clearly PIE in distribution, has been held to be separate from its homophonous twin: *pelik- ‘be hostile; be dead’ seen in OE læge ‘fated’, Lith paikas ‘silent’ (< ??‘dead’), Olnd pístuna- ‘evil-intentioned’. It is possible, however, that the two semantic sets were related through the painting of either warriors or the dead. The paint in this case would have been ocher, widely attested in burials and employed as the red material for writing and coloring runes.

See also Color, Textile Preparation. [M.E.H.]

PAINTED GREY WARE CULTURE

The Painted Grey Ware culture of India has been regarded by some as the archaeological reflection of early Indo-Aryan culture in the north of the subcontinent. The culture is distributed from the eastern Punjab to the Ganges and flourished within the period c 1200-400 BC. This is the period that marks the transition from a primarily copper-using to iron-using culture. It takes its name from its fine painted gray pottery which is decorated in black or red. Settlements tend to be small villages consisting of relatively insubstantial wattle and daub or mud-brick structures which stand in contrast to the baked-brick urbanism of the preceding Harappan culture. The domestic horse and iron implements (arrowheads, spearheads, sickles, axes, nails) are also known from Painted Grey Ware sites. The economy included domestic pig, cattle (which were consumed at this period), sheep, and buffalo, and rice was one of the main cereals. Deer were hunted and the ivory of elephants was exploited.

The association of the Painted Grey Ware culture with the
Indo-Aryans was primarily suggested because the location of its sites appeared to correlate with place names mentioned in the Indian epic *Mahābhārata*. Further evidence was adduced from layers of flooding which were tied to the descriptions of a flood in early Indic tradition. The thesis that the Painted Grey Ware reflects an Indo-Aryan invasion has generally floundered, however, because no one has been able to derive it from outside of India to meet the requirements of an external invasion (attempts to link it with ceramics from the Swat Valley have been dismissed as the shapes of the vessels between the two cultures show no specific resemblances). Consequently, the Painted Grey Ware culture is now generally seen as an indigenous culture of India whose origins lay within its own area of dispersal. The assumption that the culture was indigenous in origin does not mean that Indo-Aryans were not the ethno-linguistic group behind this culture but their linguistic identity cannot be confirmed.

See also Harappan Culture; Indo-Iranian Languages. [J.P.M.]

Further Reading
Tripathi, V (1976) *The Painted Grey Ware: An Iron Age Culture of Northern India*. Delhi, Concept.

PALM OF HAND see HAND

PANTHER

????*perδ-‘panther, lion’. [GI 425]. Grk πάρδαλις ‘panther, leopard’, NPers *paldang ‘panther, leopard’, Pashto *prang ‘panther, leopard’, Sogd *pwarūnk ‘panther, leopard’, OlInd *pfdāku- ‘panther, leopard’ (this last word is only attested in medieval texts and is almost surely a borrowing from some Iranian source). Since the panther is not native to Greece, it is overwhelmingly likely that the Greek word is a borrowing, either from some Iranian source or from some source that was also the source of the Iranian and, ultimately, Indian words. Almost surely not PIE.

????*per-δs- ‘panther, leopard’. [cf. IEW 820–821 (*perδ̆̄-), 823 (*pers-); GI 425]. Hit pars(-a)(-i) ‘panther, leopard’, NPers *pārs- fārs ‘panther, leopard’, Sankoli pis ‘panther, leopard’. Apparently two different and independent creations from *per- ‘spot – spotted’. Alternatively, the Hittite form may be related to Hattic ha-prassun ‘of the leopard’. Either way there are no grounds for assuming PIE date for this word.

See also Cat; Leopard; Lion; Mammals. [D.Q.A.]

PASTORAL GOD

*peh2uśan* (gen. *puh₂uśn̂ós) ‘pastoral god’. [IEW 790 (*pāuśon); BK 52 (*p₂jah/*p₂jāh-)]. Grk Πάσσος (gen. Πάσσος) (Greek divinity who is protector of flocks), OlInd Pāśā (Vedic divinity who is protector of flocks). The general Greek word is originally only Arcadian, hence the unexpected -a in Attic; Arcadian also shows an uncontracted form in the dative *Πάσσος*. Also belonging here perhaps are the Gaulish or Venetic personal name *Pasio* and the Messapic proper name *Pauso*.

The Greek-Old Indic equation has been doubted by some, as it requires the assumption of a metathesis of *-h₂u- to *-uh₂a-, a phonological change accepted by many but not all Indo-Europeanists. By those who accept the equation it has been plausibly suggested that we reconstruct *peh₂uśan* and connect this word with *peh₂- ‘protect, feed (cattle)’. A word of the IE southeast.

At home in Arcadia, Pān is half goatish in shape; his main function is to make the (caprine) flocks fertile and he is worshipped in that capacity. The Old Indic Pāsān, irrespective of the English sources, is a pastoral god, but he differs from Pān by his affinities with the sun (e.g., Sūryā, the daughter of the sun, is supposed to be his wife, and as the best charioteer, he is claimed to have driven down the golden wheel of the sun); in addition, like Mercury, he presides over the ways and leads the souls of the dead to the otherworld. Offerings are made to him to find lost objects.

See also Death. [E.C.P.]

Further Readings

PASTURE see HAND

PAW see FIELD

PEA

????*hjereg*o- ‘pea (*Pisum sativum)*. [IEW 335 (*erég(h)b-), Buck 5.67]. Lat ervum ‘pulse, vetch’, OHG *araweiz ‘pea*, Grk *ὀρθόσακος* ‘pea*. The Lat -v- matches Grk -β- (< *-β₂*-) or Gmc *w*- but not both. Probably a borrowing in all three stocks from a Near Eastern or Mediterranean source.

The pea (*Pisum sativum*), today ranked as the world’s second most important pulse, is an important source of protein and it has been prominent in botanical remains from the early Neolithic onwards. In wild form it was found confined to the Near East and Mediterranean where it was known in Turkey, Greece and southern Italy. The pea was known in Near Eastern sites regularly mixed with wheat and barley from about 7500 BC onwards. Initially, it was probably there still in a wild form although evidence of domestic peas, seen in their smooth seed-coats, is already apparent in Anatolian sites from the sixth millennium BC onwards and they are similarly found among the carbonized botanical remains from early Neolithic Greece, Bulgaria and Serbia. They seem to have been part of the basic “package” of Neolithic domesticated plants carried into the rest of Europe and appear in the Linear Ware culture of the fifth millennium BC and later. Evidence for the pea is known in Moldova and the Ukraine from the beginnings of the Neolithic onwards, including the Bug-Dniester, Tripolye...
and Sredny Stog cultures and it is also known from Neolithic sites of the Caucasus. The pea is recorded from Turkmenistan by the fourth millennium BC and India from about the third millennium BC. In general, it is difficult to imagine that the Proto-Indo-Europeans, no matter where situated, did not know the domestic pea at an early date which makes our inability to reconstruct in a solid way any PIE word for it all the more striking.

See also AGRICULTURE; CHICKEN; FOOD; PLANTS; VEGETABLES. [D.Q.A., J.P.M.]

**PEAK**

*yers* - 'peak'. [IEW 1151–1152 (*yers-); Wat 76 (*wer-); Gl 110; Buck 12.33]. Olr fér 'better' (< 'higher'), Lat verruca (< *varsu-ca*) 'varus, pimple', OE wērt 'sill', OHG werna 'sty', werra 'varicose vein', OPrus wursus 'lip', Lith viršūs 'highest point', Latv vīrs 'higher', OCS vrčo 'peak', Rus verkh 'peak', Grk ἔρμα (< *fersμa* < *yers-m*) 'point, top', OInd värṣa- 'height, peak'. Widespread distribution indicates PIE status.

See also HIGH; HILL; SKIN DISEASE. [A.D.V.]

**PEG** see WEDGE

**PEN** see FENCE

**PENKOV CULTURE**

Part of the Prague-Penkov-Kolochin complex of the fifth-sixth centuries AD. The Penkov culture, occupying the area from the lower Danube to the northern Donets, has yielded some three-hundred sites in the Ukraine. These consist of small settlements of five to seven small semi-subterranean houses, distributed about 3 to 5 km from one another; burials were generally cremation, occasionally inhumation. The culture also incorporated mobile steppe elements from north of the Black Sea and some have argued that the Penkov culture possessed an Iranian-speaking substrate which was assimilated to Slavic. The Penkov culture has been associated with the southern movement of the early Slavs, particularly the tribe identified in historical sources as the Antes.

See also KOLOCHIN CULTURE; PRAGUE CULTURE; SLAVIC LANGUAGES. [J.P.M.]

**PEOPLE**

*dehμος* 'segment of people'. [IEW 176 (*dā-mo-*)-; Wat 10 (*dā-mo-*); Buck 19.21; BK 130 (*tā-ti/*tā-sh-*)]. Olr dām 'troop, company; retinue', OWels daubu 'client', Grk δῆμος 'people'. The only term here to indicate 'people' is the Greek word which originally designated a portion of a territory but even by the time of the Iliad, it was employed to designate the population of a territory and that topographical meaning was preserved in Athenian administrative terminology where δῆμος indicates a tribal division. Otherwise in Greek it was used to distinguish between rural populations and the power elites, i.e., δούματοι 'the powerful (ones)' or εὐδοκιμοί 'the prosperous (ones)'. The underlying meaning would appear to indicate a 'part' and it is presumed to be built on *dehμ- 'cut, divide' (cf. Grk δίαιμα 'divide', OInd dāti 'cuts', dāti 'reparation', dāyati 'shares out') with a -mo- derivational suffix. At least a word of the west and center of the Indo-European world.

*ḥιλευθέρος* 'people, freemen'. [IEW 684–685 (*leudh-ero-*); Wat 37 (*leudh-ero-*); Gl 398 (*leudh-ero-*); Buck 19.44]. OE lēod 'people, nation', OHG liut 'people, nation', MLat (< Burgundian) leudis 'freeman', Lith liūtis 'people', Latu liudis 'people', OCS pl. liudje (< *hīλευθής* 'people', ļujına 'freeman', Khowar roj 'people, man, person'. Germanic and Slavic also show *hīleudhos* 'man; freeman' in OE lēod 'man; wergeld for a man', gelēod 'fellow countryman, compatriot', OHG liut 'human being', Rus liud 'people'. Another derivative *hīleuθēros* 'free' is found in Lat liber 'free' and Grk ἔλευθερος 'free'. The notion of 'free' derives from 'belonging to one's own people' as opposed to slaves who are captured from other groups. It is significant that *hīleuθēros* is formed with the suffix *-ero-* which is used to contrast two things or concepts (e.g., inner vs. outer). In this case we have those with membership in the "in group" contrasted with those outside of the group. Finally, we should note that it has been both affirmed and denied that Alb vella 'brother' derives from *(s)ve-hīloudo- 'one's own person'.
From *hleudh-: ‘grow, increase’. The semantic development envisaged here begins with the notion of growth, of increase in size, which seems to have been a fertile source of words for ‘people’ in PIE (compare the next two entries). In this case we perhaps can see a specialization in meaning to indicate the progeny of the ancestral founders of the tribe, endowed by birth with the full rights inherent in the community (e.g., that that person is ‘free’). In a slightly different semantic vein, the notion of growth, i.e., of the increasing stature of plants or of human beings, appears in a different set of derivatives in Latin and Tocharian: Lat *liberi ‘children’ (i.e., the rising generation), Liber ‘deity presiding over agriculture’, Liberilia ‘festival of Liber’ (March 17th), at which youths received the toga virilis’, Venetic *louzera deity of vegetation growth and viticulture, Tocharian *hleudhôr ‘more’ (adverbial use of a noun meaning an increase), *lutari (pl. *lutaris) ‘overseers’.


*teutha- ‘the people (under arms)’. [IEW 1084–1085 (*teutá-); Wat 71 (*teutá-); Gl 652 (*teu-þ-); Buck 19.22]. OIr tuath ‘a people, nation; (common) people as opposed to king or clergy’, Wels tud ‘country’, Osc touto ‘community’, Umb (acc.) totam ‘citizenry’, ON jöð ‘folk’, sjöda ‘explain, translate’, OE þeod ‘folk’, þiedan ‘explain, translate’, þobdisc ‘belonging to the people, vernacular speech name’, OHG diot ‘people, heaven’, diuten ‘explain, translate’, diuttsc ‘belonging to the people’ (> NHG deutsc), Goth jiuda ‘folk’, jisduisko ‘like the heaven’ (in Germanic we also have a *teut-ono- ‘leader of the *teutha- in ON jöðann ‘prince, king’, OE þode ‘king, lord; God’, Goth þudans ‘king’) and OE totus ‘country’, Lith tauta ‘people’, Latv tūta ‘people’, Illyrian Teuta (tribal name), Messapic Theotora (personal name), Thracian Tautomedes (personal name), Grk (gen.) Teutaquídano (personal name of a Pelasgian on the side of the Trojans [IIiad 2.843]) and more certainly Teuvixanos (personal name). NPers toda ‘heap; stack; nick; hill, tumulus’ has also been included here but the semantic divergence (?mass of people > lump, mound) seems very large. Lat totus ‘all, whole’ may preserve the underlying adjective from which *teutha- is derived but the form *totus rather than the expected *tutus is not well explained. Finally, it has been affirmed and denied in equal measure that Hit tutzî- ‘army’ is related as the descendant of a parallel derivative *teutha- ‘that related to the people’ (the people’s army) so to speak. It is generally supposed that *teutha- is a derivative of *teu(þ)- ‘swell, be strong’, either as the ‘strength of the community’ (or even ‘people under arms’ if we take the Hittite word to be related) or the ‘mass (of the people)’. The presence of the laryngeal, however, renders this derivation suspect and it has also been proposed that *teutha- derives from *teu- ‘look on with favor’ which frequently includes the concept of ‘serve’ or ‘protect’ (e.g., Lat tuer ‘observe, protect’, tūtus ‘secure’), hence a collective indicating the ‘service’ of a king. By itself, *teutha- is a word of the west and center of the IE world and at least in Germanic the word and its derivatives have taken on clearly ethnic, and even linguistic, dimensions. If Hit tutzî- is related, then we have evidence for something of PIE date.

In early Ireland, the tuath is inextricably associated with the concept of the ‘king’ (niba tuath tuath . . . cen rig a tuath is not a tuath without a king) and this concept may extend back at least into Proto-Celtic, cf. Wels Tudur (< *Teuto-riks ‘teuto-king’), Gaul Tuto-riks ‘Tribal-king’. Although German lacks a reflex of *thrëgs ‘king’, it reveals a similar construction in ON jöð-konungir and OE þeod-cyning ‘people-king’, and it is suspected that the extended form built on *teutha- (Gmc *þudanz ‘prince, king’, OE þoden ‘king, lord; God’, Goth þudans ‘king’) had replaced *thrëgs. Kim McCone suggests that the *teutha- was a PIE institution, ruled by a king (*thrëgs), and comprised of the adults (both those fit for military duty and the older members of society) but not the *koros, the war-band of the younger age set.

See also Age Set; Army, Companion, Freeman, Friend, Leader, Social Organization; Swell. [E.C.P., J.P.M.]

Further Reading


**PERCEIVE**


*vur-b(h)- ‘oversee, protect’. [cf.IEW 1164 (*vur-); VW 593–594; BK 480 (*war-/war-)]. OIr wárbo ‘protects’, TochB wăr (in *wrb(h)- ‘oversee, observe, take care of’. An enlargement of *vur-. The apparent agreement of Baltic and Tocharian would seem to guarantee at least late PIE status for this word.
PERCEIVE

*h4eu- 'perceive'. [IEW 78 (*au-); Wat 4 (*au-); Gl 668; BK 458 (*hau/^-hau-)]. OCS aviti 'show, reveal', umu 'intellect, intelligence', Hit uhi < (*h4eu-h2e-i) 'see', Olnd ud-avati - pra-avati 'observe, notices', vve 'I see'; from *h4eu- we find Lat audē (< *h4eu-is-h-d-je-o>) 'hear', Grk aiodhövousai 'perceive'. Also reasonably widespread and old in IE. Possibly related, as with Gl, to the PIE word for 'ear'.

*sent- 'perceive, think'. [IEW 908 (*sent-); cf. Wat 58 (*sent-); BK 187 (*san/-san-)]. Lat sentiō 'feel, sensus 'feeling, meaning', OHG sin (*sento-) 'meaning', sinnan 'strive, desire', Lith sentitē 'think', OCS šeštī 'wise'. A word of the west and center of the IE world.

*ghou- 'perceive, pay heed to' (pres. *ghou-eh1-). [IEW 453 (*ghoy-eh-); Wat 23 (*ghow-eh-); BK 238 (*gwh-/-gow-)]. Lat faveō 'favor', ON ga (< *gauō) 'pay attention to', OCS govējō 'honor', Rus govēti 'fast', Arm govem 'praise'. Cf. the Germanic denominative verbs: ON geyma 'attention, care', OE geam 'heed', watch'. OHG gumjan 'slow, forebear care', Goth gaumjan 'see, observe', built on the derived noun *ghou-mo- seen in ON gaumr 'attention, care'. A word of the west and center of the IE world.

*kweī- 'perceive'. [IEW 636-637 (*kweī-t-)]. Grk ἔφθασι 'do not pay attention', Olnd cinūtī - cīketī 'perceives, cit intellect'; *kweis- in OIr ad-cī(< *kweis-t) 'sees'; *kweī- in Lith skaitai 'count, reckoning', Lat skātitī 'count, recite prayers', OCS čito 'count, reckon, read something written', Olnd četati - čiketati 'pay attention to'. Though attested without further enlargement only in Old Indic, the presence of enlarged variants in Celtic and Baltic would seem to assure the PIE status of this root.

*keu1h- 'perceive' (pres. *kouh1eje-o-). [IEW 587-589 (*keu-); Wat 30 (*keu-); Gl 734-735 (*kwe-ou-)]. Lat caveō 'go to see', OE hāwian (< *kewh{j}-je-o-) 'look at', OCS čjuo 'note', čudo 'wonder', Grk κοιτά 'note', κόσμο 'glory', Lydian kawe- (< *kouh{j}-seer) 'priest', Av kāvā (< *kouh{j}-) 'seer', Olnd kavi- 'wise, see', akvāte 'intends to', ākātām 'intention'; we find a variant form *keus- in: Lat custōs 'watchman', ON heya 'hear', OE hītan 'hear' (NE hear), OHG horen 'hear', Goth hausjan 'hear' (Gmc < *kous-je-o-), Rus (dialect) câkhāti (< *keus-eht-) 'perceive', Grk ἔχουσι (< *sp-keus-je-o-) 'hear', (Gortyn) ekhōs (< *sp-keus-je-o-) 'hear'. We find the variant *skeu(1h)- in OE scēawan 'show' (NE show), sceane 'beautiful' (NE sheen), OHG scourwōn 'show', scōñi 'beautiful', Goth skauns 'beautiful', Arm c'ućanem (< *skouske-o-) 'show', MFers skōh 'splendid, majesty'. Widespread and old in IE.

See also CONTEND. [D.Q.A.]

PERCH

*bhrso- 'perch'. [IEW 18-19 (*a-k-); cf. Wat 1 (*ak-); BK 398 (*hukh/-/hokh-)]. On ogr 'sea-bass (Perca fluviatilis)', cf. Danish aborre 'perch (Perca fluviatilis)'), Norrb abbor 'perch', Swed aborre 'perch', all < *agh-boorre where -boorre as if < *bhrso-on- 'having a point' (because of the perch's spiny fins) and similar to *bhorso- 'seen in OHG bersich 'perch', NHG barsch 'perch', OE beor(t) 'perch' (NE bass), MHG ag ~ egle 'perch (Perca fluviatilis)', Lith eserys ~ ašerys 'perch', Latv asar(t)is - aseris 'perch'. Derived from *bhrso- 'sharp' because of the perch's spiny fins (as also with the case of *sturgeon'). However, there is no reason that the Baltic and Germanic words could not be independent creations. Of doubtful IE status. Old Norse also shows a form augr beside ogr. The former was created by crossing the latter with auga 'eye' because of the perch's large, projecting eyes. So also is Rus okun 'perch' a derivative of oko 'eye'.

The perch is found in Europe from the Atlantic to the steppe regions where it is occasionally recovered from prehistoric sites; its southern limit is marked by the Mediterranean.

See also FISH, SHARP, STURGEON. [D.Q.A.]

PHRYGIAN LANGUAGE

The Phrygians are numbered in the *Iliad* (2.862–863, etc.) as neighbors and allies of the Trojans. As a major power in Anatolia, they flourished during the ninth and eighth centuries BC and literary records continued until the first centuries AD. Their capital was at Gordion in central Anatolia and their most famous king, Midas of the golden touch fame, died in about 695 BC, when Phrygia was overrun by Kimmerians. The capital was rebuilt and survived as an important center through the later Hellenistic period beginning in 333 BC with the Great's famous visit. The extinction of the Phrygian language has been variously placed in the fifth century AD or perhaps as late as the seventh century.

Description

The evidence for Phrygian rests on inscriptions from two diverse periods. The earliest are the old Phrygian inscriptions, numbering on the order of 240, dating from about the eighth to the third centuries BC. The majority are found in what is presumed to have been the Phrygian-speaking territory of western Phrygia, eastern Bythinia and in the old Hittite capital of Hattusa and its environs. The longest of the old Phrygian inscriptions runs to 285 characters. New Phrygian inscriptions, written in the Greek script, date from the first century AD and number just over a hundred examples. In addition to these inscriptions are a handful of glosses, the
most famous occurring in Herodotus (2.2) where an "experiment" to determine the most ancient language in the world—raising an infant in isolation, deprived of hearing human speech—was concluded when the child uttered the word βεβος, the Phrygian word for 'bread'. The Phrygian word for 'man', zemelen, preserved by Hesychius, is derived from PIE *dh(e)hem-'earth'.

Phrygian, though poorly known, is clearly IE, e.g., Phryg matar (< *mehter) 'mother', Phryg (acc. pl.) podas (< *podos) 'feet'. If the second element in the personal name Benagonos is derived from *'genhi- 'be born', then Phrygian is presumably lumped with the centum rather than satem languages (though the z- in zemelen might argue for a satam development). One feature frequently remarked upon is that Phrygian (like Celtic, Italian, Anatolian and Tocharian) possesses a medio-passive in -r, e.g., αδδακτορ (< *dh(e)h1- 'put') and αββερετορ (< *bher- 'carry'). While this feature has often been regarded as conservative, Phrygian also retains the augment (like Greek, Armenian, Indo-Iranian), e.g., edaes ~ edaeς (< *hje-dheh1- 'he put'). The augment is usually seen as a late innovation restricted to the southeastern dialect group of Proto-Indo-European. Replication is employed in forming some perfects, e.g., τετικενος.

The position of Phrygian with respect to the other IE languages is not entirely clear since it sends mixed signals. What is agreed is that it is not a language of the Anatolian type although it has borrowed some personal names from the previous and contemporary occupants of Anatolia, e.g., Manutias, Toyn. Although it has often been asserted that Phrygian had a specially close relationship with Thracian (the so-called Thraco-Phrygian language), the fact that the Balkan language would appear to have been satam provides little support and arguments for a close association tend to rest more on meager historical evidence than linguistic. Armenian has also been regarded as a possible close cousin, the origins of the Phrygians and Armenians often held to belong to the same general folk-movement through Anatolia yet here again the evidence is not particularly striking. The closest relationships are argued to be with Greek which also shares the relative pronoun *hos, the suffix *-meno-, the pronoun *auto-, the use of the ending *-s in the nominative singular masculine of a-stems, and the augment (shared also by Armenian and Indo-Iranian). The relationship with Greek, as C. Brixe and M. Lejeune observe, may also have been particularly close in the area of lexicon: the Phrygian inscription on the tomb of King Midas: Midai lavagtae vanektei 'to Midas (war-)leader and king' appears to contain two of the important Greek designations of the leader, found as early as Mycenaean la-wa-ge-ta and wa-na-ka. Brixe has argued that rather than having been borrowed from the Greek, these terms may point to a common heritage.

Origins

The usual starting point for any discussion of Phrygian origins is the statement of Herodotus (7.73) that the Phrygians were originally called Βρύγες and inhabited the Balkans alongside the Macedonians. They migrated into Anatolia where they changed their name to Φρύγες. This explanation was repeated by a number of other writers of the ancient world, notably Strabo (7.3.2), who cites the testimony of the Lydika of Xanthus: the Phrygians came from Thrace after the Trojan War where they killed the king of Troy and then settled in their own lands, eastward of Troy. As Robert Drews has indicated, such testimony for a migration from Europe is contradicted by other sources such as Homer who would already have the Phrygians occupying the land east of the Trojans during the Trojan War (Homer also describes them as possessing fast horses [Il. 3.184–189]). Herodotus' story of how they were proved to be the oldest of peoples in the world also suggests that there was widespread belief in their being autochthonous in their historical territory. Contradictory historical testimony such as this is too dubious to erect any theory upon.

The starting point for any serious discussion of Phrygian origins must lie with the evidence of the language itself. Since it is clear that Phrygian does not belong to the Anatolian stock, it is most unlikely that its origins can be placed either in its historical seat (the territory occupied by the Hittites) nor anywhere else in central or south-western Anatolia where we find clear evidence of the Anatolian languages. The evidence of Homer notwithstanding, the Phrygians cannot have been autochthonous from time immemorial but must have achieved their historical location in the face of the collapse of the Anatolians of central Anatolia. Given the inscrptional and historical evidence, they must also have reached central Anatolia by the ninth century BC. If one accepts that their greatest linguistic affinity was with Greek, then any explanation of Phrygian origins must also accommodate in some fashion a model of Greek origins.

Traditionally, the trip line for movements into Phrygia is
held to be Troy and proto-Phrygian migrations are commonly assigned to one of the levels of this multi-period site in northwest Anatolia. Robert Drews has argued that their earliest appearance might be set to the period marking the transition from Troy V to Troy VI, i.e., c 1700 BC, where there is a major cultural break which, among other things, marks the appearance of the domestic horse at this site. He suggests that both Phrygian and Greek dispersals were associated with the spread of chariot-aristocracies from eastern Anatolia who arrived first in northwest Anatolia by a sea route from the east. This model rests entirely on the assumption that chariot warfare was invented in eastern Anatolia/Armenia; as we also have solid archaeological evidence for spoke-wheeled vehicles in the Volga-Ural steppe region by c 2000 BC, the spread of chariots need not have issued from an east Anatolian center but might also have come across the Balkans providing both Phrygians and Greeks with a more proximate southeast European staging area.

Another possible event correlated by some with Phrygian origins is the transition to Troy VIIb at c 1200 BC which sees the appearance of coarse ware on the site. This transition coincides with the collapse of Hittite power and the widely held view that this was a period of massive folk-movement in the eastern Aegean. In this model Phrygian would have been carried from the Balkans into Anatolia at least some centuries after the proto-Greeks had already established themselves in Greece. Hittite references to a King Midas on their northern frontier have also been adduced to indicate that this intrusion coincides with the movements of early Phrygians. What remains problematic is linking the coarse ware (or knobbed ware) pottery from Troy at c 1200 BC with somewhat similar pottery recovered from the Phrygian city of Gordion of the ninth and eighth centuries. The similarities lie both in technique of manufacture and in ornament and can be traced back further to Thrace. Evidence for some form of symbiosis between the hand-made pottery traditions of possible immigrants and the wheel-made styles of the Anatolians at Gordion appears to be extremely meager but cannot be excluded. But most evidence for the material culture associated with the Phrygians appears to suggest local derivation and the presumption remains that wherever the Phrygians came from, they adopted most of the material culture of the local inhabitants of Anatolia. The main exception to this general adaption of the indigenous culture perhaps is their mode of burial since the Phrygians are renowned for their tumulus burials over wooden tombs with stone-capped roofs. This style would also appear to be intrusive to Anatolia and finds its closest parallels in the Balkans and north of the Black Sea. Some movement of peoples from the Balkans into Anatolia across the twelfth through ninth centuries then might both account for the Phrygian migrations into Anatolia and accommodate their linguistic relations with Greek (and perhaps Thracian).

See also Indo-European Languages.

Further Readings


PHYSICAL ANTHROPOLOGY

Attempts to “reconstruct” the original physical type of the Proto-Indo-Europeans and trace their expansions through the evidence of human physical attributes began in the nineteenth century. The techniques involved have been various and have included deductions based on the physical appearance of modern or historically attested populations, the analysis of skeletal remains, in particular the skull, and genetics.

**Physical Types**

The initial (and transparently fallacious) approach involved the extension of an early physical description of one IE-speaking population to the earliest Indo-Europeans. Hence Tacitus’s description of the Germans as blonds might be extended to the Proto-Indo-Europeans while the Indic “Law of Manu” was cited to prove that the earliest “Aryans” were brunettes. From the 1870s until the second World War, there was a persistent attempt to assemble overwhelming proof that the earliest Indo-Europeans were tall, blue-eyed blonds, approximating the “Nordic” physical type. Here the evidence was derived not from a single population but through sifting early classical descriptions of Greeks (140 out of 158 Greek deities and heroes were reputedly described as blond), Germans, Celts, Scythians, the upper classes of India, etc., which appeared to suggest that the earliest IE-speaking populations were either blond or at least ruled by blonds and recognized a common Nordic ideal physical type. Linguistics was even pressed into service as some attempted to derive the ethnic term “Aryan” from *hlel- “red, brown”, hence the earliest Indo-Europeans were believed to have distinguished themselves as the “fair-skinned” or “fair-haired ones”. It is now clear that word for “Aryan” is descended from PIE *h₁er-, with an *-r-, and is sharply distinguished from the color term *h₁el-.

With the “original” physical type described, it remained only to determine its point of origin. The home of the Indo-European “race” was initially set in the Priet marshes on the border of Belarus and the Ukraine but then swiftly shifted to
northern Europe, particularly Germany and southern Scandinavia, which helped underlie later Nazi claims as to the "master race". Yet even in the late nineteenth century, the problem of confusing pigmentation with linguistic group was exposed as it was pointed out that populations speaking decidedly non-IE languages of northern Europe such as the Finns and Estonians, were every bit as blond as their Germanic neighbors. In general, the pigmentation or hair color is determined (originally) by climate (light skin may provide a selective advantage in producing vitamin D at high latitudes) and is distributed in gradients or clines from north to south in Eurasia. Such features need not have, and in attested populations do not have, any direct relationship to linguistic affinity.

Skeletal Remains
Fossil populations, recovered during archaeological excavations of cemeteries, were also seen as repositories of evidence about the origin and trail of the earliest Indo-Europeans. Initially, the link between human physical type and language followed a rather tortuous logic that began with a darker logic that began with the cultivation of wheat when those of the brachycalanicos were probably still living like monkeys". Racial geographers such as Griffith Taylor, although rightly recognizing that brachycalanicity had actually increased through time (in Europe), developed the equally bizarre argument that an evolutionary hierarchy existed which placed the dolichocephalics at the bottom and acknowledged the higher evolutionary (and presumably intellectual) development of the brachycelaphics, e.g., the Chinese.

The continuous attempts to apply cranial metrics with language also had its persistent critics such as Max Müller who likened the concept of an Aryan (i.e., IE-speaking) "race" to a "dolichocephalic dictionary" and many argued that there is no obvious or scientifically sound way to identify directly the language of a prehistoric population from its physical type. Although the type of correlations that were frequent in the nineteenth century have generally disappeared, the use of physical anthropology as a source of subsidiary evidence concerning population movements and contacts has not and so it still plays a role in discussions of prehistoric populations shifts. The selection of a single variable, however, such as the cephalic index, has been abandoned for multivariate analyses of human physical remains. As changes in physical characteristics may not only be explained by an influx of immigrants but also by environmental and subsistence fluctuations, the interpretation of the record of human physical types in Eurasia is far more ambiguous than nineteenth and earlier twentieth century scholars tended to think. Other than very major changes in human physical types, much of the evidence for migrations based on physical anthropology (given past excesses in such interpretations) tends to attract more scepticism than belief from current archaeologists.

Genetics
The most recent exercise in employing the evidence of human physical type in discussions of IE populations is founded on genetic data. Luca Cavalli-Sforza and his colleagues, for example, have prepared genetic maps of Eurasia, based on blood types and other factors, and these have been found to correlate often with linguistic borders; the assumption is that populations sharing the same language are more likely to intermarry than social groups speaking different languages. A study by G. Barbujani and R. Sokal suggested that thirty-one European linguistic borders could be correlated against thirty-three gene-frequency boundaries. Although such studies indicate to some extent the persistence of mating communities (many of the gene-boundaries also formed along natural boundaries), claims that they can also indicate the point of origin and dispersal patterns of the Indo-European languages are far more controversial.

A major problem with the use of genetic data is that they are based on modern (post-1945) gene maps and there is,
therefore, good grounds to doubt that such studies can control for the very considerable movement of populations across Europe since the initial expansion of the IE languages. Lacking control for the specific time depth of the boundaries, one might suspect that they are unable to pronounce on prehistoric population movements at all. Nevertheless, in the major study of genetic patterns in Eurasia, Luca Cavalli-Sforza and his colleagues have attempted to provide their synthetic maps of all Europe with historical explanations. They argue that the gross patterns seen in the application of principal component analysis permit one to arrange some of the patterns in sequence. The map based on the first principal component, which portrays a series of clines emanating from the Near East, specifically Mesopotamia, is explained by the movement of the first farmers across Europe from the Near East. They suggest that the Neolithic economy spread by population movement with the more productive economy of the earliest farmers replacing both the subsistence base and the earlier populations of hunter-gatherers. The effect of this replacement would be a genetic trajectory from the Near East westwards across Europe. It is also suggested that this trajectory may also reflect the movement of Proto-Indo-European speakers out of the Near East (the "Neolithic" or "Anatolian solution" to the problem of IE dispersals). Alternatively, the map based on the third principal component shows a similar east-west cline but here centered on the area north of the Black Sea. Thiscline, Cavalli-Sforza suggests, may support the concept of a later IE migration from the steppes across Europe (the "Kurgan solution" to IE dispersals).

The real value of such maps for elucidating IE dispersals is by no means clear. Given that an east-west movement from the Near East is also the likely model of Homo sapiens sapiens movements 40,000–30,000 years ago, other "prehistoric" explanations might be sought to account for the first principal component. The map for the third principal component with its origin in the Dnieper-Don region may suggest east-west spreads across Europe but again, given the continuous movement of populations historically recorded from the Iron Age onwards, it is very difficult to know precisely when this genetic pattern was established or whether we are discussing an extremely protracted genetic process. The genetic map of the third principal component also exhibits clines running southwards, which, given the logic of the previous interpretations, should indicate north-south spreads from the steppes toward Egypt which is historically and linguistically unmotivated by any obvious demographic event. The second principal component, which centers on northern Scandinavia, is explained either by mongoloid migrations from northwest Asia or the dispersal of the Uralic-speaking peoples. The latter hypothesis is particularly unconvincing given Proto-Uralic relationships with Indo-Iranian far to the south, i.e., the Uralic languages should have spread northwards into Lappland (over an indigenous population whose traits are retained among the modern Saami) and not the reverse.

Much of the explanation currently employed in mixing
modern genetics with the prehistoric distribution of languages tend to be circular, i.e., it requires one discipline to propose migrations and then these movements are employed to explain the observed genetic patterns; the genetic patterns do not in themselves require one to either assume that they reflect a real demographic movement of people or any single migration as an explanation.

Other studies that have modelled simulations based on the various homeland theories, e.g., the "Neolithic solution" that derives the Indo-Europeans from the spread of agriculture out of Anatolia or the "Kurgan solution" that explains the spread of Indo-Europeans from the steppelands in the fifth through third millennia BC, have purported to find some support for the Anatolian homeland. However, such studies have been founded entirely on European data which is incapable of representing a proper "test" of Indo-European dispersals. Generally, such studies also support an expansion of the Neolithic and attendant genetic patterns eastwards across Iran as well ("Elamo-Dravidian" movements). As these easterly migrations have nothing to do with IE expansions one must then, consequently, presume that the expansion of the Indo-Europeans across Asia is not (so far) genetically marked. If this is the case, it is difficult to see why one should accept conclusions drawn purely on the European evidence that may well support the movement of early agricultural populations across Europe but can in no way serve as proxy evidence for describing Indo-European movements.

The use of modern genetic patterns seems still a very uncertain tool for research into prehistoric problems. Obviously, analysis of DNA in prehistoric burials may mitigate this criticism in the future but the inherent methodological problem of not only being able to identify prehistoric population movements but also identify those that resulted in language shifts and which population experienced the shift suggests that the association of human physical types with language change will still require much further work.

See also Indo-European Homeland; Proto-Indo-European; Time-Depth. [J.P.M.]

Further Readings


PICENE LANGUAGES
From the standpoint of linguistics and perhaps from that of ethnic-group, the term Picene is a misnomer if it is intended to suggest a single population. The historical Picenes were (an) Iron Age people(s) situated along the Adriatic coast from Rimini to the Sangaro River. In this area they have left abundant evidence of wealthy burials in a number of cemeteries, e.g., Servici and Molaroni at Novilara. The wealth of their graves, especially seen in weapons and ornaments, indicates either a vibrant sea-trade or piracy and there is evidence that they began trading with the Greeks by the seventh century BC. Their territory was finally annexed by the Romans in 268 BC.

The territory of the Picenes (identified archaeologically as the Middle Adriatic culture) is divided into two regions. The southern was centered on Belonte. The language of the southern Picenes is recorded in a few inscriptions and its IE identity is secure although little else can be claimed with any certainty. The Castignano inscription, for example, begins in clear enough Indo-European, i.e., matereth patereth 'to the mother and father' but continues qolofitur quipirth arith imih puih puih puih puih estukum estukum apatis adstath suais manus mittum. The most recent translation, that of H. Eichner, reads: 'He who well .. .s mother (and) father, (him) here the elders of the Picenes have set up with their own hands as memorial' while an earlier one achieved by V. Pisani rendered this same grave inscription: 'To the mothers and fathers let this be, for the valiant Arentes of the nether world, for which Manes the Appaei set up this obelisk as a monument'. There is a tendency to see in this language a close relationship with Osco-Umbrian. However, our complete inability to translate most of the words in South Picene should induce extreme caution in suggesting particular linguistic relationships.

Text of Novilara Inscription:

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minnis· er ít· gaarestades
rotinem· avlin· parten· ãs
polem· isaioun· tet
stot· trat· nei· krus
tenag· tröt· ipiem· rotneas
Ithdis· bãsd· isperion· vol
tes· rotuem· teol· aiten· uabdr
soter· merpon· kalatne
nis· vilatos· paten· arm
ãs· balestenag· ands· et
stot· i· akdr· trenen· teletæ
nem· polem· tisfot· sotris· edø
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The northern territory appears to have been centered at Novilara where there are not only major Picene cemeteries but also one of the longest northern Picene inscriptions. Dated to the sixth or fifth centuries BC, the Novilara stele consists of hunting scenes (the prey is disputed: ?bear, ?boar) while the opposite side consists of twelve lines of text that have defied translation. Two schools of thought exist: one argues that the language is Indo-European on the basis of word endings which are somewhat reminiscent of Indo-European, e.g., *-em (accusative). On the other hand, a number of linguists regard the language of Novilara and the few other, very short, northern Picene inscriptions as remnants of a language isolate, a non-IE language spoken in Italy before the arrival of the Indo-Europeans. As with both the Italic languages and the Etruscans, the earlier archaeological evidence in the Adriatic region indicates the presence of the Villanovan culture and underlines the difficulty in assigning specific archaeo-ethnic origins to the various peoples of Italy.

See also ITALIC LANGUAGES, MESSAPIC LANGUAGE. [J.P.M.]

Further Readings

PIERCE

*terh₁*- 'pierce by rubbing'. [IEW 1071-1072 (*ter₁-); Wat 70 (*tera₁-); Gl 152 (*tér₁-H-)]. OIr tarathar 'instrument for drilling', Lat têro 'rub, wear away', terebra 'instrument for drilling', Lith türū 'inquire' (with a secondary meaning), trinūt 'rub' (with secondary form), OCS tîrop 'rub', Alb tjërr 'spin' (< 'rub [yarn] back and forth'), Grk τέρπευν 'pierce' τέρπετον 'instrument for drilling', Olind târd- 'piercing'. Etymologically uncertain. Grk τέρπετον points to a root of the shape *terh₁-, but Grk τιστάκειν 'inflict a wound', which may be related, points to *terh₂-. It is possible that the meaning 'pierce' is a later semantic development of *terh₂- 'cross over' as has been suggested for the Old Indic form.

*h₂sueg(h)- 'pierce'. [cf. Puhvel 3:327-330]. OPers vág- 'pierce', Hit huek- 'slaughter, butcher, slay' (< *stab, stick'). Though only sparsely attested, this word would appear likely to be of PIE age.

*dhuer- 'pierce'. [BK 144 (*dʰaw-/*dʰaw-)]. Lith dūris 'prick, stitch', dūriū 'thrust, stab', Arm dur 'tool, gimlet'. Various derivatives are seen in Lith dūrkas 'spit, spout, bayonet', Grk ῥύχη 'two-pronged fork', Arm durk 'dagger'. At least a word of the center of the IE world. If it is seen in an enlarged form *duðerθ₂ in Hit duwar-nai- 'breaks, shatters', Olind dhvarati 'bends, causes to fall, hurts', dhārvati 'injures, causes to fall', dhûrti- 'injury', then we have evidence of great antiquity in IE.

*dhélg- 'sting, pierce'. [IEW 247 (*dʰelg-)]. OIr delg 'needle, pin', MWels dala 'sting', Lat falx 'curved blade, pruning hook', falcula (< *dhélg-telθ₂-?) 'curved blade, piercing hook' (the -a- in Latin is difficult), OE dale 'bracelet, brooch', Lith dûlûs 'stinging, smarting', dilge 'nettle', dalgis 'scythe'. Apparently a western word in (late) IE, overlapping, in part, the territory of the following word.

*gWel- 'sting, pierce'. [IEW 470-471 (*gWel-)]. Wat 24 (*gWel-), BK 359 (*qʷal-/*qʷel-)]. OPrus gallan 'death (acc.)', gallān 'death (acc.)', Gall- 'death (acc.)', Gaul- 'death (acc.)'.
Lith gelti 'sting (as a bee)', geluonis 'sting (of a bee)', Latv gals 'point', OCS žel' 'deplore', Grk βελόνη 'needle', δελφιθες (pl.) 'wasp'. Perhaps a word in some central dialects of (late) PIE.

See also Auger, BEE, Harm, RUB. [M.N., D.Q.A.]

PIG

*sds (gen. *s(u)sos) 'pig (wild or domesticated (Sus scrofa)'). [IEW 1038 (*sò-s); Wat 67 (*sò-); GI 508 (*sô-); Buck 3.31; BK 169 (*śław-/*śaw-)]. Lat sōs 'pig; boar; sow', Umb sī- (*sā-) 'pig; boar; sow', ON sýr 'sow', OE sū 'sow', OHG sō 'sow', OPrus swinnian 'swine, pig', Lat suvens 'young pig', Alb thi (*sūs) 'pig', Grk ἔγω 'pig (wild or domesticated); boar', σύκ 'pig (wild or domesticated); boar' (the Greek doublet with initial s-, rather than the phonologically regular h-, may reflect the influence of some non-Greek IE language), Av ḫtā 'pig', NPers 忪 'pig', OInd सुक 'pig, boar', TochB suwo 'pig'. Cf. the common derivative *suweisno 'pertaining to a pig': Lat Lat suntus 'pertaining to a pig', ON svin 'swine, pig', OE swín 'swine, pig' (> NE swine), OHG swín 'swine, pig', Goth swin 'swine, pig', Latv svins 'dunt', OCS svin 'pertaining to a pig, svinia 'pig'. Cf. TochB šātvāna masā 'pork'. With a short vowel *su- we have Old Ecc 'pig's snout; part of a plow', Wels hwch 'pig (borrowed > NE hog)' (Celtic *sukko-), Late Lat suculus 'young sow', subculus 'swineherd', OE sux (*sukeh) 'sow' (NE sow), Myc sūqo 'swineherd', Grk κυπαρίσσει 'swineherd'. It has often been assumed that the word for 'pig' is a derivative of *seutu- 'bear, bring forth' (and thus we should reconstruct *seutu- rather than *sūt). Such an assumption makes sense semantically in that the pig is the only livestock animal to give birth to litters and obviously that characteristic would be very salient to those practicing animal husbandry. It receives some support in the Old Irish word for 'sow', birt, which is etymologically 'one who bears'. Against such a hypothesis, however, is the fact that in most early IE traditions this word is not restricted to 'sow' as this hypothesis might suggest. More difficult yet is the fact that, if the root is *seutu-, as this hypothesis demands, there is no easy explanation for all the forms with *su- (in Celtic, Latin, Germanic and Greek). It is better to take the root to be *su-, perhaps as others have suggested ultimately based on a call to pigs (cf. NE sooty). The long vowel would be phonologically regular in the monosyllabic *sūs and also regularly optional, by Lindeman's Law, in such disyllabic forms as the genitive *s(u)sūs. Whatever its origin, this word is clearly widespread and old in IE. It fails to appear only in Armenian and Hittite, and since we do not know the Hittite word for 'pig' (we have only the Sumeroagogram) its failure to appear in that language may be only accidental.

*θyperos 'boar (adult male of Sus scrofa)' [IEW 445 (θgers-)]. Alb derr 'pig, hog, swine', derk 'piglet' (< θhō're- or θhor-?), Grk χοιρός (< θhōrōs) 'young pig, swine'. Perhaps a late word of the center of the IE world, a derivative of *θger- 'bristle'.

?πόρkos 'boar'. [cf. IEW 1032]. OIr torc 'boar', Av ḫbara- 'boar'. The Avestan word is a hapat lexemonein so is not as secure as one would like but the apparent agreement in form and meaning of the Avestan and Old Irish is good evidence for PIE antiquity. This word may be a derivative of *turer- 'cut', itself only sparsely attested in Grk σαρξ 'flesh' (< τυφκς 'that which is cut off').

Archaeological Evidence

The wild pig (Sus scrofa) was encountered from the Atlantic to the Pacific and was frequently hunted in both the Mesolithic and Neolithic in quantities approaching those of red deer. Pig domestication began by the seventh millennium BC in the east of the Urals, i.e., territories which were historically associated with eastern Iranians and which may have served as the putative staging area for Indo-Iranian and Tocharian migrations. For example, it appears to be absent in the Andronovo and Afanasevo cultures which have often been assigned Proto-Indo-Iranian or Tocharian identities. Moreover, the domestic pig, although found in the Ukraine and Caucasus, is rarely encountered in the steppe region north of the Caspian or in the southern Urals until the Bronze Age. By the Bronze Age, the domestic pig was introduced into these more easterly regions and this may correlate with the borrowing into Uralic (e.g., Finnish porras 'sucking-pig') of the Indo-Iranian or earlier IE form of the word for domestic pig.

Pigs in IE Traditions

The pig in Indo-European beliefs is a mysterious, liminal animal, having a wide variety of different associations with
the otherworld and the supernatural. It is associated with death and decay, burial and the underworld, and regarded as a harbinger of death; it is associated with vegetation goddesses and the cycle of crops; with heroes, but in a posture of defense and mortality; with wise or otherworldly guidance; with the sky and the sun, and with celebration and feasts. Most Indo-European cultures seem to hold two or three of these beliefs, although no one culture displays them all.

First, the association with death, the earth, and burial. The Romans believed, according to Cicero’s De Legibus (2.22.57) nec tamen eorum antea sepulturum est quam iusta facta et porcus caesus est ‘a tomb was not formally completed as such until the rites had been performed and a pig killed’. On Roman tombs, lions most frequently represented death devouring a victim, but boars and bears can be substituted. Boars are especially popular on funerary monuments in Roman Germany, probably because the animal was more common there. In Celtic stories, too, the pig has underworld connections: in the tale of Mag Murcime magic pigs come or are sent from the gates of the underworld to ravage the land for seven years, and in the Welsh story of Lieu Llaw Gyffes, sow feed hungrily on the rotting flesh of Lieu as it falls from him while he is in the shape of an eagle sitting in a tree.

On the reverse side of the coin, the pig is regarded as very suitable food for a funeral feast. The Hittites, Germanic tribes, and Celts are particularly noted for having pig bones or even entire skeletons buried in graves.

The association of the pig with the underworld can be explained by the habits of the animal. Not only do they wallow in mud, they also root in the earth to find food. From medieval times on, pigs had snout-rings to keep them from rooting up the farmer’s fields. Pigs also eat snakes, thereby overcoming another chthonic creature. The pig is a rarity among animals, a flesh-eater which does not actively hunt for meat. Seemingly vegetarian, a pig will devour a dead or motionless body if it comes across one, and this duality in its nature can be perceived as sinister and unnatural.

The connection with earth leads fairly clearly to the connection with vegetation goddesses. In Neolithic southeast Europe, the pig is represented in sculpture as often as dogs, bulls, and goats. There is the figurine of a goddess wearing a pig mask, and pig sculptures have marks where grain was pressed into the clay.

In Greek mythology, the pig is sacred to Démétèr. It was an essential part of the Eleusinian mysteries for purification rites, and was featured on coins from Eleusis. At the Thesmophoria festival, mourning Persephoné’s descent into Hâdès and celebrating her return, suckling pigs were thrown into underground caves to rot and be eaten by snakes. Three months later, the remains were brought to the altars and mixed with seed corn for a good crop. The pigs represent Persephoné, who is called Pherephaté, the killer of piglets; she is taken into the earth and apparently destroyed by death, but returns and ensures another year’s fertility. According to legend, a swineherd, Eubuleus, is the first to tell Démétèr what has happened to her daughter, and the tracks left by Hâdès’ kidnapping are obliterated by pig tracks. Diâna also has an association with boars: when her worship is neglected in Calydon, she sends a monstrous boar to lay waste the crops. This story is reminiscent of the Irish tale mentioned earlier of the otherworldly pigs which lay waste all vegetation for seven years.

In Scandinavian mythology, Freyja is the goddess of fertility and crops, aided by her brother Freyr. Both of them own pigs: Freyja has the boar Hildisvínt (Battle Swine), whose shape she allows her protege Óttar the Simple to assume as a disguise in the poem Hyndluljóð. (This theme of humans taking pig form is reminiscent of Circe’s transformation of Odysseus’ men into swine.) Freyja is herself given the complimentary epithet Syr ‘Sow’. Freyr owns a pig with golden bristles, made for him by dwarves, which not only runs faster than a horse but illuminates the night with its shining bristles.

The relationship between pigs and vegetation deities undoubtedly has to do with the pig’s earthy connections, but also with its metabolism. Because pigs fatten very rapidly, they can be seen to swell like the burgeoning crops, and like the crops, their greatest value to man is to reproduce and be eaten.

In its wilder aspect the boar is associated with warriors and warrior virtues. Throughout Europe and Asia Minor, the boar hunt is a sine qua non for proving valor and worthiness. Extended into myth, the pig can be a nocturnal disguise for heroes who are avoiding pursuit or warring off enemies. The boar becomes the symbol of the hunter and warrior, but almost always from the perspective of the killer doomed in turn to die, the warrior on the defensive. Boars as quarry have been represented in art as far back as the fourteenth millennium BC, we have an impressive cave painting of a fierce-looking boar c 13,500 BC from Altamira, northern Spain.

In Greek mythology, nearly every hero kills his boar. Héraklès’ third labor was slaying the Erymanthian boar; Thésée killed the monstrous sow Phaea, and Melâgeet kills the boar sent by Diâna to ravage the countryside of Calydon, a feat which results in a quarrel leading to his own death. Odysseus, too, killed his boar, albeit offstage: his old nurse Eurycleia recognizes him by the scar from a long-ago boar hunt on his leg. In the Iliad, Homer uses lions and boars as images of the hunt almost interchangeably: ‘as a boar or lion turns exulting in its power against the dogs and hunters’ (12.41). On Greek funeral monuments too the boar and lion often appear, but while the lion is the victorious hunter, often seen devouring its prey, the boar is the gallant loser, representing the victim of death, the fighter who has been conquered by the final adversary.

Boars and lions are also paired in Vedic myth: Indra, chastising his son for arrogance, uses the metaphors, ‘a fox crept up to the lion from behind’, ‘a jackal attacked the wild boar from ambush’ (RV 10.28).

Another pointer showing the defensive, doomed aspect of the warrior-boar may occur in Hittite. A ritual for purification
after a military defeat calls for the sacrifice of a prisoner of war, a pig and a dog. The bodies are cut in half, and put on either side of a wooden gate flanked by fires near a river. The army marches through and is sprinkled with river water.

In Scandinavian, Germanic, and Anglo-Saxon territory the boar shows up frequently in its role of warrior on the defensive. Boars are frequently engraved on helmets, helmet-plates, and shields, all defensive weapons, although there is at least one sword from East Anglia stamped with three small boars. An Anglo-Saxon helmet with a gilded boar crest embellished with ruby eyes was recovered from a Benty Grange tumulus, perhaps resembling the boar on cheekguards mentioned in Beowulf whose function, we are told, was to protect the wearer. Another Anglo-Saxon writer, Cynwulf, tells us that the emperor Constantine before his conversion had boars on their helmets, and perhaps boar masks or faceplates: a helmet-plate from Vendel, Sweden, shows a warrior with what seems to be a boar mask with one tusk protruding.

We also hear of a Swedish king who held as a great treasure a boar helmet named Hildigoltr, 'Battle-pig' and a heavy neck-ring named Svigtriss 'Swede's piglet'. To this monolithic collection he later added a second helmet, Hildisvin 'Battle-swine'—the name of Freyja's boar.

But overall, it is the Celtic tribes which value the pig most highly. It is the most important sacred animal, depicted again on helmets and shields, and worshipped as a god in a semi-anthropomorphic form. The god Moccus 'Pig' is identified with Mercury, and there is also the British god Vetiris, whose statues are ornamented with pigs and boars. The boar is particularly prominent among the Celtic tribes in the time just before the Roman domination, a time when the Celts may well have felt on the defensive.

Even the swineherds share in the pig's charisma. The Welsh hero Culwch is born where a swineherd is watching his pigs. (This story has been explained as a transformation of an original rendition in which he is fathered by the boar-god). And in the Triads, there are three powerful swineherds of the Isle of Britain: Pryderi, who brought the pig to Wales from the otherworld, Drystan, who prevented King Arthur from taking away one of King March's pigs, and Coll, who followed across Britain. As she went, she gave birth to such prodigies as grains of wheat and barley, a bee, a wolf cub, and a baby wildcat (Culwch and Olwen).

Certainly the Celts viewed pigs as having a divine origin. It was the Tuatha De Danann who brought the pig to Ireland (which was known in the Iron Age as Muic Inis, 'Island of Pigs') and pigs came to Wales as a gift to Pryderi from the king of the otherworld. These pigs were later fraudulently obtained by Gwydion, causing a war between north and south Wales. That some pigs remained in the otherworld we know, because in one Irish tale a pig is killed and cooked every evening for feasting, but is alive and whole again in the morning (cf. the never-ending supply of pork in Valhalla).

The flesh of the pork is valuable both to the living and to the dead. Several Irish stories contain accounts of highly ritualized disputes over the champion's portion of the pig at a feast. Pork cuts were allotted by status: the leg to the king, the haunch to the queen, and the boar's head to the charioteer. Poseidónius observed that the thigh was the portion allotted to the ranking champion. A whole pig or joints of pork were buried with the dead; a chariot burial in Champagne contains a whole boar skeleton, although it is hard to know whether this was meant as provisions for the journey, support for the warrior, or even a psychopomp, i.e., one who escorts the deceased to the afterlife. In the north of England, too, Iron Age burials frequently contained offerings of pigs as food.

Why did the boar have this image? Among dangerous animals, it is almost unique in being hunted for food rather than protection. The boar is a loner, and unlike the lion with which it is so often compared, it does not pose a threat to humans if it is left alone; when threatened and at bay, however, no animal fights more fiercely. But its ferocity is of no avail; boars which face lions or hunting parties are always doomed to lose, just as warriors, however brave, must finally lose the battle against death.

A fourth pig association, which is less culturally widespread than the previous ones, connects the pig with divine or supernatural knowledge and powers of prognostication, and frequently divine origin. The most famous example is probably in the third book of the Aeneid, when the priest of Apollo advises Aeneas to travel to Italy and found a city where he sees a white sow suckling thirty piglets under an ilex tree by a river (Aeneid 3.390–393). The white color immediately brings to mind the Welsh sow Henwen 'Old White' which Coll, one of the swineherds mentioned earlier, followed across Britain. As she went, she gave birth to such prodigies as grains of wheat and barley, a bee, a wolf cub, and a baby wildcat (Culwch and Olwen). Certainly some otherworldly association is traceable here. Following a pig can be perilous, too; the Irish Finn follows a boar at first voluntarily and then by compulsion, and ends up in a sídh under threat of getting married (Duanaire Finn).

The Welsh Pryderi, who has many pig connections, follows a white boar into a mound; his mother pursues him, and both must eventually be rescued by Manawydan from the power of the otherworld (Manawyddan mac Llyr).

The Irish Diarmuid has a different problem: his foster-brother is an enchanted boar and their lives are bound together by fate; predictably, they kill each other. Then there is the Welsh Twrch Twryth, a magical boar in Culwch and Olwen, who carries a comb and razor between his ears; he is captured by Mabon so that Culwch can fulfil his quest.

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Many of these connections with the supernatural can be explained by the pig's own characteristics. Pigs eat snakes, and they apparently suffer no ill effects from snakebites.
because of their subcutaneous fat; according to one authority, the pig is 'the only animal other than man capable of thinking through a problem to a rational solution'. Pigs can be trained to do any tricks a dog is capable of, and this obvious intelligence in so earthy a creature seems so incongruous as to require divine intervention. Rooting for truffles, too, is a display of powers far beyond human capacity; it seems miraculous that an animal can detect something buried up to a foot deep. Pigs are also close to impossible to herd (and therefore valueless to nomads); it can be frustrating to find such a sluggish beast so easily able to evade its would-be drivers.

Another point, which may help to explain the stories of boars who are enchanted men, is that the pig is the only animal other than man which will drink alcohol deliberately to the point of drunkenness. The pig is physiologically more similar to man than any animal except the primates, and this must lead to a degree of fellow-feeling, on our part, at least.

To summarize, then, it seems that there are a number of reasons why the pig was regarded by most of the Indo-European peoples as a sinister and supernatural creature, with connections to the underworld and death, otherworldly knowledge, and the world of men and heroes.

See also MAMMALS, FLOW. [D.Q.A., J.P.M., L.J.H.]

Further Readings

PIKEPERCH see CARP

PILLAR see POST

PIN


*đeskhr* ‘tie, ring’. [IEW 758–759 (*đeskhr*); Wat 44 (*đeskhr*).] OIr *nas* ‘fastening tie, ring’, OHG *nuska* ‘metal-clasp’. If correctly reconstructed a word of the far west of the IE world. From *đeskh* ‘bind’.

Confined to the northwest periphery of the IE world, although these terms may refer back to an organic predecessor (cf. Germania 17 where Tacitus claims that the early Germans fastened their cloaks with thorns), the referent of the *đhelg*- may just as well have been a metal pin which is known from the early Bronze Age in continental Europe and in the later Bronze Age in the British Isles.

See also CLOTHING, TOOL. [D.Q.A., J.P.M.]

PINE


*pitu-‘ (some form of) confier, (probably) pine’. [IEW 794 (*p*ē*-tu-); cf. Wat 47 (*peia-); Gl 543–544 (*p*ē*hu*); Fried 31–38]. Lat *pínums* ‘< *pītioso* ‘pine’, Alb *pishe* ‘< *pītoso* ‘spruce, pine, fir’, Grk *hélos* ‘pine, spruce’, and a bit more questionably Wakh. *pit* a species of tree, Ohlnd *pitu-dan* ‘*Acacia catechu*’ (a resinous tree with hard wood) or ‘deodor’ (a kind of pine). If the Asiatic cognates are accepted, then a word of PIE status; otherwise, a word of the west and center of the IE world.

*Réóß ~ Réós* (gen. *Réóss*) (Scotch) pine’. OE *harap ~ harad* ‘a wood’, OHG *hard* ‘mountain forest, wooded hills’ (< *Réós-dh*1-oh ‘pine-place?’), Khot ‘*sháha-cara- ‘Barleria cristata’, *ésáha-mára-t* (a plant name); from *Réósno- ‘piney’. OE *cén* ‘torch (of resinous pinewood)’, OHG *kén ~ kién ‘resinous wood, torch’, NDutch *ken(spaan) ‘(piece of) resinous pine-wood’ (Gmc < Proto-Gmc *żeszna- regularly by Grimm’s Law from pre-Gmc. *żeszna- itself by voicing assimilation from late PIE *żesno- ‘with new full-grade’), Rus *sosná ‘pine’, Grk *kóvos* ‘pinecone; pine-seed; cone’, *kávā ‘pitch’, *kávevós* ‘hemlock (*conium maculatum*), giant fennel (*Ferula communis*) (Greek from lengthened grade *Réósno- ‘that pertaining to pine’), Shugn. *sánj ‘stout stem extending to the edge of the bedstead’, Oroshti *sánj ‘post’, Yazghulami *sánj ‘beam’ (Proto-Iranian *sána- with dissimilatory loss < *sásmata- < *Réósno-‘pine-beam’), Khot *sána- ‘Celosia cristata, Psychotis ajowan’. The words preceded by a question-mark have as their referents shrubs or herbs rather than pines and might be considered semantically incompatible. However, it should be pointed out that the relationship within Greek of *kóvos* and *kávevós* has never been seriously doubted and that NE hemlock includes among its referents both the herb *Conium maculatum* and any tree of the genus *Tsuga* of evergreen coniferous trees of the pine family. Certainly a word of the center and west of the IE world. If the semantically divergent words from Iranian also belong, then we have evidence for its widespread existence in PIE.

*pík* (*pík*/*pík*) ‘(or *pík*/*pík*) ‘pine’ (or ‘fir?’). [cf.IEW 822–823 (*pík*/*u-s), Italian (dialect of the Trentino) *porca ‘fir’ (borrowed from Raetic?), ON *fura ‘pine*, OE *fæhr-wuđu

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The complex situation involves several reconstructible terms and at first blush, almost a dozen referents but there are basically three conifers involved in most of the reconstructible meanings: pine (*Pinus*), fir (*Abies*), and spruce (*Picea*) although cognate sets possibly ascribable to the last term tend to be dialectally restricted, e.g., Balto-Slavic: *OPrs addle 'spruce', Lith ėglė 'spruce', Latv ėglē 'spruce', Rus elf'spruce*. The Scotch pine (*Pinus sylvestris*) was presumably the primary or most frequent meaning of PIE * pérds*. The second term, *piṭ(u)*- is primarily confined to three Mediterranean stocks but may include Indo-Iranian examples as well. Although Gamkrelidze and Ivanov have argued that the two roots may retain an ancient distinction between * pérds* 'pine' and * piṭ(u)*- 'fir', supposedly evident in the distinctive meanings seen in the Greek cognates, neither the lexical evidence nor that of the local botanical environments of the cognate stocks requires this interpretation. What we can say is that despite the plethora of early IE forms and meanings and the general confusion of names, the data almost never include juniper, cypress, cedar, yew nor any evergreen aside from pine, fir and spruce (nor the larch). PIE * pérds* was presumably then a middle level taxon between 'conifer' and the three genera in question, i.e., 'fir', 'spruce' and 'pine'. For these and for specific types an adjective may have been added, as today with silver fir and Scotch pine. The PIE conifer terms correspond strikingly to terms in Finno-Ugric and may reflect an early borrowing, e.g., Proto-Finno-Permian * peća as in Mordvin *pitse 'pine', Proto-Finno-Ugric *piska 'resin, pitch, gum', and Proto-Finno-Ugric *puxi 'tree'.

The fir (*Abies*), spruce (*Picea*) and pine (*Pinus*) were all probably in the PIE area. Of these, the firs were mainly in the hills and mountains except the white or silver fir of central Europe. Pollen evidence indicates that in the period c. 6000–3000 BC, the fir was spread from Spain and France in the west eastwards across the Mediterranean and central Europe and then across the Ukraine and Russia through Siberia. It is also frequent in Anatolia and was known from the Caucasus. It was absent, however, in Atlantic and northwest Europe and throughout the Baltic region. The spruce grew on the edges of highlands and across central Russia and Siberia west to eastern France. It is also known from southwest Anatolia. Prevalent in the Baltic region, it is however absent from northwest and Atlantic Europe. Among the pines, two occupied specific niches, e.g., the mountain pine (*Pinus mughus*) of the Carpathians, whereas the Scotch pine (*Pinus sylvestris*), a distinctive tree with blue-green needles and bright orange bark, was found over most of Eurasia and often formed great forests, as it does still today. Pine was used for building dwellings, ships and other artifacts, and, as terms in descendant languages suggest, also for tar, resin and the like. The distribution of all three main conifers was so wide that they could accommodate almost any solution to the homeland problem other than (in the case of fir and spruce) one situated in northwest Europe.

See also Fir, Oak, Sap, Trees [P.F., D.Q.A.]

**PIT-COMB WARE CULTURE**

The term Pit-Comb Ware culture can be applied specifically to a culture of the c. fifth–third millennia BC occupying the territory between the east Baltic to the northern Ukraine. It is also applied as a blanket term for a series of cultures stretching across the forests from eastern Scandinavia to the Urals from the fifth millennium BC onwards. These cultures might include the Narva culture of the Baltic region, the Sperrings culture of Finland, the Pit-Comb Ware culture proper of western Russia to the Ukraine, the Upper Volga-Oka Pit-Comb Ware (or Lyalovo) culture, the Kama Neolithic culture, and the Ural Neolithic culture. Similarities between these different cultures are such that they can be treated as a single block with reference to the Indo-Europeans.

In general, the Pit-Comb Ware culture occupied the forest region of northeast Europe and settlements are primarily confined to the Baltic, lakes, and rivers where the economy was primarily, in most areas exclusively, based on hunting-fishing and gathering. The wild fauna is extensive but is particularly comprised of red and roe deer, elk, aurochs, wild pig and beaver with a considerable number of other species (bear, fox, wolf, marten, otter, wolverine, lynx, etc.); coastal sites have also yielded remains of seals. There is some evidence for mixed farming in the Baltic, e.g., in the Narva culture of Lithuania there is evidence for sheep and goat and sickle blades attesting (perhaps) some agriculture. Evidence for habitations often tends to be slight except in areas where marine resources permitted longer term stable settlement, e.g., the Baltic coast. Normally, the evidence for settlement is limited to transient camp sites in its earlier phases but by the late phase there is some evidence for more substantial houses, measuring up to 8 x 5 m in size, and sunken into the ground. Tools comprised arrowheads, spearheads, harpoons, axes, fishhooks and other implements appropriate for a hunting-gathering economy. The Pit-Comb Ware culture also made use of pointed-based, frequently highly-decorated, pottery. Where the iconography is representational, it sometimes depicts water birds.

The region of the Pit-Comb Ware culture would appear to lie too far north of what is normally presumed to have been an area of early Indo-European settlement. Moreover, its culture, primarily hunting-gathering rather than agriculture and stockbreeding, makes a very poor fit with the picture of PIE culture derived from linguistic evidence and later technological items such as wheeled vehicles, metals, plows, etc., would also be very foreign to the Pit-Comb Ware culture. As its geographical location accords well with the later distribution of the Uralic-speaking peoples and its economy also accords in general with that reconstructed lexically for Proto-Uralic it has often been regarded as the archaeological expression of the Uralic language family. This equation,
However, also has many critics as it has proven nearly impossible to correlate the various Pit-Comb Ware cultures with the inter-stock divisions of the Uralic language family or their probable movements. Moreover, toponymic evidence from this region suggests some reason to identify a strata of non-Uralic (and non-Indo-European) language(s) in the Pit-Comb Ware area, especially in the Volga-Oka region. Chronologically, many prefer to have the Proto-Baltic-Finnish movement begin only in the last millennium BC and find its ascription to populations in this area so many millennia earlier as extremely doubtful. The widely disseminated presence of (Indo-)Iranian loanwords in the Uralic languages would also suggest that their dispersal was later than the fifth or fourth millennium origin of the various Pit-Comb Ware variants. Finally, there is a body of scholars who prefer to situate the original home of the Uralic languages at least east of the Upper Volga if not east of the Urals altogether.

The fate of the Pit-Comb Ware culture is also problematic. The Baltic, central Russia, and the northern Ukraine were all areas of the later Corded Ware horizon, e.g., Battle-ax culture, Fatyanovo culture, Middle Dnieper culture, which has generally been associated with early IE movements. However, these cultures appear in some areas where we have no reason to suspect early IE settlement, e.g., central Russia, and there they have often been seen to have been culturally (and presumably linguistically) assimilated by the descendants of the Pit-Comb Ware populations.

See also Corded Ware Culture. [J.P.M.]

Further Reading
Izhevsk, Udmurt Institute for History, Language and Literature.

PITCH see SAP

PLACE

*sth₂tis (gen. *sth₂tis) 'place'. [IEW'1006 (*sta-ti-); Wat 64-65 (*stä-); GI 143 (*sth₂t-)]. With zero-grade generalized:


*stêyglom ~ *stëyglom ‘place’. [IEW 1007–1008 (*stā-lo-); Wat 64–65 (*sta-); Buck 12.11]. From *stêyglom: ON stōdlu ‘place’, OE staðol ‘place, foundation’, OHG stadal ‘station’; from *stëyglom: Lat ob-sūcāulum ‘obstacle’ (< *what stands in front’), OCS stadlo ‘place’. These words are very likely to be independent creations in the three stocks that show them.

See also STAND [A.D.V.]

PLANTS

PLANK

*bhelh₂-goś (gen. *bhelh₂-go-s) ‘plank, beam’. [IEW 122–123 (*bhelg-); Wat 7 (*bhelg-); Buck 9.51]. ON bjalki (< *bhelh₂-g-eh₂-n-) ‘beam’, OE balc ~ balca (< *bhelh₂-g-(o) (~on)-) ‘bank, ridge’ (> NE balk), bolca (< *bhelh₂-g-on-’) ‘ship’s gangway’, OHG balko (< *bhelh₂-g-o-on-) ‘beam’, Lith balžėnas/ (flexible crosspiece on a sled, Latv balziņš ‘binding on sled’, Rus (dialect) bolozno ‘thick plank’, Grk θάλαιχζ ‘post, beam’. A variant *bhelg- is apparently to be seen in Lat fulcio ‘prop up, support with props’, Grk φαλάχζ ‘beam, plank, rib of ship’. No known root connections. At least a word of the west and center of the IE world.

*ḵh₂-ga-s ‘plank’. [IEW 545 (*klāro-); Wat 28 (*kel-); Buck 9.52]. Olr clar ‘plank’, Wels claw ‘plank’, Grk κλαξ ‘piece of wood for casting lots’. From *kel- ‘strike, hew’. The verbal root has many suffixes referring to something broken or cut off, the means and the results of striking. Derivative appears to be late IE with some independent developments.

*spēn- ‘flat-shaped piece of wood’. [IEW 980–981 (*sp(h)ē-); Wat 63 (*spē-); Gl 38 (*sp(h)on-dēh-); Buck 8.23]. Olr sonn ‘staff, support’, Wels fon ‘staff’ (Celtic < *spon-d-, Lat sponda ‘bedstead, bed’, ON spår ‘wood chip’, OE spôn ‘sliver, chip, shaving’ (> NE spoon), OHG spån ‘wood chip’ (the Gmc forms as if < *spēn- whose vowel is not well-explained), Grk σπήγ ‘wedge’, (Hesychius, Doric?) σφνυν ‘bed, couch’. Distribution indicates a word at least of the west and center of the IE world. A related form *spēh₂-dh-eh₂ yields ON spāt ‘spade’, OE spadu ‘digging tool, spade’ (> NE spade), Grk σπάδυμ ‘flat blade’.

*plut- ‘plank’. [IEW 838 (*pluto-), Lat pluētus ‘shed, penthouse; permanent breastwork; shelf, desk’ (i.e., ‘anything made out of planks’) (< *pluētos ‘made out of planks’), with full grade *plūtos: ON fleydor ‘rafter’, Lith plūtas ‘plank’, Latv plūts ‘wall-plank’. Northwestern regionalism in late IE.

*stel- ~ *sel- ‘plank, board’. [IEW 898–899 (*sel- ~ *sel-); Wat 68 (*selw-)]. From *selw: ON syll (< *suljom) ~ svol (< *suljeh₃) ‘doorsill, threshold’, (pl.) svalar ‘arcade’, OE syll (< *suljom) ‘doorsill, threshold’ (> NE sill), OHG sylvili ~ swella ‘doorsill, threshold’, Grk σελίς ‘plank’, σέλιμα ‘beam’, (Homeric) εὐσύκλη θ ‘well-benchd, well-decked (of a ship)’ (the connection of these Greek forms seems clear but the appearance of PIE *su- as Grk σα ‘is not altogether expected); from *sel-: OE selma ~ selima ‘bed’ (< *beersted ‘bed’, Lith sūlolas ‘bench’, sile ‘trowth’, Latv sile ‘trowth’, Grk (Hesychius) ἐλβαττα (pl.) ‘planking, decking’. Perhaps Alb gjolle ‘a slab on which salt for livestock is placed, a salt-lick’ belongs here (if < *sēlēh₃) rather than taking it as a derivative of *sāl- ‘salt’. The variation between *sel- and *sel- is not well-explained but nonetheless we have evidence for a word of the west and center of the IE world.

See also HOUSE; SHIELD. [A.D.V.]

PLANTS

The PIE speakers undoubtedly knew and named many plant species; however, only a small number of names for plants are reconstructible. As PIE speakers moved into new areas, new environments brought new plants (or new varieties of old ones) and the disappearance of familiar plants. Names for new plants and varieties come from new descriptive phrases or by borrowing from other languages. Plants that tended to keep their IE names were those which were ecologically salient, especially food plants and trees.

The variety of plants known across Eurasia is so enormous that it would be futile to assemble all of the plant names possibly known to the earliest IE groups. On the other hand, there is at least some evidence of the types of plants exploited and presumably known and named by prehistoric populations across Eurasia. These may be recovered from archaeological excavations in the form of well preserved seeds (from waterlogged deposits such as obtain in lakeside settlements in Alpine Europe) or the far more available evidence of carbonized, i.e., charred, seeds which may be found in most environments. Moreover, the impressions of seeds may also be found on the surface of prehistoric pottery and their characteristic imprints can be identified to the level of genus or possibly species. Another source of palaeobotanical information derives from pollen which, in certain environments, may be very well preserved and provide evidence not only for the existence of various plants but also changes in their abundance through time. As the IE homeland has been variously placed in the region of Anatolia, southeast Europe.
central Europe, northern Europe, and the steppe and forest-steppe region north of the Black and Caspian Seas, one may obtain from the reports a brief checklist of the commonest plants that have been recovered from archaeological sites of the Neolithic and Copper Age, the period of or immediately preceding the expansion of the IE language family. As with the lexical evidence, the greater majority of the plants recovered are varieties of *Cerealia*. But a general survey of the main European and southwest Asian crop plants does indicate something of the breadth of the elements present or missing from our reconstructions of the PIE botanical vocabulary.

**Chenopodiaceae**

Two main plant groups belong to the Chenopodiaceae which may have been known to the earliest IE communities. The first genus is the sugar beet (*Beta vulgaris*) which is found exclusively in Europe. Although it was exploited as a potheb and as fodder in the Greek and Latin worlds, its presence in earlier sites appears to be minimal and it is not listed as one of the plants recovered from Swiss lakeside sites which offer by far the largest roster of Neolithic and Eneolithic plant remains. On the other hand, *Chenopodium album* (goosefoot), was widely found across Europe and clearly exploited since the Mesolithic (in the New World it is the ancestor of quinoa, one of the primary plants of early Peruvian agriculture). However, the Chenopodiaceae do not appear to be a part of the early IE lexicon.

**Compositae**

Among the Compositae, it is at least remotely possible that some early IE communities may have become acquainted with the safflower (*Carthamus tinctorius*) and lettuce (*Lactuca sativa*) which were both domesticated in the Near East, particularly in Egypt. The latter spread through the Mediterranean and was extensively employed among the ancient Greeks and Romans.

**Cruciferae**

It is with the Cruciferae that we at least encounter some of the plants that show some interstock linguistic cognates. The turnip (*Brassica campestris*) is indicated by *ræpêh₂* ~ *ræpeh₂*, a culture word that appears in Italic, Germanic, Baltic, Slavic and Greek. It was widely found over Europe and recovered from Neolithic deposits in the Swiss lakeside sites. It was initially grown for its oil (rape seed) and the edible turnip is a relatively recent development. There is also an early term for the cabbage/kale/cauliflower (*Brassica oleracea*) whose domestication is normally attributed to various regions of the Mediterranean. The IE *k高尔os, attested in Latin, Greek and Hittite poses some problems as the word may have derived from an IE word meaning 'stalk' and is, therefore, less easily derived from some non-IE Mediterranean source. The dates of its earliest domestication are unknown although kore, for example, is attested in Greece c 600 BC. Mustard (*Brassica nigra*) is generally regarded as a cultigen derived from Anatolia-Iran but it is recorded already from Neolithic levels in Alpine Europe. There does not appear to be any name for this plant of IE antiquity nor for the radish (*Rapunzel sativa*), although the latter may have been confined to Egypt and the eastern Mediterranean in earlier prehistory. Watercress (*Rorippa nasturtium-aquaticum*), well represented in early Irish literature and also employed as a medicinal plant in the classical world, is similarly absent from the IE lexicon.

**Gramineae**

The Gramineae (grasses) as they comprise also the cereals are the primary focus of the reconstructed botanical lexicon. The variety of different cereals is in no way matched by the variety of IE terms and we are generally left in doubt as to which specific variety of wheat or barley was being referred to. For example, the range of terms for 'wheat' only includes *puhr₃rós* and possibly *seph* although the types of wheat widely found over all perspective IE homelands comprise at least *Triticum monococcum* (einkorn), *Triticum turgidum* (Emmer, durum), and *Triticum aestivum* (bread wheat, spelt). On the other hand we have an abundance of terms for 'barley' (*ghrσdh(i), *ghễlhîht, *bhârs, and *meigh(h)-* although there are only two main types (*Hordeum distichum* and *Hordeum hexastichum*). However, distinctions may have also been made as to whether the different varieties were hulled or free-threshing. There are also a considerable number of terms for 'grain' (*ý̂s(i) tô-, *ý̂uós ~ *ý̂uom, *ghrnom, *dhrσneh₂*, *dhrσqeh₂* - and perhaps *h₂ed-*) which may conceal a more specific original sense. There are geographically restricted terms of some IE antiquity for oats (*Avena sativa*), i.e., *h₂eyis and rye (*Secale cereale*), i.e., *rughîs and *h₂erêh₂*. On the other hand, although millet (*Panicum milaceum*) is relatively widespread in Eurasia from the Neolithic period onwards, we appear limited to a rather banal derivative, *melh₂*, based on the word for 'grind' and confined to several European languages and a Latin-Iranian isogloss built on *pano-. Finally, there are a variety of temperate grasses such as meadow fescue (*Festuca pratensis*), tall fescue (*Festuca arundinacea*), timothy grass (*Phleum pratense*) and smooth brome (*Bromus inermis*) which should have drawn the notice of early farmers in Europe as they colonized deforested areas and became abundant enough to serve as animal fodder. Hints of these in the IE lexicon occasionally occur, e.g., *OPRus pure 'brome-grass' from *puhr₃rós* which in many other IE stocks is translated 'wheat'.

**Leguminosae**

Along with cereals, legumes were the other main component of the 'Neolithic package' of domesticated plants that spread across Europe from southwest Asia. The two principal early legumes were the pea (*Pisum sativum*) and the chickpea (*Cicer arietinum*). Although these words have some antiquity among the IE stocks, their distribution does not support their ascription to PIE status. The name of the 'pea', for example, may be reconstructed as *h₂erēgʷo- but it is
only attested in Italic, Germanic and Greek and at least one of the stocks reflects a borrowing; in fact, the word itself has often been presumed to be a late loan into several of the IE stocks from some Mediterranean source. Its linguistic ancestry notwithstanding, the domestic pea was so widely known across Eurasia in the Neolithic that it is very difficult to imagine an IE homeland in which it would not have been known. On the other hand, the word for chick-pea, *bhabha- *bhavho-, is confined to Mediterranean languages (Latin, Macedonian and Armenian) and was also geographically circumscribed to southern Europe, at least during the Neolithic. A third legume, the field or broad bean (Vicia faba) is attested in the west and center of the IE world (Italic, Germanic, Baltic, Slavic) as *bhavha- *bhavo- and in Albanian and Greek under the form of *bhako/eha-. A domesticate of southern Europe, it probably did not appear among the ancestors of the northwest Europeans until the third or second millennium BC. The vetches, both common vetch (Vicia sativa) and bitter vetch (Vicia ervilia), as well as the grass pea (Lathyrus sativus) are attested archaeologically among Neolithic cultures of Anatolia and southeast Europe with some extension into central Europe but other than the occasional transference of another IE term to indicate one of these plants, e.g., Lat ervum ‘vetch’ (when the other cognates indicate the ‘pea’), there is no evidence for IE antiquity for any of these crops. Although more widely dispersed and associated with the initial expansion of domestic cereals from southwest Asia, the lentil (Lens culinaris) is also unretrievable from the IE lexicon although it was likely to have been known to early IE speakers.

LILIACEAE

Two words relating to the Liliaceae (onions, garlic, and leaks) appear to be of some IE antiquity. An early *kremh₂us ‘(wild) garlic’ would appear to refer to either Allium sativum or Allium ursinum while *alu- is even more unspecific as it refers to some esculent root with the more precise meaning of ‘garlic’ in Lat allum ~ allium. None of these are widely found and their area of domestication, like that also of Allium cepa (onion), is generally thought to lie on either the northeast fringe of southwest Asia or perhaps further north in Central Asia or Afghanistan. Garlic is believed to have been domesticated by c 2000 BC in Mesopotamia and earlier in Egypt.

LINIACEAE

A word for ‘flax’ (*linom) is confined to the IE stocks of northwest Europe (Celtic, Italic, Baltic, Slavic, possibly Germanic) and Greece. Flax (Linum usitatissimum) was domesticated quite early in southwest Asia and is found on Neolithic sites at least from central and northern as well as southeast Europe but is not recorded until quite late in the regions north of the Black Sea.

MORACEAE

Hemp (Cannabis) is found from western Europe to Central Asia (and beyond into China where it was the principal fibre plant) and is likely to have been known to early IE speakers either in their homeland (no matter where situated) or during their expansions. Lexically, however, the only reconstructed term, *kannabis is a culture word borrowed between various IE stocks, presumably at some later date after their formation.

Other forms of Moraceae such as the fig (Ficus carica) are confined to southwest Asia and Greece in the Neolithic and do not appear to have any great IE lexical antiquity (Lat ficus, Grk σῦκος and Arm tuz are all believed derived from some common “Mediterranean” source). The cultivation of hops (Humulus lupulus) seems to date no earlier than the Middle Ages and this species lacks any obvious lexical antiquity among the IE stocks.

ROSACEAE

The Rosaceae comprise a large number of plants, bushes and trees with edible fruits and berries that were clearly exploited over broad areas of Europe and into parts of Asia since the Neolithic. But other than the apple, almost all others, irrespective of their distribution or the antiquity of their exploitation, are with only great difficulty ascribable to IE antiquity or, if there are cognate forms, their original meaning is apparently beyond recovery. Generally, forms such as *kangeh₂, *kaino, *onok, all berry, fruit must do for a wide variety of edible fruits. For example, one of these forms may conceal the word for ‘strawberry’ as it was widely dispersed since the Neolithic in the wild state over central and northern Europe, i.e., those regions where we might expect some form of northwest isogloss. From its quantity on archaeological sites of all periods, it was clearly collected since at least the Neolithic but cultivation did not take place until about the fourth century AD. A very similar situation obtains for raspberries and blackberries (Rubus) for which we can reconstruct *mōrom. Grouped here are also several important fruit trees such as Prunus domestica (plum), cherries (Prunus avium and Prunus cerasus), and the pear (Pyrus). Pips of most of these are known from Neolithic sites of temperate Europe although deliberate domestication does not usually occur until Roman times. These provide further examples of food resources, probably exploited by the ancestors of at least some IE stocks, but which seem to lack any widespread set of cognate terms. Only the pear (Lat pirum, Grk árītov) seems to have a common, presumably non-IE source.

UMBELLIFERAE

The main domestic variety of the Umbelliferae that offers a name of some antiquity is the *māk ‘a carrot’ with cognates in Germanic and Slavic indicating the carrot and an obscure term in Greek indicating a wild vegetable. The natural distribution of the carrot is from southern, primarily Mediterranean, Europe eastwards to Iran and Afghanistan although it is also found often on Swiss Neolithic and early Bronze Age lakeside dwelllings. The origin of the domestic carrot has been seen either in or around Afghanistan and the spread of the domestic
carrot to the west occurred during the medieval period, arriving in Turkey by the tenth century and Spain by the twelfth century AD. From this it is evident that the prototype among the IE stocks referred to a wild plant.

**Vitaceae**

Two possible words referring to the 'vine' or 'grape' are known from the early IE lexicon. The primary term is *wəinom* which is attested in Italic, Albanian, Greek, Armenian and Anatolian. The precise referent has always posed some problem and it may refer to the vine, i.e., *Vitis vinifera* which, in the wild state, could be found during the Neolithic from Iberia east to beyond the Caspian Sea and as far north as southern Britain and even southern Sweden. The domestic grape, on the other hand, appears in the Near East around the fifth or fourth millennium BC and in southeast Europe by the third millennium. A more poorly represented and phonologically problematic word is *tris-*, which yields the meaning of 'vine' in Slavic and Greek and more generalized meanings ('seedling, offshoot') in Albanian.

**Papaveraceae**

The one well-known representative of the Papaveraceae, the poppy (*Papaver somniferum*), is at least known in late IE guise as *meh₂jk*- where it is found in Germanic, Baltic, Slavic and Greek. Unlike most of the domesticates, the wild poppy (*Papaver setigerum*) is native to the western Mediterranean and it is found as a crop weed from Iberia to the Black Sea but is absent from Greece and southeast Europe until the early Bronze Age, i.e., c 3000 BC. Its place of domestication has been sought in the west Mediterranean.

See also **AgriCULtUrE; ANGELICA; BARK[^1]; BEAN; BERRY; BranchCHaff; Chick-PEA; FEED; FLAX; FLOWER; ForK (OF-Tree); Grain; Grass; Hellebore; Hemp; Henbane; Knot[^2]; LEAF; Mistletoe; MOSS; Mulberry; Nettle; PEA; PoppY; REED; Sap; Shoot; Splinter; StALK; thorn; TREE; Trees; Vegetables; WINE.**

[D.Q.A., J.P.M.]

Further Readings


**PLAY**

*lojd/-play, jest*. [IEW 666 (*leid-*)]; Wat 36 (*leid-*)]. Of Lat *loidus* - *loedus* 'game', Lat *lūdus* 'game', *lūdō* 'play', Grk (Hesychius) λὐδε (qa *līde/-o/-*) 'plays', λοιδοπέω 'insult, abuse'. Though attested in only two stocks, it represents the only possibly reconstructible word for 'play' in PIE.

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[^1]: short form
[^2]: long form
Archaeological Evidence

The plows reflected in the linguistic evidence would generally have been metal plows. The earliest of these metal plows appears in the Near East toward the end of the second millennium BC and in Anatolia by c 900–700 BC. Metal plows appear subsequently in Italy by c 600 BC and among the Celts by c 500–400 BC. But the original PIE referents would surely have been wooden plows (with stone shares). Even the earliest wooden plows had a marked impact on agricultural production in that they were capable of increasing the cultivated area by three times as well as permitting the expansion of agriculture onto soils which simple hoe-agriculture would have found too difficult. The earliest evidence for the plow is generally set to the Near East in about the sixth millennium BC; later evidence for the plows are to be found in the pictographic scripts of the Near East, both at Uruk in Mesopotamia and in proto-Elamite layers in Iran, that would date to c 3500–3000 BC. These depict a two-handled plow with a composite draught pole while the earliest evidence for plows in Europe tend to reflect single-handled plows, i.e., crook-ards. While one might expect that these simple plows would have served more as seed drills than for turning the soil, there is evidence of asymmetrical plow-marks already from the fourth millennium BC which suggests that the tip of the plow could be angled to turn the soil as well as scour it. Evidence for the earliest appearance of the plow in Europe rests primarily on these chance discoveries of plow-marks on prehistoric sites and the actual remains of plows in waterlogged contexts. There is clear evidence for scratch marks in the soil, made by primitive plows, from at least Britain to Poland in the period c 3500–3000 BC while the earliest actual remains of plows are known from c 2300–2000 BC (the earliest identified European plow derives from Lavagnone, Italy). That plows may have predated the late fourth millennium BC has been argued on the basis of three further possible lines of evidence. The first of these are polished stone adzes which appear in the Linear Ware and other Neolithic cultures which probably served primarily for working wood but which have also been interpreted by some as plowshares. A very large perforated stone 'ax' recovered from a site of the Lengyel culture has also been regarded as a plowshare. In Brittany, megalithic art of the fourth millennium BC also depicts what have been interpreted as 'ax-plows'. A final source of evidence is to be seen in the splayed phalanges of cattle, which suggests their use in traction. Such evidence has been recovered from the Balkans from the period of the

OHG eggan ‘harrow’, Lith akėti – ekėti ‘harrow’, Latv ecēt ‘harrow’. Widespread and old in IE.

*ghel- ‘plow’. [IEW 434 (*ghel-); Wat 2 (*ghel-); Buck 8.21; BK 230 (*gal-/*gdal-)]. Lith žúolis ‘sleeper, tie’, Arm jīlen ‘plow’, Olnd halū - ‘a plow’. The Old Indic word is attested only rather late (in the epics). Other than that, the apparent connection of at least the Armenian and Old Indic would suggest a word of the center and east of the IE world.

Plow a. Hand ard (Switzerland, fourth millennium BC), b. Crook-ard (Germany, second millennium BC), c. Crook-ard (Poland, second millennium BC), d. Ard from Yamna burial, e. Plowing scene on rock art (Italy, c 3000 BC), f. Stone shaft-hole ax (or plowshare?) from Neolithic Hungary.
Vādastra culture, i.e., c 4500 BC. The presumption here is that animal traction was earliest associated with plowing, while its use in drawing wagons began in the mid-fourth millennium. Moreover, a simple “rope traction ard”, which could be pulled by farmers without recourse to oxen, may also have preceded the plow and several have been recovered from Neolithic contexts in Denmark.

The use of the plow, which seems clearly attested across the early IE world and hence is attributed to the PIE community itself, also bears social implications. The earliest agriculture probably did not involve the use of the plow but merely digging sticks or hoes, tools which are often found in the ethnographic record to correlate with women carrying out the bulk of agricultural chores and hence matrilineal systems of inheritance which generally involved the lineage rather than the individual family as owner. In plow-agriculture, the role of the male is commonly found to become more important and the inheritance system tends to patrilineal descent and the land itself becomes an inheritable commodity. Both the evidence of the Indo-European kinship nomenclature and the existence of *h₂erh₂je-/*-e-‘plow’ suggest that the earliest Indo-Europeans correlate with this latter form of plow-agriculture rather than that of digging sticks which is presumed for the earliest agriculturalists in the Near East and Europe.

See also Agriculture, Branch, Field, Furrow, Tool. [D.Q.A., J.P.M.]

Further Reading

POET

*kāru- ‘one who sings or praises, poet’. [IEW 530 (*kāru-); Wat 27 (*kāru-); GI 177 (*k̑erθ̑-)]. Grk κήρυς (Doric κήρος) ‘herald’, Olnd κατρά ‘one who sings or praises, poet’. From *kar-‘praise’. The semantic relationship whereby a word for ‘herald’ is equivalent to ‘poet’ in Old Indic requires some explanation. Indic literature provides some evidence that the kārā- wandered from one client to another which could have resulted in a dual role, one that not only involved the artistic creation of verse but also a means of conveying messages, i.e., he may also have carried out some of the duties of a herald.


dasvuni ‘breath’, Av api-vat-‘blow, inspire’, Olnd api-vat ‘blows upon, fans; blows in, inspires’. The Greek word suggest we should reconstruct *h₂wet-‘blow’ and thus *h₂wut for ‘seer, poet’. As a word for a ‘poet’ it still appears confined to the extreme west of the IE world.

??*gyθwos ‘poet’ (< *gyθ hedh₁- ‘put praise’). [IEW 478 (*gyθer(a)); Wat 25 (*gyθer-); BK 364 (*gyθw-). OIr bard ‘bard’, Wels bard, Gallo-Lat bardus ‘bard’. Attested nominally only in Celtic and verbally only in Indo-Iranian, i.e., Av garam dā- ‘give praise’, Olnd garam dā- ‘give praise’. The forms, although composed of PIE words, would appear to be innovations in each of their respective areas.

See also Poetry, Praise, Priest, Sacred. [D.Q.A.]

Further Reading

POETRY

Although no reconstructed word survives to designate ‘poetry’ in PIE, its existence is unchallenged as the possession of a poetic tradition would appear to be a near cultural universal and is certainly found among all the earliest attested IE stocks. Furthermore, although we may reconstruct only two words for ‘poet’, *kāru- (a late IE isogloss joining Greek and Indo-Iranian) and *yōt- (a word of the extreme west of the IE world), nevertheless most early Indo-European stocks reveal a class of men who served as poets or priests skilled in the construction of verse. The work of these earliest poets, whether known from Ireland, Greece or the old Indo-Iranian world, was exclusively oral rather than written and sources describe the many years required, for example, by an Irish druid in the learning of the vast corpus of poems, metrical rules, and other prerequisites of a poet. There is also some evidence that the craft of poetry was treated as a specialist skill, like any other craftworker, and may have been lodged with particular families. The authors of the hymns of the Rgveda, for example, can be assembled in familial relationships with one another, there were Greek confraternities of poets, and certain Irish families such as the O’Higgins or O’Mulconrys maintained family traditions of poets. Indeed, early Irish tradition required that one should belong to a poetic family for at least three generations in order to be regarded as a true poet.

The poet as a craftsman can be seen in the preservation of metaphorical expressions that describe how the poet created his poetry. Both Greek and Indo-Iranian provide evidence of a PIE *teklos ‘fashion speech’ (Grk ἄρην ἔκτος, Av vačas-tašti-, Olnd vačas-taks-) where the meaning of the verb *teklos- is extended beyond the semantic sphere of building. Thus, there are verses in the Rgveda (RV 5 2 11) where we read ‘as a skilled craftsman makes a chariot, I, a devout worshipper, have composed this hymn for you, O mighty one’. And in Welsh, the poet may be termed the ‘carpenter of the song’. In addition to the image of a ‘word
carpenter' (cf. also in NE word-smith) we also find that of the weaver of verse employed as well, where PIE *uabh- 'weave' underlies OE wædercæft wæt 'he wove poetry', Grk μυθος και μηδεα πασιν ὑσαινον 'they have woven words and thoughts for all', and in Avestan the root for 'weave' (vaf-) can also be employed in the meaning 'to praise'. Another root indicating 'weave', PIE *ueg-, underlies Olr iscard 'weaves', seen in the expression fag irer fithir 'the master weaves the word'. Finally, the poet might be 'the maker' par excellence as in Greek ποιητης 'maker, poet, writer'.

The Proto-Indo-European poet was a professional. Whatever the exact image the poet as craftsman took, he was worthy of his hire, as the etymological comparison of Olr cerd 'craft; poetry' (also 'craftsman, poet') or Wels cerdd 'craft; poetry, poem' with Grk κέρδος 'gain, profit' suggests. The Rigveda tells of rewards to poets such as 'two-hundred cows, four horses, and two wagons' (RV 7.18), a vast sum even for a king to expend. The poet was worth the expense, however, because only he, as the professional preserver of the spoken word, could provide his patron the 'imperishable fame' that was the central goal of the heroic warrior.

The creative act of the poet is generally associated with the concept of his 'seeing' or 'hearing' his verse, e.g., Olnd sa etat saktam apasyat 'he saw the hymn' and the inspirer of verses, the deities, speak directly to the poet. This inspiration can be seen in Old Indic tradition, for example, where the embodiment of sacred speech, the goddess Vac, declares that it is with her help that one 'hears what is said though not knowing it' (RV 10.125.4) and the common introduction to the more arcane verses of Old Irish, co cloth ni 'something is heard', i.e., something from "outside" inspires the poet. In this way, the poet is presented as the instrument of reception, inspired by a creative impulse that derives from outside of himself, in short, the poet is "wired into" the world of creativity.

Indo-European Metrics

The quest to reconstruct the "original" metrical system of the Indo-Europeans has extended almost to the beginnings of comparative philology, but in terms of convincing results, these have been either illusive or confined to a few interstock similarities. For example, comparison between 12-syllable Greek verse and the 12-syllable jagati form of the Rigveda have prompted some to postulate a PIE 12-syllable line. A comparison of the 11-syllable Greek saphic verse with the 11-syllable trigubh form of Old Indic verse yields a PIE 11-syllable line. One can descend in length with the 10-syllable saphic form and early Slavic verse. A shorter 8-syllable line has also been attributed to PIE and this may be found in the traditions of the Romans, Balts, Slavs, Greeks, Anatolians, and Indo-Aryans. Here we find, for example, verse expressed in lines of seven or eight syllables, with a caesura dividing at 4 + 4 (or 3) or 5 + 3 syllables, e.g., the opening of the first hymn of the Rigveda (agnim ile 1 purohitam, i.e., 4 + 4). The problem with all of these "comparisons" is that they are not in the strict sense "reconstructions" as one employs the term in the comparative method in linguistics, i.e., unlike the comparison of two cognate words, there is no guarantee that lines of poetry in two different IE stocks are necessarily "cognate" or inherited from a proto-form; other than a number of phrases we simply lack cognate lines of PIE verse in two different major language stocks.

There have been attempts to go beyond the specific to the more general in describing the main tendencies of IE oral poetry. For example, irrespective of the number of syllables, it has been suggested on the basis of Greek and Old Indic poetry that there are at least stable patterns such as a constant number of syllables per line, a uniform succession of short and long syllables, a break within the longer lines of verse forms. However, even all these can be reduced to oft-observed general tendencies but not necessarily norms of their respective stocks to say nothing of PIE.

Poetic Diction

Studies of oral tradition have uncovered evidence that the poet frequently uses certain groups of words in his poetic diction that may be employed under the same metric conditions. These phrases, such as the frequent reference to Agamemnon in the Iliad as the  ἀγας αὐθήρων 'lord of men', form a specialized poetic vocabulary or set phrases which the poet may insert whenever he requires the filling out of a particular meter. Although no single line of PIE verse has so far proven to be recoverable, there is at least a body of brief phrases or formulae that may be assigned varying degrees of IE antiquity. In general, the sources offering evidence for PIE phrases are to be found in the earliest and highest register of the poetic traditions of several IE stocks. In Germanic, this is to be found in the Old Norse Eddic poems, in Italy there is early Latin poetry and the Iguvine tablets of the Umbrians, in Greece the Homer tradition is of primary importance although there are other sources of early Greek verse, in old Iran the Avesta and in India the Vedas.

Of the reconstructed PIE formulae, one of the earliest discovered and certainly among the most important are those phrases that are associated with the subject of poetry itself and are built on *klegos 'fame' which is derived from *kleu- 'hear', indicating that 'fame' derives from that which is heard, that is, what has been related by the poets. Hence there is PIE *klegos ὑδήγων hitom 'fame everlasting' (Grk κλέος ὑσθέον [cf. Myc a-qi-ti-ta as a personal name derived presumably from something like *ak*hitto-klewejja], Olnd stravas...aksitam; cf. Olr cīta 'fame'). We find *klegos in several other recurring formulae. Not all of these have an exactly reconstructible PIE shape, but the general collocation is certain. Thus a related formula is *'famous of name' (Grk ὀνομα-κλητος [cf. the personal name Ὀνυμακλήτης], Olnd šruyma nāma, Točh nôm-kalwāts, Točh nêm-kalwyē). PIE *klegos yera 'wide fame' (Gaul Verucloetius, Grk κλέος εἰρύ, Olnd urugyātum...sravo), PIE *klegos megbh, 'great fame' (Grk μέγα κλέος, Olnd maḥi sravah; cf. Olr cīta mōr 'great fame', ON mikil frægo 'great fame'), PIE *having fame from
Poetry

As we have seen, the 'fame' acquired or celebrated is generally held to have concerned the heroic deeds of warriors, i.e., PIE *kléyos yéswa- *kléyos jéswa 'possessing great fame' (Illyrian Veselcev-; Grk Εὐκλήεις, Olnd Sustrāva-; cf. OIr sochla (< so-clu) 'of good fame', Av vavahāhāravaḥ) and PIE *'acquire fame' (Grk κλείειν κατάθοισθαι, Olnd śravāh dāh). One could also acquire a bad repute and terms for this may also be extended into IE antiquity, e.g., *dus-kléyες- 'having bad repute' (Grk δυσκλήέεις, Av dus-śravahvāyā-).

The word for 'name' also provides the basis for a series of formulae which may be attributed to IE antiquity. The very act of naming is expressed in PIE *h₁mēsmp dhēj- 'give a name' (O Czech dieti jmě; Hit lāmnā dā-, HierLuv atamain tuha, Av nāman dā-, Olnd nāma dā-, TochB nem ŏc). There is a striking Germanic-Indo-Aryan correspondence in the formula *priyom h₁mēsmp 'one's own name' (OE héo nama 'surname', Olnd priyam ...nāma 'own name'; cf. also the divine epithet *having many names' [Grk πολυώνυμος, Olnd puruṁarnar-]).

More directly, indeed redundantly, we find the expression PIE *yek-wo yek-. 'speak a word' (Grk ἄγω πτείνω, Av uxtā vačē; Olnd avocāma ...vāca-). The poet may also employ his skill to make 'sweet speech', i.e., PIE *sueh₂-djē -yekw-. (Grk ἱδειν- [Doric] ἱδειν-, Av hvačah, Olnd bevascas) (cf. also Grk meýglososos, Olnd mādhujhiva- both 'honey-tongued'). In prayer, the invocation of the priest may begin *kladh mi 'hear me' (Grk ķλαθι μου, Olnd śrudhe me; cf. Messapic klaθi 'hear').

One phrase of poetic diction concerns the spiritual property of the hero who acquires fame. This heroic property is embedded in the concept of *menes- 'strength', but not so much physical as mental inspiration, that motivates and enables the hero to accomplish great deeds. It can be found alone or used in such constructions as PIE *ishrōm menos-'sacred strength' (Grk ἴσθρομ μένος, Olnd istēpa ...mānasa) which indicates how this 'strength' is divinely inspired. Other constructions built on this word include both the positive possession of such strength, i.e., PIE *jēswa - *h₁jēswa menos 'good thought' (Myc [personal name] E-u-me-ne, Grk εὐμενής - μένος ἦν, [personal name] Eýmēνη, Av vohu manah-humanah, Olnd sumanahs, [personal name] Vasumanasa-) and its opposite *dus-menes- 'bad thought' (Grk δυσμενής, Olnd durmanās).

Phrasal or epithetic echoes of the types of deeds one accomplished to win fame are also preserved. For example, we may reconstruct a PIE *h₂sram 'man-killer' (Myc [proper name])-A-no-go-ta, Grk ἄνδροφόνος [epithet of Hektōr, Av ānjarā, Olnd ṇ-han- [epithet of Rudra], cf. semantically related concepts in Celtic, e.g., OIr oirgnach 'man-killer', an epithet of the hero Connall). One of the central deeds of the IE warrior-hero is the slaying of a serpent/dragon which is preserved in the phrase *h₂jēswa *hōg 'him he killed the serpent' (Grk κτείνειν ὄφιν 'he slew the serpent' [with the substitution of a different verb, though tēφυν ὄφιν with the inherited verb was surely possible, just not attested] or Hit illuyanka kwenta 'he killed the snake' [with a new noun]: Av janāt ažīm [who] killed the serpent], Olnd ādhana 'him he killed the serpent'; cf. Olr gono mil 'I slay the beast'.

Other formulae are associated with deities and the celestial world. The most famous is the epithet of the deity of the open sky, PIE *dhēus pūrē 'sky-father'. (Lat lāptēr- lāptītēr, Umbr jupater, Illyrian Dei-pātvōs, Grk Zeus κατηρ). Olnd dyatūs pitā, d. Luv tātis tvād 'daddy sky', Palaic tyza ...pāpaz 'sky ...papa'). The concept of solar disc or wheel appears embedded in IE tradition where we can reconstruct PIE *sun's wheel (ON sunnu ...hvēl, Grk Hλίου κύκλος, Olnd sārās cakra-) and there is also a clear association between the sun and horses in Greek, Avestan and Old Indic tradition. The sun is also depicted as a watcher of the affairs of humankind, i.e., PIE *seh₂wēŋom ...spokom 'sun ...watching' (Grk Ηλίου ...σκόπον, Olnd sārāyam ...spāsam) and this metaphor of the 'sun' as a great 'eye' is retained in Olr stīl 'eye' (etymologically 'sun'). A deity may be a PIE *dehōr weseŋom 'dispenser of goods' (Grk [voc.] δότωρ εἰδών, Av vohunam datātō, Olnd datā vāsūnām). There is evidence that the goddesses might be given the epithet PIE *dhug(h₂)ēr ādōs 'sky-daughter': Lith diēvo dukūte 'Sauley' (daughter of the sky), Grk θυατήρ Διός 'sky-daughter' (epithet of Aurora, the dawn), Olnd duhita divā 'sky-daughter'; cf. also Lith sāules dukute 'sun daughter', Lat saules meita 'sūsmaid', Olnd duhita sāryasa 'daughter of the sun'. Another epithet of a deity is PIE *h₂jisuo-ghesç-hiv 'having an arrow in the hand' (Grk Ἰαὐσεράρα [epithet of Artemis], Olnd și-hasta-).

There are a number of formulae of poetic speech employed to describe both the earth and life. The earth itself would appear to have born the epithet 'broad' and hence we find the formula PIE *dhiqhom-pth₂- 'earth-broad' (Grk εὐπέρτα ἄξον, Av zem pātāwā, Olnd ksa ...pθh(ā)tvām, cf. ON löld, OE folde  [< pθh₂-θh₂- 'broad'] 'earth'). The earth might also be described as 'dark', i.e., *'dark earth' (OIr domun donn, Hit (abl.) dunktāya tagnāz). Human settlement might also be described as 'broad', e.g., PIE *urīt seδos 'broad seat/place' (Grk εὑρωδής, Olnd ura ...sādas). The formula which would
embrace all living beings appears to be PIE *'bipeds and quadrupeds' (Umb dupursus petpurpus, MPers dāpādān ...čaharpādān, Olnd čārūspadām ...dvipadām) or the semantically similar PIE *'uthrō-pekū' 'man and beast' (Umb uiro pequo, Lat pecūdāsce vīrōsque, Av pasu vita). This latter expression has been regarded as a component of a still longer verb phrase *'uthrōs pekū(e)h2 peh2- 'protect men and livestock' (Lat pastores pecuaque salua servassia, Umb uietro pequo ...salua seriitu [where the Italic dialects have replaced *peh2- 'protect'], Av ἥθραρι πασών ἴταται, Olnd ῥάγανταμ ...πυρευμαν πάσσαι [where *peh2- has been replaced by *terh2- 'protect' in both languages and Old Indic has innovated on the word for 'man']).

The concept of belief is embraced in the formula *'kre-dhēh1 'believe' (< *'put heart' (OIr creidi, Lat credō, Hit k(a)ratan dāi-, Av trazda-, Olnd ārādha). Other actions with a poetic resonance include PIE *'umhi-duhōs meign- 'standing upright' (Grk ὀψθές στέγαι, Olnd ūrđhvāh stāh-), here applied to the hero or deity although we also have *'urinate upright' (Grk ὀψθές ὀμέγειν, Olnd mekāsama ūrđhvāh). Another expression of at least late PIE date is *'dīghō-h2-ōjō 'having a long life' (Grk ὅλης ἔργων, Av darājām āyā, Olnd dirghātyu-).

With reference to animals, horses and dogs were singled out for special poetic heart. We find, for example, PIE *'h1e-kūsōs *h2-e-kūsēs 'swift horses' (Grk ὀκτέες ἵππων, Av ăsu aspa- 'possessing fast horses', Olnd āsvāsya- 'possessing fast horses') and it is frequently suggested that the very word for horse derives from the adjective 'swift'. With a different root, the same concept is to be found in PIE *'h2-gėrōs h1e-kūsōs 'swift horses' (Grk ἵππων...ἀργοί, Olnd ērās...āsvaś; cf. Av arazrāspa- 'who has fast horses'), PIE *'h1su-1e-kūsōs 'having good horses' (Grk ἐὖπος, Av ἰδεσπο). The dog is clearly associated with the defense of flocks, e.g., PIE *'peku-sergōs 'guarding livestock' (Lat servat pecus, Av pasus haurvā-) and, like the horse, was also prized for its swiftness, i.e., PIE *'h2-gērōs k(ǔ)gōn 'swift dog' (Grk κύνας ἀργοὺς, Olnd ῥήσαν- 'having a fast dog'; cf. also *'Αργος, the dog of Odysseus).

Finally, we uncover chance reflexes of formulae that describe practical pursuits, e.g., PIE *'dhiēgti pēği (k-ē) 'shapes and paints' (Lat pictus pictus, TochA tskeši pekesi).

See also NAME, POET, PRAISE. [J.P.M.]

Further Readings
Pisa, Giardini.

Cambridge, Mass., Harvard University Press.

Wiesbaden, Harrassowitz.


See also BARLEY, SPEAR. [D Q.A.]

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POITNO

*heRDhīs 'point'. [IEW 63 (*är-đh-)]. OIr arit- 'point, direction', ON ert (Proto-Gmc *artjan-) 'to goad', Grk ἄρδης 'arrowhead', cf. Olnd āl- (*är-đ-)'bee' (< *'having a point'). The geographical distribution suggests PIE status.

*bhRSTI 'point'. [IEW 109 (*bhṛṣṭī)]; Wat 5 (*bhar-); BK 4 (*bar-/*bhr-). Olr bhar 'point, tip', Lat fastīgo 'make pointed, bring to a point', fastīgium 'top of the gable, gable end, pediment', ON burst 'bristle', OE byrst 'bristle' (> NE bristle), OHG burst − burst 'bristle'. Rus borśč 'hogweed', Olnd bhṛṣṭī 'point'. Widespread and old in IE.

See also BARLEY, SPEAR. [D.Q.A.]

POISON

*uīs- *uīs (gen. *uīsōs) 'poison, poisonous liquid (e.g., snake venom or poisonous sap)'. [IEW 1134 (*ūīso-s), Buck 4.899]. Mlr fī 'poison', Lat virus 'potent liquid, poison, venom', Grk ὕπο 'organic fluid) poison; stagnant smell and taste', Av viš(a)- 'poison', Olnd visā 'poison', TochA was 'poison', TochB wase 'poison' (Toch < *ūīso-). From *'uēs= 'flow (slowly), ooze (out)', other derivatives of which appear in Wels gwýar 'blood', ON veisa 'swamp', OE wēse 'mud'.

See also FLOW. [D.Q.A.]

POLECAT

*kek- 'polecat (Mustela putorius) (+ 'marbled polecat (Vormela peregusa)'). [IEW 543 (*kek-)]. Lith šęškas 'polecat', Latv seks 'polecat', Olnd kāsa- 'weasel', kasikā- 'she-weasel'. The exact meaning of this word in IE is not clear, but its distribution suggests at least late PIE status.

In addition to the otter, badger and wolverine, the mustelidae also include the martens, the weasel and the polecat, among which there seems to be considerable lexical confusion. The polecat is found over most of Europe (except Ireland, northern Scandinavia, and Greece), Kazakhstan, and south to Kashmir but this same area also embraces that of many other mustelids as well and that overlap may account for the shift of meaning between Baltic and Old Indic.

See also BADGER, MAMMALS, MARTEN, WEASEL. [D.Q.A., J.P.M.]

POLTAVKA CULTURE

The Poltavka culture is the early to middle Bronze Age culture (c 2700–2100 BC) of the Volga-Ural steppe and forest-steppe. Culturally, it continues the earlier steppe traditions of the Yamna culture and precedes that of the Srubna or Timber-grave culture; in some archaeological systems it has been regarded as the early phase of the Srubna culture. It is roughly contemporary with the Catacomb culture of the Dnieper-Don region.

The Poltavka culture distinguishes itself from its Yamna predecessor through its ceramics (now flat-bottomed rather than pointed or rounded-based) and the marked increase in metallurgy, particularly that drawn from local metallurgical centers in the southern Urals. In addition to local sources, there is evidence of north Caucasian influences seen in gold...
and silver rings and bronze axes which ultimately mirror forms from the area of the Maykop culture. The rise of metallurgy is evident in the more conspicuous display of ornaments and weapons in Poltavka burials which is seen to signal increasing social stratification.

Settlements are exceedingly rare and largely confined to scatters of Poltavka ceramics on sand dunes in the lower Volga region. The culture is known almost exclusively from its burials situated in cemeteries along river terraces. The deceased was interred on his or her (left) side or back, head oriented to the NE; in some instances the body was covered with ocher although not so frequently as in the earlier Yamna culture. Grave goods included pottery, metal objects (knives, axes, ornaments) and occasionally stone scepters. The burial pit might have a timber cover. The burials themselves were generally inserted into the kurgans (tumuli) of the earlier Yamna culture.

The Poltavka culture not only marks the local development from the Yamna culture to the later Srubna culture but also partially underlies the development of the Potapovka culture of the middle Volga region. In general, it is seen then as a culture ancestral to some of the earliest archaeological reflections of what are generally presumed to be early Indo-Iranian cultures.

See also Indo-Iranian Languages; Potapovka Culture; Srubna Culture; Yamna Culture. [J.P.M.]

Further Reading

POTTY

*mehtar- 'poppy (Papaver spp.).' [IEW 698 (*māk(en)-); Wat 38 (*mak-)]. OHG maho - mago (*mēkko- and *mēkko) 'poppy', OPrus moko 'poppy' (if not a loanword from Slavic), OCS mako 'poppy', Rus mako 'poppy', Grk mοκαυος (Doric μοκαυος) 'poppy'. When taken together, these forms suggest a PIE paradigm of nom. *mehtar, gen. *mehtar. Certainly a late word of the west and center of the IE world.

The poppy was probably employed initially for its oil which is extracted from its seeds which may also be consumed. The oil can be used both in food and industrially. Nevertheless, knowledge of its use as a pain killer, where opium could be extracted from its unripe capsules, may also be quite old. The form of wild poppy that is predecessor to the domestic form is Papaver setigerum, a plant generally confined to the west Mediterranean. It is not known from early Neolithic contexts in either the Near East nor in southeast Europe, including Greece (where we have a cognate); Papaver is first recorded in Macedonia in early Bronze Age (c 3000–2200 BC) contexts. Other forms of wild poppy do regularly occur throughout Europe as crop weeds. Papaver setigerum appears in the late Neolithic of Iberia, southern France, Italy, Switzerland and Germany (Linear Ware culture), Poland, and Romania (Tripolye culture). It has been presumed that it was
first domesticated in the west Mediterranean and then spread eastwards. Changes in the poppy which are generally associated with domestication have been observed in remains from both Spain and Switzerland. Opium capsules have been found associated with Neolithic burials in Spain dating back to c 4200 BC. It has also been suggested that the shape of some of the vessels of the Neolithic TRB culture of northern Europe reflect the form of inverted poppy heads and they may have been employed as special ritual serving beakers. This has not so far been confirmed by evidence of their residue but traces of poppy have been recovered later in the Bronze Age from flasks from Cyprus.

See also Hemp; Henbane; Plants; Sacred Drink. [D.Q.A., J.P.M.]

Further Reading
("perg-)"). Lat pergula 'porch', ON fornkr 'pole', Lith pergas 'fishing-boat, dug-out canoe', OCS pragu 'threshold, doorstop', Rus porog 'threshold'. Northwest dialectal isogloss in late IE.

*steg- 'pole, post'. [IEW 1014 (*steg-); Wat 65 (*ste-); Buck 10.87; BK 135 ("t'aq/-"t'aq-)"). Lat tignum (< *teg-no-) 'building materials, log, post, beam, ON stjaki 'post', OE staca 'pole', OHG steicho 'club, post', Lith štągasara 'long stalk', Latv stęga 'long stalk', OCS stęžera 'pivot', Rus stozár 'pole'. Perhaps Arm t'akn 'club' belongs here as well. A word of the west and center of the IE world. This is related to the word for 'roof' and perhaps we may ascribe to *steg- 'cover with poles' and thus presume a metonymic shift to 'pole' and 'to roof' as nominalizations of the original root.

*reh₂t 'post, pole'. [IEW 866 (*rēt-); Wat 54 (*rēt-)]. Late Lat (pl.) rētē 'trees pushing out from the bank of a watersourse, ON rōda (o-grade) 'pole, cross, holy picture', OE rōd 'cross', gallows (> NE rood), OHG ruota 'switch, pole', OCS ratiste 'spear-shaft' (Gmc and OCS < *rohi₂t-). Northwestern regionalism in late IE.

*Rkam- (< *Rkh2am-?) 'pillar, post'. Myc kíwo- 'post, pillar', Grk kív (free-standing) pillar, Arm swm 'pillar, seamk (pl.) 'doorjamb'. Distribution suggests a Greek-Armenian isogloss of late IE. Possibly derived ultimately by laryngeal metathesis from *Rh₂am- which would derive from *keh₂m- 'sharpen', i.e., a pointed pole or stake, and hence the noun would derive from an adjectival form *Rkh₂m- with retraction of accent.

*steb₂hvers- 'post, pillar'. [IEW 1012–1013 (*stabh-s); Wat 65 (*stebh-)]. Mīr sab (< *stebh₂vers-) 'post', ON staft 'staff', OE steₜ 'staff' (> NE staff), OHG stap 'staff', OPrus stabis 'stone', Lith stābas 'post', Latv stabs 'pillar'. Similar is Lith stābaras 'dry branch, stalk', OCS stobora 'column'. A nominalization of *stebh₂- 'stand'. A word of the northwest of the IE world.

*stebₜh₂yur (gen. *steb₂humós ~ *steb₂h₂nomós) 'post'. [IEW 1009 (*stau-ro-); Wat 64–65 (*stā-); Buck 10.86]. ON staor 'post', Grk σταυρός 'post, cross' (ON/Grk < *stebₓh₂ur-), Shughnī sitān (< Proto-Iranian *stunā-) 'pillar, post', Olnd štōnā- 'pill, post, column', with a new full grade we have OE stōr 'steer, guide, direct' (> NE steer), OHG stūra 'steering-oar'; post. Derivatives include Arm svar 'thick', Olnd stāvarā- 'fixed, immovable, permanent', sthūrā- ~ sthāvāra- 'thick, strong, big'. Attested as it is on the geographical spread of the IE world, this word is of PIE date. From *stebh₂-, an enlargement of *stebh₂- 'stand'.

*stelₜh₂r- 'post, support'. [IEW 1019–1020 (*stel-); Wat 66 (*stel-)]. OHG stullo 'support', Grk στήλα (< *stalnā) 'pillar'. Nominalization of *stel- 'stand'. Cf. also ON stalti 'stand' from PIE *stalnos. A word of the west and center of the IE world.

*sver- 'post, rod'. [IEW 1050 (*sver-); Wat 68 (*sver-)]. Lat surus 'twig, shoot, stake', OE sver 'post', MHG swir 'mooring post', Grk ἔσπαρ (< *stérmp), support', Olnd svårū 'sacrificial post, stake, long piece of wood'. Though attested sparsely, the geographic spread of those attestations would seem to guarantee PIE status, even though the exact PIE form cannot be reconstructed.

*wałs₂ 'stake'. [IEW 1140–1142 (*uel-); Wat 73 (*walso-)]. Lat vallus 'pole, stake, palisade', Vallum 'rampart set with palisades', Grk ἡλκος (Doric ἄλκος) 'nail'. The only late attested OInd vāl - vālaka- 'pole, beam' are sometimes also put here. Related are the Germanic words reflecting *valu- ON völ 'round staff', OHG walu 'strip left by a blow, wale (> NE wale), MHG wal 'staff', Goth wals 'staff'. A word of the west and center of the IE world.

*ghal₂he₂h₂- 'pole, stake'. [IEW 411 (*ghal₂h₂-)], Wat 21 (*ghal₂h₂-). ON galĝ 'gallows', gelĝ (< *ghal₂he₂h₂-) 'pole, stake', OE gealga 'gallows' (> NE gallows), OHG galgo 'gallows', Goth galga 'stake, cross', Lith žaša 'long thin pole'. Latv žaļa 'long rod' (borrowed from Lithuanian), Arm jalk 'twig, switch, rod' (the -k- rather than the expected *g- is not well explained, perhaps < *ghal₂he₂h₂-). Certainly a word of the northwest of the IE world, also the center if Armenian belongs here too.

*gĥas₂hos 'rod, staff'. [IEW 412–413 (*ghasto- ~ *ghadh₂h₂-)], Wat 21 (*ghasto-); Buck 20.26. Mīr gat 'willow white', Lat hasta 'spear', Umb hostatu 'armed with a spear', ON gaddr 'rod, goad, spike', OE gierd 'staff, twig, pole; measuring rod' (> NE yard), OHG gartia 'pole', gart 'goad', Goth gads 'sting'. A word of the IE west.

*sk₂₂lōs 'stake'. [IEW 924 (*sk₂₂lō-)], Wat 59 (*sk₂₂l-). Lith kulos 'pole, stake, post, pole', Alb heli 'spit, skewer', Grk σκόλως 'pointed stake'. A word of the center in later PIE. From *(s)kel- 'cut'. Similar in meaning but with a short vowel is OCS kol 'stake'.

*pin- 'shaped wood'. [IEW 830 (*pi-)]. OHG witt-lina 'heap of wood', OCS pint 'tree trunk', Rus peti 'stump', Grk πίνης 'plank, tablet', Olnd pinaka 'staff, bow (especially of Rudra)'. The geographical distribution would seem to guarantee this word's PIE status. The agreement of the Indic and Greek in terms of form is noteworthy. The precise meaning of this word is difficult to establish.

*stap₂- 'off cut, piece of wood'. [IEW 1034 (*stre-p-); Gl 102]. ON stavfr (with new lengthened grade) 'stump', OE stōmn 'trunk, stem, branch, shoot, Latv stups 'worn out broom', Grk στῦμος 'stick, post, pole, stalk, stem', Tocha stàp (< *stap₂-) 'club'. Widespread and clearly old but the exact form and meaning are elusive. From *stap₂- 'strike'.

Although this semantic field is well represented with terms of some IE or PIE antiquity, the precise meaning or even use of many of the reconstructed proto-forms is very difficult to recover. It has been argued that the ritual use of the Hit sarhultu(ś) and Gk kurtakki - 'ritual post', posts by which sacrificial offerings are deposited, finds earlier parallels in the Neolithic cultures of the Balkans where timber and plastered posts have been uncovered in ritual shrines in Romania. Furthermore, the possible antecedents of Myc ki-wo 'pillar, post' have also been sought in later Neolithic Greece where there is evidence of free-standing posts in presumably ritual contexts. However, there is no evidence that the Hittite terms
are reflexes of PIE words and the Mycenaean word for ‘pillar’ is confined to a Greek-Armenian isogloss. Whatever similarities one might wish to posit between later cultic practices and those found during the Neolithic period rest solely on surface similarities (of widely distributed ritual behavior) and not on linguistic evidence.

See also House. [A.D.V., D.Q.A., J.P.M.]

Further Readings


POT

*k2em-* ‘hold on to, contain’. [IEW 35 (*am-*)], Mayrhofer 196], Grk ἀργόν ‘waterbucket, pall’, Arm aman ‘container’, Khot ḫanda- (< Proto-iran *āmata-) ‘jar, pot’, Olnd amatram ‘a large vessel’. Perhaps Lat *ampla* (< *h2em-θeh₂₃-* ‘handle’ also belongs here. The Old Indic vessel is described in Vedic literature as a deep bowl with a wide opening which served both for drinking and eating. Certainly found in the center and east of the IE world and in the enlarged form, *h2ems-*, even more widely (see ‘Handle’, ‘Reins’, ‘King’). Cf also *h2em-θeh₂₃- ‘wagon chassis’. However, the actually described vessels look to be all independent creations in the stocks in which they occur.

*kumbo/eh₂₃- ‘bowl, small vessel’. [IEW 592 (*kum-bh-*)], Wat 30–31 (*Keu-); Buck 5.26.7. Mr ir cim ‘pot’ (cf. MWels cwm ‘valley’), Grk κυμή ‘bowl’, Av xumha- ‘pot’, Olnd kumbhabi- ‘pot’. Either from *keu- ‘bend’ or a loan because of the uncertain aspiration of the initial and the final bilabial. The Olnd kumbhabi- (mas.) was a jug for holding water, honey or other fluids and occasionally might be used as an urn for the deceased. It was employed in ritual, especially one which involved the sympathetic drawing of water down from the sky. The Olnd kumbhi- (fem.) was similarly employed for holding liquids. It could be covered and might also serve as an urn.

*k2erus ‘large cooking pot, caldron’. [IEW 642 (*kwe-r-*)], Buck 5.27.3; BK 327 (*)kʷer[-/*kʷær-]). ON hverr ‘caldron’, OE hwer ‘pot, kettle, caldron’, OHG hweer ‘caldron’, Olnd caru- ‘caldron’. Also, Olr coire ‘caldron’, Wels pair ‘cauldron’ from a derivative *kʷaros or *kʷar-*, cf. ON hvorna ‘pot, head’; if related, TochB keru ‘drum’ is an o-grade (i.e., *kʷor-*). The underlying form is not derived from a productive stem and the geographical separation assures PIE status.

The Celtic terms (Olr coire, Wels pair) generally refer to a large metal caldron and in early Irish and Welsh literature, such a vessel plays an important part in mythology which is replete with magic caldrons which may satisfy all and even rejuvenate the dead. Old Norse similarly had a magic caldron (hverr) whose acquisition by the gods is recorded in the Hymiskviða. In general, the underlying referent is a large metal vessel suitable for boiling or brewing. The Olnd caru- was a cooking vessel that might be made out of metal (ayas-) or of clay. Since the word appears to be PIE, it is easiest to assume that the ascription to a specifically metal caldron was a later semantic development made in western Europe. Here, from the later Bronze Age, i.e., c 1200 BC onwards, we find the production of bronze caldrons from central Europe to Britain and Ireland. An alternative possibility is that the term referred to a metal caldron already by late PIE. Bronze caldrons are known, for example, from the Maykop culture of the north Caucasus dating from the period c 3000 BC. One of these had an estimated capacity of seventy liters.


*poth₂(g) ‘gen. *poth₂nd-s ‘shallow dish’. [IEW 824–825 (*pe-t-*)], Buck 5.28. BK 38 (*p[ʰ]al[ʰ]-/*p[ʰ]al[ʰ]-). Olr an ‘drinking vessel’, Grk πάππη ‘bowl, flat dish’ (borrowed > Lat patera ‘low bowl, saucer, libation-bowl’, patina ‘broad, shallow dish, stewpan’), Hit ḣ₂ḫar ‘± dish, vessel made of ossiers or wood used for holding dry material but not liquids’. The archaic morphology (i.e., the remains of an r-stem) strongly suggest PIE antiquity for this word. From *peth₂- ‘spread out’.


*h₂juk-ik ‘cooking vessel’. [IEW 88 (*teθk(h)u-*)], Gl 613; Buck 5.25.2, 5.26.2. With older, marginal *kʷs*- *p*- ON otn ‘oven’, OE ofnet ‘closed pot’, olen ‘furnace’ (> NE oven), OHG oñen ‘oven’, OPnus wumpinis (< *up-ni-with anticipatory nasal) ‘bake-oven’, Myc i-po-no ‘cooking bowl’, Grk ἵσσων ‘oven’, Hit ḥ₂ḫpar(a)- ‘bowl, pot, keg’ (also a unit of measure). With innovative delabialization after [u]: Lat aula ‘pot’, Goth auθins ‘oven’, Arm akut ‘hearth’, Olnd uńka- ‘cooking pot’. A very old PIE construction with a delabialized variant of *h₂juk-. The Olnd ukh₂₃- (mas.) and ukh₂₃- (fem.) were clearly some form of boiler in the feminine form, one of the most frequently cited ritual vessels in Vedic religion. As such it was specifically hand-made rather than wheel-made which attests to its antiquity (wheel-made vessels, such as those produced by the earlier Harappan culture, were regarded as ‘demon-made’ and unsuitable for Vedic ritual). The manufacture of vessels for sacrifices was attended by considerable ritual. From abundant descriptions in later Vedic literature the vessel was generally round with a flat bottom although occasionally described as nine-cornered. It was built up from three or five clay strips and had a base-diameter of about 24 cm and stood between 24 and 40 cm high with a mouth
Pot

...form may be borrowed from Old Norse 'pot'. [IEW 989] *(s)pndh(n)os* 'wooden vessel'. [IEW 989] *(s)pndh-). ON spann 'pail', MHG spän 'wooden vessel', MDutch spaen = span 'wooden pail' (Gmc < *(s)pndhinos?), Lith spandis 'pail', Latv spānis 'pail, a kind of wooden honey-container', OCS spođa 'measure (of grain)', Arm p'und (< *phondho-') 'pot'. It is not certain that the words gathered here all belong together (the Germanic words might otherwise be grouped with OE spann 'span' for instance). If they do, we have evidence for a word of the west and center of the IE world.

**?**égh(e)trehp- 'pot'. Thracian *çetrah* 'pot', Grk *çtrpa* 'pot'. So little is known about Thracian that we cannot be certain that the attested Thracian word would be the regular descendant of the proposed PIE pre-form. In any case, the divergence in ablaut grade (Thracian presupposing *-e/u- and Grk *-u-*) makes it clear that if the two are related, the relationship rests on the basis of inherited morphological elements rather than mutual inheritance of a particular PIE word.

**Ceramic terms in the Indo-European languages were highly susceptible to borrowing, especially in the Mediterranean.** There are, for example, words which have long been recognized as loans from non-Indo-European populations in the Near East into individual Indo-European languages, e.g., Hebrew kad 'bucket' and Grk kado 'large vessel', Lat cadus 'large vessel, wine-jar, jug', OCS kad† 'cask, barrel, tub' (dialectally also 'a measure for grain'), which suggests progressive loans across the Mediterranean and northwards. These may date from the first millennium BC when Phoenician traders dominated much of the Mediterranean exchange routes and were in contact with Greeks through their colonies in Cyprus and Sicily. Possibly the loans date to an earlier period as there is also evidence for exchange between Greece, Crete, and the Levantine coast in the later Bronze Age, i.e., in the mid second millennium BC. These loans may then have penetrated northward via the Greek colonies in the west Mediterranean who were in contact with the Celts of southern France (who acquired both wine and the vessels associated with its consumption from the classical world) or later by way of the Roman expansion across Europe. In some cases the chain of loans may begin with an Indo-European language: Grk ámuropon 'wine jug' was borrowed into Latin amphora 'two-handled vessel, pitcher', and then on into Germanic, e.g., OE ambar 'vessel, pail, tankard, pitcher' (a dry or liquid measure [= four bushels?]?), OHG ambar 'pail, vessel'. Finally, there are the terms listed above that appear to have some antiquity in Indo-European.

**Archaeological Evidence**

The production of ceramics in southwest Asia began c 7000 BC and they are known in adjacent territories such as Greece from c 6500 BC and by the sixth millennium BC pottery begins to appear both north of the Black Sea and in Baluchistan. Ceramic technology crossed Europe with the spread of farming communities and reached the far northwest c 4000 BC. The
Pot a. Shallow wooden bowl from Catal Hüyük; b. Wooden bowl from Çatal Hüyük; c. Pointed-based pot from the Dnieper-Donets culture of the Ukraine; d. Handled cup from Baden culture; e. Stone bowl of Surški culture, Ukraine; f. Corded Ware beaker; g. Bronze caldron from Maykop culture; h. Corded Ware amphora; i. Kitchen vessel from Neolithic Greece; j. Painted ware bowl from Neolithic Greece.
terms for ceramics then have a lower date of about the seventh millennium or more recent, depending on the location of the Proto-Indo-Europeans or, possibly, the communities from whom some Indo-European groups adopted ceramic terms. That the etymology of some of the terms for vessels may be associated with organic containers, e.g., *bhidh- perhaps from baskerly, *pel(h)jel'uis possibly from a skin container, or *teΧsteh- from wood, occasions no surprise since all these materials were employed prior to the invention of clay-fired pottery. It should be emphasized though that containers made of organic materials do not necessarily relate to the invention or initial contact with ceramics by Indo-Europeans since such containers were also used concurrently with ceramic vessels throughout the Neolithic and on into subsequent periods. Their use is archaeologically evident in areas permitting the preservation of organic remains such as the Swiss lakeside settlements of the Neolithic that have yielded abundant evidence of vessels ranging from large oak tubs to smaller birch-bark cups. A large domestic industry of organic containers can be assumed to have existed across Eurasia. In a few instances regions that previously employed ceramic vessels appear to have abandoned them, e.g., Ireland where clay vessels seem to disappear by the Iron Age and other than very rare imports, the only clay vessels known from the early medieval period, the time of our earliest Irish texts, were confined to the northeast of the island. Hence the Irish terms for vessels are usually in reference to those made of either wood or metal which suggests a later semantic shift, cf. the German and Celtic terms associated with *kʰerus which generally relate to metal caldrons of the late Bronze Age (c. 1200 BC or later) rather than ceramic vessels. There are also a series of terms that refer to both vessels and the human skull, e.g., Latin cuppa 'beaker' but MHG kopf- 'koph 'skull', or ON hvern 'caldron' but Goth hvaimer 'skull'.

Any attempt to utilize the lexical evidence to support a particular homeland theory rests at best on exceedingly contestable evidence. In terms of ceramic form and technology, those words that appear to be the most strongly attested generally offer semantic fields too vague for archaeological identification, e.g., 'container' or 'bowl'. Broadly speaking, early Neolithic ceramic production in both southwest Asia and the Balkans employed both coarseware vessels and fine painted pottery. The Indo-European vocabulary does not directly permit the reconstruction of painted vessels (nor would we expect the survival of such terms even if they did exist). The only argument for such wares rests most tenuously on Wilhelm Schulze's observation of the parallel structure of the Tocharian tsekesi pekeesi pat arampat: Latin ficta sive picta forma both of which would render: 'beauty (or form) either fashioned or painted'. The combination of 'fashion and paint' (which in the Tocharian text specifically referred to an object carved from wood) led Julius Pokorny to assume that this rhyming formula originated with painted pottery (fashioned from clay and then painted) and, therefore, the Tocharians must themselves have originated in the vicinity of the Romans and gained their knowledge of painted pottery from the Linear Ware culture of Moravia and Bohemia (painted ceramics can be found from Italy to the Dnieper). This concatenation of assumptions impresses no one.

Although some have sought to situate the IE-homeland in southwest Asia, in so far as ceramic terminology is concerned, the only deep Indo-European-Semitic correspondence (as opposed to late Mediterranean loanwords) argued is *neh₂us 'vessel, ship', and Proto-Semitic *unw-(ar-) 'pottery vessel' which also yields words for boats in the Semitic languages. Given the antiquity of boats within Eurasia, the dissimilarity of the roots compared, the semantic distance between the terms, and the fact that the IE form can be derived from a PIE verbal root for 'swim', this 'borrowing' is hardly convincing.

GI have also suggested that PIE society knew wheel-made pottery. While it is clear that the early Indo-Europeans did know the wheel, there is no certain indication that it was applied to the manufacture of ceramics. The slow wheel begins to appear at the beginning of the Bronze Age, i.e., c 3300 BC, in southwest Asia and southeast Europe (as well as Mesopotamia). Of interest here perhaps is the fact that the Harappan culture did engage in the mass production of vessels using the wheel while the Oldukh- 'cooking pot', which was important in Vedic ritual, was required to be made by hand rather than by wheel. This requirement suggests, at least, that the early Indians inherited a tradition of hand-made wares and regarded wheel-made pottery as foreign.

See also Basket. [M.E.H., J.P.M.]

Further Readings

POTAPOVKA CULTURE
Recently discovered and defined Bronze Age culture (c 2500–2000 BC) of the middle Volga, the Potapovka culture straddles the cultural traditions of both the European steppe and that of the southern Urals and western Kazakhstan. It is known from eleven kurgans (tumuli) comprising some eighty burial. The kurgans measure some 24 to 30 m in diameter and stand up to a half-meter in height. A typical feature is a large central burial chamber or chambers surrounded by smaller peripheral graves. Offerings such as the remains of horses, cattle, sheep/goat and dog may be found near the central burial complex. One of the most unusual ritual displays is found in one of the burials at Potapovka where an individual was apparently decapitated and his head replaced by that of a horse skull, a practice that has been claimed to be remini-
scent of the Vedic account of how the Āśvins replaced the head of the priest Dadhyānc Atharvana with that of a horse so that he could reveal the secret of the sacred drink.

The possible remains of wheels or wheeled vehicles have also been observed. Grave goods consist of decorated pottery, metal objects (twenty-one knives have been recovered along with a variety of chisels, awls, hooks and other tools); bronze ornaments such as bracelets, beads and rings are also known and, much more rarely, are found small ornaments of silver and gold. Flint arrowheads constitute the major category of stone artifact while the culture is especially marked by the presence of bone cheek-pieces (psalīa) for controlling horses.

The Potapovka culture bears many close similarities (ceramics, burial ritual, animal sacrifices, cheek-pieces) with more easterly cultures such as Sintashta and the Petrovka phase (or culture) of the Andronovo culture. Similarities are also seen between the Potapovka and Abashevo culture. Geographically, the Potapovka culture fills out the northern territory of the Poltavka culture and it is suggested that its genetic roots lie within the Poltavka with influences derived from the Abashevo and other neighboring cultures. That it is not derived from a more easterly source is argued both by the lack of a local ancestry for the Sintashta and earliest Andronovo cultures in their home region while the Potapovka culture occupies a region with a long genetic chain leading back to the Khvalynsk and Samara cultures. If this hypothesis is accepted, then there is good reason to argue a cultural trajectory moving from west to east which explains the
emergence of the Andronovo culture, one of the primary candidates for the earliest Indo-Iranians.

See also ABASHEVO CULTURE; ANDRONONO CULTURE; POLTAVKA CULTURE; SINTASHTA. [J. P. M.]

Further Reading

POUR
*gheu- 'poured'. [IEW 447–448 (*gheu-); Wat 22–23 (*ghetu-); Buck 9.35]. Lat fātis 'water-vessel, pitcher', Grk χέριων 'pour', Arm joyl (< *gheu-lo-) 'poured', Av zaodhan-'libation', zaor- 'priest, one who performs a sacrifice', OInd juhoti (with reduplicated present) 'sacrifices, pours a libation (of butter) into the fire', hōtor- 'priest, one who performs a libation', TochAB ku- 'pour', TochB kwānne 'libation'. Sufficiently widespread in its geographical attestation to be assured of PIE status. The religious associations round this verb in Indo-Iranian are striking.

*gheud- 'poured'. [IEW 448 (*gheud-); Wat 22–23 (*ghetu-); Buck 9.35]. Lat fundo 'pour', ON gjota 'throw (young)', OE geotan 'pour, flow', OHG giozzan 'pour, flow', Goth giutan 'pour, flow'. An enlargement of the previous word, found only in the west.

*seik- 'pour out~ overflow'. [IEW 893–894 (*seik-); Wat 56 (*seik-)]. OIr sīld 'flows, let flows', Lat siat (crossed with metre) 'urinates' (baby-talk), ON sīgl 'glide down or forward', OE sīgan 'sink', ON sjiga 'glide down or forward', OE sīgan 'sink', OHG sjihan 'filter, strain', Grk ἔλεγχε 'strain, filter', Av hīcāiti 'sprinkles, pours out', OInd sīcātī 'sprinkles, pours out', TochA sīk- 'overflow'. It is not clear that the Old Irish form belongs here and the shape of the Latin form is unexpected although its affective meaning, especially in children's language, may explain its peculiarities. The wide geographical spread of the reflexes of this word supports reconstruction to PIE.

*leh2- 'pour, wet, make flow'. [BK 582 (*lah-/*leh-)]. Lat lāma 'bog, slough' (< *flooded over area), Grk ἀνυός (Doric ἀνύως) 'tub, trough (for watering animals), wine-vat', Hit lahu-ti 'overflows (intr.); pours (liquids, salts, intangibles); empties (a container) (tr.)', lāhuhi- 'bottle, pitcher', TochB lātē 'flood'. Perhaps Lat lāmina (pl.) 'thin slices, layers, leaves' belongs here too if the original meaning was 'varves' (i.e., thin layers of sediment laid down by periodic flooding). The geographical distribution of the attestations of this verb assures its antiquity in IE.

See also DRAW (WATER); FLOW; LIBATION; POT; SPRINKLE. [M. N., D. Q. A.]

POWERFUL
*Kouhjros – *Kūhjros 'powerful'. [IEW 592–593; (*vouaro-); Buck 4.81]. From *Kouhjros. OIr córraid (DIL cor(ī)d)

*Kouhljros-*. Kuhlros'powerful'. [IEW592–593; (*Kuhlros-); Buck 9.35]. From *Kuhlros. OIr córraid (DIL cor(ī)d)

PRAGUE CULTURE
The Prague culture is the northwestern variant of the Prague-Penkov-Kolochin complex of the fifth-seventh centuries AD. The Prague culture extended up the Vistula and Elbe, thus occupying the former Czechoslovakia, eastern Germany, Poland, Romania, Hungary and the Ukraine. Approximately five hundred sites are known. These include open settlements consisting of twenty to thirty houses, sometimes divided into clusters of houses that have been interpreted as the residential units of extended families. Large fortified sites are also known. These include open settlements consisting of twenty to thirty houses, sometimes divided into clusters of houses that have been interpreted as the residential units of extended families. Large fortified sites are also known. Houses tend to be of small dimension and frequently include a stone built oven. Burial was by cremation in an urn or simple pit and either in a flat grave or under a tumulus. The cemeteries vary in size from several graves to two-thousand burials. The burials have been found to occur in small groups, again suggesting that the
extended family was the basic social unit. The culture probably represents the archaeological expression of the early (western?) Slavic group although some see it as the primary archaeological expression of late Common Slavic speakers.

See also Kolochin Culture, Penkov Culture, Slavic Languages. [J.P.M.]

Further Reading

PRAISE

*h₃erkʷ- 'praise'. [IEW 340 (*erkʰ-); Wat 17 (*erkʰ-); Gl 822]. OIr erc 'heaven', Arm erg 'song', OInd ārca 'praises', Hit arküwai 'explain, answer'. Cf. *h₃erkʰas 'song of praise'. Arm erg 'song', OIr ara 'tale', OInd arka- 'song', TochA yark 'honor', TochB yarke 'honor'. Widespread and clearly of PIE date. It is suggested that the Middle Iranian form *arğa- was borrowed into Finno-Ugric, e.g., Xanty ara 'song'.

*h₃eugʰwʰ- 'speak solemnly' (pres. *h₃eugʰwʰetor, aorist *h₃eugʰwʰeto). [IEW 348 (*eugʰwʰ-); Wat 74 (*wegʰwʰ-~ *eugʰwʰ-); Gl 705 (*Heugʰwʰ/Hweğiʰwʰ-)]. Grk εὐχώμαι 'pray (for)', vaunit, εὐκτος 'fame', εὐκτός 'asked', Lydian ow- 'say, proclaim', Av aofaitē 'says, pronounces', aoxta 'said', Olnd ohate 'they praise', ohas- 'praise'. Arm uezem 'wish', y-uzem 'seek' look like they should belong to this group on the basis of their meaning but offer phonological difficulties (Arm -z- should reflect PIE *-gʰ-). The correspondence between the athematic aorist in both Greek and Avestan alongside the more usual thematic formation has argued for the high antiquity of this word which is presumed to have been part of the religious vocabulary of the Indo-Europeans. The distribution of cognates suggests that it is at least late PIE.

*gʷerh₂- 'speak solemnly'. [IEW 478 (*gʷerh₂-); Wat 25 (*gʷerh₂-); BK 364 (*qʷur-/*qʷor-)]. OIr bard 'bard', Wels bardd 'bard', OPrus gurtvit 'praise', Lith girū 'praise', Latv dzirtītēs 'praise', Alb gershas 'invite to a marriage', Grk γῆρπος 'voice', Av gar- 'praise', Olnd grātā 'sings, praises'. Cf. Lat grātus 'thankful', (pl.) grātēs 'thanks', Lith girtas 'praised', Olnd gūtā-tā 'welcome'. Distribution clearly indicates PIE status.

*kʷar- 'praise loudly'. [IEW 530-531 (*kar-); Wat 27 (*kar-); Gl 176-177 (*kʰerH-)]. ON herma 'report', OE hreþ 'fame', OHG (h)rod 'fame', hrum 'fame', Goth hrōheigs 'famous', OPrus kirht 'hear', Lith ap-kerdiiu, Grk καρχαῖα 'quake', Av čarokāra- 'praise', Olnd carkarti 'praises'. Distribution indicates PIE status.

*steu- 'praise'. [IEW 1035 (*steu-)]. Grk στευται 'make a gesture or show of (doing something), promise, engage oneself, or threaten (to do something) (< *praise oneself').

*lindh- 'say', OIr lindh 'say'. Distribution suggests a late IE isogloss of the southeast.

See also Poet, Poetry, Pray, Sing, Speak. [D.Q.A.]
'ask, pray', OE *bidan 'ask, pray' (> NE bid), OHG *bittan 'ask, pray', Goth *bidjan 'ask, pray', as long as it is possible that PIE *gʷh- before front vowels can be reflected by Gmc *h-. Representing other present formations we have Lith *gadujiu 'desire', OCS *ždźa 'desire'. Widespread and old in IE.

----h₁₁₄r- 'ask the gods, consult an oracle'. [IEW 781 (*b₁₁₄r-); Wat 46 (*b₁₁₄r-); Gl 703 (*b₁₁₄r-); Buck 22.17.]

Liat *or₂ (next word) 'address, solicit (the gods)', ḍrāculum 'oracle' (next word) 'place of soliciting the gods'. Ocs urust 'he pleaded', Hit arīya- arai- 'consult an oracle, determine by oracle'. Sometimes put here is the ambiguous OInd aryati, if it means 'praises', but it is more likely to mean 'acknowledges (as lord)' and be derived from aryā-. Perhaps a bit more plausible a connection is that with Rus oru 'cry out'. Though found certainly in only two stocks, their geographical distribution would seem to assure PIE status for this word.

*b₂erun- 'pray, curse'. [Gl 703 (*arw-)]. Grk ἀριστοιν- 'pray, vow; call down curses', ἀφι 'prayer (for evil), curse'; ruin, mischief', (Arcadian) κάταπρος 'accursed', Luv htr-it-(Proto-Anatolian) *b₂erut- 'curse'. Though only attested in two stocks, the word is very likely to be old in IE.

*telh₂- 'pray'. [Gl 708]. ON *ylla 'murmur, recite a poem', pul 'string of words, and words' (next word) 'wiseman, sage, seer of sacred rituals', OE *ycle 'oracle, speaker, jester', Hit *ih- 'appeal to a god for help'. Though sparsely attested, the agreement of Germanic and Hittite would seem to assure PIE status for this word. The structure of the earliest attested IE prayers follows a formulaic pattern of 1) invocation, the addressing of the deity whose assistance is requested; 2) basis, the justification for why the deity should either be honored or interested in assisting; and 3) the request, the expression of the desired action, often given with an imperative verb at the end. For example, in Hittite, the fourteenth-century king Mursilis II prays: 'O Sungoddess of Arinna, my lady [invocation], the neighboring enemy lands which called by this sacrifice which is about to be made [request]'. In the Iliad (3.298–301) a similar structure is evident when the Greek troops pray: 'Zeus, most glorious, greatest, and the other immortal gods [invocation], whichever first violates the oaths [basis], may his and his children's brains pour to the ground [request]'...

See also Ask; Sing. [D.Q.A., J.P.M.]

Further Readings


Prepare

*sep- 'handle (skillfully), hold (reverently)'. [IEW 909 (*sep-); Gl 7328 (*sep²-); Wat 38 (*sep-)]. Grk ἔσω 'serve, prepare', μεθένο - ἐθένο 'manage [horses]', Av ḫap- 'hold', OInd sāpati 'touches, handles, caresses; venerates', sāpti 'team of horses'. A derivative *sepeljdo- is seen in Lat sepelō 'bury' (as opposed to cremate), sepulkrum 'tomb', OInd saparyati 'honors, upholds'.

*gemelh₂- 'made, prepared'. [IEW 557 (*kem())-]; cf. Wat 29 (*kema-); Buck 9 13]. Grk *κημετός 'made, worked' (e.g., ἀνδρόκημετος 'man-made'), OInd sinit- 'prepared'. From *rimh₂- 'become tired' (trans.) 'work' (trans.). As it is attested only in Greek and Old Indic, it may be a late IE isogloss.

See also Death, Put in Order. [M.N., D.Q.A.]

Press

*p€em- 'press down or back'. [VW 390]. Lat premere 'press down, press upon, squeeze', TochB pram- 'restrain, hold back'. Not widely attested but the geographical distribution of those attestations would strongly suggest PIE status for the word.


*pamak- 'press'. [IEW 698 (*mák-); Wat 38 (*mák-); Grk 548 (*mák-/*mák-)]. Lat macere 'tenderize by marination', Latv mākt 'oppress, depress', Czech makati 'press, squeeze'. Attested only in three western and central stocks, and there with clearly divergent meanings. It is possible that it is a variant of *məag- 'work with hands, form, shape' but, if so, it is both phonologically (*-k- rather than *g-) and semantically divergent.

*menk₂- 'press'. [IEW 730–731 (*menk₂-)]. ON menga 'mingle, mix, blend', OE mengan 'mix', OHG mengen 'mix', Lith minkti 'knead, touch', OCS metik'ta 'soft, delicate', Grk μάκσσω 'knead', OInd mācāte 'bruises, crushes'. The Greek form could derive from this root or *mák-, the Old Indic is not attested in texts but only in a list of verbs. Possibly related to *mák- above.

*bhrak₂- 'squeeze together, make firm' (pres. *bhrajko-). [IEW 110–111 (*bhrikʷ-)]. Wat 9 (*bhrikʷ-). Mfr brrk: 'storm, fury', Lat carco 'feed, fatten', fattus (next word) 'thick', Grk φράκτος 'knead, touch', OCS mēk'sto 'knead, touch', TochA pākār 'firm', TochB
prakte 'firm'. Sufficiently widespread to be a good candidate for PIE status despite certain phonological difficulties (*bhro-k- or *bhry-k-?).

*treud/*thruth, press (pres. *treude/o-). [IEW 1095–1096 (treu-d-); Wat 72 (*treud-); BK 110 (*thruj/*thruj-)]. OIr trom (< *trud-smo-) 'oppressive', Lat trudō 'thrust, push away', ON prōta 'tire', OE (ā-)þrōtan 'tire', become disagreeable, OHG är-driozan – bi-driozan 'oppress, trouble', Goth us-þrutan 'bother, persecute', OCS trudti 'trouble', truditi sę 'exert oneself', Alb tredhi 'castrate'. At least a word of the west and center of the IE world.


*gen- 'compress'. [IEW 370–373 (*gen-); Wat 19 (*gen-); BK 311 (*R'em/*Kon-)]. A "pseudo-root" of sorts which, enlarged, gives a large number of at least semi-onomatopoetic verbs, principally in Germanic but sometimes also to be found in neighboring stocks. Attested both in Germanic and outside of it are: (1) *gneu-in ON knjya 'squeeze, strike', OE cnāw(ian) 'pound in a mortar', cnoewian 'copolate', SC gniuvi 'squeeze', (2) *gneu− in OE cnoci− 'knock, pound in a mortar' (> NE knock), Lith gnaužiu 'squeeze something tight in the hand'; (3) *gneibh− in ON knef 'kind of pincers, knaf 'knife', OE cniff 'knife' (> NE knife), Lith gnybį − gnabai 'pinch (with fingers or pincers). Similar is the case of *ken− in [kνευg/k−[IEW 558−559 (*ken-); Wat 29 (*ken-) in OIr cnoc 'lump, ball', OBretn cnoch 'tumulus', ON knāka 'sit cowering', OE hnocc 'penis', Latv knāķis 'dwarf', Grk (Hesychius) κυνάο 'draw together'.

*puk− 'press together'. [IEW 849 (*puk-)]. Alb puth 'kiss', Grk ἀμφύς (< *ana-pukhs) 'diadem', AV pusā 'headband, diadem'. At least a word of the center and east of the IE world.

*pisd− 'press'. [IEW 887 (*pis-e-d-)]. Grk πίξεω 'press', OInd pīdāyati 'presses, squeezes'. Dialectally limited to two stocks that show numerous late isoglosses. This root has been derived either from *pis− 'crush, pound' or from *hẹp− and the root *sed− 'sit', the first appearing the more probable.

*greut− 'compress'. [IEW 406 (*greut-)]. OIr gruth 'curds, cheese', OE (with new lengthened grade) crūdan 'press, crowd' (> NE crowd). Only spuriously attested. Perhaps a dialect word of the IE northwest.

*tuengh− 'press, force'. [IEW 1099–1100 (*tuengh-); Wat 72 (*tuengh-)]. ON þvinga 'force, torment', OE tungenen 'pinch', þwäng 'thong, band' (> NE thong), OHG düngan 'force', Av ÷ažaiti (< *tuengh-sk-ε-o) 'falls into distress'. The initial t- in OE tungan is unexpected while the etymological connection with *tuengh- is very uncertain. Not clearly reconstructed to PIE.
east has thus been regarded as purely Indo-Iranian which has also been connected with ON *bragr* 'poetry' from a putative *bhregh-. Under this hypothesis the original meaning for the Indic word would have been *s* speaker of the [ritual] formula, poet, performer of sacrifices'.

**p(a)n-** + **dhek-** + **k*er-** ‘priest’ < *way-setter/maker’. Lat pontifex‘one who makes a way (to the gods), high-priest’, Olnd pathi-KR- ‘path-maker’ but also a religious title applied to priests. Although clearly not a PIE compound because of the diverse verbal element in Latin and Old Indic, it is perhaps possible that these both derive from a common underlying concept.

**?h*eug* ‘increase’ [IEW84 (*aug*); Wat 4 (*aug*). Lat augur ‘seer, soothsayer’, Olnd ojas- ‘strength, power’. In the context of Indic literature this ‘force’ is clearly associated with the warrior function and is seen as a well of energy upon which the warriors, usually Indra or the Maruts, may draw. In Latin tradition, it is the priest who may draw upon this ‘power’ and distribute it ritually within the context not only of the warrior class but also for religious or agricultural purposes. The correspondences are not wide-ranging although they do occur between two language stocks well separated in space.

**?bher-tor**‘priest’ (< one who bears [offerings?]). [IEW 129–130 (*bher-to/or*); Wat 7 (*bher-*); BK 6 (*bar-*bar-*)). Umb ars-lertur ‘priest’, Av Ira-bar-tar- ‘priest’. From *bher- ‘carry’. The Italic-Iranian agreement may reflect something of PIE age but could also be taken as independent developments.

**Indo-European Priesthoods**

Although the lexical evidence for the existence of a PIE priest is inadequate, comparative data (indicated in the accompanying table) concerning the behavior of the Indic brahman and the Roman Flamen Dialis suggests a number of correspondences concerning prescriptive behavior that hint at an earlier inherited core.

The trificial ideology of the Indo-Europeans is believed to have been inherited in the Roman priest class which was “functionally” divided into the Flamen Dialis (priests concerned with the cosmic and social issues of religious practice), the Flamen Martialis who were concerned with warfare, the army and terrestrial deities, and the Flamen Quinquinalis, who invoked the deities of the underworld to assist in protecting the fertility of the crops and similar agricultural pursuits.

**The Priest Function**

Within the system of IE ideology reconstructed by Georges Dumézil, the religious “function” in society is represented by a duality, generally represented by two deities. One of these reflects the magico-religious nature of the function while the other is more concerned with the specific application of religious sanction to human society, in particular to contracts. The underlying religious system is supported essentially by similar structural features in the mythologies of various IE-speaking peoples but generally lacks linguistic support.

The Indic evidence for this system is focused on the dual deities Varuna and Mitra whose names are given frequently in the form of a devata dvandva, a compound, such as Mitra-Varunā or, in the dual form Mitrā, i.e., ‘Mitra and the other one’. The name Varuna derives from the root ṛ- ‘enclose, confine’ and Varuna exercises his magic powers through the use of spells and snares. He is charged with the maintenance of ātā- ‘divine order’ which underlies the forces of the cosmos. He has an association with water (he later becomes a sea god and the motif of swearing by water is perhaps related to the Greek tradition of swearing by the river Styx), and this association is reflected in his specific punishment of inflicting ‘water belly disease’, i.e., dropsy. The name of Mitra, to whom only one hymn of the Ṛgveda is dedicated (RV 3.59), is related to mitrām ‘contract’ < *mi- ‘exchange’ or *mi- ‘set up, fix’. This name would comprise a semantic field involving contracts, legality, which are beneficial to mankind. He and a series of auxiliary deities are seen to insure the proper contraction of relationships, e.g., legal, marriage, in human society. The “epicization” of Indic myth, as reflected in the Mahābārata translates Varuna (who in Atharvaveda 4 4.1 is stricken with impotency) into Pāndu (who has been inflicted with punishments, pallor, and impotence) while Mitra is seen to underlie Yudhiṣṭhira, law king, who assumes the guise of a brahman in the court of Matsya.

In Iranian tradition, where the Indo-Iranian deities were reconstituted as abstractions in the reforms of Zarathustra, the magico-religious figure is seen to lie behind Ahura Mazdāh: ‘Lord Wise’, who, like Varuna, possessed the element *Asura* (in Iranian we find the compound Mīrā-Ahura, cf. Mitra-Varunā) and Varunā is also described as medhira ‘wise’, where Vedic medhā is cognate with Avestan māzdā- ‘wise’. Further support for the correspondence derives from Ahura Mazdāh’s essence, Aša Vāsiṣṭa, where the first element is cognate with Vedic rta-, the divine order Varuna was charged to maintain and Vasiṣṭa is clearly to be associated with Varuna’s son Vasiṣṭa. The second partner is reflected lexically as Mīrā which, in Iranian, originally indicated ‘contract’ like his Indic counterpart, but later developed the meaning ‘friend’ and finally evolved into a multi-purpose deity who absorbed not only Varuna’s duties, but also those of the War god and the Sun god. The abstraction Vohu Manah ‘good thought’ more properly reflects the Mithraic character in his relations to human society.

In Roman tradition, the presumably inherited IE priestly deity crossed with the Sky god to yield Jupiter whose various duties were increased to such an extent that it is difficult to isolate his original role. In general, he would seem to represent the Varunaic side of the priestly function while the Mithraic may be seen in Diūs Fidius (‘faith’), the deity who protected both the sanctity of oaths and the laws of hospitality. As with Indic literature, so also Roman mythology was encrypted in the early histories of Rome where the dual nature of the priestly function has been claimed to underlie the characters of Rome’s
first rulers. Romulus not only founded the city and served as first king but also as an augur, who established correct religious practice, was associated with the supernatural powers of priests, and whose divine protector was Jupiter. Although Numa is represented as his chronological successor, this representation is regarded as historicized myth and the second king, prominent as a lawyer, who organized the annual Fides 'contract' ceremony, is taken to be a projection of Dius Fidius.

The distinction between a god of magic and spells and another of oaths and contracts is replicated in other characters of early Roman pseudo-history. The Roman soldier, Horatius Cocles (one-eyed), one of three brothers, was forced to defeat the three Curâtii of Alba. Although the tale relates how Horatius separated each of his three opponents by pretending to flee, both the etymology of his name and his "evil-eye" are also credited with magically discouraging his opponents. His Mithraic counterpart is seen in Múccus Scaevola ('left-handed') who attempted to assassinate the Etruscan king and when apprehended, swore with his right-hand in a bed of coals to three-hundred further assassins had also infiltrated the Etruscan camp. The (false) confession associates Múccus with oaths and contracts, the domain of the Mithraic figure.

The distinction between a divinity possessing a baleful eye and another lacking a hand by which oaths are sworn is reflected to some extent in both Germanic and Celtic mythologies. Although the priest function appears to have been lost among early Germanic peoples, the functional ideology persisted and another lacking a hand by which oaths are sworn is reflected in both Germanic and Celtic mythologies. Although the priest function appears to have been lost among early Germanic peoples, the functional ideology persisted and another lacking a hand by which oaths are sworn is reflected in both Germanic and Celtic mythologies. Although the priest function appears to have been lost among early Germanic peoples, the functional ideology persisted and another lacking a hand by which oaths are sworn is reflected in both Germanic and Celtic mythologies. Although the priest function appears to have been lost among early Germanic peoples, the functional ideology persisted and another lacking a hand by which oaths are sworn is reflected in both Germanic and Celtic mythologies. Although the priest function appears to have been lost among early Germanic peoples, the functional ideology persisted and another lacking a hand by which oaths are sworn is reflected in both Germanic and Celtic mythologies. Although the priest function appears to have been lost among early Germanic peoples, the functional ideology persisted and another lacking a hand by which oaths are sworn is reflected in both Germanic and Celtic mythologies.

There are some lexical associations among these west IE stocks as Øðinn's name derives from *Wätónos 'raving, possessed' and is cognate with Lat vátēs 'foreteller, seer' and OIr fálth 'ecstatic bard'. The evidence of a "threefold death" in western Europe also supports the identification of the priestly figures in the respective pantheons where the Norse Øðinn is associated with death by hanging (he is the hangagoōd 'hanging god') and Roman sources indicate that the Continental Celts employed hanging in sacrifices to the god Fesus ('lord').

There is little evidence for the priest figure in Baltic folklore other than perhaps figures such as the Lithuanian Vėlinas 'ghost, devil' who is one eyed, prophetic, raging god of the veles (ghosts) and the Old Prussian Peckluss (Patollor or Patollus).

See also Comparative Mythology, Cosmogony, Cosmology, Eschatology, Pray, Sacrifice. [D.Q.A.; J.P.M.]

Further Readings


PROFIT see EXCHANGE

PROJECT

*þbar- 'projection'. [IEW 108-109 (*þbar-); Wat 5 (*þbar-); BK 5 (*þar-/*þar-)]. From *þbar-ko-: Mrí barc (< *þbar-ko-) 'spear shaft', Wels barch 'spear', SC btk 'point'; perhaps from *þbar- (es-) 'barley, grain' we have OIr baígen (< *baragen-) 'bread', Wels bara 'bread'; Lat far 'spelt, grain', ON barr 'grain', OE bere 'barley' (> NE barley; i.e., bere +
licly), Goth *bariz-eins 'made of barley'. It has been suggested that all of these substantives are derived from a verbal root *bhar- 'protrude' but since all the forms are nominal, it makes better sense to reconstruct a nominal form 'projection' to the proto-language. The extended form *bhar-es- 'barley' may be based on this root as well.

*men- 'project'. [IEW 726 (*men-); Wat 41 (*men-); BK 533 (*mun-/*men-)]. Wels *mamt 'mound, lip'; Lat prô-mineò 'stand out, project', mentum 'chin', Hit mënî 'face, cheek', Av *bra-amônte 'gain prominence'. The close structural and semantic correspondences over the few languages, so widely distributed, suggests PIE status.

See also Barley. [M.N.]

PRONOUNS

Personal Pronouns

Personal pronouns for the first and second persons, singular, dual, and plural, can be reconstructed for PIE. In addition, it is possible to reconstruct a general reflexive personal pronoun which might refer back to any person (first, second, or third) or number. Except for the third person use of the reflexive pronoun, PIE did not have real third person pronouns but rather used various demonstrative pronouns (i.e., 'this' or 'that') when a third personal pronounal reference was needed. Formally, the first and second person pronouns are distinctive in that they have independent shapes for nominative and non-nominative cases (e.g., *h₁i.gen and *h₁i.me- in the first person singular, *h₂h₁ and *te in the second person singular, *wei and *nos- in the first person plural, *weh₂ and *uos- in the second plural). The presence of *u- in both the first and second persons plural has suggested to some that at some very early stage of Indo-European there may have been a distinction, as there is in many languages, between a first person plural exclusive ('we', i.e., 'I and some others but not you') whose form would be *ue-, and a first person inclusive ('we', i.e., 'I and you') whose form would be *ne-. Under this hypothesis, when the inclusive/exclusive distinction collapsed, the form *ue- was reassigned as both a first person plural (nominative) and a second person plural (non-nominative). Such a hypothesis is certainly possible but by no means certain.

First Person

*h₁i.gen (emphatic *h₁i.gómôm), *h₁i.me 'me' (enclitic *h₁i.me, emphatic *h₁i.mem [< *h₁i.me-em — *h₁i.me-ge]); gen. *h₁i.meme, dat. *h₁i.meōhi]. [IEW 291 (eg-, *eg/hom), 702 (*me-); Wat 16 (eg, 39 (*me-); GI 32 (*ek-), BK 433 (*a-/*s-)]. OIr *m₁ 'I', Wels *mi (poss. adj. fy²o), Lat ego 'I', *me 'me' (poss. adj. meus 'my', dat. mihi), Venetic *exō 'I', *mego 'me', Runic *ek (a) (< *h₁h₁gómôm) 'I', ON *ek 'I', *mek 'me' (poss. adj. *mēna 'my'), OE ic 'I (> NE Í), mé (> NE me) — mec 'me' (poss. adj. mēna 'my') (> NE min, OHG ih 'I, ih 'I' (poss. adj. min 'my'), Goth ic 'I, ic 'I, *mek 'me' (poss. adj. meins 'my') < Gmc *mek (< *h₁i.me-ge); OPrus es 'as 'I, Lith *as 'I, më 'me' (enclitic -m, poss. adj. mën), Lat ev 'I, maine 'me', OCS *[(j)už (◦*h₁i.gómôm) 'I, me (◦*h₁i.mem) 'me' (gen. mene), Alb une (< *užom) 'I, mna (< *h₁i.mem) 'me' (enclitic mä, Grk épô(ν) 'I, *épê 'me' (emphatic *épê, enclitic me, poss. adj. *épê 'my'), Arm ess (< *ec) 'I, *tes (< *ins- < *h₁i.me-ge) 'me' (gen. im < *h₁i.mos), Hit *u (Proto-Anatolian *u) 'I, ammmuk (< Proto-Anatolian *emwu + *g(t) 'me' (enclitic -mu), HierLuv (a) 'I, *m-e 'me' (gen. mā na) [-mmana]), O Pers adsam 'I, OInd *h₁amh 'I, *madm (◦*h₁i.mem) 'me' (enclitic ma, gen. *h₁amh, dat. *h₁amh), TochA *mek (< *u) 'I, me (female speaking), (enclitic -n), TochB nas (< *h₁i.me-ge) 'I, me (enclitic -n). Widespread and old in IE. In many stocks there has been a tendency to replace the nominative forms by old accusatives (Celtic, Anatolian, Tocharian). Tocharian, for obscure reasons, has replaced the original *m- by *-n-. In Anatolian the vowel *-u- has spread from the second person singular; the same spread is also to be seen possibly in Albanian and Tocharian. The second person singular emphatic *tu-, which was reanalyzed as *tu-h₁om in Indic, leading to *h₁i.góm-h₁om (OInd *h₁amh) rather than *h₁i.góm.

*nó-te 'we two, us two', *phu-e 'us two'. [IEW 758 (*-ne- ~ *no-), 1114 (*ue-)]. On vit *we two, *okk 'us two', OE wit *we two, unc - uncet 'us two', Goth wit *we two, wugas 'us two' (Gmc < *vedu- we two and *phuy(e)s with "hardening" of the laryngeal to *-k-), Lith mūdu 'we two, us two' (dialect véd (we two), nuodu 'us two' (only the latter is an inheritance), OCS vē 'we two, us two' (gen. nau), Grk vō 'we two, us two', OInd *ávad 'we two, us two' (gen. *vājōs), TochB wene 'we two, us two (rebuilt after the first person plural with the addition of the productive dual ending -ne). Widespread and old in IE.

*yel 'we' (emphatic *yelôm), *qsmē 'us' (enclitic *nós). [IEW 758 (*ne- ~ *no-), 1114 (*ue-)]. Wat 44 (*nes-), 73 (*we-); GI 254 (*we-, *mes); BK 564 (*na-*na), 475 (*wa-*wa-). OIr *né- 'we', *n-conn 'us', *n- has been replaced by *nés- 'we', *n-conn 'us', OE we 'we' (> NE we), *s- 'us' (gen. *s-), Grk *s- 'we', *s- 'us' (Gmc *wei < *yel(e)s), OPrus mes 'we', mes 'us' (gen. *s-), Lith mes 'we', més 'us' (gen. *s-), Lithuanian and Latvian accusative and genitive from *muns, rebuilt on the basis of the second person plural, OCS *me 'we', *ny 'us' (gen. *nás-), Alb *ne (< *nós-) 'we, us' (enclitic na < *nós), Grk *hµeca (Aeolic *hµeca) 'we', *hµaca (Aeolic *hµaca) 'us' (Grk *qsmēs), Arm *mek 'we', *mez 'us' (gen. me), Hit wēs (< *yeil(e)s), *we, *anes (◦*qsmos with the second person singular, OCS *nes- *n- with dissimilation from the proceeding *n-?) 'us' (enclitic -nas), Av vaem (= *vaam(e) 'we, sma 'us' (enclitic na), OPrs wym 'we, *wym 'us' (enclitic nas), TochA wās 'we, us' (enclitic -m), TochB wed 'we, us' (emclitic -me) (Toch < a conflation of *ueil(e)s and *nos; enclitic *qsmos with loss of the first syllable). Widespread and old in IE. Note that in a central innovating area comprised of Baltic, Slavic, and Armenian the expected initial *n- has been replaced by *m-, either by the analogy of the first person singular pronoun or because
of the influence of the first person plural verbal endings in *-m., or both.

**Second Person**

*ṭuḥx* thou (emphatic *ṭuḥxōm*), *ṭeue* thee (enclitic *te*), emphatic *ṭuṃm* [< *ṭuṃ-em*], gen. *ṭeue*. [IEW 1097–1098 (ʾṭā); War 72 (*tu*); GI 194 (*ṭwve-* *ṭwīf*); BK 102 (ʾṭīf)/ (*ṭīf}). Olr tā 'thou, thee', Wels tu 'thou, thee', Lat tā 'thou', *te* 'thee', ON *ṭu* 'thee' (poss. adj. *πημ*), OE ēo *ṭu* 'thou' (< NE thou), *ṭe* (NE thee) – *πic* 'thee' (poss. adj. *πηπ* [< NE thine], OHG du 'thee', dih 'thee' (poss. adj. *dηπ*), Goth *tetu* 'thou', *ṭuk* 'thee' (poss. adj. *tēηη*), OPrus *ṭου* – tu 'thou', òen 'thee' (poss. adj. *tāηη*), Latv tu 'thou', tāv 'thee' (poss. adj. *tāv*), Latv tu 'thou', tēv 'thee', OCS tu 'thee', 'thou', 'thee' (gen. adj. *du*), Goth *tetu* 'thou', kē *-kēe* (< *-tiee*) 'thee' (poss. adj. kō < *-tōs*), Hit zīg 'thou' (with not well-understood *-i*; the *-g comes from the first person singular), tug 'thee', Palatīc *tii* 'thou', *tā* 'thee', Av *tvam* (tu *HAmM* – tu 'thou', *ṭvām* 'thee', OPrs *tvam* 'thou', OInd *tvām* < *ṭuḥxom* and *ṭuṃm*), TochA tu 'thou', cu 'thee' (enclitic -c), TochB tuwe 'thou', ci 'thee' (enclitic -c) (Toch < *ṭuḥxom*, *ṭeue*, *te*). Widespread and old in IE. The difference between nominative and accusative stems is better preserved in the second person singular than in the first person singular or in the first and second persons plural.

*ṭοuḥ* ye two, you two, *ṭuḥyē* ye two'. [IEW 513–514 (*ṭwś – *ṭwś*]). On it *ye two*, *ykkir* ye two', OE *gie* *ye two*, inc ~ incit 'you two', Goth *jut* 'ye you two', īgis 'you two' (Gmc *inkwis* *you two' < *uḥyēś* with the same substitution of *-i* for *-u* as in the accusative plural, the introduction of *-n* from the first person dual, and the same hardening of *-* to *-k* as in the first person singular), Lith jūdu ye/you two' (Germanic and Baltoic rebuilt on the analogy of the second person plural), OCS va (< *uḥjī* ye'/you two (gen. vaju), OInd yuvām (< *uḥyē-um* with *-y* from the nominative second person plural) ye'/you two (enclitic vām, gen. yuvājōs), TochB yene ye'/you two' (rebuilt after the second person plural with the addition of the productive dual ending -ne). Widespread and old in IE.

*ṭuḥyās* ye', *ṭuṣē* – *ṭuṣē* ye' (enclitic *ṭuṣa*). [IEW 513–514 (*tu–); War 79 (*yu–); GI 252 (*wōs*). Olr st ye' you', Wels chwi ye', you' (Celtic < *sōs*), Lat vōs ye' ye (poss. adj. vester), ON er 'we', yhr – yr(ə)var 'you', OE ge ye' (< NE ye), ēow 'you' (< NE you), OHG ir ye', iuwath 'you, Goths jās ye', izwis 'you' (except in Gothic the Germanic nom. has been rebuilt on the analogy of the first person plural; the acc. comes from Proto-Gmc *izwis, preserved as such in Gothic but with the *-z-* dissimilated to -iz- in North Gmc, to -w- in West Gmc), OPrus iōs 'ye', wans 'you' (gen. iounson), Lith jūs ye', jus 'you' (gen. jūs), Latv jūs ye', you' (gen. jūs), OCS vīye' you' (gen. vāsō) (OCS vīy and OPrus vāns < *vōs with *-vās on the analogy of the nominal accusative plural ending), Alb ju ye' (enclitic ju – u)(Alb < *(u)ves?), Grk ίμεις ye' (Aeolic ίμεις), ίμεις 'you' (Aeolic ίμεις), σψό (σψό) ye'/you two', Arm ī-jez 'you' (gen. žer, the nom. duh is a pluralization of the singular duh), Hit sinmēs (< *snumē*) ye' you', Av yās – yāzam ye', xāma – yusma 'you' (enclitic vahi), OInd yāyaṃ ye', yāsām (enclitic vais), TochA yas ye', you', TochB yes ye', you' (enclitic -me) (Toch yas 'is a conflation of *ṭuḥyās* and *yos, enclitic -me < *sma*). Widespread and old in IE. In a southeastern group comprising Greek, Indo-Iranian, and Tocharian, *uṣvē* was replaced by *uṣme* by analogy with the first person plural *uṣmē*. In Germanic the initial vowel of *uṣvē* was replaced by *i* after *ṭuḥyē*; Indo-Iranian tends to replace it by *i-*. Celtic, Italic, Slavic, Albanian, Greek, and Anatolian replace the nominative by the accusative while East Baltic (Lithuanian and Latvian) replace the accusative with the nominative.

**Reflexive Pronoun**

*ṣeue* (acc.) -self (enclitic *ṣe*, emphatic *ṣuṃm* [< *ṣuṃ-em*], gen. *ṣeue*). [IEW 882 (*ṣeue*). Wat 67–68 (*swēle*); GI 292]. Lat se 'him/her/itself' (poss. adj. suus), Messapic *ve-nam'self', OHG sih 'him/her/itself' (poss. adj. sin), Goth sik 'him/her/itself' (poss. adj. sins), swi-kunps- 'obvious (self-known), OPrus *ṣien'self' (poss. adj. swais), Lith sav 'self' (poss. adj. svasas), Latv sevi 'self', OCS se 'self' (gen. sehe), Alb u 'him/her/itself, Grk κέ κέ 'self' (πσε-alone), Grk ἑ 'him/her/itself' (poss. adj. ὣ < *suos*) his, Av hva – hava 'one's own', OPrs huwa 'one's own', OInd sva- 'one's own', TochA sti 'one's own', TochB san 'one's own'. Widespread and old in IE. Derivatives include *ṣu-e-t 'self, one's own' in Lith svēcias 'guest', Latv sves 'stranger, guest', OCS svato 'relative, attendant', Alb vetē'self, Grk (φυκις:relative, friend, *ςυδηθ 'be accustomed to' (< *ςυδηθ-t 'one's own') in Lat sadoth 'member of an association', suēscō 'become accustomed; accustomed', ON sī° 'custom, practice, rite', OE sidu 'custom, practice, rite', OHG situ 'custom, practice', Goth sidus 'custom, practice', Grk ἕκ ἕκ custom, habit, ἕκ ἕκ accustomed place, custom, usage, disposition, character), OInd svadhit 'inherent power, habitual state, custom, TochA sotre 'mark, sign', TochB sotra 'mark, sign (< *ςυδηθ-tu 'characteristic').

**Interrogative, Relative, and Indefinite Pronouns**

We can reconstruct for PIE a wealth of interrogatives, relatives, and indefinites (i.e., pronouns like 'someone' or 'anyone'), though the details of that reconstruction are not always clear. Half of the well-attested IE groups (i.e., Celtic, Balto-Slavic, Greek, Indo-Iranian) have a distinct relative pronoun, *-jo-, that is different from the interrogative and indefinite pronouns which show a shape *κw-o-, *κw-, or *κw-U. The other half (i.e., Italic, Germanic, Albanian, Armenian, Anatolian, Tocharian) have no relative pronoun *-jo-, using *κw-o/κw-i/κw-U-in relative functions as well as for interrogatives and indefinites.

The *κ* -pronomes, whatever their range of meaning, have a bewildering variety of form. Both *κw-o- and *κw-i- appear
to have existed side by side as interrogatives and indefinites (and also relatives in our second group of languages) in their nominative and accusative forms, though they shared a genitive *kwoes(u) whose form proclaims it a part of the *kwo-paradigm. Only *kwi- could appear as an enclitic (i.e., following and forming a single phonological word with whatever it is attached to) indefinite, except in Anatolian where both *kwo- and *kwi- can be found as enclitic indefinites. In IE itself *kwi- seems to have been restricted to adverbial functions (e.g., 'where') but in Slavic, Albanian, and Tocharian its role has been expanded.

Whether the relative pronoun takes the shape *kwo- or *kwi-, the commonest type of relative clause in the earliest attested IE languages, and no doubt in PIE itself, is the correlative relative clause. In such a formation there was a relative clause (marked by the presence of either *kwo- or *kwi-) followed by a non-relative clause in which the relative pronoun was echoed by a demonstrative pronoun, e.g., in English, 'When he wants the money, then he'll do the job'. The result of this neatly balanced syntactic structure was a substantial number of relative (-interrogative)/demonstrative pairs or triples, e.g., *kwardi, *teti, *totti.

For the following *kwo- pronouns the glosses should be taken as interrogative in meaning unless specifically stated otherwise (e.g., as 'relative' or 'interrogative and relative'). The *kwo- forms are exclusively relative in meaning.

- *kwo's who', *kwo'm whom (gen. *kwo's(u)). [IEW 644–645 (*kwo-); Wat 34 (*kwo-); GI 75; BK 324 (*kwo[pl]/-kwo[pl]ε)-]. OIr nech 'someone, anyone, Wels neb 'someone, anyone' (Celtic < *ne-kwo's), ON hvat(r) 'who, OE hwæ 'who' (> NE who), OHG hwewr 'who' (with the vowel analogical after that of the following word), hwes 'whose', Goth hwas ( masc. ) 'who', ( fem. ) hō 'who', his 'whose', OPrus kas 'who', Lith kas 'who, what' (interrogative and relative), OCS ceso 'whose', Alb ke (< *kwo'm) whom (interrogative and relative), Grk tebat, Aram os ( < *kwo's(kam) 'who', ok 'anyone, Phryg koş 'whoever', Av (masc.) kō 'who', ( fem. ) kā 'who', kahya 'whose', cahya 'anyone's, someone's', Olnd kas (masc.) 'who', ( fem. ) kā 'who', kāsya 'whose'. The apparent feminine *kwoh2 is probably an innovation in those stocks where it appears (Gothic, Baltic, Indo-Iranian). Celtic and Italic show new formations: *kwoe-te-/*kwo-i-'who' (masc.), *kwoh2-i-'who' (fem.) in OIr cta 'who', OWels pū 'who' (Celtic < *kwo(ei), Lat qvāque and Osc pullpai (both interrogative and relative). Widespread and old in IE.

- *kwa'd what. [IEW 644–645 (*kwo-); Wat 34 (*kwo-); GI 75; BK 324 (*kwo[pl]/-kwo[pl]ε)-]. OIr pā 'what, Lat quod 'in respect to which, that, in that ( conj.), Osc pād 'that, in that' ( conj.), ON hvat 'what, OE hwæt 'what' (> NE what), OHG ( h ) waz 'what', Goth hva 'what', Palac - kwat ( generalizing particle), Lydian - kod ( generalizing particle), Av ka 'what', Olnd kad 'what'. Widespread and old in IE.

- *kwi's who'. [IEW 644–645 (*kwo-); Wat 34 (*kwi-); GI 139 (*khoi-); BK 324 (*kwo[pl]/-kwo[pl]ε)-]. Lat quis 'who, which one', Grk τίς 'who', Hit kus 'who' (interrogative and relative), Av čis 'who'. Old in IE.

- *kwo' which, what one'. [IEW 644–645 (*kwo-); Wat 34 (*kwi-); GI 75; BK 324 (*kwo[pl]/-kwo[pl]ε)-]. Lat quid 'what, what one', Osc pid - pid 'what, what one', OCS cito 'what', Arm in - č 'some', Hit kait 'what' (interrogative), 'which' (relative), Av čit (generalizing particle), OPers čī (generalizing particle), čid (generalizing particle). Widespread and old in IE.

- *kwo'teros which (of two). [IEW 645 (*kwo-tero-); Wat 34 (*kwo-); GI 75; BK 324 (*kwo[pl]/-kwo[pl]ε)-]. Lat uter 'which', ON hvār 'which, OE hwærder 'which' (> NE whether), Goth hwar 'which', Lith katara - kātras 'which', Latv kat 'which', OCS koteri 'which', Grk tōtepos 'which', Av katāra 'which', Olnd katara - 'which'. Widespread and old in IE. Compare relative *tōteros which of the two.

- *kwo'm whom. [IEW 645 (*kwo'), BK 324 (*kwo[pl]/-kwo[pl]ε)-]. OLat quom 'whom' (relative), Lat cum 'when' (relative), Goth hvan 'when', OPrus kan 'when', Lith ( dial. ) ka 'when', OCS ko-gda 'when', Alb ke 'when', Av kom 'how'. The masculine accusative form of *kwo's already indicated 'when' in late PIE.

- *kwo'dēi 'which'. [IEW 646 (*kwo-); BK 324 (*kwo[pl]/-kwo[pl]ε)-]. Lith kada 'which', Av kaia 'which', Olnd kāda 'which'. A word of the center and east of the IE world.

- *kwa'r where. [IEW 646 (*kwo-); Wat 34 (*kwo-); BK 324 (*kwo[pl]/-kwo[pl]ε)-]. ON hvar 'where', havoc 'who, Goth hvar 'where', hvaris 'who, Olnd kāthi 'when, at what time'. With lengthened grades: OLat quor 'why, wherefore', OE hwær 'where' (> NE where). Widespread and old in IE. Compare *torthere.

- *kwa ' - *kwa' where'. [IEW 647–648 (*kwo-); Gl 138]. OIr co 'how, where, MWels cw 'where', Lat ubi 'where' (by misdivision of such old compounds as nēcubhi 'so that nowhere' as nēc-ubi rather than the more original *nē-cubi), OPrus quei 'where', OCS kāde 'where', kūto (< *kū + so 'that one') with *s- secondarily replaced by *t- 'who', Alb kush (< *kū + so) 'who' (interrogative and relative), Grk πνου 'where, Hit kuwapi 'where' (if not < *kohbi), Av ku 'where', Olnd kō 'where, Tochā kūs 'where' (interrogative and relative), TochB kēs 'who' (interrogative and relative) (Toch < *kū + so 'that one'). From *kūr we have Lith kur 'where', kurtis (< kur + jis 'that one') 'who' (interrogative and relative), Alb kur 'where', Arm ur 'where'. In one form or another widespread and old in IE. This set of data and the previous one show a relative pronoun originally meaning 'where' that often enough becomes a generic relative pronoun that, in turn, is reinforced by some other pronoun.

- *kwo'ti - *kwo'ti how much, how many'. [IEW 646 (*kwo-ti-); Wat 34 (*kwo-); BK 324 (*kwo[pl]/-kwo[pl]ε)-]. From *kwo'ti. Lat quot 'how many, Grk ποδος 'how much, how many, ποδος of some quantity', Olnd kār 'how much, how many', from *kō'to. Bret pet der 'how many days', Av cāni 'how many'. Widespread and old in IE. Compare relative *tōti 'as much, as many' and the demonstrative *totti 'so much, so many'.

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PRONOUNS

*K*ēhiai 'of what sort, of what size'. [IEW 646 (*kʰ-æi-)], Wat 34 (*kʰ-o-), BK 324 (*kʰ[ʰ]l[ʰ]-/*kʰ[ʰ]l[ʰ]-). Lat *qualis* 'of what sort, of what kind', Lith koli 'how long', Grk πυλόκος 'how old, how large'. Related, as if from *kʰoli, are OCS kolkó 'how large', kol 'how much'. Compare *tēhiai 'of that sort, of that size'.

*K*ēhik 'of what sort'. OIr cach 'everyone', Lith koko 'of what sort, any, some; whatever (relative)', OCS kaku 'of what sort' (cf. kaku 'how?', tajo 'thus', jako(2e) 'in which manner'). Possibly a word of the northwest of the IE world.

*K*ōthias 'pertaining to whom/what'. [BK 324 (*kʰ[ʰ]l[ʰ]-/*kʰ[ʰ]l[ʰ]-)]. Lat cuō 'whose', Grk ποίος 'of what kind', ποίος 'of some kind', TochA ke 'whose'. Not widespread but the geographical distribution suggests considerable antiquity in IE.

*K*ēhiam 'how; as'. [IEW 644–645 (*kʰ-o-)], Wat 34 (*kʰ-o-), BK 324 (*kʰ[ʰ]l[ʰ]-/*kʰ[ʰ]l[ʰ]-). Lat quam 'how, in what way; as' (cf. tam 'so' and the derivatives quando 'when; at what time; at any time; at the time when', quantum 'of what size, how great; as great as' [cf. tanteus 'so great!'], Arm k'an 'as', k'can 'how many?'. The apparent agreement of Latin and Armenian would appear to make this at least a late PIE derivative. In form this would appear to be a feminine accusative singular of *kʰos but a separate feminine form of the interrogative pronoun does not appear to be of PIE date as it is more probable that we have in *K*ēhiam some sort of adverbial derivative.

*jóx *jēy *jod who, what, what, that' (relative pronoun). [IEW 283 (*j-o-), GI 188, 339 (*j-o-), BK 467 (*ay-, *ya-)]. Gaul dugionti-oi 'who serve' (also in other Celtic languages, though phonological change has greatly obscured the form), in Baltic it forms the suffix on the definite form of adjectives, e.g., Lith geras-is 'good', OCS i-žetja-ze 'he/she who', also forming the suffix on the definite form of adjectives, e.g., dobroj 'kind, good', Rus dobryj 'kind, good', Grk ὅγιοι 'who, what, that', Phryg yoç (vi) 'whoever', Av yoya/yhaya 'who, what, that', Oldn yisya/yăyad 'who, what, that'. Were it not for its presence in Celtic, one might think that this pronoun was an innovation of the center and east of the IE world. However, the fact that it is present in Celtic makes it almost certain that *jóx was originally pan-Indo-European.

*joteros 'which of the two'. [IEW 283 (*j-o-), BK 467 (*ay-, *ya-)]. Grk (Doric) åtrépos 'which of the two', Av vyaţara- 'which of the two', Oldn yaratá- 'which of the two'. A word of the center and east of the IE world. Compare *K*ōteros 'which of two?'

*jotis 'as much, as many'. [BK 467 (*ay-, *ya-)]. Grk òòòòòò (E-)vatta 'as many', Oldn yutt- 'as many as, as often as'. Correlative of *jotis 'so much, so many'. Compare also *K*ōtisi 'how much, how many?'. A word of the center and east of the IE world.

*jēhutos 'as much, as long'. [IEW 283 (*j-o-), BK 467 (*ay-, *ya-)]. Grk ēkóntos (Doric ēkóntos) 'as long as', Oldn yátar 'as much, as many; as great, as large; as often, as far, etc.'. Correlative of *Jēhutos 'so many, so long'. A word of the center and east of the IE world.

*meo- (interrogative/relative pronoun). [BK 524 (*mi-/*me-*)]. Bret ma ~ may 'that' (conj.), Hit māt 'how much, how many', TochA mānt 'how', māt 'how', mākst 'who' (interrogative/relative). The agreement of Celtic, Anatolian and Tocharian would seem to make this word a very likely candidate for PIE status.

Demonstrative Pronouns

*s*o (masc.), *seh* (fem.), *tōd (neuter) 'that (one)'. [IEW 978 (*s*o(s)), 1086 (*t-o-), Wat 62 (*t-o-), 71 (*t-o-), GI 336–338 (*s*o/*s* + *t*ó*); BK 194 (*s*a/*s*a*), 103 (*t*ó/*t*ó*). OIr -sotd 'this one', OLat sum/sam 'this one' (acc.), Lat is-to- is-tás-ta'd 'this (one)', ON sás/tát 'the', that', OE scéol hast (> NE that) 'the', OHG det/diez 'the', Goth sás/só/pata 'that (one)', OPrus stāsta 'that (one)' (with conflation of initial *s*- and t-), Latv tāsta 'that (one)', Latv tāsta 'that (one)', OCS kato 'whom', tato 'that (one) (in East Baltic and Slavic t-replaces earlier s-), Alb a/vaj /he'še (< *s* + *s*otsekh with loss of initial *s*- and then the addition of a hiatus-filling *-j*), atovata 'they', Grk ópóité 'the', Arm yd 'that', Hit ta 'and, then', Av hvó (= /au/ < *s* + *u/čhat/t 'that (one)', Oldn sás /sát 'that (one)', TochB se/sátte 'such (a one)'. Widespread and old in IE.

*tar 'there'. [IEW 1087 (*t-o*), Wat 71 (*t-o-), BK 103 (*t*ó/*t*ó*). ON par 'there', OE þæt 'there' (> NE there), Goth par 'there', Oldn tar-hi 'at the time, then'. Attested only on the peripheries of the IE world, it must reflect something old in PIE. Compare *K*ó♦ 'where'.

*todehǎ then'. [IEW 1087 (*t-o*), BK 103 (*t*ó/*t*ó*). Lat tadh 'then', Av tād ‘then’, Oldn tād ‘then’ Compare *K*ōdēhǎ 'when' and like it, a word of the center and east of the IE world.

*tōti 'so much, many'. [IEW 1087 (*tōti*), BK 103 (*t*ó/*t*ó*). Lat tot 'so many, totidem 'just as many', Grk tòsòs (< *tōtis-os) 'so many'. Correlative of *tōti 'as many'. Compare *K*ōtisi 'how much, how many?'.

*tēhiai of that sort, of that size'. [IEW 1087 (*to-al-i*), Wat 71 (*t-o-), BK 103 (*t*ó/*t*ó*). Lat talis 'of that sort, Lith tōlē 'so long', Grk πυλόκος 'so old'. Cf. OCS tol-i tolki 'so many'. Compare *K*ēhiai 'of what sort, of what size'.

*tēhutos 'so much, so many, etc.' [IEW 1087 (*t-o*), BK 103 (*t*ó/*t*ó*). Grk tēwos (Doric tēwos) 'so long, meanwhile', Av ae-tāvant 'so many', Oldn (e-)kāvār 'so much, so many; so great, so far; etc.', TochB tot (< *tēhutos) 'so much, so many; so great; so far; etc.' (cf. TochAB kos 'as much, etc. < *K*ēhutos). The Indo-Iranian forms have been rebuilt as -nī-stems after *-t- and *-o- fell together. Correlative of *Jēhutos 'as much, as long, etc'. At least a word of the PIE southeast.

*tēhmatos 'then, at that place'. [IEW 1087 (*t-o*), BK 103 (*t*ó/*t*ó*). Latv nuo tam 'from there', OCS tamo 'thither, there' (cf. kamo 'whither?'), Grk τίμος (Doric τίμος) 'then, thereupon' (cf. ūmōs [Doric ūmōs] 'at which time, when'). A word of the center of the IE world.
PROSPER

*spēh(i)-* 'be sated, prosper'. [IEW983 (*sp(h)e(i)-), Wat 63 (*spē-)]. Lat spēs 'hope', OE spōwan 'thrive, prosper', Lith spėti 'predict, foretell; be on time', Latv spēt 'be able', OCS spět'thrive, prosper', Hit spāt(i)-'get filled, be sated', OInd sphāyate 'grows fat, increases'. Cf. the derived adjective: *spēhros* 'fat, rich'. Lat prosper 'lucky', ON sparr 'sparing', OCS sparti 'rich', OInd sphira- 'fat' (*-ph- rather than the expected *-p- must be because of the affective meaning of the word). Distribution suggests PIE status.

See also Satisfy. [E.C.P.]

PROTECT

*həle- 'defend, protect' (pres. *həlēkse/o-). [IEW 32 (*aleq-); Wat 2 (*alek-)]. OE ealhgen 'protect'. Grk àkakso 'defend', Arm aracel 'tend', OInd raṣat 'protect'. Protection insures PIE status. From the same root we have the Germanic words for temple: OE ealh 'temple', Goth aðal 'temple' (< "protected place"). The Germanic tribes venerated their gods in the open, in sacred groves (Tacitus, Germania 9) which required that sacrifices and other homages be set in the midst of nature which required fencing in the demarcated sacred area or protecting it through specific rites against hostile forces. This root was also employed in a similar way in Baltic where we find Lith aškas 'holy grove' or 'place on a hill where sacrifices are made' and Latv ēlka kalns 'temple hill'. Here too belongs Grk àkima 'sacred grove'.

*ser- 'protect'. [IEW910 (*ser-); Wat 58 (*ser-)]. Lat servò 'guard', Lydian karare- (= kat-sare-) (< *sorei/o-) 'stand watch', sarèta- 'protector', Av harati 'defends'. The geographical distribution of the reflexes of this word would seem to guarantee its PIE status.

See also Cover. [E.C.P.]

PROITO-INDO-EUROPEAN

In 1786 Sir William Jones, in a justly famous lecture delivered in Calcutta, made the observation that:

The Sanskrit language, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, both in the roots of the verbs and in the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists: there is a similar reason, though not quite so forcible, for supposing that both the Gothic and the Celtic, though blended with a very different
idiom, had the same origin with Sanskrit; and the old
Persian might be added to the same family, if this were
the place for discussing any question concerning the
antiquities of Persia.

Sir William's is the first published recognition of the
linguistic entity we now call "Proto-Indo-European" (or in
German *Urindogermanisch*). Since then investigators have
sought, on the basis of the data provided by its several
descendants, to reconstruct that "common source". Two
hundred and some years after Sir William we know a great
detail about Proto-Indo-European though, in the absence of
actual PIE records or, even better, access to a native speaker
or two, our knowledge will always be partial rather than
complete. Our partial knowledge is of course subject to
revision, both as new data become available (the discovery of
Hittite and Tocharian at the beginning of this century has
called numerous revisions to our assumptions concerning
Proto-Indo-European) and as our knowledge about language
in general grows more sophisticated (advancing knowledge
of linguistic typology particularly has suggested new ways of
interpreting the possibilities of Proto-Indo-European).

In the description that follows there is an attempt to outline
what we know about Proto-Indo-European. Given the
limitations on our knowledge, any such description is bound
to be idiosyncratic to a degree and the reader is thus warned
that not everything here is "received knowledge". Indeed,
probably everything said here would occasion at least some
disagreement from someone though it is perhaps the case, at
the same time, that everyone would see at least a family
resemblance between this description and his or her own
views about Proto-Indo-European.

**Phonological Structure of Proto-Indo-European**

On the basis of the evidence of the twelve well-attested
stocks of the Indo-European language family, Proto-Indo-
European is traditionally reconstructed as containing fifteen
oral stops, two nasals, one continuant, three or four "laryn­
gals" (opinion is divided as to whether this class of sound
was comprised exclusively of continuants or contained both
continuants and stops), four semi-vowels (or approximants),
and five pairs of long and short vowels.

In their traditional symbols (and as adopted in this work)
are the following stops:

<table>
<thead>
<tr>
<th>Labial</th>
<th>Dental</th>
<th>Palatal</th>
<th>Velar</th>
<th>Labio-Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiceless</td>
<td><em>p</em></td>
<td><em>t</em></td>
<td><em>k</em></td>
<td><em>k</em></td>
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<tr>
<td>Voiced</td>
<td><em>b</em></td>
<td><em>d</em></td>
<td><em>g</em></td>
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<tr>
<td>Aspirated</td>
<td><em>bh</em></td>
<td><em>dh</em></td>
<td><em>gh</em></td>
<td><em>gh</em></td>
</tr>
</tbody>
</table>

When the voicing of the stop cannot be determined,
sometimes a capital [P], [T], etc., is used. The dentals had
affricate allophones (symbolized as [tʰ], [dʰ], and [ghʰ]) before
another dental.

Nasals:  m  n

Continuant:  s

The continuant /s/ had a voiced allophone [z] before a
voiced stop, e.g., *sd > *zd. Normally this voiced allophone
is not noted in the Encyclopedia.

Laryngeals:  h₁, h₂, h₃, h₄

Like the nasals and semivowels, the laryngeals had vowel
and consonant allophones. The vowel allophones are symbol­
ized by a circle under the [h], i.e., h. In combination with
nasals and semivowels it is normally the laryngeal which is
consonantal and the nasal or semivowel which is vocalic.

Semi-vowels:  r, l, i, u

It is usually assumed that the nasals and semivowels all
have both vowel allophones (i, u, f, l, n, g) and consonant
allophones (i, u, f, l, m, n). However, it is not certain that the
vowel and consonant allophones, if that is what they were,
were absolutely predictable in late Proto-Indo-European.
Particularly [l] and [u] would appear to be independent of [l]
and [u]. Thus both sets, vowels and consonants, are trans­
scribed separately in the Encyclopedia.

Vowels:  i, i, e, è  u, ù  e, é  o, ô  a, â

Note that i and u are given here as vowels (as well as the
vocalic allophones of the semivowels) very largely because of
the corresponding long vowels. None of the long vowels was
common in PIE. Most long vowels in the daughter languages
are the result of original vowel plus laryngeal combinations
(e.g., *eh₁ > *ë) or by compensatory lengthening (e.g.,
*ers > *ërt > *ët).

It must be emphasized that the phonological system given
above is the traditional reconstruction. It is, however, not
universally accepted. Particularly controversial are (1) the
make-up of the stop system and (2) the number and nature of
the laryngeals. Almost all are agreed that Proto-Indo-
European had three series (or manners of articulation) of stops
and a sizeable number are agreed that Proto-Indo-European
showed six distinct places of articulation (others argue for
only four distinct places of articulation, on which see below).
The three series have traditionally been reconstructed as
voiceless, voiced, and voiced aspirate. Using the bilabials as
examples, we have *p*, *b*, and *bh* respectively. For the first
two series these traditional reconstructions simply recapitulate
the phonetic facts of eight of the well-attested branches of
Indo-European: Celtic, Italic, Baltic, Slavic, Albanian, Greek,
Iranian, and Indic. (Germanic and Armenian show voiceless
continuants [Germanic] or a mixture of voiceless continuants

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The Proto-Indo-European Phonological System and its Outcome in the Major Indo-European Stocks

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<th>PIE</th>
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<th>Ital</th>
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The reconstruction of the third series as voiced aspirates rests essentially on the evidence of Indic, the only stock to have voiced aspirates. However, the reliance on Indic in this case is a little less one-sided than it might appear since the third series has fallen together with the second in seven of the well-attested branches (Celtic, Baltic, Slavic, Albanian, Anatolian, Iranian, and Tocharian) so our evidence for the phonetic nature of this series is necessarily more limited. In Germanic and Armenian this series appears as simple voiced

and voiceless aspirated stops [Armenian] where the other languages show voiceless stops, and they exhibit voiceless stops where the other languages show simple voiced stops. Tocharian and Anatolian show voiceless stops for all three series and are not much help in reconstruction, though Anatolian preserves the original voiceless stops as fortis or geminated stops [when between vowels] and distinct from the lenis or simple voiceless stops that reflect the other two PIE series.)
stops (Armenian) or voiced continuants (Germanic, at least originally). In Greek this third series is reflected by voiceless aspirates and in Italic by voiceless continuants. The fact that its fate in the majority of Indo-European stocks is to fall together with the second series does, in any case, suggest that the two series shared some major phonological feature.

In the last twenty years or so many Indo-Europeanists have come to doubt the accuracy of these reconstructions because they lead to an overall phonological system, one having voiced aspirates but no corresponding voiceless aspirates, that is otherwise very rare or even non-existent in the attested languages of the world. They are not unnaturally suspicious of reconstructing a language that is systematically unmatched by any other. Several different proposals have been put forward as possible replacements for the traditional scheme. The alternative that appears often in the Encyclopedia is that of Thomas Gamkrelidze and Vyacheslav Ivanov (= GI) who reconstruct voiceless aspirated stops, voiceless ejective stops, and voiced aspirated stops (e.g., *pʰ, *p, and *hʰ) for the three series. Robert Beekes and others have proposed a system of *p, *p', and *pʰ where the first is fortis (and voiceless) and the second and third lenis (and voiced). The editors of the Encyclopedia take an agnostic stand on the exact nature of the three series but use the traditional symbols for them, as do, as a matter of convenience, the majority of investigators, whatever their personal beliefs about the phonetics underlying the symbols.

While differing beliefs as to the nature of the three series of stops are mechanically translatable from one to another, the difference in opinion as to how many sets of dorsal consonants to reconstruct is another matter. The older tradition is to reconstruct three sets: a dorso-palatal set (which we can represent by its voiceless member *k), a dorso-velar set (*kʷ), and a (dorso-)labio-velar set (*kʷw). Most IE stocks have reduced this three-way division into a two-way one. The so-called centum languages (named after the Latin word for 'hundred' and comprising Celtic, Italic, Germanic, Greek, Tocharian) merge the dorso-palatals and dorso-velars while retain the labio-velars as a distinct set, thus *k, *k, *kʷ > *k, *k, *kʷ. The so-called satum languages (named after the Avesta word for 'hundred' and comprising Baltic, Slavic, Armenian, Iranian, Indo-) lose the labial element of the labio-velars and thus merge them with the dorso-velars while the dorso-palatals remain distinct (and appear further palatalized as affricates or sibilants of one sort or another, e.g., ts, s), thus *k, *k, *kʷ > *tc, *k, *k. Since none of these stocks has more than two sets of dorsals, many investigators have sought to reduce the PIE dorsals to two sets as well, reconstructing *k and *kʷ and taking the relatively rare equation of satum *k and centum k as allophonic variation (many satum languages do seem to depalatalize *k before resonants), cases of inter-stock borrowing, or wrong etymologies.

However, it has long been claimed that Albanian preserves a three-way distinction, at least before front vowels, where *k, *k, and *kʷ appear as th, q (= [<q>]), and s respectively (before back vowels PIE *k and *kʷ both appear as Alb k). More recently evidence has been presented that Luvian, and closely related Anatolian languages, also attest to a three-way distinction in all environments of z (= [ts]), k, and kw respectively. Thus it is the general editorial practice of the Encyclopedia to recognize three sets of dorsals, though not all of the individual contributors have done so. In any case, it is sometimes difficult to know what should be reconstructed.

If a word is attested only in satum languages with a k, should we reconstruct a *k or a *kʷ? If the word is attested only in centum languages with a k, should we reconstruct *k or *kʷ? At times the first ambiguity has been symbolized as *kw but not consistently and the second kind of ambiguity has been left largely unacknowledged in any form.

With regard to the reconstruction of the three dorsals we might further note that, while the palatalization of dorso-velars is common (even when not preceding front vowels), the de­palatalization of palatalas is rare. Thus the usual assumption that in the centum languages the PIE palatalas became dorso-velars is not typologically very realistic. It is particularly unrealistic if, as is usually supposed, the centum languages do not comprise a natural grouping on their own but are simply those IE groups that did not undergo "satumanization". We would have to suppose then that all the centum languages independently underwent the rare change of *k to *k. It may make sense then to think of reconstructing (dorso-velar) *k (dorso-uvular) *q, *kʷ rather than *k, *k, *kʷ. The satum languages (Indo-Iranian, Balto-Slavic, Armenian) would then show *k, *q, *kʷ > *tc, *q, *kʷ, where the delabialization of *kʷ triggered the affricatization of *k, so as to prevent merger of the two series (under this scenario the two changes that characterize satum languages would be connected rather than independent as is the case under the traditional scenario). In
all PIE groups the relatively infrequent q-series eventually became dorso-velar, falling together with original *k in the centum languages and with *k (from *kw) in the satem languages. In Albanian *q became *k only after *k (from *kw) had also been affricated when before front vowels while in the Luvian group we find affricatization of original *k (to ts), dorso-velarization of original *e but the retention of original *kw.

Knotter than the dorsals is the problem of symbolizing the PIE "laryngeals". All investigators are agreed that Proto-Indo-European had at least one such sound, though its exact phonetic specification is difficult. Most think that there were three or four and a few investigators posit even more. Those who think there are at least three are in agreement that some, at least, of these laryngeals "colored" an adjacent vowel, that is, changed an underlying *e to *a, or *o. The editorial practice of the *encyclopedia is to assume four laryngeals and symbolize them as *h1, *h2, *h3, and *h4. The second and fourth color an adjacent *e to *a, while the third colors an adjacent *e to *o. The first laryngeal causes no coloring. Because it has no effect on the place of an adjacent vowel, it has been most often assumed that the first laryngeal was a glottal stop. The second laryngeal appears, under most circumstances, as *h in Hittite and the third laryngeal also appears as *h when word-initial. The fourth laryngeal appears as *h in Albanian when word-initial before an originally stressed vowel. In all other cases the laryngeals have disappeared in the daughter languages, though leaving more or less substantial traces in vowel coloring, in the lengthening of preceding vowels and in Balto-Slavic tone and Indo-Iranian syllable division. It is tempting, given the three series of PIE dorsal stops, to equate laryngeals two through four with those three series. Thus *h3, because of its power to round an adjacent *e would be *x, while *h2 would be (dorso-uvular) *x and *h4 would be *x. Most investigators, however, take "laryngeals" two, three, and four to have been pharyngeal and/or laryngeal continuants.

At times, in the absence of a Hittite or Albanian cognate, we cannot tell whether a laryngeal was *h2 or *h4. In such cases the symbol *h2 is used. In other cases the nature of the laryngeal is completely unknown and the generic *h4 is used. Some contributors prefer a three-laryngeal solution that recognizes only the first three laryngeals. The editors have made substantial efforts to make the usage of these symbols uniform throughout the encyclopedia (it is relatively easier for the reader to translate a four laryngeal description into a three laryngeal one than vice versa though, for one reason and another, the translation is not always one to one). However, consistency in this area is fraught with difficulties and it is highly doubtful that we have avoided all of them.

The preceding table summarizes the major reflexes of the PIE consonants and vowels in the twelve well-known daughter stocks (where it is difficult to say what the "major reflex" is in a given instance, the common reflexes, each dependent on some specific environment, are all presented).
Accent Types in Proto-Indo-European

<table>
<thead>
<tr>
<th>Proterokinetic</th>
<th>Holokinetic</th>
<th>Hysterokinetic</th>
<th>Acrostatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>*h₂ōt-</td>
<td>*pōnt-ōh₂-s</td>
<td>*ph₂t-ōs</td>
<td>*bhreh₂t-ś</td>
</tr>
<tr>
<td>*h₂-ōu-s</td>
<td>*pōt-h₂-ōs</td>
<td>*ph₂t-ōś</td>
<td>*bhreh₂t-ś</td>
</tr>
</tbody>
</table>

otherwise on the case-ending: R-eS-C and *R-S-eC.

These patterns can be illustrated by *h₂ōu 'life', *pōntōh₂s 'way', and *ph₂tēr 'father'. The fixed accent (or acrostatic) *bhreh₂tēr 'brother' is also given. The accent patterns (in the accompanying table) are shown by the nominative and genitive singulars (note that the nominative often lacks any overt case-ending).

Syntax and Morphology

Languages have basically two choices as to how they signal relationships of the various constituents of a sentence to one another: syntactically, i.e., by the order of the various elements (e.g., NE "Peter sees Paul" where one knows that is was Peter who did the seeing because it is the noun in front of the verb and likewise that it was Paul who was seen because that is the noun that follows the verb), or morphologically, i.e., by the form the various elements take in the sentence (e.g., Latin "Petrus videt Paulum" or "Paulum videt Petrus", or any other possible order, where one knows that Peter did the seeing because of the shape it takes, with the [nominative] ending -us, and Paul was the one seen because of its [accusative] ending -um). While most languages use both kinds of signals to some extent, they certainly differ in the degree to which the two methods are used. Contemporary English signals most, but not all, relationships through word order, while Latin relied to a considerable extent on morphology. All the other early attested IE languages, including Old English, are like Latin in this respect and it is certain that Proto-Indo-European itself relied heavily on morphological markers to signal intra-sentence relationships as well as many other things, such as number and gender in nouns and adjectives or tense, aspect, and mood in verbs.

Syntax

The usual order of a PIE sentence appears to have been Subject-Object-Verb (SOV), though other orders were possible, given different kinds of emphasis within the sentence. In particular, a variant with the verb in first place was a common way of focusing on the verb itself and might be found in imperative sentences or where it was desired to make a contrast between two adjacent sentences explicit (compare the Hittite sentence *akis-ma-as 'but he died' (*akis = 'he died', *ma = 'but'). This situation (namely with usual SOV order but with VSO as a common variant) is preserved more or less intact in Old Indic, Old Iranian, Hittite, and the oldest Latin. Homeric Greek varies between SOV and SVO as the most frequent word order. In Old Irish sentences with the verb-initial pattern have been generalized. The oldest attested Slavic has VSO as its most common word order but by no means its only one. Likewise, Tocharian, while verb final like Indic and Hittite, shows signs of having verb initial sentences as a common possibility at sometime in its prehistory (e.g., verb forms often have suffixed personal pronoun enclitics [jaus-ya 'he drove me out'] that would be very unexpected in a verb-final language but which would be normal in a verb-initial language). The earliest Germanic shows all possible word orders while becoming predominantly SVO in its later history (as do Slavic, Greek and the Romance languages). Baltic and Albanian are predominantly SVO in their earliest attestations and they remain so.

Typologists set great store by the relative position of subjects, verbs, and objects because many other word order sequences within the sentence can be correlated with them, particularly with the order of verb and object. There is a strong tendency for OV languages to have postpositions and show Adjective-Noun, Genitive-Noun, and Relative Clause-Noun orders, while VO languages have prepositions and show the opposite orders (N-A, N-G, N-RC). This correlation is by no means perfect and SVO languages, like modern English, particularly tend to show mixed patterns like English's prepositions, A-N, N-G ~ G-N ("the horn of the car" ~ "the car's horn"). N-RC. Even VSO and SOV languages may be more or less rigid in the degree to which the verb must be sentence initial or final and the degree to which the other orders agree with the general expectations of VSO or SOV patterns. Japanese and Turkish, for instance, always have the verb in sentence final position and in all other respects match the SOV "type". Hindi, however, while generally SOV in type is not rigidly so.

The accompanying table shows the usual syntactic word orders of particular interest to syntactic typologists for the twelve well-attested branches of Proto-Indo-European. In each case the earliest attested patterns are the ones given and also in each case the dominant word order is given for each category, thus obscuring the difference between a language where the particular word order is rigid and a language where other variants are reasonably common. Where two possible word orders are very nearly equal in frequency both are given (though, in the absence of good statistical data, the notion of "very nearly equal in frequency" is not very well defined).

We might note that, if Proto-Indo-European had been a member of the rigid subgroup of verb-final languages, we might expect it to have had no relative clauses in the strict sense at all, but rather preposed participial phrases of some sort carrying the same information that relative clauses might carry. This is the situation that obtains, say, in Turkish and Japanese. Certainly Proto-Indo-European did have participial phrases; however, it is clear that relative clauses were also both possible and common. Moreover, the dominant PIE type of relative clause is quite certain. All early attested languages retain at least traces of preposed, correlative relative clauses where the relative pronoun is repeated as a demonstrative...
Syntactic Types in Proto-Indo-European

<table>
<thead>
<tr>
<th>Language (Old Irish)</th>
<th>VSO</th>
<th>NG</th>
<th>NA</th>
<th>prep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celtic (Old Irish)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italic (Latin)</td>
<td>SOV</td>
<td>NG</td>
<td>NA</td>
<td>prep</td>
</tr>
<tr>
<td>Germanic (Runic)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltic (Lithuanian)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slavic (Old Church Slavonic)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albanian</td>
<td>SVO</td>
<td>NG</td>
<td>NA</td>
<td>prep</td>
</tr>
<tr>
<td>Greek</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armenian</td>
<td>SVO</td>
<td>NG</td>
<td>AN</td>
<td>prep</td>
</tr>
<tr>
<td>Anatolian (Hittite)</td>
<td>SOV</td>
<td>GN</td>
<td>AN</td>
<td>post</td>
</tr>
<tr>
<td>Iranian (Avestan)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indic</td>
<td>SOV</td>
<td>GN</td>
<td>AN</td>
<td>post</td>
</tr>
<tr>
<td>Tocharian (Tocharian B)</td>
<td>SOV</td>
<td>GN</td>
<td>AN</td>
<td>post</td>
</tr>
</tbody>
</table>

pronoun in its expected position in the main clause (e.g., 'who ran the race, to him was given the prize'). This type is overwhelmingly the dominant one in Indo-Iranian (in Indic to this day), Anatolian, and Tocharian. The following sentences exemplify this pattern in the three oldest attested languages (examples from Watkins, 1976b): Hittite nu tarhzi kuis dan pedass-a kuis nu-smas II TUCETRA ERINME pianzi 'now who wins and who is in second place, now to them two uniforms they give', Greek ὅς νῦν ὁρκήσων παντον ἀταλοστή ταῖς, τῷ τοῦτῳ καλλοῦν 'who now of all the dancers most sportively plays, to him this καλλοῦν (is)', or Old Indic sa yo na ujesyat tasyedam (= tasya idam) bhaviṣyati 'he who of us will win, to him this will be'. In these three cases both topic and form would appear to be of PIE date. Archaic Latin shows the same syntactic pattern, tum Saturno filius qui primus natut est, eum necaverunt (Ennius) 'then who was born first from Saturn, him they slew'.

Morphology

Just what semantic categories one thinks were signaled inflectionally in Proto-Indo-European depends in part on one's view of the relationship among the various stocks of Indo-European. As with vocabulary, not all stocks of Indo-European manifest the same list of inflectional categories, particularly some have a longer list than others. In general, the earlier the attestation of the group, the more complex the inflectional "package", and that, coupled with the fact that many IE stocks show a reduction in the amount of inflection they have during their recorded histories, suggests to investigators that Proto-Indo-European itself was highly inflected. However, there is one notable exception to the generalization that the earliest attested branches show more inflectional categories than those attested later, and that is Anatolian. Anatolian is attested earlier than any other branch but lacks some of the categories reconstructible from, say, Old Indic or Greek.

There are two possible explanations for this divergence: (1) Anatolian separated from the parent Proto-Indo-European at about the same time as the other branches and has simply lost some of the categories it inherited from Proto-Indo-European, or (2) Anatolian separated from Proto-Indo-European significantly earlier than the other groups and (some) of the categories that it does not share with them developed during the period after Anatolian had left but before any larger break-up of PIE unity. Of course, even if the second scenario is substantially correct, Anatolian could also have lost certain inherited categories at some time after it separated from "residual Proto-Indo-European" but before it was attested.

Noun and Adjective

With this caution in mind, let's look at the inflectional categories that are usually reconstructed for the PIE noun and adjective (categories not found in Anatolian are placed in parentheses). PIE nouns and adjectives distinguished
number, gender, and case. For number there were singular, (dual), and plural. For gender there were masculine, feminine (in Anatolian combined with the masculine in a single "common" gender), and neutral. For case there were (vocative), nominative, accusative, genitive ablative, dative, locative (the latter two combined in Anatolian), and instrumental. It is worth noting that traces of both dual and a separate feminine have been claimed for Anatolian.

Gender was inherent in nouns (i.e., any noun was lexically marked as "masculine", "feminine", or "neutral", though some nouns could be lexically marked for more than one gender) but a matter of agreement for adjectives and other modifiers (i.e., adjectives took special shapes depending on whether they modified a masculine, feminine, or neutral noun). Much has been made of gender from time to time from the point of view of what it may tell about the world view of the speakers of a language with gender. The answer is probably not very much. While it is true that the masculine, feminine, and neutral genders do have an association with sex (e.g., in Indo-European languages most nouns referring to adult male humans are masculine, most nouns referring to adult female humans are feminine), an association which can be exploited in poetic or other "special" language, the association is not always absolute (e.g., in both Germanic and Greek diminutive nouns, whatever the sex of their referents, are neutral) and the primary use of gender would seem to be demarcative. The agreement of adjectives and other modifiers with their head nouns delimits the scope of a particular noun phrase. When agreement stops, the speaker is inter alia signaling the end of a noun phrase.

The various case markers signaled the role of the noun vis-à-vis other elements of the sentence. Thus the nominative case marked its noun as the subject and the accusative the direct object (or the goal of a verb of motion, e.g., I went to Rome). The genitive typically marked some sort of noun-noun relationship (e.g., the car's horn), the dative marked the beneficiary or human goal of some activity (e.g., John gave Mary the book), while the instrumental denoted instrument or association and the other two cases some sort of directional information (ablative marking the place from, the locative the place toward or at). The vocative is an exception in that, as the form used in direct address, it did not show any relationship with any other part of the sentence. All of the cases, except the nominative and vocative, could co-occur with locative adpositions or adverbs to show more complex, usually, local relationships. The shapes of the singular of an athematic noun (*ph₂tēr- 'father') and a thematic noun (*h₂jeḵuos- 'horse'), i.e., a root to which the suffix *-e/o- has been added, are given in the accompanying table:

<table>
<thead>
<tr>
<th>Case</th>
<th>Nominative</th>
<th>Accusative</th>
<th>Genitive</th>
<th>Dative</th>
<th>Locative</th>
<th>Ablative</th>
<th>Instrumental</th>
<th>Vocative</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ph₂tēr</td>
<td>*h₂jeḵuos</td>
<td>*h₂jeḵuos</td>
<td>*h₂jeḵuos</td>
<td>*h₂jeḵuos</td>
<td>*h₂jeḵuos</td>
<td>*h₂jeḵuos</td>
<td>*h₂jeḵuos</td>
<td>*h₂jeḵuos</td>
</tr>
</tbody>
</table>

Again the neuter never distinguishes nominative accusative (for *ph₂tēr the nom.-acc. plural is *ph₂tērē). Finally the dual is even more difficult to reconstruct, though it seems likely that one form of the nom.-acc. dual for masculine and feminine nouns was *-ch₁ (thus *ph₂tērēh₁ 'two fathers' or *h₂jeḵús₁h₁ 'two horses') while the neutral showed *-ih₁ (e.g., *h₂jeḵ₁h₁ 'two yokes').

Verbs

Reconstructing the PIE verb is a more difficult task than reconstructing the shape of nouns and adjectives, basically because the various IE stocks show considerably more diversity in their verbal systems than they do with their nominal systems. Since the latter part of the nineteenth century it has been the general practice to reconstruct a PIE verbal system which looks very much like that found in Greek or Indo-Iranian. This system shows two voices (active and medio-passive), three aspects ('present', 'aorist, and perfect'), three tenses (present, past, and future), four moods (indicative, subjunctive, optative, and imperative), three persons (first, second, and third) and three numbers (singular, dual, and plural). While not all of the theoretical combinations of categories actually occur (the future only shows up combined with "present" aspect, the imperative has no first person forms,
**Verbal Categories of Proto-Indo-European**

<table>
<thead>
<tr>
<th>Mood</th>
<th>Imperative</th>
<th>Optative? (Subjunctive?)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aspect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;present&quot;</td>
<td>aorist</td>
<td></td>
</tr>
<tr>
<td><strong>Tense</strong></td>
<td>past</td>
<td>past</td>
</tr>
</tbody>
</table>

et al.), still the reconstructed verbal system is quite complex, just as the Greek and Indo-Iranian ones are quite complex. With the exception of Italic, the other IE branches have significantly less complex systems (cf. Germanic with two voices, no aspects, two tenses [present and past] and three moods [indicative, subjunctive, and imperative], three persons, and three numbers) and it has been generally thought that their relative simplicity was the result of the loss of various PIE categories and combinations of categories in those stocks. However, ever since the discovery of Hittite with a similarly simple system (two voices, two tenses, two moods [indicative and subjunctive/imperative], three persons, and two numbers), the consensus in favor of the fuller model has been fading in favor of reconstructing something simpler, and more like that attested in Hittite. The more elaborate, traditionally reconstructed system would still be of PIE date, but only found in the southeastern dialect area of (late) Proto-Indo-European.

While the older consensus is fading, a new consensus has not yet developed. The arguments for preferring one system over another are both detailed and complex and would take us too far afield to rehearse them here. Thus, the description that follows should be thought of as one possibility only. We tentatively assume that PIE had two voices: active and medio-passive. The latter was used when the subject was seen as acting for him- or herself, e.g., Olnd yājate or Greek θύτευσι, 'he offers sacrifices for himself, on his own behalf'. It could also be used, though probably rarely, as a true passive with the object of the active verb (the "patient") transformed into the subject of the passive verb and the subject of the active verb (the "agent") expressed by the genitive, ablative, or instrumental case (e.g., Grk ἔρχονται ἐντός βασιλείων they are ruled by kings). Proto-Indo-European probably had only an incipient aspectual distinction: the "present" denoting activities the speaker saw as on-going or repeated and the aorist denoting completed activities. The perfect, denoting actions that had some kind of on-going relevance, though widespread (seen in Indo-Iranian, Greek, Italic, Celtic, and Germanic) was probably a late, dialectal creation of Proto-Indo-European. As to tense, Proto-Indo-European seems to have distinguished two, a present and a past. Those two are universal in IE languages. A separate future arose in most branches independently, though in Indo-Iranian, Greek, and Celtic (with traces in Balto-Slavic) it arose from a PIE desiderative formation (one expressing a desire to do something).

Proto-Indo-European also distinguished three persons, first (speaker), second (addressee), and third (non-participants in the conversation). These are also universal in IE languages. Germanic, Balto-Slavic, Greek, Indo-Iranian, and Tocharian all preserve three numbers (singular, dual, and plural) in the verb. The other groups do not. However, the Anatolian languages have a first person plural in -wen which in the dual-preserving languages would be a dual ending and it is a reasonable hypothesis at least that -wen should be taken as a trace of a formerly preserved dual in Anatolian. If so, reconstructing the dual to Proto-Indo-European seems assured. Finally, judging the numbers of distinct moods that existed in Proto-Indo-European is even more dependent on how we judge Anatolian's relationship with the rest of the Indo-European languages. All IE groups distinguish the indicative from the imperative. There is evidence for a distinct optative (for wishes or contrary-to-fact situations) in *-ieh2-. It appears in or has left traces in eight groups (Italic, Germanic, Baltic, Slavic, Greek, Indic, Iranian, and Tocharian). It is probably PIE in age. A separate subjunctive (for mild commands, in subordinate clause, for possible events) in *-e/o- manifests itself in Celtic, Italic, Greek, Indic, and Iranian (and just possibly in a single trace in Tocharian). If it were IE in age, its shape would have made it liable to confusion with the indicative of thematic verbs and we could account for its disappearance in those groups where it is not found on the basis of that confusion. However, it is not found, even in traces, in Anatolian, the one group where the indicative and subjunctive would not have become confused since simple thematic verbs are notably lacking in Anatolian. Its absence in Anatolian is a reasonably strong argument that the subjunctive in *-e/o- was a late dialect feature of Proto-Indo-European that had not arisen when Anatolian became separated from the rest of Proto-Indo-European.

This discussion is summarized in the accompanying diagram of the verbal categories of Proto-Indo-European. Note that the categories of aspect and tense were only operative in the indicative mood in Proto-Indo-European (though they came to appear in other moods in a variety of ways in some IE groups).

In addition to these semantic categories, Proto-Indo-European would appear to have had two conjugations which were distinguished by different person endings, at least in the singular. The first conjugation was characterized by the first, second, third person singular endings *-m(i), *-s(i), *-t(i). The second conjugation was characterized by *h2(e)(i), *-θε(ε)(i), and *-e(i). The first conjugation was most often typified by *-e as the root vowel in the singular and no vowel (or a reduced vowel) in the dual and plural (though there were other vowel patterns). It can be exemplified by the paradigm for *θi2es- 'he':

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The second subvariety of the second conjugation, a type usually called "thematic verbs" (and opposed to the "athematic verbs" of the other two types), was characterized by the suffix *-elo- and by *-e- as the accented root vowel throughout the paradigm. It can be exemplified by *bhcr-e/o- 'carry'.

The final *-i that appears as part of some of the person/number markers is in origin a separate particle that emphasized the "here and now" nature of what was being said. It is no doubt originally the same as the *-i that marks the locative singular of nouns. In any case, otherwise identical endings but without the final *-i (called "secondary endings" as opposed to the "primary endings" with *-i) were also to be found in a variety of uses, particularly with the modal sense of "is to" or "must" (the so-called "injunctive") or, when combined with a preceding particle *h2e, in a past meaning (called the "imperfect"). This latter combination is found certainly only in Greek, Phrygian, Armenian, and Indo-Iranian, though it is possible that Baltic, Slavic, and Tocharian also show traces of it in certain of their past tenses. It may well have been, then, an innovation of the center and east of the IE world and not part of the verbal system of Proto-Indo-European in general.

The second conjugation comes in two varieties: a "basic" variety without a connecting theme vowel *-elo- and one with the connecting vowel. The first subvariety of the second conjugation often had *-o- as the root vowel in the singular and no vowel (or reduced vowel) in the dual and plural (though again there were other vowel patterns possible). It can be exemplified by *nok- 'harm, destroy'.

Even in Proto-Indo-European itself it would appear that the thematic type of conjugation II had borrowed the secondary endings (i.e., those without the final *-i) of the first conjugation. Thus the imperfect of *bher-e/o- was *bherom, *bheres, *bheret (or *h2e bherom, etc.). The past of the athematic type of conjugation II was apparently characterized by the addition of *-er- and had yet another set of endings. The imperfect of *nok- would have been *nok-h2e, *nok-i-s-th2e, *nok-i-s, (3rd. pl.) *nok-i-er (or *-ers) - *nok-i-r(ö)nt.

The medio-passive apparently always had person-number endings like that of conjugation II, except with a final *-r rather than *-i (though the latter came to characterize the medio-passive in the southeast, namely in Greek and Indo-Iranian).

The athematic type of conjugation II appears as such only in Anatolian, though Tocharian shows the same formation rebuilt a bit in the direction of conjugation I. Other IE groups show even fainter traces of it, rebuilt as the thematic type. Indeed, outside of Anatolian, the thematic verbs have become the dominant type in the various IE branches, to the point that athematic verbs typically remain, if at all, only as a small subset of irregular verbs such as NE am, is. However, at the same time that thematic verbs are becoming the dominant type, the person-number endings of conjugation I were replacing the person-number endings of conjugation II, including its thematic type. The accompanying chart indicates the varying degrees to which the conjugation I person-number endings of the singular have penetrated the paradigm of the thematic verbs (a plus indicates that the conjugation I form has replaced the conjugation II form; parentheses indicate that that replacement has happened demonstrably late in the history of that stock).

Conjugation II endings are most securely preserved in the (dialectal) PIE perfect. This formation, which signals some

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
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The Association of Conjugation I Personal Endings with Thematic Verbs

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prior activity that has resulted in an on-going state, in much the same fashion as the NE perfect tenses (e.g., "he has come", "she has brought the book"), looks a good deal like the conjugation II present given above, though without the "here and now" particle *-i and typically with reduplication. Thus the perfect to the root *dérk- 'see' is *dedórkh2e 'I have seen' or to the root *ueld- 'see' is *uóidh2e 'I have seen' (whence > 'I know').

There have been several attempts to match the two conjugational patterns with some semantic distinction. The earliest such suggestion was to consider conjugation II endings as originally the markers of the middle voice and conjugation I endings as the markers of the active. More recently Gamkrelidze and Ivanov take conjugation II endings as marking an inactive (i.e., inanimate) subject in an intransitive sentence or an active object in a transitive one while the conjugation I endings marked active subjects in both transitive and intransitive sentences. Robert Beekes, on the other hand, proposes that the thematic verbs (one set, at least, of conjugation II) marked the presence of a definite object and athematic verbs (of conjugation I) marked the presence of indefinite objects. All such identifications remain most speculative. No stock of Indo-European distinguishes the two sets of endings in anything like the pattern that these hypotheses would require. No doubt the two sets must have reflected some semantic distinction at some point, but for reconstructible Proto-Indo-European they seem to have been merely markers of different conjugations.

Though not attested in Anatolian, the aorist is even more widely attested in the rest of Indo-European than the perfect and should probably be reconstructed for late Proto-Indo-European itself. Aorists were distinguished from presents by the shape of the stem. If the aorist took the shape of the verbal root with no additions, the present was distinguished by reduplication or some derivational suffix. Thus *deh3- is the aorist shape of a verb meaning 'give; take' while *dideh3- represents the present (therefore: *deh3t ~ *h1e deh3t 'he gave' versus *dideh3t ~ *h1e deh3t 'he was giving'). Alternatively, it was the present that took the root shape and the aorist was derived by a suffix, usually *-s, e.g., *dèlek ~ *h1e délëk 'was showing' versus *dèlekt ~ *h1e délëkt 'showed'.

Both the aorist and the perfect reflect derived verbs that became integrated into the verbal paradigm over time. But Proto-Indo-European had a rich selection of verbal derivatives besides those that became aorist and perfect. There were a number of derivatives, for instance, that created "iterative-intensives" (i.e., derived verbs that focused on the repetition of the action denoted by the underlying verb or on its unusual intensity) of one sort or another. Thus we have the derivational suffix *-je/o- with differing grades of the root vowel in *dük-ch2e- pull (along) (Latin e-dúcāre 'bring up, rear, educate', OE togian 'tow', TochA takā- 'move, agitate; consider') from *deuk- 'lead', *domh-ch2e- subdue, tame (Latin domat 'subdues', OHG zamōt 'tames', Olnd damayati 'subdues'), or *lekeh2e- 'move vigorously' (Lat.e lekāju 'fly or jump about', Grk Hesychius λυκεύω 'dance to singing'). A similar meaning is carried by the suffix *-je/o- in *klep-je/o- 'steal' (Grk κλέπτω 'steal', TochB kalypuṣi 'to steal') from *klep- 'lay hand to'. Another very frequent iterative formation is *-ske/o-, e.g., *prk-ske/o- 'ask, question' (OIr arcu, Latin poscō, OHG forscon [< *prk-sk-eh₂], Arm harchi, Av parasauti, OIr pccštati) or *g*sq-ske/o- 'come' (Grk βάπτω, Av jassati, Olnd gacchati, TochB kánmasq-).

Causatives (i.e., 'make or have [someone] do something') were formed by adding *-neu- (plus zero-grade of the root) or *-eie/o- (plus o-grade) in *h1neu-tei 'cause to move' (Grk ὀπνιον 'moves, rouses, stirs', Hit amuzzi 'moves along, makes go, stirs, raises', Av aranaoiti 'sets in motion', Olnd prniti 'moves, arises') from *h1or- 'stand up, rise', *toršeje/o- 'dry' (tr.) (Latin torrēre 'dry', OHG derrēn 'dry', Olnd tarsyati 'dries') from *ters- 'be dry, dry out' (intri.), or *-osei/o- 'clothe' (OE werian clothe, cover over; wear', Gothic wajspib 'clothes', Albanian vesh 'clothe, dress, cover', Hit wasszēzi 'clothes, dresses') from *yes- 'be dressed, wear'.

Verbs could be derived from nouns or adjectives by means of certain denominative suffixes. The most common, perhaps, was *-je/o-as in *h₁nommje/o- 'name' (Goth namnjan name, Grk ὑφάσμα 'name', Hit lamjniya- 'name') from *h₁omnjego. The suffix *-ehe2 created 'factitives' (i.e., 'make [something] the quality of the underlying noun or adjective'). Thus from *neiros 'new' we have *neueh₂- 'make new' (Late novāre 'make new, renew', OHG niuwn 'make new, renew', Grk νεωάρα 'replow', Hit newah₂- 'make new, renew'). There was also the suffix *-e1h₁ which created verbs meaning 'be(com)e the quality of the underlying noun or adjective' as in *h₁rudheh₁- 'reden' (Olfr rudi 'blushes', Lat rubēre 'be red, blush', ON roða 'be red', OE radian 'be ruddy', OHG rotēn 'be red', RusCS rudēti šep 'turn red'. Lith rūdėti 'rust, become rusty') from *h₁rudhros 'red'. A verb such as *leukeh₁- 'shine, be bright' (Lat lūcēt 'it is light, it is day', Æsċūt 'it grows light, day is breaking', Hit lukkeszi 'it grows light'), while presumably originally derived from *leukis 'light', might also be taken as a derivative of the verbal root underlying *leuks and such ambiguity eventually led to the extension of this suffix to purely verbal derivation as in the late, and dialectal, *stehék₁- 'be standing, remain standing' (Olfr ta 'is', Lat stare 'stand', OHG stan 'stand', OCS stojatt 'stand').

**Word Formation**

Proto-Indo-European also had a rich system of derivation. As we have seen above, derived causatives or iteratives could be made from verbs. In addition, adjectives could be derived from verbs, and verbs from nouns or adjectives. As examples we might cite *h₁ɔreit 'rises, moves' (intr.) > *h₁ɔfr- 'is', *h₁or- 'es' 'height', *tēmeh₂-es 'it grows dark' > *tēmeh₂-es 'darkness' > *(t)ēmeh₂-es-to-s 'dark' or *h₂eh₂ 'burn, heat' > *h₂eh₂-ter- 'fire' > *h₂eh₂-ter-tio 'chimney' (> atrium'). Most derivation, like the examples just illustrated, was done by way of suffixing, but nouns and adjectives might also make derivatives by a change of accent pattern (e.g., Olnd kfrsna- 'black', but kfnsa- 'black antelope'), by ablaut or a
change of vowel (e > o, e > ə, o > ə), or both (e.g., *svekturos 'father-in-law' > *svekturos 'pertaining to the father-in-law', later also *brotner-in-law*, *uodr 'water' > *uedor 'water [collective]'), or *h2esu (gen. *h2esu(o)s) 'a good thing' > *h2esus (gen. *h2esous) 'good'.

An extended illustration of PIE derivation may help to show the richness of the system. We can reconstruct, for instance, a neuter noun *poums ('human) body hair' (which by regular phonological processes would have had an alternative pronunciation *pom) whose genitive singular might have been *poums (older?) or *poumsios (newer?). By internal derivation, i.e., by a change of vowel and/or accent class, was made the feminine noun *poumous whose meaning was more or less equivalent to the underlying neuter noun (cf. Latin pūbēs 'pubic hair, Shughi pōm 'down, fluff'). The relationship between *poums and *poumous would be exactly the same as that between *uody and *uedor above. There was also a derived adjective *poumous 'characterized by *poums' (cf. Latin pūbēs 'arrived at the age of puberty, adult; covered with down') which might itself be nominalized as 'one characterized by *poums' (cf. Latin pāberēs [pl. adult men, men capable of bearing arms] [like French poil 'body hair' and poilu 'hairy, soldier'], Olnd pūmän [gen. pūmsas] 'man, male'). Two later thematicizations of the basic neuter noun are *pouns-o- (Albanian push (down, hair, fiber, fur) and *pou(m)s-o- (Rus pukh 'down, fluff, line hair'). External derivation, i.e., the addition of morphological material, give us *pouns-to-s in Av āsta- 'skin, especially the hairy skin of men', *pou(m)s-ut-s in dialectal Lith paustis 'animal fur', *poumous-nehr in OIr uamann 'skin', and *p-poums in Latin impūbēs 'below the age of puberty, beardless; boy'. (All these instances of external derivation are language specific though in each case they represent PIE morphological possibilities.)

*poums is itself a derived s-stem and the *p(e)um- that lies behind it is seen in *pum-ro-s 'characterized by *poums' in Latin pāberēs 'puberty, growth of body hair, virility' (and it is this word that is the source of the -b- found throughout this word family in Latin, *peum-ejh -be characterized by *poums' in Latin pābēns 'arrived at puberty' and further in *peum-ejh-skēo 'become characterized by *poums' in Latin pābescō 'come to the age of puberty', and in *poum-go-on-'beard' in Greek πωγων 'beard'. Finally *p(e)um- is itself derived from *pu- otherwise seen in *pu-las 'single hair (of the human body) as in Mīr ilj 'beard', Grk (Hesychius) πολυγες (pl.) 'hairs of the body' or Olnd palakās (pl.) 'hairs bristling from delight or apprehension'.

A somewhat different derivational process than those illustrated before is the addition of "enlargements" to verbal roots, e.g., *ten- 'stretch' > *ten-s or *ten-gh- 'stretch' or *h2ehks 'burn, heat' > *h2ehks-s in *h2ehks-eneder 'hearth', *h2ehks-tēr- 'ember' (later 'star'). As in these examples, the addition of an enlargement often does not seem to have very large semantic consequences. It is likely that they reflect some sort of verbal derivational processes that were already obsolete in the latter stages of Proto-Indo-European that we can recover by linguistic reconstruction. What might be thought of as a kind of enlargement, albeit this time as a prefix to the root, is the so-called "s-mobile" which occurs facultatively before some PIE roots (cf. the descendants of one such pair in NE melt and smelt). As with the suffixed enlargements there seems to be no constant semantic difference between the preixed and unprefixed form.

Finally, Proto-Indo-European made extensive use of reduplication, the partial repetition of (usually) the first consonant (with a following vowel) of a root. Thus from *stej-h- 'stand' we find *sti-stej-h-mi 'I stand' or from *kwel-turn' we have *kwe-kwel-'om 'wheel' (< the turner). Such reduplication was particularly common as a characterization of aspectually "present" verbal stems (e.g., *sti-stej-h-mi 'I stand' but *steh2-m - *hē Meh2-m 'I stood up') and of the dialectally important perfect (*de-dork-e-he/she has seen').

Proto-Indo-European was also rich in compound adjectives and nouns. Particularly common were compounds with a meaning 'having X + Y', e.g., *h20xh-p(t)ehlos 'swift-winged' (Greek αἰγοπτός [with phonological deformation] 'vulture', Latin aves 'well-disposed, favorable', Av humanah-'having good thought', Olnd sumanats 'well-disposed, gracious'), or *kwept-phod- 'animal' (*four-legged?) (Latin quadrupes 'four-footed; four-footed animal', Umb petpurps-'four-footed animal', Grk κτής 'having four feet', Greek τετράπόν 'four-footed; four-footed animal [particularly cattle]', Olnd catupsad- 'four-footed animal'). Other types of compounds were also possible. For example the first part of a compound might further specify or limit the second part as in *unik-potis 'lord' (lit. '2 settlement-master') in OPrus waispatt-'wife', Lith vičtas 'lord (God), ruler', Albanian zot (*unik-pot-) 'lord', Av vispatt- 'lord', Olnd wispatt- 'lord of a house, chief of a settlement or tribe'. Another type of compound is found commonly in numbers, e.g., *ui-(d)kīthi 'twenty' (*two tens').

See also Indo-European Languages, Reconstruction, Schleicher's Tale, Subgrouping. [D Q A]

Further Readings

Language


The Przeworsk culture is an Iron Age culture (second century BC–fourth century AD) of south and central Poland and the west Ukraine. It is sometimes coupled with the more easterly Zarubintsy culture to represent the culture of the Iron Age Slavs. There are about forty sites known which include undefended agricultural settlements with small semi-subterranean (later surface) dwellings and large cemeteries. Burial was by cremation in a pit or urn and some burials are accompanied with weapons. Among those who look to Poland as the Slavic homeland, the Przeworsk culture shows continuity with preceding cultures (Lusatian) and insures that the Slavic homeland was in this territory from whence the Venedi, one of the earliest historically attested Slavic tribes, are specifically derived. On the other hand, Germanicists have argued that the Przeworsk culture was occupied by the Elbe-Germanic tribes (from where the Vandals or Burgundians originated) and there are also those who argue that the Przeworsk reflects both a Germanic and a Slavic component.

See also SLAVIC LANGUAGES; ZARUBINTSY CULTURE.

[J.P.M.]
The Germanic and Tocharian forms, though punnish; rescue', "furrow", Av phun "tear", pushes, words (udatj iOapoc; thrust' (pres. 'pus', Arm hud 'purulent blood). From *p(e)u(h)- 'stink, rot'. A late word of the west and center of the IE world.

See also Anatomy, Medicine, Rot, Sick. [D.Q.A.]

PUSH

*deuk- 'pull'. [IEW 220 (*deuk-); Wat 12 (*deuk-); Gl 500 (*deukh-); Buck 9.33]. (1) pres. *deuke-o-: Lat discu 'lead, fetch; deduce', ON toginn 'pulled', OE tōn 'pull', OHG zihowan 'pull', Goth tiuhan 'pull, lead', Alb nduk 'pull hair out', Grk (Hesychius) deu-ki 'considers, reflects'; (2) pres. *duk-eh-: MWels dygat 'bring', Lat -ducāre 'lead', ON toga 'tow', OE togin 'tow' (> NE tow), OHG zogun 'pull', TochA tka- 'will stir; will consider'. Cf. ON tegga 'tie', OE tīegan (< *dukeje/o-) 'tie', ON jōs (< *deukej-) 'help', Grk δαιδωσκαθαι 'rub, drag'. Quite widespread; certainly old in IE. It is noteworthy that in a number of stocks this word has taken cognitive extensions may well be of PIE date.

*dhregh- 'pull, tear (out). [IEW 257 (*dheragh-); Wat 15 (*dheragh-); Buck 9.33]. On draga 'pull' (borrowed > NE drag), drōg 'stripe', OE dragan 'pull' (> NE draw), OHG tragen 'carry', Lith dirgūn 'stimulate, stir, excite', Latv drāgāju 'tear', OCS drā̄gn'ō 'pull', Rus derogat 'pluck, tear, dorōgā 'way, journey', dorōzītī 'hollow out', Czech dražítī 'make a groove or furrow, hollow out'. Probably related is Lat trahō 'pull', though the initial t- and the vowel -a- are a bit different. A word of the northwestern part of the IE world.


*h-twelk- 'pull'. [Gl 595]. Lith velkū 'pull', Latv vēlku 'pull', OCS vēlkō 'pull', Alb ḥeḳ 'pull (out), remove', Grk ἄλκα (acc.) -ἀλκας (< *h-twelk- -h-twelk- 'furrow', Av frāvrācätī 'carries off'. A "rhyme-word" of the preceding, confined to the center and east of the IE world.

See also Drive, Flow. [D.Q.A.]

PUNISH

see STRIKE

PURE

?*h-twirthrōs 'pure' (< *burned). [IEW 11–12 (*ai-dh); cf. Wat 1 (*ai-dh)]. Grk ἱπρός 'cheerful, glad, pure', OInd vidhira- (< vi + idhira- 'clean, clear, pure'. A derivative of *h-twirth- 'burn'. Possibly a word of the center and east of the IE world, though it is also possible that we have independent innovations in Greek and Old Indic.

See also Burn, Clean. [D.Q.A.]

PUS

*pūhēs-: putrefaction, pus. [IEW 848–849 (*pū-)]. Lat pās 'pus', Lith pūvēsis 'rotten things', pāliai 'pus', Latv puveši 'pus', Grk πυός 'pus', Arm ḥu 'purulent blood'. From *p(e)u(h)- 'stink, rot'. A late word of the west and center of the IE world.

See also Anatomy, Medicine, Rot, Sick. [D.Q.A.]
belong together. If they do, then we have evidence for a late western dialectal word in IE.

See also Press. [D.Q.A.]

PUT

*dheh₁* - 'put, place' (pres. *dhidheh₂ti*). [IEW 235–236 (*dʰe₁*); Wat 13 (*dʰe₁*); Gl 21 (*dʰe₁*); Buck 12.12, BK 70 (*dʰi-y-*dʰey-*)). From the present *dhidheh₂ti*; Grk τίθημι 'sets', Av daśāiti 'puts, brings', OInd dādāhāu 'puts, places, lays', TochB tattam 'will put, place'; other, newer presents are reflected in Lat facere 'do', -dere in ab-dere 'take away', con-dere 'build, found, establish', crēdere 'believe' (< *kred-dheh₁*- 'put one's heart'), OE ön 'do' (> NE do), OHG tuon 'do', Lith dėti 'lay', OCS děti 'lay', Arm dnem (< *dheh₁-ne/o-*) 'put, place', Hit dāi (< *dheh₁-ê-ei*) 'puts, lays', tēzzi (< *dheh₁-ti*) 'says', tṛtya- (< *dīdhēj-e/o-) 'establish', tittam- 'set up', Lyčian tāt 'puts, places', TochAB tā~tās- 'put, lay'. Most of these latter presents are built on the analogy of the aorist stem *dheh₁*- seen, as aorists, in Arm ed 'put, placed', OPers adā 'put, placed', OInd adhāt 'put, placed' (< *h₁ездheh₁*). Widespread and old in IE; the PIE verb for putting and placing.

*stel*- 'put in place, (make) stand (up)'. [IEW 1019–1020 (*stel*); Wat 66 (*stel*); Gl 101; Buck 12.12]. On stjōlt 'stem, stalk', stālitr (< *stolno-*) 'stalk', OE stela 'stalk, support', stellit 'standing place, position, stall, stable' (> NE stáll), stellam 'eminence, tableland; ground, earth; dry land' (with the initial consonant cluster influenced by *sta*- 'stand'). Compare the further derived form seen in OLat stlocus 'place', Lat locus 'place'. Widespread and old in IE.

*?*dheigʷ*- 'stick, set up'. [IEW 243–244 (*dʰi-seeking*); Wat 15 (*dʰisgi-*)]. OLat fico, Lat fico 'a(f)fix, fasten, drive in, attach, erect, OE dic 'trench, moat' (> NE dice), MHG tich pond, pool; dam, embankment, Lith diegiu 'prick, plant, sow', dygstu 'germinate, sprout', Latv diegš 'prick'. It is not certain that all these words belong together; particularly problematic are the Germanic words for semantic reasons. If they do belong together, we have evidence for a word of the northwest of the IE world.

See also Leader. PUT. [D.Q.A.]

PUT IN ORDER

*tāg- ('*tehag-*) 'set in place, arrange'. [IEW 1055 (*tāg-); Wat 69 (*tāg-)]. Lith su-tōgitti 'get married; ally oneself with' (< * arrange oneself with*), Grk τάσσοντα (< *tak-s-o-*) 'put in order, line up, arrange', τάγμα 'ordinance, command', (Thessalian) τάγμα 'commander, ruler, chief', Parth igmirt 'commander (i.e., /tagma-ti/ -command-giver)', TochA (pl.) täšši 'chiefs, commanders', TochB täš 'commander (Toch *tag-*)'. At least a word of the center and east of the IE world.

*jet-* 'put in the right or natural place'. [IEW 506–507 (*jet-*)]. OIr itu (DIL át(i)u) (< *iē-tu-tāt-) 'thirst', Wels addr-iad 'longing' (the Celtic shows a meaning such as 'want the right or natural place'), SC jatiti se 'lock together', Av yatetti ~ yatayetti 'puts oneself in the right or natural place'. Sogd pry-t-adorn'. OInd yatate 'puts oneself in the right or natural place', TochAB yat- 'decorate, adorn' (< * ḫ put into the right place'); cf. Lat ómirare 'to adorn' (< *ordinare*), yēre 'jewel, decoration', yat- 'be capable of (int.). have power over, tame (tr.). Though preserved only on the margins of the IE world, it is clearly old.

*reh₁*- 'put in order'. [IEW 59–60 (*re-dh-); BK 595 (*ra-ay-/*ra-ay-*)]. Lat reor 'count, calculate', *roh₁-dis- OIr raid- 'say', MWel aradhō 'recount', Av rād- 'prepare', OInd rādhōn 'achieves, prepares', *roh₁-dis-e/o- (causative): ON raða 'talk', Goth rōdjan 'talk', OCS radi 'take care of, concern oneself over'. The connection of the Latin form here is uncertain. Otherwise, the root is fairly well attested to PIE.

*sem-* 'put in order, put together'. [IEW 902–905 (*sem-); Wat 57 (*sem-)]. On semja (< *somh-he/e/o-*) 'put together, put in order, unite', OInd samayati 'puts in order', TochB sams- (< *sem-s-e/o-*) 'count'. Presumably a verbal derivative of *sem-* 'one, a unity'. Sufficiently widespread to be plausibly PIE in date.

See also Leader. PUT. [D.Q.A.]

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The preservation of the bodies ranges from poor to incredibly good with a number of desiccated "mummies", which had been naturally preserved in the arid sandy conditions.
Both the evidence of the skeletons and that of the mummies indicates a Europoid population. Burials in tombs of the first type have been likened to those found in the Afanasevo culture of the Yenisei-Altaic region while those in the second type have been associated with the Andronovo physical type. The employment of timber circles about the tomb has also been linked to the Andronovo practice of surrounding tombs with stone circles. Similar burials have been recovered from several other sites with dates ranging all the way up to the first millennium AD.

A Europoid population with connections with those of the Eurasian steppes provides one of the most likely archaeological candidates for the Proto-Tocharians although, it must be admitted, the specific cultural links (as opposed to those based on the evidence of physical type) are few and until settlements of this culture are excavated and the full range of material culture has been recovered, the origins, chronological range, and true significance of the Qawrighul culture must remain speculative.

See also Afanasevo Culture; Andronovo Culture; Tocharian Languages. [J.P.M.]

Further Readings

QUAIL

*qurtok* - quail. [IEW 1180 (*qurtoko-)]. Grk ὄπτρυξ 'quail', OInd वर्तका - 'quail'. At least a late IE isogloss. The only other potential comparison is Arm lor 'quail' which may be related to Grk λόπος 'gull'.

The quail is one of the commonest game birds and flies seasonally in great flocks aiding its capture by nets and other means.

See also Birds; Gamebird. [J.A.C.G.]

QUEEN see KING

QUERN

*ɡʷreθ₂-ur-on- - *ɡʷerθ₂-n-u-s (gen. *ɡʷerθ₂nus) 'quern'. [IEW 477 (*gʷerθ₂-nu-); Wat 25 (*gʷerθ₂); Gl 399 (*kʷr̥au-), 770; Buck 5.57, BK 345 (*kʷur-/*kʷor-)]. From *ɡʷreθ₂-ur-on-: OIr bruá (DILL bró) (gen. broin) 'millstone, quern', Wels breután 'quern', OInd grāvan- 'stone for pressing the soma'; if TochB karwene 'stone; (coll.) rock' belongs here it reflects *ɡʷerθ₂-ur-on-en-; from *ɡʷerθ₂-n-u-: ON kværn 'quern', OE cwærn 'quern' (> NE quern), OHG quern 'quern', Goth asliq-gaimus 'donkey-mill'. OPuris gimowys 'quern', Lith girmo 'millstone', (pl.) girmos 'quern', Latv (pl.) dzimurs 'quern', OCS žirmu 'quern'; Arm erkan 'quern' is ambiguous as to its exact PIE antecedents. From *ɡʷerθ₂-ur- 'heavy'. Though the exact PIE preform is difficult to reconstruct (why some reflexes show extensions *-u-n- and others *-n-u- is a mystery), there seems a strong likelihood that there was a PIE word more or less of this shape with this meaning. Given its plausible derivation from a PIE 'heavy', it is difficult to see, as GI argue, this word as a borrowing from Proto-Semitic *ɡur̥- 'threshing floor', which seems distant semantically anyway.

Querns were a regular accompaniment of the Neolithic tool-kit which emerged in southwest Asia by the ninth millennium BC. The term is usually applied to the larger lower stone, generally flattened with a concave surface, the metate of New World archaeologists, while a second stone held in the hand (the mano of American archaeological terminology) was used as a rubber or grinding stone. Querns are found wherever an economy required the necessary technology to process plants, particularly domestic cereals, but also wild seeds and they emerge in the archaeological record prior to the domestication of the earliest strains of wheat and barley. Grinding seeds was not their only function, however, and on occasion they are found in contexts where they would have been employed in the grinding up of substances such as ocher as a coloring agent. Querns are ubiquitous across Neolithic Eurasia and provide no indication as to the location of the earliest Indo-Europeans. In addition to their economic importance, they are also found in cultic contexts in southeast Europe, for example, where shrines included the remains of querns, rubbing stones, female figurines and even ovens suggesting ritual preparation of grain.

See also Agriculture; Grind; Tool. [D.Q.A., J.P.M.]

Further Reading

QUIET

*ʰjerθ₁- - 'quiet, at rest'. [IEW 338 (*e-ra-), 864 (*rem-); Buck 12.19]. (1) *ʰjerθ₁-m- 'to rest, support': OIr lo-ruim 'set, lay', Wels araθ 'quiet, calm, gentle', Goth rimis 'rest', Lith rimti 'to be calm', Latv rāmas 'still', Grk ἐπηύνοσ 'lonely, solitary', Av rāmayēiti 'calms down', arime 'quiet', OInd rāmate 'stays still, calms down'; (2) *ʰjerθ₁-ūθ₂- 'quiet, calm, rest': ON rō 'calm', OE rōw 'calm', OHG ro - rūaw 'calm', Lith rovā 'calm', Grk ἑπόν 'quiet'. While the precise form and details are not yet clear, some form of this root (with two different suffixes) can be posited for PIE. The semantic field here seems to be associated with the "absence of motion" rather than "silence".

*ʰkʷeθ₁- - 'rest, quiet'. [IEW 638 (*kʷeθ₁-); Wat 33 (*kʷeθ₁); Gl 205 (*kʷeθ₁H/*kʷeθ₁H-); Buck 12.19]. Lat quiēs 'quiet', ON hvild 'quiet', OE hwil 'while, time' (> NE while), OHG (h)wila 'while, time, hour', Goth haela 'while', OCS pokoj 'peace, quiet, rest', Arm han-gist 'rest, quiet', OPrs šiyātis 'comfort'. A further development with a suffix attests *kʷeθ₁-tos: Lat quīetūs 'quiet', AV šiśāta 'happy'. Some
proposed connections such as TochA sāt 'rich', TochB sāte 'rich' are questionable on semantic grounds; Lith kėlena(s) 'short period of time, a while' may rather be < keltt 'to move' and OInd cira- 'long(-lasting) < cinoti. Still the remaining forms could warrant positing a PIE root, built on *k*eh₁j-'to rest comfortably'.

*(s)tel- 'be still, quiet' [IEW 1061-1062 (*tel-), Wat 66 (*stel-)]. OIr tuilid 'sleeps', ON stilla 'to still, soothe', OE stillan 'to still', stille 'still' (> NE still), OHG stillen 'make still', stilli 'still', Lith tylá 'quiet person', stilas 'quiet, silent', Latv stilt 'become quiet'. OCS tlejo 'decay' is unclear but could belong here. Only attested in the northwest.

*(e)h₃a-s- 'quiet'. [IEW 1056-1057 (*taus-); Buck 12.19]. OIr tōe 'silently, still', Mlr tai (< *tausos) 'silent', Lith taušytis 'to die down, become quiet (of the wind)', Rus tušit 'extinguish, quench', OInd tūsnim 'quiet, silent'. To these may possibly be added Hit tuhuss(i)ye- 'to look on inactively'. Cf. also OIr tai 'silence', Wels taw 'silence'. Swed tyst 'silent' (OSwed thyster) has been connected here, as well as OPrus tūsan 'quiet', Av tuši- 'still'. Distribution suggests a good case for PIE antiquity.

**lēnos (*lēh₁nos) 'quiet'. [IEW 666 (*lē-no-)]. Lat lenis 'soft, mild', Lith lenas 'quiet, slow', Latv lēns 'quiet', OCS lēnə 'lazy'. This set is limited to the northwest and may reflect parallel developments from an underlying verbal form *leh₁(i)- 'to leave', but even there the meaning of the Latin form differs. At any rate, at best a northwestern dialectal term. See also SILENT. [J. C. S.]

- 475 -
RAIN

\*suh\* - 'rain'. [IEW 912 (*seu-); Wat 58 (*seu-); Gl 586 (*seu-); Buck 1.75]. OPrus suge- 'rain', perhaps Alb shi (< *suh\*), but *ghi is expected (< *suh\*); 'rain', Grk ὕερ 'it rains', ἡρῶς 'heavy rain', TochAB su-, swās- (< *suh\*-) 'it rains', TochA swase 'rain', TochB swase 'rain' (Proto-Toch < *suh\*-o-so-?). Hit hēu- 'rain' cannot be derived from this root. Although suggested, there is no reason to connect *s(e)uh\* - 'to rain' with *seu- 'to press; juice', i.e., 'rain' as a substance pressed out by an agent deity; all forms are formally and semantically distinguished. Distribution supports PIE status.

\*hιυες\* - 'rain'. [IEW 81 (*yer-s-); Wat 77-78 (*wers-); Gl 587 (*wers-); Buck 1.75; BK 382 (*haw-/*haw-)]. Mir fāras ( < *h₁yūʃaš) 'shower', Grk ἥπερις - ἥπερ 'dew', (caus.) ὄψεος ( < *h₁yorsešē) 'urinate' < *make rain', Hit warsa (< *h₁yors-) 'rainfall', An aibi-varsta- 'rained upon', Olnd varšati 'it rains', varṣa- (< *h₁uors-om) 'rain'. Greek points to an initial \*h₁- (in ὄψεος it was regularly lost before -o-). The nouns are either recent or point to a root noun *h₁uors- *h₁uors-. The Old Indic verb shows that *h₁yες- is a root, so connection with Olnd vār(i) 'water' is impossible while connection with ṛṣan- 'male' < 'semen' is impossible as it had no initial laryngeal (cf. Grk ἔρως, ἀέρως). Distribution assures PIE status.

\*hₑgℎlu\* (gh-) 'rain'. [IEW 8 (*aghli(u-)); BK 388 (*hag/-, *hag-)]. OPrus aglo 'rain', Grk ἀγάλας 'fog, cloud'. The root would appear to be *hₑgℎ- with the suffix -lu- (or -el-?). These forms appear to be isolated; connection with Arm alfamul-k 'darkness' is difficult.

\*ghb\* (roř\*) - 'rain'. [IEW 316 (*nebh-); Wat 46 (*ombhoro-)]. Lat imber (gen. imbris) (< *ghb\*-) 'shower', Arm amb (< *abh\*-) 'cloud', Av abbra- 'cloud', Olnd abhārā - 'rain-cloud'. Although sometimes cited, Grk ἄμβρος 'rain' does not fit here as *mbh > Grk ἄμβρος 'foam' belong because of the difference in meaning. The root probably derives from *nebh- 'cloud'.

\*dhreg\* - 'rain or snow lightly; be bad (of weather)' [cf.IEW 251-252 (*dhera-gh-3)]. Lith dregti 'rain lightly, be slushy', dregnas 'wet, damp', atdregis 'haw', dregti - dirgti 'become wet, slushy, sleety', Latv dregns 'wet, damp', dregis 'haw', TochA tarkār 'cloud', TochB tarkār 'cloud' (Toch < *dhreg-r-u-), with new full-grade *dhreg- - *dhorg-). Mlt derg 'red' (< *dark'), OE deorc 'dark' (> NE dark), MHG terken 'make dirty, defile', Lith dėrgti 'be slushy, sleety, soil, make dirty, abuse', dāra 'rainy weather, bad weather of any sort', OE Rus padoroga ± stormy weather'. The reference to dark, cloudy, wet weather would seem to be old. Formally and semantically newer are the Germanic and Celtic references to darkness or dirt. At least a widespread dialect term in late PIE.†

\*mreg\* - 'rain softly, drizzle'. [IEW 738 (*mereg-)]. Latv mreguš 'rain softly, mārā 'soft rain', Czech mřeliti 'drizzle', Rus morosit' 'drizzle', Grk βροχή 'wet, rain, overflow', βροχή 'rain'. A word of the central part of the IE world. *

??\*bandu\* - 'rain'. [IEW 95 (*band-); Wat 4 (*band-)]. OIr bannae 'drop' (from British?), MCorn banne 'drops', MBret banne 'drops', Olnd bindu- - vindu- 'drops', globule, spot'. The root should be rejected. The Olnd bindu- has been supposed to replace *bandu- after indu-, which itself lacks etymology. Rather, the variant vindu- suggests a non-IE origin for this word. Moreover, the connection between the Old Indic and the Celtic words is too uncertain as is also the putative Illyrian Bindus (river god) and the Lat ĭōns Bandusiae. The roots *suh\*, and *hιυες- are undoubtedly the PIE words for 'rain'. Their distribution, with the exception of Greek, is mutually exclusive but both words are widespread across the IE stocks. Gl have suggested that *suh\* was the
RAVEN see CROW

RAZOR

*bh20mós - *h20mós 'raw, uncooked'. [IEW 777 (*omo-s); Wat 46 (*om-)]. OIr om 'raw', Wels of 'raw', Grk ὀμός 'raw, uncooked', Arm հար 'raw', Khot ḥāmā- 'raw', NPers xāmā 'raw', Olnd āmā- 'raw, uncooked'. The exact PIE form may be in doubt (the short vowel of Celtic and the long vowel elsewhere is not explained) but the geographical distribution of its attestation assures its PIE status.

See also COOK. [D.Q.A.]

RAZOR

*aştu'-*aştu'-*aş (or some other set) rather than *aš- for Proto-Indo-European with an aspirated voiced stop *(bh) but no *(ph). Similarly we can reconstruct bherh₂ter for 'brother' and *bhruh₂š for (eye)brow'.

It is of course necessary that our reconstruction be compatible with what we know about language in general. Our confidence in the exactness of the reconstruction is heightened if it matches a structure commonly found in attested languages while our confidence is decreased if the reconstruction does not match any attested language. We should note that many linguists doubt the phonetic reality of *bh precisely because the traditional reconstruction of *p, *b, and *bh for Proto-Indo-European with an aspirated voiced stop (bh) but no corresponding aspirated voiceless stop (ph) is otherwise found or at least excessively rare. These typological considerations have led various investigators to reconstruct *(b)h (glottalized) *p, and *bh (or some other set) rather than *p, *b, and *bh. However, another constraint on reconstruction is the require-
Selected Cognates among the Indo-European Languages

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<tbody>
<tr>
<td>Old Irish</td>
<td>díthu 'bear'</td>
<td>Latín</td>
<td>fërró 'bear'</td>
<td>Old English</td>
<td>bere 'bear'</td>
<td>Old Church Slavonic</td>
<td>běrě 'take'</td>
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The Family Tree of Football

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<tr>
<th>Football Type</th>
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<tbody>
<tr>
<td>Soccer</td>
</tr>
<tr>
<td>[feet-only]</td>
</tr>
<tr>
<td>Rugby</td>
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<tr>
<td>[scrum; no forward pass]</td>
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<tr>
<td>American Football</td>
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<tr>
<td>[100 yd. field; 6 pt. touchdown]</td>
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<tr>
<td>Canadian Football</td>
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<td>[110 yd. field; 5 pt touchdown]</td>
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iment that reconstruction allow for the most economical derivation of the attested languages from the reconstructed one. Perhaps inevitably these two constraints do not always point in the same direction. The traditional reconstruction of \(^*p\), \(^*b\), and \(^*bh\) allows a very simple derivation of the attested forms: most branches preserve \(^*p\) and \(^*b\) unchanged, a majority merge \(^*b\) and \(^*bh\) by losing the aspiration of the latter. Old Indic is assumed to have kept the original situation unchanged (save by the addition of a new \(ph\)) while Italic and Greek must be assumed to show devoicing and then early (Latin) or late (Greek) change of voiceless aspirates into voiceless continuants. Only Germanic and Armenian show more extensive restructuring. Any alternative reconstruction shows a much more complex "mapping" onto the attested languages.

Linguistic reconstruction provides the tool for tracing the earlier history of language back through time. It is dependent on comparison and the greater number of languages that can be employed in that comparison, the greater the precision of the reconstruction.

A possible analogy to language change lies with the evolution of sport, another rule-governed behavior. Soccer, rugby, football (both American and Canadian) are all the descendants of an English and Irish ball game played largely, though not exclusively with the feet. This "Proto-Football" has become the several independent games currently attested by the addition of new rules. Just as with language, a family tree (indicated in the accompanying diagram) can be drawn up (only certain rule differences are noted).

As with any analogy, this one gets messier the more one pushes it. In particular, the evolution of football differs from the evolution of language in that football has clearly grown more complex in the course of its evolution; "Proto-Football" had fewer rules than any of its descendants. Language, on the other hand, would seem to be much the same as far as complexity goes as far back as we can reconstruct it in any detail (say about 10,000 years).
RECONSTRUCTION

Often enough the various innovations that occur to a language are not interconnected and they could have happened in any order. However, when they impinge on one another, we can reconstruct their relative chronology. An example from the history of Slavic will illustrate the possibilities. In the development of Proto-Indo-European into attested Slavic, all original s's were retracted to w when preceded by r, u, k, or i (the so-called ruki-rule), thus, Pre-Slavic *peikeshtei 'to pound' becomes Proto-Slavic *peisaitë and, with further changes, attested OCS pischi. Also during the development of Proto-Indo-European into Slavic all PIE palatal stops become sibilants, thus *k, *g, *gh became s, z, and z respectively. Thus PIE *kosnêh₃ 'pine' becomes Rus sosnà where, it should be noted, original *k and *s have become identical. However, PIE *peikeshtei 'to write' became Proto-Slavic *peisaitë (attested OCS pisati) rather than *peisaitei (attested **pixati). Such phenomena can only be explained if the ruki-rule occurred first and was over and done with by the time *k was becoming s. On the other hand, one should note that both original *s-s and *s- from *-k-combine with *-i- to give *s, e.g., OCS slušò 'I hear' from PIE *klousjòm and OCS prosò 'I ask' from PIE *prokòjom. The simplest explanation for this phenomenon is that this latter rule came after both the ruki-rule and the change of palatal stops to sibilants.

The underlying presupposition of linguistic reconstruction is the regularity of change. However, there are other forces at work in language change. Particularly we need to take into account the actions of analogy whereby various closely related words may influence one another to preserve, say, morphological regularity at the expense of phonological regularity. As an example we might cite the history of OE sadol 'saddle' and cradol 'cradle' whose regular plurals were sadolos and cradolos respectively (all of these words stressed on the first syllable). Sometime in Old English short vowels in open syllables (i.e., when followed by a single consonant and then a vowel) were lengthened when those syllables were both stressed and the next-to-the-last in the word. Thus we had something like sadol and cradol, but sadolos and cradolos. Further regular phonological changes would have resulted in NE cradles, pl. *cradles, and *sadle, pl. saddles. What we find, then, in the history of English the plural of cradle has been analogically remade on the basis of the singular (a very common analogical change) while in the case of saddle it is the singular that was remade on the basis of the plural (a distinctly rare analogical change).

Another source of historical irregularity is borrowing among different dialects of the same language. OE halé whole, well regularly becomes NE whole (the w- is an unetymological -spelling) in the south of England, the dialects which provide the basis for modern standard English. In the north of England and in Scotland OE halé becomes with equal regularity hale. Because standard English has also accepted hale into its vocabulary we now have the "regular" whole and the "irregular" hale. One of the recurring problems in historical reconstruction of Proto-Indo-European, or any other language, is detecting and accounting for this kind of "internal" loanword.

This problem is by no means confined to reconstructing linguistic history. Our reconstruction of the "football family-tree" above shows a nonlinguistic instance of this same kind of borrowing between related branches. Though the presence of the forward pass is reconstructed for "Proto-North-American", in actual fact the innovative forward pass first appeared in American football and was only later adopted (i.e., borrowed) by Canadian football. Reconstructing the forward pass to "Proto-North-American" is a natural consequence of the theory and practice of reconstruction but does not reflect historical reality.

Linguistic reconstruction leads us to a linguistic system that is not firmly tied to anything in time or space. It is an abstraction; it simply expresses a form for which no further linguistic laws need be invoked to account for the cognates attested in the various Indo-European languages. The reconstructed language differs from a real (i.e., attested) language in significant ways, particularly in that it does not show the social and geographical variability that is the hallmark of any attested language. Like all languages, a reconstructed one such as Proto-Indo-European was constantly changing. However, there are other forces at work in English, which is not only a "living" language but a "dying"

Further Readings

RED
*treudh- (bright) red. (IEW 872-873 (*treudh-); Wat 55 (*treudh-); GI 616 (*treudh-); Buck 15.6b). From

TochA *nār ‘red’, TochB *zātre ‘red*. The most widely attested color word in Indo-European, ‘red’ is securely reconstructed. An ō-grade adjective, attested in Italic, Celtic, Germanic, Baltic, Slavic and Indic is a non-productive form in the northwest and its preservation in Indic points to its status as the earliest form, with later innovations; the zero-grade with r-suffix is found widely dispersed in Italic, Slavic, Greek and Tocharian. The Indo-Iranian suffix *-ita- is common among color adjectives and may be an innovation in that branch.


*Rūnas ‘red’. [IEW 294 (*Rou-no-s)]. Mīr cūanna ‘lovely’, Wels cūn ‘lovely’, Rus sunica ‘wild strawberry’, SC sūnica ‘raspberry’, Olnd sōna- ‘red’. It is not at all certain that the Celtic forms belong here, being very divergent semantically. The Slavic and Old Indic have evidence for a word of the center and east of the IE world.

See also Color. [M.E.H., D.Q.A.]

**REED**

*ḥer- ‘reed’. [IEW 68 (*aro-m)]. Lat harundo (with secondary h-) ‘reed’, Grk ἄπω ‘arum’, Khot āra- ‘reed, rush’. Distribution indicates PIE status for this word.


*joinis ‘reed, rush’. [IEW 513 (*jou-ni-)]. Mīr aini (< *join ‘rush’, Lat inuncis (< *jinniko-) ‘rush’, iāniperus ‘juniper’, ON einir (< *joinijo-) ‘juniper’. The phonological connections suggested here are impeccable but the semantic connection between ‘reed’ on the one hand and ‘juniper’ on the other is not at all obvious, though precisely that semantic equation is made in Latv trusis ‘reed, juniper’ in the previous entry.

*p(h)re(u)m ‘reed, rush’. Av grava- ‘reed’, TochA κru ‘reed’, TochB (pl.) karwa ‘reeds’. Only attested in two neighboring stocks. If this represents a case of borrowing rather than common inheritance, the borrowing must be very early.

**dr- ‘reed’. [cf. IEW 187]. Latv duonis ‘reed’, Grk διομένα ‘reed’. The apparent, partial, agreement between Baltic and Greek is tempting. Perhaps a late dialect word of the center of the IE world.

See also JUNIPER. PLANTS. [D.Q.A.]

**REINS**

*h₂ensjovēh₁- ‘reins’. [IEW 48 (*ansi-)]. OIr (pl.) éis(<s) ‘esis(ese) ‘reins’, Myc (pl.) a-νι-ja ‘reins, a-νι-jo-ko ‘charioteer’ (lit. ‘reins-holder’), Grk (pl.) ἱφια ‘reins’ (Doric ἱβια), ἱφιος ‘charioteer, one who governs, ἱφειος’ ‘bit’. Olnd násnym ‘nose (cord of a draft-ox, etc.)’ may belong here if the form of the word has been influenced by *h₂rās- ‘nose’. Almost certainly related to *h₂ena- ‘handle’ and probably to the family of Hit ḫassu- ‘king’ (< *controller). In any case, the exact equivalence in form and meaning of the Greek and Irish words is strong evidence that this word, with this meaning, is of PIE antiquity.

See also HANDLE; HORSE; KING; TOOL; WAGON. [D.Q.A.]

Further Reading


**RELEASE**


*Terk- ‘release, allow’. [IEW 503]. Hit tarna- (< *tarkna-) ‘let, release, permit’, TochA tark- (< pres. tarkna-) ‘let go, allow, emit, stop, desist’. Though attested only in Hittite and Tocharian, the pattern of those attestations assures PIE status.

*leuh₁- ‘release, cut off’. [IEW 681–682 (*levu-)]. Wels 36–37 (< *levu-); Buck 11.34. Lat luō ‘lose, free, pay off’, ON lyja ‘beat, wear out’, Goth lun ‘ransom, Litt hāsus ‘cease, stop, discontinue’, Grk λύω ‘release, free’, λύπος ‘ransom’, Olnd lūnati ‘cuts off’), lavitām ‘sickle’, TochA lu- ‘send’. From *leu- we have ON losna ‘get free’, lauss ‘loose’ (borrowed > NE loose), OE lor-leosan ‘lose’, los ‘less’, leas ‘free from, loose, wanting’, OHG lat-losan ‘lose’, los ‘free, untied’. Goth fra-losan ‘lose’, fra-latissan ‘be lost, perish’, laus ‘free, empty’. Alb lesh ‘wool, hair’ (< *that which is cut off’). Widespread and old in IE. The basic meaning of this root is ‘untie’ which survives in Greek where the verbal adjective λύος means ‘which can be untied’ and corresponds to Lat solita ‘solve’ ‘untie’ (< *se-luo). From the concept of ‘unity’ we also get that of ‘release’ (buying back for a ransom, e.g., Grk λύπομαι ‘ransoms’).

[D.Q.A.]
REMEDELLO CULTURE

Copper Age/Early Bronze Age (c 3300-2500 BC) culture of northern Italy. The culture is primarily known from its cemeteries in the Po Valley such as Remedello where over a hundred graves were excavated of an estimated three hundred. Burials were in the flexed position on the left side (with faces to the north-east) or, occasionally, extended position, although there is also some evidence of the redepositing of remains after the body had been exposed. The burials were made in simple pit graves which were in some instances aligned in rows. They were rich in flint arrowheads (up to eleven in a single grave), daggers, and stone axes. Metal objects included copper axes, daggers and halberds. The culture also yielded two silver objects (i.e., a pendant and pin), some of the earliest silver in western Europe. The pottery found was associated with female burials. There are few settlements known, some hilltop enclosures. The culture exhibits many similarities, at least in metallurgical types, with cultures north of the Alps and east in the Aegean and Anatolia, but these derive from so many different sources that it is difficult to postulate a single point of origin. In the "Kurgan solution" to the IE homeland problem, the presence of weapons in the graves and hilltop settlement are all regarded as traits of warlike IE communities. Claims of horse remains from the Remedello culture have also been made although their context is not secure. Even without the specifics of the Kurgan-theory the evidence for the Remedello culture's contacts outside of the region has often been seen to reflect a migration of a foreign population into northern Italy. Others, however, have chosen to see the prestige metal artifacts as evidence of exchange relations or the spread of a cult package as the territory of the Remedello

See also LEAVE. [D.Q.A.]

REMAINS

??(bhet)loikwos 'remains'. [IEW 669-670 (*leikw-o-s); Wat 36 (*leikw-)]. OCS otlēkž 'remains', Grk λοικός 'remains', OInd atreveka- 'remains'. Cf. *leikwōs in Lat rēlēctus 'remains', Lith liktas 'remains', OInd rktā- 'empty, free'. All from *leikw- 'leave'; it is possible that they are all independent creations in the various stocks that have them. Perhaps more significant is the agreement of Germanic, e.g., Goth iwa-lib, and Baltic (Lith) dyv-ika, both 'twelve' from *two-left (over).

See also FLOTSAM; NUMERALS (TEEN FORMATION). [D.Q.A.]

REMEDELLO a. Distribution of the Remedello culture.

b. Bronze dagger; c. Flint arrowhead; d. Silver hammer-head pin; e. Silver pendant.
culture is largely congruent with the distribution of Beakers in northern Italy. See also Beaker Culture, Gaulo Culture, Italic Languages, Rinaldone Culture. [J.P.M.]

REMEMBER

*(s)mer- 'remember, be concerned about'. [IEW 969 (*s)mer-); Wat 62 (*s)mer-. OE morman 'worry, mourn (> NE mourn); OHG mornen 'worry about, mourn', Goth mađran 'worry about', Lith meretti 'worry about', Grk μεριμνά 'thought, care, anxiety', μέρπνος 'witness' (< *one who remembers'), Av maraiti 'observes', OlInd smarati 'remembers, longs for', with reduplication of one sort or another: OE mimorian 'remember', Lat memoria 'remembrance', Grk μεμομαίο 'worry about', Arm mormok 'care'. Widespread and old in IE. See also Forget. [D.Q.A.]

RESIDENCE

Before modern western and urban societies, with few exceptions, husbands and wives are generally found to live with one another in a nuclear family in which there was a small range of options concerning the rules of postmarital residence. Over two-thirds of the ethnographic examples surveyed practice virilocal (or patrilocal) residence where a woman marries out of her own family and goes to live with her husband's family. This is regarded as the general residence pattern for PIE society on both historical evidence, i.e., this is the pattern of residence that one encounters almost invariably in the ethnographic record of the IE stocks from their first appearance in the historical record, and it is argued linguistically, i.e., PIE *h₂uedh₂- 'to lead (away in marriage)' is the common term for the marriage of a male in PIE which indicates that he is leading his wife away from her family. The combination of patrilineal descent with patrilocal residence will result in the close co-operative association of males (father, brothers, sons) in a communal (joint, extended) family.

The second most frequently found resident pattern is matrilocality which occurs in some 13% of the ethnographic record examined. It is not a creditable pattern for PIE not only because of the lack of any historical or lexical evidence in its support but also because there is a total non-correlation between patrilineality, which is also ascribed to PIE, and the matrilocal residence system. Other options are bilocality, where couples may live with either parent (frequent enough now where there are major housing shortages in the larger towns of the former Soviet Union); neolocality, the establishment of a new residence for the couple away from either family; or avunculocality where residence is taken up with the mother's brother (with again an almost total correlation with matrilineality). Although the avunculate has occasionally been proposed as a PIE institution, there is no evidence for it since one of its main features, the juridical and rather stern relationship between ego and mother's brother, is contradicted by all of our data concerning the relationship between ego and mother's brother in early IE societies. Moreover, as the avunculate is an institution of a matrilineal society (where the brother of the woman is expected to oversee the inculturation of the son rather than the biological father who is on a different descent line), this further contradicts the evidence of IE practices. Finally, avunculocality is so seldom encountered in the ethnographic record that its ascription to PIE is unlikely for this reason alone.

The residential system reconstructed for PIE society has occasionally been employed in discussions of the IE homeland and dispersals, particularly with reference to Neolithic societies of eastern Europe. Marija Gimbutas long argued that the nature of Neolithic societies in Anatolia, southeastern Europe (and further in central or Danubian Europe) was "matrilocal", i.e., it combined matrilineal descent, matrilocality and an ideological focus on the female aspects of reproduction. All of these features, she argued, were in stark contrast to the Indo-Europeans who were patrilineal and patrilocal. For this reason, the Neolithic societies of most of Europe were excluded as potential representatives of PIE society which she sought in the steppe lands of the Ukraine and south Russia. She also outlined the dispersal of these IE societies across Europe at the end of the Neolithic in her "Kurgan solution" to the homeland problem.

There is, in fact, so far no valid way that a kinship system or residential patterns can be read "on the ground", i.e., from the purely archaeological record. Attempts have been made to correlate ceramic design elements with matrilocality in prehistoric pueblos of the American Southwest but these have been subject to criticism and such techniques have not been employed in Eurasia on sites relevant to the early Indo-Europeans. Nevertheless, Gimbutas' model has received some support from other archaeologists such as Ian Hodder who have suggested that the houses of Neolithic southeast Europe are almost exclusively associated with what are presumed to be either female activities or female items, e.g., food preparation, cooking, textile preparation, figurines (the overwhelming majority of which are female), while male associated activities are not found within houses but rather outside, primarily receiving ideological representation in cemeteries, e.g., metal tools, axes. Hence Hodder, employing the structuralist framework of Levi-Strauss, assigned the house and its contents to the "female" and "cultured" (which he designated "domus") and the outside world (here "agrios") to the male.

From the perspective of descent reckoning the subsistence basis may also suggest something of the residential and descent patterns. In southeast Europe the primary Neolithic subsistence would appear to be based on hoe agriculture of domestic cereals supplemented by stock-raising and some hunting. Of the various subsistence patterns, this would be the closest to that obtaining for the majority of matrilineal and matrilocal societies. Conversely, matrilineal and matrilocal societies are rarely found associated with plow agriculture or pastoralism. The direct correlation between the type of mixed agriculture
practiced in southeast Europe and Anatolia and matrilocal residence and matrilineal inheritance, however, is simply not possible since there are far more patrilinial societies than matrilinial in the ethnographic record and the majority of horticulturists are actually patrilinial (c. 41%) or bilateral (32%) rather than matrilinial (21%). It is far easier to conclude that both plow agriculture and pastoralism (economies we assign to PIE) are likely to be patrilinial or bilateral than it is to presume that the early farmers of Anatolia and southeast Europe must have been matrilocal and matrilinial although this is entirely possible. Finally, the plow spread through Europe by the fourth millennium BC and a shift to plow agriculture, which presumably drew the male deeper into the cereal-based economy, could be expected to stimulate an indigenous development of patri-based societies irrespective of their earlier forms.

See also Kinship, Marriage. [J.P.M.]

Further Readings

RESIN see SAP
REST see QUIET
RESTITUTION see COMPENSATION

RETURN HOME


[D.Q.A.]

REVILE see INSULT

REWARD

*lau- ‘benefit, prize’. [IEW 655 (*lau-); Wat 35 (*lau-); Gl 644 (*lau-)]. Ol rūg- ~ ōrūg ‘reward, prize’, fo-lūd ‘substance, essence, property, wealth’, Wels golud ‘riches’ (the latter two < *haupo-lauto-), Lat lucr el (< *lutilom) ‘gain, benefit’ (slightly pejorative), ON laun ‘reward, recompense’, OE lēan ‘reward, recompense’, OHG lōn ‘reward, recompense’, Goth laun ‘reward, credit’ (Gmc < *launom). The original sense may have been wealth or benefit that was obtained through some special action rather than regular work, a sense still preserved in compounds such as Goth sygis-lau ‘the prize of victory’ which expresses one’s winnings in a horse race. In Greek we find an enlarged *lau-s- in ápolaiv (< *-lauso) ‘enjoy the benefit of’ and perhaps the same is to be seen in Goth lausjan ‘collect (money)’ (if this is a different verb than lausjan ‘free, rescue’). A word of the west and center of the IE world. Not connected with this word are Grk λάβω ‘booty’ or Olnd löt(t)am ‘booty’ (only lexically attested and then a Sanskritization of Mind lotta- [whence ultimately by borrowing comes NE loot] from loptra- ‘booty’).

*h2elg*hoveh- ‘payment, prize’. [IEW 32–33 (*elgʰ-); Wat 2 (*elgʰ-); Gl 818–819 (*elgʰo-/*elgʰo-); Buck 11.78]. OPrus algas ‘wage’, Lith alga ‘payment, salary, soldier’s pay’, Grk áplη ‘earnings’, áλπαν ‘get a price, make a profit’, Hit halkuessa ‘produce, supplies (for cultic use)’, Av arjāh- ‘value, price’, arjājti ‘is valued’, Olnd argha- ‘value, price’, arhat- ‘dignity’. In Buddhist terminology Olnd arhat- ‘dignity’ became the technical word for the achievement of the highest rank in the Buddhist system of values. Distribution indicates PIE status. The Indo-Iranian form was borrowed into the Uralic languages, e.g., Finnish arvo ‘price’, Hungarian ar ‘price’. In Benveniste’s study of the semantics of this word, the Greek cognate in Homer regularly indicates obtaining the price desired for the sale of a person such as a prisoner of war or a slave while the Olnd argh- refers to the value placed on a human being, never an object. This suggests that the term may originally have been associated with the transfer of human beings.


See also Army, Booty, Fear, Wealth. [D.Q.A.]

Further Reading

RIB see Breast, Roof

RICH

*h1su-dhh6-énos ‘rich, well-off’ (< *well-placed’). Grk εὐθεία – εὐθεία προσπερασμός, εὐθεία τιμή, εὐθεία προσπέρασμα ‘prosperity, wealth, supply’, OLnd su-dhana- ‘rich’, ni-dhana- ‘poor’. A southeastern innovation of late PIE.

See also Wealth. [D.Q.A.]

Further Readings
Watkins, C. (1979) Nam Ra Gud UNU in Hittite Indo-European poetic language and the folk taxonomy of wealth, in Heritage

**RIDE**

*reidh* 'ride'. [IEW 861 (*reidh*); Wat 54 (*reidh*); Buck 10.66]. Mr ṛudaigd 'rides', Wels rhwyddau 'hurry', ON rída 'ride', OE ridan 'ride' (> NE ride), OHG ritan 'ride'. A dialect word limited to the far west of the IE world.

See also CARRY, GO, HORSE, WAGON. [D.Q.A.]

**RIGHT**

*deksinos ~ *deksios ~ *deksiteros 'right'. [IEW 190. (*deks*); Wat 11 (*deks*); Gl 686 (*tēk̑)-s-); Buck 12.41; BK 131 (*ṭak̑h̑-/*ṭak̑h̑-*)]. OIr dess 'right, south', Wels dehau 'right, south', Lat dexter (*deksiteros* 'right'), OHG zeso 'right', zes(a)wa 'right hand', Goth tallhswa 'right', Lith dėsinas (< *deksinos* 'right', dešinė 'right hand'), OCS desnà (< *deksinos* 'right'), Alb djaləte (< *deksio* + later -te) 'right', Myc de-ki-si-wo (< *deksios* 'right'), Grk ἔχος (< ἐξεκος 'right', ἐξεκτερος 'right'), ἐξεκτερος 'right', Av daśina 'right', OInd ḍaksina 'right, south' (< Indo-Iran *deksinos*). Wide distribution indicates PIE status.

The term is clearly associated not only with 'right hand' but also 'south', indicating that the early Indo-Europeans literally "oriented" themselves, i.e., in establishing the cardinal directions, they stood facing east with their right hand to the south and their unpropitious left to the north.

*h3regtos* 'right'. [IEW 855–856 (*reg*); Wat 54 (*reg*); Gl 654 (*tēk̑*-); BK 591 (*ṭeκ̑h̑*-/*ṭeκ̑h̑*-)]. OIr rech 'law, authority', Lat rectus (adj.) 'right', ON rettr 'right, law, legal claim', retta 'direction', retta 'rule, land', OE rīt 'right' (> NE right), OHG reht 'right, justice', Goth raiths 'right', raihtis (adv.) 'indeed, rightly', Grk Ὄπεκτος 'stretched out', Av raṣta- 'right, straight'. From *h3reg* 'stretch out, straighten' with derivatives meaning 'to direct in a straight line, just right'. The distribution of both the nominal and adjectival forms suggest IE status.

As with words for 'left', the term for 'right' has a wide sphere of semantic connotations that derive from the PIE period and have been remodeled and renewed through the various IE stocks. In general, the oppositions established on both linguistic and behavioral grounds indicates that the right (hand) is to be associated with males, patrilineal descent reckoning, aerial (as opposed to chthonic) rituals, orientation (south or east), healthiness, strength, correctness, and order. Thus, in addition to the examples provided above, these notions continue in the later IE languages, e.g., OE swifh 'strong, mighty' but comparative swifre 'right (hand).

See also COSMOLOGY, DIRECTION, EXTEND, HONOR, KING, LEFT, TAKE. [A.D.V.]

Further Reading


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**RINALDONE CULTURE**

The major Copper Age/early Bronze Age (c 3500–2500 BC) culture of Tuscany was the Rinaldone culture. It is known primarily from its small cemeteries which number about forty sites. These may comprise simple pit graves, cave burial or interment in a rock-cut tomb. The eponymous site of Rinaldone yielded about a dozen burials in rock-cut tombs, interred on their left sides with faces to the east. Grave goods included flint blades, arrowheads, stone battle-axes, and occasionally pottery. Metal artifacts were relatively abundant in the Rinaldone burials and comprised triangular daggers, awls and axes. The Rinaldone culture has been frequently regarded as intrusive in Italian archaeology and in the "Kurgan model" of IE expansions, the Rinaldone culture has been associated with the coming of the Indo-Europeans to Italy. Horse remains (i.e., a pit at Le Cerquete-Fianello revealed the beheaded remains of a horse associated with the burial of dogs), stone and copper weapons, and a possible suttee burial have all been found. The evidence for suttee is suspected for one of the twenty-five graves at the site of Porte San Pietro where a man was found accompanied by a copper dagger, copper ax, stone battle-ax, flint points and an antler implement. Nearby was the burial of a woman with a vase, bead-necklace, and copper pin. Such evidence has been elicited to support the
RING

*anos (≈ *h2ehe2enos?) 'circle, ring'. [IEW 47 (*ano-), Wat 3 (*ano-), Buck 6.37]. OIr *áinne 'ring, circuit', Lat *anus 'ring, anus', anulus 'finger ring', Arm anur 'necklace, ring'. Not everyone would agree that the Armenian word belongs here but the meaning is certainly what we expect of a cognate. A probable word of the west and center of the IE world.

Archaeologically, rings are ancient in the prehistoric record and may have been made out of organic material such as bone or metal such as copper, bronze, gold or silver, the latter by the third millennium BC and in many cases much earlier. The metal rings found on Copper and early Bronze Age sites have been variously identified as finger rings, earrings and hair rings.

RIVER

*h2eb(h)- 'river'. [IEW 1 (*ab-); GI 578 (*Hap-); Buck 1.36]. OIr *ab (gen.) *abae (< *ahab) 'river', Wels *afon 'river', OBrit *Afog name of Humber in Ptolemy's Geography, Lat amnis 'river', Ht *hapa- 'river', Palaic *hpons 'river', Luv hâpa/- 'river'. That the Anatolian words belong here cannot be regarded as certain. Germanic river names in *-apa (e.g., OHG *-affa) are too uncertain as evidence for PIE and may rather be non-IE, similarly Lat *Abava (river name). Nor does this set include Ol *áp- 'water' which is formally and semantically different. The word may be little more than an Italic-Celtic isogloss with some possibility of greater antiquity.

*dehuNu- 'river'. [IEW 175 (*dana-); BK 83 (*dan-/*don-)]. Wels *Donowy (< *Dane/oujos) (river name), Celt (in Lat) Dânuvius 'Danube', Av *dana- 'river', Oss *don 'river' (whence the name of the river Don and element in Dnieper, Dniester, Donets), Olnd *dânu 'drops' or 'gift'. Another possibility is that we have *dhönu- (with difficult lengthened grade) 'river' represented by the Celtic and Iranian words and that this is a derivative of *dhen- 'flow' otherwise seen in OPers *danuvi/*房子 'flows', Olnd *dhânuvi 'moves fast, rushes', TochAB *isân 'flow' with other derivatives in Lat *fons 'spring' and TochB *isete 'stream'. The latter proposal's distribution of forms more strongly suggests PIE status.

*dreyenthi2 (river name) [IEW 205 (*druent-)]. Gaul Druentia (river name), WRuss Drywia (lake name), Olnd *Dravanti (river name). From *dru- 'run' suggesting the 'running', apparently an epithet applied to river names.

*streu-men-~ *streu-mos 'flowing, streaming (in river names). [IEW 1003 (*streu-men-); Wat 64 (*streu-). Buck 1.36]. OIr *struim 'river', ON *struam 'stream', OE *stréam 'stream' (> NE stream), OHG *stroum 'stream' (< GMC *struam-), Lith str(i)aumuo 'rapid flowing', Latv *struame 'rapid flowing', Rus *struam 'brook', Thracian *Tspjuwos (river name), Grk *pejîua 'flow, river'. These words are derived from *streu- 'flow' and indicate 'the act of' flowing, streaming which has only secondarily been taken up in several languages to indicate 'stream, river'.

*adu- 'river'. [IEW 4 (*ad(u)-)]. Venetic *Adua (river
name), Germ Attel (river name), Latv Adula (river name), Thracian Atlas (river name), Av adu 'canal', OGers Adukanaisa- (? name of a month). This entire set is constructed from river names whose mutual connection is much too uncertain to demand a common IE root; it should be rejected.

*ak*elies (r'iver'. [Del 178]. Lat Aquilo (river name), Lith Akèle (river name), Thracian AyeaH (river name). To be rejected for the reasons set out above.

*alantošē (r'iver'. [Del 178]. Italian Alento (river name), Germ Elz (river name), Lith Alanta (r'iver name), Dacian Aluítas (river name), Iran Alanta (river name). To be rejected for the reasons set out above.

*nedih- (r'iver? [IEW 759 (*ned-); BK 556 (*nat-/*nat-)]. Olnd nati- 'river'. Other river names such as Grk Néda in Arcadia, Nědov in Messenia are probably non-IE rather than Illyrian while connections with names such as Thracian Něstoc (river name) and NHG Netto is no more than a guess. The postulated underlying root *ned- 'road', thus the 'roaring (one)', is limited to Olnd nádati 'it roars', hence this word may have been an epithet for naming a river but such a conclusion is hardly required.

*pyeust- (p'eat; estuary, river mouth'. [IEW 785 (*pys-); Wat 46 (*ys-); GI 714 (*ys-/*Ots-/*ot-)]. Lat ostium 'mouth of river', Lith oostas - oosta 'river mouth, harbor', Latv uostas - uosta 'mouth', 'river mouth'. The analysis here is quite problematic. The Baltic and Slavic words cannot be derived from the word 'mouth' found in Olnd as- 'mouth' but they can be cognate with Olnd osthala- 'lip' through a nominative plural (e.g., OCS usta 'mouth' < *ips'), which gives a root *ous-. Baltic uo- is unclear as is the acute accent in Lithuanian. The Latin word may continue *ous- or be derived from as- 'mouth' although in the latter case it would not be cognate with the words in Baltic and Slavic. A late dialectal term in some European stocks.

See also FLOW, RIVER GODDESS, Run. [R.S.P.B.]

RIVER GODDESS

There are two categories of river goddesses in Indo-European. The first is indicated by a linguistically cognate set of names derived from PIE *dehnu- 'river', while the second is exclusively confined to Indo-Iranian goddesses.

A PIE *dehnu- is supported by Olnd Dànù, mother of Vṛtra, the arch-protagonist of the heavenly waters; Irish Dànú, mother of the Taith De Danann; and Welsh Dôn. With gender-switching, the goddess became Greek Danaius, father of the Danaids, who, after killing their husbands on their wedding night, were condemned to eternally carrying water in a sieve; and great-great-grandmother of Dānese, mother of the hero Perseus who saved princess Andromeda from a giant female sea-monster. Cognates without personification include the Slavic (borrowed < Iranian) rivers Don, Doniper (< *Dànu apara 'river to the rear'), and Dmester (< *Dànu nasdyà 'river to the front'); the Scythian Tanais, the Central European Danube; and smaller bodies of water: Lithuanian Dunùtas, 'Large Stream'; Latvian Dupavas, 'Small River, Stream'. Although linguistically cognate, it is difficult to support a common mythologem or discern a set of common themes that would permit the reconstruction of a personalized *Dehnu- to PIE. Rather, we may have merely a personalization of the concept 'river' in a number of IE groups.

The second major type of IE river goddess can be seen in the Olnd Sarasvati and Iranian Anahità. Sarasvatì was goddess of music, poetry, and eloquence. She is the goddess most frequently invoked in the Īgveda. She was a functional goddess: she brought wisdom (RV 6.49.7); she also guided 'all works of devotion' (RV 6.3.12) and she caused 'all prayers to succeed' (RV 6.3.8). She fulfilled the martial function as a 'deleter of enemies' (RV 6.61.7, 2.30.8). Just as virtually every Indo-European goddess, Sarasvatì represented the third function, as bestower of fortune and abundance (milk, melted butter, sweet water (RV 9.67.32), beautiful gifts (RV 1.164.49), and she was 'fortune-bearing' (RV 7 93.6), thus personifying good fortune considerably earlier than Sri Lakṣmì. Further, she was called 'best mother' (RV 2.41.16), and she set the seed in the womb (RV 10 184.1-2). She was wife of Brahma.

See also GODDESSES, RIVER, TRANSFUNCTIONAL GODDESS.

[M.R.D.]

Further Readings


ROAD

*hēlīt- *hēlitō (gen. *hētō) 'way, road'. [IEW 294–295 (<i-ter); GI 41; Buck 1071–1072; BK 44 (<*y-/*y->). Lat iter (gen. itinis) 'a going, walk', 'way', 'its path'. TochA yātar 'road, way', TochB yātēre 'road, way'. Although not richly attested, the cognates are widely distributed and the archaic heteroclitic declension strongly suggests PIE status. Cf. also Lith eisme 'way', Grk γεωγραφος 'stripes, course (of a song)', Olnd ēma- 'way', TochA yeme 'road', TochB yimīte 'road', all derived by some suffix in -m. From *hētī- 'to go'.

*pontos (<gen. *pontos) (unrelated path) [IEW 808–809 (<pont(h)às-); Wat 49 (<pent-); GI 49 (<pʰ̣pʰ̣ḥ-H); Buck 1071–1072]. Olr οῆτ ( <*pothn-)'place, crossing-place of a river', Lat pons 'bridge', Grk ποταμός 'sea', < *pothn- 'passage, place, crossing-place of a river', Lat ponts 'bridge', OPrus pinta 'way', OCS pot 'path'. Grk πόντος 'sea', < *pothn- 'passage', πάτω 'way', πατέω 'step', Arm hun 'ford', Av pandā (gen. pāṭhā) 'road' (from Iranian pāθāh 'road'), OE pæf 'path', OHG pfad 'path'. Olnd pantōs (gen. panthās) 'path, (as yet untraveled) route'. From *pent- 'find one's way'.

*péritus (gen. *pértós) 'passage way'. [IEW 817 (<peritu-); Wat 50 (<pert-); GI 580–581; Buck 7 22, BK 69 (<pʰ̣pʰ̣ar-erpʰ̣ar-]). OWelis rīt 'ford', Gaul riu- 'ford', Lat portus 'harbour', porta 'city gate', ON lýnhr estuary', OE ford 'ford' (> NE ford), OHG furth 'ford', Illyr. Nau-порт (place
name, presumably 'Boat Passage'). Av paratu- 'ford, bridge', Hu-paráβw-α- 'Euphrates' (< ± that which is good to cross), Oss fárd ~ ford 'large river, sea'. From *per- 'go across'. Distribution suggests PIE status.

*sentos 'way, passage'. [IEW 908 (*sento-); cf. Wat 58 (*sent-)]. OIr set 'road', Wels hynt 'way', ON sinn 'time', sinni 'way, company', sinna 'travel', OE șip 'way, sidhan 'go, depart, travel, wander', OCS sind 'way, side', sindón 'go, depart, travel, wander', Goth sinps 'time', Arm ant'ac 'way, passage', TochA son't (< *sēntu-) 'street'. From *sent- 'go'. If these words are not independent creations, the distribution suggests PIE status.

*stighs ~ *stógho/eh-h- 'path'. [IEW 1017–1018 (*stōgho-); Wat 65–66 (*stēgh-); GI 155; Buck 10.72]. From *stighs: ON stig 'step', OHG steig 'plank, footbridge', OCS stīža 'footstep, street', Grk στίγχος 'row, line', στίγμα (pl.) 'series'; from *stóghvō-eh-h-: OHG stēga 'step, way', Goth staga 'way, path', Alb stheg 'path', Grk στοίχης 'row, line'. Cf. also ON stigr 'footpath', OE strēg 'stair, staircase' (> NE stair). Formations of the west and center of the IE world. From *stēgh- 'step (up)', go.

*teghēh- 'track, road' (< *capable of carrying passengers'). [IEW 1118–1120 (*tegh-); 1123–1124; Wat 74 (*wegh-); GI 627 (*wegh-); Buck 10.71; BK 301 (*wag- / *wag*-)]. Lat via 'way, highway, road, path, street', Lith vežė 'rut, track, trail', Latv veža 'track'. Possibly a word of the west and center of the IE world, possibly independent creations in the two stocks attesting this development. The underlying adjective is seen in OInd vahyá- 'fit to be borne' and, nominalized with different meanings in ON vigg 'horse', OE wicg 'horse', Av vazyā- 'burden, load'. Other nominalizations of *tegh- 'move, travel by vehicle' with similar meanings are *teghnos in OIr lecht 'trip', ON vegr 'way', OE weg 'way (> NE way), OHG weg 'way', Goth wigs 'way', and *teghnos in TochA wkm 'way, manner', TochB yakne 'way, manner'.

Pathways or routes of passage have probably existed before the emergence of anatomically modern humans. Artificial constructions are attested at least since the Neolithic in those areas of Eurasia where conditions have permitted the survival of archaeological evidence for trackways. These may occur within settlements, i.e., streets, which can be deduced from the gridlike plans of villages in southeastern Europe or the remains of wattled walkways along lakeside settlements in central and western Europe. In western Europe where wetland conditions have preserved organic materials, brushwood and wattled trackways are known across bogs from the fifth millennium BC onwards and by the Iron Age timber corduroy roads suitable for the movement of vehicles are encountered north of the Alps while stone reinforced roads are one of the major achievements of Roman civilization.

See also FIND ONE'S WAY; GO; RIDE. [A D. V.]

Further Reading

ROAR

*reu- 'roar, howl'. [IEW 867 (*reu-); Wat 54 (*reu-)]. Lat rūmor 'tumor, common talk', ON rýma 'roar', OE rón 'cry', OCS rovo ~ revó 'roar', Grk ἀφοιάζω 'howl', OInd rātu - ruvati 'roars, bellows'. Sufficiently widespread to guarantee its PIE status.

*nad- 'to roar'. [IEW 759 (*nad-), BK 556 (*nāt-)]. Thracian Nēdōk (river name), Grk Nēo (river name), Av nad- 'insult', OInd nadāti 'sounds, cries, roars'. Only attested as a verb in Indo-Iranian. If the river names in the Balkans belong here, it suggests that this word may have existed in the center as well as the east of the IE world.

See also HOWL; MURMUR; NOISE; RIVER, THUNDER. [D. Q. A.]

ROD see POST

ROE (DEER) see DEER

ROE (FISH-EGGS) see FISH

ROOF

*Krōpos 'roofer'. [IEW 616 (*krápo-); Wat 33 (*krōpo-); Buck 7.28]. Mtr crō 'hovel, stall', OHG ralo 'rafter, beam' (none of the attestations of this word is sufficiently early that the lack of a spelling *hr- is significant), NHG (dial.) rafe 'rafter, beam', raffle 'overhanging eaves; sidestand-beam', OCS strōp 'roof'. A lengthened-grade form, *krōpos, is to be seen in ON hrof'shed under which ships are built or kept', OE hrof 'roof, ceiling; top, summit' (> NE roof), Dutch rōf 'deckhouse, cuddly (of a barge)'. Apparently restricted to the NW of the IE world.

*hjrebh- 'cover with a roof'. [IEW 853 (*rebh-); Wat 53 (*rebh-); Buck 7.28; cf. IEW 866 (*rep-)]. Wat 54 (*rep-) ON rāf (< *hrebhom) 'roof', OHG hüm-re-ha 'skull' (< *broun-roof), Grk ἑρέμος 'cover with a roof, thatch, wreath with garlands', ὑπορέη 'roof, ceiling', ὑπορέος 'thatch', possibly Khufi rawj (< Proto-Iranian *təbaka-) 'plank'. If the Iranian word belongs here, which seems likely, then we have evidence for something that was widespread and old in IE. If the Iranian word does not belong here, then we have evidence only for a word of the west and center of the IE world. Also probably belonging here are ON rapt-r'alter', OE rætter 'rafter, beam' (> NE rafter), MDutch rachter 'rafter' (as i) from PIE *hrebh-tro-. Compare also ON til 'rib, ridge' (borrowed in NE reed), OE ribb 'rib' (> NE rib), OHG rippa 'rib' (Gmc 'rib' < *hrebhio-); possibly by dissimulation from *hrebhio-?, and OCS rebro 'rib', Rus rebro 'rib' (Slavic 'rib' < *hrebhio-); possibly by assimilation from *hrebhio-?. The semantic shift in Germanic and Slavic whereby 'ribs' are seen as the roof, or perhaps as the rafters, of the body is noteworthy.

*(s)teges- 'roof'. [IEW 1013–1014 (*s)tegos-]; Wat 65 (*s)teg-); Buck 7.28; BK 135 (*t-q- / *t-aq-). OIr tech ~ teg 'house'. OWels tig 'house', Grk (*stiegos)- roof, house, mansion', στέγη 'roof, ceiling; roofed area, room'; (pl.) 'house, mansion', τέγος 'roof, covered hall, chamber'. Though nominal derivatives in *-es- were productive in late IE, the agreement
of Celtic and Greek may demonstrate that this particular derivative was a part of the PIE vocabulary. Other formations include: Lat tectum 'roof', tégula 'roof-tile', ON þak 'roof', OE þec 'roof' (> NE thatch), OHG dah (< *tōgom) 'roof', OPr us stōgis 'roof', Lith stōgas 'roof', Olnd st(h)ag- 'cover'. From *(s)teg- 'cover'.

All words for the roof of the house derive from the concept 'cover' and provide no indication as to either the shape or the composition of the PIE 'roof'.

See also HOUSE. [A.D.V.]

RÖSSEN CULTURE

Successor to the Linear Ware culture in western Europe c 4500–4000 BC, Rössen sites are known from northwestern France across southern and central Germany to eastern Switzerland. They continue some of the main features of the earlier Linear Ware culture such as enclosed settlements and long houses (now trapezoidal). Village settlements clearly practiced mixed agriculture. Cemeteries are known near settlements and include both flexed and supine burials.

The Rössen culture provided a substantial background to the expansions of the Neolithic both to the British Isles and possibly also into northwest Europe. Within the "Neolithic solution" to the IE homeland problem it is seen as a PIE society while the "Kurgan solution" views the Rössen culture as having its roots firmly set in the indigenous non-IE populations of the Linear Ware culture. Nevertheless, Marija Gimbutas has argued that the Rössen culture experienced some of the earliest...
IE influences from the east. These would include the occasional presence of semi-subterranean dwellings, typical for the steppe cultures but intrusive in the Rössen region, pottery decorated with solar symbols, and fortified hilltop settlements. These arguments are not widely accepted.

See also KURGAN TRADITION; LINEAR WARE CULTURE. [I.P.M.]

Further Reading

ROT
*geidh- 'be foul, purulent'. [IEW 46 (*geidh-)]; BK 334 (*k*yij-*k*yey-). ON kveita 'boil, whitlow', MLG quése 'blood blister', OCS židukta 'sap-filled, juicy (of plants)', Grk τίππο 'rub'. A word of the west, central, and semi-west of the IE world.

See also Fresh; PUT, SALT; SMELL. [D.Q.A.]

ROUGH
*kreup-'rub'. [VW 2071]. ON hripur 'crude, rough', OE hrēo 'crude, rough, leprous' (> NE rough), OHG hriob 'leprous', ĕro baptism, MLG quése 'blood blister', OCS židukta 'sap-filled, juicy (of plants)', Grk τίππο 'rub'. Its historical presence in Germanic suggests PIE status.

See also SKIN DISEASE. [D.Q.A.]

ROW
*hērth1-'row'. [IEW 338 (*er-t-)]; Wat 17 (*er-); Gl 582 (*erH-*reH-). OIr rād (DIL ūl) 'rows', ON rā 'row', OE rōwan 'row' (> NE row), MHG rüegen, rügen 'row', Lith rūt 'row'. Cf. the derivative *hērthītēr- 'rower'. Grk ἑπτής 'rower', OInd antar- 'rower'. Geographical distribution makes this word a sure candidate for PIE status.

See also BOAT, OAR. [D.Q.A.]

RUB
*bhes- 'rub' (pres. *bhebhasti, *bhes-ēh2-ti). [IEW 145-146 (*bhes-)]; Wat 8 (*bhes-); Gl 134 (*bhes-). Alb ishij (< *bhes-in-je-o) 'sweep, wipe, brush', Grk χιτών 'rub', OInd bābhasi 'chews thoroughly, masticates, devours', psati 'chews, swallows'. Also here may belong various words for 'sand': Lat sabulum, OE sand (> NE sand), OHG sant, Grk χιτών 'rub', 'ruins' in the Indian subcontinent. Not widely attested but the geographical distribution of these attestations would seem to be sufficient, along with the morphological identity of the present formations in Greek and Old Indic, to assure PIE status. The semantic link between 'rub' and 'sand' may be explained by the widespread use of sand in prehistoric societies as an abrasive for boring holes or polishing the surface of stone objects.

*tēr(t)- 'rub, turn'. [IEW 1071-1072 (*ter-)]; Wat 70 (*ter-); Gl 152 (*Ther-); Buck 931; BK 95 (*Thar-/*Thar-/*Thar-). Lat terō 'rub', Lith trinu 'rub', Latv trīnu 'rub', OCS tīpō 'rub', Grk τέρπω 'rub'. A word of the west and center of the IE world. Cf. Lat tener (< *teren) 'delicate', Grk τέρπω 'delicate, weak', τέρπνο 'delicate', Av taunuma- 'young, delicate', OInd tātuma- 'young, delicate'.

*treu(h)- 'rub away, wear away'. [IEW 1073 (*treu-)]; Wat 70 (*tera-); Buck 931. Certainly or probably from *treu-: OE þrōwan (< *ṭreuh₂) 'suffer', þrēwan (< *ṛu(e)/o- 'turn, twist' (> NE thow), OHG druoen (< *ṛu(e)/o- 'suffer', Lith truuneti 'putrefy, rot, decay'; from *treuh₂-, Lith trūnati 'putrefy, rot, decay', OCS ṛjyo (< *ṛu(e)/o- 'rub', Grk τρύω (< *ṛu(e)/o-) 'rub down, wear out'. An enlargement of the previous entry. A word of the west and center of the IE world.

*merrd- 'rub, scrape'. [IEW 736-737 (*mer-d-)]. Lat mordēo 'bite', OInd mṛdnati - mrdate - mādayati 'rub', Tocharian marrē (< *mpd-skōo-) 'shave (hair)' (< 'scrape away' (< 'rub away'). Some would add here OE smeartan hurt, smart (> NE smart), OHG smerzan hurt, smart. With or without the Germanic words, we have relatively few attestations but these are in a geographical distribution that virtually assures PIE status.

See also PIERCE; SAND. [D.Q.A.]

RUFF (FISH) see CARP

RULE
*tkeh₁- 'rule' (< *take hold of a piece of land'. [IEW 626 (*küh-)]; Wat 71 (*kē-); Gl 127; Buck 19 31]. Grk κτάομαι 'procure', κτέανα (< *ktē(w)an) 'property, goods' (cf. Myc ki-ti-me-na ko-to-na 'land allotment'), Av xāyati 'have power'. OInd ksāyati 'possess, rule', ksātra- 'authority, power, rule'. A lexical isogloss in late Indo-European, i.e., Greek, Indo-Iranian.

*tpeh₂- 'rub' (pres. *tpeh₂-). [IEW 19.311]. Lat potior 'am master', Av puhvate 'rules', OInd pātyate 'rules'. A denominative verb from *potts 'head of house, master'. At least of late PIE status.

*yal- 'be strong, rule'. [IEW 1111-1112 (*yal-)]. Wat 73 (*wal-); Gl 655; BK 487 (*wal-). OIr lal- ~ lāl- ~ n- 'rule', flatih 'rulership', Wels gwlad 'rulership', Gaul -valos personal name element, ON valda 'rule', OE wældan 'rule', wældan 'govern' (> NE wield), OHG waltan 'rule', Goth waldan 'rule', OPrus (acc.) welsdan 'inheritance' (acc. pl.) waldiniks 'kings', Lith valdyti 'rule, possess', Latv valdi 'rule', Tocharian wail 'king', Tocharian wala 'king' (Toch < *wbal-its 'ruling'), Tocharian wala 'control'. Distribution assures PIE status.

See also HAND; LEADER. [I.E.P.]

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**RUN**


*dheu- ‘run’ (pres. *dheyo/oh-). [IEW]259–260 (*dheu-); Wat 14 (*dheu-); Buck 10.46; BK 145 (*daw-/daw-); Grk ἀδω ‘run’, ἄδω ‘swift’, MPers dayaw ‘run’, Oldn ᾱdāvate ‘runs’, ᾱdavati ‘runs, streams, flows, glides’, ᾱdauti ‘spring, stream’. Possibly belonging here, with semantic specialization: ON dagg ‘dew’, OE ðaw ‘dew’ (< NE dew), OHG tou ‘dew’. If the Germanic words belong here, then we have good evidence for PIE status; if they do not then we have a word confined to the southeast of the IE world.


*dhregh- ‘run’. [IEW]273 (*dhregh-); Wat 15 (*dhregh-); Buck 10.46; BK 84 (*dar-/darr-). Olr droch ‘wheel’, Lith padržti ‘go or run away, scamper away’, Latv dražti ‘run last’, Grk τρέχω ‘run’, τρόχω ‘wheel, τρόχως ‘run, gallop’, τρόχες ‘servant, runner’, Arm ṭyr (<> *dhrekhon-, with metathesis in the first syllable) ‘potter’s wheel’ (Baltic would appear to reflect *dhregh- while Armenian reflects *drehg-; Celtic and Greek are indifferent). Except for the different manner of articulation of the initial consonant this word is identical to the previous one and found in the west and center of the IE world. The two words must be related in some way, if only by mutual influence, but it is not clear how.


**RYE**

*rughis* ‘rye (Secale cereale)’. [IEW]1183 (*wrughjo-), Wat 79 (*wrughjo-), Gl 568 (*wrughjo-); Buck 8.45. ON rigr ‘rye’, OE ryge ‘rye’ (< NE rye). Os sax rogo ‘rye’, OHG rocko ‘rye’ (the latter two from *rughjón-), Lith (pl.) rugiai ‘rye’, Latv (pl.) rūdas ‘rye’, OCS rız ‘rye’. Rūs rız ‘rye’. Confined to the northwestern portion of the IE world, we have a late dialectal IE innovation, perhaps a borrowing from some unknown substratum language. Attempts to link this series with Thracian βῆγα ‘emmer-wheat, rye’ and its modern continuation Bulg бърча ‘of) summer grain’ are unconvincing.

*heřes* < *ryegrass*. [IEW]16 (*ai-r-). Latv aires ‘ryegrass’, Grk (pl.) αἰπα ‘weeds in wheat, ryegrass’, Oldn eraka ‘sedge’ (from which a mat could be woven). Sufficiently widespread to be considered of PIE date. Here is one of the very few examples of a word which survived because of its negative economic importance—a plant that interfered with the growth of more important plants. As the earliest attestations of rye in Europe tend to be as weeds mixed with the remains of wheat and barley, the lexical agreement between Greek and Baltic suggests that this word might have been quite old. Rye, either wild or domestic, is not generally found in ancient India which may account for a shift in the semantic
field of the word.

The distribution of cognate terms for 'rye' is hardly surprising as this cereal is specially appreciated in northern temperate climates since it is able to grow on the sandy soils of the north and withstand the effects of cold winters far better than wheat. The wild predecessor of domestic rye (Secale montanum) was probably confined to the region of eastern Turkey and Armenia. Neither it nor domestic forms of rye are well known on Neolithic sites, its earliest domestic appearance occurring in the early Neolithic of Turkey. Grains of rye have been claimed for Neolithic sites in Europe but generally rye would appear at best to have been a weed accompanying wheat and barley crops rather than domesticated in its own

right. The earliest certain evidence for the domesticated rye tends to be from the Bronze Age (central Europe) and it is known here and in eastern Europe, including the Caucasus, from the Bronze Age onwards. An indication of its rise in importance in the north can be seen from Poland where only 6% of the Neolithic sites yielding seed remains exhibit rye while 57% do so by the Iron Age. In any event, it is likely that the word spread among the ancestors of the northwest IE stocks during the Bronze Age or, possibly, as recently as the Iron Age.

See also Agriculture, Grain. [D.Q.A. J.P.M.]
SACRED

*sakros* 'holy'. [IEW 878 (* sak-); Wat 55 (* sak-); GI 702 (* sak-); Buck 22.19]. Lat sacer 'sacred', sacerdos 'priest' (< *sakro-dhōr-s 'one who makes holy'), TochA sākār 'blissful, happy, blessed, auspicious', TochB sākre 'blissful, happy, blessed, auspicious'. Cf. Lat sancio 'hallow; establish a law', sanctus 'sanctified', Umb Sancus (a divinity), Hit sākāt- 'rite'. Although sparsely attested, distribution suggests PIE status. On the basis of the Latin and Hittite, the basic meaning of this word would relate to the world of ritual where something was made sacred.

*ueik-* 'consecrate; forbid to (= separate from) human contact'. [IEW 1128 (* l)eik-); Wat 75 (* weik-); GI 704 (* weik h-); Buck 22.42-43; BK 510 (* wuy-ikfh]-)]. Lat victima 'sacrificial victim', ON vfgja 'consecrate', ve 'temple', OE weoh 'relic, sacred image', (fern.) wicce (masc.) wicca 'witch' (> NE witch), OHG wihan 'consecrate', wīh 'holy', Goth wethan 'consecrate', weiths 'holy', Lith vieškas 'life force', Av ava-vaek- 'exclude; seek out', OInd vinakti 'select out, sift'. Distribution indicates PIE status.

*Kuen(to)-* 'holy'. [IEW 630 (* kuen-to-); Wat 34 (* kwen-); GI 702 (* kwen-tho-); Buck 22.19]. ON hūs 'Eucharist', OE hūs(e)l 'sacrifice; Eucharist', Goth hunsl 'sacrifice', OPrus swenta- (place name element), Lith šventas 'holy', OCS světa 'holy', Rus světō 'holy', Av spanta- 'holy'. Perhaps also Hit kunna- 'right, correct', TochB kāns- (if < *kuntti-) ± right, correct, firm'. Originally *'swollen (with force)' from *Rehu(h) 'swell'; cf. also Grk ἀγνος 'lord', Av sūrā 'strong'. Widespread and old in IE.

*naibhōs* 'holy'. [IEW 760 (* noi-bho-)]. OIr naib 'holy', OPers naiba- 'holy'. From *nei- 'be excited'. Sparsely attested, but the geographical distribution suggests PIE status.

*seup-* 'pure, what is taboo for humans'. Umb supa 'viscera of sacrificed animal', Hit suppa- 'flesh or viscera of sacrificed animal', suppi- 'pure'. Although attested only in two stocks, cognates between Italic and Anatolian suggest considerable IE antiquity.

*vehtis* 'god-inspired'. [IEW 1113 (* uāt-); Wat 78 (* wet-); GI 734 (* watbh-)]. OIr fáth 'poet', Wels gwārd 'poem', Gaul owaris 'those performing sacred rites and investigating natural phenomena', Lat vates 'seer, prophet', ON odr 'racing', odr 'poetry', Ōðinn Ōðinn, OE wōd 'racing' (> early NE wood 'insane, mad'), wōd 'sound, song, zeal', wēðing 'insanity'. Wōden 'Ōðinn' (cf. Wēdens-dēg 'Wednesday'), OHG wēt-wōd 'raging', wōt 'violent emotion, rage', Wuotan 'Ōðinn', Goth wōds demon-possessed', Av api-vatāte 'inspires', OInd api-vat- 'inspire'. One should note for Germanic that one of Oūdinn's attributes was that of inspirer of poetry (as well as the inspirer of battle-rage). The meaning shown by Gothic reflects a change in perspective brought about by Christianization. Widespread and old in IE.

Another major concept involved with the sacred is 'wholeness' which may be seen in *Kuen(to)-* where its derivation from *Kwe(h) 'swell' also indicates 'fullness, complete' and a similar connotation can be found in *hētjēges- 'fullness of sacred power'.

According to Emil Benveniste, the concept of the sacred generally required a number of different terms in each IE stock that reflected an opposition between the positive aspect of the sacred, i.e., the inherent power of divinities, and the negative aspect or taboo, that which was forbidden to human society to touch. These positive negative oppositions can be found in Italic, e.g., Lat sacer sanctus (intrinsic) sacredness, something outside the world of humankind: (explicit) sacredness created and defended by humans', in Grk ἰερός ἄγας 'holy, divine: devoted to the gods, sacredness defended
by humans', and Av spanta-: yaozdāta- ‘(intrinsic) holiness: put into the state required by the cult’. Although many of these terms have cognates in other IE languages, there is no overall consistency in their valence and he saw no evidence of a single PIE term that embraced both the positive and negative aspects of ‘sacred’. Calvert Watkins, however, observes that ‘seup-’ might at least provide a reconstruction for the negative aspect, i.e., taboo. In the Igbyne tablets where Umb supa appears, the contexts indicate that it is something taken from a victim which may be cooked on a fire and then offered to the gods but not consumed by humans. Similarly, the use of Hit supra- indicates that it is something sacrificed to the gods but not consumed by humans or, as one tablet (KUB XXX 10 Vs. 13) puts it explicitly: “what is sacred (suppi) to my god (and) not right for me to eat”. Watkins suggests that ‘seup-’ reflects the negative aspects of the sacred and forms the second half of a PIE *sak-*seup-.

Harriet Lutzky has suggested that there was an underlying system in PIE thought for expressing the concept of ‘sacred’ which involved three elements: a conceptualization of the ‘sacred’ as something ‘set apart’, the mediating act of ritual, and the concept of the sacred as ‘wholeness’ or ‘integration’. The first component may be seen in the terms deriving from *sakros* and *teik-, both of which Lutzky associates with the verbal roots *sek- ‘cut’ and *teik- ‘separate’, suggesting that the ‘sacred’ is to be understood as something apart from ordinary life. But there is also the suggestion that *sakros* also indicates ‘to bind in contract’. She also suggests the possibility that *teik- ‘twist, bind’ may underlie *teik- in which case both of these words would be bipolar with meanings of ‘separate’ and ‘bind’ conjoined. To this might be added the words for order *tei(e)s- where she sees an underlying *tei- with meanings of both ‘separate’ and ‘bind’.

See also Comparative Mythology, Force, God, Goddesses, Law, Poet, Sacred Drink. [E.C.P., J.P.M.]

Further Readings

Sacred Drink

The words for alcoholic beverages that may be reconstructed to PIE would appear to be restricted to ‘mead’ and ‘wine’; however, there is one further term that appears to designate specifically a drink consumed by the gods.


Ambrosia Cycle

Although most if not all early IE peoples shared similar ideas concerning a sacred beverage, the concept of spiritual elation or increased military prowess induced by alcohol is so widespread that most parallels within IE ritual and mythology tend to be regarded as generic rather than a genetic PIE inheritance. The single major attempt to postulate a PIE myth concerning a sacred drink, what is known as the ‘ambrosia cycle’, was both proposed and later rejected by Georges Dumézil. He suggested that the various IE stocks had inherited a common myth involving a drink that endowed immortality which a trickster figure attempted to steal for mankind but failed, thus condemning humans to eventual death and insuring that only the gods remained immortal. The concept of this sacred drink of immortality, according to Dumézil, persisted all the way into Christian mythology such as the quest for the Holy Grail. Although Dumézil came to reject his own theory, the “cycle of the mead” has been re-examined by J. Oosten, again as an inherited IE myth. Oosten emphasizes a number of parallels: 1) in both Indic and Norse mythology, the sacred drink is prepared from the sea (in the Mahābhārata the amṛta is prepared from the sea, in the Norse Hymiskviða, the sacred drink is found as a consequence of a banquet hosted by the Sea god and in other tales the sea is regarded as the home of “ale”; 2) in the Indic version, the sea is stirred by Viṣṇu, an enormous serpent who serves as a churning rope, in the Norse myth the Midgard-serpent is caught as part of the search for the magic caldron; 3) in the Indic myth both gods and demons must co-operate in preparing the sacred drink; in the Norse myth, both gods and giants (the Norse equivalent of demons) must work together to find the mead; 4) in both traditions the two parties fall out over the sharing of the sacred drink with the gods ultimately victorious as they deprive their enemies of the drink and also of immortality; and 5) the contest for the mead is socially a contest between paternal relations that compete against each other while sharing is performed between affines and maternal relations.

Indo-Iranian Tradition

In ancient India the sacred drink is soma, which according to Vedic texts, was first pressed, then filtered, after which it might be mixed with water, milk, butter or barley. Soma was critical to Vedic sacrifice and after being offered, the remaining portion was consumed by the priest. Soma was defined as the ‘master of plants’ and over a hundred hymns of the Ṛgveda are dedicated to Soma, the third most invoked deity. In ancient India, soma was very much distinguished from śūra, an intoxicating liquor which might be distilled from a variety of substances, rice (rice-brandy), molasses and the madhūka flower all being cited. Śūra was given, for example, to the
warrior deity Indra by Namuci to incapacitate him although it provided Namuci himself with enhanced power (RV 12.7.3.1). Similarly, in the Mahābhārata (3.121–125) the demon Mada ‘drunkenness, intoxication’ is created to induce Indra to admit the Āsvins to the divine sacrifice. The consumption of sura by the three Aryan classes was forbidden in the “Law of Manu”. Like Soma, this liquor was also deified as a goddess, Sura, who is identified as the consort of Varuṇa. The third alcoholic drink of ancient India was amṛta, literally ‘immortal’ from a-‘un’ and mṛta ‘dead’ which is cognate with the Greek ambrosia (cf. also Grk ἡμέρα ‘nectar; drink of the gods’ which some would derive from *neκ- tep₂ ‘death-overcoming’ [IEW 762, 1074; GI 723 (*Hneκ2*-tepH-); BK 557 (*nuklP-/*neklP-)]. It was a celestial beverage, often likened to rain in the Vedic texts although the Atharvaveda (4.35,6) suggests that it was distilled from rice. Its remit was to bestow immortality to the gods but it occasionally seems to cross with soma in terms of application.

In ancient Iran the cognate of Soma is the deity Haoma (deified haoma, the drink), which is also pressed and dispels death. Zarathuṣtra attacked its abuse by the clergy who got drunk on it (Yasna 48.10); suggestions that the Avesta also indicates that haoma was ingested, then passed as urine, and redrunk to enhance its potency, a practice to be found among Siberian shamans, would appear to be unfounded.

The botanical identification of soma/haoma (*sauma-) has been much discussed. One recent popular theory suggested by Gordon Wasson was that on the basis of descriptions in the Vedas, it was to be identified with fly-agaric (Amanita muscaria), a poisonous but hallucinogenic toadstool which grew on the roots of the birch tree. The case for such an identification rested on the absence of description in the Vedas for the parts of a flowering plant, e.g., roots, branches, seeds, hence a fungus might be suspected. It was also said to grow in the mountains as is the case for the fly-agaric. The fly-agaric also accommodated the descriptions of soma to be found in the Vedas. These arguments, however, have been regarded as unpersuasive since the Vedas do not describe the plant but rather the pressed juice of the deity, i.e., they lack any meaningful description. References to mountains might also be interpreted as simply recalling soma’s lofty origins.

David Flattery and Martin Schwariz have proposed a different theory where they emphasize that the Iranian evidence should be paramount. As *sauma is an Indo-Iranian word, it is far more likely that the original *sauma is to be found in Iranian territory rather than Indo-Aryan since the staging area of Indo-Iranian migrations was from the north. They argue that the only widespread source of a psychoactive drug was the harmel or wild rue (Peganum harmala), a bushy-shaped plant with stems from one to two feet high. Harmel has long been known in Iran and neighboring territories for its pharmacological product, harmeline. The same drugs found in harmel are also known in certain South American cultures where their use parallels that attested in Indo-Iranian religion, e.g., it is employed in ceremonies guided by religious specialists, it induces “visions” which are interpreted as a higher plain of reality, and it can accommodate the various descriptions in the Avesta and later Iranian tradition. It also has apotropaic uses, i.e., as an incense, and it is the only incense plant in Iran that also has psychoactive properties.

This suggestion has now been overtaken by archaeological evidence from Bronze Age Central Asia. Here, in a number of urban complexes of the BMAC (Bactrian-Margiana Archaeological Complex), there have been discovered rooms for religious rites which included traces of ephedra and hemp, both of which have been discovered with paraphernalia for the preparation of a (hallucinogenic or intoxicating) beverage. Ephedra, which occurs in some forty species across Eurasia, appears as a bush consisting of a series of leafless stems. The stems contain ephedrine (in various amounts depending on the species) which raise blood pressure, stimulate metabolism and heart muscle contraction, and increase perspiration. Ephedra is often named after some derivation of soma/haoma among the modern Indo-Iranians from north India to Central


Sacred Drink

Asia, e.g., Nepali somalata, Baluchi hum, NPers hom. Some now argue that the ritual consumption of soma haoma may have originated in these Central Asian towns in the Bronze Age and was then carried further south by the migration of the Indo-Iranians.

The certain identification of the botanical referent behind *sauma is still open and the plausibility of some of the above suggestions warns that there may have been considerable mutability in what various Indo-Iranian populations themselves understood as *sauma.

Other IE Traditions

Other than the Greek ambrosia which grants immortality and may be regarded as a widespread folkloric motif, there is a hint at the tri-functional division of beverages in the χοῦ, the libation in honor of the dead. Here the sacred drinks were honey (priest), wine (warrior), and milk (shepherd or farmer).

In Norse mythology it is mead that occupies the place as sacred drink and offers interesting parallels with the Indic evidence. In both India and Norse mythology the "War of the Foundation" is concluded with an intoxicating drink. In India, the hostilities cease with the creation of the monster Mda who is subsequently dismembered into four parts—drunkenness, womanizing, gambling and hunting. At the end of the war of the Æsir and Vanir, the combatants symbolize their friendship by both spitting into a jar and out of this spittle is created Kvasir who is virtually wisdom incarnate. He is killed by two dwarves but they mix his blood with mead to create a special drink which is subsequently stolen by Odin. A possible parallel in Irish folklore is Finn's theft of a drink from the well of Bec mac Buain, otherwise the well of wisdom. There is a marked difference in the attitude of the ancient Indian and the Norse in that the latter believed that alcohol (mead) grants wisdom and the gift of poetry while these gifts were reserved for soma in India where the drinking of alcohol was frequently desisted. It should be emphasized that while the Arya of Old India consumed soma like their Iranian cousins, madhu 'mead' was the primary ritual drink of the Dásas whom some would regard an earlier wave of Indo-Aryans who may have preserved better some of the more ancient IE beliefs.

One further major comparative theme between India and western Europe concerns the horse sacrifice associated with the installation of a king. In India, the ritual was the asvamedha, the first element concerning 'horse' and the second deriving from *maddhos 'drunk' (or *meidhos 'strength') while its structural counterpart among the Celts appears in names such as Epomeduos 'horse-meal/ritual beverage' or simply *Médhu, e.g., the Irish Medbh.

See also BMAC, bee, ferment, hemp, honey, horse, horse goddess, juice, poppy, wine. [J.P.M.]

Further Readings


Sacrifice

*hed-bher- 'sacrifice'. OIr ad-opair 'sacrifices', OWels aperth 'animal sacrifice, offering, prayer', Umb arsiertur ~ arsiertur (< *ad-bher-tar) 'priest', cf. also Av ira-bhāt- 'sub-priest', OInd prā-bhāṭ- 'one who brings, presents', prā-bhṛt- 'offering', prā-bhṛ- 'bring, offer, (middle) praise'. The underlying structure of these comparisons is the use of PIE *bher- 'carry, bear' in the sense of 'make an offering' which is lexically best attested in the western part of the IE world but which, as the Indo-Iranian words suggest, may have still greater antiquity.

*dheppon (or *dappon) 'sacrificial meal'. [IEW 176–177 (*dāp-); Wat 10 (*dāp-); Gl 606 (*tāHy-)]. Lat dāps 'sacrificial meal', ON tāln 'sacrificial animal', Grk δανάις 'ostentatious expenditure, consumption', Arm tawn 'feast'. Hin tāppalā- 'person responsible for court cooking', Toch A tāp- 'eat'. From *dhēp- 'apportion', i.e., a 'sharing out' of a communal feast. Widespread and clearly old in IE.

*tolko/ehr- 'sacrifice, sacrificial meal'. [IEW 1062 (*teleK-)]. Lith talka 'collective assistance; feast after such work', Latv tālka 'collective assistance by neighbors to help someone out; a feast following such work', Rus tol'okā 'after-work feast', TochA talke 'sacrifice', TochB tellki 'sacrifice'. Though found in only three stocks, it would appear that we have in this word something of at least late PIE status.

The *dheppon would appear to have been a meal offered after a sacrifice. In Latin contexts it seems that this meal was not offered directly to the gods but rather was a large and ostentatious feast which one held at great expense after a consecration. Emile Benveniste has illustrated how both Latin and Greek contexts emphasize the ostentatious expenditure, e.g., Grk δανάιναι 'spend', δανάιαν 'ostentatious expenditure' and Lat damnāre 'to condemn, inflict a damnation (< *dappon), i.e., an injury' where the underlying semantic development here has emphasized the damage one must endure in making such an expenditure. These concepts of magnificent feast, ostentation, conspicuous consumption and their reciprocal negative impact on one's income are all remini-
scent of the anthropological concept of the potlatch. Here, an individual wishing to achieve heightened social status undertook a great feast to which he invited his neighbors and, particularly, his rivals in social esteem. Through the conspicuous "wastage" of his own goods, the host humiliated his rivals (who would be required to match his accumulation and expenditure of goods to challenge him) and also emphasized his social prominence. It has often been argued that through such acts, often requiring the mobilization of one's kin group in the preparation of the feast, societies became increasingly more stratified and complex as the "big men", those who had both the ambition and the kinship-based links, began increasingly to organize societies under their own direction.

The ritual of sacrifice in IE tradition has been regarded by Bruce Lincoln as a re- enactment of the IE cosmogonical myth, i.e., the sacrifice of an animal (or occasionally a human) recreates the first sacrifice which established the physical and moral components of the universe. Thus, in the Aitareya Brähmana (2.6), the victim is dismembered with the feet lying 'Huchen' Washmgton, and their descendants in Tocharian: TRoUT. [D.Q.A., lxs~g'salmon Diebold belongs here or not, 'goal' or '(anandroous) brown trout' eviend examination fish *101<50-
A cnda «
I 'large anadromous salmonid, salmon *ioksOKieha-)
various Indo-European languages reveals no (gen. it regularly 'hundred thousand'.) Whether Oind *10](5-
FISH; The lak$fl lak$a- is clearly of PIE date. The YmHa Institute TochB of 'lac'. a salmonid 'salmon', Lith to referred only to the Atlantic W M *loKs.
Caspian anadromous lfisis *l e Ks6s) (Slavic and Iranian a was the original referent and These
were the largest of the anthropological concept of the primeval giant), the breath to the wind, flesh to the earth, etc. In this way, the sacrifice "makes whole" an ever depleting universe.

See also Cosmogony; Horse; Horse Goddess; Worship.

Further Readings
Benveniste, E. (1973) Indo-European Language and Society; Coral Gables, University of Miami, 61-63, 484-486.

SALMON

*lōkšs (gen. *lēkšos) 'large anadromous salmonid, salmonid (-trot) (Salmo salar and/or Salmo trutta). [IEW 653 (*lāk-so-); Wat 35 (*lāks-); GI 454 (*lākšs-)]. ON lax 'salmon', OE leax 'salmon', OHG lahs 'salmon' (< Proto-Gmc *lāhsa-, OPrus lasasso (< *lōkškšjēh₂-)) 'salmon', Lith lāšis 'salmon', Latv lāsis 'salmon' (Latv and Latv < *lōkšs-), Lith lašiša (< *lōkškšjēh₂-) 'salmon', Rus losōsti 'salmon', Arm losōti 'salmon trout', Oss lāsēg 'salmon trout' (Slavic and Iranian < *lōksokš-), TochB ṭaks (< *lēkšs-) 'fish'. Perhaps also to be seen in VulgLat *locca 'loach' (> French leche 'loach'). An Old Indic cognate has also been claimed in lāksā 'lac'. The presumed semantic development is 'salmon-colored' > *reddish > 'lac'. There is nothing phonologically or morphologically problematic with such a derivation, though the word may also be derived from tag: 'dye'. (Certainly not connected is lāksā- 'goal' or lāksā- 'hundred thousand'.) Whether Ol Ind lāksā- belongs here or not, *lōkšs is clearly of PIE date. The fact that the word for the larger salmonid has become the general word for 'fish' in Tocharian, a language spoken in a region totally devoid of any salmonids, suggests that, whatever the exact referent in PIE, it was ecologically and/or economically pre-eminent.

Under the assumption that it referred only to the Atlantic salmon (Salmo salar), whose range is the North Atlantic, Baltic, and the rivers draining into them, the presence of this word in PIE was used as a strong argument (the "Lachsargument") that the PIE speakers must have originally inhabited some portion of the North European plain. Richard Diebold has shown that the anadromous varieties of Salmo Trutta (labrax and caspiensis), salmon trout native to the Pontic and Caspian seas and the rivers draining into them, makes a better candidate as the semantic referent for *lōkšs. These fish regularly achieve lengths of over a meter and weights on the order of 50 kg. Diebold argues that this fish was the original referent and that the linguistic ancestor of the Germans, Balts and Slavs extended this word to also include the Atlantic salmon (Salmo salar) when they moved north into its territory Diebold suggests that the Proto-Indo-Europeans divided the salmonids into two main categories: 1) the large anadromous salmonid (Salmo trutta) and 2) the smaller, presumably non-anadromous 'brook trout'.

The other salmonids—the huchen (the second largest of the salmonids after the Atlantic salmon), the char and the grayling—are widely found over Eurasia but examination of their names in various Indo-European languages reveals no patterns to suggest deep linguistic inheritance. Diebold has suggested that the most likely reason the various IE stocks had to create new words for all of the other salmonids is that they were not known to the earliest PIE community. The only area in Eurasia relevant to IE origins that lacks all the other salmonids but possesses those lexically reconstructed to PIE (salmonid trout and brook trout) is the territory north of the Black and Caspian seas. This use of negative evidence, however, is suspect as we have many examples of other flora and fauna which must have been known to the earliest IE-speaking communities but which show minimal or no evidence of cognates across the IE stocks, e.g., 'badger'.

The salmon is presented in Celtic and Germanic belief as a primordial being and repository of ancient lore, e.g., the "salmon of knowledge" which is frequently found in Irish tales.

See also Fish, Trout. [D.Q.A., J.P.M.]

Further Readings
Adams, D. Q. (1985) PIE *lōkso- (anadromous) brown trout and *kōkso- 'groin' and their descendants in Tocharian: A coda to the Lachsargument. IF 90, 72-82.
In this way we can answer a question raised by, e.g., Schrader (OCS *seh a -(e)l- or *sehal-). If salt was solely *h2a in Germanic *sh2l-C or *sul-C as in OHG sulza (or *shul-to-)*brine'; *sh2l-V would yield *sal-V). The long *a in Latin may be from *eh2a or *eh2e or a form with *e (or *eh2a, *eh2e), but the length may also be analogical. The acute accent of Lith saltymas points to *sehal-. The circumflex of Latvian requires *eh2e, *eh2a or *h2e. In this way we can reconstruct the paradigm as having *seh2a- and *sh2a-el-; the nominative possibly had *seh2a-, the accusative *sh2a-el-n, the genitive *sh2a-l-os. To explain the Lithuanian acute and Latvian circumflex, it seems easiest to assume that generalization of *seh2a- led to *seh2a-l- in Lithuanian and *seh2a-l (acc.) in Latvian. For the nominative, one may consider *seh2a-el (or *seh2a-el) or *seh2a-h.

The shift to agriculture, particularly cereals, frequently necessitated Neolithic and later populations acquiring salt directly when their diet no longer contained sufficient animal products to maintain the nutritional requirement of salt. The linguistic evidence indicates the existence of a PIE word for 'salt' which comes as little surprise given the other evidence for an agricultural economy. Nevertheless, the word has been regarded by nineteenth and early twentieth century authors as an important cultural marker of the early Indo-Europeans and a key to the location of the IE homeland. Historically, considerable debate concerned the date at which the 'salt' word entered the PIE vocabulary. Before Tocharian or even after the discovery of the Tocharian cognates when Tocharian could still be treated as a 'European' language because of the number of isoglosses shared with the IE languages of Europe, the word for 'salt' was treated by some as a European term and explanation for its absence in Indo-Iranian was required. Some sought to use it to reinforce the idea that the earliest Indo-Europeans were primarily pastoralists and, living primarily off a meat diet, did not require salt additional to what they were ingesting in the form of flesh. Hence the absence of the 'salt' word was regarded as further support for a steppe homeland and it was presumed that the Europeans had innovated. The a-vocalism, commonly reconstructed for this word, also enhanced the notion that 'salt' may have been borrowed from a non-IE language. Alternatively, even before the full extent of the word's distribution was known, linguists such as Herman Hirt emphasized that the archaic declension class of the word also indicated that it was of PIE antiquity and not a later loan word. The current evidence suggests a straightforward PIE status for the term.

Salt has also been employed in attempts to locate the IE homeland. There is an obvious association between the word for 'salt' and that for 'sea', e.g., the Welsh, Latin, Greek, and Old Indic forms cited all mean 'sea' while the related OCS slano means 'sea water'. However, it is best known from the Mediterranean Sea seemed to provide a likely candidate for the source of the earliest PIE word for 'salt'. Such an argument could then be used to support the notion that the homeland lay in the Pontic region which would provide support for the "Kurgan theory" of IE origins. While a Pontic origin provides a convenient environment for PIE 'salt' it is hardly the only explanation as prehistoric salt was by no means limited to a handful of sources. Salt brines and springs (with salt in the bedrock) were also widely exploited in the prehistoric period, especially in those areas where natural temperatures did not provide an easy means of extraction from saline lakes or seas. Concrete evidence for salt-winning, for example, is known from Poland during the later Neolithic period and the proximity of Neolithic settlements to naturally occurring sources of salt across Europe makes it difficult to employ salt as a geographic marker of the earliest Indo-Europeans. Obviously, the Mediterranean provided a potential source while Anatolia, another of today's putative homelands, contained the ancient Halys (modern Kizil Irmak) river which Strabo (12, 3, 12) informs us gained its name from nearby salt springs. It is, therefore, at least theoretically possible to accommodate almost any solution to the IE homeland problem with the existence of a PIE 'salt'.

See also Sea.

SAMARA CULTURE

Middle Volga Copper Age (c fifth millennium BC) culture that preceded the Khvalynsk culture. It is best known from the cemetery at Sezzhaye which mirrors many of the practices of the more westerly Dnieper-Donets culture, i.e., flat graves, body in extended position, ocher, ornaments fashioned from animal teeth, boar tusk, shell, etc. Among the ornaments were several depicting horses, cattle and ducks. The finding of horse skulls and bones in the overburden of the cemetery may derive from rituals involving the horse although it is uncertain whether it was domesticated. Within the model of the "Kurgan theory", the Samara culture provides a convenient contact zone with the more northerly forest cultures who may have spoken Uralic languages.

See also Dnieper-Donets Culture, Khvalynsk Culture.
SAND

*pē(n)s- 'dust'. [IEW 824 (*pē(n)s-)]. OCS pěstokā 'dust', SC pjesakā 'dust', Av pāsun- 'dust', OInd pāṃsā- 'crumbling soil, sand, dust'. The Indo-Iranian form may have been *pāṃ/ nsnu- while the Slavic forms lack a nasal. The Slavic accentuation points to *e and not *eh₁. The long *e of *pēns- points to a root noun. Highly questionable is Hit passilā- 'gravel'.

*sambadhos 'sand'. [IEW 146 (*bhes-); Wat 8 (*bhes-); Buck 1.215]. Lat sabulum 'sand', ?sabutra 'sand in a ship as ballast', ON sandr'sand', NE (dialect) samel 'sand bottom', OHG sant 'sand', MHG sant ~ sampt 'sand', Grk ἀμμος 'sand'. The Greek form cannot be separated from ἀμμος and ἀμβος 'sand' while the MHG sampt can hardly represent an old variant and, even if it is one, it can hardly be an alternative development of a PIE form. A reconstruction along the lines of *sambadhos is impossible and the a vocalism suggests a non-IE status for the word. This is even more evident if Lat sabulum is regarded cognate. The status of Arm awaz 'sand' is unclear.

See also NUMERALS (ONE); SOME. [C.F.J., J.C.S.]

SAP

*sokwōs 'sap, resin'. [IEW 1044 (*sz(ε)kō-s); Wat 68 (*sz(ε)kwō-s); Gl 106]. OPrus sakis 'resin', Lith sakai (pl.) 'resin', Latv svaka (with secondary -v-) (pl.) 'resin, gum', OCS sokā 'sap, resin', Rus sok 'juice, sap; sapwood', Alb giak 'blood', Grk ὁξύς 'sap, resin', TohA sakumu 'pus', TohB sekwe 'pus'. Lat sācūs 'juice, moisture, sap, liquid', if it belongs here, has been influenced in its form by sūgere 'suck'. A large set of forms constitute an etymological family on the basis of gross

SAME

*somōs 'same'. [IEW 904 (*som-); Wat 57 (*sem-); Gl 741 (*se/om-); Buck 12.91, 15.77; BK 184 (*sam-*som-)]. OIr -som 'self; that one', Wels hwn (< *sondo < *som-dhe) 'this (one)', ON samr 'the same one', sami 'same', sem (adv.) 'just as', OE same (adv.) 'same' (> NE same), OHG sama - samo 'like, in the same way', Goth sama 'the same one', OCS sāmū 'himself', Grk ὁμός 'similar, same', Arm omn 'some, certain, any', Hit sanai- (if not Akkadogram ŠA-NI-P) 'one and the same, a single one', Av hama- 'same', OInd sāmā- 'equal, like, same', TochAB sam 'like, even' (whose exact morphological and phonological shape is difficult); in compounds we have: ON sam-leдра, Grk ὁμοκάρτω, Arm hama-haγ (with first element borrowed from Iranian), OPrus hama-pitar-, TochA soma-pācār 'having the same father'; with an *-l-derivative: OIr samail 'likeness', Wels hafa' similar, alike', Lat similis (< *semili-) 'similar' (cf. semel 'once'). There is variability here in the vocalism which has led some to suggest alternative forms for PIE, such as *somh₂os (PIE *somōs should have given Av *hama-, OInd *sāmā- while the attested forms could come from PIE *semōs). Nevertheless, the broad attestation and the common compound formation both indicate PIE status. From *sem- 'one (together)'.

See also NUMERALS (ONE); SAME. [R.S.P.B.].

SAMARA

[Image of Samara distribution and artifacts]
similarity in sound and old in IE. The Greek form, incidentally, is the source for the NE opium (< *ōmōv* 'poppy sap'). Attempts have been made to associate this word with Proto-Uralic *sikse 'Siberian pine'.

*ğ*̣ṃḥ̣̣j̣̣̣- *pitch*. [IEW 482 (*ğ̣ṃḥ̣̣-*)]. OIr bi 'tree pitch', Rus živica 'soft resin', Arm k'iv 'tree pitch, mastic'. Probably a younger word than *sok*ð̣ð̣, and one perhaps limited to the west and center of the IE world. Presumably a derivative of *g*̣̣̣j̣̣̣̣ẹ̣̣ḥ̣̣, 'live' as the tree's living matter.

*ğ*̣̣̣ệ̣̣ụ̣̣- *pitch*. [IEW 480 (*ğ̣̣̣ẹ̣̣-*)]. Lat bitumen 'mineral pitch, bitumen', OE cwīdū - cwīdu 'mastic', OHG kūti 'glue, putty', OInd játu 'lac, gum'. Compare with new lengthened-grade ON kvíða 'tree pitch', also Wels bedw (*g̣̣̣ẹ̣̣ṭ̣̣ḥ̣̣-*) 'birch' and Lat (< Gaul) betula 'birch' as the 'sap-tree' from the use of birch pitch as a food or as a glue. In prehistoric Europe, the most frequent adhesive for sticking arrows to their shafts or stone (or metal) axes within their hafts was birch gum. Another old word, without any known deeper etymological connections, within PIE.

*pil*̣̣- *pitch*. [cf. IEW 794 (*peig- * peik-*)]. Wat 51 (*pili-*)- March 31-38. Lat pilax * pīce a 'tar, pitch', OCS pīčta 'pitch, tar', Grk πίσσα (< *pikhṇ-*) 'tar, resin'. Compare Lat pīca 'spruce' and further Lith pušis 'spruce, pine', Grk πεύκον 'pine'. The words for 'pitch' and Lat pīca 'spruce (Abies alba)' all show the same sporadic change of *p-u- to *p-i- seen in *pulos- *pilos- 'hair'. A fairly widespread word to the west and center of the IE world.

*pap*̣̣- *s*̣̣ap*. [IEW 880 (*sap- * saba-*)]. Wat 55 (*saba-*)- March 55-57. Lat sapa 'must', new wine boiled thick', ON sál 'sap', OHG sálf 'sap'. A variant *saba-* definitely appears in OE sap (< NE sap) and may occur in OInd sahar-dhuk 'yielding nectar or milk' and Illyrian sabaium 'beer'? (> Italian zabaglione 'a frothy dessert'). If all these words belong together, we can reconstruct a widespread PIE lexical item.

See also PINE; PLANTS; TREE. [PF, D.Q.A.]

SATISFY

*seh2tis*-(gen. *seh2tēs*) 'satisfy; fill up'. [IEW 876 (*sē-*)- Wat 55 (*sē-*)]. Grk ἀποφαίνεσθαι 'satisfy oneself', Arm hač 'contented', Hit saḥ- 'stuff full, clog up', OInd a-si-n-vā 'un-satisfied', TochA si- 'be satisfied', TochB soy- (with difficult vowel) 'be satisfied'. Cf. the widespread derivatives: (1) *sēh2tis* '(gen. *sēh2tēs*) 'satisfaction'; OIr saith 'satisfaction', Lat satis 'enough', Lith sūtis 'satiety'; (2) *sēh2tōs* 'satisfied': ON sādhr 'enough', OE sead 'satisfied' (> NE sad, via 'satisfied' > 'heavy'), OHG sat 'satisfied', Goth sahts 'satisfied', gasohjan 'satiated', OCS syrū (with unexplained first vowel) 'satisfied', Grk ἄνας (< *ṭ̣ṣ̣h2-ṭ̣-*) 'insatiable'. Widespread and old in IE.

*terp- 'take (to oneself), satisfy oneself, enjoy'. [IEW 1077-1078 (*terp-*)- Wat 70 (*terp-*)- BK 94 (*ṭ̣ḷ̣ir-ap̣̣ḥ̣-* *ṭ̣ḷ̣-er-ap̣̣ḥ̣-*)]. ON purfa (pres. parth) 'need, lack', OE purfan (pres. peart) 'need, lack', OHG durfan (pres. durt) 'need, lack', durft 'necessary', durftig 'poor', Goth *ftrubhon (pres. parth) 'need; must, *parbs 'necessary', *parba 'necessity', *parfte 'necessary, useful' (the Germanic verbs reflect an old perfect 'have enjoyed' > 'still longing for', whence 'still have the appetite for; need'), OPrus *enterpo 'use', Lith tarptš 'flourish', Latv tērptinā 'better', OCS trēptē 'suffer, endure'. Grk τερπναι 'satisfy', τερπνοια 'satisfy oneself', Av tralạ- tarp- 'steal', OInd tīpyati 'be sated', pāṣu-tīp- 'cattle-stealing', TochA ṭsaw- 'be confident, rejoice'. Cf. the widespread derivative *terptis* (gen. *tpōtēs*) 'satisfaction, enjoyment': ON purft 'need', OHG durft 'need', Goth ḫaurfts 'necessity, need'.

Scatter

*sper* 'strew, sow'. [IEW 993-995 (*s)p(h)er-*)- Wat 63-64 (*sper-*)- Buck 9.34. OIr sreabh (< *spre-bho*) 'stream', OHG sprat 'scattering', Alb farē (< *sprehār*) 'seed', Grk σπαρέω 'strew, sow, sprinkle', σπάμα - σπαροποιεί 'seed'. Hit ispāt(ī) 'get full, be filled, be satiated, be saturated', ispiyanu- 'satiated, scatter', OInd śpāyate 'grows fat', TochB spāw- 'spread out'. Widespread and old in IE. Compare also *sphjōrós 'fat, rich'.

See also ABUNDANT; FAVOR; PLEASE; PROSPER. [D.Q.A.]

Schleicher's Tale

"Schleicher's tale" is the name given to an artificial fable created by August Schleicher in 1868 to illustrate the types of results one might achieve through the comparative method in linguistics. The contents of the fable, it should be noted, were in no way an attempt to reconstruct a real PIE text; the story was entirely Schleicher's creation and he was merely trying to display his notion of what a connected piece of PIE discourse might look like. The history of this fable provides a convenient summary of the changes in the appearance of reconstructed PIE over the past century and a half.

Schleicher's version of the tale:

Avis, jasmin varna na ā st, dadarka akvams, tam, vāgham garum vaghantam, tam, bhāram magham, tam, manum aku bharantam. Avis akvabhjams ā vavakat: kard aghnutaī mai vidanti manum akvams agantam.

Akvāsā ā vavakant: krudhi avai, kard aghnutaī
vividvant-svas: manus patis varnām avisams karnauti svabhjam gharman vastram avibhjams ka varnā na asti. Tat kukruvants avis agram ā bhugat.

“A sheep that had no wool saw horses—one pulling a heavy wagon, another one a great load, and another swiftly carrying a man. The sheep said to the horses: ‘it pains my heart seeing a man driving horses’. The horses said to the sheep: ‘listen sheep! it pains our hearts seeing man, the master, making a warm garment for himself from the wool of a sheep when the sheep has no wool for itself’. On hearing this the sheep fled into the plain.”

Some seventy years later, Herman Hirt took the same (pseudo-)text and rewrote it to reflect his understanding, and the understanding by and large of his contemporaries, of PIE phonology. Hirt’s (1939) version:

A third version was prepared by Winfried Lehmann and Ladislav Zgusta in 1978:

A fourth version was prepared by Jasmin Hirt and Ladislav Zgusta in 1978:

To facilitate comparison of these versions they have been arranged by lines below (with punctuation standardized to ease comparison and misprints have been silently corrected and with a very literal English “translation”, one that tries to recapitulate the PIE word-order, added):

Below is appended a version reflecting the phonological assumptions underlying the reconstructions in this encyclopedia:

To facilitate comparison of these versions they have been arranged by lines below (with punctuation standardized to ease comparison and misprints have been silently corrected and with a very literal English “translation”, one that tries to recapitulate the PIE word-order, added):

1. S avis, jasmin varnā na ā ast, dadarka akvams, 
   H owis, jasmin wolanā ne āst, dedokē ek’wons, 
   LZ [Gʷarē]ōwīs, kʷesyo whanā nei āst, ekwons espekt, 
   MA [Gʷrhē]ōwīs, kʷesyo uļhēnēhā nei (hjē) est, hēkjuons speket, 
   NE [On the mountain] (a) sheep, to which wool not was, 
   saw horses

2. S tam, vāgham garum vaghantam, tam, bharam magham, 
   H tom, woghom gʷrum whēhontā, tom, bhorom megam, 
   LZ oinom ghe gʷrum woḡhom wēhontā oinomkʷe meqam bhorom, 
   MA hēkjuom ghe gʷrhōm uḡhom wēhontā hēkjuomkʷe meqam bhorom, 
   NE one, (a) wagon heavy pulling, one, load great, 

3. S tam, manum aku bharantam. 
   H tom, gh’bmonnp, ok’u bherontā, 
   LZ oinomkʷe gh’menp ōku bherontā, 
   MA hēkjuom-kʷe gh’menp hōku bherontā, 
   NE one-and man swiftly carrying

4. S Avis akvabhjams ā vavakat: kard aghnutai 
   H owis ek wonnos ewwekʷent: kērd aghnutai 
   LZ Ovis nu ekwoh(y)os (ekwomos) ewewkʷent: ‘kēr aghnutoi 
   MA hōwīs tu hēkjuwbh(y)os veukʷent: ‘kēr hēghnutor 
   NE (the) sheep then to the horses said: ‘heart is pained

5. S mai vidanti manum akvas agantam. 
   H moī wondontei gh’bmonnp ek’wons ag’ontā, 
   LZ moī ekwōns agōntā nep widdpentei, 
   MA moī hēkjuons hēghontā hērnm widdpentei, 
   NE to me horses driving (a) man seeing

6. S Akvāsā ā vavakat: krudhi avai, 
   H ek’wōses ewewkʷont: krudhi, owei, 
   LZ Ekwōs tu ewewkʷont: kreludihi, owei, 
   MA hēkjuōs tu veukʷont: ‘krudhi, hōwei, 
   NE (the) horses then said: ‘listen, sheep

7. S kard aghnutai vividant-svas: 
   H kērd aghnutoi vidontmos: 
   LZ Kēr ghe aghnutoi ṁsmei widdptbh(y)os (widdptmos): 
   MA Kēr ghe hēghnutor ṁsmei widdptbh(y)os: 
   NE heart is pained to us seeing

— 501 —
8. **S** manus **H** gh'b'mon, **LZ** nēr, **MA** hynēr, **NE** man, **(the)** master, sheep's wool for himself

9. **S** karnauti svabhjams gharmam vastram **H** kʰʰneuti sebhoi ghʰʰermom westrom, **LZ** gʰʰermom westrom kʰʰneuti. **MA** kʰʰneuti nu gʰʰermom yestrom **NE** makes now warm garment

10. **S** avibhjams ka varnā na asti. **H** owimos-kʰʰe whanā ne esti. **LZ** Neghi owiom wihnā esti'. **MA** neghi h2eγjoms h2h2neh2m h2êstī. **NE** not to (the) sheep wool is

11. **S** Tat kakruvants avis agram a bhugat. **H** tod k'ek'towos awis agrom ebuguet. **LZ** Tod keklüwos owis agram ebuguet. **MA** Tod keklu̯wos h2ou̯is h2e̯grom bhuget. **NE** this having heard sheep to the plain ran.

Some of the differences among these versions are purely graphic. For instance Schleicher's k, Hirt's k', Lehmann and Zgusta's k and the k employed in this volume all reflect the same reconstructed sound which is usually presumed to be some sort of dorsal-palatal or and this volume's kʰ′neuti. Similarly, Schleicher's and Hirt's k′, Lehmann and Zgusta's y and this volume's j all represent the same voiced lamino-palatal glide. In these cases the only difference is the choice of symbol to represent the sound. Other differences are more substantive. Schleicher's a for example is used where the other versions have a, e, or o. In this Schleicher reflects the situation found in Old Indic. The other versions represent a better understanding of PIE phonology, an understanding which sees Old Indic as a model. Later versions have the benefit of some of our reconstructions are present because it is assumed by many linguists that PIE was a language that did not permit initial vowels in words. Where it looked to prior linguists, and still does to other linguists today, that PIE had an initial vowel, these linguists assume an initial *h₁ has been lost without a trace everywhere. Such an assumption is not susceptible, even in theory, to absolute proof. Another way in which the latter two reconstructions differ from earlier ones is in the greater use of syntactic particles (ghe, f, nu, etc.) which Proto-Indo-European clearly used as ways of signalling various features of discourse, emphasis, contrast, topicalization, resumption, etc. Finally, another difference between our reconstruction and the previous ones is the addition of accent marks. All the previous investigators would have been in agreement that Proto-Indo-European distinguished accented from unaccented syllables, so no theoretical difference is manifested in the accent marks, only an attempt on our part to be maximally explicit about this feature of PIE phonology.

Progress in our ability to reconstruct PIE (or any other language) is not always unidirectional. The Lehmann-Zgusta version differs from the previous ones in assuming that the rules of PIE syntax required the order subject-object-verb rather than merely favoring that order (as in the previous two versions). Our reconstruction, on the other hand, assumes that the verb-final order was the unmarked one, i.e., the most frequent and semantically unemphatic one, but that other orders were possible. Particularly there were many sentences with the verb in the initial position as a mark of emphasis.

A different "PIE tale" has been produced recently, on the
basis of a passage in the Old Indic Aitareya Brähmana (7:33:1). S. K. Sen asked a number of contemporary Indo-Europeanists to reconstruct the PIE “parent” of the Old Indic passage. We present below a representative example of those reconstructions (the one below is mostly E. P. Hamp’s, though with the symbols adjusted to the usage of this Encyclopedia and with a couple of lexical changes to bring it into closer conformity with the other reconstructions).

to réks eh₁est. so gptulos eh₁est. so réks sah₁num éyel(e)nt.
só tósh(λο) gheutérn (e)prešket; sah₁num moj gahjotam!
só gheutér tom régm éyevukʷet: ih₂geso deiuom vērunom.
so réks deiuom vērunom h₂āpo-sesore nu deiuom (e)h₂geto:
kludhi moj ph₂ater vērune;
deiuos vērunos kmpa diuós ēgʷeh₂at.
kʷid velsi? velmi sūnum. tód h₁estu, yevukʷet loukos deiuos vērunos régos pomnika sah₁num gegonjh₁e.

“Once there was a king. He childless was. This king a son desired.

He his priest (pourer) asked:
(let) son to me be born!
The priest the king said:
‘pray to the god Varuna’.
The king to the god Varuna approached now to the god to pray.
‘Hear me father Varuna!’
The god Varuna down from heaven came.
‘What do you wish?’
‘I want a son.’
(‘Let) this be (so),’ said the bright god Varuna.
The king’s lady a son bore”.

See also Proto-Indo-European, Reconstruction. [D.Q.A.]

Further Readings


SCRAPE

*red- ‘gnaw, scrape’. [IEW 854 (*rēd-): Wat 53–54 (*rēd-)]. Lat rēdō ‘gnaw’, rōstrum ‘beak, ship’s prow’, OE rāt ‘rat’ (< *gawer > NE rat), OHG raiz ‘sharp (of taste or sound), wild, biting’, MHG ratzen ‘rat’, MPers randitan ‘scrape, smooth’, OlNde rādati ‘bites, gnaws, cuts, makes way, opens’. The geographical distribution of this word, found only on the eastern and western margins of the IE world, strongly suggests PIE status. Connected in some fashion are possibly Wels rathu ‘scrape, smooth, file’, Lat rādō ‘scrape, scratch, shave, smooth off’, rāstrum ‘rake’, rādula ‘scaper’, though they may reflect an Italo-Celtic *ras-deio-.


See also Cut, Tear. [D.Q.A.]
of exclusion on the basis of other arguments, e.g., those supporting a steppe homeland suggested that the Indo-Europeans could not have originally been located on the shores of the Baltic Sea since Germanic had borrowed the sea-word for this body of water while those who supported a north European homeland excluded the Black Sea and the other southern inland lakes since the IE vocabulary possessed a word for 'eel', a fish unknown to those waters (though it turns out that the Black Sea was incorrectly excluded).

While the semantic development is still generally accepted, i.e., 'lake' > 'sea' (cf. NHG see 'lake' but NDutch see 'sea'), there are no grounds to know whether the early Indo-Europeans had a specific inland sea or lake on mind and if so, which body of water it was; *moři offers little if any clue as to the location of the IE homeland.

See also *lake, *salt. [R.S.PB., J.P.M.]

**SEA GOD**

*trīhaeton* 'watery (one?)'. [IEW 1096 (*trīhate-*)]. OIr *tríth* (gen. *trettan*) 'sea', Grk *Tpttov* (son of Poseidon). The phonological and semantic similarity of these two words is seductive but problematic since they reflect only similarity on both fronts, not identity. The Greek word might reflect *trīhaeton*, while the Old Irish might reflect *trīhētōn*. However, it is difficult to relate the Old Irish genitive with such a form (since it requires a short -i-) or any other possible antecedent of the nominative. Intriguing but doubtful.

See also *Fire in Water* [D.Q.A.]

**SEASONS**

*wegs* 'spring'. [IEW 1174 (*wegs-*)]. OIr *gian*; Wat 78 (*wegs*); Gl 596 (*wegs-?*). OIr *errach* 'spring', OWels *guianuinn* 'spring', Lat *ver* 'spring', Lith *všara* 'summer', Latv *vasara* 'summer', OCS *vesna* 'spring', Grk *Φειάσ* 'spring', Arm *garn* 'spring', Av *vairi* 'in spring', OInd *vasanta* 'spring'.

This word is widely distributed and as a heterolot represent an archaic construct; both considerations suggest good PIE status although there is some semantic deviation between Baltic and the other stocks.

*sem* 'summer'. [IEW 905 (*sem*); Wat 57 (*sem*); Buck 14.76; BK 166 (*šam*/*šam*); OIr *sam* 'summer, Wels *hal* 'summer', ON *sumar* 'summer', OE *sumor* 'summer' (> NE *summer*), OHG *sumar* 'summer' (*Gmc < **šumaro*). Arm *am* 'year', Av *ham* 'summer', Olnd *sám* 'season, year', TochA *sme* (*< *šemah-χ-en-* 'summer', TochB *smaye* 'summer'). Its wide geographical distribution would seem to guarantee its antiquity in PIE.

*hjenes-:* *hjōsen-:* *hjōs-f* 'autumn'. [IEW 343 (*es-en*); Wat 17 (*esen*); Gl 596–597 (*e-es-en*); Buck 14.77; BK 421 (*as-is-a-s*). ON *oon* 'autumn', OHG *aran* 'harvest', Goth *asans* 'summer, harvest time', OPrus *assand* 'harvest', OCS *jesen* 'autumn', Rus *esen* 'autumn', Grk (Homeric) *osaios* (<* *ois-<* after + α* α*α*α*α*) 'summer') end of summer, harvest time', Hit *zena*, *zenanti- 'autumn'.

The word for 'autumn' has traditionally been regarded as the weakest attested of the seasons in terms of cognates across the different IE stocks. Frequently, the basic meanings in the different stocks vary between 'autumn' and 'summer' or the word is connected with 'harvest', e.g., OE *harfeast* 'before winter, harvest' (> NE *harvest*), Wels *cythaet* 'preceding winter', and Grk *osaios* 'after summer'. On such evidence it was sometimes suggested that the 'absence' of a PIE term for 'autumn' indicates that the early Indo-Europeans did not recognize a harvest time and, consequently, did not practice agriculture but were purely pastoralists. In actual fact, the evidence for a PIE 'autumn' is not so weak as sometimes suggested. With a common root represented in Germanic, Baltic, Slavic, Greek and Hittite, the term for 'autumn' seems a good candidate for IE status, a conclusion strengthened by the probable antiquity of its appearance as an *nte*-stem. On the other hand, the term may not necessarily be co-ordinate with the other seasonal terms, as some suggest that the Indo-European year consisted conceptually of only three seasons — winter, spring and summer. The end of summer, as indicated in the early Irish seasonal festivals, was marked by an out-of-season period and festival, *samain*, which reflected the junction between the end of the old year and the beginning of the new year. The junction also marked a period when the otherworld might most closely impress itself on the world of human society. It is at least possible, given the range of meanings associated with the 'autumn' word, that the term did not originally refer to a three month season but rather a much shorter juncture between the old and new years.

It should be emphasized that even if one accepts the absence of a reconstructed PIE term for 'autumn', this is unlikely to shed any light on the nature of the earlier subsistence economy of the Indo-Europeans. The Roman writer Tacitus claimed that the ancient Germans themselves lacked a word for 'autumn' yet all archaeological evidence indicates that they were very much engaged in both agriculture and stock-breeding. And even agriculturalists such as the ancient Egyptians operated with a civil calendar that recognized a tripartite rather than quadruplicate division of the year.

*ghem* - *ghom* - 'winter, snow'. [IEW 425 (*ghei*); Wat 21 (*ghei*); cf. Gl 750 (*gheim*), Buck 14.74. Gaul *Giamonios* (name of a winter month), Lat *hiems* 'winter', OPrus *semo* 'winter', Lith *ziema* 'winter', Latv *ziema* 'winter', OCS *zima* 'winter', Rus *zima* 'winter', Alb *dimer* 'winter', Grk *xeia* - *xeim* - 'winter', Arm *jwna* 'snow', Hit *pem* 'in winter', Gimmant - 'winter', Gimnan(i)ye - 'spend the winter', Av *ziya* 'winter', Olnd *heim* 'in winter, hemanta- 'in winter', TochA *sarme* (< *sarn* 'winter', TochB *samraje* 'winter'. This ancient IE word, clearly reconstructible with the meaning 'winter', is distributed throughout the descendant languages. Its antiquity is guaranteed not only by its distribution, but also by its semantic homogeneity and its status as an *nte*-stem, seen in Grk *xeim* 'winter', *xeim* 'goat' (with zero-grade; meaning < *yearling* < *one who has survived a winter*).

See also *harvest, time, year*. [PB.; J.P.M.]
SEAT

*sedes* - 'seat'. [IEW 885 (*sed-*)]. Wat 56 (*sed-*). Buck 7.43. Wels hedd 'rest', *sedd* 'seat', Grk ἐδώκα'seat', ἀν ἁδικο 'home'. Olnd sædas 'place'. From *sed- 'sit'. Although distributed on the margins of the IE world, this nominalization may have been independent in those IE stocks where it is found.

*sdellom* - *sdros* (masc.) 'seat, chair-like object'. [IEW 885–886 (*sed-lo-m*)]. Wat 56 (*sed-*). Buck 7.43. Gaul sel'don 'seat'. Lat sēlīa - sēlīd 'seat', ON seðr 'seat', OE sæl 'seat', OHG sezzal 'seat', OCS sēdalo 'seat', Grk ἕδος (< *sed-reh*) 'seat', Arm եթ 'seat'. From *sed- 'sit'. Words of the west and center of the IE world.

Furniture constructed from organic material is extremely rare in the archaeological record but the existence of clay figurines fashioned in the seated position is known from both southwest Asia and southeastern Europe from the early Neolithic. In the Balkans there are also known miniature clay models of chairs and even plastered seats in what are presumed to have been shrines. The technology of chair-building may have been far more ubiquitous than the existing archaeological evidence even though the linguistic evidence does not require the reconstruction of a PIE 'chair'.

See also *seat* [A.D.V.]

SEE

*derk* - 'glance at'. [IEW 213 (*derk-*)]. Wat 12 (*derk-*). GI 186, 193 (*derk pretext*); Buck 15.51, 52; BK 180 (*estar-*/), 456-456 (*estar-*/), 52; GL 678 (*estar-*/), Buck 15.51. Grk ἔδοξα 'have seen', ὁπέτεια 'stare at', Olnd 䀴kst 'sees'. As a verb this root is attested only in Greek and Old Indic; however, its derivative *hzek* 'eye' is practically universal in IE.

*hzek* - 'see'. [IEW 775–777 (*hek-*)]. Wat 45-46 (*hek-*); GL 463 (*hek-*/), Buck 15.51. Grk ἐδύνατα 'have seen', ὁπέτεια 'stare at', Olnd 䀴kst 'sees'. As a verb this root is attested only in Greek and Old Indic; however, its derivative *hzek* 'eye' is practically universal in IE.

*leuk* - 'see'. [IEW 689 (*lek-*)]. Wat 37 (*lek-*). GL 779 (*lek-*/), Buck 15.51; 551; 580 (*law-*/), 584-584 (*law-*/), 52; Wels amling 'evident', OPPrusk laukat 'seek', Lith laukut 'wait (for someone)', Latv ūkot 'look at something', OCS ūkot 'meet someone', Rus luččit 'meet someone', Grk λύκανον 'see', Olnd lakate 'perceive'. We have here a semantic specialization, probably of at least late PIE date, of * leuk- 'shine, illuminate', cf. OIr liucht 'lightning', Lat lūx 'light', fāscō 'let (a light) shine', ON ljós 'light', OE leōht 'light' (NE light), OGH liōht 'light', Goth hūp 'light', Arm լավկա 'ignore, burn', Hit luuk- 'be bright, dawn', Av raok- 'shine', Olnd rōcate 'illuminate, shines', TochAB luk 'light up, be illuminated', TochB lynuk 'light'.

*(s)pek* - 'observe'. (pres. *speke/-; Wat 63 (*spek-*/), Gl 102, Buck 15.52]. Lat specio 'see, haru-spex 'haruspex', OGH spehon 'spy', Grk σχέτωμαι 'look at', σκοπεῖ 'observer' (Greek by metathesis from *spek-/*spek-), av spasei 'spies, spes 'observer', Olnd pāyati 'sees', spā 'observer', Toch AB pac- 'intend', TochB pacw- 'expect'. Widespread and old in IE.

*sek* - 'see' (< *follow with the eyes*). [IEW 890–905 (*sek-*)]. Wat 57 (*sek-*). GL 688 (*sek-*/), Buck 15.51. OIr sēn 'see', OE sēn 'see' (NE see), OCS sēhan 'see', Goth sāhan 'see', Lith sekū follow, keep an eye on', Alb shohe (< sāhan-eh-sēk-o- 'see', Ht sākuwa 'eye', Lydian saw- 'see, observe'. A metaphorical extension of *sek- 'follow' that appears, given the distribution of its attestations, to be of PIE date.

*yel* - 'see'. [IEW 1136–1137 (*yel-*)]. Wat 75 (*wel-*/), Buck 15.51. BK 494 (*wel-*/), *wel-*/), OIr fē 'there is' (< *behold*!), Wels gweled 'see', TochB yel- (< *yel*-) 'examine, investigate'. Latin and Germanic show reflexes of a derived noun *yelites* (gen. *yelitis*). Lat voltus 'facial expression, appearance, form', OE wulcan 'fame', Goth wulpan 'splendor'. In Germanic we have the enlargement ulyen-: ON lít 'see, look', leita 'look around, seek', OE wītan 'see, look', wītan 'look around, seek', Goth wītan 'look around, seek'. Found only on the margins of the IE world, a good candidate for PIE status.

*leg* - 'see' (< *gather*). [IEW 658 (*leg-*)]. Wat 35 (*leg-*). GL 726 (*lek-*/), Buck 15.41; 557 (*lek-*/), 557 (*lok-*/), 775-777. Lat legō 'gather, read', OE locan 'look' (NE look), OGH luogon 'spy on', TochAB lak- - 'see'. A metaphorical extension, similar to that of the previous word, from the field of movement to that of vision. As in the previous case, the extension of meaning may well be independent in all the stocks in which it occurs.

See also *follow*, *light*, *perceive*, *shine*, *show*, *visible*.

[ID.Q.A.]

SEED

*sehimen* - 'seed' (< *what is sown*). [IEW 890 (*semen-*), Wat 56 (*se-men-*). GL 594–595 (*sēmen-*). Buck 8.31]. Lat sēmen 'seed', OGH sāno 'seed', OPPrus sēmen 'seed'. Lith (pl) sēmenys 'linseed', sēmeu 'linseed, a single seed of the flax plant', OCS sēm 'seed'. Cf. OIr sīl 'seed', Lith selena 'husk of a seed', ON sād 'seed', OE sæd 'seed' (NE seed), OGH sāt 'seed', Goth mana-sēps 'world, mankind' (< *man-seed*). A word at least of the west and center of the IE world. From *sēh* - 'sow'.

See also *agriculture*, *sow*, *grain*.

[ID.Q.A.]

SEEK

*sehag* - 'perceive acutely, seek out'. [IEW 876–877 (*sag-*)]. Wat 55 (*sag-*), GI 705 (*sak-*). BK 195 (*sah-*/), 793 (*sah-*/), 793 (*sah-*/), 831. OIr saiged 'seeks out', Wels hæddu 'earn, gain', Lat sigā 'perceive acutely', sāgus 'prophetic', sāga 'fortunate-teller, wise woman', sagax 'sagacious, keen scented', ON sekka 'seek', OE sæcan 'seek' (NE seek), OGH sōthuhen 'seek'. Goth sokjan 'seek', Grk ἀκτί 'direct, lead', Hit sākiya- 'make known',
SEPARATE see DIVIDE

SERVANT

*hexenthi-kw*ōlos 'servant'. [IEW 639 (*kʰel-); BK 414 (*kʰen-tʰi-/*kʰentʰ-)]. Lat ancilus 'servant', Grk ἀδήπωλος 'servant, priest', OE Oldhīcara' servant'. This word is a compound of *hexenti 'on either side, around' and a thematic nominal form of the verbal root *kʰel- turn, move around in a circle. The servants are thus described as the servants moving about their master, circulating on his property. A similar concept is to be found in Celtic *ambactos 'highly ranked servant' (< *hexenthi- around + the participle of the verbal root *hęp- 'be active'; cf. Wels amaeth 'husbandman'). This latter term was borrowed into Germanic at a very early date and appears with a different suffix in the meaning in ON embetti 'office', OE ambæhta ~ ambæht 'office', OHG ambahzi 'office', Goth andbahtis 'office' or OE ambæht 'maid', OHG ambahzi 'maid', cf. ON ambætt where 'maid' has developed into 'concubine'. Distribution suggests PIE status.

*slougos 'servant, one performing service'. [IEW 965 (*slougo-); Wat 61 (*slougo-), Buck 19.43]. OE slæg ~ slæg 'army, host, crowd, company', Wels ilu 'army', Lith slaugia 'service', OCS služa 'servant', Rus služ 'servant'. A word of the IE northwest with different semantic developments in Celtic (military) and Balto-Slavic (service); cf. Lith služė 'nurse'.

*paupto-sthýo- 'servant'. [GI 401]. Mit foss 'servant', Wels gwass 'servant' (from Celtic > medieval Lat vassus ~ vassalus 'vassal'). Oldn ĭpasti- 'subordinate, servant', upasthánam 'servant'. The distribution on the peripheries of the PIE world suggests PIE status for this compound, but it is possible that it was created independently in the two stocks that show it.

SET

*dhehy- 'put, place' (pres. *dheidhe̞ji-ti). [IEW 235–236 (*dʰeʰ-); GI 21 (*dʰéh-), Wat 13 (*dʰé-), Buck 12.12, BK 70 (*dʰey-/*dʰey-)]. From the present *dheidhe̞ji-ti Grk τίθημι 'sets', Avg dašaiti 'puts, brings', Oldn dādhāti 'puts, places, lays', Tochā bātam 'will put, place', other, newer, presents are reflected in Lat facere 'do', -dere in ab-dere 'take away', con-dere 'build, found, establish', créderē 'believe' (< *kreiddhehy- 'put one's heart'), OE dōn 'do' (> NE do), OHG tuon 'do', Lith dėti 'lay', Lat dējus 'lay', OCS dětu 'lay', Arm dnem (in < dhehy-1-ne-0-') 'puts, places', Hit dā(i)- (< dhehy-1-i-e) 'puts, lays', tézzi (< *dhehy1-) 'says', Lycian tādi 'puts, places', TochAB tā- tā- 'put, lay'. Of the latter present forms are built on the analogy of the aorist stem *dhehy- seen, as aorists, in Arm ed 'put, placed', OPers adā 'put, placed', Oldn adhāt 'put, placed' (< *h₁edhehy-ti). Widespread and old in IE; the PIE word for putting and placing.

*sed-* 'set' (pres. *sodejeti - *sodejeti). [IEW 884 (*sед-); Wat 56 (*sed-), GI 100 (*set-)]. From *sodejeti: OIr astudiu 'delay', ON sætja 'set', OE sætan 'set' (NE set), OHG zezen 'set', Goth satjan 'set', Oldn sādażyati 'sets'. From *sodejeti: Lith sodinti 'set, plant', OCS sadi 'set', Av ni-sādażyati 'sets down'. Cf. with a different suffix Hit sazi 'make sit'. The causative of *sed- 'sit'. Widespread and probably old in IE.

*stel-* 'put in place, (make) stand' (up). [IEW 1019–1020 (*stel-); GI 101; Wat 66 (*stel-); Buck 12.12]. Lat stolidus 'stolid', ON stjofri 'stem, stalk', stfltr (< *stolno- 'stall', OE stela 'stalk, support', steall 'standing place, position, stall, stable' (NE stall), stellan (< *stolneuto-) 'put, place', OHG stal 'standing place, position, stall', steller 'set up, establish', OPrus stalti 'stand', Alb shjtell (< *stel-no) 'fling, toss, hurl', Grk στάλλω 'make ready, fit out with, send, dispatch', στάτος 'equipment, troop', Arm stelem 'set, place', Oldn sthalan 'eminence, templeland, ground, earth, dry land' (with initial consonant cluster influenced by sthā- 'stand'). Widespread and old in IE.

See also SIT, STAND [A.D.V]

SET IN MOTION

*hjery- 'set in motion'. [IEW 326–332 (*er-); Wat 17 (*er-); GI 187 (*er-); cf. Buck 10.11, BK 593 (*er-/*or-)]. (1) pres. *hjereiti 'stirs up, sets in motion'; Grk ὧρει 'stirs up, move', Arm y-arnem 'stand up', Hit arnu2 'brings, sets in motion', Av arnavoiti 'moves', Oldn pōti 'moves'; (2) pres. *hjortor 'stands up'; Hit arta 'stands, is present, occurs', Tochā artar 'will evoke, produce', TochB erta 'will evoke, produce'; (3) *horei 'Hit ari comes, arrives'. Other presents are represented by Lat orior 'rise, be born', Oldn iyarti 'sets in motion'. Widespread and old in PIE.

*hjeis-* 'set in motion'. [IEW 299–301 (*eis-); GI 188, 194 ('eis-)]. On eisā 'go dashing', Grk ἑιάω 'pour out', oioeis 'suppose, think', Av aēs- 'set in motion', Oldn īsāt 'sets in motion, swings, āsāyāti 'impels', ēsati 'glides'. Geographically widespread and certainly of PIE date. Related to the word for 'arrow'.


*hylei- 'set in motion'. [IEW 664–665 (*li-); Wat 36 (*li-); cf. Buck 9.35]. OIr lē (DIL lia) 'river, sea and Wels liif- lii 'river, sea (< *lyyant-), OIr do-liin (< *li-nu-) streams', Wels dillýdd 'pours out', Lat lītus 'beach' (< *floded area'), ON lið 'beer', OHG liht 'fruitwine', Goth leypu 'fruitwine', Lith leju ~ lieju 'pour', liju 'rain, stream', Lat liet 'pour', Hit 'rain', OCS lijop ~ lījop 'pour', Grk αἴλευτον (< *hyleutou-) 'cup, goblet', Hit halā(i)- (< *hylei-) 'sets in motion'. Widespread
and old in IE. Except for Hittite the meaning has been specialized to 'set (a liquid) in motion'.

\*pельх - 'set in motion' (pres. \*пельнехо). [IEW 801–802 (\*pel-)]. Wat 48 (\*pel-). OIr ad-ella (\*ella < \*пелат) 'seeks', Lat pello 'push, drive away', ὀπίθος (\*oui-peho) 'shepherd', Pales 'godess of herdsmen'. A word restricted to the west of the IE world.

\*кехр - 'propel'. [cf.IEW 933 (\*sker-)]. Olnd kariθ 'pour out, scatter, throw', TochB kàrsk- (\*ktĥ-sk̂-o-) 'propel', i.e., shoot, throw, spread (by throwing), TochA parra-krase 'distance of an arrow-shot'. Dialectally restricted to the east of the IE world.

\*юед - 'set in motion, stir up, make excited'. [IEW 511 (\*jēudh-)]. Wat 79 (\*jēudh-), Buck 10.11. Lat tūbeō 'order' (\*set in motion), Lith jūdu 'move oneself, stir, get oneself in motion', jūdina 'set in motion', jūdū 'feel, perceive', jaudintu 'excite, stir, move'. Latv jaustr 'feel, pay attention to, understand', Pol judzić 'incite', Grk ὑγιεύνω 'combat', Av yātīyēnti 'they fight', yafalti 'becomes agitated (of water and emotions)'. OPers yaudatiy 'is stirred up', Olnd yadhiyate 'fights', yud-yōdiati 'boils up', TochA yukt- (< jūdē-sk̂-o-) 'become upset, worry'. Widespread and old in IE.

\*уег - ('уег-) 'shake, set in motion'. [Wat 74 (\*wegh-); BK 301 (\*waĝ-/*waĝ̊ĝ-)]. Lat vexare 'shake', vexe, OE weccan 'agitate', ME waggen 'wag' (\*NE wag). Goth wagian 'shake', Grk ὑγεῖ-ογχος 'earth-shaking', TochA waska- 'move, budge, have motion (intr.); move (from a place) (intr.); tremble, TochB waska-/wasks- 'move, budge, have motion (intr.); move (from a place) (intr.); tremble (Toch < \*uēgh-sk̂-o-). Perhaps this should be reconstructed \*uēgh- and regarded as an early semantic specialization of \*uēgh- 'bear, carry'. In any case, widespread and old in IE.


\*сехл - 'set in motion' (pres. \*сехлthī). [IEW 914]. OIr sóid 'twists, turns', Hit suwiāt 'push, urge, sumna- 'fill', sūf- 'full', sūwatai (< sou̱h-udhrom 'horn' (< \*pusher)), Palac sūnāt (< su-ne-hytō) 'poured out', Av ānuātii (< su-ne-hytō) 'seeks to create, drives toward', Olnd sūwāti 'sets in motion, vivifies, urges, sava- 'instigator, instigation', TochB sēuti 'pretext, excuse'.

See also BOW AND ARROW, FLOW, MOVE, FLOW, MOVE, FLOW, MOVE, POUR, STIR. [D.Q.A.J]

SEW see TEXTILE PREPARATION

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\*пес̑ - 'penis'. [IEW 824 (\*pes-); Wat 50 (\*pes-); GI 716 (\*pēs-os-); Buck 4 492. BK 62 (\*pēl̂-[a]-ŝ/\*pēl̂-[a]-ŝ)]. Lat pēnis (< \*pes-< 'manhood' derived from \*pes̑-nò- 'man', cf. Hit) 'penis, tail', OE fæsl 'seed, offspring', OHG fæsel 'penis', Grk πέσας 'penis', πόδης 'penis, foreskin', Hit ḫ̄savā- 'man' (< [one] provided with a penis), ḫ̄sanār 'penis', Olnd þásas 'penis', pelā- (< \*pazla-) 'testicle'. Very strong evidence for PIE status.

\*кап̑ - 'penis'. [IEW 529; Wat 27; Buck 3.37]. The underlying noun is seen in Olnd kāp̑th- 'penis'; a derivative \*kāp̑r-o- 'possessed of a penis' is seen in OIr gabor 'he-goat', Wels gafo 'he-goat', Gaul Gafo-nus (with initial g-rather than \*k- that is not well understood). Lat caper 'he-goat', ON hafr 'he-goat', OE hæfer 'he-goat', Grk καρπος 'boar'.

The meanings of the derivative suggest, perhaps, that this word tended to mean 'animal penis' while \*pēs̑-s̑ may have had a tendency to be restricted to 'human penis'. In any case, the distribution of the underlying noun plus its derivative would seem to guarantee PIE status for \*кап̑.

\*ху̱п̑ - 'shaft, penis'. Grk ὑξιω (\*hxui̱we/o-) 'copulate, marry'. Hit hypusa- 'shaft, penis'. An early euphemism for 'penis', preserved as such in Hittite.

\*пу̱т̑ - 'vulva, anus'. [IEW 849 (\*pū-to-)]. On lu- 'vulva', MHG ur 'vulva', Grk (Hesychius) πυννός (\*pūtno-) 'anus', Olnd (attested only very late) putau (dual) 'buttocks'. Sparsely but widely attested. The best candidate for a word with this meaning having PIE status.

\*кун̑ - 'testicle'. OL cunnus (with expressive gamination) 'vulva', Grk (Hesychius) κοκυς 'anus, vulva' (outside of Hesychius this word occurs in compounds, always with the meaning 'anus' and always with reference to pederasty). NPer kūm 'vulva'. Perhaps also belonging here are Wels cuthr (< cuzdho-) 'anus' and Grk κύκτος (if < *kus-to-) 'vulva'. A late, popular word in PIE subject to phonological deformation.

\*кун̑ - (female) pubic hair, vulva'. [IEW 953 (\*kue-)]. Lith kūju̱s 'female pubic hair, vulva', Latv kūsis 'pubic hair, vulva' (Balts with new lengthened vowel), NPer kus 'female genitalia'. Geographically restricted to the center and east of the IE world. This may well be in origin the euphemistic use of a word meaning 'belly'; compare Olnd kuxs: 'belly' which, though derived morphologically, may preserve the older meaning.

\*пэд̑л̑ - 'vulva'. [IEW 831 (\*pizda-)]. OPrus pesida'sass, Lith pyzyda 'vulva', Latv pizda 'vulva', Rus пизда 'vulva', Pol piza 'vulva' (Balto-Slav with lengthening of \*i- to \*i- by Winter's Law), Alb pidh 'vulva', Nūruń̑tā pari (< \*pizdika) 'vulva'. From \*hjelypi- + \*s(e)k̂d- + -o- 'what one sits on' (cf. \*ni-sd-os 'nest' (< \*hjlepi- + \*s(e)k̂d- + -o- 'what one sits in'). Archaic in formation but geographically limited to central and eastern IE. Presumably a late, dialectally restricted PIE euphemism for 'vulva.'

\*кэрг̑и̱s - 'testicle'. [IEW 782 (\*org̑i-)]. GI 716 (\*org̑i-); Buck 4 494. BK 428 (\*ar-ag-/*ar-ag-). MIR urge (< \*org̑ieh̑i̱-), 'testicles', Alb herdhe 'testicles', Grk ὀργής 'testicle', Arm orqik 'testicle', Grk ἀρξιν 'testicle', Av arz̑i̱ 'scrotum', arz̑i̱ (dual) 'testicles', TochB erkatstse 'testiculate'. From \*hrg̑ī̱ 'moants'. The PIE word for 'testicle.'

\*кэнд̑р̑ - 'egg, scrotum'. Rus jadȓ 'kernel, scrotum', Olnd ḥánd̑ 'egg, scrotum', (dual) 'testicles', Kalaš̑ d̑nd̑r ̑ ̑ ̑ (preserving the Proto-Indic \*r-1) 'egg'. Originally 'that which
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is inside' (PIE *h1en- 'in'), whence > 'kernel, egg'. The development 'egg' > 'scrotum' may be independent in Old Indic and Slavic or may reflect the influence of PIE 'eastemism'.

*muskos* 'male or female sex organ'. [IEW 753 (*mūs), Buck 4.49]. Grk (Hesychius) μυκον (with 'expressive' [-kh]-) 'male or female sex organs', Olnd muska- 'testicle, scrotum', (dual) 'vulva'. Etymologically probably *mus-ko- 'little mouse' from its presumed resemblance to a mouse under the skin (as in *mūs-tlo- 'muscle'). Unlike the similar extension of 'mouse' to 'muscle', this metaphor seems limited to late IE.

*huorghei - *huorgbhor 'mounts, covers'. [IEW 339 (*ergh)-]. ON argr cowardly, unmanned, immoral (< *húorghos 'one who is mounted'), ergi (< *húorghehi) 'lascivious behavior, shamelessness', Lith arūs 'lascivious', Rus jerkjet - jergjet 'tiddges, wriggles, moves in cotos', Grk ὀψευμα 'makes lascivious motions, dances', ἀργος 'rectum, anus', Hit ārki - arga 'mounts' (attested only with reference to a male animal), Olnd gghāyate 'is impetuous, rages'. Though the underlying verb is attested only in Hittite (with originally intensive-iteratives also in Slavic, Indic, and Greek), this is surely the oldest reconstructible IE verb for 'copulate'. Cf. also *húorghī 'testicle'.

*jēbheha- 'enter, penetrate' > 'copulate'. [IEW 298 (*eibh)-]. GL 716 (*eibh-), Buck 4.67]. Rus jēba 'copulate', Grk ὀιμω 'copulate', Sogd ā-yamb- 'commit adultery', Olnd yābhati 'copulates'. The meaning 'copulate' is an extension of 'penetrate, enter' still to be seen in Luv ipatarmawest', iparwassar-western' (presupposing a pre-Luvian *ipa-west, sunset'), Tochā yow- 'enter, set (of sun)', Tochb yap- 'enter, set (of sun)'. The semantic specialization would seem to have been confined to the central and eastern parts of the IE world, one that did not affect either Tocharian or Anatolian and which has left no trace in the "west".

See also Anatomy, Blow, Castrate, Goat. [D.Q.A.]

Further Reading

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SHADOW

*skoīh (gen. *skūeḥh) 'shade [= place protected from the light], shadow (= image cast'). [IEW 917-918 (*skēh); Wat 58 (*skēi-); GL 103; Buck 1.63]. Lat seja - sejs (< *skōjoeḥh) 'shadow, ghost', OCS sēnt (< *skōi-μh) 'shadow, shadow', Rus sen 'shadow, shade', SC sjēn 'shade, shadow', osōje (< *skōym) 'shaded spot', Alb hie (< *skūeḥh) 'shade, shadow; ghost, spectre', (dual) hē 'shadow, shade, ghost, spectre' (< *skūeḥh, if hē is not just another form of hie), Grk σκότος (< *skūeḥh) 'shade, shadow, reflection, image (as in a bowl of oil); ghost, spectre', σκιπον 'umbrella' (a nominalization by accent retraction from *skī-ro- 'shady'), (Hesychius) σκοινος (< *skōin-α) 'shady', Av a-saya- 'who throws no shadow', NPers šaya-'shadow', Olnd chāyā-'shade, shadow, shady place' (Indo-Iran < *skūeḥh), TochB skyo 'shadow' (< *skūeḥh), the lack of the expected initial palatalization may reflect a leveling from the old nominative *skōih); widespread and old in IE.

*sκότος 'shadow, shade'. [IEW 957 (*skot-); Wat 61 (*skot-); Buck 1.63]. OIr scath 'shadow, reflection, ghost, spectre', MWel ysgawt 'shadow, darkness; nocturnal spirit' (Celtic < *skōto-), OE sceadu 'shadow' (NE shadow). OHG scato 'shadow', Goth skadus 'shadow' (Gmc < *skotu); Grk σκότος 'darkness, gloom, shadow', σκοτώ 'darken, blind' ( NigelGrk σκοτώ 'kill'). At least a word of the west and center of the IE world.

See also Dark, Shine. [D.Q.A.]

SHAFI

*hu2sēhīh1os - *hu2sēi̯h1os (gen. *hu2sēih1os) 'shaft (of a cart or wagon)'. [IEW 298 (*ei- - *oi-); GL 624 (*Hi-)). OIr ār- or 'oar' (> NE oar) (< Proto-Gmc *aizō-). Rus voje 'shaft', Slov oje (gen. oješa) 'shaft', Grk ofινοι 'tiller, helm, rudderpost', Hit hissa- 'pole, shaft, thill (for harnessing a draft animal to a cart)', Av aēš- 'pole (-pole), plow, shafts', NPers xēš 'plow-share'. Olnd ħad- 'pole, shaft. Baltic is probably represented by borrowing in Finnish aisa 'pole, shaft' (< Proto-Baltic *aisa- or *aisō-), though Iranian has also been seen as the source of the Finnish word. Compare also the derived Grk oinaç 'ring on a yoke through which the reins are passed, terret'. Widespread and old in IE. The proto-language would appear to have had both a neuter *hu2sēhīh1os, preserved as such in Slavic, and a 'collective' feminine *hu2sēih1os, whose non-nominative stem *hu2sēhīs is reflected in the Hittite and Old Indic forms. Almost certainly also of PIE age is the derivative *hu2sēh1eşha- with substantially the same meaning seen in Germanic, Baltic (in the form of a loanword into Finnish), and Iranian. Only Baltic shows related words without *s-, e.g., Lith telekstis 'pole, shaft', aile 'pole', Latv ielūķi 'shaft', ails 'pole', Lith įena 'pole'.

*dhūr- 'a pole, peg, pin'. [Gl 624-625 (*dūur)-]. Grk ῥαυος 'pivot of door or gate; axle of chariot', Hit tūra- 'harness' (< *put to the wagon-shaft), Olnd dhur- 'means of harnessing a horse to a cart, pole, fore-carriage', dhūra- 'yoke, peg of axle', dhūra- 'draft animal', Tochā durée 'draft ox'. Reasonably widespread and certainly old in IE. Probably not to be confused with *dhuyer- 'pierce'.

*tengh-s- 'pole'. [IEW 1067]. Lat tēmō (< *tengh-s-mōn) 'pole, shaft, beam, wagon', ON prisl 'pole', OE prsl 'wagon-pole, shaft', OHG dhalsla 'wagon-pole, shaft' (< Gmc *pins- (< tengh-s-leh)). From *ten- 'pull, stretch. A word of the west of the IE world.

See also Axe, Wagon, Yoke. [D.Q.A.]

Further Reading

SHAKE

* trem- 'shake, tremble (in fear)' [IEW 1092–1093 (*trem-); Wat 72 (*trem-); GI 187 (*trem-); Buck 16.53]. Lat tremo 'shake', Lith trimti 'shakes', Latv tremt 'chase away', Alb tremb (with secondary -b) 'scare, startle, shock', Grk τρήμα 'shake', τρεμίσσω 'am afraid', TochA tram- 'be enraged'. Cf. the derivative *tromos Grk τρόμος 'trembling', TochB trem 'anger'. Widespread and old in IE. Both *trem- and *tres- are enlargements of an unattested *ter-'shake, tremble'. In both cases there has been a tendency to develop a metaphorical transfer, probably of PIE date, from an outward sign of fear to fear itself.

* tres- 'tremble, shake with fear'. [IEW 1095 (*tres-); Wat 72 (*tres-); GI 207 (*tres-); Buck 16.53; BK 459]. Compare also OE iawan ~ iawan (Proto-Gmc *awian) 'despise'. At least a word of the west and center of the IE world.

* trei- 'tremble, be unsteady' (reduplicated pres. or perfect *rei-). [IEW 862 (*rei-)]. Goth rējan 'tremble, shake', Olnd lełaya ~ lełlāti 'swings', is unsteady'. The exact equation of this odd present formation on the part of two languages on the periphery of the IE world would seem to assure reconstruction of PIE age.

* tveis- 'shakes'. [IEW 1099 (*tveis-); Wat 72 (*tvei-); Buck 10.26]. Grk σκέω 'shake', Av thvāsah- 'fear, anxiety', Olnd tvēsate 'is excited'. A form without the final *- is seen in AV upa-thwanyeti 'is afraid', thwanyah- 'fright, danger'. At least a word of the center and east of the IE world.

* kret- 'shakes'. [IEW 620 (*kret-); Wat 32 (*kret-); Buck 10.26]. Mir crotai 'shakes', ON hradr 'quick', OE hrade 'quick', OHG hrade 'swift', strenuous, redan 'sieve', Lith kretē 'shake, jolt; stirred by shaking', kretū 'shake, move back and forth', Latv kreset 'shake, jolt'. A word of the west and center of the IE world.

* (?)*kuk(nte)- 'shake, jolt'. [IEW 957–958 (*kuk(nte)-); Wat 61 (*sku-)]. From *kus- OE hādenian 'shake', Lith kūtenetis 'pierce oneself (of birds)', kūta 'nouse, shake out of a lethargy', from *skut-: OE scudan 'drive', ME shud(e)ren ~ shudren 'shudder' (NE shudder), OHG scutun 'shake, jolt', scud(en) 'shake, jolt', OCS skyatati 'wander', from *s(k)untu-: ON skynja 'drive', OE scyndan 'drive', OHG scuant 'impel, stimulate', Lith kunți 'recover, get better (i.e., 'shake something off'). Limited to Germanic and Baltic but widespread and prolific within those groups, a northwest dialectal word.

* kreut- 'shakes'. [IEW 623 (*kreut-)]. On hraust- 'quick', courageous, OE hrade- 'bat', MHG rütten (< *hrudjan) 'shake, jolt', Lith kūtu 'move, stir', kūtos 'active, alert'. The very limited geographical range of the attestation of this word suggests a northwest isogloss.

* kseubh- 'shakes'. [IEW 625 (*kseubh-)]. Pol chybnac 'shake', Av xšaob- 'agitate', Olnd kshthyati 'shakes'. Related in some fashion to *kseubh- 'push away, push ahead'. An isogloss of Slavic-Indo-Iranian.

SHARP

* kwar- 'shake, brandish, agitate', Grk πιάσσω 'strew, sprinkle'. Formally a perfect equation but the isolation of this root to two stocks and the semantic distance invite caution. Perhaps, but only perhaps, a late IE word.

See also FEAR; FRIGHTEN [D.Q.A.]

SHAME

* heig+hes- 'shame'. [IEW 14 (*aig+hes-); Buck 16.45]. OE ×wísce 'shame, insult', Goth awískti 'shame' (< *heieg+hes-ki-tom), Grk αἰγος (< *heieg+h-s-ko-s) 'shame, disgrace'. Favorable and unfavorable meanings occur side by side, e.g., naevanty 'very sacred' and 'cursed'. Even the anthology *Aγητς points to some positive sense; however, the meaning 'curse' seems to prevail and in compound verbs, derivations from αγος indicate the chasing away of a defiled person. This denotes the ambivalence of the 'sacred', also shown by Lat sacer. One would be tempted to connect this with Grk αγος 'sacred' but the spiritus asper of the latter makes it difficult though ancient grammarians sometimes considered αγος as a form with psilosis of αγος and αγος. Indeed αγος appears to be attested in the Pamphyllian dialect but the initial h- may reflect conflation with the semantically similar αγος.

See also INSULT; SACRED [E.C.P]

SHARP

* hark- 'sharp, pointed'. [IEW 18–19 (*hark-); Wat 1 (*ak-); GI 96 (*ak(ter-); Buck 15.78; BK 398 (*huk[l]-/*hok[l]-)]. Wels hogi 'to sharpen', Lat aec 'pointed, sharp > pungent, sour (of taste)', acus 'needle', MHG ag ~ egle 'perch', Alb aht (earlier ahte-te) (< *hakt-) 'sour', Grk ἀκτη 'point', Arm aseln ~ aslan 'needle', NFers as 'grinding stone'. In Germanic, this form has been connected with 'perch' (the fish) as can be seen in Danish aborre, which would be from *ag + burZen 'pointed/sharp + pointed one', along with various less likely suggestions in that branch. Other formations built on this root include Lith ėitrisk (~ ėitrisk) 'sharp', Latv ās ~ ast 'strong, powerful, sharp'. OCS ostr 'sharp', Olnd asri- 'sharp edge, edge', asman- 'stone, cliff'. An extremely clear case for PIE status with a broad set of formations based on this root. Although sometimes set here, Hithek or summit, peak would appear to be a borrowing.

* kent- 'sharp'. [IEW 567 (*kent-); Wat 29 (*kent-); GI
205 (*kʰentʰʰ*). On hannarr (*< *hanparaz*) 'clever', OHG handeg 'bitter, stern', Goth handugs 'wise', Latv sitis 'hunting spear', Grk κεφτεώ 'prick'. The connection between the Germanic and Greek forms is uncertain. A variant *keneth* is seen in Av snath, OInd snath- 'stab'. Widespread and old in IE.

*Sbheha*- 'sharp'. [IEW 107 (*bhag-*)]. Grk (Cretan φιάργος 'whetstone', Arm bark 'bitter'). The meager attestation and the considerable semantic distance between these two forms prevents the positing of this form as IE.

*Thbodos* 'pointed'. [IEW 541–542 (*Ka-to-*)]. Buck 15.78. OIr cath 'wise, holy, sacred', Lat catus 'sharp, pointed', OInd sita- 'sharpened, sharp'. The Old Irish form has been treated as a Latin loan or connected to OIr cait 'holy, pure, noble'. Weak case for IE status. Most likely independent developments of *kehr(ā-)*- 'sharpen'.

See also Fish; Perch; Sharpen; Stone; Whetstone. [J.C.S., M.N.]

**SHARP**

*kehr(ā-)*- 'sharpen, hone'. [IEW 541–542 (*kē-*)]. Wat 32 (*kō-*), Gl 199 (*Hkʰ-eEh*). The underlying verb is preserved only in OInd sīśati - sīṣati 'sharpen, whets'. There are a number of widespread derivatives: (1) *kēthōs* in OIr caith 'wise (a hapax legomenon and possibly a loan), Lat catus 'acute, sharp of sense', OInd sītā- 'whetted, sharped'; (2) *kohxros* doubtfully in Grk κάυγος 'pinecone, fircone, firecone, peak of a helmet' (if *< *sharpened object), κώιετον 'hemlock' (if *< *confereous), more certainly in OInd sāna- (with MInd -n- for expected -n-) 'whetstone', TochB kantsa- 'sharpen' (if *< kohxn-en-eha-); (3) *kohxjadh* in Arm sur 'sharp, stem 'sharpen' (with numbers 2 and 3) possibly reflecting a heterotic *kohjad, gen. *kēthōs; (4) *kohjastis in ON hein 'whetstone', OE ħan 'whetstone' (> NE hone), Av saeni- 'point'; (5) *RBdoleg* in Arm sal 'slab, anvil', OInd sīla- 'stone'. Yet other formations are to be seen in Lat gen. cōtis 'whetstone' and probably Alb thiike 'knife' (if *< kihk,k(eh)-ha- or, if *-j = *-j-, *kehr(āk)e(heh)- 'sharpened object'). Widespread and obviously old in IE.


*Kked*- 'whet, sharpen'. [IEW 636 (*kʰked-*)]. Wat 33 (*kʰked*), Buck 15.78; BK 341 (*kʰat/*kʰat*). Lat triquetras (< *tri-quad-ro*) 'having three corners, triangular', ON hvass 'sharp, keen', hvatr 'quick, sharp', OE hwas 'sharp, piercing', hwet 'sharp, quick, bold, brave', hwettan 'sharpen, incite, encourage' (> NE whet), OHG hvaz 'sharp, rough, severe', wezen 'sharpen', Goth ga-hvatjan 'sharpen, incite, entice'. A word of the IE northwest.

See also Knife; Pine; Razor; Sharp; Whetstone. [D Q A.]

**SHEATFISH**

*(s)kʰalos* 'sheatfish, wels (Silurus glanis)'. [IEW 958 (*s)balo-s]; Wat 61 (*s)balo-o-; BK 330 (*kʰbal*). Lat squalus 'large sea-fish' (according to Pliny it is viviparous and cartilaginous but not a flatfish, thus a 'shark?'), ON hvalr 'whale', OE hwel 'whale' (> NE whale), OHG hwel 'whale'. MGH wels 'sheatfish', OPrus kalsis 'sheatfish', Grk (Hesychus) ὑπαλος (< *s)balo* and not well explained initial a-) 'fish', Av kara- 'a kind of fish', MPers kar mahik a mythical fish, the largest of fish (lit. 'moon-fish') as the sheatfish is basically a nocturnal feeder. It is significant that Hesychius localizes the use of ὑπαλος 'fish' to the Athamanians who inhabited the region of northwestern Greece drained by the Achelōs (the modern Aspropotamōs), the one river in Greece where sheatfish are native. The sheatfish is a large freshwater fish that may achieve a length of one meter and weigh 10 kg. It inhabits the big, slow-moving rivers and lakes of Asia and eastern Europe (as far west as the Elbe). It is very well known along the large rivers such as the Danube and the Dnieper but it is apparently absent from Siberia and the arctic north although present in Central Asia. It seems likely that *(s)kʰalos* originally designated the 'sheatfish' and as speakers of various IE stocks migrated outside its habitat, the name was given to other large important fish (or cetaceans). In any case the range of attestations for this word strongly suggests PIE status.

*Kámos* 'sheatfish'. Lith šamás 'sheatfish', Latv sans 'sheatfish', Rus som 'sheatfish', Grk ἄκμαντης (pl.) a kind of fish. A word of the center of the IE world, a partial replacement for the previous word.

See also Fish. [D Q A.]

Further Reading


**SHEEP**

*hvojis* (gen. *hvojios*) 'sheep (Ovis aries)'. [IEW 784 (*ouij-*)]. Wat 46 (*ouiw*), Gl 493–494 (*hov*), Buck 3.25, 3.28, BK 370 (> *uw-*ouw-). OIr *sheep*, Lat *ovis* 'sheep', ON ær 'sheep', OE eowu 'sheep' (> NE ewe), OHG ouw ouw 'sheep', Goth awoiph 'herd of sheep', awistr 'sheep-fold', OPrus awins 'ram', Lith avis 'sheep', Latv avs 'sheep', OCS ovnu 'sheep'. Grk ὄρισ 'sheep', Arm awi-w 'shepherd', Luv hawati- 'sheep', Lycian xawa- 'sheep', Wakhi yobe (< Proto-Iranian *awi-ct-*) 'ewe', OInd avi- 'sheep', TochB eye (< *hvojëis) 'sheep', (pl.) awi (< *hvojëipës) 'ewes' (whether these two words are part of a single paradigm in Tocharian B is very doubtful). Widespread and old in IE.

*hvikēhr- 'ewe'. [IEW 784 (*ouika*). Buck 3.28, BK 370 (> *uw-*ouw-). Wels ewig 'hind', OCS ovtr 'ewe', OInd aijkā 'ewe'. A regular feminine derivative of the previous word, itself of PIE age.

*hug̱ẖnos 'lamb'. [IEW 9 (*ag⁴ẖ-no-); Wat 1 (*ag⁴ẖ-no-), Gl 499 (*ag⁴ẖ-no-); Buck 3.29] OIr úan 'lamb', Wels oen 'lamb' (Celtic as if < *hug̱ẖnos, with the vowel of
One of the earliest waves of domestic sheep spread through Europe and their proportion as a part of the Neolithic herd or flock decreases with distance such that they are frequently of tertiary importance (after cattle and pig) in central, western, and northern Europe.

The semantic field of the words for 'sheep' is interesting and in considerable contrast to the terms for 'goat'. In the latter case, there are many words for 'goat' that appear to be geographically restricted. On the other hand, a single term (*h2ōiws) is virtually ubiquitous across the IE world and other than *(s)regos 'sheep/goat', all other terms, whether widespread or regionally confined, refer to the young sheep rather than replicate the meaning 'sheep'. One might have expected more words for the (adult or generic) sheep since variation among prehistoric sheep was every much as great as among goats. For example, in addition to the domestic sheep, varieties of wild sheep lived alongside various IE stocks. Although the domestic sheep (*Ovis aries) may derive from the Asiatic mouflon (*Ovis orientalis), the latter did not become extinct but still survives from the upland regions of Anatolia to the southeast as far as southern Iran. Another wild variety, the urial sheep (*Ovis vignei) is found distributed from eastern Iran, across northern Afghanistan to northwest India. Domestication of wild sheep probably took place around the same time or slightly later than the goat, i.e., c 8000 BC in Iraq and Iran and it appears in neighboring regions, including India, by the seventh millennium. The domestic sheep (*Ovis aries) predominates in the early Neolithic fauna of southeast Europe in the seventh and sixth millennium and also appears contemporaneously in the Caucasus and perhaps even the southern Urals. In general, the earliest waves of domestic sheep spread through Europe and their proportion as a part of the Neolithic herd or flock decreases with distance such that they are frequently of tertiary importance (after cattle and pig) in central, western, and northern Europe.

In addition to the distinction between the domestic and the various wild sheep of different regions, there is also variation within the domestic sheep as well. These variations may comprise changes in the appearance of the horns and the tails but most important is the alteration in the fleece of the sheep. The earliest domestic sheep would appear to have been exploited for their meat and probably their milk but not their wool as the latter had not yet been developed. Primitive and wild sheep have their fine underwool obscured by long coarse kems which required generations of selective breeding to reduce and alter into finer wool which could be exploited as a textile. Generally, textiles of any sort from the early Neolithic tend to be made from plant fibre; wool only appears toward the end of the Neolithic and in the Bronze Age. The appearance of the larger woolly sheep has generally been linked to either developments in the Near East which spread across Anatolia into Europe or, alternatively, began north of...
the Caucasus and spread westwards. In both cases, a larger variety of sheep, some 10 cm taller than the early Neolithic sheep, began to appear in an east to west spread. Since there is clearly a PIE word for 'wool', it is possible that the most widespread word for 'sheep' among the IE stocks, *h₂p₂w₂s, may have referred to the later and larger woolly sheep rather than that of the early Neolithic. Alternatively, the word may derive from the early Neolithic and have been reapplied to the later variety of sheep c. 4000-3000 BC.

Sheep in Indo-European Ritual

Unlike cattle, horse, and perhaps even the pig and goat, there is no great body of ritual literature or comparative myth relevant to the sheep that would appear to be of PIE antiquity. It may have been its very abundance in the economies of many of the IE peoples, its docile behavior, or the nature of its secondary products (wool, milk, hides rather than traction) that accounts for its apparent lack of mythic valency. For example, in the Avesta (Yast 25.5), when the animals to be sacrificed to Ardvd are recited, they are apparently listed in descending order of importance, i.e., a thousand stallions, a thousand cattle, and ten thousand sheep. Nevertheless, in triracial sacrifices such as that mentioned in the Avesta, the sheep or a ram is not only a regular component but its place is often at the head, e.g., in the Old Indic sāttaramati, it is the deity representing the priest class, Sarasvati, who receives the ram while the warlike Indra is offered a bull and the Asvins, the representatives of the third estate, are presented with a he-goat. In the Roman suvetaurilia, the sheep is sacrificed along with a pig and bull.

Another ritual role for the sheep is seen in its frequency as either a grave good or remains of a funeral feast deposited with the deceased. Of the main sacrificed animals of the Pontic Kurgan tradition, i.e., the Yamna and Catacomb cultures, sheep is the most frequently sacrificed animal comprising nearly 60% of the remains, followed by cattle and then horse. Here the parts of the sheep deposited exhibit recurrent patterns. Children are provided with the astragali or knuckle-bones of the sheep while adults may have a skull, foot bones or apparently a joint. On occasion there were the remains of both the skull and the forelegs which would reflect a 'head and hooves' deposit where the forepart of the animal may have been initially raised on a pole with skin intact (cf. the Golden Fleece of the Argonaut tale).

See also Animal, Goat, Mammals, Wool. [D.Q.A., J.P.M.]

Further Readings


Sheepfish

*kark(o)- 'crab'. [IEW'531 (*kark-); Wat 27 (*kar-); Gl 451 (*karkalar-); BK 268 (*k₂̣alar-)]. Lat cancer (dissimilated from *karkro-?) 'crab, lobster', Grk καρπίβως (dissimilated from *karkino-?) 'crab', OInd karkara- (a Middle Indic diminutive from *karkta- or borrowing from some non-IE source?) 'crab'. OCS raka 'crab' is sometimes put here as well, under the doubtful assumption that it reflects dissimilatory loss from *kraka. Probably a word of PIE date. From *kar- 'hard'; cf. OInd karkara- 'hard'.

*khiparos 'crayfish'. [IEW 558 (*k₇mer-)]. OIN humarr 'lobster', Grk κάμμαρος = καμμαρίς a kind of lobster. Sometimes put here, but surely wrongly, is OInd kamathah- 'tortoise'. khiparos looks like a noun created from an adjective, i.e., khiparos, by accent retraction but such a morphological explanation does not seem to point to any corresponding semantic elucidation. The seemingly exact semantic equation between Old Norse and Greek is probably an illusion. The Proto-Indo-Europeans, wherever they may have lived, undoubtedly had an inland orientation rather than a marine one. Thus it is likely that both Old Norse and Greek have transferred an inherited word, one found at least in the west and center of the IE world, from the fresh-water crayfish to the much larger and more important marine lobster.

*Konkhesos 'mussel (-shell) (= Unio spp.) and related genera'. [IEW 614 (*Konkho-); Wat 32 (*konk(h)o-); Gl 28 (*konk²o-)]. Grk κόξως = κόξη 'mussel' perhaps also cockle (= Cardium edule); mussel-shell', OInd sanka- 'conch-shell'. Latv sence 'mussel' (= zence = zencis with secondary -z-) reflects a derived *kenkhiôs with a new full-grade. Grk κόξις 'shell-fish with a spiral shell (used for dyeing purple)'

Sheepfish (gen. *skitoθ) 'shell'. [IEW 921 (*skῖθo-); Wat 58-59 (*ske-); Buck 20:34]. OIr scith 'shield', Wels isgyddw 'shield'. OE sceal 'thin slip of wood, shingle', OHG schô 'board, plank', OCS šita 'shield'; a derived *skočóm with a new full-grade is seen in Lat scutum 'shield'. OPrus staytan (probably a miswriting for *scy̯tán) 'shield'. At least a word of the northwest of the IE world.

*speloveh₁ 'shield'. [IEW 985-987 (*spelh₁el-ta), cf. Wat
As the earliest shields would have been made entirely out of organic material, either split planks of wood or animal hide, their preservation in the archaeological record occurs only under exceptional circumstances. One of the earliest objects to be proposed as a shield derives from a Globular Amphora burial dating to about 3000 BC. Although this find considerably predates the general appearance of shields in Europe, which are normally found coincidental with the emergence of the bronze sword as a weapon, there is nothing ethnographically unexpected about this; the Maring of New Guinea, for example, whose own offensive weapons (bow, spear, polished stone ax) perfectly parallel those of the Neolithic in Eurasia, defended themselves with large wooden shields. But most evidence in Eurasia does come from a later date. Shields appear on Egyptian figures of the early second millennium BC and in the Aegaean they are known from Mycenaean Greece c 1500–1100 BC where both large rectangular ("tower") and figure-of-eight-shaped shields are depicted in artwork (and later small round shields appear). In general, shields appear in the rest of Europe from the later Bronze Age, i.e., c 1200–700 BC, and may be of either organic material or bronze. Both lexical items of some IE antiquity derive from verbal roots to 'split' or 'tear off' and suggest that the original referent was either a wooden shield or one fashioned from leather. The latter would be formed by stretching leather across a wooden mold and both experimental archaeology and depictions of its use in the Iliaid attest to the utility of the leather shield.

See also Plank, Warfare. [D.Q.A., J.P.M.]

SHINE

*leuk-* 'shine'. [IEW 687–688 ("leuk-"), Wat 37 ("leuk-"), GI 40; Buck 1.61, 15.56; BK 580 ("law-"/"law-")]. Intrathematic presents: Lat luceo 'shine', Hit lukke- 'shine', Olnd rökate 'shines' (Latin and Hittite agree on PIE *leuk-eh-1;: the Olnd *leuk-e-0- must be a newer formation); transitive presents (PIE *loukëgjo-): Lat luceo 'kindle', Hit lukke- 'kindle', Av raocayetti 'makes shine', Olnd rocayati 'makes shine'. The derivatives, both nouns and adjectives, are many: without any special enlargement we have Mr luch shining, Wels llug (noun) 'light' (Celtic < *louko-), Lat lux (noun) 'light', lucerna 'lamp', ON logi 'blaze', leyr 'flame, blaze', OE lieg 'flame, blaze', OHG lög 'flame, blaze' (the last three < *louko-), OE leah ( < *louko- ) 'meadow' ( < "opening to the light" ) (NE lea), OCS luca 'gleam', luć 'ray of light', Grk ευφωλιαι 'twilight', ἄκρα 'white', Hit latukkima 'source of light', Olnd röka- 'shining, radiant', TochB lýhe (noun) 'light', from *(le)uk-men-): ON ljomi 'radiance', OE leoma 'radiance', Olnd rukma- 'gold decoration', from *(le)uk-(e)-s: Olr liān ( < *loukn- ) 'moon', Lat lāmen ( < *leuksmen- ) 'light, opening', lāstrum ( < *leukstro- ) 'purification', lāna ( < *louksneh-3 ) 'moon', OFrus (pl.) lāunox 'stars', OCS luna ( < *louksneh-2 ) 'moon', Grk λῦσα ( < *luksts- ) 'lamp', Olnd rukma- 'shining, radiant', from *luekJ(e): Gaul Loucetus – Leucetius 'light-bringer' (epithet of Mars), Osc Loucetus 'light-bringer' (epithet of Jupiter), OE leot (noun) 'light' (NE light), OHG liot (noun) 'light', Goth lieuhaf (noun) 'light', Hit lakkata 'on the next morning'. A variant *leuk- is seen in OCS vaz-lysta 'bald', Arm lums (gen. lusoy) 'light', Olnd rūsant- 'light'. Widespread and old in IE; the word for the shining of the sun.

*dei- 'shine, be bright (primarily of the sky?)'. [IEW 183–184 ("dei-"), Wat 10 ("dei-"), GI 196, BK 119 ("tuk-"/"tuk-"), ON tejtr 'glad', OE teotan 'gladden, cheer', OHG zien 'delicate', OE þeow 'amiable, be tender, be gentle', OE þt 'black', OE þne 'whiteness', OE þyn 'white', OE þaht 'perfect'; from *bhrjate (IEW *bhrjate) 'shines, is blazed', OE þæt 'glowing', OE þæt 'shining', OE þæt 'white'. The latter gives a new genitive ending (SG). OE þæt is seen, OE þæt is 'visible', Olnd dideti 'shines, is bright'. Enlarged by *-u- we have *dījus 'Jupiter' and the further derivative *dījos 'god'. Though not widely attested itself, the fact that its derive *dieu- in *dīnus and *dījos means that this word is very old and has suffered replacement in most parts of the IE world.

*lap- 'shine'. [IEW 652–653 ("lal-"/"lap-"), Wat 35 ("lap-"), Buck 15.56]. Olr lāsaid 'flames', Wels lāchar 'shining' (Celtic < *lap-), OFrus lopolis 'flame', Lit lāpo 'torch, light', Lat lāpa 'torch', Grk lāk counterparts give light, shine, ring loud and clear, *lojorgis (< *lop-s-ni- with new full-grade) 'torch', Hit lāpāz 'glows', lapalmai 'kiddles'. Widespread and old in IE.

*bheh2- 'shine' (pres. *bheh2t-). [IEW 104 ("bha-"), Wat 5 ("bha-"), Buck 1.61, 15.56; BK 20 ("bah-/ba-")). Olr bā 'white', OE bōnian 'ornament, polish', OE bās 'ornament, decoration'. Alb byj 'make, do ( < "bring to light" )', Grk φαινω 'bring to light', φαινουμαι 'appear' (Albanian and Greek < *bhj2-tajeho-), Luv piha- (< *bheh2-) 'splendor, might', Av bā- 'shine', bānu- 'light, ray of light', Olnd bāti 'shines', bhānā- 'light, appearance, ray of light', bhās- 'light, splendor', bhāsati 'shines, is bright'. Widespread and old in IE.

*bhleg- 'burn, shine' (pres. *bhlegti). [IEW 124–125 ("bhleg-"), 139 ("bhleg-"), Wat 6 ("behel-"), Buck 1.55, BK 15 ("bal-"/"ba-")]. Lat fulgo 'lighten', flamma (< *flagma 'flame', fulmen (< *bhjgmen- ) 'lightning, thunderbolt'), OE blæc 'black' (< "bhlọglo- 'burned') (NE black), OHG błęchen 'be visible', Grk φλεγμα 'burn', φλειμα 'flame', φλός 'flame, torch', Av brzati 'gleams, shines', Olnd bhрядate 'gleams, shines, glitters' (if the Indo-Iranian words do not belong with the following entry), TochAB pāl- 'shine'. Widespread and old in IE.

*bherh2- 'shine, gleam'. [IEW 139 ("bhj2-"), Wat 7 ("bhj2-"), GI 532 ("bhj2-"), Buck 15.56, 15.57; BK 16 ("bar-"/"bar-"), Wels berth 'shiny', Oln hjary 'light', OE beoth ( < "shiny, brilliant, light, clear ( < NE bright), OHG bearta 'shiny', Goth baiths 'bright, shiny' (Celtic and Germanic < "bhj2-"), Lat breskā 'dawns' (with apparent *g- rather than *-g-), Pol brzask 'dawn', Alb bardhe ( < "bhj2-" ) 'white', perhaps Av brzati 'shines' and Olnd bhрядate 'shines, beams, glitters' (if they do not belong with the previous entry).
Widespread and old in IE. Related to the word for the 'birch'.

*skand- 'shine, glitter (particularly of the moon)'. [IEW 526 (*skand- ~ *skandi-); Wat 27 (*skand-); Buck 15.56]. Wels cann 'white, bright', MBret cannon 'full moon', Lat candeo 'glitter, shine', candidus 'shining white, clear, bright', candidatus 'candidate for office' (< 'one clothed in a white toga'), incendere 'kindle', Alb hene (< *skandneh₂-m) 'moon', Grk (Hesychius) κανδάριος 'coal', Olnd candati 'shines, is bright', candid- ~ scandr- ~ shining; moon'. Widespread and old in IE.

sveid- 'shine'. [IEW 104 (*sveid-); Wat 68 (*sveid-)]. Lat stidus (gen. sideris) 'constellation, star', considero 'examine' (< an augural term *observe the stars carefully*), OE switoel 'distinct, clear, open, public', Lith svidu 'shine, am glossy', svidus 'shiny, glossy', svidu break (of the day), Lat svís (of the day), Av xëna 'glowing'. Widespread and old in IE.

merc- 'shine, shimmer'. [IEW 733 (*merc-); Wat 42 (*mer-)]. Lat merus 'pure, bare', ON mura 'silver-veed', OE à-merian 'test, examine; purify, refine', Rus mar 'blaze of the sun', Grk μαυροίρα 'shimmer', Μαιρά 'Siris' (< *the shimmerer), μαυρηλαν 'glowing ashes', Olnd märti- 'shining mote, beam of light'. Widespread and old in IE.


*gher- 'shine, glow'. [IEW 441-442 (*gher-); Wat 22 (*gher-)]. ON grår 'grey', OE grā 'gray' (> NE gray), OHG gрай 'grey' (Gmc < *grētō); OPrus sari 'glow', Lith žerū 'shine', žerūti 'glow, be glowing; sparkle, glitter', OCS zrjo 'see, glance', Rus zreć 'see'. The underlying verb is attested in only Baltic and Slavic; a derivative in Germanic. A word of the northwest IE area.

*brecc- 'shine, become bright'. [IEW 87 (*aug-); Wat 4 (*aug-)]. Alb agon 'dawns', agim 'dawn, morning', Grk αυγή 'beam of light', αυφάζει 'shine, brighten'. A word restricted to the center of the IE world.

*spel- 'shine'. [IEW 987 (*spel(∥)el-); Wat 63 (*spel-); Buck 15.56]. Olr lès (< *spel-tu-) 'light', Lat splendeo 'shine, glitter; am glorious', Lith splendžu 'light' (though this word is not well established), TochAB planta-rejoice, be glad (< *be shining). The sparse attestations are geographically widespread, the existence of the (Old) Lithuanian word is not well-assured, and the Tocharian is semantically a bit distant (though the change of 'shine' to 'joy' is documented in many other cases). If all these words belong together we have a good case for a late PIE status for this lexeme.

leip- 'light, cause to shine'. [IEW 653 (*læj∥p-)]. ON leiptr 'lightening', Lith liepsnà 'flame, blaze', Latv līpt 'light'. Perhaps a word of the IE northwest.

*bhers- 'shine'. [IEW 141-142 (*bherOK-); Wat 8 (*bhers-); BK 16 (*bar-/*bar-)]. OIr brecc 'speckled', Wels brych 'speckled'. ON bryʃ 'light up', Grk (Hesychius) φωρχος 'white, gray', Hit parkus 'clean', Olnd bhārāsate 'shines, glitters'. Semantically and phonologically similar to *bherθh₂ but it is anything but certain that all these words belong together. Doubtful PIE status.

*ghuusíos 'radiant'. [IEW 495 (*ghuukʷ-); Buck 1.54]. Lith žvaigažde 'star', Latv žvaigzne 'star', OCS dzvéžda 'star', Rus zvezda 'star' (the Balto-Slavic words for 'star' may reflect a PIE *ghuusíos-dheh₁- 'radiance-putter' or the like), Grk ϕωιος 'pure, bright, radiant (of water or flame)'. The connection of the Greek word with the Balto-Slavic words is most tenuous. Very probably the Balto-Slavic words for 'star' reflect a Balto-Slavic innovation that has nothing to do with the otherwise isolated Greek word.

See also BIRCH, BURN, COLOR, LIGHT, SEE, WHITE. [D.Q.A.J

SHOE

*bhípις 'shoe'. [IEW 581 (*kerap-); Buck 6.51]. Olr cairim 'shoemaker', Wels crydd 'shoemaker', Late Lat carpsculum 'kind of shoe' (quite probably a loanword from some [IE] source), OPrus kutpe 'shoe', Lith kūpte 'shoe', Lat kutpe 'shoe', OCS kūpa 'patches', SC kprje 'snowshoe', Grk ποντις 'shoe'. If ON hrillings 'shoe', OE riling < *hriling 'shoe' belong here, they reflect a Germanic innovation *hrel- (as if from PIE *krep-). The strong phonological, morphological, and semantic agreement of at least four IE stocks seems to assure at least a word of the west and center of the IE world. This word is commonly understood as an extension of the root *sker- 'cut' where it would indicate footwear that has been fashioned from leather rather than woven from bast. The latter is attested, for example, at least since the Neolithic where sandals or the soles of shoes, woven from the bast of oak or lime trees, have been recovered from Alpine lake-side settlements. Leather shoes are also attested since the Neolithic, e.g., the oldest European leather shoe was recovered from a Dutch bog and dates to c 2500 BC and similar leather shoes are regularly attested in later periods. The shoes of Otzi, the Tyrolian Iceman, which date back to c 3300 BC, had soles of leather while the uppers were probably fur and the entire shoe strapped up with knotted grass cord. The shoe or sandal may also have served as an item of IE ritual. The evidence for this is both iconographic and mythological. The latter is suggested by a curious parallel between the Old Indic rājasyā, the investment of a king, and an early Irish tale. In the Old Indic ritual, the designated king is presented with the vestment of a priest, three arrows and shoes fashioned from the skin of a boar. In the Irish "Life of St Maedoc", a king is invested with a silk shirt, a spear (the bow and arrow were very rarely employed by the early medieval Irish) and shoes filled with silver. D. Dubuisson has suggested that the three talismans were indicative of the three Dumuzian "functions", i.e., priest (white vestments), warrior
(weapons) and herder-cultivators where the shoes were symbolic of sexuality and fertility.

The iconographic evidence is to be seen in the stone stelae of the Pontic-Caspian region, and more rarely in western Europe, where a motif, commonly regarded as the impressions of paired feet, sandals or shoes are found on anthropomorphic stelae. In the Ukraine they may be found on the front or rear of the stelae, sometimes apparently inserted behind a belt. They can be variously interpreted as shorthand for the position of a figure (either in a standing or kneeling position), or symbolic. On occasion they are found on figures also displaying weapons and other signs which might suggest some correspondence with the royal investiture motifs but such combinations do not occur sufficiently often or in such clear association as to be regarded as canonical and they are just as likely to be fortuitous. See also Stelae. [D.Q.A., J.P.M]

Further Readings

SHOOT
?*h2enkulos 'shoot'. [IEW 45-46 (Proto-Gmc 'auncheda') 'bud, shoot', Olnd ankura- 'young shoot'. The apparent identity of form and meaning in these two attested words suggests at least that the reconstructed word was a part of the PIE vocabulary. Perhaps a derivative from *h2enk- 'bend' and thus related to Grk άγκυλος 'crooked'. See also Bend, Branch, Plants. [D.Q.A.]

SHORE
*hekaperos (?) 'river bank, shore of sea'. [IEW 53 ('apero-'), Wat 3 ('apero-')]. OE ðer (masc.), ðef (fem.), ðef ('neut.') 'bank', MHG ðever (neut.) 'bank' (< Gmc *obera-), Grk íxeppos (fem.), (Aeolic) âteppos (< *aperos) 'shore', ?Arm ap'nh 'shore'. The Greek word is feminine while Germanic has all genders (the masculine and neuter may easily have replaced the feminine -os). In Middle and High German the word is recent which suggests that it is a North Sea-Germanic word, possibly from peoples living along the sea-coast. It is hard to exclude the Armenian form from the rest although the p is left unexplained (< *ph2-). A reconstruction like *aper- may be *h2aper- or *h2eheper- or *h2eheper- or *h2eheper-. The unusual structure of such a root makes it useful to reconsider the old etymology that the word contains the "prefix" found in Olnd *apar- and a word for 'shore' as in Olnd *parā- (< *pōr-o-). However, this substantive does not appear to be old. Perhaps the word was an adjective of 'land', with *per- 'to cross', i.e., '(the land) towards which one crosses over', which might explain the feminine gender of the o-stem (but which would again exclude the Armenian word as a cognate). *?*mole'-shore'. [IEW 721-722 (*mola); BK 550 (*mal-/*mol-)]. Lith *mala- 'land', *pamalis 'border, surrounding', jūrmala 'sea-coast', Latv *mala 'border, rim, shore', jūrmala 'sea-coast'. The meaning 'shore' in Baltic is secondary and derives from 'border'. Although presented as cognate, Grk προφανή 'approach, foot of mountain, mouth of river' carries meanings that are late and do not support a primary meaning of 'shore'. Probably from *melh3- 'appear, come forward'; this offers no evidence for a PIE word for 'shore'. See also Lake, River, Sea. [R.S.P.B.]

SHORT
*mghus - *mregh- 'short (both temporal and spatial)'. [IEW 750-751 (*mreghu-), Wat 43 (*mregh(u)-), G1 685 (*mreghu-), Buck 12.59]. Lat brevis (*?*mregh- with *mr- > br-) 'short', brief', OE myrge 'pleasantly, leisurely', OHG murg 'short', Goth gamaurjan 'shorten', Grk βαρύς 'short (of time or space)', Av maratū 'short'. Olnd mahu- (with Middle Indian phonological development) 'suddenly, shortly'. Connections to Slavic words for 'fast' (cf. Rus horzy) have been proposed but are very unlikely Even without the insecure Latin and Slavic connections, PIE status is likely *?*gher- 'less, short'. [IEW 443 (*gher-), G1 199 (*gher-es), Buck 12.59]. Olfr gér ~ gair 'short', Grk zeiopos 'worse, weaker', Av hrasva- 'less, short', Olnd hrasati 'becomes smaller'. More recent sources have regarded the association between the Greek and Indic forms as uncertain leaving this form very sparsely supported. See also Heavy, Less, Small. [I.J.S.]

SHOULDER
*h2omnos 'shoulder'. [IEW 778 (*om(e)so-), Wat 46 (*omeso-), Buck 4.30]. Lat umerus 'shoulder'. On ass
SHOULDER

'mountain-ridge', Goth am 'shoulder', Grk ἄρμος (< *h₁armosos) 'shoulder', Arm us 'shoulder', Hit an(as)as- 'hips, buttoks' or 'upper back', Olnd amsa- 'shoulder', TochA es 'shoulder', TochB ānte 'shoulder' (Toch < *h₁armosos). The oldest reconstructible word for 'shoulder' in IE.

*(s)kup-'shoulder'. [IEW 627 (*kup-), Buck 4.30]. MLG schult (< *skup-tu-) 'shoulder blade of cow or horse', Alb sup (< *Kup-o-) 'shoulder', Av supti- 'shoulder', Olnd supiti- 'shoulder'. Though not so widely attested, this word too would appear to be old in IE. Perhaps the MLG schult preserves the older meaning here.

*h₂e:kς- 'shoulder(-joint); axle', *h₂ekle:hr - 'shoulder'. [IEW 6 (*aγες-, *ακς); Wat 1 (*aks-); Gl 625 (*Hakhs-); Buck 4.30]. Lat axis 'axle, axis', OE eax 'axle, axis', OHG ahsa 'axle, axis', OPrus assis 'axle, axis', Lith ašis 'axle, axis', OCS ost 'axle, axis', Grk ἀξον 'axle, axis', Av aśasyā (dual) 'shoulders', Olnd aksa- 'axle, axis', Lat ala (< *h₂ekele:hr) 'shoulder, wing, axilla' (< *h₂ekle:hr) 'shoulder(-joint); axle', ON øl 'shoulder', OE eaxl 'shoulder' (> NE axle), OHG ahosla 'shoulder' (all < Proto-Gmc *ahslaz-), NDutch oksel (< *ōhslaz-) 'shoulder', OE oxn 'shoulder(-joint); axle', OHG uochsana 'shoulder'. The underlying noun *h₂e:kς has come to mean only 'axle' except in Avestan. The derivative *h₂ekle:hr has better retained what is probably the original PIE meaning 'shoulder' (cf. the relationship of 'nave' and 'navel'). Further derivatives in Germanic and Latin mean 'arm'. Certain ly of PIE date.

*pλεκτ- 'shoulder(-blade). [IEW 833-834 (*plæt-), cf. Wat 51-52 (*plæt-); Buck 4.31]. Mlr leithe (< *pletjehrs-) 'shoulder', OCS plēste 'shoulder', Rus plečo 'shoulder' (Slavic *pleča-), Grk ἀμπολατην 'shoulder-blade', Hit paltana- 'shoulder'. From *plet- 'broad'. Though different in morphology, the widespread attestations suggest that the development of this word as a whole is high antiquity in PIE.

See also Anatomy, Arm, Axle, Elbow, Joint. [D Q A ]

SHOW

*dëlik- 'show', [IEW 188-189 (*deik-); Wat 10 (*deik-); Gl 32 (*tēlìpò); Buck 15.55]. Lat dicō 'say', ON tā − tjā 'show, report', OE tēon ' accuse', OHG zihan 'accuse', zeigōn 'show', Goth gā-tēihan 'announce', Grk δείκνυμι 'show', Av dīṣyetti − dāsiyetti 'shows', Olnd disi − disayeti 'shows'. Cf. the widespread derivatives: (1) *dikis in OE tīht 'accusation', OHG bi-zipt 'accusation', Av a-dīst- 'instruction', Olnd disi- 'instruction', (2) *doikos in ON teigr 'strip of land', Olnd deisā- 'direction', (3) *diket in Grk διείκνυμι 'justify', Olnd disa 'direction'. Though not found in Hittite or Tocharian, this word is otherwise widespread and old in IE.

*dë(h)ek- 'show' (pres. *dë(h)ek-<o-). Hit tekktussa- (= tek*sa-) 'show', Av daxsa- 'teach, show'. Isolated in Hittite and Avestan but the exact coincidence of present formation would seem to guarantee at least a late PIE status for this word.

*bhoundhe:jo- 'waken, point out'. [IEW 150 (*bheudh-); Wat 8 (*bheudh-); BK 1 (*baw-<baw-)]. Lith baudžiu 'wakens', OCS buditi 'wakens', Av baudjoyeti 'indicates', Olnd bodhāyati 'wakens'. The causative of *bheudh- 'pay attention'. At least a late derivative of the central 'waken'.

See also Watch. [D Q A ]

SHREW

?*su(o)r~ ~ *syraks 'shrew (Neomys fodiens, Sorex spp., Crocidura spp.). [IEW 1049-1050 (*suer-); Gl 845]. From *su(o)r:- Lat sussuriris ~ sussers 'shrew'. Bulg sssar 'shrew', from *syraks: Lat sorrēx (< *syrak-) 'shrew', Grk ἄρμος (< *surak-) 'shrew'. Cf. Rus surok 'marmot'. This represents a possible late PIE word for 'shrew', presumably so called after its piping sound (cf. the related NE swarm [of bees] or Lat sussurus 'humming, murmuring, whispering'). The cognates suggest that the animal in question is not common the shrew (Sorex araneus) which is found over most of Europe except for the Mediterranean. Those whose range includes both that of Italy and Greece would comprise the pygmy shrew (Sorex minutus) and the lesser white-toothed shrew (Crocidura suaveolens) while the water shrew (Neomys fodiens) is found in Italy but not in Greece.

See also Mammals. [D Q A ]

SHRINK

*tenk-'shrink, become compact, make thick'. [IEW 1068 (*tenk-); Wat 70 (*tenk-)]. Mlr teikt (< *tenkto-) 'coagulated', ON pel (< *tenklo-) 'buttermilk', Lat ſērgus 'thick, copious', Pashto tat (< *tahta- < *tqhto-) 'thick', NPerst talxina 'sour milk', tànhjan 'pull together', Olnd tanate 'pulls together', a-tanakti 'makes curdle', takram (< *tqhtom) 'buttermilk', TochA tanki 'very, fully, full, blocked', TochB tanki 'very, fully, full, blocked' (Toch < *tank- < *tank 'thick' + a Proto-Toch suffix *-0). Widespread and old in IE.

*teukg- 'shrink, wrinkle up'. [cf.IEW 869-870 (*teukg-)]. Lat ſūga 'wrinkle', Lith rankū 'shrive, become wrinkled', TochB rūk- 'grow lean (with hunger)'. Not as widespread as the previous word, but probably also old in IE.

See also Milk. [D Q A ]

SICK

*syrgh- 'be ill'. [IEW 1051 (*syrgh-); Wat 68 (*swegh-); Gl 105; Buck 4.84]. OIr seig (< *syrghos) 'illness, diminishment, Lith seigū 'am sick' (sirgti to be sick), Latv sērgs 'is illing', sērgu 'illness; be sick', Alb ďergje (< *syrhejaio-) 'be ill, be bedridden', TochA saruk 'illness', TochB sarık 'illness'. Distribution indicates PIE status.

*ährigos is bad'. [IEW 6667 (*oleig-<k-)]. Lith iļgas 'illness'. Latv iļga 'severe illness, pestilence', Alb īg 'bad, ill, thin, skinny', Grk ὀργός 'few', TochA ikyala 'small, fine', TochB ikyashe 'small, fine'. Cf. Ol Frk ihech 'suffering, unfortunate', Litv nu-liegti 'fall ill', and Grk ἀργός (< *syrhejaio-) 'illness'. A strong candidate for PIE status.

*hymph- 'sickness'. [Puhvel I. 160]. ON armr 'wretched, wicked', OE earm 'weak, wretched', OHG arm 'poor', Goth arms 'pitiable, poor', arma-hairs 'merciful' (Gmc <
SICKLE

*sfpo\eh* - 'sickle'. [IEW 911–912 (*serp*-) Wat 58 (*serp*), Gl 597 (*serph*), Buck 8.33. Latv sirpis 'sickle', OCS sirp 'sickle', Rus serp 'sickle', Grk ἄπειρον 'sickle', Hit asarpa- 'agricultural tool (utilized in ritual along with a plow)', Oss æsýrt 'sickle'. Cf. Lat sarpor 'cut away, prune (vines)', OHG sarfp 'rough'. Originally 'the cutter' (and a nominalization by accent retraction from *sfpo- 'cutting'). Widespread and old in IE. The word was apparently borrowed into Finnish sirppi 'sickle'.

Neolithic sickles were composite tools consisting of a series of blades (flint, chert, obsidian, etc.) that were inserted into a handle of antler, wood or bone. They were found in south-west Asia and Egypt by c 10,000 BC, even before the domestication of cereals, where they served for the harvesting of stands of wild wheat and barley. In Europe, they are encountered from the beginning of the Neolithic onwards as is also the case for India and Iran, where they comprised an essential component of the agricultural technology. The sickles might be mounted in series into either a straight or, at least for Europe, more often a curved handle. Generally, all that is preserved are the sickle blades which often exhibit a characteristic silica sheen produced by repeated cutting of cereals. In some instances, however, it would appear that a single long blade may have served as the sickle edge and such examples are known from Swiss lakeside settlements of the Neolithic.

Metal sickles (copper and bronze) appear in the Near East by the fourth millennium BC and bronze sickles are encountered in the south Caucasus (Kuro-Araxes culture) by at least 3000 BC. Precisely when metal sickles first appeared in Europe is difficult to establish. A figurine from the Neolithic site of Szegvár-Tuszkoves in Hungary depicts a seated figure holding what has often been interpreted as a metal, presumably copper, sickle over his shoulder in a gesture that is regarded as cultic. Although a copper sickle has been recovered from Hungary, it is without context and hence of uncertain date although it may derive from the late Neolithic. By about the middle Bronze Age (c 1500 BC) there is evidence of bronze sickles in temperate Europe and by the late Bronze Age (c 1200 BC) hoards of bronze sickles are a frequent find across Europe. If the *sfpo\eh* can indeed be assigned to PIE, then this could have referred to either the composite stone tool or the late metal sickles; all the IE stocks reflecting cognate terms do so at a time when sickles would have typically been of bronze or iron. It should be emphasized that sickles played important roles in ritual and myth, and there is some evidence for long retention of stone sickles in ritual use even after they had been replaced by metal sickles in the secular sphere, e.g., the Greek account of the castration of Ouranos by his son Kronos is accomplished in some versions with a flint-bladed sickle.

See also MEDICINE, [D.Q.A.]

Further Reading


*SICKLE*

a. Neolithic flint-bladed sickle from Germany, b. Copper sickle from Kuro-Araxes culture, c. Neolithic figure with sickle from Szegvár-Tuszkoves, Hungary, d. Iron sickle from Zatrubentsy culture.
Czech paže (< *pəjə-*') 'arm' and Olnd pâjasya- 'belly, loins'. Perhaps more distantly related are Olr ucht (< *poktu-') 'breast', and Lat pectus 'breast'. At least a word of the center and east of the IE world. If the Old Irish and Latin words belong here, this group must be considered quite old in PIE.

*SIEVE*

*kreidhrom* 'sieve'. [IEW 946 (*skerl*); Wat 32 (*krei-)]. Olr criathar 'sieve', Wels crwydr 'sieve', Lat cribrum 'sieve', OE hridre - hiddre 'coarse sieve' (> NE ridder), OHG rti(e)ra 'coarse sieve'. Cf. Goth *hrianis* 'pure', Lat cerno (< *krino*) 'separate, sift, decide', Wels gogryn(u) - gogryn (< *upo-krinko*) 'sift', Grk κρύσσω 'cut, decide'. Further from *sker- 'cut'. A western dialect word.

*sehjl(i)-* 'sift'. [IEW 889 (*se(i)-); Wat 56 (*se-*)]. Lith sijóju 'sift', Latv sijāt sīlt, Baltic *shij-chjo-,* OCS sēti 'sift', proseati 'sift thoroughly', Grk σφυσ 'sift'. Cf. the various derivatives meaning 'sieve': *sejiłom*: Wels hidd 'sieve', ON sáld 'sieve', *sejiłom: Lith sietas 'sieve', OCS sito 'sieve', and Alb shosh (< *shijeh-so-*) 'sieve' Grk ἱφιόσ 'sieve', and Lat sinus (< *shjihsno-*) 'bowl'. A word of the west and center of the IE world.

The first term, *kreidhrom* 'sieve', appears to derive from the notion of dry-sieving grain, i.e., the sieve as a riddle, rather than utilizing the instrument for separating liquids. This distinction is important since the earliest ceramic sieves known in Europe dating from the Neolithic period and later are generally interpreted as strainers employed in the production of dairy products rather than sifting cereal products.

See also Milk. [D.Q.A.]

*SIGH*

*Ryeshk-* 'a breathe, sigh, groan'. [IEW 631 (*khes-); Wat 34 (*khes-), Buck 4:51]. Lat queror 'complain, lament', OE hwósan (originally a lengthened-grade intensive) 'cough', Olnd svásiti - svásati 'bough, hiss, pant, snort; breathe, sigh, groan', TochB kwás- 'mourn, lament'. To this etymon also belong the Iranian words for 'lungs', e.g., Av susi (dual), Zoroastrian Pahlavi sus, NPers sus, all from Proto-Iranian *sus-. Widespread and old in IE.

See also Breathe, Cough. [D.Q.A.]

*sign*<sup>h</sup>mp 'sign'. [IEW 377 (*gnó-mp*); Wat 24 (*gnó-); BK 295 (*kan-/*kasp*). Lat cognómen 'surname', ORus znamiya 'sign, mark', Grk γνώμα 'distinctive mark'. A dialectally restricted derivative of *gnéh-3* 'know, be(comes) acquainted with'.

See also Know, Name. [D.Q.A.]

SILENT

*ruh25* 'be silent' [Mayrhofer I, 663]. OPrus tusnan 'quiet', Hit tuhuss (liye- 'keep quiet, acquiesce', Av tušt- 'sitting silently', Olnd tásim 'quiet, silent'. The geographical distribution would seem to guarantee high antiquity for this word.

*tak-* 'be silent' (pres. *takeh*). [IEW 1055 (*tak-); Wat 69 (*tak*); Gl 26; Buck 18.23]. Olr takat 'chookes, stiffeles', Wels tagu 'choke', goseg 'silence'. Lat tacēo 'am silent', ON þega 'be silent', OHG dagēn 'be silent', Goth þahan 'be silent'. A word of the west of the IE world.

*SILVER*

*hyerg-qt-om* 'white (metal), silver'. [IEW 64 (*arte-]*) Wat 3 (*art-ent*); GI 617 ('Hark'); Buck 9.65, BK 4043 (*harak-/*harak-*) Olr argat 'silver', MWels arian(t) 'silver' (< *h2erg-qt-om*) (cf. Gaul ARGANTODAN 'mint, moneyer?'), Lat argentum (< *h2erg-qt-om*) 'silver', Umb agetutu 'silver', Arm arcat 'silver', Luv .rand-BABBAR-anza ('harkan(z)al'), Av azaratam 'silver', OPrs ardutu 'silver', Oss xerzet 'silver' (Iran < *h2erg-qt-om*). The distribution appears broad enough to suggest PIE status. Although the word is obviously formed from the base *h2erg- 'white', the specific morphological shape reconstructed here means only a metal, usually 'silver'. From Armenian the form may have spread to neighboring Caucasian languages, e.g., Ingush arsi 'silver' although the phonetics of such loans are far from clear. Olnd tátam 'silver' is often mentioned here but is derived from *reg- *to color' while the superficially similar Tocharian forms, TochA ārki 'white', TochB ārkiw 'white', cannot be set here either. Although formed from the same root, Grk ἀργυρος 'silver' is formed differently and is apparently an independent development, the diminutive ἀργυρόπιον 'a silver coin' is the source of Messapic argorion.

*silívbër* 'silver'. [GI 366, 617; Buck 9.65]. Ibero-Celt siláPur (silabur) 'silver', ON síldr 'silver', OE sceallor 'silver' (> NE silver), OHG silabar 'silver'. Goth sótv* 'silver', Luth sidébars 'silver', Lat sidéras 'silver', OCS strebro 'silver', Rus serebró 'silver'. The distribution of these words is obviously western and the variation between medial l, d, and r points to the alien phonetics of a substrate loanword. The phonetic similarities with such items as Berber azzēr 'silver', Hauusa azurla 'silver' and most notoriously Akkadian sarp 'silver' are questionable. The last named form means 'refined' and the actual Akkadian word for 'silver' is kaspu. A loan from Kartvelian *werc* also has been suggested but the many phonetic differences not to speak of distance renders such a proposition too uncertain. The most tantalizing connection, given the reflex of this word in the first Botorrita inscription, is Basque zilhar 'silver'.
ARCHAEOLOGICAL EVIDENCE

By c.3500 BC silver objects appear in both Egypt and Mesopotamia. More relevant to the early Indo-Europeans is the discovery of silver artifacts, e.g., beads, discs, and even daggers, in the Aegean on Crete, mainland Greece and especially the Cyclades islands, i.e., c.2500-2000 BC. In Troy I and II (c.2500 BC) silver bars have been recovered and silver is also attested in the north Caucasus by the late fourth and early third millennium BC where at Maykop, silver was fashioned into vessels, silver poles (for holding up a canopy), figures (of bulls, antelopes, etc.) and ornaments. There is also the find of a silver dog at Kladny in the north Caucasus and occasionally silver rings are recovered from Yamna burials on the Ukrainian and south Russian steppe. Silver rings are also found in the Usatovo culture from c.3500-2900 BC and they are one of the markers of steppe movements into southeast Europe where they have been found in burials on twenty-six sites. The source of the silver is unclear and could have entered the northwest Pontic by way of the Caucasus or from the Aegean. That silver was widely exchanged at this period is also seen by its occasional presence in the Alafasovo culture in the Yenisei-Altaï region. The use of silver (as a deliberate alloy with copper) is seen in Central Asian (Namazga IV period) sites of c.3000-2500 BC and silver objects are also known from the Harappan culture of the third and second millennium BC.

Outside of eastern Europe, silver is also occasionally found in central and western Europe, initially about the time of the Beaker culture, i.e., c.2500-2000 BC where it has been occasionally recovered from Beaker burials from central Europe to Brittany as well as in the Remedello culture of north Italy. The silver sources here are presumed to have been either central Alpine or perhaps Iberian which emerged in prehistory as another major center of silver metallurgy. Possibly attested as early as the third millennium BC in Iberia, silver is one of the more distinctive products of the later Spanish Agaric Bronze Age culture of c.2000-1600 BC.

The dates for the earliest distribution of silver could accommodate the lexical correspondences in Celtic, Italic, Armenian, Anatolian and Iranian but there is one problem of discontinuity of silver artifacts. Other than the Begean and Iberia, the early use of silver was largely confined to a narrow horizon (c.3500-2000 BC) and silver objects are conspicuously absent throughout most of the Bronze Age which poses a problem for explaining the continuity of a PIE term for the metal into the various IE stocks. A second problem concerns the absence of a PIE term for 'lead'. Although native silver does occur in small amounts, it is clear that by the third millennium BC, the process of silver extraction, at least in the Aegean and Near East (and whatever sources supplied Maykop), involved the cupellation of lead, i.e., the smelting of a silver-rich lead ore such as galena to c.900-1000 C to reduce the ore to silver. Lexically, there is no evidence, therefore, to suggest that the early Indo-Europeans knew how to produce silver which may fit the evidence from the northwest Pontic region where it was acquired by exchange rather than local extraction.

The appearance of a loanword for 'silver' in Ibero-Celtic, Germanic, Baltic and Slavic is not easily explainable. What might be observed is that only in Spain was the metal not only native but abundant and extensively mined in antiquity. Moreover, only Ibero-Celtic offers a reflex of this word in the Celtic languages; there is no trace in any of the much better represented Insular Celtic languages which, like Gaulish, shares the PIE word for 'silver'. It is attractive, therefore, to look to Iberia for the origin of this word and it is difficult to separate it from the various reflexes one finds in northern Europe. Nevertheless, the spread of both word and silver does not appear to be explainable by reference to any known late Neolithic or Bronze Age exchange system and the earliest silver objects in northern Europe are generally dated to the Iron Age or later.

See also Gold, Iron, Lead, Metal. [M.E.H., J.P.M.]

Further Readings

SING

*sengʰʰ*— 'sing, make an incantation'. [IEW 906-907 (*sengʰʰ*); Wat 58 (*sengʰʰ*); Buck 18.12]. M.Wels dehongli 'explain', ON sýngva ~ sýngja 'sing', sýngr 'church song, service', OE sýngan 'sing, lecture, narrate' (> NE sing), sýng 'song' (> NE song), O.HG sýngan 'sing', sýng 'song'. Goth sígwegan 'sing, present formally as by chanting', Grk οὐνή 'divine voice, prophecy', Prakrit săngháti, sāy, honor'. Only the Germanic and Greek words are universally assumed to belong together but there is no compelling reason not to include both the Middle Welsh and the Prakrit as well. If we do, we have clear evidence of a word that is widespread and old in IE. Otherwise, we have evidence only for a word of the west and center of the IE world.

*gehô(y)/*- 'sing'. [IEW 355 (*gêh(y)*)]; Wat 18 (*gêh-*); Buck 18.12]. Lith gëdôtô 'sing' (pres. Lith gëdu - gëdu), gësmë 'song of praise', Lat dźêdat 'sing', O.Rus gajati 'crow', Av gáthá- 'meter, line of poetry', O.Ind gâyati - gâti 'sings, gâtha- 'song'. At least a word of the center and east of the IE world. It is in complementary distribution with the following word.

*kan-* 'sing' (pres. *kâne/o-*). [IEW 525-526 (*kan-*); Wat 27 (*kan-*); GI 515; Buck 18.12; BK 257 (*kl[ʰ]aŋ-/*kl[ʰ][aŋ-]). Olr canaid 'sings', Wels canu 'sing, play an instrument', Lat canô 'sing, carmen' (c. *câmen*), 'song, prophecy, form of incantation', O.HG hano 'cock'. Goth hana 'cock', Grk ἅνα 'cock', Wels canô 'singing, musical instrument'. At least a word of the west and center of the IE world.

*péy-* 'sing'. [Buck 18.12]. O.CS péty 'sing', Rus petti 'sing', TochA pisa- 'blow (i.e. to sing) a musical instrument', TochB pya- 'sing'. Though restricted to only two stocks, those
two are not usually considered very close to one another linguistically so their witness here may well indicate a word of PIE antiquity.

*sh2omen-* 'song'. [Gl 733 (*sHomen-*)]. Grk ὑμος 'song, festival song of praise (commonly in honor of gods or heroes)', ὑμέω 'sing, praise with song', ὑμος ~ ὑμη (~ *shomio/ eh2-) 'song, lay' (borrowed > NE hymn), Hit ishamai- 'song, melody', ishamai- ~ ishamie- 'sing, sing of', Olnd síman- 'song, chant'. Often connected with *seh2- 'bind'. The connection is possible but it is not particularly compelling either semantically or formally. Whatever its derivation, this is obviously a very old word in IE.

See also PRAY, SPEAK. [D.Q.A.]

SINK see DIVE

SINTASHTA

Sintashta refers to a late Bronze Age fortification and large burial and ritual complex in the trans-Ural steppe (in Chelyabinsk province), dating to c 2000–1600 BC. The settlement, which measured c 136–140 m in diameter, was enclosed by a bank and ditch which surrounded an inner enclosure some 60 m across. Between the two lines of defense were a series of rectangular semi-subterranean houses, set like spokes of an enormous wheel. The entrance to the settlement lay on the south. Near the settlement were a number of cemeteries. One cemetery was located NW of the settlement and contained sixty-sixty-five individuals buried in forty graves. The burial
pits contained wooden box-like constructions and the deceased were occasionally accompanied by chariots (five graves) and some form of animal offerings (twenty-five graves). There were also sacrificial complexes of cattle and the head and forelegs of horses. Another of the cemeteries included a large barrow, 32 m in diameter and 10 m high. In addition to other burial complexes was a major ritual structure consisting of superimposed timber frames forming a 9 m high "temple", topped by a circular area and what have been identified as ritual fires. The cemetery has been interpreted in the light of religious practices recorded in early Indo-Iranian literature; the use of an earthen barrow, exposure of the body before burial, animal sacrifice, especially horse and dog as conveyed of deceased to underworld, use of post-like structure within grave, fire cult, etc. Similar cemeteries have also been discovered in the Volga-Ural steppe and have been used to support the Indo-Iranian identity of the steppe region during the Bronze Age.

See also Andronovo Culture; Horse; Indo-Iranian Languages; Sacrifice; Wagon. [J F M I]

Further Readings

SISTER

*suesor* (gen. *suesros*) 'sister'. [IEW 1051 (*suesor*); Wat 68 (*sweor*); GL 666 (*sper*); Buck 2.45; Szm 6; Word 144–145]. Olr *siur* (leantid *fiur* indicates an original cluster *su-*) 'sister, kinswoman, woman's brother's sister', Wels *chwaer* 'sister', Lat *soror* 'sister, cousin, friend', ON *systir* 'sister', OE *sweostor* 'sister' (> NE sister), OHG *swestar* 'sister', Goth *swistar* 'sister', OPrus *swovero* 'sister', Lith *sesuo* 'sister', OCS *sesta* 'sister', Rus *sestr* 'sister', SC *sesta* 'sister', Grk *eswter* 'sister', *eswter* 'sister', OInd *kēśā* 'sister', Prasan *swis* 'sister', *swir* 'sister', *ga-swerjan-* 'sister', Latv *sistes* 'sister' that shows a bit 'sister's son' in OSwed *ga-swerjan-* 'sister's son', Lith *sesuo* 'sister', Linke, U. (1985) Blood as a metaphor in Proto-Indo-European. JIES 13, 333–376.

SISTER-IN-LAW

*svomijehu* - wife's sister'. [IEW 884 (*svedh*); Word 204]. Lith *svāine* 'sister-in-law' (particularly 'wife's sister, brother's wife'), Latv *svaine* 'wife's sister', Arm *kēni* 'wife's sister'. Constrained to the center of the IE world, but related to a word for 'wife's brother' that shows a bit wider distribution. *glib-yos* - husband's sister'. [IEW 367–368 (*gīl-yos*); GL 662 (*Kallou*); Word 233; Szm 25; BK 283 (*kall-*)]. Lat *glos* husband's sister, brother's wife', OCS *zulava* 'husband's sister', Rus *zolov-ka* husband's sister, brothers' wife'. Grk *γάλακτος* (Aeolic *γάλακτος* 'husband's sister, brother's wife', cf. Hesychius *γαλάκτος* 'husband's sister, brother's wife', without ethnic identification, Phryg (Hesychius) *γαλάκτος* (glossing *γάλακτος* 'brother's wife'). Arm *tal* husband's sister' (for *cetl* by contamination from *tagy* 'husband's brother'). Olnd *gir* - brother's wife' (contaminated by the forms for 'mountain' or 'weasel' without a palatal). Distribution indicates PIE status. It has been suggested that these forms were not only influenced by similar sounding terms for the 'mouse' or 'weasel' (e.g., Lat *gles* 'dormouse', Grk *γαλακτός* 'weasel', Ornur *gilak* 'rat', Bakhtian *gurza* 'rat', Olnd *giri* - *girâ* 'mouse') but that the kinship terms was actually applied to the animal
SISTER-IN-LAW

(*gh̥is ‘dormouse, marten, weasel?’) either as a metaphor (comparison between young women and slim, streamlined mustelids?) or because of some taboo on employing the animal’s name. Szemerényi has attempted to reverse this derivation and has suggested that the ‘sister-in-law’ was named after the animal (here ‘marten’). The incompatibility of the laryngeals in the two words, however, would seem to obviate either proposal.


See also SEAT, SET. [D.Q.A.]

SKIN

*tu̯ēk (gen. *tu̯ēkós) ‘skin’. [IEW 1099 (*tu̯ēkos); GI 712 (*hu̯eékʰ-); Buck 4.12]. Grk σακχ(κ)ος (tl < *tu̯ēko-) (‘leather-’shield’, Hit tu̯ēka ‘body, person, self’, OInd ruk- ‘skin’. Though sparsely attested, this word is not derived from any verbal root and would appear to be the oldest word reconstructible for ‘skin’ in PIE.

(s)kuh-ōtis (gen. (s)kuh-ōtēs), also *k(e)uhet-ē-es- ‘skin, hide’. [IEW 952 (*k(ε)uht-(ε-); Wat 60 (*s(keu)-), Buck 4.12]. Wels esg(ī) (< *ped-skātī-) ‘shoe’, ON hāt ‘hide’, OE ēd ‘skin’ (≤ NEhide), OHG hāt ‘hide’ (Gmc < *kuhhti-), Grk οἰκρος ‘skin, hide, leather’, TochB kāc (< *kuhht-ī-) ‘skin’; with new full vowel: OPrus keuto ‘skin’, Lith kiutas ‘skin’ (< *kuhht-ō-). Related forms without a laryngeal are: Lat cutis ‘skin (of living beings)’, Grk οἰκρος ‘body, skin’, εὐκρινῐς ‘down to the skin’, perhaps abstracted originally from compounds where, as the second member, the loss of laryngeal was probably at least semi-regular. From *(s)kuhē- ‘cover’. Originally meaning ‘covering’ this word has replaced the more original *tu̯ēks in most of the IE world and had probably done so in late PIE times.

*kērmên- ‘skin’. [IEW 938–939 (s)k(e)r-], BK 247 (*kʰ̥ar-√/*kʰ̥ar-). OPrus kērmens ‘body’, Av *carman- (animal) skin, leather, OInd carman- ‘skin’. Regularly derived from PIE *(s)k(e)r- ‘cut (off)’ but morphologically isolated in both Baltic and Indo-Iranian. The exact formal and semantic equation *kērmens ‘in both Baltic and Indo-Iranian by the prehistoric loss of the underlying verb. Perhaps a late PIE “easternism”.

*hōues- (‘inner skin’). [IEW 346 (*eu-)]. Lat omentum ‘fatty membrane or caul covering the intestines’, TochB ewe ‘inner skin, hide’. From *hējē- ‘cover’. Possibly a word of late PIE date.

See also ANATOMY, FLESH, HIDE; MEAT, SKIN DISEASE. [D.Q.A.]

Further Reading


SKIN DISEASE

*dednus ‘tetter, skin eruption, leprosy’. [IEW 209 (*de-dr-)], Wat 12 (*de-dr-u-). OE *euter ‘tetter, skin eruption’, OInd dadn- ‘skin eruption, a kind of leprosy’. Cf. the derived *dēdrikos ‘leprosy’, OHG zittaroh ‘leprosy’, OInd dadrūka- (only attested in lexica) ‘leprosy’, and Lith dedervinė ‘ulcer’. From *der- ‘split’. The exact formal and semantic equation from the two ends of the IE world seem to guarantee this
word's PIE status.

*kľnos* ‘callousity’. [IEW 523–524 (*kľ-no-*); Wat 26 (*kal-*)]. Lat callus ‘callousness’, OInd kina ‘callousness’. From *kal-‘hard’. Again, though sparsely attested, the presence of this word near the eastern and western extremes of IE speech is strong evidence for its PIE status.

*μυθος* ‘pimple’. [IEW 1151 (*μυθος-*); Wat 76 (*wer-*)]. Lat varus ‘pimple’, Lith vīras ‘pimple in a piece of pork’, TochB yoro (< *μυθος-*) ‘pimple’.

*υράχωδος* – *υράς* εθέλδος ‘wart’. [IEW 1151 (*υράς-*); Wat 76 (*wer-*)]. ON varta ‘wart’, OE wearte ‘wart’ (> NE wart), OHG warza ‘wart’, Latv ap-vīde ‘abcess’, OCS vred’ta ‘damage, infirmity’, Rus vared ‘abcess, ulcer’, NPers bala (< *var-duka-) wart’. Taken together, *μυθος* and *υράχωδος* suggest a reasonably widespread PIE *υράς-* ‘small swelling in the skin’. That *υράχωδος* is apparently homophonous with a word meaning ‘frog’ suggests that the traditional association of frogs and warts is of high antiquity.


See also ANATOMY, FROG, MEDICINE, ROUGH, SICK. [D.Q.A.]

SLAVIC LANGUAGES

The earliest historical location of the Slavs, during the first half millennium or so AD, corresponds roughly to the central and western Ukraine and adjacent parts of Poland. In their Ukrainian and Polish homeland the Slavs were intermingled and at times overlain by Germanic speakers (the Goths) and by Iranian speakers (Scythians, Sarmatians, Alans) in a shifting array of tribal and national configurations. The collapse in AD 453 of the Hunnic empire put together by Attila left a power vacuum in central and southeastern Europe that the Slavs exploited by moving, in large numbers, south of the Carpathians, settling in the Balkans as far south as Greece. They also moved west, as far as the lower Elbe, and to the north and east, into what is now European Russia which were then territories occupied by Baltic and Uralic groups.

In the latter part of the ninth century Sts Cyril (Constantine) and Methodius, two brothers who were native speakers of Slavic from Thessalonika, were charged by the Byzantine emperor with a Christian mission to the Slavs. It is they who are credited with devising the first Slavic alphabet (though the “Cyrillic” alphabet is a somewhat later development); areas of the Slavic world which came to be in the orbit of western Christianity came to write in the Latin alphabet. The variety of Slavic, first used by Cyril and Methodius in their biblical translations, is called Old Church Slavonic (OCS). The Slavic speech area of the ninth century was not altogether uniform and Old Church Slavonic represents a southern variety, appropriate to the Thessalonian origin of Cyril and Methodius (though differences between the speech of Cyril and Methodius and other varieties of Slavic of the time were slight). Subsequently, the various dialects of Slavic have continued to develop and diverge. The currently spoken languages can be divided into three large groups: east, west, and south. The eastern group is composed of Russian, Belorussian, and Ukrainian. The western Slavic languages are Polish, Czech, Slovak, Upper Sorbian, and Lower Sorbian (the latter two spoken by small populations in eastern Germany). Other, non literary, languages of this group are Kashubian and Slovincian (both spoken in Polish Pomerania) and the extinct Polabian (once spoken in Lower Saxony in Germany). Southern Slavic languages are Macedonian (the most direct descendant of Cyril and Methodius' speech), but a possible affinity to TochA sāk- ‘to hold oneself/someone back’ would enhance the case for PIE status. Perhaps to be associated with *seh₁(i)-‘leave behind’.

See also WEAK. [J.C.S.]

SLANT

*dīzhmós* – *dūmós* ‘spray’. [IEW 222 (*dūm-*)]. Grk δομιός – δουμίος ‘slanting, oblique’, OInd jhima- (with regressive assimilation from *dīdžma- (< dīdžma-) ‘athwart, oblique’. At least a word of the southeast of the IE world. With no known root connections, it is likely to be old in PIE.

[A D V]

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[A D V]
Slavic languages even today preserve the PIE distinction between the aorist (denoting completed past actions) and imperfect (denoting on-going past actions). In the course of their historical development the Slavic languages have created a thorough-going distinction in all tenses between perfective (i.e., verbs showing completion of action) and imperfective (showing incomplete activity) aspects that are formally and historically quite distinct from anything inherited from Proto-Indo-European.

**Slavic Origins**

The Slavs were one of the most recent of the IE stocks to disperse from their own region of formation and up until the middle of the first millennium AD we can attribute a Common Slavic to all Slavic speakers. The historical expansion of the Slavs into peripheral areas such as the Balkans can be partially charted through historical sources. Where they derived from before these historically attested migrations has been a much more controversial problem.

The claims for the earliest historical attestation of Slavic peoples derives from Herodotus' description of the Iron Age peoples of Scythia, the region north of the Black Sea. There he places the Neuoii (Neupoi) on the upper reaches of the southern Bug, and the Boudinoi (Boudinioi) to their east between the upper Dnieper and Donets. Zbigniew Golab argues that both these names may reflect Slavic tribal names: Neuoii may derive from a *Neruoi (< *huner-'manly strength') and their eastern neighbors, the Boudinoi, are derived from *Bydini 'tribesman' (< *by-ti 'grow'). Identifications more widely accepted derive from the first centuries AD where the Venedi, generally presumed to be the Slavic Wends, are recorded to the east of the Vistula. This tradition continues to the sixth century when Jordanes (Getica 5.34) also introduces the names Sclaveni and Antae, the first being the earliest attestation of the ethnonym Slav or Slovène (unless concealed under Ptolemy's Stauanoi, situated on the middle Dnieper and recorded in the second century AD). The historical evidence generally points to an early Slavic presence somewhere east of the Vistula and west of the Don.

One of the other techniques employed in tracing the earlier distribution of the Slavs is river names combined with a sort of dead-reckoning that requires us to place the early Slavs in a region peripheral to that of the early Balts and Uralic-speakers of northeast Europe and the Iranian tribes that came to dominate the steppe and forest-steppe of the Ukraine and south Russia at least by the Iron Age if not earlier. The Pript marshes of southern Belarus were once thought to have served as the major border between prehistoric Balts and Slavs but the evidence of Baltic river names south of the Pript suggests that at least at some time in the past, the early Slavs did not occupy this region.

The other technique is retrospective archaeological analysis where the culture of the earliest historically attested Slavs is examined and its (archaeological) ancestors are sought. The Prague-Penkov-Kolochin complex of cultures occupied an
among which were certainly the Sarmatians, the major Iranian-speaking group of the last centuries BC and first centuries AD. Within the Chernyakovo culture were also possibly early Slavs (in the more northerly area of the Chernyakovo culture are found coarse wares typical of the later Prague-Penkov complex alongside the wheel-made Chernyakovo pottery) and the close cultural contact between them and the Sarmatians may possibly account for some of the Iranian loans in Slavic. It has also been suggested that the Slavs derived their Iranian vocabulary from the Avars whose ruling family is identified

### Proto-Indo-European and Slavic Phonological Correspondences

<table>
<thead>
<tr>
<th>PIE</th>
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<tbody>
<tr>
<td><em>p</em></td>
<td>&gt;</td>
<td>p</td>
<td><em>porkos</em> 'young pig'</td>
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<td><em>b</em></td>
<td>&gt;</td>
<td>b</td>
<td><em>bolios</em> 'strong'</td>
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<tr>
<td><em>bh</em></td>
<td>&gt;</td>
<td>b</td>
<td><em>bhreh,tar</em> 'brother'</td>
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<td><em>t</em></td>
<td>&gt;</td>
<td>t</td>
<td><em>teh</em> 'thou'</td>
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<td><em>d</em></td>
<td>&gt;</td>
<td>d</td>
<td><em>dom(h)os</em> 'house'</td>
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<td><em>dh</em></td>
<td>&gt;</td>
<td>d</td>
<td><em>dhuhr</em>mos* 'smoke'</td>
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<td><em>k</em></td>
<td>&gt;</td>
<td>s</td>
<td><em>krd</em> - 'heart'</td>
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<td><em>g</em></td>
<td>&gt;</td>
<td>z</td>
<td><em>gombhos</em> 'tooth, peg'</td>
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<td><em>gh</em></td>
<td>&gt;</td>
<td>z</td>
<td><em>gheimeh</em> - 'winter'</td>
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<td><em>k</em></td>
<td>&gt;</td>
<td>k</td>
<td><em>teko/o</em> - 'run'</td>
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<td><em>g</em></td>
<td>&gt;</td>
<td>g</td>
<td><em>jogom</em> 'yoke'</td>
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<td><em>gh</em></td>
<td>&gt;</td>
<td>g</td>
<td><em>ghordhos</em> 'enclosure'</td>
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<td><em>k</em></td>
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<td>k</td>
<td><em>viko</em> - 'wolf'</td>
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<td>g</td>
<td><em>gou</em> - 'cow'</td>
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<td><em>gh</em></td>
<td>&gt;</td>
<td>g</td>
<td><em>ghoreh</em> - 'burn'</td>
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<td>s</td>
<td><em>sah</em> - 'sow'</td>
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<td><em>j</em></td>
<td>&gt;</td>
<td>j</td>
<td><em>jogom</em> 'yoke'</td>
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<tr>
<td><em>u</em></td>
<td>&gt;</td>
<td>u</td>
<td><em>vedhe/o</em> - 'lead'</td>
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<td><em>m</em></td>
<td>&gt;</td>
<td>m</td>
<td><em>meb</em> - 'mother'</td>
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<td><em>n</em></td>
<td>&gt;</td>
<td>n</td>
<td><em>nok</em> - 'night'</td>
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<td><em>i</em></td>
<td>&gt;</td>
<td>l</td>
<td><em>loks</em> 'salmon (trout)'</td>
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<td><em>r</em></td>
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<td>r</td>
<td><em>rhouph</em> - 'red'</td>
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<td><em>mp</em></td>
<td>&gt;</td>
<td>e</td>
<td><em>kastos</em> 'thick'</td>
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<td><em>g</em></td>
<td>&gt;</td>
<td>g</td>
<td><em>ghe</em> - 'strike'</td>
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<td><em>l</em></td>
<td>&gt;</td>
<td>l</td>
<td><em>til</em> - 'ground'</td>
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<td><em>k</em></td>
<td>&gt;</td>
<td>tr</td>
<td><em>krd</em> - 'heart'</td>
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<tr>
<td><em>i</em></td>
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<td>i</td>
<td><em>pise/o</em> - 'push, stamp'</td>
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<td><em>h</em></td>
<td>&gt;</td>
<td>h</td>
<td><em>dhuhr</em>mos* 'smoke'</td>
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<td><em>e</em></td>
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<td>e</td>
<td><em>bheoro/o</em> - 'carry'</td>
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<td><em>e</em></td>
<td>&gt;</td>
<td>e</td>
<td><em>seh</em> - 'sow'</td>
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<td><em>a</em></td>
<td>&gt;</td>
<td>o</td>
<td><em>nas</em> - 'nose'</td>
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<td><em>b</em></td>
<td>&gt;</td>
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<td><em>o</em></td>
<td>&gt;</td>
<td>o</td>
<td><em>go</em> - 'burn'</td>
</tr>
<tr>
<td><em>b</em></td>
<td>&gt;</td>
<td>a</td>
<td><em>so</em> - 'cause to sit'</td>
</tr>
<tr>
<td><em>u</em></td>
<td>&gt;</td>
<td>u</td>
<td><em>dhuhr</em> - 'daughter'</td>
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<td>&gt;</td>
<td>o</td>
<td><em>hjes</em> - 'be'</td>
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<tr>
<td><em>h</em></td>
<td>&gt;</td>
<td>o</td>
<td><em>hiskeyh</em> - 'eye'</td>
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<tr>
<td><em>h</em></td>
<td>&gt;</td>
<td>o</td>
<td><em>hok</em> - 'mount sexually'</td>
</tr>
</tbody>
</table>

area so broad (Vistula to Don to south to the Danube) during the sixth and seventh centuries AD that it surely incorporated most if not all early Slavic speakers. This series of related cultures with their semi-subterranean houses, use of coarse pottery, and cremation has been labeled the "Slavic cultural model". Attempts to go earlier usually involve consideration of the Chernyakovo culture, the broad cultural phenomenon pivoting about the northwest corner of the Black Sea. It would appear that the Chernyakovo culture was very much a mixed culture involving various ethnic elements,
as Turkic but, it has been speculated, was primarily composed of Iranian-speakers.) Alternatively, there are others who see in Chernyakovo a mixture of Germanic and Sarmatian elements, excluding the Slavs from a region so far south. Any attempt to retreat earlier with respect to Slavic ethnogenesis normally carries one further to the north since the Slavs would appear to have followed, at least in part, a north-south trajectory during the course of their expansions. The main cultural phenomenon for this period would be the related Przeworsk and Zarubintsy cultures (second century BC-fourth century AD).

In the view of many, the more easterly Zarubintsy culture in the region of the upper Dnieper and Pripet accords geographically with the position of early Slavs. O.e., as it lies east of the Vistula it fits very well with the location attributed to the Venedi although some emphasize that as its territory embraces the Priepet as well, it is just as likely to have been Baltic. The neighboring Przeworsk culture to its west is taken by some as Slavic and others as east Germanic and it is possibly during this period, if not slightly later during the Chernyakovo culture, that a series of Germanic loanwords passed into Slavic.

The disparity in interpretations here is quite old as there has long been a school of thought, often dubbed the "Polish school", that argues for a more westerly Slavic homeland in Poland which comes into conflict with Germanicists who would place the eastern borders of the early Germans in the same region. Most controversy concerning Slavic origins concerns this western border. It should be obvious then that as one recedes further back into time to earlier Bronze Age candidates for either Proto-Slavic or Proto-Balto-Slavic, any degree of certainty must recede correspondingly. In one of the most detailed linguistic analysis of the problem of Slavic origins, Zbigniew Gołęb has sought to peel away the layers of linguistic contacts between the Slavs (and Proto-Slavs) and their neighbors. Gołęb argues that Proto-Slavic emerges sometime about 1000 BC, i.e., in archaeological terms during the later part of the Bronze Age after the floruit of the Trzcińcic and Komarov cultures which spanned Poland and the western Ukraine and are frequently regarded as Proto-Slavic.

See also BALTIC LANGUAGES; INDO-EUROPEAN LANGUAGES.

Further Readings

LANGUAGE


ETYMOLOGICAL DICTIONARIES

ORIGINS AND CULTURE


SLEEP
*ses- 'rest, sleep, keep quiet' (pres. *séstiti). [Gl 256 (*ses-); Del 287] Hit hæmi 'sleep', Oldn sásti 'sleeps', sasátrá 'stealthily'. Not widely attested though its geographical distribution demonstrates that it is old in IE. It is almost surely onomatopoetic in origin—derived from the sound of gentle snoring (cf. NE counting z's) or from an interjection similar to NE sh! This work seems to have been the "external" word for sleep, sleep as seen by the onlooker.

*suep- 'sleep, dream' (vb). [IEW 1048 (*suep-); Wat 68 (*sweipp-); Gl 100 (*sweip-); Buck 4:61, BK 197 (*saw-/*saw-)]. (1) Pres. *suepti 'sleeps, dreams'. [SIE 1048-1049 (*suep-); Wat 68 (*sweipp-); Gl 107 (*sweip-); Buck 4:61, BK 197 (*saw-/*saw-)]. (1) *sueptos: OIr stáin 'sleep', Wels hun 'sleep', Lat somnis (or < *sueptos) 'sleep', Lith sátpnas 'dream', Latv sapnis 'dream', Grk ὑπνός 'sleep'; (2) *sueptos: ONS svefn 'sleep, dream', OE swēn 'sleep, dream'. [IEW 744-745 (*suep-)]. Hit sōpio 'hulls to sleep', OE sēfan 'hull to sleep, appease', sēfa (s)meug-o 'kill', OE sēfan 'to pour, slide', OE svefan 'sleep', OCS sāpati 'sleep', Hit supp- 'sleep, Av x'ap- 'sleep', Oldn svápti 'sleeps'; (2) pres. *sueptēti ~ *sueptētī 'hulls to sleep'. Lat sōpio 'hulls to sleep', ON svefn 'hull to sleep, appease', sēfa (s)meug-o 'kill', OE sēfan 'to pour, slide', OE svefan 'sleep'; (3) pres. *sueptōs: ONS svēn 'sleep, dream', OE swēn 'sleep, dream'. Widespread and old in IE. In contrast to *ses-, this form seems to have been the "internal" word for sleep, i.e., sleep as seen by the sleeper.

*svōnos ~ *sūpēnos ~ *supnōs 'sleep, dream' (noun). [IEW 1048-1049 (*suep-); Wat 68 (*sweipp-); Gl 107 (*sweip-); Buck 4:61, BK 197 (*saw-/*saw-)]. (1) *svoptos: OIr stán 'sleep', Wels hun 'sleep', Lat somnis (or < *svoptos) 'sleep', Lith sātpnas 'dream', Latv sapnis 'dream', Grk ὑπνός 'sleep'; (2) *svoptos: ONS svefn 'sleep, dream', OE swēn 'sleep, dream', Av x'afna 'sleep', Oldn svāpna 'sleep' (Indo-Iranian could be < *svōptos), TochB šāpām 'sleep, dream', TochB šāp 'sleep, dream', (3) OCS svāpt 'sleep, dream'. All of these derivatives together suggest an ancient no-stem in several ways, already in late PIE. In any case widespread and old in IE. See also DREAM [D.Q.A.]

SLIDE

*smeg- ~ *meuk- 'slip'. [IEW 744-745 (~meug- ~ meuk-); Wat 42 (~meuk-); Gl 124; Buck 10.11]. Lat -mungō 'blow nose', OE smūgan 'slide, slip', Lith munkū 'slide away from', Latv mākū 'slide loose', OCS mukāti 'chase', ONR mākuti sja 'pass over', Grk ἀποθύω 'wipe nose', Oldn mukāti - mukātis 'let loose, frees', TochB mak 'desist', TochB maik 'desist', maik 'run'. Widespread and old in IE, though the exact range of its original meaning is hard to determine. [IEW 744-745 (~smug-)]. Hit mungō 'slip', OE slidan 'slide' (> NE slide), MHG sliten 'slide', Lith slystū 'slide, slip', Latv slīt 'slip', OCS sīlē 'track (in the grass)', Rus slež 'slip', Grk ἀλαπάσκειν 'slide', Oldn sleddhati 'fails, err' (< "slides off"). If the Old Indic word belongs here, then *sleidh- is clearly of PIE age; otherwise, a word of the west and center of the IE world.

*sleuhb- 'slide'. [IEW 963-964 (~sleuhb-)]. Wat 61 (~sleubh-); Buck 10.42. Lat lūricus 'slippery, smooth', OE slōpan 'slide, slip', sīlēan 'put on clothes', sīle 'sleep' (> NE sleep), OHG schlōan 'sneak, prow, slink', Goth schlōpan 'sneak, prow, slink'. Possibly a late western dialect word. See also SLIMY, SMEAR [D.Q.A.]

SLIMY

*(s)lei- 'sticky, slimy, slippery'. [IEW 662 (*lei-), 670-671 (*leip-); Wat 35-36 (~lei- ~ lei-); Buck 15.77]. This root shows a pattern of extended forms, mostly verbal and with meanings related to adhering or sticking, and sometimes the distinction between this and homophonous *lei- 'pour, flow' (and possibly other roots of that shape) becomes blurred or obscured. (1) *(s)lei-n-: OIr as-lea 'pollute, stain', Lat linō 'to anoint, smear', OCS slīma 'spit', Grk ἀλίκων 'to anoint, smear'. Oldn lintūtī 'bends down, ducks, hides' and then presumably later 'clings to' has been traced back to a root li- and sometimes placed here in spite of the semantic distance between the root at hand and the apparent older meaning in Indic. (2) *(s)lei-p-: OIr lefia 'leave over', OE belfan 'remain', stay', OHG bilitan 'remain, stay', Goth bilitan 'remain, stay', Lith lipio 'to stick, be sticky', Lat lēptus 'to stick, attach to', OCS pri-lēptus 'stick on/to', TochAB lip- 'remain'. Other suggested cognates have been Lat lippus 'sore-eyed, bleary-eyed', Alb laparos 'sully, dirty or 'stink' has long been controversial here while a set of variants including gelepe, glepe (~ke + loiā>) 'eye secretion' has been placed here as well with less resistance; Hit lippanzi 'lick, lap (up)' was earlier considered part of this etymology based on a meaning of 'smear, paint' but the more recent semantics make this very unlikely, Oldn rip- 'to smear, adhere to (him)' shows a frequent variant with initial l- in later texts, e.g., Oldn limpāti 'smear', has been very frequently connected here. (3) *(s)lei-m-: OIr slēmōn 'slippery, polished', Lat limus 'mud', ON slim 'slime, lim 'glue', OE slim 'slime' (> NE slime), lim 'lime, mortar, bird-lime (> NE lime), OHG slimen 'to polish', MHG lim 'glue', Rus slimak 'slip, snail'. Lat limax 'snail, slug' and Grk λειμαξ 'snake, slug, perhaps reflect a borrowing (direction uncertain) while Grk λέυκων 'damp meadow' has also been placed here but is also uncertain. The use of mud/clay in creating smooth surfaces in construction has been understood as providing a direct link between the meaning 'mud' and 'slick, polished', in the context of a broader set of building vocabulary. This group, most productive in the northwest, presents a strong case for PIE status, notably with the p-suffixed forms

*(smeg-) ~ *(smug-) 'slip', 'slide', 'slippery (from wetness). [IEW 744-745 (~meug- ~ meuk-); Wat 4 (~meuk-); BK 52 (*maw-/*maw-)]. OIr mocht (~muk-to) 'soft', tender', Lat mungō (nasal form with -g-) 'blow nose', mucus (with -c-) 'mucus', ONR mugga 'drizzle', mjukar 'soft, malleable', OE smugan 'creep', MLG smucken 'to adorn' (< make slick) (< Proto-Gmc *(smug-)), Grk μουσματι (< muk-jeto) 'I blow my nose'. These forms have been connected, farther from the

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sense central, flee'. Lith mūkti 'slip away from', Lat mūkt 'slip loose', OCS mūčati 'chase', ORus máknuti sja 'pass over', Olnd mukti 'looses, frees', TochA muk- 'to let go, give up', TochB maak- 'to let go, give up', perhaps connected by a sense like 'to slip off, away', māk- 'run'. The root is well attested in the northwest with Greek providing the most immediate connection outside of that area. From *meu- 'damp'.

See also Anoint, Fish, Smeai. [J.C.S.]

Further Reading

SLING

**sling**

* (s)b潢d-neh₂ *strap, sling*. [cf. IEW 989 (*sp(h)en(n)d-*)]. Lat funda (< *bhond-eh₂> 'sling', Grk ὀψφόνη (metathesized from ὀψφόνη) 'sling'. The Latin-Greek equation, though showing some phonological irregularities, may betoken something of (late) PIE age.

Slings are probably among the earliest weapons and they are depicted, at least, from the early Neolithic, e.g., in paintings from Catal Hüyük in Anatolia. Neolithic sites have also yielded both small stones and clay pellets that have been interpreted as sling stones.

See also Tool. [D.Q.A.]

Further Reading

SLIP see SLIDE

SLOETREE

*dhergh-* 'sloe tree, blackthorn (Prunus spinosa)'. [IEW 258 (*dhergh-*)]. OIr draigen 'sloe tree, blackthorn (Prunus spinosa)', Welis draen 'thorn', OHG dirh(baum) 'cornel cherry', NHG (dia.) dirmlein 'cornel cherry', Rus deren 'deren 'cornel cherry', SC drên 'cornel cherry', Kashubian drôn 'thorns', Pol (dia.) dzeron 'barberry (Berberis spp.)' (barberries are shrubs with spines, yellow flowers, and oblong red berries) (Gmc and Slav < *dhrghno-). A northwestern IE term for 'sloe tree, blackthorn' which shows semantic specialization to 'thorn' in both Celtic and Slavic and to 'cornel cherry' in both Slavic and Germanic. The various reflexes suggest either an old n-stem noun *dherghōn (gen. *dhrghonos) or an old root noun *dherghis (gen. *dhrghos) to which has been added, independently in Celtic and Germanic-Slavic, the derivational *-no- so common in IE tree names.

See also Trees. [D.Q.A.]

SMALL

*men-* 'thin (in density), sparse, fine'. [IEW 728–729 (*men-); cf. Wat 41 (*men-), Buc 12, 66]. (1) *men-/uo-: OIr mênb 'small, tiny', Lat minus 'less' (but may rather be connected with *mei), Grk μαλακαί 'small', Arm marh 'small, fine', Olnd marok 'a little, slightly'. (2) *men- 'lacking'. [IEW 729 (*men-k-)]. OHG mengen 'lack', Lith meikas 'small, unimportant, little', Hit manikus- 'short, near, narrow', TochA mank 'lack, debt', TochB menki 'lack'. Very uncertain is Lat mancus 'crippled, maimed' which has also been placed here. The root itself is secure for PIE and both derived forms show reasonable distributions.

See also Thin. [J.C.S.]

Further Reading
See also Anoint, Anoint, Smeai, Work. [D.Q.A.]

SMELL

*hal- 'adhere, stick, smear'. [IEW 670–671 (*leip-); Wat 36 (*left-)]. On leifa 'leave over', OE beliðan 'remain', OHG billan 'remain', Goth bielitan 'remain', al-lihan 'remain', billhan 'leave remaining', Lith limpu 'adhere', Lat lípu 'adhere', OCS pri-lipjo 'stick on', Hit lipu- 'smear', paint, Olnd limpi 'smears', TochB lip- 'remain'. Cf. Grk ἀπασάζω 'fat, anointed, strong', Toch/AB lipai/ρα 'remainders'. Widespread and old in IE.


*plei- 'smear' (pres. *pleinēh₂-ti). [IEW 966–967 (*sle-)]. OE he-smōtan 'smear', OHG (b)smōtan 'smear', Goth bi-smōtan 'anoint', ga-smōtan 'smear', Arm mic (< *smidō-) 'dirt'. Dubious. If the Armenian word belongs here with the Germanic (by no means a certainty), then we have evidence perhaps for a late IE word of the west and center.

See also Adhere, Anoint, Smeai, Work. [D.Q.A.]

SMELL

*hał- 'smell' (= 'give off a smell'). [IEW 772–773 (*od-); Wat 45 (*od-); Buc 15, 21; BK 371 (*ut-/*ot-)]. Lat oleo 'smell, stick', Lith uodžiu 'smell', Lat ožiu 'smell', OCzech jadati 'investigate, sniff out', Grk ὁλομ 'smell', Arm hōsim 'smell'. At least a word of the west and center of the IE world.

*pu- (< *pubh₂-*) 'stink'. [IEW 848–849 (*pū-)]. Lat pučō 'stink', Lith pūdau 'rot', Latī pūt 'stink', Grk πῦθω 'become
moldering fire', Arm *maksu (\*smukho-) 'smoke'. The root vowel was *ewu with the long ū unexplained; the Arm x is also unclear. At least a word of the west and center of the IE world.

See also BURN, FIRE. [R S P B]

Further Readings

SMOOTH
*ghle-h₂dh-(ro)- 'smooth' < 'shiny'. [IEW 431–432 (*ghlādh-); Wat 21 (*ghe-); Buck 15.77]. Lat glaber 'smooth, esp. without hair', ON glaðr 'happy, shining', OE gleād 'shining, happy' (> NE glad), OHG glat 'shining, bright clear', OPrus glosito 'whetstone'. Lat gloditis 'smooth, smoothed', Latv glāstis 'to stroke, caress', OCS gladiti 'smooth', Rus gladkyj 'shiny', Northwestern development of the root *gheh- 'shine'.

See also SHINE. [J. S.]

SNAIL
*šleinamak- 'snail, slug'. [IEW 663 (*šleir-), cf. Wat 35–36 (*leir-), Rus šlimak 'snail', Grk Δείκτας 'slug'. From (*šleir- 'be slimy'. A word of the center of the IE world.

See also ANIMAL, SHELLFISH, SLIMY. [D.Q.A.]

SNAKE
*h₁ógʷhis (gen. *h₁égʷhis) 'snake'. [IEW 43–45 (*ogʰhi-); cf. Wat 2–3 (*anhʰhi-); Gl 444 (*ogʰy-), Buck 3.85]. Wels euod 'sheepworm', euon 'horseworm' (< Proto-Celtic *eghi-), OHG egala 'leech', Grk ἔχις (< *eχhi-) 'viper', ἤδινα (< *eχidnʰi-) 'viper', ὑφή 'snake', Arm 12 (> *egʰhi-) 'snake, viper', Av aži- 'snake'. Olnd ahd- 'snake'.

Toch B *aik 'snake' probably belongs here as well, if Proto-Toch *eik is metathesized from expected *eku (much as Proto-Gmc *aug-an- 'eye' is from PIE *ʰaukʷə). The most plausible reconstruction would seem to be an acrostic *h₁ógʰhi- - *h₁égʰhi- 'snake'. The lack of labio-velar in Grk ἔχις and ἤδινα must be attributed to contamination with the word for 'feet'. *h₁ógʰhis is probably the oldest word we can reconstruct for 'snake' in PIE. Its semantic field embraces more than simply the reptile but also, apparently, a mythic serpent or dragon that is slain by a great hero In Indo-European myth. This is seen in a series of formal correspondences in IE literature. In the ḫveda, one of the central motifs is the slaying of the serpent (Viṣṇu) by Indra where one finds the phrase aham aham he killed the serpent' on eleven occasions. The cognate expression—janaḥ aham [who] killed the serpent—is found in the Iranian Avesta where Orātaena slays the dragon Aži Dahaka. In Greek passages depicting the slaying of monsters we also find both the same word for 'serpent' and 'kill' which supports the existence of an underlying PIE phrase *h₁égʰhent h₁ógʰhim he killed.
the serpent. In Germanic the corresponding dragon-slaying motif retains the same verb but has replaced the word for 'serpent' with Proto-Gmc *wurmiz 'worm, snake'. The next word, *h₂(n)og'h-*, has replaced *h₁og'h-* is, or shunted it into semantically marginal areas, in much of the west and center of the IE world.

*ₕ₂₆ng'hiₕis (gen. *ₙ₂₆₆g'ₕēis) 'snake'. [IEW 43-45 (*ang'h-); Wat 2-3 (*ang'hi-); GI 444 (*ang'h-); Buck 3.85]. Olr escung (DIL escung) 'eel' (< *water-snake*, where ung < *angh*), Wels lysyw(en)'eel', Lat anguis 'snake', OHG unk 'snake', OPrus angis 'non-poisonous snake', Lith angis 'snake', Latv uōde 'snake', Rus уз'à 'snake', Pol вąż 'snake' (< Proto-Slavic *ężt-'snake'), Illyrian (Hesychius) ăfēc'snakes', Arm ավj (gen. sg. awjį) 'snake'. Note that the aspiration of the final consonant is guaranteed by the Old Irish and Armenian forms.

*neh₂tôr (gen. *neḥ₂tōs); Italo-Celtic *neb³t̂rik- 'snake'. [IEW 767 (*né-ti); Wat 44 (*nétr); GI 445; Buck 3.85]. Olr nathir (gen. nathrach) 'snake', Wels welsdr 'snake', Lat natrix 'watersnake', ON nādr ~ nādra 'snake, adder', OE nādēr 'snake, adder' (> NE adder, by misdivision of a nadder), OHG nāt(r)a 'snake, adder', Gothic naaēs 'snake, viper'. From *ḥ₂nehi- 'sweat', as 'the twister'. A word of the western part of the IE world. There appears to have been at least an incipient semantic division between *ḥ₂neh'gʰis and *neh₂tôr in those areas where both were found, the former being 'snake' in general while the second tending to be the poisonous 'adder (Vipera berus). The attestation of an inherited 'snake' word in Ireland, a land famous since classical times for the absence of snakes, indicates how cultural vocabularies may extend beyond the geographical borders of a language (snakes are, however, known from Britain).

See also Animal; Crawl; Dragon; Eel; Three-headed Monster. [D.Q.A.]

Further Reading

SNEEZE see COUGH

SNORE

*ₙσrenk- 'snore'. [IEW 1002 (*srenk-); Wat 64 (*srenk-)]. OIr *sreinnid (< *srenk-n-)'snores', Grk πέρκα 'snore'. Certainly originally an onomatopoeic word. The close equivalence of Old Irish and Greek gives some evidence that the formation is of PIE age.

See also Dream, Moan; Sleep. [D.Q.A.]

SNOW

*ₙσneig'ₕʰ- 'to snow'. [IEW 974 (*sneig'h-); Wat 62 (*sneig'h-); GI 587 (*sneig'bo-); Buck 1.76]. OIr *snig'dh rains, snows', Wels nyfio 'snows', Lat nivit (ni-?), ningit 'snows', ON snýr 'snows', (past participle snveinn), OE sniwian 'snows', OHG sniwan 'snows', Lith snėgą, snęgiti (snęgą, snęgiti 'snows', Latv sniegs, snigti 'snows', OCS sněžiti 'snows', Grk νείγει 'snows', Av snæžatti 'snows', Oldn snehavati 'causes to fall (?), (aor.) a-sní-h-at remain lying (?). Distribution assures PIE status. There is no evidence for s-mobile (Oldn nihaka- 'snow-storm?' cannot, therefore, be cognate). Old Indic has no old present, the other languages have the full-grade except for Celtic, and the length of the i in Lat nivit is uncertain. It has been supposed that the verb, clearly of PIE status, was originally athematic and ablauting, but as the 3rd sg. was the only form in regular use (cf. 'it snows, it is snowing'), perhaps the Celtic forms are denominal. The Latin nasal present is no longer supported by Umb nincu, as this form is of uncertain interpretation and had it been truly cognate, it should have begun with *sn-'. Lith snigta is probably recent. The Old Indic meaning can be derived from *(let) fall like snow'. It is improbable that Oldn snhyati was originally 'is moist, sticky, attached to' and that all the other languages innovated in the same way, moreover, the later Indic languages as well as Iranian retain the meaning 'snow'.

*snig'h-s (fem.), *snog'h-os (masc.) 'snow'. [IEW 974 (*sneig'hi-); Wat 62 (*sneig'h-); GI 587 (*sneig'bo-); Buck 1.76]. OIr snige (neut.) 'drip, flowing', snecht(a)e 'snow', Wels nyf (< *sneig'n-)'snow', Lat nix, nivis (fem.) 'snow', OE snow 'NE snow', OHG sn(e)o, snéwes (masc.) 'snow', Goth sνowus 'snow', OPrus snaygis 'snow', Lith snėgūs 'snow', Latv sniegs 'snow', OCS sněgů, SC snięg 'snow', Grk (accent. fem.) ἱφα 'snow', νυφα 'snow', νιφατα 'snowstorm', (pl.) 'snowflakes', Služni žnī 'snow', Oldn sneha - slime, grease', Prakrit sneha- 'snow', TochB sitcaru (from implied noun sītica 'snow' < *sneig'hi- or *sneig'hen-)'snowy'. The Germanic and Baltic and Slavic forms derive from *sneigʰ*os as well as Oldn sneha-; if this is old, Baltic, Slavic and Old Indic also agree on root-accented *snogʰ*os. The form with the zero grade must be old, and Latin and Greek point to a feminine root noun.

See also Ice, Seasons. [R.S.PB.]

Further Reading

SOCIAL ORGANIZATION

The social organization of PIE society is relatively opaque given the few terms that can be reconstructed to PIE and even there semantic discrepancies between phonologically cognate words often renders the reconstruction of the proto-meaning hopelessly vague. Also, social structures of any IE community and the terms which were employed to describe them were in a constant state of evolution so that whatever has survived to be reconstructed can be but a fragment of the original system. For example, B. Schlerath's experiment in reconstructing Germanic social terms from the Helaand and Beowulf found that of twenty-seven words or compounds cognate to both, only two have survived in each of the descendant languages a thousand years later, i.e., OE eorl (cf. OHG erl) > NE earl, OE cyning > NE king, OHG scalk ~
Economic relations inherited.

The Four-Tiered System

Emile Benveniste proposed a widely accepted hierarchical system for PIE society comprising four social tiers. The lowest and smallest unit was the *dom(ha)- 'household, nuclear family', and this term had a corresponding designation for its social head, the *dems-pot- 'master of the house'. The families were gathered together into a *tuk- 'clan' which also had a corresponding head, *qikpot, and the clans were grouped together into a single *gen- 'tribe'. The territorial expression of where a people lived as well as the largest social collective was provided by Av dahyu and OInd dasyu- (< *dās-). But such a structure only occurs in canonical order in the Avesta (e.g., Y 31, 18) and its attribution to PIE rests primarily on the presence of cognate terms in other IE languages; there is no solid evidence for the actual "system" in another IE stock (e.g., the Greek cognate of *gen-is ρενται and means 'family' rather than 'tribe'). Moreover, critical examination of the Iranian terms reveals that there is considerable imprecision of meaning of any word above the level of the family. That the *tuk- designates something larger than a nuclear family there is little doubt but there is no evidence that it must be interpreted as a 'clan of related families sharing a common ancestor' or any other more precisely defined larger unit of social organization. Similarly, the Indo-Iranian *zantu- has far too broad a semantic range to permit the reconstruction of an Indo-Iranian word for 'tribe' much less a PIE term although it must have designated something larger than a *tuk- and smaller than a 'country'. Some form of kingship has been widely accepted for PIE with reconstruction of *hṛṛgks 'king'.

The system here, which offers an alternate structure to that proposed by Benveniste, is obviously founded on the function of males in society largely to the exclusion of females. Moreover, the reconstruction of the position of 'king' to a position of secular rather than religious leadership is by no means certain. Finally, there are other social terms, even those pertinent to the structure proposed such as *teuteh-ys 'people (under arms)', which need to be incorporated into an explanatory framework.

Tribal System

The system proposed by E. Benveniste rests largely on east IE material and has been challenged by Kim McCone who has proposed a social system in which the primary levels of discrimination are based on the social organization of warfare and its relationship to the *teuteh-2, generally translated 'tribe' or 'people', which is unaccounted for in Benveniste's system but which McCone regards as an essential feature of PIE social organization. The structure envisaged by McCone distinguishes between warriors who operate outside the remit of tribal society and those who live within its system. This sets into opposition the *korjos 'war-band' of youths who engage in predatory behavior, living like wolves by hunting and raiding. In terms of the reconstructed lexicon, characteristics of this group would comprise concepts such as 'youth' (*hṛṛther-n-kō-) which often covers the meaning of 'young warrior' in the various IE stocks, e.g., OIr às 'youth, warrior'. Here he would also include *morjos 'deadly (one)' which McCone takes to underlie both OIr muire 'leader', and the Indo-Iranian words associated with the youthful war-bands, e.g., Av mairyo 'villain, scoundrel', Olnd marya- 'young man'. Finally, to this group would be assigned the entire complex associating warriors with wolves. A characteristic of this group would be the achievement of wealth (or at least subsistence) by raiding for booty for which IE retains at least one designation in *sōru.

At about the age of twenty, the young man was recognized as a marriageable adult (*uhr-2s or *h₃n₃r) and capable of owning and defending his home and possessions (*pōts). His place was then in the 'tribe' (*teuteh-2) which consisted of three or four 'clans' (*yikes) under the rulership of a *hṛṛgks 'king'. In terms of warfare, the man graduated from light foot-soldier to chariot-fighter or some other form of more advanced military unit. Later, he became an 'elder' (*sēnos or *gerhōnts) and was absolved from military service but could be required to give advice (*mēdōnts) based on his age and experience.

Social Complexity

Social organizations when represented in a hierarchic scale are often crudely divided into four broad categories of social complexity. The lowest is that of the band or egalitarian society. This form of society correlates broadly with hunter-gatherers (in archaeological terms, the Palaeolithic and Mesolithic) who are marked by small social units, bands consisting of a number of families. Status is based on one's age, sex or own personal achievements but cannot be inherited. Economic relations tend to be reciprocal. As the economic basis of the reconstructed PIE lexicon is clearly that of agriculturalists and there are sufficient terms for "leaders" and other social categories, it seems clear that PIE social organization was more complex than a simple band/egalitarian society.

The second level of complexity is termed ranked or tribal and this type of society does correlate with simple agricultural communities (Neolithic in archaeological terms) although it may also comprise certain hunter-gatherers, especially those occupying areas of abundant and stable resource availability. Residential populations may run to the hundreds and there may be some degree of craft specialization. Status positions are limited and are based on such factors as line of descent and order of birth. Society is to some extent fragmented into sodalities, subunits of society engaged in specific tasks (religious, military, social), and clans. Exchange within such systems may involve redistribution of goods extracted from family members or others by a person in authority. Authority itself is familial or sacred, i.e., it is sanctioned by "norms" recognized by the society but compliance is not based on coercion. There is nothing in the second ranked level of society...
that could not be accommodated in our reconstructions of the IE lexicon (agriculture, crafts, sodalities, war-bands, leaders, concepts of inheritance, etc.).

The third level has been termed stratified or a chiefdom and reflects increased organization over that of the earlier ranked or tribal society. Here there are institutionalized differences according to the subsistence economy (these may be reflected, for example, in early Mesopotamia and Indus Valley towns or, in a more explicitly IE context, in the palace economies indicated by the Linear B tablets of Mycenaean Greece with its many craft-specialists). The aristocracies in such systems have preferential access to goods and authority tends to be based on the territorial unit rather than the family. Urbanism and the explicit statement of laws, usually written, have been seen as characteristics of this level of social complexity. In general, many although not all of these characteristics appear to conform more easily with Bronze Age societies of some regions of Eurasia, e.g., the Aegean, Central Asia, Indus Valley, although there is certainly evidence for some concentration of power elites already by the later Neolithic of some regions. It would seem that if PIE society had to be fixed somewhere on a scale of complexity, it would fit comfortably into the second level or between the second and third broad categories.

Finally, there are states in which there is a concentration of both economic and political power in the state. The authority of the state is such that it has the monopoly on the use of force. Urbanism and other characteristics of what one would generally term a "civilization" are also required features of state societies.

The level of social complexity that we generally attribute to the period of the proto-language would fall very short of a state-level society and there are no linguistic nor comparative cultural grounds whatsoever for attributing an urban background to the Proto-Indo-Europeans. T. Gamkrelidze and V. Ivanov have assigned to PIE a high level of social organization that lacked some of the features of the state societies of the Near East yet nevertheless must have been in contact with them to account for the high degree of PIE social complexity. There are, however, no grounds for assuming such complexity since there is nothing in the social organization or material culture of PIE that could not be ascribed to most societies over a broad area of Eurasia during the fourth millennium BC.

See also AGE SET; ARMY; COMPARATIVE MYTHOLOGY; LEADER; KING; KINSHIP; WARFARE. [J.P.M.]

Further Readings


SOFT

*mel₁* ‘soft’. [IEW 716–717 (*mel-); Wat 40 (*mel-); Buck 15.75; BK 518 (*mul-*mol-)]. (1) without extension: Olnd mildynt ‘withers, fades’, (2) *mel₁-k* ‘weak, foolish’ [IEW 719 (*mel-k-)]; MDutch malk – mals ‘reckless, soft’, OE Sax malsk ‘proud’, Goth un-tila-malsk ‘reckless’ (Germanic forms with additional -sk suffix), Grk μαλακός (< *mel₁-k*) ‘soft, weak’, Hit malisku ‘weak, light, unimportant’. Also placed here may be Lith malkis ‘fool, idiot’ and perhaps Olnd malva ‘thoughtless, foolish’ with similar semantic developments proposed from the same root; (3) *mel₂* [IEW 718 (*mel₂-); Buck 15.75]: Wels blydd ‘tender, juicy, soft’, Lat mollis ‘soft’, OPrus malku ‘young’, OCS mlad ‘young, soft’, Rus molod ‘young’, Grk βλαδις ‘slack’, ομαλός ‘tender, weak’, Arm melk ‘soft, limp’, Olnd mlad ‘soft, tender, mild’. Reasonably broad attestation and clear semantics makes this a very probable PIE root with several distinct formations.

*lento* ‘soft’. [IEW 677 (*lento-); Wat 36 (*lento-)]. Wels llaith (< *lantro- < *lpt-to-) ‘smooth’, Lat lentus ‘soft, tender’, OE lede ‘soft, lute’ (> NE lute), OHG lindil ‘mild, soft’. Earlier attempts to connect Lith leitas ‘quiet, calm’ (more recently seen as a loanword) and Olnd lata ‘creeping, climbing plant’ are doubtful, leaving this only securely reconstructed to the northwest area. See also the tree-name ‘linden’.

*mekus* ‘soft’. [IEW 730–731 (*men₂k-); Buck 15.75]. Latv miks ‘soft’, OCS meká ‘soft’, Alb (Gheg) mekan ‘weak’, (Tosk) mekur ‘weak’. Olnd mukun ‘weak’ has been set with this series but the word occurs only once and is very uncertain (perhaps meaning ‘fortunately, frail’ or ‘stuppled’) and is without secure etymology. Everything but the Albanian is either highly questionable or derives directly from a verb ‘to knead’, e.g., Lith minkyt ‘to knead’, Latv mikt ‘to knead’. The sparse attestation seems confined to Baltic, Slavic and Albanian, and may be a regional isogloss, possibly connected with the root ‘to knead’.

See also LINDEN, MELT, SLACK, WEAK. [C.C.]

SOMA see SACRED DRINK.

SOME

*sqmós* ‘some, any; someone, anyone’. [IEW 903 (*sqmo-); Gl 740–741 (*seom-); Wat 57 (*sem-); BK 184
(\textit{son}/\textit{sumr}'some', \textit{OE} \textit{sum} 'someone, a certain one' (> \textit{NE} \textit{some}, \textit{indefinite -some} in 'three-some'), \textit{OHG} \textit{sum} 'some, any', \textit{Goth} \textit{sum}s 'anyone', \textit{Grk} \textit{ἀυτός} 'anyone', \textit{ίμως} 'somehow', \textit{ουδένος} 'no one', \textit{Arm amen(-ain)} 'all, each', \textit{Av/ OPer} \textit{hama} 'anyone', \textit{OInd} \textit{sāmā} 'anyone'). From \textit{sem-'one}. See also \textit{ALONE; SAME}. [C.F.J.]

\textbf{SON}

\textit{putlos}'son'. [IEW842–843 (\textit{put-lo-s}), \textit{Buck} 2.41; \textit{Szem} 3.1]. \textit{Osc} \textit{puklum}'son', \textit{Paellignian (dat. pl.)} \textit{pucllos} 'to the sons', \textit{Arm ustr}'son' (< \textit{ust} remodeled after \textit{dust}=daughter'), \textit{OPer} \textit{puca}'son', \textit{Av puthra}'son', \textit{Oss lyr'd'son}, \textit{OInd putrā}'son'. Distribution suggests PIE status. Traditionally taken as \textit{p(a)nu} 'small' plus \textit{*-tlo} (a diminutive suffix), hence 'small one' or the like.

\textit{*suhṛnas}'son'. [IEW913 (*sūnīs, *sūtīs); \textit{Wat} 58 (*su(a)-nu)]; \textit{Gl} 667 (*suyō-/*suna-); \textit{Buck} 2.41; \textit{Wordick} 149–150; \textit{Szem} 3; \textit{BK} 169 (*sāw/*sā-ma-). \textit{ON} \textit{sumr}'son', \textit{OE} \textit{sunu}'son' (> \textit{NE} \textit{son}), \textit{OHG} \textit{sanu}'son', \textit{Goth sunus}'son', \textit{OPrus so̱tnis}'son', \textit{Lith sūnas}'son', \textit{OCs sīnīs}'son', \textit{OPrus sunis}'son', \textit{Russ syni}'son', \textit{Av hūnīs}'son', \textit{OInd sānūs}'son', \textit{Tochb somāskē}'(young) son'. Cf. also \textit{*suhṛtis}'son' in \textit{Myc i-ju='son'}, \textit{Grk vīōs}'son', \textit{TochA se'son}, \textit{TochB so'y son}. From \textit{*seuhṛ}x-'bear, beget'. Clearly of PIE status.

The widely dispersed \textit{putlos}, which lacks clear morphological analysis, was possibly the earliest PIE designation for 'son', a term that may have included 'brother's son' as well if the PIE kinship system can be reconstructed as of the Omaha type. The biological son was further distinguished by the special designation 'offspring' \textit{*suhṛnas}. Attempts have been made to interpret this derivation as suggesting that \textit{only} the son (in contrast to the daughter) was valued as the true offspring; alternatively, it has been suggested that the more active sense 'to give birth' was also the underlying metaphor in a patrilineal society where it was the males who perpetuated the line and were the progenitors of future generations. See also \textit{DAUGHTER; KINSHIP; YOUNG}. [M.E.H.]

\textbf{SON-IN-LAW}

\textit{*gēmhr̥-tēr}'son-in-law'. [IEW 369 (*<gem(e) campground, GI 214 (*<ghem(-)'); cf. \textit{Wat} 19 (*gema); \textit{Gl} 775; \textit{Buck} 2.63; \textit{Wordick} 241–242; \textit{Szem} 20; \textit{BK} 215 (*\textit{t̥}m-*/\textit{t̥}em-)). Alth \textit{dhēnder}'(Gheg \textit{dhānder}) 'son-in-law', \textit{Av zāmatar}'son-in-law', \textit{Sog z'mi Ti='son-in-law'}, \textit{OInd jāmatar}'son-in-law'. Related are \textit{Av zāma-/yā-}'son-in-law's brother', \textit{Pashto zām}'son-in-law'. A word of the center and east of the IE world. From \textit{*gēmhr̥}'marry'.

\textit{*gēmhr̥-tos}'son-in-law'. [IEW 369 (*\textit{gem(e)}); \textit{Gl} 664; \textit{Szem} 20; \textit{BK} 215 (*\textit{t̥}m-*/\textit{t̥}em-)]. \textit{Bret gever}'son-in-law', \textit{Lat gener}'daughter's or sister's husband' (once sister's son), \textit{Grk γούμπος}'son-in-law; brother-in-law; father-in-law'. A word of the west and center of the IE world and as with the preceding entry, derived from \textit{*gēmhr̥}'marry'.

\textit{*gēmhr̥-tos}'son-in-law' (confused with the root \textit{*gēmhr̥}'beget', cf. \textit{Sog} \textit{ẓy'iy}'son' < \textit{g̣ḥy}-\textit{ko}-, cf. \textit{OInd jatakabirth}). [IEW 373–374 (*\textit{gen}-); \textit{Gl} 664, \textit{Szem} 20, \textit{BK} 215 (*\textit{t̥}m-*/\textit{t̥}em-)]. \textit{Lith žėntas}'daughter's husband', \textit{Latv znuoīs}'daughter's husband', \textit{OCS zeti}'son-in-law', \textit{Rus zjati}'daughter's husband; sister's husband; husband's sister's husband'. From \textit{*gēmhr̥}'marry'.

All of these words appear to be built on the same root \textit{*gēmhr̥} which is usually taken to indicate 'to marry', i.e., the 'one who married, the son-in-law'. However, it has also been suggested that the underlying root meant specifically the payment of the bride-price by the groom (cf. the related Pashto \textit{zāman}'payment'). See also \textit{KINSHIP; MARRIAGE}. [M.E.H.]

\textbf{SON'S DEATH}

A recurrent narrative structure in the epics of a number of IE stocks is the death of a son who is killed unwittingly by his father. The best known Old Irish version involves the hero Cú Chulainn who sires a son abroad in Scotland who is enjoined not to reveal his name until he meets his father. Raised apart, he comes to Ireland in search of his father and when he fails to reveal his name (Conmna) when challenged, he unknowingly must confront his father who is charged with the defence of Ulster and the son is killed in the combat. Similarly, in the Germanic \textit{Hildebrandslied}, the warrior Hildebrant must inadvertently kill his own son Hadubrant. The theme recurs in Russian epic where Ilya of Muron must kill Sokolnichek, his son, who was raised apart. In the Italian epic \textit{Shāhnāmeh} it is Sohrāb who must unknowingly confront his son Rostam. Similar examples are found replicated within these various stocks and in several others, e.g., in the \textit{Mahābhārata} of ancient India Arjuna kills his son Babhrvāhana. The theme, widespread as a folkloric motif, has been ascribed to Indo-European by some. The various versions reflect different motifs associated with the IE hero: the killing of the son effectively places limitations on the achievement of warrior prowess, isolates the hero from time by cutting off his generational extension, and also re-establishes the hero's typical adolescence by depriving him of a role (as father) in an adult world.

[F.P.M.]

\textbf{Further Reading}


\textbf{SOON}

\textit{*moks}'soon'. [IEW 747 (*moks)]. \textit{OIr mō}'soon', \textit{MWels moch}'soon', \textit{Lat mōx}'soon', \textit{Av mōša}'soon as', \textit{OInd mokṣa} – \textit{māktos}'soon'. Although not abundantly attested, this root is at least of PIE antiquity. See also \textit{TIME}. [P.B.]

\textbf{SOUND}

\textit{*dhu}_{ean}'sound'. [IEW 277 (*dhu}_{ean}-); \textit{Wat} 15 (*\textit{dhwen}-);
BK 75 (*daw-/*daw-). ON dyrn ‘din, noise’, OE dynian ‘resound’, dyne ‘noise, loud sound’ (> NE din), Lith dundėti ‘rumble, roar, thunder’, Olnd dhvánati ‘sounds, roars’. Sufficiently widespread on the peripheries of the IE world to make PIE status likely.


*do₂Ion- ‘resound loudly’. [IEW 221–222 (*deup-)]. Latv dupētēs ‘resound heavily’, SC dupēti ‘strike (of noise)’, perhaps TochAB tāp- announce, proclaim. The Tocharian word seems semantically distant. If it belongs here, we have evidence for a word at least of the center and east of the IE world.

See also Animal Cry, Bird Cry, Moan, Noise. [D.Q.A.]

SOUND

SOUPO see BROTH

SOUTH see RIGHT

SOW


See also Agriculture, Seed. [D.Q.A.]

SPACE

*reuh₂-es- ‘open space’. [IEW 874 (*reues-); Wat 55 (*reu-); BK 594 (*raw-/*raw-taw-)]. OIr rōi (DIS lo ‘field’, open land’, Lat rās (gen. rāres) ‘country-side, open fields’, Av rāvah- ‘space’. From *reuh₁- ‘(be) open’, preserved as such only in TochAB ru- ‘open’. Also OCS rāvān ‘level’ and pre-Gmc *reuh₂mo-. ON rūm ‘room’, OIE rūm ‘space (extent or time); room’ (> NE room), nyman ‘clear, open up; retire, yield’, MHG rūm ‘room’, Goth rűm ‘open space’. Widespread and old in IE.

*ghōh₁tos ‘gap, empty space’. [VW 196]. Grk χωπός – χώπα ‘free space, area between, land, etc.’ (cf. also χωπίς ‘without’, χωπίζω ‘separate’), TochA kār ‘hole’, TochB kār ‘pit’. An e-grade (i.e., *gēhērh₁es-) is reflected in Grk ξηπά ‘widow’. Distribution, although limited, suggests IE antiquity.

*telp- ‘have room’. [IEW 1062 (*telp-)]. OIr -tella (do-alla) (< *telp-neh-?) ‘have room for something’, Lith telp ‘find or have room enough; enter’, talp ‘capacity, holding power’, OCS tšapa ‘heap, troop, group’, Olnd talpa ‘bed’, TochB talp- ‘be emptied, purged’ (< *have room [inside]). Distribution suggests PIE status.

SPARROW

*sper- ‘some type of small bird, ?sparrow’. [IEW 991 (*sper-(g)-); Wat 63 (*sper-); Gl 458 (*sper-k-)]. Cono fraw ‘crow’, ON sperr ‘sparrow’, OE spēwrna ‘sparrow’ (> NE sparrow), OHG sparo ‘sparrow’, Goth spara ‘sparrow’, Grk (Hesychius) σπαράστων ‘starling’, TochA spar ‘a kind of bird’, TochB spāra ‘kind of bird’. Although the sparrow is the most commonly seen of birds throughout Eurasia, there is no certain evidence for cognates outside of Germanic although there are phonological cognates in other stocks but with consistently different or, in the case of Tocharian, uncertain semantics that render the meaning of PIE most uncertain.

The lack of a common word for a bird, Passer domesticus, that was little differentiated from India to Ireland is perplexing. It seems clear that the ancient IE tribes abandoned their IE term and took on words presumably borrowed from the indigenous inhabitants of the European or west Asianic regions into which they migrated.

See also Birds. [J.A.C.G.]

SPAWN see FISH

SPEAK

'recall', OPrus wackitrwei 'entice', enwackēmai 'we invoke', Grk εἰνον (< *weik-om * < *e-ue-uk*-om which = Old Indr āst-ravocam) 'spoke', Arm gcem 'call', Av vak- 'say', Old Indr vivakti 'speaks', says', TochB wesk- (< *wesk*-ē/o- 'speak, say', TochAB wēn- (< *wk*-ē/o-) 'will speak, say'. Widespread and old in IE. To be found at least in the center and east of the IE world is the derivative *wek*-es 'speech'. Grk έρως 'speech', Av vačāh- 'speech', Old Indr vacas- 'speech'. Cf. also putative PIE *tp-uk*-tos 'unspoken' which appears in Older anochi (a metrical fault) and Old Indr anukīta- 'unuttered'. Widespread and old in IE. Either this word or the next word would appear to have been the word for 'speech, say, in PIE. There is some evidence that *s(y)er- may have formed the present and *wek*- the aorist of a single paradigm (such is the situation in Greek for instance).

*(s)yer- 'say, speak'. [IEW 1049 (*s yer-), 1162 (*yer-); Wat 68 (*s yer-), 77 (*wer-); GI 200 (*wer-); Buck 18.26, BK 492 (*wer-/*wær-)]. From *yer- (pres. *tjējē/o-). OPrus wertemmi 'we say, Rus vru 'lie', Grk εἶπα 'say', Hit wer(o)-ye- 'call, summon', Falic wērti 'calls'; cf. OE word 'word' (> NE word), Goth wāud 'word', Lith vartas 'name'. From *werh- Grk πήμα 'word, phrase, speech', Av urvata- 'law'. From *s yer- Lat sermo (< *s yermo by dissimulation of the two labials) 'conversation, lecture', sors (< *surti-) 'promise, oracle', Osc svennurr 'to the spokesman', ON sværja 'speak', OE swerian 'speak' (> NE word), OHG sverien 'speak', Goth swartan 'speak', OCS svarti 'desist, keep quiet, svarā 'battle', Lydian sfarwa- 'oath', TochA sirm 'origin', TochB sirm 'origin' (Toch < *sirmHp). In one form or another, extremely widespread and obviously old in IE.

*hīg- (or *hīhīg-) 'say'. [IEW 290 (*hīg-); Wat 16 (*ēg-); Buck 18.22]. Lat āīō 'say', adāgium 'proverb, axāze 'call by name, give a name to', axāmenta 'songs, prophecies', Grk ἢ 'said', ἀναφήγή 'I ordered'. Arm asem (rebuilt from *as 'he said' < *ac) 'say', ar-ac 'proverb', TochB āks- 'announce, proclaim, instruct'. Widespread and old in IE.

*bhēhā- 'speak' (pres. *bhēhād). [IEW 105-106 (*bha-); Wat 5 (*bha-); Buck 18.22, BK 21 (*bha/*bha-)]. Lit for *speak', fātum 'utterance, prophetic declaration, oracle', ON banna 'prohibit, curse', OE bānan (< *bhāj-nū-e-o-) 'summon, proclaim' (> NE ban), bōgan 'boast', Rus bāgu 'relate', Grk φήμη 'say', Arm bāy 'say'. Both Greek and Armenian show a derivative *bhēhāt- 'word' (Grk φῆμη, Arm bāy); Greek and Latin reflect a *bhēhāmēh- 'saying' (Grk φήμη 'saying, speech', Lat fāma 'talk, reputation, fame'; Greek and Old Norse reflect *bhāhūto/ehāh- 'sound, something said' (Grk φωνή 'voice, sound', ON bōn 'prayer, request). At least a word of the west and center of the IE world. One would like to include Old Indr bhāata 'speaks, says, tells' here though the presence of -s rather than -s is not well explained. If the Old Indic word does belong then the distribution of attestations would seem to guarantee PIE status.

*tar- 'speak out'. [IEW 1088-1089 (*tor-); Buck 18.22, Weeks 249]. Mlt tar or mā (< *tor-smen-) 'noise, din, uproar', OPrus tārīn 'noise', Lith taru - tarai 'say', tarmē 'utterance', OCS trūtorā 'sound', Rus torotarī 'chatter, prattle'. Arm tr'tar' 'good speaker', Hit tar- 'say', tarta- 'curse'. Luv toṣāyra- (< *tortore/o-) 'curse', TochB tar- 'a plead, pleadre'. Widespread and old in IE. Often taken to represent a semantic specialization of *ter- 'pierce', but more probably an independent though homophonous root.

*yed- 'raise one's voice'. [IEW 76 (*au- ~ *aued-); Wat 73 (*wed-); Buck 18.21]. OHG lar-wāzan 'deny, disavow', Lith vadinti 'call', name', OCS vadit 'acuse, vada 'calumniy', Grk (Hesychius) ἕδωκα (i.e. ἕδωκα) 'lament'. Old Indr vadati 'speaks, says, raises one's voice, sings', vādāyata 'lets sound, plays a musical instrument', vadman 'speaker, singer', vāda- 'sound, statement'. Widespread and old in IE.

*mlyhur- 'speak'. [Buck 18.21, 18.22]. OCS mlaviti 'create a disturbance', mlūva 'disorder', Rus mlaviti 'say, express, molvi 'talk, report, cry', Czech mluviti 'utter', Av mraoti 'says, recites', Old Indr bavatti 'says', TochB palwam (< *mluh-e-chh-1) 'mourns'. The denasalization of *ml to *bh apparently in both Old Indic and Tocharian is unusual in both languages. The archaic morphology of the Indic and Iranian words suggests a certain antiquity within IE, at least a later word of the IE world.

*sprēg- 'speak'. [IEW 996-997 (*s/ph/ereg-); Wat 64 (*spreg-); GI 101; Buck 18.21]. OE sprecan ~ specan 'speak' (> NE speak), OHG sprehan ~ spehan 'speak', Alb shpreh 'express, voice, utter'. Perhaps related to *sphēk- 'make a noise'. If in any case the agreement in this word for 'speak' by both Germanic and Albanian is a significant shared innovation.

*tarā- 'speak'. [IEW 863 (*tār-); BK 600 (< *tār-/*tāk-)]. OCS rešī 'say', rečī 'speech', roka 'term, rači 'like', TochA raka 'word', TochB rēki 'word'. Perhaps here, but only very doubtfully, is (late) Old Indr racayati 'produces, forms, causes'. The Slavic and Tocharian agreement suggests at least a late PIE word.

*tolk- 'speak'. [IEW 1088 (*tolk-); Wat 71 (*tolk-); Buck 21.18]. Olr ad-tłuchethar 'gives thanks, rejoices', do-tłuchethar 'prays', Lat loquor (or Pre-Lat *tloquor) 'speak', OCS tlka 'meaning, explanation', Rus tok 'sense'. Perhaps we should add Old Indr tarka- 'presumption, conjecture', tarkayati 'guesses, reasons about, intends' but these are more usually, and probably rightly, taken as specialized semantic uses of *terk- 'wind'. Thus a word only of the west and center of the IE world.

*gē(et)- 'say'. [IEW 480-481 (*gē-et-); Wat 25 (*gē-et-); Buck 18.22, BK 343 (< *gē-ē(ōp)-/*gē-ōp(ī)-l). ON kvesā 'say', OE cwedan 'say' (cf. [archaic] NE quoth), OHG quedan 'say', Goth gōban 'say', Arm kočem 'call', Sogd žul 'say', Old Indr gadati (if < *gatā- 'say'). If all of these words belong together, we have evidence for a word of PIE antiquity.

Speak solemnly

*Rēh- 'declare solemnly' (pres. *Rēhiti). [cf.IEW 566 (*kens-)]. Alb thote 'says', Grk καίνη 'sily (i.e., not speaking)', Av sātar- one who commands', OPrs ātāy 'says, proclaims', perhaps Old Indr stās if it means 'we proclaim' and
if < *Réh₁-mes-t₁. Reasonably widespread; clearly old in IE.

*Keh₁₃s- 'instruct' (pres. *Keh₁₃st₁). [IEW 533] (*kàs-). Av sàdh-'instruct, call', OInd sàstî 'punishes, controls, commands, instructs', TochA kàs- (< *Keh₁₃s-) 'chides, reprimands'. An enlargement of the previous word, confined to the east of the IE world.

*Keh₁₃ņs- 'declare solemnly'. [IEW 566 (*kens-); Wat 29 (*kens-); GI 704 (*këns-)]. Lat cēnēs 'proclaim solemnly, judge, assess, estimate, tax', Osc kenzfur 'censor'. Av sànghātī 'proclaims', OInd sàmsati 'recites, praises, declares, voices', sàmsa- 'recitation, invocation, praise'. The variant without -n- occurs in Germanic: OE hertan 'praise', OHG herēn 'call', Goth hazan 'praise'. Related in some way to the previous two entries though just how is not clear. Widespread and old. In all stocks which preserve it there are religious and/or juridical associations with this word which should be reconstructed for PIE.

*Kh₁₄dr₁-s- 'speak a ritual formula'. [IEW 781 (*or-); GI 703 (*or-)]. Lat orō 'address, solicit (the gods)', óracularum 'oracle' (< *place of soliciting [the gods])', Rus oru 'cry out', Grk αἰρό 'prayer', ἄραψαμα 'pray', Hit āriya- 'consult an omen, determine by oracle', OInd áryati 'acknowledges, praises'. Distribution indicates PIE status.

*sek₁w-s 'say, recount publicly'. [IEW 897–898 (*sekʷ-); Wat 57 (*sek-); Buck 18.22]. OIr insce 'discourse', scel 'news, recitation', MWels hebaf 'say', chwedl 'recitation, news', Lat insequre 'say!', ON segia 'say', OE secgan 'say (> NE say)', OHG sàgēn 'say', Lith sakà - sekà 'say', pàsaka 'story, recitation', OCS sočiti 'indicate', Grk ἔννοω 'say'. At least a word of the west and center of the IE world. Whether ultimately related to homophonic roots meaning 'see' and 'follow' cannot be determined.

*(s)pel- 'say aloud, recite'. [IEW 985 (*sipel-); Wat 63 (*spel-); Buck 18.43]. ON spall 'speech', OE spel 'speech' (> NE spell), OHG spel 'speech', Goth spel 'speech, story' (Gmc < *splēnom), Alb ijiale (< *spelnom) 'word, tale, statement', Arm ara-speł 'saying, riddle', without -s-: Latv pelē 'revile, slander', Grk ἀκαλλάω (if < *p-pełnō) 'hold out in promise or threat', TochAB pál- 'praise'. With or without the Greek, sufficiently widespread as to be certainly of PIE date.

*je₄k- 'ex express, avow'. [IEW 503 (*je₄k-); Wat 79 (*yek-); GI 186 (*yekʰ-)]. MWels leith (< *jekti-) 'speech', Lat iocu 'jest, joke', Umb iaka 'prayers', Osc iukleri 'as in the (formula of) consecration', OHG jehan 'express, explain', jiht (< *jekti-) 'expression, avowal', OInd yācati 'asks, solicits, entreats' (< earlier *ofr, present verbally'). Widespread and old in IE.

There is a large number of words that we can reconstruct for PIE that apparently meant either 'speak' (where the emphasis is on the ability to speak) or 'say' (where the emphasis is on the result of speech) or both. Quite probably there were nuances of meaning, e.g., as in NE speak, say, talk, converse, that we cannot recover now. Nonetheless, the large number of verbs with this general meaning does suggest the importance that PIE speakers gave to the ability to speak. Indeed, GI have suggested that in PIE society there was a dualistic separation between speaking/non-speaking which equated with human/animal. They based this on the observation that the root *men- 'think', the rational act which (they suggest) uniquely human, also yields terms for 'speaking', e.g., Lith mitti 'call, name', Latv minēt 'recall, name', ORus mëniti 'speak', Hit membana- 'speak'. While this connection may be so, it must also be noted that there is a proliferation of the noises emitted by animals (barking, howling, grunting, etc.) that might also be attributed to early IE if not PIE itself.

In the exercise of speech, there is a widespread poetic tradition found in various IE stocks that recognizes a distinction between a higher or marked register of speech and a lower, unmarked form as one might, for example, find in NE steed versus the unmarked horse. This distinction is generally presented as a reflection of the differences between the language of gods and that of humans. It is found in the Old Norse Poetic Edda where in the Alvissonot we find that the earth is called jord 'earth' by men but jöld ('land') by the divine Aesir and there are a string of other such examples, e.g., (with the words used by humans/gods) hinnun/hlymir 'heaven', mán/mýlina 'moon', sól/sunna 'sun'. There are some slight traces of this practice in Greek, e.g., Homer, an unidentified bird is called a κινίδιον by humans but a κολίς by the gods. In Old Indic, there are also traces of this practice to be found where the Satapatāḥa-Brahmana employs in opposition the unmarked āśva 'horse' with the divine hava. Rather than human vs. divine opposition, there are traces in Irish literature for the ascription of terms to the various mythical peoples who were believed to have invaded Ireland. Somewhat similar is the Avestan restriction of the reference of certain words to demons as the result of the religious reformation associated with Zaraštā. Thus Proto-Iranian *dāvā- 'god' (cf. OInd deva- 'god') has come to mean at first 'pre-Zoroastrian god' and then 'demon' or karpan-, originally 'priest', is in Avestan 'non-Zoroastrian priest' or 'priest to demons'.

See also ASK; BABBLE; CALL; MURMUR; NOISE; POETRY; PRAY; SOUND; STAMMER. [D.Q.A., J.P.M.]

Further Readings


SPEAR

*gwēr₁u 'spear, spit'. [IEW 479 (*gwēru-); GI 203 (*k₁ér₁u-)]. OIr hur (Dh. bir) 'spear, spit', Wels bir 'spear, spit', Lat veru 'spit', Umb berva 'spit, javelin', *Goth waru 'thorn, spike' (if this hapax legomenon is not to be read partu). Av grava- (< *gwār₁u-) 'staff'. Though the Germanic cognate

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is doubtful, the presence of the original derivative in Avestan as well as Celtic and Italic strongly suggests that this word was once widespread in PIE.

*h₁eiksmovhs- 'spear, pointed stick'. [IEW 105 (*diik-); Buck 20.26]. OPrus aysmsis 'spit', Lith iėšmas 'spit, spear', Latv iesmas 'spit', Grk πυξιός 'spear' (il < *h₁enghes- with new full grade). Cf. also MIr nes(<) 'wound'. A word of the center of the IE world, apparently derived from a *h₁negh- 'stab'.

The range of underlying meanings for this series of cognate sets parallels the range of possible referents in the archaeological record. Terms for 'spear', for example, that also embrace 'spit' (*gʰe₄ru, *h₁eiksmovhs-, and *k₇₄u₄os) may be accommodated by fire-hardened spears (or spits) which are known in the archaeological record since ca 200,000 years ago. Spearheads of stone are known from at least about a 100,000 years ago and during the Mesolithic bone spearheads are occasionally recovered from the Baltic region. Other than the points fashioned from some form of organic material, it is likely that the earliest referents to spears comprise stone spearheads and possibly early metal spearheads. The latter appear by at least 3000 BC. Tanged bronze spearheads are known from the Maykop culture while the Corded Ware horizon yields a number of socketed copper spearheads. Later in the early Bronze Age these are typically made of bronze and comprise one of the most typical weapons across Eurasia. One might expect a certain proliferation of words relating to spearheads since they may have been distinguished according to use, e.g., thrusting spear versus javelin, hafting mechanism (tang, peg, loop, socket), and size.

See also POINT; POST; SHIELD; SWORD.

[D Q A., M E H., J P M.]

Further Reading


SPECKLED


*re₁ 'striped, spotted'. [IEW 859 (*re₁); Wat 54 (*re₁)]. Olr riabach 'streaked, striped', perhaps OE ri (< *nīko-) 'roedeer' (> NE roe), OPrus rothan 'striped', Lith račas 'striped, streaky', Latv ražs 'spotted', Rus rižy 'variegated'. Though the attested reflexes are all independent formations, their geographical distribution would seem to assure at least northwestern status for the underlying *re₁.
?*♣hlu-poik/kos 'many-colored, variegated'. [IEW 795 (*♣hlu-poiko-); BK 54 (*♣hlu/♣hlu-)]. Goth ilu-ilohs 'very diverse', Grk πολυτοιχιός 'very varied', OInd puru-pēsā 'multi-formed'. While the two elements are clearly built from IE forms, the case for the entire formation deriving from PIE is marred by the suggestion that the first element of the Gothic, which is found in one codex, was created to imitate the basic Greek text being translated. An Avestan reference (Yast 5 127) to the goddess Anahita as *pouru-paxsta has been interpreted as being connected here (meaning 'aux nombreux ornements [ou broderies]') but the absence of direct support for this reading of the second element leaves this extremely speculative.

See also Color, Deer. [M.E.H., D.Q.A., J.C.S.]

Further Reading

SPEW

*ŭemhama 'spew, vomit'. [IEW 1146 (*ŭem-); Wat 76 (*wem-); BK 490 (*wum-/*wom-)]. Lat vomō 'vomit', Lith vėmti 'vomit', Latv veint 'vomit', Grk ἔμεω 'vomit', Av vam-vomitt, NPers vātak 'spittle', OInd rāmiti 'vomits, spews out'. Archaic in morphology and widespread, clearly of PIE status.

*(s)pl(e)uhrx- 'spew, spit'. [IEW 999–1000 (*sp(h)uhr(e)-)]. Wat 64 (*spyeu-). Lat spuō 'spit', ON spýja 'spew, spit', OE spilwān 'spew, spit' (> NE spew), OHG spiuwān 'spew, spit', Goth speiwān 'spew, spit', Lith spiaju 'spew', OCS pljujo 'spew, spit', Grk πυγά 'spit out, disgorg', OInd sthitāti's 'spews'. With further extensions we have OE spītan 'spit' (> NE spit), Arm t'uk's 'spittle', TochB pitke (< *pyu-T-sk-o-) 'spittle'. Like the preceding word, widespread and certainly PIE in status. Because of its expressive meaning it has been subject to various morphological extensions and certain phonological deformations.

See also Anatomy. [D.Q.A.]

SPIN see TEXTILE PREPARATION

SPIRIT

*dhroughos 'phantom'. [IEW 276 (*dhrougho-s); Wat 15 (*dhreugh-); cf. Gl 658 (*dēreu̯g̯-)]. Olr airdreç - aurt-drach 'phantom', ON draugr 'phantom', OSax gidrōg 'apparition, deceive', cf. OPers draug - lie, deception, treason', Av dru- 'the Lie' (applying to the principle of 'falsehood of the world to the ḍaevas), OInd drogha - deceiving'. From *dhreugh -deceive'. Though sometimes taken as the same word as appears for instance in Lith draugas 'friend', the semantic difference is very great and the two sets are probably best kept apart.

?*lem- 'nocturnal spirit'. [IEW 675 (lem-); Wat 36 (*lem-)]. Lat (pl.) lemuris 'nocturnal spirits' (< *devourers of the dead'), Grk λάμωα 'female devourer of infants' (borrowed into Latin as lamia 'vampire, female ogre'). Though attested in only two stocks, and then in morphologically different shapes, there is some reason to suppose that the image of the open-mouthed, devouring spirit is a PIE one. One might further compare Grk λαμυρός 'avid, voracious' and Latv lamatas 'mouse-trap'. Further afield yet are comparisons with Wels lēf 'voice', Lith lemūti 'be eager for, yearn', Latv lamāties 'swear at, call names'.

?*dhues- 'spirit'. [IEW 269 (*dheues-); Wat 14 (*dheu-); Gl 388 (*dheu-Hs-)]. MHG getwās 'phantom', Lith dvāsā 'spirit'. Probably independent developments in the two stocks from *dhues- 'breathe'.

See also GOD. [E.C.P., D.Q.A.]

SPIT see SPEW

SPLEEN

*spelgh- 'spleen'. [IEW 987 (*spelghelgh(en, -ā)); Wat 63 (*spēlgh-); Gl 715 (*spēlgh-); BK 651 (*pļo-/*pļa-)]. OIr selg 'spleen', Lat liēn 'spleen', OCS sōzena 'spleen', Grk σπλήν 'spleen, mult', σπλήν [mpl.] 'internal organs, entrails', Arm p’yacln 'spleen', Av svarzan- 'spleen', OInd plīhan- 'spleen'. The PIE form of this word is impossible to reconstruct because of multiple cases of phonological deformation (perhaps taboo-induced?). Whatever its form, clearly the PIE term for 'spleen'.

See also Anatomy. [D.Q.A.]

SPLINTER

*Kokolos 'splinter'. [IEW 523 (*Kk(-)); Lith Šakalys 'splinter, sliver; split wood, firewood', Latv sakali 'logs which are burned in sections to illuminate threshing; resinous chips of pinewood' (Baltic < *kokolos-). OInd sūkala - 'chip, fragment, split, log'. Distribution suggests at least late PIE status.

See also Plants. [P.F.]

SPLIT

*bheid- 'split' (pres. *bhinnēti). [IEW 116 (*bheid-); Wat 6 (*bheid-); Buck 9.27]. Lat fīndō 'split', ON bita 'bite', OE bitan 'bite' (> NE bite), OHG bizzan 'bite', Goth bitan 'bite'. Grk φειδομαι 'spare' (< *sepate oneself from'). OInd bhinnadmi 'split'. Cf. the derivative *bhīṬos. Lat fissus 'split'. OInd bhīta- 'a split'. Widespread and old in IE.

*wag- 'split'. [IEW 1110 (*wag-)]. Wat 73 (*wag-). Lat vāgīna 'sheath', Grk ἐγγυέα 'break apart, snap, crush', Hit wāki 'bites', OInd vājra- weapon of Indra (i.e., 'cudgel', or 'thunderbolt'), TochAB wāk- 'split open, separate but remain attached; bloom'. Reasonably widespread; certainly old in IE.

*skel- 'split (apart)'. [IEW 923–925 (*skel-)]. Wat 59 (*skel- *kel-). Gl 102; Buck 9.27]. Mlr scollit 'chips', ON skīla 'separate, skäl distinction' (borrowed > NE skell, OFr à-sclian 'separate, part', Goth skīla 'butcher', Lith skelū 'chip', Latv sēkā 'chip', OCS skala 'stone' (< *spleter), Grk σκαλίζει 'hoe, stir up', Arm skalim 'split, be splintered', perhaps cēlum 'split' (though the initial consonant is not well
explained), Hit iskalla- 'slit, slash, tear'. Attested widely enough to be of PIE antiquity.

See also Cut. [D.Q.A.]

SPONGY

*syombhos* 'spongy'. [IEW 1052 (*syomb(h)o-s); Wat 68 (*swombo-)]. On svopper 'mushroom' (with difficult *b* rather than *bh*), OE swanm 'mushroom', OHG *swamp* 'fungus', Grk σουφός (supposing *sw-to-s*) 'sponge'. Limited to two stocks, with additional formal problems, this is not probable although still accepted by some as IE.

[J.C.S.]

SPREAD

*peth₂* 'spread out (the arms)' (pres. *petneh₂*). [IEW 824–825 (*pet-); Wat 51 (*pet-); BK 38 (*p[β][l]a[θ]*-/*p[β][l]a[θ]*/-)]. Scots/Gaelic aithemh 'fathom', OWelst etem 'fathom' (Celtic < *peth'imehn₂*), Lat *pandō* 'spread out, unfold, unfold', pateo 'extend, reach to', passus 'step, fathom', ON *làdmr* 'fathom', OE *lædm* 'fathom' (> NE fathom), OHG *fadam* 'fathom', OPrus *pette* 'shoulder', pettis 'shoulderblade', Lith petysis 'shoulder', Grk πτένυμι ~ πτεννύμι 'spread out, unfold, unfold'. Cf. the derivative *petrth₂* in OHG *ledel-gold* 'goldleaf', Grk πτεράλοσ 'leaf, petal'. At least a word of the west and center of the IE world.

*pθlēth₂* 'spread out'. [IEW 833–834 (*.pθlāτ-); Wat 51–52 (*pθlāτ-)]. OIr *læthad* 'extends, expands', Welles *lædhu* 'extend, expand', Lat *plantō* 'plant', Lith *splečti* 'widen, spread out', *pletoī* 'expand', *plantū* 'become wider', AV *frātha* 'breadth', Grk *πλετόν* 'breadth'. Widespread and old in IE. Even more widely attested is the derived adjective *pθlēth₂-πλεθ-θ* 'broad'.

*ster-* 'spread out'. [IEW 1029–1031 (*ster-); Wat 66 (*ster-); Buck 9:34; BK 113 (*t[β][l]a[r]-/*t[β][l]a[r]-)]. From *ster-* we find two enlargements: (1) *ster-*, (pres. *stneu*) and (2) *strelh₂-*. The first occurs in OBret stron *have opened out*, Lat *struō* 'build up', *strēs* 'heap', ON *strā* 'strew', OE *strēowan* 'strew' (> NE strew), OHG *strown- strowwen* 'strew', Goth *straujan* 'strew' (Gmc < *stroege-eh*), Sc *strōva* 'heap (of fruit scattered by a storm)', Grk στρυβαδω 'strew out', Av *starnaotis* 'spreads out', OInd *stptō* 'spreads out'. The second occurs in OIr *fom- *spread *under*, Lat sternō 'spread out' (Lat and OIr < *stren(h)ē*-), with some rebuilding of the root vowel), Alb *shtrij* (> *stren(h)ē*-) 'stretcher', Av *starnaōtis* 'spreads out', OInd *stptō* 'spreads out'. Presently without *-n- occur in OCS *pro-stro- *stretcher', Alb *shite* (> *stetē*-) 'lay down, throw, miscarry'. Though not occurring in Hittite or Tocharian, this verb is otherwise widespread and surely old in IE.

*kλēθ₃* 'spread out flat'. [IEW 599 (*klā-)]. Lith klaju 'spread out, over', Latv klāju 'spread out, cover'; from *kλēθ₃*- we find Lith klūdas 'layer', OCS kladox 'load, layer', from *k(λ)e(h)₂-t* we find ON *hlađ* 'load', OE *hladan* 'load' (> NE *laden*), hloph 'group, troop', OHG *hladan* 'load', Goth ahladān 'overburden', Lith *kloše* 'layer'. A dialectal word of the IE northwest.

*σpθrth₂* 'strew, sprinkle'. [IEW 1556 (*p(h)erHk*-); Wat 64 (*p(h)reg-); Gl 177 ('spθrHk*). Lat spargō 'strew, sprinkle', OE *speare* 'spark' (> NE spark), NE *spinkle*. Perhaps a word of the far west of the IE world.

See also Broad, Extend, Flat, Scatter. [D.Q.A.]

SPRING

*bhrth₁ur* (gen. *bhrth₁un*) 'spring'. [IEW 144 (*bhreyp*); Wat 9 (*bhren*); Buck 1:37; Schriever 253–256, BK 4 (*bar*-/*bar-*). On *brunnr* 'spring', OE *brunn* 'spring', OHG *brunno* 'spring', Goth *brunna* 'spring' (< Gmc *brünnon*), Grk φρόν* 'fountain', Arm altwær 'spring'. From *bhrth₁-ur* 'agitate' as in Lat fervere 'to boil, be hot'. At least a word of the west and center of the IE world. The Germanic forms must have been reshaped on the basis of *bhreyp₂₃₅ᵢ-n-* > *bhrth₁-ur*, from which an n-stem was formed. Perhaps the word has a root without a laryngeal, for which there is other evidence. Mrl nripa 'spring' has been interpreted as *to-ess-bršt-nt*, but if this is correct, it is an Irish creation and not relevant to PIE (cf. topar- 'fountain').

*βαλαίρωs* 'spring'. [Mayrhofer 1:120]. OInd *arma- ~ armaka- 'spring', ToBC * alto* 'spring'. The Old Indic-Tocharian agreement is surely significant of a late dialectal IE word. Although formally similar, European river names such as Almus and Alma and the Lith almes 'stream, pus', almaus 'pus' cannot be placed here with certainty. Semantically related perhaps is Lat aluōs 'spring', Arm altwær 'moist area, slough, swamp'.

*kŋsth₂~ *krosnoθh₂* 'spring, wave'. [Del 185]. On *hphon* 'spring', *hраe - hаem* 'spring' (< Gmc *hраno< *krosn₂*), Grk κρανή (Aeolic) κραίνων 'spring' (there are problems deriving Grk *φρόν* from *krosn₂*, κρουρόν 'spring'. For the fluctuation in meaning between Germanic 'wave' and Greek 'spring', cf. NHG well 'wave': NE well'. The word could well be PIE.

*hθču₂* 'spring'. [IEW 78 (*u(e)-*). BK 382 (*haw/- *haw-*). Lith *Avantā* (river name), Latv avūts (~ *aʊgon*), *olv* 'spring', Old *avata- ~ avata- 'spring, fountain'. The Baltic forms could derive from *aʊgon*. The Old Indic word has been considered to be non-IE because of its t. Further connections, like a Gaulish river nymph Aventia, are even more uncertain as is the case for this being PIE.

*θwθy* 'spring'. [IEW 47 (*g(w)-*). BK 361 (*q₂ur-/*q₂ or-*). OE ge-colen-lærhp 'proud', OHG quella 'source, spring'. OHG *quellon* has been connected with OInd gal(ί)- 'drip', but this verb is late. MWelsh baθ 'efflux of a river from a lake' has been derived from *helago-< *pθelh₂*). Quite uncertain is Thracid κέλλα- in place names like Κέλλαι and Grk Δέλλαι 'spring of the Fryx river'. Too uncertain for ascription to PIE.

See also River, Sea, Water. [R.S.PB]

SPRING (SEASON) see SEASONS
SPRINKLE

*pers-* 'sprinkle'. [IEW 823]. ON *fors - foss* 'waterfall', Lith *puršlas* 'drive; spray', OCS *prächt* 'dust' (< *porsos*), prst( < *prsi-*) 'heaped up soil', Slov *př* 'dust, ash', *přati* 'strew; drive', Hit *pappars* - 'sprinkle', Olnd *prsät* - 'drop', pršt* - 'sprinkled, speckled', TochAB *prs*- 'sprinkle' TochB *prants*- 'spatter'. Widespread and old in IE.

See also POUR, RAIN. [D.Q.A.]

SPROUT see LEAF

SQUIRREL

*uerer*- 'squirrel (*Sciurus vulgaris*)'. [IEW 1166 (*uerer*); Wat 77 (*wer-); Gl 441 (*we(i)wer-*)]. Nlt *iora rua* 'squirrel' (*rua 'red'), ScotsGaelic *feòrag* 'squirrel', Lat *viverra* 'ferret', OE *eowera* 'squirrel' (< *oak-squirrel*), OHG *eihwurnô* 'squirrel', OPrus *weware* 'squirrel', Lith *veveris* - *voveris* - *vaiveris* 'squirrel, polecat', Latv *vēvera* 'squirrel', ORus *vēverica* 'squirrel', OPers *varvarah* 'squirrel'. Widespread and old in IE. However, both the meaning in Latin and the Germanic compounds 'oak- 'squirrel' suggest that *uerer-*, or whatever its exact shape, may have meant something more general than just 'squirrel' in PIE.

The red squirrel (*Sciurus vulgaris*) is now the most commonly encountered wild mammal across the temperate forest regions of Eurasia. Although exploited in Russia today for its fur, the numbers of squirrel bones from Neolithic archaeological sites rarely suggest anything other than chance capture; occasionally, in the Ukraine for example, the number of squirrel bones may be comparable with those of hare. The squirrel was once employed to exclude the Pontic-Caspian steppe from the homeland area because the squirrel is not resident in the steppe lands; however, it is known in the forest-steppe of the Ukraine and the southern Urals. Its distribution continues across the forest zone to China and Japan. The red squirrel is thus absent from Iran. There the Persian squirrel (*Sciurus anomalus*) is known.

See also MAMMALS; TAIL. [D.Q.A., J.P.M.]

SREDNY STOG CULTURE

The Sredny Stog culture flourished in the middle Dnieper-lower Don area c 4500–3500 BC. The culture is known from about a hundred sites, primarily situated along the river banks of the Ukraine and southern Russia. Settlement remains suggest small social groups who built both sub-surface and surface dwellings. The economy included domestic cattle, sheep/goat, pig and dog and wild animals, predominantly red deer, roe deer, wild boar, elk, otter, wolf, fox, beaver and wild ass. There is also considerable evidence for fishing. The abundance of horse remains on some Sredny Stog sites along with objects which have been interpreted as cheek-pieces has given it special prominence with regard to the origin of horse domestication, widely seen as one of the more diagnostic markers of the early Indo-Europeans. The technology includes pointed-
based vessels with shell temper, large flint knives, and antler tools that have been variously interpreted as mattocks, hammers or "battle axes". Some grinding stones and querns have been recovered and indicate plant processing, and small amounts of domestic plants have been recovered, i.e., emmer wheat (Triticum dicoccon), barley (Hordeum vulgare), millet (Panicum miliaceum) and the pea (Pisum sativum). Burials are in small cemeteries, graves sometimes arranged in small groups or, occasionally, with several burials in the same pit. The deceased are in the supine position with their legs flexed and accompanied by ochre and occasionally grave goods. A recent review of the various sites attributed to the Sredny Stog culture by Yuri Rassamakin has led to the suggestion that both the chronological and regional distinctions are so great among various sites attributed to the Sredny Stog culture that the name itself should be regarded as merely a cover term for at least four distinct local archaeological cultures (i.e., the Skelanska, Stogovska, Kvitanska, and Dereivka cultures).

The Sredny Stog culture was in direct contact with the settled agriculturalists of the Tripolye culture to its west. In terms of material culture, economy and burial rite, the Sredny Stog culture is widely regarded to be related to the contemporary Khvalynsk culture of the middle Volga and to have played an important part in the formation of the Yamna culture. According to the "Kurgan solution" to the homeland problem, an expansion of the Sredny Stog population provided one of the earliest waves of Indo-European speakers into southeast Europe.

See also Dereivka; Horse; Khvalynsk Culture; Kurgan Tradition; Yamna Culture. [J.P.M.]

Further Readings

SRUBNA CULTURE
The Srubna culture is the middle Bronze Age (sixteenth-twelfth centuries BC) culture of the steppe and forest-steppe region north of the Black Sea and Caspian Sea. The Srubna culture, which takes its name from the use of timber constructions within the burial pit (Rus: srb 'timber framework'), was the successor to the earlier Yamma, Catacomb and Poltavka cultures and is co-ordinate, if not closely related to the Andronovo culture east of the Caspian. Settlements consisted of semi-subterranean one and two-roomed houses. More obvious are its cemeteries consisting of five to ten kurgans. Burials included ritual hearths, and the skulls and forelegs of animals; in addition to timber structures, stone cists were occasionally

Spl. a. Distribution of the Srubna culture.

Spl. b. Srubna village of Usovo Ozero.
employed. The presence of grinding stones, bronze sickles and not only domestic cattle and sheep but also the pig indicates mixed agricultural-stockbreeding settlements. Historical testimony indicates that the territory of the Srubna culture was later occupied by Kimmerians and Scythians. For this reason, and its links with the Andronovo culture, the Srubna culture has been seen as the archaeological correlate of those Iranian dialects that first spread through the north Pontic region. The culture has also been regarded by some as the staging area from whence Iranians migrated across the Caucasus into northwest Iran. The origins of the Srubna culture are very much disputed with at least three hypotheses: local evolution over the entire region north of the Black Sea; restricted origin in the Volga region and expansion westwards; and origin in west Siberia, related to the Andronovo culture, followed by a migration into Europe.

See also Andronovo Culture, Catacomb Culture, Poltavka Culture, Yamna Culture.

STAFF see POST

STAKE see POST

STALK

*Kh2lo-om* (gen. *Kh2lo-mos*) 'stalk, stem, straw'. [IEW 612 (*khlo-m-); Wat 3 (*khlo-*)]. Lat *calamus* 'stalk, stem, straw', ON *halmr* 'stalk, stem, straw', OE *halhm* 'stalk, stem, straw', OHG *halm* 'stalk, stem, straw', OPrus *salme* 'stalk, stem, straw', Latv *salmis* 'stalk, stem, straw', OCS *slama* 'stalk, stem, straw', Rus *soloma* 'stalk, stem, straw'. Grk *k5lXouc* 'reed'. TochA *kulmamts* 'reed, rush'. Widespread and reflecting an ancient morphological class. Clearly PIE in date.

*Kh2loulos* 'stalk'. [IEW 537 (*kau-l-); Wat 27 (*kau-*)]. Mr *cattle* (< *kaultnjo-*) 'post'. Lat *calvis* 'stalk', OPrus *caulian* 'bone', *caules* 'thorn', Lith *kulas* 'bone', Latv *kals* 'bone' (the Baltic accent is secondary). Grk *kavloios* 'stalk'. A word of the west and center of the IE world. Younger, in appearance at least, than the previous word. From *ku*-'hollow'.

See also Plants, Vegetables.

STAMMER

*balba- -- *balbal- -- *barbar- '± stammer, speak in a foreign way'. [IEW 91-92 (*balbal-); Wat 4 (*baba-*)]. Lat *balbus* 'a stammerer', *balbus* 'stammer', ME *bab(e)len* 'babble' (> NE *babble*), Lith *blebenti* 'stammerer', *blebysi* 'babble', Rus *bolobolit* 'chatter', Czech *bebati* 'stammer', Grk *ba6b6bapto* 'non-Greek speaker', OInd *barbara- 'stammerer, non-Indic speaker', *balbal-en* 'stammers'. Cf. Grk *ba6b6bapto* 'stammer'. Obviously an onomatopoeic formation, but one likely to be old in the IE tradition even if continuously remade. The agreement of Greek and Old Indic in the use of this formation for a speaker of a foreign language is significant.

See also Babble, Murmur, Speak.

STAND

*(s)teh2* 'stand (up)'. [IEW 1004-1010 (*sta- -- *st-); Wat 64-65 (*sta-); Gl 49 (*st(a)-)]; Buck 12.15]. Descendants of a present *stiteh2* are seen in Olr *sissedar* 'stands'. Lat *sitso* 'stand up', Grk *i^rjru* 'stand', Av *hitat* 'stands', Olnd *tishtati* 'stands'. Nasal presents, possibly as old as late PIE, are seen in Lat *prae-stinare* 'establish a price, sell', OPrus *postan- 'become', OCS *stano* 'take one's place', Alb *shoje* 'augment, increase', Grk *skevi* 'place', Arm *stamn* 'arise; acquire', AV *sta-stanva* 'come forward'. A late PIE dialectal stative *sta-: is to be seen in Lat *stō* 'stand', OCS *stop* 'stand' and probably OHG *sten* -- *stān* 'stand'. Other presents are represented by ON *standa* 'stand', OE *standan*
'stand' (> NE stand), OHG stantan 'stand', Goth standan 'stand', Lith stoją 'step', OCS стати 'take one's stand', TochB сте (< *stha) 'is' (pl. stare 'are'), taka 'will be'. Hit *tyezi 'steps' and tittanu 'set up' are sometimes put here but are more likely to be from PIE *dheti- 'put'. Practically universal in PIE, with numerous enlargements and derivatives, and certainly ancient.

*stembh-- 'make stand, prop up'. [IEW 1012-1013 (*steh(h)-)]. Lith stembtis 'produce a stalk (of plants)', Grk ὁστεμπήρις 'imperturbable, firm', Av stambhāna- 'support', OlInd stabhānēi ~ stabhānī - stābhāte 'prop, support; hinder, restrain', stambha- 'post', TochAB stām- 'stand', TochB ści(n)- (< *scam-n-) 'bind [something] (up/together), tie [something] into a bundle; bind [something] on; establish; proclaim; produce [of fruit]'. At least a word of the center and east of the IE world. Related to *steh- 'stand'.

See also STIF. [A.D.V.]

Further Reading

STAR

*(st)ēstr-. -(er)- 'star'. [IEW 1027-1028 (*stér-), Wat 66 (*ster-), GI 591-592 (Hasst-er-), Buck 1.54]. MLr ser 'star', Wels (collective) sér (singulative) seren 'star', Bret sterilenn 'star', Lat stella (< *stér(o)lā, *stel-nā) 'star', ON stjarn (lem.) 'star', OE storr (masc.) 'star' (> NE star), OHG sterno 'star', Goth (lem.) stano (< *ster-on) 'star', Grk (masc.) ἀστήρ 'star', Arm asl 'star', Hit hastezzi (< *(st)estar- 'star', Av (acc.) staram 'star', OlInd (pl.) tāraḥ 'stars' (inst.) sthiphī, TochA (pl.) śren 'stars', TochB (lem.) scire 'star'. The initial *(st)ēs- is now certain which makes the commonly accepted OlInd tāraḥ 'stars' difficult. Grk τείχεω 'signs, portents' has nothing to do with the word for 'star' while Grk ἀστεροπήν 'lightning' is of non-IE origin. The initial *st- is decisive in establishing further connections to which a derivation from the root *(st)estar- 'burn' fits perfectly for what is obviously the PIE word for 'star'.

This word has long been cited by proponents of IE-Semitic (or Samarian) relations and attempts to locate the IE homeland in the vicinity of the Near Eastern cultures. The similarity between the IE form and the Semitic *at-tar ~ *at-ba'ar 'goddess (l)star' > star (actually Venus) has been commented upon many times as a diacritic linking the earliest Indo-European speakers with the Near East where Semitic is generally regarded as the donor language. Igor Diakonov has criticized, the comparison as the underlying meaning of the word in Semitic concerned a specific deity who was then identified with a specific celestial object (when Akkadian Ėstar became identified with the Semitarian Inana who was associated with Venus) and it never meant 'star' in general. More importantly, if PIE *(st)estar- 'star' < *(st)estar- 'burn', there is no reason to seek a Semitic origin for this word.

See also BURN. [R.S.PB.; D.Q.A.; J.P.M.]

Further Readings


STARLING

*(st)oros- 'starling'. [IEW 1036 (*storos- ~ *stornos), Wat 67 (*storo-)]. Lat stornus 'starling', ON stari 'starling', OE stear 'starling (> NE star-ling), OHG stara 'starling', OFR starnite 'gull'. At best a late "westernism" in IE. Other stocks derive their terms from different roots, e.g., MLr tuit 'starling' from the root that generally means 'thrust' or Grk (Hesychius) σταράσεις 'starling' (and by metathesis ψέας 'starling') from the polyvalent root that also provides 'sparrow' and other birds. Armenian has tarnaw, literally 'flocking bird'. The starling differs from the other black birds such as the crow and raven particularly in behavior for it is less heavy-footed, more active, and raises more young. The bird is as ubiquitous as the sparrow.

See also BIRDS. [I.A.C.G.]

STEAL

*(st)eh- 'steal, bring secretly, conceal' (pres. *teh4-e). [IEW 1010 (*stār-), GI 651 (*stāhi-), Buck 11.57]. OCS taja 'hide', Hit tāyezi 'steals'. Cf. the widespread derivatives: (1) *(st)ehaiti- 'secret' (< *(st)ehaitis 'thief' in OCS taj 'secret', Grk τοιοῦν ὄνος 'saint, roa', Av tāyu- 'thief', OlInd (s)tāyu- 'thief', TochB ene-stari in secret', (2) *(st)ehaitis 'thief' in OIr tāid 'thief', OCS tāi 'thief', Grk τάουατι 'deprive, rob'. Widespread and old in IE.

*ster- 'steal'. [IEW 1028 (*ster-), Wat 66 (*ster-), Buck 11.56]. MLr serb (< *steros) 'thief', Grk ἀστερω 'deprive, rob', στέρομαι 'be deprived', cf. ON stela 'steal', OE stelan 'steal' (> NE steal), OHG stelen 'steal', Goth stulan 'steal' which may have Gmc *[-l] rather than *-r- by crossing with *kel-deceive'. Even without Germanic the existence of this word in both Greek and Celtic would seem to assure its PIE status, at least in the west and center of the IE world.

*mus- 'steal' (pres. *musnehai). [IEW 743 (*meu-), Buck 11.46]. OHG (Lex Salica) chro-mıůsədů 'grave-robery', OlInd musati ~ mosat 'steals', TochB mus- (pres. musna-) 'steal'. The more original meaning is probably to be seen in TochAB mus- 'lift, move (aside)', from which the meaning 'steal' had developed even in late PIE. Widespread and old in IE.

*teubh- 'steal'. ON þjofr 'thief', þjof 'thief', OE þefol 'thief' (> NE thief), OE þefol-feoh 'stolen goods' (< *thelf-possession'), OHG ðibō 'thief', ðuha 'thief'. Goth þibis 'thief', þibi 'thief', þibijo 'secretly', TochB cowai tark- 'steal' (lit. 'commit a thief'). Although limited to Germanic and
STEAL

Tocharian, it would appear that this word is at least of late PIE status.

Words for 'steal' in PIE are characterized by their connections with secrecy and stealth—the characteristics that distinguish stealing in the PIE legal system from (open) robbery.

See also Touch. [D.Q.A.]

Further Reading

STELAE

During the Copper Age (c 4000–2500 BC) various regions of Europe carved and erected stone stelae. These are primarily concentrated in southern France, the Alpine regions of Italy and in the southern portion of the Black Sea steppe and north Caucasus. During the Bronze Age stelae were also erected in Asia, particularly in the Minusinsk basin. The European stelae vary greatly in the degree to which they are representational of the human form, which gender (if any) they depict, and in terms of the cultural content of what is engraved upon them, e.g., clothes, weapons, animals, geometric patterns. Many of the west Mediterranean stelae play little or no role in discussions of the early Indo-Europeans as they are assumed to depict female deities which cannot be convincingly accommodated by our evidence for Indo-European religion.

Some of those found in northern Italy and all of those recorded in the Black Sea area, however, have been regarded as part of the overall evidence of the early Indo-Europeans.

The Italian stelae arise out of a well known tradition of engraving images on stone that is found in the Alpine region, e.g., the Val Camonica rock art with its numerous images from the Neolithic through the historic period. Although the stelae are normally chance finds, there is some evidence that their original context may have involved some form of sanctuary where they were erected in a circle.

The Ukrainian stelae are divided into two broad classes. The great majority of the some three-hundred stelae known so far are simple stelae which carry very little detail other than a vaguely anthropomorphic shape with a slight projection where the head should be. These occasionally bear some ornament, e.g., belts, "foot-prints", and are often found as covering slabs in Yamna burials. It is suspected that this roofing of burial pits was not their original function but that they were expropriated for use in burials by the Yamna people because of their slab-like shape and also because they may have retained sacred connotations. Their original context is only hinted at by a few sites which have revealed stelae arranged in a large circle which suggests that they originally served in some form of sanctuary. Dmitry Telegin has suggested that these stelae were originally carved and erected by the Kemi Oba (and Lower Mikhaylovka) culture of the southern Ukraine and Crimea and then reused by the tribes of the Yamna culture.

The second class of Ukrainian stelae are the statue menhirs which only comprise a little more than twenty examples. These may depict various features of the human anatomy (in order of frequency: eyes, nose, arms, hands, mouth, shoulder-blade, breasts, ribs, spine and genitalia) and also weapons, animals, and other scenes. These are generally chance finds although several have been recovered from a mortuary (Yamna) context.

The reason for assigning an IE identity to the makers of these stelae are several. In some instances, the form or ornament of the stelae are regarded as expressions of IE religious or social concepts. In addition, the discovery of a widespread tradition of stelae in the north Pontic region, which itself is often presumed to have been occupied by the earliest Indo-Europeans, naturally invites the application of an IE interpretation to the stelae.

Indo-European Motifs

Discussions of Indo-European motifs on the Copper Age stelae are generally prompted by two lines of interpretation: Indo-European cosmic motifs and the specific character of various Indo-European deities who are believed to be depicted on the stelae. The cosmic motifs concern in particular an origin myth that derives the creation of the material and social world through the dissection of a primordial giant, or, to give it its Vedic name, the Purusa. Such an interpretation has been applied to both the north Italian and Pontic stelae by several writers. M. Piantelli, for example, has argued that Purusa-stelae can be seen in those that have a solar disc in the top of the stela where the sun is regarded as the allomorph of the eyes. The multiple arms that appear on some primordial giants is believed to be reflected in the engraving of multiple weapons on the stelae (in the Italian case these are frequently daggers or halberds; in the case of the Ukrainian stelae the "multiplicity" of the divisions of the giant are supposedly indicated by the use of several stelae to cover graves of the Yamna culture). A tripartite division of the world has also been argued for the Italian stelae by E. Anati's suggestion that they are carved in three registers which correspond to the three divisions of Indo-European cosmology: the upper register carries a solar disc or face which should be equated with the heavens, the middle register finds weapons or pendants (symbols of authority) which are believed to reflect the earth and world of human activities, and the lower part of the register, when not simply inserted into the ground, may show wheeled vehicles, snakes, plows, or other symbols which have been assumed to reflect the underworld of the Indo-Europeans. The fact that this interpretive key can be applied only to some stelae and that the various motifs allegedly deciphered are so vague (or hardly specific enough to be regarded as strictly Indo-European) renders the cosmic interpretations highly speculative.

It has also been suggested that the stelae can be interpreted
as Indo-European deities, specifically solar deities, thunder- or war-gods, etc. Such interpretations are also extremely problematic since there is little or no evidence that there are recurring sets of motifs that are exclusively found on some stelae rather than others. Other than anatomical features, the statue menhirs of the Ukraine depict necklaces or pendants, belts, axes, (shepherd's) crooks, bows, daggers, maces, spears, animals (horses and or dogs) and what are taken to be “foot-prints” or, perhaps, representations of shoes or sandals. These do not seem to occur in combinations that reflect a set of motifs ascribable to a particular deity to the exclusion of any other. If one interprets the statue menhirs as deities but cannot distinguish one from another (or must assume that each reflects a different deity) then this interpretation must remain entirely speculative without the additional support of specific patterning.
One possible interpretation of the Ukrainian statue-menhirs is that they may reflect a royal figure. A recurrent motif observed in both Indic and Irish tradition associates the inauguration of a king with the presentation of three talismans: a garment (indicating the priest class), weapons (the warrior class) and shoes or sandals (the feet as symbols of fertility and the third Dumezilian function). As both weapons and the "shoe" motif are found together on six of the stelae, this may provide at least the beginning of an interpretative basis. On two occasions these combinations are augmented by the portrayal of a crook which might then fulfil the expectations demanded by the literary evidence (assuming one can replace the vestment of the priest with a shepherd's crook) but again the recurrence of such a pattern is not so widespread to render it particularly persuasive.

In general, while the stelae have been regarded as representative of Indo-European ideology, there is no clear "system" that supports such conclusions. Most interpretations derive from individual motifs, e.g., the ax or spear of a putative thunder-god, and as the iconography of the Near East emphasizes, such deities and symbols are by no means exclusively Indo-European.

See also COMPARATIVE MYTHOLOGY, COSMOGONY, KEMI-OBYA CULTURE, YAMNA CULTURE. [J.P.M.]

Further Readings

STEP

*ghengh- 'step, walk'. [IEW 438-439 (*ghengh-); Wat 22 (*ghengh-); Buck 10.45]. OIr cingid (< *kengh- by dissimilation from *ghengh-) 'steps'; Wels thuggungu 'amble', ON ganga 'go', OE gangan 'go', OHS gogan 'go', Goth gagan 'go', Lith žengu 'stride, step', Av zanga- 'ankle', Olnd jambus- 'step, wingbeat'. Widespread and old in IE. The word for 'buttocks' is related.


*spleigh- 'step, go'. [IEW 1000 (*spleigh-)]. Grk πλειόσωμα 'stride out', πλαίος 'space between the thighs', Olnd plehate 'goes'. Cf. OIr slasait (< *spleigh-s-ont) 'thigh, shank' and possibly OIr lingid (if < *pli-n-gh-) 'jumps'. Its attestations are widely spread; probably a word of PIE status. See also BUTTOCKS. Go. [D.Q.A.]

STEP-FATHER see KINSMAN, UNCLE

STEP-MOTHER see AUNT, KINSMAN
STIFF

*ghers-* 'stiffen (of hair), bristle'. [IEW445-446 (*ghers-); Wat 22 (*ghers-); BK 233 (*gur-*gor-)]. OE gorst 'gorse', Lat horreo 'bristle', horridus 'rough, shaggy, bristly', Av zarṣayama- 'leathers upright', Olnd hárṣati ~ hárṣate 'bristles, becomes erect or rigid, becomes sexually excited', hárṣa- 'bristling, erection (especially of hair in the thrill of excitement). Certainly related is *gher- 'hedgehog' and less certainly so *ghor- 'young pig'. The distribution would seem to guarantee PIE status for this word.

*(st)erh-* 'stiff'. [IEW 1002 (*st-)er-]. ON starr 'stiff', OE starian 'look at, stare' (> NE stare), OHG starēn 'stare', OPrus stūrnawiskan 'sternness', Lith starinu 'tighten, stretch, must stiff', OCS stradâ 'hard work', Grk στηρός 'stiff, firm', possibly also Wels trin 'battle', TochA tsar 'hard, rough' and TochB sceire 'hard, rough'. While best attested in the northwest, the secure Greek and potential Tocharian connections support PIE status.

*(st)hë- 'become hard, fixed'. [IEW 1010-1011 (*stai-)]. Lat stīrus 'ciccle', Frij strir 'stiff', Lith storas 'stiff', Olnd styřate 'becomes fixed, čaugulatet, hardens', stīyā- 'stagnant water', stīma- 'heavy', stīmita- 'unmoving, fixed, silent', TochB strask-~be silent'. An extension of *(st)hë2- 'stand'. Sufficiently widespread to be assured of PIE status.

*(st)hjeug-* 'stiff'. [IEW 1033–1034 (*st)hjeug-]. Lith stukti 'stand tall', Russ stogнут 'to freeze' (ε *become stiff?), TochB staukk-~sbeel, blot'. Probably another extension of *(st)hë2- 'stand'. A word of the center and east of the IE world. See also FIRM, STAND. [J.C.S., D.Q.A.]

STIR

*menth₂- 'stir' (pres. *mptneh₂- ~ *mptnhjë-o-). [IEW 732 (*menth-); GI 49 (*month-H-)]. ON mōndull 'handle on a pestle', Lith mēsti 'stir, agitate', OCS městi 'disturb, molest', motati sē 'be agitated', Rus motati 'wind, shake, vanish', Olnd mānthu- ~ mathn̂i- ~ mathn̂ati 'whirls, whirls, churns; hurts, destroys', TochAB mant- 'remove (utterly) from its place, destroy; pour out, disturb, meddle with; fall into misfortune, be irritated, feel malice' (TochB pres. māntanā-~ mantān̂-). The exact double morphological equation in OInd mathn̂a-~mathn̂ati and Toch mantānā-~mantān̂- is remarkable. The first pair reflects PIE *mptneh₂- while the second reflects PIE *mptnhjë-o-. Widespread and old in IE.

*jeug-* 'stir up, incite, be unquiet'. [IEW 512 (*jeug-)]. MGH juchen ~ jouchen 'drive, hunt', Goth jukan 'light, struggle', Arum yuczum 'incites' (< Iranian), Av yaażaiti 'stirs oneself up', TochAB yuğ- 'overcome, conquer; surpass'. The geographical distribution would seem to assure PIE status.

See also MIX, SET IN MOTION, SHAKE. [D.Q.A.]

STONE

*’hékmon* 'stone'. [IEW 19 (*ak-men-); Wat 1 (*ak-men-); GI 575; Buck 1.44]. Lith akimu 'stone', OCS kamy 'stone', Grk ákmuon 'anvil', Hit aku- 'stone', Av asman- 'stone, heaven', OPer asman- 'heaven', Olnd asman- 'stone' (a meaning 'heaven' is disputed). Except for the Hittite form, the others point to *hékmon*. In Baltic and Slavic *k* was regularly depalatalized before a resonant, Lith asmuno 'sharpness' is a recent formation with a different meaning. The Slavic forms OCS kamy 'stone' and SC kamen 'stone' are isolated and point to *kehmon* which would seem to represent a metathesis of *hēk-*, which would also explain the non-palatal velar. Attempts to connect Germanic words for 'hammer' here (e.g., OE hamor) would require *khu-m-* but an *m*-suffix preceded by the *m* of *-men-* is very improbable and the connection is semantically unlikely. These theories should be abandoned as well as those which connect Gothic himins 'heavens', etc., with this word.

A perennial problem has been the association of this word with the meaning 'heaven' as well as 'stone'. Even if we may exclude on formal grounds the Germanic terms that indicate 'hammer, sky', e.g., Goth himins 'sky, heaven', there is still evidence relating to 'sky' in Avestan and possibly Old Indic where the range of meanings for asman- range from 'rock, cliff, stone tool' allegedly to 'sky'. Other celestial connotations are taken from a Greek gloss of Eustathius where óxymov, 'the sky'. It was once believed that this association could be best explained by presuming a PIE concept of the heavens as a stone vault or, more recently in Gl, that the PIE-speakers envisaged mountains and cliffs (of stone) ascending into the heavens. On the other hand, J. P. Maher has argued that the connecting link between the concept of stone and sky was the polished stone axe and the widely attested folk belief that such axes were 'thunder stones' that had fallen from the sky, cf. Lith Perkăn̂o akmuo 'Perkunas' thunder-bolt' or the Olnd asman which may also refer to Indra's 'thunder-bolt'. But given the fact that PIE technology also included the manufacture of polished stone axes, it would seem highly unlikely that the early Indo-Europeans were unaware of their true origins.

*përu* 'rock'. [Del 188]. Hit përu (neut.) peru(na) -(com.) 'rock', perunant- 'rocky', AV paurvatā- 'mountain', Olnd pāvarta- (< *peru-git-o-) 'rocky, rock, mountain'. If the connection is correct, as it seems, the word is of PIE date.

*p'hoand-* ~ *'händ-* 'stone, rock'. [IEW 778 (*'ond-); GI 574 (*ont'-)]. Mit ond 'stone, rock', Olnd adri- 'stone (especially one used in pressing soma)'. Poorly attested and uncertain.

*leyanks* 'stone'. [IEW 683 (*'leu-); Wat 37 (*'leu-). Beekes 17]. Olr lie, (gen. liac) (< *l'yank-) 'stone', Alb le 'rubble, mass of stone', Myc ta-eja ('lakia') 'of stone', Grk λάκας 'stone'. The connection should be abandoned as the Greek word has no *y-* and its ā and the Irish i cannot be reconciled. For Grk λάκας a PIE origin has been claimed from **(e)h₂y₂-.

*Korkeh₁-* 'pebble, small stone'. [IEW 615 (*'korka*]). Grk kορκάλη 'pebble', κρύον, κρισκαί 'pebbles(s)', Olnd särkar 'pebbles, gravel, sugar' (whence NE sugar). The Greek form is supposed to exhibit metathesis but the suffix does not agree with the Old Indic word because of the Grk a. There are comparable forms in non-IE languages so this is probably a substrate word. For the Old Indic word, an origin in the

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Munda languages has been suggested. Therefore, both the connection between the two words and the IE origin is unlikely.

*pelos- (gen. *peloś) 'stone, rock'. [IEW 807 (*pel|e-+), Wat 49 (*pelis-); Gl 648 (*plos-), BK 36 (*plos/|al/*plal-)].

Olr ail (< "pal-i-"> 'cliff', Biol all (< "palo-" > *peloś?) 'cliff', ON fail - fell (< *fellaz- > 'peloś-') 'cliff', OHG felis (< *plele/ isa- > "paloś-?" ) 'cliff', Macedonian Пелла (place name, explained as 'stone'), Grk (Hesychius) Πέλλα 'stone', Pashto پلسا 'steep slope', Kati پل 'cliff, mountain', Waigali پلاس 'rock', Olnd плашанас- , паси- 'stone'. If Mr ail represents *palo-, the a of all cannot derive from *peloś- There is evidence for a pre-Romance *pal(l)a-. The Germanic words can be *peloś- beside *paloś- (gen. *paloś-) or *peloś- (gen. *paloś-). The Macedonian Пелла is probably a substrate word, cf. Пеллыа beside Пелла (and probably феллеизи 'stony land'). Both the European and the Indic words appear to be non-Indo-European.

See also Ax. [R.S.P.B.]

Further Readings

STORK

*sturkaz- 'stork'. [IEW 1023 (*stur-); Wat 66 (*ster-)]. ON stork's 'stork', OE stork 'stork' (NE stork), OHG storah 'stork', Hit tardi 'stork'. The related Arm tarehn 'stork' is a loan from an Anatolian language. Witczak has suggested that the underlying Germanic form is *sturkaz which should derive from PIE *stugās- 'stork', cf. Grk πελάγος- 'stork' (πελ- 'white' + ἄρος- < *stugās), Olnd στιγα- 'wading bird', thus perhaps of PIE status. In other IE languages the term for 'stork' is from random sources, e.g., Lat cicônia 'stork' (< *kan- > 'sing'). Indic has no preferred term, and indeed the common white stork comes to India only during the winter months. When these large birds have a common Indic name, it is usually in reference to their physical features, e.g., 'red-bill' and 'white-neck'.

The white stork (Ciconia ciconia) is a noticeable bird and one fondly thought of. It was frequently confused by the ancients with the swan and the heron, also large white birds. In addition to the rather common white stork, there is a black stork (Ciconia ciconia nigra) which dwells in rushes and is quite secretive.

See also Birds. [J.A.C.G.]

Further Reading

STRENGTH

*hon (manly) strength, vitality'. [IEW 765 (*ner-+); Wat 44 (*ner-); Gl 703 (*hner-|b-); BK 558 (*mir+/*ner-)].

The underlying noun has survived nowhere but it has left rich derivatives: OIr nár 'noble, great-hearted', Luth nora's 'will', Hit innara 'violently', innaraah- 'make strong', innarawantu- 'strong, forceful, sexually potent', Luv annaraha- 'forceful' (Anatolian < *Ihen-hnoro- 'having (manly) strength within', more particularly there is the widespread derivative *hnér (gen. *hnórós) 'man' in Alb njéri 'person', Grk αὐνή 'man', Polycharnó 'man', Phryg avapa 'man', Arm aher 'man, person', Luv annar-an 'man', Av náman, person', Os alsel 'man', Olnd nár- 'man, person'. Widespread and old in IE.

*hjątr̥s (gen. *hjątōs) 'vital force, life, age of vigor'. [IEW 17 (*uiw-); Gl 702 (*ayu-); Wat 1 (*auw-), BK 446 (*am+ *am-)]. OIr áes 'life, age', Lat aevus 'lifespan, age', ON aévi 'life, age', æ (< *hjànuω- ) 'always', OE Þ(w) 'law, marriage', OHG éwa 'eternity, law', éwtn 'eternity', io 'always', Goth ains 'time, eternity', Grk αἰνίων 'vitality, lifespan', Av áyi (gen. yaos) 'lifespan', Olnd áyv- 'áyv- 'life, lifespan'. Cf. dolaičan 'having a long life', Av darag-áyu- 'long-lasting', Olnd dirigáyu- 'long-lasting'. Widespread and old in IE.

*stétr̥s(e)s- 'strength, vitality'. [IEW 1123–1124 (*eis-); Wat 74–75 ( *wi-); BK 508 (*wiw-/*woy-)]. Lat vis 'power', Grk κύ- 'power', Olnd vías- 'vitality, growth', vidayati (< *uihjaw-d-ejo-ew) makes strong. Particularly important is the related *uihjaw- 'full of vitality, young'. OIr fer 'man, husband', Wels gwir 'man, husband', Lat vir ' (grown) man, husband', Umb vẹra- 'man', ON verra 'man, husband', OE wer 'man, husband' (> NE werewolf), OHG wer 'man, husband, Goth wair 'man', OPrus wirs 'man', Lith viras 'man, husband', Latv virs 'man, husband', ?Alb ri 'young' (if < metathesized *uirhiōs, Av vira- 'man', Olnd vira- 'man, husband', TochA wir 'young'. Widespread and old in IE.

See also Life; Man; Strong; Young. [D.Q.A.]

STRETCH see EXTEND

STRIKE

*g'hen- 'strike' (pres. *gh'henut). [IEW 491–492 (*gh'hen-|a-); Wat 25 (*gh'hen-), Gl 644 (*gh'hen-), Buck 9.21, BK 312 (*gh'han-/gh'ha-|n-)]. Olr gonaid (< *gh'hono|e|o|e-) 'wounds, strikes', Lat defendo 'protect', ON gunni 'combat', OPrus gunwtei 'drive (cattle)', Lith geniu 'drive cattle, hunt', geniu 'prune (trees), trim (a hedge)', Latv dzēnu 'drive cattle, OCS žeņo 'drive cattle', gonzā 'pursue', zīpo 'harvest, cut', Rus gom 'a drive, a hunt', Grk θείνω 'strike', φονέω 'murder', (Hesychius) αἰέρπατο 'died' (< *was struck down'), Arm jemnem 'strike', ganem 'strike', Hit kuæntz 'strikes', Av jante 'strikes', Olnd hantu 'strikes', TochB kask- (< *gh'h-psk-e|o-|e-) 'scatter (violently)'). Sometimes accepted here are ON hanti 'murder', OE bana 'murder', OHG bano 'murder' and ON henn 'wound', OE benn 'wound', Goth banja 'wound', by those who accept the notion that PIE *gh'̥- became Proto-Gmc *b- except before *u- (where it became *g-). Practically universally attested and clearly old in IE, this is the archetypal verb for 'strike' in PIE.

*yen- 'strike, wound'. [IEW 1108 (*yen-); Wat 76
*bher-* 'strike (through)', split' (pres. *bhōrī/o-). [IEW 133–135 (*bher-)]. Wat 7 (*bher-); BK 3 (*bur-/bor/*). Mitr bern 'gap, chasm', Lat ferio 'strike, pound', foro 'bore', ON berja 'strike', bora 'bore', OE borian 'bore' (> NE bore), OHG borian 'strike', boron 'bore', Lith bar(t)u 'revile, abuse', Latv bārā ~ bārū 'revile', OCS borja 'light, struggle', Rus borja 'subdue, throw down', Grk (Hesychius) φιάσκον 'split', φιάσκον 'plow', Arm beran 'mouth' (< *slit), brem 'dig up, hollow out, bore', NPers burrad 'cuts', OIND hūn 'wounds'. Widespread and old in IE.

*płeh[k]/g-* 'strike, strike one’s breasts in lamentation' (pres. *płeke[k]u 'he/she strikes'). [IEW 832–833 (*plāk– ~ plāg-)]. Wat 51 (*plāk-). From *płeg-: ON flōkkinn 'distraught', OE flōcan 'strike, clap', OHG flōhhōnan 'curse', Goth flōkan 'bewail', Grk πληγώ 'brow', πληγή 'a blow'; reflecting a nasalized present *płh2-n-g-. Mitr len (< *plang-sno-): 'deafet, hurt, injury', Lat plangō 'strike, strike one’s breast in lamentation; bewail', Grk πληγον 'strike (down)', from *płe[k]-; Lith płakti 'strike, płokas 'a blow', OCS płakati se 'weep, be sorrowful'. Similar in phonology and identical in meaning are Lat plecto 'strike, punish', Lith plekti 'strike'. Reasonably widespread and certainly old in IE.

*keb[u]- 'strike, hew' (> 'forge' already in PIE?). [IEW 535 (*kāu-)]. Wat 27 (*kau-); Gl 619 (*kählen-Hu); Buck 9.61. On hoggva 'hew', OE hēawan 'hew' (> NE hew), OHG houvan 'hew' (cf. ON hey 'hay', OE hiege 'hay') (> NE hay), OHG hewen ~ houwe 'hay', Goth hawī 'hay'), Lith kūta 'strike, forge', kova 'battle', Latv kauš 'strike, forge', OCS kouf 'forge', TochA ko- 'kill, strike down, destroy', TochB kau- 'kill, strike down, destroy', TochA kūst 'strike, kill by striking', 'kehjad-' in Mīr cuad 'war', Lat cūdō 'strike, forge', TochA kot- 'split off, break, chop up/down, crush', TochB kaut- 'split off, break, chop up/down; crush'. Widespread and old in IE.

*per-* 'strike'. [IEW 818–819 (*per-)]. Wat 50 (*per-); Buck 9.21. Lith perū 'beat with brushwood, flog, Lat perī 'beat with brushwood, flog', OCS perō 'strike; wash by beating clothes', perjū 'content', Rus pru 'press, oppress', Arm harī 'struck'. With enlargements we have Alb pres (< *pretje/o-): 'cut down, cut off, split', Av parat- 'battle, strike', OIND prīt- 'battle, strike'. Widespread and old in IE.

*kreus(-s)-' strike'. [IEW 622–623 (*kreus-)]. Wat 32–33 (*kreus-); Buck 9.21. From *krew-: OE hreowan 'grieve, distress, afflict' (> NE rue), OHG hriuwe 'grieve, distress, afflict', Grk κραυγον (< *krougje/-o-): 'stump, strike with the hoof' (of a horse), TochAB kaim- (< *kru-neh-) 'split, strike, afflict'; from *kreus-: OH hrosti 'mashed milk', Lith krušū 'krušū 'smash, crush, grind', krušū 'hail', Latv kruva 'hail', OCS su-krušū 'shatter', Grk κραυγον (< *krougje/-o-): 'strike (together)', strike a strung instrument with a plectrum, knock (at the door)'. Widespread and old in IE.

*piek-* 'strike'. [IEW 797 (*pek-)]. Wat 48 (*pek-); Buck 20.11. OE feotan 'light' (> NE light), OHG fehtan 'light', Alb per-piek- 'strike', TochB pyāk- 'strike (downwards), batter, beat (of a drum); penetrate (as a result of a downward blow)'. Distribution suggests PIE status.

*temh- 'be struck, be exhausted'. [IEW 1063 (*temm-)]. BK 147 (*thom-m-jom-). Mitām (< *tomh-ju-) 'sickness, death', tāmād 'dies', Lat tēmētum 'any intoxicating drink, tēmeluntus drunken, tipsy', NHG damisch ~ damlich 'foolish, silly', OCS tomitti 'torture, harass, tire', OInd tāmātī 'gasp for breath, is faint, stunned, exhausted', tamātī 'robs of breath'. Widespread and old in IE.

*g'el- 'strike, stab'. [IEW 470–471 (*g'el-)]. Wat 24 (*g'el-); BK 359 (<q̣al-/q̣al->). Wels ballu 'die', OE cwelan 'die', cwellan 'kill' (> NE quell and kill), cweild 'cweild' 'destruction, death', OPrus gallan 'death', Lith gelit 'sting, ache', gelā 'torture', Arm kelem 'torture'. At least a word of the west and center of the IE world. See also the derivative *g'elon 'insect's stinger'.


*bfelh- 'strike' (pres. *bfelh(e)-i in the west of the IE world) ~ *bfelh(e)-i in the center and east). [IEW 117 (*bfei(e)-)]. Wat 6 (*bfei-); Buck 9.21. OIr bænd 'strikes', Lat pérforbreak through, shatter', OCS bijo 'strike', Av byente 'they struggle, strike'. The geographical spread guarantees PIE status.

*kelh-*. 'strike'. [IEW 545 (*kel-)]. Wat 28 (*kel-); BK 354 (*q̣al-/*q̣al-). Lat calamitas 'loss, injury, damage, misfortune', per-cello 'beat down, throw down', OPrus kolpeis 'chopping-knife, cleaver', Lith kula 'strike, forge', Latv kalu 'strike, forge', OCS kolpy 'stab, slaughter', Rus kolot' 'stab, slaughter, hack, split', Grk κελάς (< *kelah-<) 'green woodpecker'. A word at least of the west and center of the IE world.

*bhilh-*. 'strike'. [IEW 160–161 (*bhilg-)]. Wat 9 (*bhilg-). Lat flīgō 'strike', Lat blauț 'crush, strike', Grk φιλήσω (< *bhilh-<) 'press'. A word of the west and center of the IE world.

*bhlag- 'strike'. [IEW 154 (*bhlag-)]. Wat 8–9 (*bhlag-). Lat flagrum 'whip', flagiō 'demand importantly', OInd bhaka 'side one and the other', bhlekkja 'strike', Lith bleskau 'throw, fling'. A word similar phonologically to the previous one and found largely in the same stocks.

*tein- 'strike'. [Mayrhofer I, 423]. Grk κτείνo 'kill', κτόνο 'murder', (ionic) άνδροκτασία 'manskilling', OInd kṣanoti 'hurts, injures, wounds', kṣati- 'destruction, injury'. A word of the southeast of the IE world.

*sλak- 'strike'. [IEW 959 (*slak-)]. Wat 61 (*slak-); Buck 9.21. Mir slæc 'sword', ON slæ 'strike', OE slæn 'strike' (> NE slay), OHG slehan 'strike', Goth slahan 'strike'. Found
only in Germanic and Celtic, this may have been a dialect word of the far west of the IE world.

*dep means ‘strength’ [IEW 203 (*dep-)]. SC dépiti ‘strike’, Arm top ‘strike’. Sparingly attested and perhaps a dialect word of the IE center. The relationship, if any, to Grk δέω ‘scrape, soften (a hide); masturbate’, phonologically (with -ph- rather than -p-) and semantically divergent, is hard to determine.

STRIPED see SPECKLED

STONG

*béllos ‘strong’ [IEW 96 (*bel-)]; Wat 5 (*bel-); Buck 4.81]. Lat débilis ‘weak, infirm’, OCS boljyi ‘larger’, Grk βέλτερος ‘better’, Olnd balam ‘power, strength’. This may be the strongest etymology containing the very rare PIE *b-; as a result, it has been scrutinized repeatedly but not definitively rejected.

*veg ‘strong’ [IEW 1117–1118 (*veg-)]; Wat 74 (*veg-); Gi 206 (*Hvek-); Buck 4.63; BK 499 (*wak-/*wak-). Lat vegeō ‘to enliven, stir up’, Olnd vilda ‘strength’, vajra- ‘(Indras) thunderbolt’, (later) diamond. While a broad group of Germanic terms has traditionally been included here: ON vakna ‘to awaken’, OE wæcnan ‘to wake up’ (> NE wake), OHG wahhēn ‘to wake’, etc., the vocalism is a problem. Also TochAB wasir ‘thunderbolt, diamond’, sometimes included here, may be an Old Indic loan. Uncertain IE status.

See also CLUB, STRENGTH. [J.C.S.]

STUPID

?*môr [IEW 750 (*mô(u)ro-); Wat 43 (*mô(u)ro-); Buck 17.21]. Grk μαρός ‘stupid’, Hit marla(nt) ‘foolish’. Although included in earlier works, Olnd mör ‘foolish, stupid’ is not now regarded as cognate, given the differences in vocalism between the Greek and Indic words.

[J.C.S.]

STURGEON

/?*ερεκτρο- ‘sturgeon (Acipenser spp. and Huso huso). [cf. IEW 18–19 (*ak-); BK 398 (*hukl/*hokl)]. Lat acipenser ‘sturgeon’, OPrus esketres ‘sturgeon’, Lith esketras ‘sturgeon’ (also Lith ėrskėtas ‘sturgeon’ by contamination with ėrskėtis ‘thorn’; the Baltic -k- is also secondary in some way). Rus osetr ‘sturgeon’, SC jeseta ‘sturgeon’ (Proto-Slavic *jesetri). There clearly seems to be a tradition in various IE groups of designating this fish with derivatives of *hýek- ‘sharp’ (just as in the case of ‘perch’). It is, however, doubtful that the evidence would allow the sure reconstruction of a PIE term.

?*strhôjon ‘sturgeon’. Lat (< Gaul) sartiō (later fariō) ‘salmon trout’, ON syrja ‘sturgeon’, OE styr‘hl ‘sturgeon’, OHG sturio (whence medieval Lat sturio ‘sturgeon’ and, via OFrench, NE sturgeon). Perhaps a late dialect word of the far west of the IE world. The exact phonological and morphological mapping of the putative Celtic and Germanic reflexes is encouraging. The semantic divergence is, however, bothersome as the sturgeon and salmon (or trout) are not perceptually similar. If related, the surprising change of meaning in Celtic may be the result of the rarity of sturgeon in western Europe.

Although lexically of no great antiquity, the distinctive appearance of the sturgeon could well motivate those names derived from the concept of ‘sharp’ as the snout is pointed and the fish, which lacks scales but is covered instead with sharp bony plates or scutes. There is a large variety of sturgeon species but their primary distribution tends to be in central and eastern Europe (Acipenser stellatus, ruthenus, etc.) while Acipenser sturio is common in the rivers flowing into the Baltic and Acipenser naccari (Adriatic sturgeon) might help explain the reflex in Italic.

See also FISH, PERCH. [J.C.S.]

Further Reading


SUBGROUPING

The subgrouping of the various Indo-European stocks, or the describing of their various interrelationships, remains an enduring puzzle for Indo-Europeanists. The difficulty arises however, not from a lack of evidence but rather from an overabundance of evidence whose import is not easily categorized. Thus the model of Indo-European subgrouping has evolved over time, an evolution that has resulted both from increasing knowledge of Indo-European languages and from differing methods of defining subgroups.

The earliest model of intra-Indo-European relationships that gained a considerable currency was that of August Schleicher (1821–1868). After a preliminary attempt that put Celtic as the earliest PIE group to diverge from the parent stock, he settled in 1861 on a model that placed Celtic alongside Italic.

In general, establishment of a subgroup, say, Italo-Celtic-Greko-Albanian, was predicated on the constituents of the subgroup sharing some innovation or innovations unknown elsewhere. The innovations could concern vocabulary, morphology, phonology, or syntax. A lexical example might involve the choice of the word for ‘fire’ in a particular stock, was it a relative of English fire (as in Germanic, Umbrian, Greek) or a relative of Latin ignis (as in Latin, Baltic, in Slavic [in the form of derivatives], and Indic)? An important morphological distinction was that between those languages which marked the present tense of medio-passive verbs with a suffixed *-i (Greek, Indic, Iranian, probably Germanic) as opposed to those that marked it with a suffixed *-r (Celtic, Italic, and Phrygian). Another well-known morphological distinction was between those languages that showed a *-m- in the dative plural of nouns (Germanic, Baltic, Slavic) and those that showed a *-bh- (the rest, insofar as they preserve
Greco-Albanian subgroup was to be further divided into a Celtic-Italic-Greek group on the one hand and an Albanian group on the other? Or did it mean that Albanian had simply lost that particular feature at some point in its history? In general it is not always easy to distinguish between a once universal feature that has been lost in several groups from a feature that was never universal, but rather an innovation that was common only to a subset of stocks. Of our examples, contemporary investigators are fairly certain that the dative plural *-m- is an innovation as is the retraction of *-s-. The medio-passive marker -i is probably an innovation vis-à-vis the alternative *-r, while the choice of a word ‘fire’ is idiosyncratic to each stock (or even each language, cf. the different choices within Italic of Latin ignis but Umbrian pir).

(It might also be noted that only the *-m- versus *-bh-distinction fits well into Schleicher’s schema.) In practice, then, single features were not very good evidence for subgrouping and thus linguists looked for whole sets of features that together might define subgroup membership.

The whole process is admittedly subjective and, as such, might easily lead to disagreements among investigators. For instance, some of Schleicher’s subgroups are more obvious than others. If one considers just the ten well-attested Indo-European stocks known in the nineteenth century (i.e., Celtic,Italic, Germanic, Baltic, Slavic, Albanian, Greek, Armenian,Indic and Iranian), it was clear from the beginning that Indic and Iranian bear an especially close relationship to one
another. So close is the relationship that many an Avestan sentence can be made into a perfectly acceptable Sanskrit sentence merely by mechanically applying a few phonological rules. The same is true in reverse, going from Sanskrit to Avestan. It must be the case, then, that in the not very distant prehistory of Indic and Iranian the two were mutually intelligible. The two stocks even share a common self-designation, *arya-arya*. Thus, no one has ever doubted that there was a more or less uniform Proto-Indo-Iranian intermediate in age between Proto-Indo-European and the attested Indic and Iranian.

While not so closely allied as Indic and Iranian, Baltic and Slavic share many similarities of development, most particularly in the restructuring of the verbal system and in the development of the Proto-Indo-European accentual system. On the other hand, they go in different directions, surprisingly often in the matter of vocabulary, and thus the question arises as to the origin of their similarities: are those similarities the result of inheritance from a common ancestor, i.e., Proto-Balto-Slavic, intermediate Proto-Indo-European and the attested Baltic and Slavic, or the result of the fact that the two groups have apparently always lived side by side and been in a position to influence one another linguistically?

Finally the resemblances between Italic and Celtic have sometime been thought to necessitate an intermediate Proto-Italo-Celtic but, probably as often, been thought to reflect nothing more than shared, but independent, innovations or retentions. As we have already noted above, this indeterminacy of Italo-Celtic is reflected in Schleicher’s revision of his earlier model, one in which Celtic diverged very early from an otherwise undifferentiated Proto-Indo-European and his later model, given here, where Italo-Celtic forms a close subunit.

**Methods of Subgrouping**

Schleicher’s models, like other similar models of IE subgrouping, were rather deliberately patterned after Darwin’s biological model of speciation (i.e., the process whereby one plant or animal species splits into two or more). Speciation (and language split) was viewed as a more or less instantaneous event in which a formerly unitary population was divided (by migration, uplift of mountains, etc.) into two (or more) reproducitively isolated populations, each of which would then undergo independent changes which resulted in a greater and greater divergence between the newly established groups. Just as in biology, the various splits and subsequent resplitting of what had been a single linguistic community could be represented by a Stammbaum or “Family Tree” model.

However, as the nineteenth century progressed, it became increasingly clear that language “speciation” was not necessarily an abrupt process, though it could be. Natural languages were increasingly appreciated as conglomerations of dialects rather than as monolithic wholes. A given dialect would share linguistic features (e.g., pronunciation, lexical choices) with neighboring dialects in a complex and overlapping fashion. This complex pattern of sharing resulted from the adoption by only certain portions of the larger community of linguistic innovations that have run through the community in a wave-like fashion (hence the designation Wellentheorie “Wave Theory”) without necessarily affecting all of its parts (one might compare in New English the “loss” of *æ*, or rather its shift at least originally to [a], which has affected the English of the south and east of England, South Africa, Australia, New Zealand, and certain areas on the east coast of North America, but not the west of England, Scotland, Ireland, or most of North America).

If such a complex dialect grid were eventually to come apart and be resolved into two or more groups, each resultant group would share certain features with other groups but the pattern would not be reducible to that of a bifurcating tree. Leonard Bloomfield (1887-1949) illustrated this kind of pattern in a diagram that reconstructs the geographical distribution of pre-Greek, pre-Germanic, etc., while they were still parts of a single, complex, PIE linguistic community. However, it does not have too much to say about the actual process by which the single linguistic community, albeit one divided into distinguishable dialect groupings, came to divide into two or more independent groups.

Both sharp splits and more gradual dissolution are possible modes of creating two linguistic units out of one. As a result they are complementary processes whereby we can understand how the linguistic situation presented by the Indo-European languages came to be, not competitive ones. The search for sharp splits, however, remains the more popular choice as the creation of a proper Stammbaum allows the possibility of throwing some light on the history of the various Indo-European groups after the initial period of unity was past.
The *Wellentheorie*, like the *Stammbaumtheorie*, can be criticized as overly subjective, being dependent on the investigator's judgments as to what are the significant innovations that various subgroups might share. In the last fifty years or so various mathematically based schemes have been suggested in the hopes of making the Indo-European family tree (and the family trees of other languages) more precise. The first method to achieve widespread support is that called either "lexico-statistics" or "glottochronology" and was analogous to radiocarbon dating. In this technique the age of organic material can be measured since it contains the unstable isotope $^{14}$C which disintegrates at a constant rate (it has a half-life of 5730 years). Morris Swadesh (1909–67) argued that vocabulary replacement behaved very much like $^{14}$C decay in that it occurred at a constant rate. One could not predict, of course, when a given word would be replaced by another but certainly over time words were replaced and apparently at a more or less steady rate, at least for what he termed the "core vocabulary". For Swadesh the core vocabulary consisted of words, both nouns and verbs, for very familiar concepts and actions (parts of the body, designations for nuclear family members, natural objects, common actions) that, learned by children as they were at the very earliest stages of language acquisition, were most resistant to borrowing from other languages. On the basis of some tests on known languages, the following formula was developed:

$$t = \log \frac{c}{2} \log \frac{1}{r}$$

where $t$ = time since separation, $c$ is the percentage of shared cognates, and $r$ the percentage of cognates that would remain after a thousand years of separation (81%).

After being hailed, at least by some, as a great breakthrough in historical dating, this method has fallen on hard times. Critics have raised a number of substantial problems, two of which are critical. First, how can one develop a truly universal list of basic vocabulary? ("Sun" and the words for the first and second personal pronouns seem remarkably "basic" and stable in most of the world but in eastern and southeastern Asia they are clearly subject to borrowing or other varieties of replacement, "Yellow" only occurs in more advanced color-naming systems and is by no means "basic" in many of the languages of the world, etc.) Secondly, how can one be certain that vocabulary replacement really does take place at a constant rate (when tested the actual rate seemed to vary from 0%, in Icelandic, to 67%, for Eskimo)? The answer to the latter question may be that given sufficient time vocabulary replacement does at least approach a constant rate, even though in historically measurable periods of time the rate shows a great deal of fluctuation (however, the existence for longer or shorter periods of time or the custom of "taboo replacement", i.e., the deliberate disuse and replacement of words resembling, say, the name of a deceased member of the community, would seem to vitiate any notion of a constant replacement, at least in the affected language groups); that one can answer the first question satisfactorily at all seems most problematic.

It is important, however, to note that Swadesh's system was designed to do two rather different things: (1) to subgroup language families and build "trees" that would reflect the process by which a single linguistic community had become a language family, and (2) to give an absolute date to the various splits. The second goal was the more exciting and more ambitious one and the one most dependent on the notion of a "constant". It is also the goal whose claims to success are demonstrably the weaker. When applied to Indo-European data, the method seems to give unbelievable dates (a separation of French and Italian in the mid sixteenth century AD) or dates that contradict all other data (such as dating the split between [pre-] Latin and [pre-] Greek at 3000 BC but a split between [pre-] Latin and [pre-] Irish at 3700 BC).

As a tool for constructing family trees, it may be more viable. In what is certainly the most extensive test of lexicostatistics ever made of known data, Dyen, Kruskal, and Black used eighty-four different lists of Indo-European languages or dialects to construct a family tree of Indo-European. (They restricted themselves to modern languages, e.g., Italian and French, etc., rather than Latin, and thus Anatolian and Tocharian of the twelve major Indo-European groups are excluded altogether). If one translates their results into a family tree pattern, it would produce a "shallow" tree that looks, in many respects, like trees arrived at by other methods. Their results strongly support the existence of Balto-Slavic as a well-defined intermediate stage between Proto-Indo-European on the one hand and Proto-Balto and Proto-Slavic on the other. They find evidence for a grouping of Italic, Germanic, and Balto-Slavic but find no evidence in support of any special Italo-Celtic group. Indeed Celtic, on the basis of their data and methodology, would seem to be a distinct and early offshoot of Proto-Indo-European. Most surprising is that they find no evidence for the obvious grouping of Indic and Iranian. Clearly in this one instance at least (as they readily admit) lexicostatistics does not produce the correct answer, though
they argue that their test has proven the method of sufficient utility to be used as at least one tool in the arsenal of the linguist trying to reconstruct a family tree.

Recently Donald Ringe and others have proposed a new mathematical model for discovering the pattern of branching in the prehistoric development of linguistic families. This method is explicitly modeled on the contemporary practice, called cladistics, by which biologists infer evolutionary history for biological species. Their methodology involves three essential components: (1) encoding linguistic information using qualitative characters (i.e., a specific point of grammar or lexicon where languages can agree or disagree), (2) using an algorithm to find the optimal and near-optimal trees, (3) and finding methods for discovering the common features of the best trees generated by the first two steps. As they are the first to admit, the first step, encoding linguistic information as qualitative characters, involves linguistic judgements (that may not be universally shared) as to whether a given piece of information ("a character") is or is not relevant to the evolutionary tree. Even if all are agreed as to the relevance of a given character, all may not be agreed as to how that character should be encoded. Their choice of characters is also constrained by a desire to exclude "natural" changes that might occur independently in more than one branch. Thus the phonological characters they include are restricted to two: (1) the "ruki" retraction of PIE *s after PIE *k, *r, *i, and *u, and (2) and the satem merger of velars and labio-velars. Their method does not necessarily construct a single tree but rather several trees (a small grove if you will) that meet or nearly meet the goal of being minimal, i.e., that represent the information forced by the data set and no other.

Since the full list of linguistic characters that they have used (comprising forty-nine lexical, seven morphological, and two phonological characters) has not yet been published, it is hard to judge how good the methodology is. However, their results do tend to match the results reached by less mathematical and more intuitive methods (and by lexico-statistics). Excluding Germanic which we will return to below, their best tree was constructed where only two lexical and two morphological characters did not fit and their second best tree had four lexical and one morphological characters that did not fit.

Largely because of loss, Albanian has relatively few characters in common with other Indo-European groups and thus it can be placed anywhere on the tree, provided it is above the "Satem Core" and not a member of the subtree containing Greek and Armenian.

The position of Germanic is difficult to determine. Any tree with Germanic included has many characters that do not fit. Excluding Germanic allows trees, such as the two given above, where the overwhelming majority of characters do fit.

It is also noteworthy that the lexical data from Germanic points in a different direction, as it were, than the morphological data. They attribute this "dual allegiance" as evidence that pre-Germanic began to develop with the "Satem Core" (more
particularity paired with Balto-Slavic) but moved away from that group early on (before many of the special innovations defining that core group had developed) and into contact with the western groups of Italic and Celtic from which it borrowed a number of distinctive vocabulary items sufficiently early that these borrowings cannot be distinguished from true cognates. (They recognize that these "undetectable borrowings" are worrisome for their model, and of course any other that relies on lexical equations.) Beyond that they note that this methodology strongly supports that notion that Anatolian was the first of the subgroups to separate from the rest of Proto-Indo-European and that the Italo-Celtic hypothesis is "weakly denied" by the data.

The historical linguist, for whom the possibility of assigning absolute dates to language splits or mechanically describing the order of these splits may seem as distant as ever, can take cold comfort in that neither radiocarbon dating nor biological cladistics, the models for so much of the historical linguistics' work in this area, have found as smooth a road in their "home disciplines" as originally supposed. It turns out for instance that the amount of 14C in the atmosphere is not an absolute constant and thus radiocarbon dating can underestimate the true age of an object, unless the date can be calibrated with the aid of tree-ring dating. Likewise, the determination of speciation on the basis of comparing DNA sequences (themselves very much analogous to Ringe's "characters") may at times result in the same frustrating indeterminacy as the corresponding linguistic analysis. As J. Marks observes: "Analysis of DNA sequences has proven vexingly ambiguous in attempting to discern the two closest relatives among humans, gorillas and chimpanzees. Most analyses of mitochondrial DNA are so equivocal as to render a clear phylogeny impossible, the preferred phylogeny relying critically on the choice of outgroup and clustering technique."

**Conclusions**

When all is said and done, there is probably a certain amount of consensus around a view that sees the Anatolian group as separating somewhat earlier from the rest of the Proto-Indo-European than any other attested stock. The departure of the pre-Anatolians would seem to have left a largely undifferentiated "residual" Proto-Indo-European. Subsequently the residual Proto-Indo-European expanded geographically and developed into a long dialect chain from "east" to "west" (the exact geography of the dialect chain remains completely speculative). On one end we have Celtic (which may or may not have had a special relationship with Italic), Italic, Germanic, Baltic, Slavic (these three with some obvious close relationships), then the "southeastern" group of Greek, Armenian, Iranian and Indic, from which Greek and Armenian disengaged themselves sufficiently early to allow Baltic and Slavic on the one hand and Indo-Iranian on the other to forge new links between themselves. Albanian apparently belonged somewhere in the center with Slavic relatively close by while the position of Tocharian remains problematic. It would seem not to be closely connected with any other IE stock (and certainly not with Indo-Iranian, its closest attested neighbors), but what connections it does have would seem to be with the west, with Germanic and Greek. This dialect chain "fell apart" at different times and certainly different places. Certainly Indo-Iranian remained a single unity until relatively late. Indeed, a larger "southwestern group", composed of Indo-Iranian, Greek, and Armenian seems to have remained something of a unit after a "northwestern group" composed of Germanic, Baltic and Slavic, perhaps also of Italic and Albanian, and less certainly yet of Celtic, had broken off. Then to confuse the issue Indo-Iranian and Slavic seem to have, as we have had occasion to note, created new connections. The loss of unity was presumably gradual and episodic, though it need not have been a process, from the first to last, of over a thousand years or so, and perhaps even less (or more).

We must also remember that our knowledge of this dialect chain and its successors is restricted to those stocks which are historically attested. An untold number of separate stocks, knowledge of which might enable us to flesh out the record and close the gaps, say, between Italic and Germanic (or Tocharian and anything else), may well have disappeared before history and the written record caught up with them, linguistically assimilated to other IE stocks or to non-IE language groups.

Finally one may wonder just how important it is that we have an answer to the question of IE subgrouping: are there consequences to picking one model over another? The answer to that question is that it does matter for our understanding of what Proto-Indo-European was like. If it is true that Anatolian separated from an undifferentiated "residual" Proto-Indo-European, then the agreement concerning some particular feature (provided that feature could not be the result of independent creation) of Anatolian and any other IE stock would guarantee the reconstructibility of that feature to Proto-Indo-European. A concrete example of just that possibility would be PIE *donar'ir* , attested only in Hit tanau and OHG tanman-. If, as many assume, Tocharian is also separate from an undifferentiated "residual" Proto-Indo-European, then an agreement concerning some particular feature of Tocharian and Greek is not equally compelling as an argument concerning the nature of Proto-Indo-European. On the other hand, if with one of Ringe's models, Tocharian is a member of a subbranch with Greek, then an agreement solely of Tocharian and Greek is not a very strong argument about Proto-Indo-European while an agreement of Tocharian and ital remains compelling.

Since the full story of how Proto-Indo-European, a single linguistic entity, came to be differentiated into at least twelve separate stocks remains to be written, there is no "magic formula" by which we can use the knowledge of subgroups to reconstruct Proto-Indo-European. Each individual case must be decided on its own merits. Obviously the more widely spread a feature is, the more likely it is to reflect something of Proto-Indo-European age. The discussion in the individual
SUCK

*dheh(i)- 'suck'. [IEW 241–242 (*dhe(i)-)]; Wat 13 (*dhe(i)-); GI 487 (*dʰeh(i)-); BK 602 (*dieh/-*dey-). OIr *diniz ~ *denid 'suck', Wels dylnu 'suck', Lat *felō 'suck', OHG *tāju 'suck', MHG *tien 'nurse, let suckle', Goth *dadjan 'suck', Latv *đeju 'suck', OCS *dojo 'suckle', Grk (3rd sg aorist) ὑθάκοτο 'suckled', Arm *diem 'suck', Oldn *dhayati 'sucks, suckles'. The PIE word for 'suck'.

*seugk- 'suck'. [IEW 912–913 (*seuk-/seug-)]; Wat 58 (*seua-); GI 124 (*seu(h)-); BK 190 (*saw-/saw-). OIr *sūgíd 'suck', Lat *sūgo 'suck', ON *juða 'suck', OE *sucan 'suck' (> NE suck), OHG *sōgan 'suck', Lith *sunkiu 'allow to leak away', Latv *sūzu 'suck', OCS *sūsp 'suck'. Less widely distributed than *dheh(i)-, this appears to have been a "northwesternism" in late PIE. See also DYE, BREATHE, DYE.

SUMMER see SEASONS

SUN

*sāhul (gen. sāhul-en-s) 'sun'. [IEW 881 (*sahel-)]; Wat 56 (*sāwel-); GI 590 (*sawel/-en-); Buck 1.52]. OIr (lem.) *sail (< *sail-) 'eye', MWels heul (< *saulo-) 'sun', huan 'sun', Wels haul 'sun', Lat *sāl (< *sail < *sāhul) 'sun', ON (lem.) *sól 'sun', Goth (neut.) saulis (< *saulis) 'sun', ON sunna 'sun', OE sunne 'sun', OHG sunna 'sun', Goth (lem.) sunno 'sun', OPrus sauile 'sun', Lith saule 'sun', Latv saule (< *saula) 'sun', OCS (neut.) slánice (< *sulun-) 'sun', Alb diell (< *suel- < *shaul-) 'sun', Grk (masc.) ἕλιος - ἔλιος (< *sawel-) 'sun', Hit *TUU-l-iatya (*sawelihya) 'sun', Av (neut.) hvarā (= huara) (gen. x.ang) (= huanh < *suant) 'sun', OInd svār (= svar) (gen. svār) (< *suar-s), (masc.) sūra- 'sun'. The original neuter IN-stem can be reconstructed as protodynamic *sähul-I with the genitive as *sāhul-en-s. The meaning 'eye' in Irish is understandable, as the sun was considered an eye in both the Rigveda and in Homer and in the IE creation myth, the sun and eye are allomorphs of each other.

See also COSMOGENY; SKY; SUN GODDESS. [R.S.PB.

Further Reading


SUN GODDESS

The existence of an IE Sun goddess is supported by a series of cognate names in Indic and Baltic.

The Indic sun-maiden Sūryā was the daughter of the Sun god Svārī (or of the stimulating power of the sun, Savir). In the Rigveda, Sūrya is sometimes described as the bride of the twin Āsvars, and sometimes the bride of the Moon god, Soma. Sūryā's mythology parallels that of the Latv Saules Meita, and Saules Meita was the Baltic 'Sun-maiden', daughter of the Sun goddess. She was married to the Dieva deši, the twin sons of the Sky god, just as Sūryā was married to the Indic twin Āsvars. In another myth, the Dieva deši were members of the bridal party, when Saules Meita married Meness, the Moon god, as Sūryā married the Indic Moon god, Soma. See also DIVINE TWINS, GODDESS; SUN. [M.R.D.

Further Reading


SURPASS see GO

SUVOROVO CULTURE

The Suzovoro culture takes its name from a kurgan burial in Moldova. The culture as a whole, which is dated c 4500–4100 BC, is found both in the northwest Pontic and the lower Danube as far south as northeastern Bulgaria. It is entirely defined by its burials. These include both flat graves and kurgans,
and as the Suvorovo burials are generally the initial burial under their kurgan, they mark the spread of kurgan burials into their historical region. The burials are placed in the supine position with their legs either extended or flexed; orientation is to the east or northeast. The roof of the burial chamber may be covered with logs or stone slabs. All of these features are characteristic of the burials found further east on the steppe and forest-steppe of the Ukraine and south Russia. At Suvorovo itself was found the burial of two individuals in a joint grave, normally identified as a male and a female, with the male accompanied by a stone “horse-head” scepter. Two other burials were also found under the same kurgan, the base of which was formed by a stone kerb some 13 m in diameter. Typical grave goods include ceramics of both the Trypillia and Gumelnita cultures and shell-tempered wares typical of the steppe tradition. Flint tools and copper ornaments are also encountered.

The culture provides evidence of the spread of steppe tribes from the east to the west and in the “Kurgan” model of Indo-European origins is seen to reflect the first wave of Indo-Europeans from their homeland in the steppelands of the Ukraine and south Russia.

See also KURGAN TRADITION; SREDNY STOG CULTURE; YAMNA CULTURE. [J.P.M.]
SWAN

*hyl- *‘waterbird, swan’. [IEW 304 (*el-); Gl 460 (*eol-)]. Ofr ela ‘swan’, Wels alarch ‘swan’, Lat olor ‘swan’, Grk ἐλατίον ‘reed warbler’. Only the Celtic-Italic correspondence is semantically plausible and speaks for a late westernism. Baltic takes its term from the root *ghel- ‘be bright, golden’: OPrus gulbis ‘swan’, Lith gulbis ‘swan’, Latv gulbis ‘swan’ while Greek uses *keuk- ‘white, bright’ ([IEW 597 (*keuk-)], i.e., ΚΥΧΙΩ ‘swan’ which was borrowed into Arm kiklos ‘swan’ and Lat cygnus ‘swan’.

Surely the swan (genus Cygnus), a bird of great beauty, was recognized as a discrete species by the Indo-Europeans despite the lack of wide-spread correspondences. But, at least in Indic, we note confusion between the ‘swan’ and the ‘goose’, for they are both heavy-set white birds, the swan differing principally in its long neck. In the Rigveda, the IE goose word hamsa- (< *ghans- ‘goose’) appears to have been a swan.

See also BIRDS. [J.A.C.G.]

Further Reading


SWAT CULTURE

The Swat (or Gandhara Grave) culture was centered on the Swat Valley of northern Pakistan, a fertile region which one might predict as a major approach to the historical seats of the Indo-Aryans and one which is mentioned in the hymns of the Rigveda (Swat < Olnd Suvāstu- ‘having good dwelling’). The beginning of the culture, designated Period IV in the Swat Valley sequence, appears c 1800–1400 BC and continues on through the transition period between the Bronze Age and Iron Age down to c 400 BC (some would argue only down to c 700 BC). The culture is primarily known from more than thirty cemeteries which tend to be sited near rivers. Its burial rites comprised flexed inhumation in a two-chamber pit, the upper chamber filled with soil and charcoal while the lower held the remains of the deceased and the grave goods. The burials were normally in the flexed position, heads often oriented to the north. Grave goods typically associated with males (e.g., maceheads, spearheads, razors) are found with burials flexed on their right sides while female-associated goods (e.g., spindlewhorls) are found with left-sided burials. This distinction reflects the same type of sexual dichotomy in mortuary ritual also found among other cultures, e.g., the Bishkent, Vakhsh, Tazabagab, which have been associated with the earliest Indo-Iranians. In some instances there are double burials, apparently of a man and woman together. These burials appear to be sequential, i.e., the second burial was sufficiently later than the first to disturb the bones of the initial burial, and so they cannot be employed to suggest the practice of suttee (the immolation of the wife on the death of her husband). In fact, in some cases it would appear that the woman predeceased the male. There is some evidence also for fractional burial which has been more distantly linked to the burials of the Cemetery H culture in the Indus Valley. These burials, where the bones are placed in a heap in the bottom of the grave, often find the skull deposited last on top of the pile of bones.

Cremation burials in an urn, sometimes decorated with a face, are also known with cremation itself accounting for about a third of all the burials. At the site of Katelai there was discovered the remains of two complete horses buried in the cemetery. That the region would later be associated with horses can be seen in references to the Assakenoi who were reputed to occupy the valley during Alexander’s march to India; the name is clearly the same as Indic Āsvakāyana ‘horsemen’ and other horse-associated tribal names are found within the territory.

Grave goods included pots (up to eleven in a single grave), especially drinking vessels, copper or bronze weapons (spearheads, arrows) and ornaments (of copper, bronze, silver and gold), bronze razors, spindlewhorls, and figurines (both
anthropomorphic and zoomorphic), made of bone or alabaster. Meat offerings included the remains of deer, sheep/goat, hare and horse.

Settlements attest semi-subterranean houses and more substantial walled structures. The ceramics of Period IV are marked by a burnished black-gray ware, generically similar to that of the Iranian highlands and shapes find parallels with pottery from Dashly and other sites of northern Afghanistan, a region frequently favored as a staging area for Indo-Iranian migrations. Ceramics also include black on red decorated wares depicting a variety of birds, including the peacock which is also seen on ceramics of the Cemetery H culture of the Indus. Another motif is the horse found on a sherd from Bir-kot-ghwandai. It is depicted as being attacked by some fantastic animal, a motif frequently associated with the early Indo-Iranians. Horse bones were also found at the same site and mark its earliest appearance in this region. There is evidence of distant exchange in shell ornaments from the Indian or Arabian seas, jade from southern Xinjiang, lapis lazuli from Afghanistan, while one of the items of export was the deodar cedar which may have been imported south to the Harappan culture.

The economy included mixed agricultural and stock-breeding with some hunting. Plant remains included grains of wheat (*Triticum aestivum*), barley (*Hordeum vulgare*), rice (*Oryza sativa*), lentil (*Lens*), pea (*Pisum arvense*), flax (*Linum usitatissimum*), grapevine (*Vitis vinifera*), and presumably weeds such as rye (*Secale*) and oats (*Avena sativa*). The domestic animals comprised zebu cattle (*Bos indicus*), sheep/goats, pig and dog. Hunted species comprised some form of wildcat, *Pantherus* (probably tiger or possibly lion), barking deer (*Muntiacus muntjak*), hog deer (*Axis porcinus*), possibly red deer (*Cervus elaphus*), grey goral (*Noemorhedus goral*), the markhor (*Capra falconeri*), the hare, and the Indian crested porcupine (*Hystrix indica*). As noted above, the culture also sees the introduction into the region of the horse, including
horses and as a distinctive grey ware. At the earlier
sites, there are also donkeys (Equus asinus) and these
outnumber the horses. Butchery marks on the bones suggest
that, among other uses, the animals were also eaten. The
presence of the horse and the mode of burial have been
connected to the Bishkent and Vakhsh cultures of Central
Asia while the ceramics have been controversially claimed to
share affinities with wares found in northwest India (although
they do not appear to parallel the more southerly ceramics in
terms of shape). Whether this affinity is true or not, the Swat
culture has been recognized in the right place at the right
time and bearing the right sort of culture to be identified
with a movement of Indic-Aryans or, given their specific
location, possibly Dardic or Nuristani-speaking people to the
northwest corner of the Indian subcontinent.

See also BMAC, CEMETERY H CULTURE, HARAPPAN CULTURE,
INDO-IRANIAN LANGUAGES. [J.P.M.]
Further Readings
(c. 3000-1400 B.C.). Rome, Ismo.

SWAT CULTURE

SWEAT
*he-emh3- 'lays hold, grasps; sweats'. [IEW 778 (*oma-)].
Grk ὀμάτωσι 'sweat' (the present is probably a Greek inno-
vation; the aorist is ὀματέω), Olnd ainiti 'lays hold of, grasps;
sweats'. Probably 'sweat' is a late semantic specialization,
found only dialectally in late PIE, of 'lay hold, seize'.
Another semantic specialization of this same root, also found only
in the southeast of the IE world, is seen in *he-emh3-iyeh3-
'suffering'.

See also BLAME, OATH, PAIN. [D.Q.A.]

SWEAT

*ṣuṣeśa- (pres. *ṣuṣeđd̠e/o- ~ *ṣuṣeđh̠e/o- 'sweat'. [IEW 1043
(*suṣeđ-); Wat 68 (*weṣd̠-)]. Lat sudé (< *ṣuṣeđd̠-), OE swēt
(noun) 'sweat', swētan (verb) 'sweat' (> NE sweat), OHG
swizzen (< *ṣuṣeđh̠e/o-), Latv svēst (verb) 'sweat', Alb disem
'sweat' (denominate of dīrse [< *suṣeđnītēh̠-] 'sweat
[noun]), Grk ἱδία 'sweat', Arm kīrzt 'sweat' (noun), Av
xvađa 'sweat' (noun), Olnd svētate ~ svētāt 'sweats', TochB
syelmē (< *suṣeđh̠- + abstract-forming suffix -elme) 'sweat
[noun]). Widespread in IE, clearly of considerable antiquity
in PIE though absent in Hittite.

*he-lh2-n- 'sweat' (noun). [Puhvel I. 28]. Olr allas (< *ala-
n-asco-) 'sweat', Hit allantwy- 'sweat' (vb). Cf. Grk ἀλαία
'warmth, body heat', TochB ālask- 'be sick' (< *he feverish').
Probably from *he-lh21- 'burn'. Though only
sparsely attested, the probable formal equation of Old Irish
and Hittite makes it likely that we have another PIE word for
'sweat' (< *product of excessive body heat or the like).

See also ANATOMY, BURN. [D.Q.A.]

SWET

*ṣuṣeđh̠aṣ 'pleasing (to the senses), tasty'. [IEW 1039-
1040 (<suṣeđa-s), Wat 67 (<swēd-); Buck 15.351]. Gaul Suado-rtx (personal name), Suadeullus
(personal name), Lat suāvis 'pleasant (to all senses), ON setr
'sweet', OE swēte 'sweet, pleasant' (> NE sweet), OHG swāzzo
'sweet, pleasant', Grk ἰδιός 'what is pleasing to the senses,
sweet', Olnd svāđa-'sweet', TochA swär'sweet', TochB swāre 'sweet'. The zero-grade is reflected in Lith sūdyti 'to salt,
season', Olnd sūdyātī 'make tasty' (cf. also other verbal forms
as Lat saudeō 'advise, persuade'). The root *ṣuṣeđ- is well
attested, particularly in the formation *ṣuṣeđh̠-ūs, thus PIE
status appears safe. Note the variety of semantic developments
here. Germanic (to some extent), Indic and Tocharian show
the very specific 'sweet' and Baltic attest to 'season, salt', thus
to 'make tasty'; Latin and Greek (and presumably Celtic with
all) have the more general meaning 'pleasing'.

†dlikus ~ *glikus 'sweet'. [IEW 222 (*dlik-u-), Wat 15
(*dlik-u-); Buck 15.35]. Lat dulcis 'sweet', Grk χαλκίς 'sweet'.
Traditionally, this equation has been based on an assumption
of Greek gl> gl, driven by distant assimilation. More plausible
is the reverse development of gl> dl-, parallel to the well-
established Lat *glakt- > *dlakt-, but avoiding later simplification
of *dl- to l- by prior metathesis to *dulk-. Even accepting
this proposal though, there is little reason for proposing an
IE form given that the distribution is limited to neighbors
with a long history of contact.

See also FAVOR, PLEASE, TASTE. [J.C.S., D.Q.A.]

SWELL

*reuh1- 'swell (with power), grow great with child' (pres.
*reuh1e/o-). [IEW 592-594 (*keu-); Wat 31 (*keu-), cf.
GI 87]. Lat inciens (< *in-cuent-) 'pregnant', Grk κυόω 'am
pregnant' (< εἰκός 'pregnant'), Olnd sviyati 'swells, becomes
strong/powerful'. A verbal noun *reuh1t (gen. *reuh1s) is
reflected in OIr cόirid 'heroes', Wels cόiwr 'giant', Lith siūnas
~ suūnis 'robust, doughty', Grk κυόω 'invalid, void' (< *without power), κύος 'powerful, lord', Av sūra- 'strong,
powerful', Olnd sūra- 'powerful, hero'. Cf. also *reuh1e-swell-
ing' in Wels cyw 'young of an animal', Grk κύος 'letus',
Olnd savas- 'strength, power, heroism', or *reuh1s 'swollen'
in ON hús 'young one', OE hūn 'young one', perhaps Hit
kunna- 'right(hand)', Olnd sūna- 'swollen' (The Hittite word,
it belongs here, would seem to argue for *reuh1 while the
Greek word would point to *reuh1-) Widespread and old in
IE

*teuh2- 'swell (with power), grow fat' [IEW 1080-1081
(*teu-); Wat 71 (*teu-); Buck 11.26, BK 104 (*tēh-/h-/tēh-
> h-; JAW). ORus tyu 'become fat', Grk σαύος ~ σῶκς (<
tubaos) 'safe and sound, healthy', σωκόμ 'body'. Av tāv-
'be capable of', tāvāh- 'strength, power', Olnd tāvītī 'is strong,
powerful', tāvās- 'strong, powerful, strength', tāvīsa- 'strong'.
Cf. the word for 'thousand' in Germanic, Baltic, and Slavic:
ON þús(h)und, OE þúsend (> NE thousand), OHG diṣisant.
Goth þúsundī, OPrus tāsmtīns, Lith tūkstantis, Lat

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taksuots, OCS tusa.ta, all from *tuhsto-kinto- 'f'lat hundred' or 'strong hundred', and TochA tm'm- 'ten thousand', TochB tumane 'ten thousand'. Widespread and old in IE.

*bheleu* - 'swell, overflow'. [IEW 158–159 (*bheleu*); Wat 9 (*bheleu*); BK 10 (*bula/*boli*). Lith blautu 'roar, bleat, low', OCS bifuyo 'spew, vomit', Grk φαλάω 'gush, teem, overflow', φαλάω 'overflow with words, talk idly'. From the enlarged *bhleud* we have Grk φαλάων 'bathes', TochB wam 'breast', OE wemen 'breast'. Though only attested as a verb in Germanic, its derivative *bhleug* 'bathes' is also attributed to this series (<? *bhleugm*?) but it is more likely to derive from *sphno-?* than anything else. The geographical distribution and the rare zero-grade i-stem suggests PIE antiquity for the form, the earliest attested form in Palaic probably indicates the earliest meaning of this word.

* *h2e-lid* - 'swell'. [IEW 774 (*oid*); Wat 45 (*oid*). Lat aemidus 'swollen, protuberant (the second and third syllables of this word were modelled after tautomus of the same meaning), OHG eiz 'abcess', eittar 'pus', Grk οἶδεω 'swell', οἴδια 'swelling', οἶδιος 'Oedipus' (lit. 'swollen-foot'), Arm ayt-num 'swell', ayt 'check'. This word is certainly to be found in only these three stocks where its presence is sufficient to guarantee that it was a word of at least the west and center of the IE world and thus the verb itself must be old in IE.

*bhreus* - 'swell'. [IEW 170–171 (*bhreus-s*); Wat 9 (*bhreus*); BK 4 (*bar/*bor*).] Only found in nominal derivatives. OIr brá (< *bhruos(n)*) 'belly, breast', bruinne (< *bhruusno-*) 'breast', Wels bru (< *bhruos-* ) 'belly', bron (< *bhruusneh-*) 'breast', ON brjost 'breast', OE bröst 'breast' (> NE breast), OHG brust 'breast', Goth brustis 'breast', Rusбрости 'breast', brjukh (< *bhreuso-*) 'belly, paunch'. A word of the west and center of the IE world.

See also *abo-do-men; bag; breast*. [D.Q.A.]

**SWIRM**

*sneha* - 'swim' (pres. *snehti*). [IEW 971–972 (*sne-a*); Wat 62 (*s*na-); Buck 10.35]. OIr snaid (DIL snaid) 'swims', Lat nō 'swim', Grk νυφεω 'swim', Av snayeti 'washes', Olnd stäti 'bathes', TochB nask- 'bath, swim'. Widespread and old in IE.

*pheu* - 'float, swim, wash'. [IEW 835–837 (*pheu*); Wat 52 (*pheu*); GI 587 (*pheu*); Buck 10.34]. OIr luad 'moves', Lat plus 'it's raining, perplexere 'rain through, admit rain', OE flo/wayne 'overflow (>NE flow), OHG flo/ven 'wash', OCS plovlo 'flow', Grk πλέω 'swim', Arm luqam 'wash', Av u-stivaya- 'swim away', fra-frivaya- 'swim toward', Olnd pлавать 'swims', плавать 'causes to swim, bathes, submerges', TochAB plu-'soar', TochB plus- 'float'. Widespread and old in IE.

* *suem* - 'swim'. [IEW 1046 (*suem*); Wat 68 (*swem*); Buck 10.35]. OIr do-seim (if < *suem-d-ne-o*) 'moves', Wels chwy 'movement', ON sv(in)ma - symja 'swim', swamla 'splash', OE swimman 'swim' (> NE swim), OHG swimmen 'swim', Goth swumis 'pool'. Widespread in Germanic and possibly attested in Celtic. Not certainly PIE in date and, if so, only as a western dialectal term.

See also *boat; clean; dive; wade*. [D.Q.A.]

**SWORD**

* *h2gasis* - large (offensive) knife, dagger, 'sword'. [IEW 771 (*tisi-s*); Wat 45 (*tisi*); GI 643 (*tisi*); Buck 20.271]. Lat *ensis 'sword', Palaic hasra- 'dagger', Av anah- 'sword', Olnd asi- 'sword, slaughterwing knife'; sometimes Grk ἀβρό 'sword' is also attributed to this series (<? *h2gai-*) but it is more likely to derive from *h2n-svar* 'hang', i.e., hang at the warrior's side as also Germanic *swerna-z* 'sword, that which hangs' (ON sverd, OE sword (> NE sword), OHG swert). The geographical distribution and the rare zero-grade i-stem suggests PIE antiquity for the form, the earliest attested form in Palaic probably indicates the earliest meaning of this word.

* *skolmeha* - 'sword'. [IEW 923–925 (*skol-ma*). Lat *skolm* 'sword', Thracian *sk6-ya* 'sword, knife'. Though confined to only two stocks, the meaning and form match exactly. Perhaps a late word of the IE west, perhaps a borrowing from one stock to another at an early age.

P Thiemt rejected the Latin-Old Indic cognate set as independent parallel developments from *h2gasi*- 'black' (i.e., the iron one) > 'sword' but the phonological and semantic agreement across the cognate terms is too strong to be so easily dismissed and the Palaic word underwrites the antiquity of this word in PIE. The problem rests with the semantic agreement since metallic swords are not commonly known in Eurasia prior to the late Bronze Age, i.e., c 2000–1500 BC, and, therefore, we have a reconstructed meaning that should not have come into existence until after the divergence of the Indo-European languages. Thus the underlying meaning was more likely to have been 'large knife' or 'dagger'. The possibility of the term denoting a dagger is strengthened by the Palaic derivative which means 'knife', and subsequent semantic developments in historically attested IE languages, e.g., Olnd saslra- 'knife, sword, weapon' (< *res- 'cut').

Metal knives which may be identified as possible offensive weapons are known from southeast Europe before 3500 BC and by the period c 3300–2900 BC daggers are well known in eastern Europe and the Caucasus with corresponding daggers manufactured from flint known from the same period. The earliest bronze daggers in the Aegean are generally dated to about 2900 BC. Within the European sequence by c 1800 BC the daggers are followed by rapiers, long narrow thrusting weapons, and then by slashing swords by c 1500 BC in Greece and south central Europe and later elsewhere. Asia offers somewhat earlier (c 2000–1500 BC) swords as copper swords with antenna hilts appear over a broad area, including the
SWORD

BMAC and the Copper Hoard culture of India. But if they must be assigned to the continuum of IE evolution, it is most likely that we are speaking of already differentiated Indo-Aryan or perhaps Indo-Iranian, rather than Proto-Indo-European. The most economical solution to the semantics of PIE *h₂/₃I)sis then is to presume that it originally referred to the metal (or flint) daggers that emerged in the late fourth millennium BC and that the original meaning was retained in Anatolian but shifted to more technologically advanced weapons in both Italic and Indo-Aryan. In fact, the Harappan culture has yielded several copper weapons with blades in excess of 40 cm long, some form of sword may have already existed in third millennium India prior to the arrival of the Indo-Aryans (presuming that the Indus towns were pre-Indo-Aryan). In the subsequent period of the Copper Hoard culture, there are a number of long swords known from India. The sword appears in Italy during the mid second millennium BC.

Although less likely, there is the remote possibility that the original referent was actually a 'sword' rather than a dagger. The distinction here is between a short thrusting weapon and a longer slashing weapon. A unique "sword" accompanied a burial at Klady, kurgan 31, in the north Caucasus. It measured 63.5 cm long and should date to c 3500–3300 BC. Although this might provide a suitable archaeological "fit" for a PIE reconstruction, the absence of swords from the period between the fourth and second millennia over most of Eurasia renders the reconstruction of a PIE 'sword' less likely.

See also KNIFE; SHIELD; SPEAR; TOOL. [M.E.H., J.P.M]

Further Readings


Sword a. Flint knife from Sredny Stog culture; b. Flint dagger from Yamna culture; c. Bronze dagger of Usatovo culture; d. Bronze dagger of Yamna culture; e. Copper "sword" from Klady, Maykop culture (63.5 cm); f. Late Bronze Age Urnfield (short) sword (50 cm).
TAIL

*υόλος 'tail hair (of a horse)', *ςαλαί (pl.) 'tail hair of horse', OInd ςάλα- - ςάρα- 'tail hair of a horse, horsehair'. A word of the center and east of the IE world.

*υόλος 'tail'.

Lith *vaičia* (pl.) 'tail hair of horse', OInd *vāla-~vāra- 'tail hair of a horse, horsehair'. A word of the center and east of the IE world.

*puk(eh)- 'tail'.

Lith *puk(eh)- 'tail hair (of a horse)'.

The distribution, in Germanic, Indic, and Tocharian, suggests PIE status.

See also ANATOMY; FOX; HAIR; HORSE; MAMMALS; SQUIRREL.

TAKE

The Indo-European languages, and apparently Proto-Indo-European itself, show a certain interchange of words for 'take' and 'give'. Certainly this is so in part at least because taking and giving are reciprocal relationships, labeling either end of a single transaction. A witness to the transaction could describe the situation using either verb, e.g., "She gave it to him", or, "He took it from her." A single verb, given the right context, may do the labeling for both, e.g., NE take to vs. take from.

In addition, given that the notion of exchange (between people, between people and the gods) was apparently very important in PIE culture, it is perhaps not surprising that a given verb may show up in one stock with the meaning 'take' but in another with the meaning 'give'. Perhaps the classic instance of this phenomenon is *deh3- which means 'take' in Hittite but 'give' in all other stocks where it appears. It also appears that in PIE we can divide the words for 'take' into two large groups: (1) those that emphasize the physical nature of taking (grasping, taking away, seizing, etc.) and (2) those that center on the social nature of the transaction.

Physical Taking

*h1ep- 'take, seize'.

The distribution, in Germanic, Indic, and Tocharian, suggests PIE status.

See also ANATOMY; FOX; HAIR; HORSE; MAMMALS; SQUIRREL.

[D.Q.A.]

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garownātī 'takes', OInd grbhnātī 'grabs'. With apparent PIE *bh-, rather than *bh- are ON grispa 'snatch', OE grewpian 'snatch'. Widespread and old in IE.

*gheleib- 'grip' (pres. *gheleib-e/o- and *gheleibhēh-o-). [IEW 457-458 (*gheleib-); Wat 23 (*gheleib-); Buck 11.57, BK 222 (‘gar-*gər-’).] ON grispa 'seize', take', greipə 'grope', OE gripen 'seize', take (> NE gripe), grapian 'grope, touch' (> NE grope), OHG grifan 'touch, take hold of', grifon 'grope, touch', Goth greipian 'seize', Lith griebtis 'seize', graibo 'seizes (repeatedly)', Latv griebtis 'seize', griebotis 'desire' (> *be grasping). Though limited to only Germanic and Baltic this extension of (unattested) *ghe- 'grip' (but note OInd hārātī [<*gher-] 'takes, carries, holds'), otherwise seen also in *gheleib-, has, because of the exact double morphological equation in Germanic and Lithuanian, a good chance of being at least a late PIE word.

*hirp- 'snatch, pluck'. [IEW 865 (*hirp-); Wat 54 (*hirp-); Buck 11.14.] Lat tāpō 'snatch away, carry off, plunder', Lith ap-nepūti 'seize, embrace', Alb tēp- tēpp 'lay, rob', Grk ἐρπετομαί 'browse on, feed on' (< *pluck). A word of the west and center of the IE world.

*la(m)hbh- 'seize, take into one's possession'. [IEW 652 (*labh); Buck 11.13, BK 588 (*labh-).] OPrus labs 'good', Lith libos 'possessions, riches', lobis 'become rich', labos 'goods, good', Latv labs 'good', Grk λαμβάνω (with somewhat obscure β-, rather than φ-), 'seize', take', λαφωρίον 'booty', OInd lämbhate lābhate rābhate 'seizes, takes', läbha- 'acquisition, profit', rābhasa- 'impetuousness, violence'. At least a word of the center and east of the IE world.

*ghe(n)dh- 'seize, take in (physically or mentally)' (pres. *ghe(n)d(e)/o-). [IEW 437-438 (*ghe(n)d-); Wat 22 (*ghe(n)d-), BK 226 (*gat/-*gat-).] OIr ro-genn (< *ghednhe/o- 'finds a place in', Wels gannaf 'finds a place in', Lat pre(hen)do (< *pre(hen)do- 'grope') OPrus geta 'attain, produce, guess', gāta 'riddle', OE (be-)gæten 'receive, produce, forget', gæoten 'forget' (> NE forget), be-gennan (< *ghednhe/o-)/'begin' (> NE begin), OHG pi-gæzzen 'uphold', fir-gæzzen 'forget', bi-gennan 'begin', Goth bi-gitan 'find', du-ginnan 'begin', Lith gudotī 'guess, suppose', OCS gadića 'imagine, guess', Rus gadića 'guess, imagine', ża-gad-ka 'riddle', Alb gej (< *ghednhe/o-)'find, obtain', Grk χαόδαυο 'take in, comprise'. Widespread in the west and center of the IE world, certainly old there.


*kagh- 'catch, grasp'. [IEW 518 (*kagh-); Wat 26 (*kagh-).] Wels cau 'close, clasp', Lat colō (< *calō) 'tend, take care of', OSc kahad 'may he seize', OHG hag 'meadow', OE haga 'hedge, garden', OHG hag 'hedge', Alb kam/kb (< *kaghoe/o-) 'have, has, hold(s). A word of the IE west and center.

*sel- 'seize, take possession of'. [IEW 899 (*sel-); Wat 57 (*sel-); BK 164 (*sdlf/-*sdlf-).] Olr selb 'possession', Wels helf 'possession' (Celtic < *seltə), ON sela 'hand over, deliver', OE sellan 'hand over, deliver' (> NE sell), OHG sellen 'hand over, deliver', Goth saljan 'sacrifice', Grk ἔλαχιν 'take', ἔλοπ 'booty'. A word of the west and center of the IE world.

*tuer- 'take, hold'. [IEW 1101 (*tuer-); Wat 72 (*tuer-); Buck 11.11.] OPrus turī 'have, have to', Lith tverius 'seize, take hold of', turī 'have, hold', Latv tverī 'grip, seize, hold', turū 'have, hold', OCS tvorū 'form, tvorti 'shape, make', Grk σείπα (< *tuerehrι) 'band, bond', στόπος 'urn'. A word largely confined to the center of the IE world.

*dérgh- 'grasp'. [IEW 212-213 (*dérgh-); Wat 12 (*dérh-), BK 124 (*t'ar-*/t'ar-).] Mir dreghm (< *drehgmos) 'troop, band of people', ON targa 'shield', OE targe 'small shield, buckler', OHG targe 'edge, border'. Grk ἄρσωμα 'lay hold of, grasp with the hand', ἄρσας 'handful', ἀρχερί 'drama', Arm tr'ak (< *dérgh-so-) 'bundle of brushwood'. At all these words belong together, a likely word of the west and center of the IE world.

*(s)lag*e- 'take, hold' (pres. *(s)lag*e/o-). [IEW 958 (*slag*e-); Wat 61 (*slag*e-).] OIr leccan 'take, hold, latch' (> NE latch), Grk λάγομα 'take, hold'. Sparserly attested but the exact morphological match suggests at least a late PIE date.

Social Taking

*nem- 'take/accept legally' (pres. *nem*e/o-). [IEW 763-764 (*nem-); Wat 44 (*nem-); Gl 656 (*nem-); Buck 11.13.] OIr nem 'gift', ON nema 'take, get, learn', OE ninan 'take', OHG neman 'take', Goth nihan 'take (away), accept, receive', arbi-numja 'heir', Lith niuma 'rent, lease', Latv niuma 'rent, lease', neit 'take', Grk νέμω 'distribute, possess', νομίμα 'distribution, pasture', νόμος 'law', κληρονόμος 'heir', νομίσεις 'share', νεμέτωρ 'dispenser of justice, judge', νέμετος 'righteous anger, retribution', Av namah- 'loan'. Widespread and old in IE. The word appears to have emphasized the legal notions underlying the PIE concern with the exchange of goods among members of the community.

*dék- 'take, accept graciously or properly' (the only present that is reflected in more than one stock is *dék-). [IEW 189-191 (*dék-); Wat 10-11 (*dék-), Gl 95 (*trιkʰ); BK 132 (*trιkʰ/-*trιkʰ-)]. Lat dect 'it is proper', dēcō 'seem, appear', dēcūs 'proper order, behavior', OE tēhban 'determine, consider, think, propose', tēn 'produce, adorn, establish, appoint', OHG猜测 'bring to order'. Goth tēwā (< *dekwos) 'proper order', ga-tēwans 'appoint'. OCS děsp 'find', ORus dosin 'find', Grk δεκουμαι (Attic δεγκουμαι) 'take, accept; receive well or graciously, expect', δικέω 'think, imagine, seem; appear to be someone of repute', Hitt tākī 'is the same as', OInd dāsnōti ~ dāsī ~ dāsī 'brings an offering', dākṣati 'is doughty, able'. Widespread and old in IE. It was apparently the word for an important concept of social intercourse, whether between person and person or person and god, emphasizing the proper manner by which gifts and prestations were given and received.

See also EXCHANGE, GIVE; HONOR, RIGHT.
TARTARIA TABLETS

Further Reading

TARTARIA TABLETS

A Neolithic settlement in Romania, Tartaria yielded the two main phases of the Balkan Vinča culture which were covered by a layer attributed to the early Bronze Age (Cernavoda III, Coțofeni, Ezero cultures). The importance of the site lies in the discovery of a pit which contained human remains, twenty-six Vinča figurines, two alabaster figurines, a shell bracelet, and three clay tablets inscribed with signs and figures. These “Tartaria tablets” have been the center of numerous inconclusive controversies concerning their origins, date, specific archaeological context, and interpretation. Their excavator attributed them to a pit dug from the earlier Vinča layer and, on the basis of their similarity with early clay tablets in Mesopotamia, he dated them to c 2900–2700 BC. It was argued by a number of scholars that the tablets indicated distant connections with the Mesopotamian world (or more proximate world of Crete) during the early third millennium BC. The absolute date of the early Vinča culture, however, is now reliably established on the basis of radiocarbon dating which would set it to the period c 5000–4500 BC. This date completely upsets prior interpretations in that it requires the tablets from Romania to predate the evidence of writing in the Near East by nearly two millennia. Some have accepted both the association of the tablets with the Vinča culture and its absolute dates and suggested that writing first developed in southeastern Europe and then spread to the Near East. Others have argued that the tablets derived from a pit that was initially dug from a higher level, i.e., the early Bronze Age level, which would move them in date to c 3000 BC and allow one to retain some form of connections with the Aegean or Mesopotamia. The Tartaria tablets, irrespective of their specific chronological position (or even their authenticity which has also been challenged), are but a single example of a much more widespread tradition of signs found on pots, spindlewhorls and figurines which may unequivocally be dated to the Neolithic period of southeast Europe, i.e., before the appearance of writing in the Near East. There have been attempts to “systematize” the various signs (the Vinča culture has yielded over two-hundred different “signs”) and to compare them with Bronze Age scripts of the Aegean, e.g., Linear A, the Cretan syllabary. These attempts often proceed from the presumption that the signs do represent a language and that that language was an indigenous non-IE language spoken in the Balkans. Other than the obvious problems with the assumptive nature of this line of argument, controversy also concerns the conditions, social and economic, under which a society might have developed a script and whether these conditions obtained
in the Neolithic of southeast Europe. However one wishes to resolve any of these numerous issues, it seems probable that the Tartaria tablets and related Neolithic “documents” provide us with our earliest potential graphemic system for the peoples of Europe; that we will ever be able to identify their language much less read these signs (presuming that they are indeed graphemic) is another matter altogether.

[J.P.M.]

Further Readings

TASTE


*suehādof- ‘be tasty, please’. [IEW 1040 (*swād-); Wat 67 (*swād-); cf. Gl 100 (*swār-)]. Grk ἡξόω ‘rejoice’, Olnd svādate ‘± becomes savory’. Cf. Grk ἧξον ‘pleasure’, Olnd svādanam ‘making tasty’. The underlying verb is attested only in Greek and Old Indic but the derived adjective *suehādūs ‘sweet’ is practically universal. Old in IE.

?*sap- ~ ?*sep- ‘± taste, come to know’. [IEW 880 (*sap- ~ *sab-); Wat 58 (*sep-); Buck 15.32]. Lat sapiō ‘taste of, savor of, sapiens ‘wise, knowing, sensible’, Osc sipus (< *sēp-us-) ‘knowing’, ON sefi ‘sense’, OE sefa ‘understanding’, OHG int- sēllen ‘taste’, perhaps Arm ham (< *sapno-7-) ‘juice, taste’. The exact preform is unclear. Perhaps the Gmc sefi/sefa represent an analogical reconstruction of *sap- and connect this word with *sap- ‘speak’ seen in Lat sapa ‘must, new wine boiled thick’, ON saf ‘sap’, OHG saf ‘sap’. If the Armenian belongs here, we have evidence for a word of the west and center of the IE world. If the Armenian does not belong, then we have only evidence for a late dialectal word of the west.

?*smeg- ‘taste (good)’. [IEW 967 (*smeg(h)-); Wat 61 (*smeg-); Buck 15.32]. On smēkk ‘taste’, OE smēc ‘taste’, OHG smēcken ~ smēchen ‘taste’, Lith smagtis ‘cheerful, joy­ful’, smauguratiu ‘delight in something, nibble on, have a sweet tooth’. A late dialectal word in IE confined to the northwest.

See also EAT AND DRINK; FAVOR; PERCEIVE; PLEASE; SWEET.

[D.Q.A.]

TAZABAGYAB CULTURE

The Tazabagyab culture (c 1500 BC) is a variant of the Andronovo culture that occupied the region south of the Aral Sea on the lower Amu-Darya. Unlike the typical Andronovo groups of the steppe and forest-steppe who appear to have been largely pastoralists, Tazabagyab settlements seem to have been based on small-scale irrigation agriculture. Settlements, of which about fifty have been discovered, contained semi-subterranean houses of considerable dimensions (10 x 10 m or more) built of clay and reeds supported by timber posts. The population of these small villages is set to about a hundred or less. The remains of horse are found on settlements as well as figurines of horses. Tazabagyab cemeteries recognized the right:male left:female dichotomy in burial position that is occasionally encountered among other putatively Indo-European groups, e.g., the Bishkent, Swät, and Vakhsh cultures. The metal objects have their best parallels with both early Andronovo material of Kazakhstan and Srubna material from the Volga region Their ceramics are found widely over Central Asia during the Namazga VI period when there was a regional contraction of urbanism. The culture is commonly regarded as the result of an expansion of steppe pastoralists from the north into Central Asia where they settled down in small agricultural communities. The direction of their spread was
apparently northwest to southeast and Tazabagyab material is found over a wide area. They are usually taken to be associated with some phase of the expansion of Indo-Iranian-speaking populations.

See also ANDRONOVO CULTURE; INDO-IRANIAN LANGUAGES; NAMAZGA. [I.P.M.]

TEACH

*dens* - 'teach, inculcate a skill'. [IEW 201 (*dens*); Wat 11 (*dens*); BK 155 (*t'ar-/*t'ar-n*)]. Grk διδάσκω (< *di-dynsko*) 'teach', διδάσκα 'taught', Αν δίδαξε 'am instructed'. Cf. certain nominal derivatives: (1) *dipros* 'accomplished' in Av darya- 'skilled, clever', Olnd dastá 'miraculous', and perhaps Grk διδάξα 'knowing one' as an epithet of Persephoné; (2) *denses- 'teaching' in Grk (pl.) διδασκα 'counsels, plans, arts', Av daastra- 'skill, versatility', Olnd dàmsás- 'marvelous act'. This word is limited to the southeast of the IE world.

See also LEARN. [D.Q.A.]

TEAR

*h2èkru* (gen. *h2èkrus*) 'tear'. [IEW 23 (*akru*), 179 (*dakru-*)]; Wat 10 (*dakru-); GI 715-716 (*t'akru*]). Lith ašarà 'tear', Latv asara 'tear', Hit ishahru- (< *s-h2èkrus*, with *h2e...k* = *h2e...h2*') 'tear', Av ašu- 'tear', Olnd aštu- 'tear', TochA ąkar 'tear', TochB akrtina (pl.) 'tears'. Related is *dh2èkru* 'tear': Olr dēr 'tear', Wels deigryn 'tear', OLat dacruma 'tear', Lat lacrima 'tear' (it is possible that the Latin words are actually loanwords from Greek), ON tár 'tear', OE tār (Northumbrian tæhter) - teagor 'tear' (> NE tear), OHG zahr 'tear', Gothic tager 'tear', Grk δάκρυω - δάκρυον - δάκρυα 'tear'. This *dh2èkru* is either because of the presence of a prefix *d- or because of misdivision in such phrases as *tod h2èkru* 'this tear'. Further complications are seen in OHG trahan (< *drakru- < *dakru-*) 'tear' and Arm artawsr (pl.) artasuk 'tear'. Though showing phonological complexities, it is essentially pan-IE in distribution and surely PIE in age.

See also ANATOMY, EYE. [D.Q.A.]

Further Readings


TEAR2

*velh2* - 'strike, tear at'. [IEW 1144-1145 (*vel*); GI 413 (*vel*); BK 485 (*wal-/*wal-)]. Lat vello 'pluck, tear', volnus 'wound', ON valr 'corpse on the battlefield' (cf. Valhalla, Valkyrie), OE wæl 'battlefield', OHG waI 'battlefield'. Goth wilwan 'rob', wulwó 'booty', Grk ovdij 'wound scarred over', Hit wallú- 'strike, attack', walli- 'plucked', HierLuv waI (aI) 'die', TochA wāI- 'die'. Widespread and old in IE.

*der- 'tear off, flay'. [IEW 206-208 (*der-); Wat 12 (*der-); GI 612 (*t'ar-); Buck 9.21, 9.27, 9.28; BK 116 (*t'ar-/*t'ar-)]. OE teran 'tear' (> NE tear), OHG zeran 'tear', Goth dis-tairan 'tear apart', Lith diriu 'flay', OCS dero 'flay', Grk δέπω 'skin, flay', Arm terem 'flay, strip bark', Av dardar 'split', Olnd dápåti 'causes to burst, tears', TochA tšar- 'separate'. Widespread and old in IE.

*drep- 'scratch, tear'. [IEW 211 (*drep-); BK 117 (*t'ar-ap/-/*t'ar-ap/-)]. Rus drjapati (with secondary -j-) 'scratch, tear', SC drapati 'tear up, wear down', Pol drapać 'scratch, shave, rub; run away' (Proto-Slavic *drąpa-), Grk δρέω 'pluck', δρέανον 'sickle', TochB rāp- 'dig', TochB rāp- 'dig' (PIE *dr- > Toch r- is regular). The Proto-Slavic infinitive *drapati is the exact match of the Tocharian B infinitive rāpati. Probably belonging here are Hit tēripā 'plows', tills', HierLuv tarrannapos of 'plowing' (< Proto-Anatolian *Tērep- < *Trep-), though the Anatolian forms have also been related to PIE *trep- 'turn'. An extension of Slavic, Greek and Tocharian guarantees this word's PIE status. If the Anatolian words also belong, we have evidence for something old in IE.

*rendh- 'rend, tear open'. [IEW 865 (*rendh-); Wat 54 (*rendh-), Buck 9.28] OE rendan 'rend, tear' (> NE rend), rend(e) 'rend, crust' (> NE rend), OHG rinta 'rend, crust', Olnd randhram 'opening, split, hole'. Its geographical distribution suggests PIE status despite the modest number of stocks that attest it.

*reu(h2)- 'tear out, pluck'. [IEW 868-870 (*reu-); Wat 55 (*reu-), BK 601 (*ruw-/*/ruw-)]. Mit rūm 'spade', Lat ruo 'tear off, pull violently', ON rýja 'pluck wool from a sheep', Lith rątį 'pull out, weed', rævi 'weed', OCS rjko 'dig', rāp' 'pull out', TochAB ruwa- 'pull out (from below the surface with violence)'. Related is *reuun- 'horsehair, fleece'.

*h2treik- 'tear (off)'. [IEW 858 (*treik(h)-)]; Wat 54 (*rei-), Buck 9.28]. Wels rhwýgo 'tear', OHG rihán 'pull a thread', Lith riekūt 'cut bread, Grk ἐρείκω 'break, tear', Olnd rikhtá (with expressive -kh- rather than the expected -k-) 'scratches'. Reasonably widespread in its geographical distribution, certainly old in IE.

*h2reip- 'tear'. [IEW 858-859 (*reip-); Wat 54 (*rei-), Buck 9.28]. Lat ripta 'bank (of a river), shore (of the sea)' (< *where the water tears into or erodes the land'), ON rífa 'tear out', Grk ἐρείπω 'dash down, tear down', (pl.) ἐρείπια 'broken cliff, crag, overhang, sheer ascent'. A word of the west and center of the IE world. Like the previous word, it is an enlargement of an unattested *h2rei-.

*plek- - 'break, tear off' (pres. *plokei*). [IEW 835 (*plek-)]; Wat 52 (*plek-); Buck 9.29; BK 35 (*pl/je/- *pl/jeP*). ON fla 'flay', OE flæn 'flay' (> NE flay) (< Proto-Gmc *flahan-). On lľanga 'peel off', Lith plėšiu 'tear off', Alb plas (< *plokej/kej-) 'burst, break'. A word at least of the west and center of the IE world.

*leup- 'peel'. [IEW 690 (*leup- - *leub-); Wat 37 (*leub-); Buck 8.56]. Lith lupu 'pare, peel, skin; whip; root out by digging, extract', Latu lupu 'pare, peel, skin'. Rus luplu
'pare, peel, pick off', Olnd lumpati ~ lopáyati 'break, violate, hurt', lópra 'booty'. A word of the center and east of the IE world.

*lak*- 'rend, tear'. [IEW 674 (*lek-*); Wat 36 (*lek-)]. Lat lacer 'worn out, lacerated', Alb lakur 'naked', Grk λακυς 'rent, rag, tatter', λαξικός 'rend, tear', (Hesychius) ἀπεξήνα 'broke off, sundered'. A word of the west and center of the IE world.

*lep*- 'peel'. [IEW 678 (*lep-); Wat 36 (*lep-); Buck 8.56]. The underlying verb is seen only in Grk λέπη 'peel'. Nominal derivatives are to be found in OE lóf 'head band', Lith ląpas 'leaf', ląpas 'patch, piece', Rus lăpott 'bast-shoe', Alb lăpē 'dewlap of an ox'. A word of the west and center of the IE world.

See also Hair; Line; Scrape; Tendon; Textile Preparation. [D.Q.A.]

TENCH

*snēhur* 'sinew, tendon'. [IEW 977 (*snēu(-e)r-); Wat 62 (*snēau-); GI 716 (*snēu-r/-n-); BK 189 (*sin-/*sen-)]. Lat nervus 'sinew, tendon, muscle, nerve', Grk νέφον 'sinew, tendon, gut', Arm neard 'tendon', Av snāvāra 'tendon', Olnd snāvan- 'tendon', TochB sṇōr- 'a tendon'. A derivative of PIE age of *snēh₁(u)- 'turn, twist'.

See also Anatomy; Muscle. [D.Q.A.]

TENDON

*snēhur* 'sinew, tendon'. [IEW 977 (*snēu(-e)r-); Wat 62 (*snēau-); GI 716 (*snēu-r/-n-); BK 189 (*sin-/*sen-)]. Lat nervus 'sinew, tendon, muscle, nerve', Grk νέφον 'sinew, tendon, gut', Arm neard 'tendon', Av snāvāra 'tendon', Olnd snāvan- 'tendon', TochB sṇōr- 'a tendon'. A derivative of PIE age of *snēh₁(u)- 'turn, twist'.

See also Anatomy; Muscle. [D.Q.A.]

TERRAMARE CULTURE

The middle Bronze Age (c 1500–1100 BC) culture of the Po Valley is known as the Terramare culture. It takes its name from the black earth (terramare) residue of settlement mounds which have long served the fertilizing needs of local farmers. The original settlements were often constructed on piles and developed into large mounds over time. In size they ranged up to 20 ha in size and were defended by banks and ditches. The arrangement of houses in rows might assume a grid-like pattern (such evidence was employed to associate the builders of Rome with the earlier Terramare). Both inhumation and cremation was employed in burial and cemeteries might have hundreds of burials. The grave would be accompanied by pottery and metal goods, among the latter bronze weapons, razors and ornaments. Earlier interpretations of this culture remarked on its introduction of cremation burials, shift of settlement location, and ceramic and metallurgical similarities to cultures of Central Europe to propose that it represented an intrusive culture which might be associated with IE movements into Italy.

See also Italic Languages. [J.P.M.]

TERRIBLE

*garšos* 'frightening, threatening'. [IEW 353 (*garšo-s); Gl 85 (*garš-)]. Olr gar 'rough', OCS groza 'shudder, horror', Rus groza 'threat', Arm karcr 'hard'. Lith gražoti 'to threaten' may be a Belorussian loanword while Grk γοργός 'terrible, frightful, savage', connected with the monstrous Gorgon, cannot be securely associated with these forms. IE status is extremely uncertain.

*saiuos* 'hard, sharp, rude'. [IEW 877 (*sai-u-)]. Lat saevus 'hot-headed, raging, ferocious', Lith sažius 'sharp, hard, rough' (the Lithuanian form is assumed to reflect distant assimilation of s > š under the influence of ž, viz. < *sažušas), Latv sievs – sīvs 'hard, curt'. Apparently only a Latin-Baltic isogloss.

*ghouros* 'sad, pitiful'. [IEW 453–455 (*ghou-ro-s)]. OCS gora 'sad, sorrowful', OCS żurba 'grief', Olnd ghori- 'terrible'. Perhaps also ON gaurr
TEXTILE PREPARATION

Thread

*dekk- 'thread, hair'. [IEW 191 (*dekk-); Wat 11 (dekk-); Buck 4.14; BK 159 (*t'ak[k]-/*t'ak[k]-)]. On tāg 'thread, fibre', MHG zäch (< *dekk(ech)-) 'wick', Khot dasa- 'thread', Olnd dasa- 'fringe'. Other derivatives have come to mean 'hair': *doklo-in Olt daal 'lock of hair', OE teeg(e)l 'tail' (> NE tail), OHG zagal 'tail', Goth tagl 'a single hair', and *dek(u)eh2- in TochA sāku 'headhair'. This word is old in IE and probably the oldest one we can reconstruct whose meaning sumbuses 'thread', particularly thread spun from wool or vegetable fibre. The creation of a thread out of the amorphous fluff of fibre provides the basis for a Greek metaphor of life and human fate as witnessed by the activities of the Greek Moirai, a concept subsequently borrowed in the Lat Parcae, and still later in the Germanic Norns.

*g[h]ih[s]lo)- *sine, thread'. [IEW 489 (*gh]hita)-; Wat 25–26 (*gh])h-lt)-. (1) *g[h]ih[s](e)h2-: Wels gau(pl.) 'nerves, sinew', Lith gija 'thread (in a warp); skin, hank (of yarn)', Latv dzija 'thread' (pl. 'yarn'), OCS žica 'sinew'; (2) *g[h]ih[s]lo)- Lat filum 'thread', Lith gyšla 'vein', Latv dzisla 'vein', Arm jil' cord'. This would appear to have been at least the late PIE word for thread made from animal sinew or the like, as opposed to thread spun from wool or vegetable fibres.

*teu-m- 'thread-end'. OE prumm 'thread-end' (only attested in tunge-prumm) 'tongue-ligament' (> NE thrum), Grk (ep)u(m)os 'be-thrummed'. The apparent agreement of Old English and Greek in specializing the common PIE word *term- 'end' to the ends of the warp-threads, and then to fringes on clothing, may be accidental but it is possible that this specialization is of late IE date.

*pe/othanos 'thread'. [IEW 824 (*per-); Wat 51 (*pera-). Scots Gael aithemn 'thread', OWels etem 'thread, yarn' (< Celt *etam), ON faðmnr 'a measure; arms', OE laðm 'outstretched arms, fathom' (> NE fathom), OHG faðan 'thread'. An isogloss of the western periphery of the IE world built from *pet- 'stretch out', i.e., arms spread apart as in preparation of yarn.

Cloth

*los- 'cloth'. [IEW 680 (*los-)]. MHG lasche 'rags', Lith laškana 'rags', Latv leška 'rags, tatters', Rus losskut 'rag' (Germanic, Baltic, and Slavic < *le(os)-ko-). Khot r(t)ha-ta- 'cloth', Olnd las-pajian- 'large needle' (< *cloth-piercer?). Not everyone would agree that all these words belong here; however, if so, the attestation in the west and east of the IE world is a strong argument for at least late PIE status for this word.

See also BAD, PAIN. [J. C. S.]

TEXTILE

Under this heading are assembled the various terms that pertain to the material of textiles.

Thread

*dekk- 'thread, hair'. [IEW 191 (*dekk-); Wat 11 (dekk-); Buck 4.14; BK 159 (*t'ak[k]-/*t'ak[k]-)]. On tāg 'thread, fibre', MHG zäch (< *dekk(ech)-) 'wick', Khot dasa- 'thread', Olnd dasa- 'fringe'. Other derivatives have come to mean 'hair': *doklo-in Olt daal 'lock of hair', OE teeg(e)l 'tail' (> NE tail), OHG zagal 'tail', Goth tagl 'a single hair', and *dek(u)eh2- in TochA sāku 'headhair'. This word is old in IE and probably the oldest one we can reconstruct whose meaning sumbuses 'thread', particularly thread spun from wool or vegetable fibre. The creation of a thread out of the amorphous fluff of fibre provides the basis for a Greek metaphor of life and human fate as witnessed by the activities of the Greek Moirai, a concept subsequently borrowed in the Lat Parcae, and still later in the Germanic Norns.

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Felt

*pil-so- ~ *pil-to- 'felt'. [IEW 830 (*pi-lo-); Wat 51 (*pilo-), Buck 4.14]. Lat pil(e)us (< *pil-so-/-to-) 'felt' (adj.), OE felt 'felt' (> NE felt), OHG fīz 'felt' (Gmc < *pil-to-/-to-, OCS pilst'/felt', Grk πίλιος (< *pilos) felt'. From *pilos ('single) hair (of the human body)', cf. Lat pilus ('a single) hair (of the human body)', itself a variant, via sporadic unrounding of the *-u- in a labial environment, of *pulos ('a single) hair (of the human body').

Felting is the process of matting wool or hair together by a combination of pressure, warmth, and dampness into a stable fabric. Heat and moisture cause the tiny scales on the surface of the hairs to stick out; prolonged kneading when they are in this condition causes them to become inextricably interlocked. In this way is created a solid fabric without benefit of either weaving or knotting. The fact that all of these words for 'felt' are derived from *pilos rather than *pulos suggests that the various IE stocks having this word have borrowed it from some variety of IE which, like Latin, had *pilos rather than *pulos. Felting seems to have been discovered early in the third millennium BC in central Europe or on the Eurasian steppes. It is possible that the developers of the process were IE speakers of a "pilo-dialect"; it is also possible that speakers of a "pilo-dialect" borrowed the process from some non-IE group, named it, and then "lent it out", so to speak, to other IE-speaking groups.

See also CLOTH, HAIR, TEXTILE PREPARATION. [D. Q. A., E. J. WB.]

Further Reading


TEXTILE PREPARATION

Here are grouped those terms associated with the manufacture of textiles.
Pluck and Comb Wool

*pék-* ‘pull out (e.g., wool), comb out (e.g., wool)’ (presents classical Latin *carō* is an anachronism by post-fourteenth century AD scholars who didn’t know that carding was invented only in the fourteenth century. No ancient piece of wool has yet been found that was carded rather than combed. In carding the fibres are fluffed crossways; in combing the fibres are made to lie parallel. These yarns have crucially different properties. It may be significant that, though the word is old in IE, the meaning ‘comb (wool)’ is found only in European languages.

*kes-* ‘comb’ [IEW 585 (*kes-*)], Wat 30 (*kes-*) , GI 74, BK 243 (*kʰl̂as-/*kʰl̂as-*). Mfr *cir (< *kes-reh-*) ‘comb’, ON *haddr (< *kos-dh-o*) ‘woman’s headhair’, OE *heordan* (pl.) (*kos-dh-ION) ‘hairs (of flax); tow’, Lith *kasa* ‘braid of hair’, OCS *češan* ‘comb’, *kosa* ‘hair’, *kosma* ‘hair’, Rus *kosa* ‘braid’, Grk *χάινω* ‘scrape, comb, (hair or wool), full (cloth)’, *ξάινω* ‘comb (for wool)’, Hit *kiss- (*kis-)’ ‘comb’. This word is widespread and old in IE. It would appear that the focus of its meaning was the combing of human hair but that it could also be used of combing wool or flax.

See also TIR2 [D Q A., E. J. W. B.]

Felt

*nak-* ‘press, squeeze’, also ‘felt wool?’. Lat *nacce* ‘cloth-fullers’ (this is a word that is usually taken as a Greek loanword in Latin; however, there is no reasonable Greek word to provide the Latin borrowing and it is probably better to assume that it is inherited in Latin). Grk *vássou* ‘press, compress, stamp’, (Hesychius) *tά vοκτά* fell shoes, *Hit *nakki*- ‘weighty, important’, *nakke-(ss)- (*be- (come) heavy), TochB *naks*- ‘blame, reproach’. Perhaps also here are Grk *váikoς* ‘fleece’, *váció* ‘woolly or hairy skin’, and *váko-ti-tié* ‘pluck wool’ [IEW 754 (*nak-*)]. The semantic change would be ‘what is felted’ > ‘wool’. *nak-* appears to be old in IE with the meaning ‘press, squeeze, stamp’. The particular association we see with cloth in Latin and Greek may be the result of independent innovations in the two groups. If Grk *váikoς* belongs here (rather than with OE *nasc* ‘soft leather, deer leather’, OPrus *nogman* *leather’ [IEW 754]), then the association of *nak*- with cloth-making looks to be quite old in Greek and perhaps *nak*- with the meaning ‘felt’ is late PIE or a post PIE borrowing from another IE group.

Plait


PIE distinguished between two very different ways of interlacing elements. Technically, weaving is done under tension: one set of elements (the warp) is held tight on a frame (the
loom) while the other set of elements (the weft or woof) is interlaced into the warp. In plaiting there is no tension, and no distinction between warp and weft—in fact, there may be more than two sets of elements, as in braiding that uses three.

*resg: 'plait, wattle'. [IEW 874 (*resg-); Wat 55 (*resg-); Buck 9.19, 9.75]. Lat restis (< *resg-tis) 'rope, cord', OE resce (< *weorc) 'rush' (> NE rush), MHG ruschu 'rosche 'rush'. Lith resg(u) 'knit, do network', Latv režēt 'knit, do network', OCR resga 'root, branch', NPers rayza 'woolen cloth', Olnd rāju- 'cord, rope'. Again widely distributed in IE and undoubtedly of PIE age. The reflexes of this word suggest a coarser kind of interlacing than for *plek-, perhaps including wattling.

*vel(hb): 'plait, wattle'. [IEW 1120–1121 (*velt- ~ *vela-); Wat 74 (*vel-); GI 559 (*vel-)]. Lat vœo 'bind, interweave', ON veigr 'wall', Goth waddjus 'wall' (< *wajju- < *wōitha), Lith vējus 'wind', OCS vijp 'twist, interweave', Olnd vājai 'weaves'. Cf. the widespread nominal derivative *uinnamon- in Mrī lam 'chain', Lat vīmen 'plant twig, switch, withe, osier', Grk ēijūdēs 'shepherds' huts', Olnd vāmnan- 'weaving stool' (the difference in meaning of the Old Indic word presumably betokens an independent derivation). There are numerous other nominal derivatives: (1) *velta in OIr fēth 'fibre', Av vaeiti 'withy, willow'; (2) *ui̯hātis in Lat vitis 'vine, grape tendril', ON vīðtr 'withy, willow', Lith vytis 'osier-switch', OCS vīt 'something twisted to form a cord'; (3) *ui̯hāteik- in Lat vitex 'chaste-tree (Vitex agnus-castus), OE wīdēg 'withy' (> NE withy), (4) *ui̯utas in Late vitus 'felly', OPrus wītwan 'withy', apewitwo 'a kind of willow', Rus vītvina 'twig, switch, osier', Grk φυτόδέσ 'felly, shield edge, withy', õtė 'withy', olōtōs (< *oīuto) 'withy', Vitex agnus-castus'. Widespread and old in IE. Here would appear to be the usual PIE word for the wattling part of 'wattle-and-daub' construction.

*kert- 'plait, twine' (pres. *kpnēt). [IEW 584–585 (*kert-); Wat 30 (*kert-); BK 263 (*kpnēt-/*kpnēt-)]. Lat crātis 'wickerwork, hurdle, honeycomb' (the Latin looks to be from an otherwise unattested *kertad-, ON hird hurdle, OE hyrdel hurdle (> NE hurdle), OHG hirt hurdle', Goth haírds 'door', OPrus corto 'hedge', Grk κάρπαλλος 'basket', κυμπρία 'wattle', κυρτός ~ κύρτη 'fishtrap, cage', Olnd kpaati 'spins', kattar- 'spinner', kutt- (< *kpt-) 'hut', kaf α (< *karter-) 'mat'. Widespread and old in IE.

*mesg- 'intertwine'. [IEW 746 (*mesg-); Wat 42 (*mesg-)]. On mpskvi 'mesh', OE max'net, maescere 'mesh', MDutch maesch 'mesh' (borrowed > NE mesh), OHG masca 'stitch', Lith mesgū 'knit', mažgaz 'knot', Latv mežgi 'knit', mažgs 'knot, mežgā 'mishmash, something badly woven', TochA masak 'knot, bond, connection', TochB meske 'knot, bond, connection'. At first glance this word might appear to have meant 'knit' (as it does in Baltic); however, knitting is only attested in the archaeological record since the third century AD at Dura-Europos in Syria. While clearly older than that, the technique is equally clearly not of PIE date. What we may have here in *mesg- is a word for creating sprang, a plaiting technique in which threads or cords are intertwined over one another to form an open-work mesh. Threads are stretched between two parallel beams and neighboring threads twisted around each other (as in a cat's cradle). The twists are pushed symmetrically to both ends and held by a rod until the next twist can be put in to secure the preceding twists. The work proceeds in this fashion until the two groups of twists meet in the middle and are darned together to prevent unravelling. The resulting fabric is very elastic and was much used for hairnets, stockings, or sleeves, which had to be able to stretch to go over masses of hair or around awkward corners like heels and elbows.

[D.Q.A., E.J.W.B.]

Spin

*(s)nehj₁(is)- 'twist fibres together to form thread; occupy oneself with thread' (present *s(ne)hj₁je-o). [IEW 973 (*snē-); Wat 62 (*sne-); GI 609 (*sneh-(*un-)); BK 189 ('sin/*sen-)]. Mlr snīd'twists, binds, torments; strives', Wels nyddaf'spin', Lat neō 'spin', OHG nāwken 'sew, stitch'. Lat snāją 'twist loosely together, spin', Grk vēō spin', οὐκονίητος 'well-spin', Olnd snāja-'band, sinew'. Widespread nominal derivatives include: (1) *snohj₁je in Olā snāth 'thread', OE snōd 'headband' (> NE snood), Latv snāte 'linen shawl, cape'; (2) *snehj₁is in OHG nāt 'seam', Grk vēða'spinnning', (3) *snehj₁mp in Lat nēmen 'tissue, fabric', Grk vijā 'thread, yarn'. Since they are all banal noun formations, they may all be independent in the various IE groups. In two traditions derivatives have given words for 'needle': Celtic in Olā snathāt and Germanic in ON nād, OE mēd (> NE needle), OHG nādāla, Goth nēšla (< *neh₁-jēh₁₁a). From *(s)nehj₁₁ (< *(s)neh₁₁) we have: Lith nytis 'weaver's reed', OL nīs 'some part of the loom', Rus nīt 'thread'. This widely attested verb would seem to have been the original PIE term used to designate the process by which thread or yarn was made, either by twisting fibers together or by stretching and twisting sinew, gut, etc.

*snehj₁u- 'twist fibres together to form thread, occupy oneself with thread'. [IEW 977 (*snēu-); Wat 62 (*sneh-); GI 609 (*sneh-(*un-)); BK 189 ('sin/*sen-)]. On snāja wind, (double and) twist (yarn), twine (thread), Latv snaujas 'noose, snare', OCS snūjo'set warp'. Either from *snehj₁-u-for *(s)nehj₁₂ 'sinew, tendon' are Lat nervus (< *neuro-) 'sinew, tendon, muscle, nerve', Grk κέφαλισ 'noose, sinew, tendon, cord', Arm neard (< *sēug) 'sinew, tendon, fibre', Av snārava 'sinew, tendon'. Olnd snāvan- 'tendon, sinew', TochB shāor 'sinew'. *Snehj₁u- is another derivative, also old, beside *snehj₁₁ of *(s)neh₁₁.

*(s)pen- 'draw, spin'. [IEW 988 (*spen-); Wat 63 (*spen-); Buck 6.31]. On spīna'spin', OE spīnan 'spin' (> NE spin), OHG spīnan 'spin', Goth spīnan 'spin' (Gmc < *(s)pen-a-), OPrus pānto 'chain', Lith pina- 'weave', pina- (pl.) 'woven fence', Latv pīna 'weave', OCS pīna 'tighten, strain', Alb pe (pl. penj) 'thread' (< *penos), Grk πενναί 'toil (particularly at household tasks)', Arm ḥanum ~ ḥenun 'weave', TochA parw- 'draw out, stretch', TochB pān- 'draw
TEXTILE PREPARATION

(out), stretch' (Arm and Toch < *pen-u-). The meaning 'spin', i.e., draw out fibers to make thread, may be an old specialization of 'draw out, span' or it could equally well be that the 'weave' meanings shifted from the notion of working with thread. This specialization must be at least late PIE in date.

*terkw* (< *terk-*) 'twist' (>.spin'). [IEW 1077 (*terk-*)-Wat 70 (*terk-*)-Buck 6.32]. Lat torcque{'twist, wind; hurl violently; torment', OE *præstan* turn, twist, write', OHG drähal*roller*, OPrus tarkue 'reins', OCS traktō 'band, belt', Rus tork* 'reins', Alb tjerr (< *terkne-o-*) 'spin' (also tjerr 'worsted, flax yarn spun with a spindle'), Grk âtrpáctos*spindle*, âtrpexit*strict, precise, exact' (< *what is not turnable*), Hit tarka(wa)- 'turn oneself, dance', OInd tarku- 'spindle', TochA tark- 'earring', TochB tark- 'twist around; work (of wood). The hapax Mīr trochal- 'trottal' sling' is sometimes put here but it may well be a borrowing from Lat torculus 'kind of catapult'. Otherwise, this is a widespread lexeme, old in Indo-European, that in several dialect areas (Albanian, Greek, Old Indic) has been specialized to 'spin', presumably starting with the notion of 'twisting' the fibers of wool or flax together so as to make a long thread.

*yarp- *spin; sew' (?). [Buck 6.31]. Lith verpiu 'spin', varpsis ~ varpste 'spindle', Latv vērpt 'spin, twist here and there', virpēt 'spun with a spindle', and are sometimes put here but it may well be a borrowing from Lat torculus 'kind of catapult'. Otherwise, this is a widespread lexeme, old in Indo-European, that in several dialect areas (Albanian, Greek, Old Indic) has been specialized to 'spin', presumably starting with the notion of 'twisting' the fibers of wool or flax together so as to make a long thread.

Weave

*hta5eu- 'weave'. [IEW 75-76 (aeu-); Wat 4 (aeu-); Gl 498; Buck 6.33]. ON vād 'weaving', OE wād 'clothes' (> NE weeds as in 'widow's weeds'), OHG wat 'clothes', Lith aužtau 'weave', at-aužai 'woof', Rus uslo 'weaving', Arm z-awd 'band, cord', OInd u- 'weave' (suppletive present vājati), ētu- 'weft'. This is the most basic term for 'weave' that is reconstructible for PIE. It has largely been supplanted, within PIE itself, by the enlarged *hta5uebh- of the next entry. Cf. ON auðna 'fate', OE ēad 'wealth, luck' from the notion of 'weaving one's fate'.

*hta5uebh- 'weave'. [IEW 1114 (*uebh-); Wat 73 (*webh-); Buck 6.33]. ON vēla 'weave', OE webban 'weave' (> NE web), OHG weban 'weave', Alb vej (< *hzauebhnie-o-*) 'weave', Grk ὕπατα 'weave', Hit ḫupaia- 'entangle, ensnare; interface', ḫupala- 'net' (though -pp-, reflecting PIE *p- rather than *bh-, is not well explained), ḫupa- a type of woven material, Av ub-daēna 'made of cloth', NPers bafād 'weaves', OInd udbhāti = umbhāti = unapāti 'ties together', ārā-vaβhi- 'spider' (lit. 'wool-weaver'), TochA wāp-'weave', TochB wāp- 'weave', wēlme 'spider's web', wape (< *hzauebhlos) 'spider'. This enlargement of *hta5eu- would appear to have been the usual word for 'weave' in later PIE, contrasting traditionally with plant.

*yeg- 'plait, weave'. [IEW 1117 (*eg-); Wat 73-74 (*eg-); Gl 367, Buck 6.33]. Olr fīgid 'weaves', O'Wels guetic 'weave', Lat velum (< *yeg-slimo) 'sail, cloth', OE wéoce 'wick' (> NE wick), MHG wih't 'wick', Olnd rājgra 'net for catching animals'. This would appear to be an old word in Indo-European. Perhaps its oldest meaning had reference to some sort of plaiting. Only in the far west of the IE world, in Celtic and Italic, did it become the regular word for 'weave'.

There is no archaeological evidence from the PIE period that allows us to know for certain what kind of loom or looms the Proto-Indo-Europeans used. Linguistic evidence shows that they knew at least the simple hand loom, the narrow warp of which is hitched to any two convenient objects. Such a loom produces a narrow piece of fabric ideally sized for a belt or cinctus. There is no evidence that they were familiar with either the ground warp-weighted loom, which appears to have developed along the Tsza and Danube rivers (and is relatively easy to trace archaeologically because of its clay weights, which are far less perishable than the usual wooden parts). The latter loom seems to have been known at least as far east as the Cucuteni-Tripolye culture of the Late Neolithic in Romania and the western Ukraine. Under some scenarios the Cucuteni-Tripolye culture is either the western neighbor of the Proto-Indo-Europeans or is itself identified with the PIE communities. But all vocabulary for the warp-weighted loom in Greek, for example, has been borrowed; and the Indo­

varpste 'weave', Grk ὕπατα 'weave', Hit ḫupaia- 'entangle, ensnare; interface', ḫupala- 'net' (though -pp-, reflecting PIE *p- rather than *bh-, is not well explained), ḫupa- a type of woven material, Av ub-daēna 'made of cloth', NPers bafād 'weaves', OInd udbhāti = umbhāti = unapāti 'ties together', ārā-vaβhi- 'spider' (lit. 'wool-weaver'), TochA wāp-'weave', TochB wāp- 'weave', wēlme 'spider's web', wape (< *hzauebhlos) 'spider'. This enlargement of *hta5eu- would appear to have been the usual word for 'weave' in later PIE, contrasting traditionally with plant.

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Textiles a. Map of loom types and textile regions. Light shading represents area of ground looms; dark shading indicates area of the warp-weighted loom. Central Europe and SW Asia both employed flax (and later) wool while the region to their north used primarily wool. The reconstructed PIE lexicon indicates words for 'wool', 'weaving' and 'plaiting' but not for looms. The word for 'flax' is confined to the west and center of the IE world.

unusual (words that otherwise look like they began with *r- were actually preceded, on the evidence of Greek, by a laryngeal, i.e., *h₁r-, *h₂r-, or *h₃r-), the exact phonological, morphological, and semantic match between Old Indic and Greek would seem to assure at least late PIE dialect status. From the point of view of the ~universals of color terminology it is interesting to note that in Indo-Iranian at least 'color' and 'red' as color par excellence, were closely intertwined (cf. Spanish colorado). From the point of view of dyeing it is important to note that red (especially if we include 'browns' and 'oranges') is the first attested color in dyed textiles in all of the European and Near Eastern areas where dyeing is attested early.

See also DARK. [D.Q.A., E.J.W.B.]

Full

*knab(h)- 'pick at, tease, out'. [IEW 560–561 (*kne-hh-)]. Wels cnail 'fleece', ON *hnafla (pret. hňof) 'punch out', MDutch noppe 'nap, pile' (borrowed > ME noppe 'pile, nap' > NE nap), Lith knabenti 'pick at, peck at', Latv knabrī 'pick, peck at', Alb krarbe 'hook, knitting needle', Grk κνάφω 'full (cloth)', κνάφος 'fuller's teasel', κνάφεως 'fuller' (Myc ka-na-pe-u 'fuller'). A word of the west and center of the IE world. Fulling, or the felting of already woven fabric, increases the insulation value of the cloth. The process is documented already in the late Neolithic in Europe. It is possible, but by no means certain, that the Proto-Indo-Europeans knew of the process and practiced it. If so *knab(h)- is our only candidate for the word designating it. Equally possible is the hypothesis that IE speakers acquired the process as they moved west into central Europe and came into contact with people(s) who had more sophisticated techniques of textile making. Under this latter scenario *knab(h)- would most likely be a borrowing by these IE groups from some non-IE language of central Europe.

[D.Q.A., E.J.W.B.]

Sew

*sjuh₁- 'sew'. [IEW 915–916 (*sju-); Wat 68–69 (*sYN-); Gl 610 (*syu(H)-); Buck 6.35]. Lat suo 'sew, sew up/together', ON sjýja 'sew, tie the planks of a ship together', OE sæowian 'sew' (> NE sew), OHG siuwen 'sew', Goth stójan 'sew', Lith siuvū 'sew, stitch, tailor', Latv šíva 'sew', OCS šijõ 'sew', Grk κασσαρία(< *kat-syō) 'sew', OInd śivatī 'sews, joins', Tocha su- 'sew'. This word is very widespread in IE and clearly ancient with precisely this meaning. There are a couple of widespread nominal derivatives: (1) *sjuhmēn in OPrus schumono 'waxed thread; shoemaker's thread', Grk ύμην 'thin skin, membrane, sinew', Hit sumanza 'thread', OInd śyūman- 'band, strap, thong, girdle; seam'; (2) *sjuhtos in ON stō 'sewn planks of a ship', sjōdr 'pouch, bag', OE sēod 'pouch, bag', MHG siut 'thread', Lith siušas 'sewn', Rus šitt 'sewn', OInd sveta- 'sack'. Sewing, along with needles and thread, was an art already known in the Paleolithic, one that has not changed appreciably over the millennia, so one would expect what we find here, namely an archaic root that has spread with the speakers of IE languages.

*(s)ner- 'fasten with thread or cord'. [IEW 975–976 (*sner-); Wat 62 (*sner-)]. ON snær 'woven cord or line', OE sner 'harpstring', OHG snaver 'cord', Goth snōrjō 'basket made with cords', Lith neriu 'thread (a needle), knit, crochet', Latv nārs 'clamp', Rus nerět — nerětō 'a kind of fish-trap', MIran nār- 'grasp', Tocha nāre 'thread; fringe'. Perhaps also belong here ON norva- 'narrow', OE nearu 'narrow' (< 'bound
TEXTILE PREPARATION

THICK

*dheb*- 'thick, packed'. [IEW 239 (*dheb-); Wat 13 (*dheb-)]. OPnus dapr 'sad', MDutch dapper 'quick, strong' (borrowed > NE dapper), OHG tapfar 'weighty, heavy', OPnus debikan 'large', OCS debel' 'thick', Rus debelyj 'strong', Luv tapar -'rule', Hit tabarna -'ruler' (Proto-Anatolian *dobros ± strong). TochA (par 'high', TochB tapre 'high' have been placed here but these are rather to be associated with the meaning 'deep'. The inclusion of Anatolian alongside what would otherwise be a series of cognates limited to the northwest greatly increases the likelihood of PIE status.

*tégus* 'thick, fat'. [IEW 1057 (*tégus-); Wat 69 (*tegu-); Buck 12.63, 12.64; BK 105 (*t[e]g-ik-/*t[e]k-ik-)]. OIr tuig 'thick, Wels tev 'thick', ON pykker 'thick', OE pierce 'thick' (> NE thick), OHG dicche 'thick'. Probably Hit tagu -'fat, swollen' with o-grade vocalism. Traditionally regarded as only a Celtic-Germanic isogloss (and doubted even there by some in light of the considerable loaning between those long-time neighbors), the recent addition of a plausible Anatolian leg to this item improves the case for PIE status.

*geretos* 'thick'. [IEW 485 (*geretos-); Buck 12.63]. Mir bres 'large, thick', Wels bras 'thick, fat', Late Lat grossus 'thick'. While the Celtic and Latin forms might conceivably come from the same source, they point best to a northwestern IE form.

*dénus* - *dpósus* 'thick'. [IEW 202–203 (*dëns-); Wat 11 (*dens-); GI 150 (*tëns-); Buck 12.64, BK 126 (*tan-as-/*tan-as-s-)]. Lat densus 'thick', Grk dýntis 'thick', Hit dasus 'massive, mighty'. The vocalism between the Greek and Latin as well as the problematic Grk -s- < *-z- have led some to reject this correspondence, which lies at the heart of this etymology. Inclusion of the Hititite form has also been challenged. While the reconstruction is not fundamentally impossible, each leg is very weak and does not present a strong case for PIE status.

See also Fat, Large, Thin. [J.C.S.]

Further Reading


THIN

*mbykrós* 'thin, long'. [IEW 699 (*mákrós); Wat 38 (*má-)], Lat macer 'lean, meager, thin' (via OFrench > NE meager), ON maghr 'thin', OHG magar 'thin', Grk mákrós 'long, big, high; deep; long-lasting' (cf. also máxhó-dvós 'long, svelte, thin'). This particular word is one of the west and center of the IE world. Other formations include Hit makkant- 'thin', Av mas- 'long' and guarantee that the root is widespread and old in IE. Cf. the related noun *mbyhkos* (gen. *mbyhrok(ós) in Lat macor-megerness', Grk μικρός (Doric μικρός) 'length, largeness', Av masyh- 'length'.

*ténus* (gen. *ténýnus) 'thin, long'. [IEW 1069 (*tenu-s); Wat 70 (*ten-); GI 684 (*tən-); Buck 12.65, 12.66, BK 106 (*t[θ]an-/*t[θ]an-)]. OIr tanu (DHL tana) 'thin', Wels tenau 'thin' (Celtic < pre-Celtic *tanaiu(s)-), Lat tenus 'thin, fine', ON þunnr 'thin', OE þynn 'thin, lean, not dense' (> NE thin). OHG dummi 'thin', Lith tuvas 'thin, slim'. Lith tivas 'slender', OCS tavanu 'slender, thin', Grk ravai(ψ) 'long, elongated', tavan-θíps 'long-haired, shaggy', MPers tanuk 'thin, weak', OInd tanu- 'thin, slender, small', tanukta- 'thin, slender, small'. Also sometimes put here are Av tanu- 'body', OInd tanb-body', but the relationship is doubtful. From *ten- 'extend, stretch', particularly one should note Grk rávnuai 'is stretched', OInd tanoti - tanitē 'extends, expands, endures'. Clearly old in IE. The original meaning must have been 'stretched', whence both 'thin' and, less commonly, 'long'.

*Kðkos* 'thin'. [IEW 581 (*kðk-); GI 84 (*kðk-)]. ON horr 'thinness' (< Proto-Gmc *hurthu- < *Kðkos (wth stress retraction appropriate to the formation of nouns from adjectives), Czech krš 'shriveled tree', krsat (< *Kðk(h)-) 'lose weight, wane', Av kæsqa-gu- 'with lean cows', OInd kṣ 전체- 'emaciated, lean, thin, weak', kṣa-gu- 'with lean cows'. Lat cracens gracile' is sometimes put here but it offers some phonological difficulties. The underlying verb is preserved in Lith karšti 'be aged or decrepit', OInd kars- 'grow thin or lean; be thin or lean'. The geographical spread of this word's attestations guarantees its PIE status.

*skdirós* 'thin'. [IEW 920–921 (*skét-d-); GI 97
THINK

*men-* 'think, consider'. [IEW 726–728 (*men-*)]; Wat 41 (*men-*)–GI 394 (*men-*)–Buck 17.14; BK 519 (*man-*/*man-*)

Probably the most ancient formation attested with this verb is the perfect *memin gén* 'think, remember'. Lat *memini* 'remember, mention', ON *muna* (pres. *man*) 'remember', OE *munan* (pres. *man*) 'think', Goth *manun* (pres. *man*) 'think, believe', Grk *μυονα* 'earn', Arm *i-manam* 'understand', Oldn *i-man* 'think, remember'. There would appear to be two corresponding presents: (1) *mjetor* 'thinks': OIr *míneach* 'think', OCS *mνινγ* 'think', Grk *μενώμαω* 'be mad', cf. the new Greek derivative *μνωστ* 'prophet, diviner', Av *mancetē* 'think, remembers', Oldn *mānate* 'thinks', (2) *mnehtr* 'Grk *μνημονε* 'remembrance', Lat *memoria* 'see, look upon'. Cf. also Grk *μνημονε* 'be mindful of, remember', Oldn *a-mla* 'commit to memory and hand down' which underlies the method of poetic transmission. Other formations appear in Lat *mone* 'remind, warn', Lith *mėnu* 'think, consider', OCS *mnote* 'think, consider'. Attested only on *mene* 'think, consider'. From *men-* 'think, consider'. Widespread and old in IE.

*teng-* 'think, feel'. [IEW 1088 (*tong-*); Wat 71 (*tong-*)]. Lat *tonge* 'know', ON *þokk* 'gratitude, reward, joy', *jokka* 'think, *pekka* 'notice', OE *panc* 'thanks, favor (> NE thank)', *pencan* 'think' (> NE *think*), *pencan* 'think' (> NE *think*), *pyncan* 'seem', *Rus mnit* 'mean', Lat *mima* (> *mimone*/*mimone*) 'regard, favor', Oldn *mān* 'commit to memory and hand down' which underlies the method of poetic transmission. Other formations appear in Lat *mone* 'remind, warn', Lith *mėnu* 'think, consider', OCS *mnote* 'think, consider'. Attested only on *mene* 'think, consider'. From *men-* 'think, consider'. Widespread and old in IE.

*mu* - 'think'. [IEW 496 (*mu*-*mu-*)]; Wat 26 (*mu-*mu-*)]. On *grun* 'suspicion', *grun* 'meditation', Grk *θορν* 'midriff, soul, spirit', *φρυον* 'think', *φρυών* 'care'. Possibly a word of the west and center of the IE world. The Greek developments cast an interesting light on how IE peoples may have conceptualized the physical location of the thought process.

*mēnma* 'thought'. [IEW 727–728 (*men-men-*); Wat 41 (*men-*); cf. GI 394 (*men-*); BK 519 (*man-*/*man-*)]. Olr *menma* (DIL *menma*) 'spirit, sense', Oldn *mānman-* 'mind, perception'. From *men-* 'think, consider'. Attested only on the peripheries of the IE world, this word would seem from its geographical distribution to be of PIE age.

*mēnes*- 'thought'. [IEW 727 (*menos-*); Wat 41 (*men-*);

GI 186 (*men-*); BK 519 (*man-*/*man-*)]. Grk *μνημ* 'thought', Av *manah-* 'thought', Oldn *mān* 'thought'. From *men-* 'think, consider'. A word of at least the center and east of the IE world.

*mēnis* (gen. *mēntis*) 'thought'. [IEW 727–728 (*men-*); Wat 41 (*men-*); GI 172 (*mēntis*); BK 519 (*man-*/*man-*)]. Lat *mēns* 'thought', OE *ge-mend* 'thought', OHG *gi-munt* 'thought'. Goth *go-munds* 'thought', Lith *muntis* 'thought', OCS *pa-munt* 'thought', Av *matt*- 'thought', Oldn *māt*- 'thought'. From *men-* 'think, consider'. Widespread and old in IE.

See also LEARN, OPINION; [D.Q.A.]

THORN

*tirn-* 'thorn'. [IEW 1031 (*s*irn-*); Wat 66 (*s*irn-*); cf. GI 820]. On *ṭorn* 'thorn', OE *ṭorn* 'thorn' (> NE *thorn*), OHG *ṭorn* 'thorn', Goth *ṭaurnus* 'thorn'. OCS *trūn* 'thorn', Kht *tarra-* 'grass'. NPers *tara* 'small twig', Oldn *ṭam* 'blade of grass'. Cf. with new full-grade: Grk (Hesychius) *tēπνας* 'artichoke or cactus stalk'. The most widespread and oldest word reconstructible for this meaning, the Indo-Iranian semantic innovation to 'grass' is remarkable. The form was borrowed into some of the Uralic languages, e.g., Finnish *tarna* 'sedge, grass', from Indo-Iranian.

*urāgh-* 'thorn'. [IEW 1180 (*urāgh-*); Wat 78 (*urāgh-*)]. Mīr *frag* 'needle', Lith *ražas* 'dry stalk, stubble, prong of fork', Grk *ῥιξ* 'thorn-hedge, wattle fence; brushwood; branch', *pāxis* 'spine, backbone'. A word restricted to the west and center of the IE world.

*glogh-* 'thorn'. [IEW 402 (*glogh-*); Wat 23 (*glogh-*)]. SC *glogh* 'thorn', Grk (pl.) *γλοξίς* 'beard of corn', *γλωξίς* 'point, end', *γλώσσα* 'tongue'. A later word restricted to the center of the IE world.

See also NETLE. [D.Q.A.]

THOUGHT see THINK

THRICIAN LANGUAGE

The Thracians were the ancient people of the southeast Balkans. Geographically, the testimony of classical writers is extremely unspecific but the center of their territory would largely comprise that of modern Bulgaria, i.e., south of the Danube, with extensions into the Aegean (the islands of Thasos and Samothrace). There is also a long tradition in ancient literature that Thracians crossed into northwest Anatolia as early as 1200–1000 BC and continued to migrate into that direction as mercenaries in later armies. They take their name from that of a single tribe, the Θράκες – Θράκες, who were situated on the Ilissos (the contemporary Maritsa), a name which was then extended to a much wider territory and its various tribes.

The Thracians are mentioned as allies of the Trojans in Homer and later Herodotus ranks them, after the Indians, as the most numerous people in the world. Their territory was subjected to incursions from Greek colonies. Iranian-speaking
THRACIAN LANGUAGE

steppe tribes, and the Persian Empire. The Thracians formed their own temporarily unified state under the Odrysae tribe in the fifth century BC but this state fell to Macedonian conquest in the fourth century. By the early second century BC it was Rome that gradually controlled Thrace and after 46 AD Thrace became a Roman province. The subsequent collapse of the Roman Empire saw Thrace as a thoroughfare for a wide variety of tribes moving either through or against the crumbling Roman state. The Slavs settled the region in the sixth century AD, insuring total linguistic replacement of the Thracians, if they had not already been hellenized centuries earlier. That Greek culture had not entirely obliterated the earlier Thracian is suggested by the fact that Thracian place names such as Pulpuldeva survived into Slavic (Bulg Plovdiv) rather than under their Greek form (Φιλίππούπολις).

Description

The evidence for Thracian is not abundant. It consists of a small series of short inscriptions in the Greek script and dating from about the fifth century BC. These names may occur in large numbers and with remarkable frequency, e.g., there are 360 instances of the personal name Βιθος, 132 of Τυρνος, 115 of Ζευθος. The most recently attested Thracian personal names are found in two monasteries in the Near East (the Bessi of Mt Sinai) dating to the sixth century AD.

Some Thracian names offer reasonably transparent comparison with Greek names, e.g., Thrac Δία-Κενός may be compared with Grk Διο-Γένης. Such compositions permit us to derive Thracian Δία- from PIE *di(o)-'god' or Thracian -Κενός from *genh₂- 'be born'. The latter, along with other examples, e.g., Πηγος (name of mythic king and personal name) (< *h₂reg₃), Esbenus, Εσβενευς (< *h₁ekeus 'horse'), the river 'Αργος (< *h₂rgos 'white'), personal name Βούκας (< *bhugos 'goat') all suggest that Thracian palatalized and assimilated the PIE palatal velars and thus belonged to the satum group. The establishment of a series of probable reconstructions, e.g., Βέβρυχος 'tribal name' (< *bhebhrus 'beaver'), σκαλιμα 'knife, sword' (< *skolmehu-, cf. ON skolv 'prong, sword') permits one to list a series of other Thracian developments, e.g., despiration of voiced aspirates, *o > a, etc.

Until 1957 it was normally presumed that Thracian might also embrace Dacian, the language spoken north of the Danube, and the term Thraco-Dacian occurs widely in linguistic works. Reasons for questioning the ascription of all east Balkan tribes to a single language is the toponymic evidence which shows considerable disparity between terms employed south of the Danube and those found north in historically 'Dacian' territory. Typical Thracian toponymic elements such as -para 'settlement', -bria 'town', -ðica 'fortified settlement' (< *dheigh₂-, cf. Grk τείχος 'wall') and -sara 'river' are all found exclusively south of the Danube. In a thorough review of the toponymic evidence, only 36 roots out of over 3000 east Balkan words could be adjudged truly "pan-Thracian", i.e., comprising both Thracian (in the strict sense) and Dacian. It must be noted, however, that the lexical evidence is far more abundant for the area south of the Danube which could well skew any attempt to quantify the differences between the various regions.

Thracian Origins

As with other IE-speaking groups of the Balkans, the establishment of Thracian origins depends very much on where one wishes to situate the IE homeland itself. A chain of cultures, each with roots in the former, can be established in Thracian territory from our earliest records of Thracian names through the Iron Age Basarabi culture of the eighth-sixth centuries BC back into the local late Bronze Age cultures whose own origins are sought in the earlier Otomani-Wietenberg culture of the earlier Bronze Age. The most recent major discontinuity in the Bulgarian archaeological sequence is generally set to the period c 3300 BC with the establishment of the Ezero culture which is tied into a Balkan-Danubian complex of cultures that followed on from the late Neolithic of the region. For those who seek the IE homeland in the
THREEFOLD DEATH

 THREAD see TEXTILES

 THREATEN

 *ghres- 'threaten, torment'. [cl. IEW 445 ( *ghers-); VW 234]. Lith gresiu 'threaten, menace', gresit 'be disgusted with', gras 'threat', grasis 'threaten', Latv grasāt 'threaten', Tocharian krāsā- 'vex, torment' (Latv and Toch < *ghresʰh₂). The agreement of Baltic and Tocharian, an agreement extending to the level of morphology, strongly suggests at least late PIE status for this word.

 **šker- 'threaten'. [VW 429]. OHG schoren 'be petulant', MLG scheren 'to ridicule', Tocharian škar- 'speak hostilely, threaten; reproach'. Possibly PIE status.

 See also CONTEND [P.Q.A.]

 THREEFOLD DEATH

 The "Threefold Death" theme, as it is unfolded in various Indo-European narratives and other contexts (myth, story or legend, account of sacrificial death or perhaps of execution) is thought to show another repetition or reflex of the canonical IE triform function division: First Function (F1) sovereignty, Second Function (F2) offensive and defensive war, Third Function (F3) increase, fertility, sexuality. A "Threefold Death" would refer more or less precisely to three kinds of death, each connected to or situated in some aspect of one of the three IE functions. This theme has been identified in a number of IE-speaking traditions, especially in the Celtic and Germanic evidence but not limited to these areas, with the differences and variations to be expected. While much of the evidence simply connects a particular type of death to a particular functional area, the most dramatic representation of the theme has a victim (king, hero, or other) simultaneously suffering a triple-death, that is, the victim is done to death by three different means.

 The connection between the three IE functions and different modes or means of death can be made first, though to a limited extent, on the mythic level. Here we have the evidence that the Norse-Germanic deity Óðinn-Wotan, a First Function divinity on the dark, uncontrolled or Varunaic side of this divided function, is called hangaúk, 'god of the hanged' or the 'hanging god', indeed, the Norse Hávamál says that Óðinn hanged or sacrificed himself, 'myself to myself,' for nine days and nights in order to gain certain exceptional (runic) powers. Hanging or suspension "above" or "in the air" (or falling) is clearly marked with F1 characteristics. Suggestions of another part or reflex of the death-myth are found in the sacrifice by drowning seen in the Norse-Germanic tradition, a sacrifice dedicated to an F3 deity, such as the goddess Nerthus (Germanic) or the god Njörðr (Norse). The F3 divinity is thus attached to a sacrificial event, the drowning or burial alive, that is placed "below" as Tácitus, in his Germania, describes slaves being drowned as a sacrifice to the god Nerthus. A Second Function myth-death has been more difficult to locate, we would expect some sort of sword-death or a death by means of some other kind of warrior's

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Further Readings

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weapon, and hints of this are found in the Northern (Germanic) traditions, though rather late in time: Jordanes’ *Getica* (late sixth century AD) says that the Goths “spilled blood” to their war-god while the Icelandic *Eyrbyggja saga* mentions blood-sacrifice to Þór. According to the Roman observer Lucan (first century AD) the Celts sacrificed victims to Taranis, one of their war-gods, in another way: they seem to dedicate their F2 victims by fire rather than by the sword, presumably imagining the deadly fire as a “piercing” element, or perhaps taking fire to be a specific means of warlike aggression. Another aspect to the developing theme that connects particular, functionally located divinities to a particular mode of sacrifice (or execution) connects the victim himself to a specific functional identification: for example the F1 king hanged, the F2 warrior slain by a weapon, the F3 commoner or slave buried alive or drowned.

The “Threefold Death” in its fully articulated form appears in certain Irish sources: typically, a king dies a triple-death, often fulfilling a prophecy made by a sacral (F1) figure such as a druid or, later, a saint. The means of death are: by a weapon, a fall, drowning or by a weapon, burning and drowning, though elsewhere the three death-modes are given as wounding, hanging and “imprisonment,” as in a list of punishments given in the *Corpus Juris Hibernici*. The drowning (most dramatically in a vat of beer) happens when the doomed victim tries to escape the flames of a burning house, fort or hostel: the conjunction of life-threatening fire and a vessel or cauldron of some liquid is an old theme in both Irish and Welsh Celtic legendy. Another reflex of the theme is seen when the threat of suffering a threefold death is included in a curse, which is close to but not exactly like the prophecy noted above. This triple-death theme spreads downward or outward from royal or heroic legend, and is widely current in the folklore of IE-speakers; here snakebite (a “piercing” and poisoning) is often tied to hanging or to a fatal fall, and to simultaneous drowning, though other variations are certainly possible.

The strong Indo-European flavor present in the “Threefold Death” theme emerges in such characteristics as the fact that the king, who as sovereign power ideally commands all three of the IE Functions, should in a mythically perfect or symmetrical fashion be killed or sacrificed simultaneously by some means closely associated with each function. The theme also crosses over to and reinforces or is reinforced by other well-identified IE modes, such as that called by Georges Dumézil the “Sins of the Warrior”. As an example: in the Norse-Germanic story of Starkaðr (Saxo’s Starcatherus) this strange warrior’s first and greatest “sin” is to arrange, by the will of Óðinn, the death of King Vikar. Starkaðr lures the king into a situation where he is simultaneously hanged or strangled (by willow twigs or, in another version, a noose of gut) and stabbed by a reed that turns into a spear. The willow and the reed suggest the waterside, and thus a lost or obscured drowning theme, that is, an appropriate F3 death. The conjunction of trifunctional signs and death-modes is also discovered in the ancient Greek evidence in the death of King Agamemnon, slain by a weapon but in his bath, and while caught in a net. The theme is even possible to find in the death of the Germanic hero Siegfried, who is also killed by a weapon, but while drinking from a spring, and near a linden-tree; hanging and drowning themes remain as mere suggestions here. Finally, from a Russian source (Slavic materials are not especially rich in IE patterns) we have the death, given in the *Russian Primary Chronicle*, of Prince Oleg: after defying a prophecy (F1) the prince was killed by a snake-bite, the serpent (here showing an F3 “subterranean” sign) emerged from the skull of Oleg’s dead horse (an F2 animal, the warrior’s mount). This example is slightly distorted, but maintains intact the central pattern of the “Threefold Death”.

It should be remarked that it remains an open question as to whether, in an archaic or traditional Indo-European society, execution—the legal taking of life in the name of the state or society—was at all times directly derived from sacrifice to one or another “functional” divinity. We do have a considerable number of data showing that a traditional capital punishment could be fitted to a specific IE function; for example, burial alive was directed for crimes committed against property or sexual delicts, that is, offenses against areas included in the Third Function. Also, and this quite recently in English history, the crime of treason—a grievous offense against sovereignty—was punished by what can be read as a trifunctional punishment: hanging, drawing and quartering involved suspension, the cutting or piercing of the victim, and mutilation of the genitalia.

*See also Death, Warrior. [D. A. M.]*

**Further Readings**


**THREE-HEADED MONSTER**

The monster-fight is typically woven into any number of hero-tales or, somewhat more significantly for our purposes, mythic narratives in which the hero is a prime subject or mover. The theme is by no means limited to the IE context, and can even become a kind of banal or comedic cliché (as the Maiden, the Knight, and the Dragon). So far as IE heroes are concerned—that is, hero-figures drawn from the mythic, epic or parahistorical traditions taken from the cultures of IE-speakers—the theme of combat with a monster-opponent
may unfold at any point in the heroic tale, and may express elements that might be tentatively named as proving, proofing, marking a rite of passage and reflecting the hero's bane. Proving uses the monster to demonstrate heroic character and, especially, heroic precocity, as when the infant Héraclès stranggles the two serpents sent by Héra to attack him in his cradle. Proofing recalls the bath in the slain dragon Fafnir's blood that made Siegfried almost invulnerable: in this rendition, the "bath of invulnerability" attaches the Germanic enemy hero to Greek, Ossetian, and Indic epico-mythic parallels — in all cases, again, the heroes are made almost invulnerable, since it is axiomatic that a hero, as a human, must finally die. The monster-fight as a rite of passage introduces the rescue and "winning" of a female, who is the victim or monster's prey, as in the myth of Perseus and Andromeda, or it may be made part of a wider text as in the Old Welsh story Culhwch ac Olwen, where the monstrous boar Twrch Trwyth must be pursued and slain. On another line, the dragon-monster, as a sign of death and darkness, may "test" and transform the hero, as is hinted in the Greek myth of Jason. The monster as hero's bane is revealed as an element in hero death-tales: the cause of the death of a superhuman figure, perhaps made proof against any ordinary death, is assigned to a monstrous (possibly super-animal) power. The Beowulf tale thus has its hero-king prove his prowess by defeating two monstrous halffhuman entities, but he ends his life in mortal combat with a third, a dragon. The saga of Hrolf Kraka, with its potent supernatural elements, also ends with its hero (who, as a shape-changer, is himself a kind of monster) defeated by fate and another monstrous being; the Germanic part of the IE family has a demonstrable penchant for mixing monstrous humanoid beings into heroic myth or epic at some dramatic moment.

The shape the hero's monstrous opponent takes can be roughly parsed: the serpent-dragon (draco) is familiar from Greek myth but is seen extensively elsewhere as an image of fearful monstrousity either borrowed or generated autonomously. The giant boar is not only a Celtic monster, for it is seen in Greek hero-myths as well. The half-human monster, as we have noted, is likely to be seen in the North, where the Norse Igisogur or fantasy-tales are full of every variety of the type, and often the magical shape-changer theme — the shape-changer as hero or villain, as white or black magic-worker — is mixed in as well. The sea monster appears in another category, its fearsome potency increased because the hero must enter another, dangerous realm to fight it.

It should also be noted that the hero himself may be twinned with a monstrous animal or may actually be identified with an animal and/or monster. Heroes are associated with serpent-twins or, more commonly, with supernatural horses, horses who may (as in the Greek context) have flesh-eating or death-dealing, that is monstrous, powers. A particular of the theme of the supernatural generation of the hero is seen in the form of a mythic crop of warriors "grown" from dragon's teeth; the Greek spartoi are warriors who are produced asexually from a dragon-monster and are thus defined as perfect warriors, detached from any familial tie at all. At the other end of his life a warrior-hero, rather than dying in a monster-fight, may himself become a monster, this subtheme is seen, for example, in the quasi-historical Norse Jomsvingks saga where a Jomsvingk chieftain, Piti Digre, leaps into the sea with his treasure and becomes the monster guarding it on the sea-bottom, and seems to be associated with another narrative theme, that of the dragon or sea-monster seen as Guardian of Treasure. Moreover the "hoarder" or obsessive guardian of treasure also has its resonance in the IE imaginal vocabulary, as referring to a bad (ungenerous) king (e.g., Midas). Finally, the hero-lycanthrope (hero as wolf, hero as bear) may also be conflated into this monster-theme; here is one aspect of the heroic paradox, when he appears or is imaged as Perfect Man, and also as Perfect Monster.

The Tricephalous Monster

The most characteristic IE monster-combat mythologem involves a tricephal, a three-headed being, usually but not invariably a dragon. The antiquity of this motif is guaranteed by linguistic evidence for a PIE formulaic expression *(h)esO* 'he killed the serpent', which is widely found among those IE stocks which retain vestiges of the dragon-slaying myth, e.g., Olind ahann ahim 'he killed the serpent', Av janaj aluminium 'who killed the serpent' with lexical substitutions in Greek, Hittite and Germanic. The expression also suggests the original identity of the dragon as a 'serpent'.

This being is defeated and slain by a divinity or a culture hero who is clearly associated with Dumezil's Second or Warrior Function, that function intended to guard society. The Dumezilian line of research which originally uncovered the IE mythologem first examined two closely related but also significantly varied accounts, one Indic (Vedic) and the other Iranian (Avestan): the slaying of tricephalic monsters by Trita Aptya, aided by the god Indra, who sometimes is called the real slayer of the tricephal and the Iranian hero Thraetaona (also called Thrita Athvya) who won, by his victory, the appellation Varathraga, evidently signifying "monster-defeating warrior-hero". The monsters were, respectively, Vṛtra, the three-headed son of Tvastṛ, and the three-headed dragon Azi Dahaka, who, in the later Persian rendition of the story given in the Shāhānāme became Zohak, as Thraetaona there became Feridūn.

The complex lines tying these two IE narratives together must take account of linguistic clues and linguistic problems as well as underlying the differences in the uses to which the two IE sources have put the myth-narratives. Linguistically, the resemblance of Iranian Varathraga to Indic Vṛtrahan, 'slayer' (or 'smasher') of Vṛtra, seems indubitable; and there is also cause to surmise that the Iranian monster-dragon Azi Dahaka has a cognate in the Indic (Vedic) term Dāsas, meaning an enemy people. Two important and continuing themes may be noted at this point: that of a reciprocal tripartition in the hero-monster conflict, and that of the wider distribution of
Three-headed Monster

THREE-HEADED MONSTER

The role of the Second Function monster-fighter, sometimes but not invariably re-attached to a three-fold apparition. The first theme recognizes or underscores the fact that a triply-significant figure such as the Indic Trita Aptya, one of three brothers, fights a tricephalic monster or foe. Dumezil found a parallel here to that piece of Roman legendary “history” in which the three Horatii fought and slew three Alban champions, only one of the three Roman combatants surviving the fight. The triplex foe also seems to represent, in all three traditions, the “hostile” and non-Indo-European potency; the Indic and Iranian sources casting this foe in the form, as Greenbaum suggests, of the “hostile dragon of the non-Indo-European peoples”. Another reading of the combat-theme, however, notes that the slayings in at least two cases (the Indic and the Roman) involve the death of kinsmen, not strangers, and it may be that in all cases an element of forbidden killing can be found, i.e., the warrior-hero or other Second Function figure goes, as usual, beyond accepted limits, and violates important taboos, in gaining his necessary victory. In this he again demonstrates what Dumezil had found elsewhere in the hero of this function, his propensity toward the excessive use of the force that marks his function, and so toward “sin”.

The second theme, of the wider distribution of the heroic monster-slayer, brings us to a character who is not only a typical transgressor, but who also rejoins the subtheme of triality. The Greek hero Héraklès, who later became immortal and was declared divine, was one of the figures Dumezil chose to illustrate his theory of the “sins of the warrior”, the warrior-hero committing three sins against the rules of each of the three canonical functions. Héraklès was also a great fighter against monstrous opponents (lions, the serpent-Hydra, a giant boar, man-eating horses, and so on) and one of these was the three-headed Guardian of Hādēs, Kerberos. The paradigmatic hero did not slay this monster, merely took it captive, as one of his Twelve Labors. He may be called, in fact, the “Greek Indra”, as the Indic god was also sometimes recalcitrant, and committed a sin against each of the three Functions. Dumezil’s third example of a sinning warrior, taken from German legendry, was the old warrior Starkatherus or Starkadōr. However, Starkadōr was not specifically a monster-slayer, in fact, in his Giant ancestry and possibly in his appearance he was rather a monster himself; if he was a Giant by birth, however, he did make a habit of fighting giant-like opponents. The Second Function monster-slayer in the Germanic extension of the IE cultural-linguistic family was in fact the god Þor (to whom, in fact, Starkadōr tried to attach himself in terms of the warrior mode he chose). Þorr fights monsters (the Midgard-serpent, various Giants) as, it would seem, part of his task of trying to bring order to the social cosmos; this monster-fighting attribute is in line with his social guardianship, which in his case is balanced against his less-controlled War-god aspect.

The monster-combat theme may be identified as a widely-encountered-IE heroic theme, that is of interest because the hero himself seems to be imaged as close to a monster in several aspects, but especially in his penchant for going beyond accepted bounds. The result is a potentiality for being as damaging to his society as he might, in his correct mode, be its defender. The identification of a specific tricephalic opponent has been useful in terms of establishing narrative resemblances between IE contexts, and also where the tricephal seems to be a coded image for the non-IE enemy; or
the "more numerous" loc. The tricephalous image may also fit with other IE tripartite formulae, though precisely how this occurs is not yet clear.

The tricephalous myth has been interpreted by Bruce Lincoln as the central event of what he terms the myth of the "first cattle-raid". He reconstructs a myth in which a hero *Tritos 'Third' (ON Hymir, Grk Ἑράκλης, Hittite Hupasīya, Av Өθαταուα, Onlnd Ṭnītā) has suffered loss of his cattle to a serpent (ON Mōgard-serpent, Grk Γέριον the τρι-κέφαλος, the grandson of the Medūsa, Hit Illuyanka who is depicted as a serpent, Av Aši Dahāka, the (IConfiguration, Onlnd Visvarūpā, the tri-sīrañanam) who is associated with an enemy community (Av Dahāka, Onlnd Dāsā). He sets out to recapture his cattle, assisted by a deity *hűner- 'Man' (ON Hōr, Hit Innara, Av Ayu, Onlnd Indra), and fortified by an intoxicating beverage, he kills the three-headed monster. This raid, which involves the reclamation of Aryan cattle from non-Aryan thieves, is seen to sanction cattle-raiding among the early Indo-Europeans.

See also Cosmogony; Cow; Poetry; Snake; Warrior.

Further Readings


**THRESH**

*peis-* 'remove the hulls from grain, grind, thresh' (pres. *pinēstī*). [IEW 796 (*pis-*)]. Wat 48 (*peis-*)]. Gl 598 (*pēpis-*)]. Buck 5:56. Lat pineso 'remove the hulls from grain, stamp, pound, crush', Lith paisyti 'thresh', OCS pīchat 'hit, stamp', Rus pšeno 'millet' (< *the threshed*), Grk πιθοσω 'winnow', Av pīsantī 'threshing', Onlnd pinäsī 'grinds, threshes'. Reasonably well attested and certainly old in IE.

The Greek cognate appears to specify the winnowing, i.e., the separation of the husks from the grain after threshing by throwing them into the air. All the other cognates suggest that this word referred to the preliminary grinding of grain whereby the outer coats were broken and removed, rather than the later stage, whereby the grain itself was reduced to flour.

*uers-* 'thresh (grain)'. [cf. IEW 1169 (*uers-*)]. Buck 8:34. Lat verrō 'sweep' (< *sweep grain after threshing*), Latv vārnsnis 'unwinnowed grain-heap', OCS vrčší 'thresh'. Hit warsi 'plucks, harvests', warsišya- 'thresh (clean)', also *mow, reap, thresh*, Točā wsr 'grain', Točbh ysr 'grain; wheat' (Toč < *uersoro- with loss of the first *-r- by dissimilation*). Widespread and old in IE, though the exact range of the original meaning is not easy to determine, perhaps because the process of separating the grain from the chaff may take many forms and involve several different processes, all of which were subject to change and refinement. The meaning of Hit warsi may, indeed, suggest that originally this verb meant generally 'harvest'.

*hēhēr- 'thresh, rake (for threshing)'. Lat área (< *hēhērteha*) 'threshing floor', Hit hahhara- (< *per)*. Lat plns6 'remove the hulls from grain, flour'. Reasonably well attested and certainly old in IE. How

Further Readings


**THROAT** see GULLET

**THROUGH**

*per* 'over, through, about'. [IEW 810 (*per*). Wat 49 (*per*). BK 41 (*pʰar/*pʰar*). OLir ar 'before, lor', Wels er 'before, lor', Lat per 'through, traversing', OE fyr 'before', OHG firi 'before', Goth far 'before', OPrus per 'before', Lith per 'through, across, over, during', OCS pre-'through, across, over', Alb per 'lor, about, on', Grk πεπι 'around (all sides), about, over', Hit pari 'besides', Av pari 'towards, round; in front, earlier', Onlnd pari 'around; about, towards'. Old in IE. From a reduced *pr* come Lat por- (verbal prefix), ON for-'before', fyr 'before, lor', OE for 'lor, in front of' (< NE for), OHG for 'from, in front of', furi 'before, lor', Goth fari 'in front of, along, lor'.

See also ADPREPS; BEFORE.

Further Reading

**THROW**

*(s)keud- 'throw, shoot' (pres. *(s)kēudo-*)]. [IEW 955–956 (*skeud-*)]. Wat 60 (*skeud-). BK 9:29. On skōta 'hurl, throw', OE scētan 'hurl, throw' (> NE shoot), OHG schozan 'hurl, throw', OCS is-kada 'throw out', Rus kadati 'throw', Alb hedh 'throw', Onlnd scidati 'incites', TočA kom 'shoot (of a plant)', Točbh kaunte 'shoot (of a plant)' (Toč < *koud-*)]. Widespread and old in IE.

*hīs- 'throw, hurl' (pres. *hīs(e)je-. [Buck 10:25]. Hit sisē 'throws, hurl(s) (sisē 'gushes'), tis-siye- 'draw curtains', pe-siye- 'throw, push', Av as- 'throw', Onlnd asyati 'throws, hurls'. Old in IE.

*gēlhl- 'throw'. [IEW 471–472 (*gēl-*)]. Wat 25
THROW

(*gʰelo-); Buck 10.25; BK 360 (*qʰ-al/-qʰ-al-). Wels blif (< *gʰle(m)en-) ‘catapult’, Grk βάλλω ‘throw’, βλήμα ‘throw, cast’, Av ni-yar- ‘be thrown down’. The geographical distribution of this word makes it a likely candidate for PIE status.

*jeh- ‘throw’ [IEW 502 (*je-); Wat 79 (*je-); Buck 10.25]. Lat iacio ‘throw’, Grk Ἰππάς (< *ji-jeh-) ‘release, let go; throw’. Though attested in only these two stocks, there is every chance that this word was at least late PIE because in both Greek and Latin the morphological shapes are old.


*smeit- ‘throw’. [IEW 968 (*smeit-); Wat 62 (*smeit-) (a)-]. Lat mitter (< *smittō) ‘let go, send’, Av maed-th ‘throw’, hā-mista- ‘thrown down’. The fewness of the attestations of this word makes it only a possible item of (late) PIE vocabulary. See also SPEAR. [D.Q.A.]

THRUSH


The thrushes are of the genus Turdus and are best known for their sweet song. The commonest of the genus are the song thrush, blackbird and the chaffinch. The various thrushes are well distributed throughout Europe to western and central Asia. In India they are included with the thrushes under such names as rakatakanta-, abiyaka- and syāma-

See also BIRDS. [J.A.C.G.]

Further Reading


THUNDER

*gʰromós ‘thunder’. [IEW 458-459 (*gʰrom-o-s); Wat 23 (*gʰrom-o-), Buck 1.56]. OCs gromu ‘noise’, vāz-grimēti ‘to thunder’, Grk (Hesychius) χρόμος ‘noise’. From *ghrem- ‘rumble, noise’ which is clearly PIE although the noun *gʰromós ‘thunder’ may have been independently formed in different stocks.


‘groan’, Rus stón ‘groaning’, Grk θρᾶντα ‘thunder, sound, drone’, (Hesychius) tėwv ‘to thunder’, Olnd staniyati ~ tānyati ‘thunders’. There is evidence for an athematic verb (also Lat tonere?), and for zero-grade in Germanic (and perhaps in Olnd tānyati). Lith tonarē has been explained from *tonh2-ej-o’ as Olnd staniyati. Clearly PIE.

See also THUNDER GOD. [R.S.PB.]

THUNDER GOD

*perkuunos ‘Thunder god’. [IEW 822-823 (*perku uno-s); cf. Wat 50 (*perku-u); GI 527 (*pερ(κ)υ-ου-ν-α-)]. ON Fjorgyn (mother of Fjôr, the Norse Thunder god), OPrus percumis ‘thunder’, Lith Perkūnas (Thunder god), Latv Pērkūns ~ Pērukuuns ~ Pērukuuns (Thunder god), ORus Perunũ (Thunder god), Olnd Perjanja (Weather god). The Baltic and Slavic names are all commonly derived from *perku­us ‘oak’ and the associative pattern is reinforced in phrases such as Lith Perkūno ažuolas ‘Perkonus’s oak’, Latv Pērkūna juodels ‘Perkon’s oak’, ORus Perunovoi dubs’ Perun’s oak’, while connections with *perku­us are seen in OPrus percamis ‘thunder’. Lith perkūnija ‘thunderstorm’. Similarly, we have the Latv Perkūns met sava minu ‘Perkūns throws his mace’ where the word for mace is cognate with the ON miyulltr ‘hammer’, the weapon thrown by the Norse Thunder god Fjôr. The association is explained by the frequent observation that lightning strikes tall trees such as the oak. This association is further reinforced by the Germanic tradition that Fjôr strikes his primary foes, the giants, when they hide under the oak tree, one of the most frequent trees struck by lightning in a forest, but he cannot hit them when they hide under a beech, a tree that is very rarely struck by lightning. It is argued that the underlying meaning here is not ‘oak’ but rather that the Norse and Baltic forms are from *per-k-, an extension on the root ‘per-’ ‘strike’, while the underlying extension in Slavic is *peru- or *perku­u-. These would then be related to *peruhunos the one with the thunder stone’, again from ‘per-’ ‘to strike’, which would form a basis for words relating to ‘stone’, e.g., Hit þera ‘cliff, rock’, Olnd pārvats- ‘cliff, mountain’ and the names of the weather deities associated with storms, e.g., OPrus Perun, ORus Perunu (Thunder god), cf. Uk Kr peruan ‘thunder’, Czech perun ‘thunder’, and possibly Alb peron-di ‘god’, Nòristani Parun (War god). This way there would have been considerable crossing between the similar names for ‘oak’ with that of ‘strike, thunder’ which would provide a broader distribution for the semantic bundle than the linguistic evidence properly allows. For example, in addition to the observation that lightning (cf. ON Myolltr (name of Þorr’s hammer), Latv milna (name of Pērkūns hammer) and the words for ‘lightning’, e.g., OPrus mokli, Rus molnja) frequently strikes oaks, there is also the widely held belief that fire is residual within the oak, i.e., the Thunder god strikes oaks and releases the fire from within them, or, alternatively, a lightning strike stores up fire within the tree which can then account for how one may release fire from wood through friction. Another complex of associations is between fire and
stones and these can be linked by the observation that one can kindle fire by striking stones against each other, e.g., Indra brings forth fire between two stones (RV 2.12.3). In both cases, the act of producing fire through a 'strike' indicates the creative potential of lightning and the two receptacles for fire are brought together again in Greek tradition where it was said that humans were created either from oaks or from rocks.

This creative potential can then help explain why the device wielded by the Thunder god, the club, mace or hammer, is also associated with fertility in the various IE traditions, e.g., Órr's hammer is placed on the lap of a bride in a marriage ceremony, Indra's club (vājra-) is not only used for destruction but also for creation. The association of the Thunder god with the oak tree is limited to the western part of the IE world while the broader associations of Thunder god, lightning, stones, fertility, etc., may be either independent creations or refer back to a bundle of beliefs inherited from early IE tradition.

See also Club; Oak; Thunder. [D.Q.A., J.P.M.]

Further Reading

THUS
*ar 'and, thus'. [IEW 62 (*ar); BK 389 (*har-*har-)]. OPrus ir 'and, also', Lith ir 'and, also', Latv ir 'also', Gk ἀπο 'now, thus', Prak ira 'and', ToChB ra (emphatic particle). Widespread and old in IE.
*it-'thus'. [IEW 285 (*i-(h)-)]. MWels yt- (preverb), Lat ita 'thus', Lith it 'very', Latv it 'right, even', OInd iti 'thus'. Widespread and old in IE.
*ne 'thus'. [IEW 320 (*ne)]. Lat nē (interrogative particle), OHG nē (interrogative particle), Lith nē 'as', Latv ne 'as', OCS nēče 'as', Gk τώρε 'thus', Av yaθ-na 'that is', OInd nā 'like'. Widespread and old in IE.

TIE see BIND

TIME
*pres*- ('period of time'). [cf. IEW 811 (*per-); VW 388]. ON frest 'period of time, interval', OE first 'period of time, interval; delay', OHG first 'period of time, interval' (Gmc < *prestom ~ *presiti-), ToChA prast 'time, occasion; season', ToChB presto ~ presciya 'time, occasion; season'. Perhaps the reconstruction should be *pres-sth₂- 'what stands before'. The agreement of Germanic and Tocharian would seem to guarantee PIE status for this word.
*kēs(k)eh₂ (or *kēk(e)h₂) 'time'. [Buck 14 11]. OCS časa 'time', Rus čas 'hour', Alb kohe 'time, period, epoch; weather'. Whatever its exact shape, an innovation of the central IE region.

See also Day; Now; Seasons; Soon; Today; Year; Yesterday. [D.Q.A.]

TIME-DEPTH

The establishment of the period of existence of the Indo-European proto-language rests to a considerable extent on one's conception of a reconstructed language. There are those who argue that the process of linguistic reconstruction is by its very nature without any temporal or spatial perspective and can only be understood as a linguistic abstraction, a system of sound laws. Consequently, speculation as to the date of this abstraction of rules is fundamentally idle although one may discuss the relative ordering of the sound laws or grammatical forms. This position would generally be regarded as far too extreme in that tentative dates at least are often ascribed to the proto-languages of the various Indo-European stocks, e.g., on the basis of reconstructed Proto-Germanic and loanwords from neighboring Celtic, the ancestor of the Germanic languages is set vaguely to 500 BC; in a more controlled situation, scholars of the Romance languages can set a confirmable date to Proto-Romance or the Common Latin from whence the modern Romance languages are derived. When Proto-Indo-European is ascribed some form of underlying reality that is also knowable, there are a series of methods that have been employed to provide it with chronological precision. These techniques may be divided into two basic types—relative and absolute chronologies—although there have also been many suggestions as to the absolute dates of relative chronologies.

Relative Chronology

Morphological ordering is one method of seriating Proto-Indo-European into different chronological periods. For example, unproductive grammatical constructions such as heterochronics, where the stem alters between the nominative and the other cases, has been seen to represent an archaic formation generally associated with the most basic levels of vocabulary, e.g., water' (nom. *wet-þbut gen. *wed-n-s), fire' (nom. *peþju-þbut gen. *peþju-ên-s). Alternatively, the highly productive o- and eh₂-stems have been traditionally regarded as relatively late IE formations and hence vocabulary associated with them has been claimed to be 'late'. The application of such rules of thumb have not been particularly convincing since it implies that the existence of the root (and cultural item) must be directly related to its inherited grammatical form. For example, such seemingly basic concepts as *bherhgos 'birch', *uʃkʰos 'wolf', *h₂rkós 'bear', etc., all putatively late o-stems, have been explained as either evidence that these terms had been gained only by Indo-Europeans after late migrations into areas forested by birches or that the wild animals, regularly known to peoples in Eurasia at least since the upper Paleolithic (c. 40,000–12,000 BC), only acquired enough cultural importance to require a name when they became a threat to domestic herds and flocks in the Neolithic (c. 7000 BC). Such ingenuous reasoning is easily exposed by consideration of archaic formations in English where an ablauting plural seen in cow/kine is "old" but cow/cows is recent. As in the case of kine > cows, the history of
linguistic change is full of examples of the replacement of unproductive morphological forms by productive ones. Moreover, it is certainly the case that throughout the reconstructible history of Indo-European *o- and *eH2-stems have been the most productive noun formations. Thus the archaic formation may strengthen the case for the antiquity of the word but the use of a more “recent” grammatical construction does not necessarily indicate that the root or the cultural item itself is more recent. In any case, the creation of a name for a particular concept only tells us that those who created the term knew the referent—not that their ancestors did not. The newly created term may be a replacement for an older word with the same referent, a word made obsolete by taboo, as is arguably the case for any predecessors of *sįkʷos and *h₂eH₂kos, or for some other reason.

The semantic development of the IE lexicon has also been seen to provide some evidence for the chronological ordering of PIE. This approach, championed particularly in the works of Wilhelm Brandenstein and still employed today, sought to distinguish between “earlier” meanings found preserved in Indo-Iranian and more “recent” semantic developments seen in the other IE languages of Europe. Hence, PIE *h₂eH₂ros was found in Indo-Iranian to mean ‘meadow, plain’ while among the European languages it denoted a ‘cultivated field’. This reasoning, and similar observations, prompted Brandenstein to argue that the earliest meanings were preserved in the east among primarily pastoral IE stocks, i.e., Indo-Iranian, whose origin lay in the Asiatic steppe while later migrations carried the Indo-Europeans into Europe where they adopted agriculture and their inherited vocabulary experienced the appropriate semantic shift to describe their new environment and economy. The logic of this approach is suspect since the ordering of semantic change can be reversed, e.g., it might be argued that the word *h₂eH₂ros originally designated a ‘cultivated field’ and was later extended to mean simply ‘plain’ by Indo-Europeans who adopted a more pastoral way of life.

A third approach is founded on the principles of geolinguistics, where the “age and area” hypothesis was extended to linguistics to determine the antiquity of lexical items. One of the most prominent geolinguistic principles was the notion that central areas innovate while peripheral areas tend to conserve older forms. For example, we may reconstruct two terms for ‘fire’ in PIE. One of these, *h₂agʷnis displays cognates on the IE periphery in Latin, Lithuanian and Old Indic while the other term *peH₂Yr is found in the more “central” languages of Umbrian, Germanic, Old Prussian and Greek. Geolinguists explained the first cognate among non-contiguous languages as the original PIE word for ‘fire’ which had once extended across the territory of IE speech but was later replaced, in the central region, by *peH₂Yr. This shift was explained in sociological terms which saw a “democratization” of the center with a neuter replacing the more archaic animate form. Again, the conclusions far outran the evidence which merely indicated that there were at least two terms for ‘fire’ in PIE which may have differed semantically. The example of the word for ‘fire’, it might be noted, claims that the more “archaic” form, i.e., the heteroclitic *peH₂Yr, was the “innovative” form.

**Absolute Chronology**

Absolute chronologies with calendric dates are also proposed on the basis of external dating, glottochronology, dead-reckoning and archaeological inference. The first technique is seldom employed today and depends on the identification of language contacts between PIE and some other dated linguistic phenomenon. Günter Ipensen, for example, argued that Proto-Indo-European borrowed its word for star *h₂sler from Akkadian *istār and not the Proto-Semitic form *a₇t₇r; therefore, Proto-Indo-European unity had existed at least until 2000 BC when (he argued) *istār first appears in Akkadian texts. In actual fact, such a lexical borrowing is highly dubious and there are no datable written records of any language that provides us with credible evidence for the date of PIE. To ascribe a date of c 2000 BC to Proto-Indo-European is also contradicted by the fact that we already have evidence for specifically Anatolian personal names by that time.

Glottochronology, the calculation of age separation between two or more genetically related languages on the basis of their retention or loss of a “basic vocabulary”, has been employed to date the various “splits” between the different IE stocks. The basic, allegedly “culture-free” vocabulary is a standardized list of either 100 (see table above) or 200 words. The method, based on generalizations formed from a control sample of European languages, particularly Romance, assumes that two languages genetically related will share 86% of the words in common after 1000 years. In the original exercise of this technique on the various IE stocks, Morris Swadesh found the greatest time separation was between Latin and Tocharian whose split he assigned to about 5000 BC while most of the other IE stocks indicated mutual separations around 4000
TIME-DEPTH

A more recent application of the method by Johann Tischler found the range of separations from 4200 to 2400 BC with a mean date of separation of 3300 BC. Today the technique has greater apparent credibility outside of Indo-European, e.g., Africa, Oceania, than within it, despite the fact that the early calibration of language separations was based on the written record of IE languages. This relative lack of favor for Indo-European languages is because its application in a number of test instances has been found to be far less accurate than its purported abilities to yield absolute dates and the fundamental logic of the technique, that languages possess a culture-free basic vocabulary which, like radiocarbon atoms, decays at a constant rate seems unfounded. Moreover, the implementation of the technique has proved quite difficult, e.g., how does one compare the basic vocabulary of languages that are not contemporary such as Hittite and Albanian? What constitutes a “match” when cognates can vary from identity to root cognates with varying morphological or derivational processes? How can one even presume that we have all the available lexical items in languages attested in a fragmentary state such as Anatolian and Tocharian? Although it may provide gross order of magnitude estimates, ascribing the separation of the IE stocks to the period from about 4500 to 2500 BC, there is so much scepticism concerning the method that even when its results are compatible with other forms of estimations, it enjoys very little currency among most Indo-Europeans.

Another approach is perhaps best described as “chronological triangulation”, the linguist estimating the time of separation between different languages or between language stocks based on the observed (although admittedly subjective-ly estimated) time of language separation elsewhere in the world. Typical approaches would be those of Warren Cowgill who, considering the state of the IE languages at c 1500 BC, believed that the time necessary to explain the separation of Anatolian, Greek and Indo-Iranian should have been somewhere between 1000 and 2000 years, i.e., the proto-language should have existed c 3500-2500 BC. This same order of magnitude has been invoked by many other linguists as the most likely period of terminal Indo-European or the earliest emergence of the individual IE stocks. Such a technique is largely intuitive, and nowhere has the precise foundation for such estimates been made explicit, but is based on the recognition that all languages do change even if all languages do not change at a uniform rate. Projecting historically attested rates of change back into prehistory provides some sort of upper limit on how long two actually attested languages (or stocks) can have been diverging. Thus, even assuming that all prehistoric Indo-European languages changed as slowly as Lithuanian has changed, extremely “high” dates for Proto-Indo-European (say, more than 7000 BC) would be impossible.

A number of linguists have suggested a sequential development and disintegration of the Proto-Indo-European language. Francisco Adrados has proposed a three-stage system: 1) a pre-inflexional stage before c 3400 BC, 2) a monothematic stage embracing the Anatolian languages that separated c 3400–3200 BC, and 3) a polythematic stage embraced by all the other IE languages that began their separation c 3000–2800 BC. With somewhat greater time-depth is the system proposed by Wolfgang Meid which consists of an Early Indo-European (c 6000–4500 BC) out of which the Anatolian stock derives, a Middle Indo-European (c 4500–3500 BC) and Late Indo-European (c 3500–2500 BC) which yields eastern (Indo-Iranian, Greek) and western (Italic, Germanic, etc.) groups. Such deep chronologies are largely motivated by differences between the evidence of Anatolian and the systems reconstructed for PIE, on the one hand, and a series of shared and presumably late isoglosses that may be found in Indo-Iranian and Greek. While such chronologies may conform with certain linguistic expectations, other than the presumption that by 2500 BC, there was divergence among the IE languages, the absolute dates are neither motivated nor supported by strict linguistic evidence.

The evidence of archaeology has also been sought to shed light on the time-depth of Indo-European and may be conveniently divided into two types. The first presupposes an archaeological identity for the Proto-Indo-Europeans and suggests dates which must in general conform with the archaeological chronology. The dates provided for both the systems of Adrados and Meid, for example, are to a considerable degree motivated by an acceptance of the “Kurgan theory” of IE origins which sets the homeland in the Pontic-Caspian steppe around the fifth millennium BC. Conversely, Luca Cavalli-Sforza and Colin Renfrew, who derive the Proto-Indo-Europeans from Anatolia and trace their expansions through a “wave of advance” of early farmers in Europe, turn the clock on PIE back to at least the seventh millennium BC. As such chronologies require one to know where the PIE homeland was before one can discuss when it existed, such a technique is at best circular if not wholly conjectural.

The second system involves the use of lexicocultural evidence for providing broad ranges for the existence of the proto-language before differentiation into major stocks. While the reconstructed vocabulary cannot provide precise chronological markers, it does offer general parameters of plausibility concerning the date of the existence of the proto-language in question.

The range of domestic livestock—cattle, sheep, goat, pig—and the presence of grain and the technical vocabulary of its processing, e.g., grinding stone, sickle, ceramic vessels, all indicate that major divergences within the IE stocks had not taken place before the emergence of an agricultural or Neolithic economy. The dates for the inception of the Neolithic vary across Eurasia but the latest of the elements here, ceramics, do not generally appear before the seventh millennium BC (excepting east Asia/Japan which lie far beyond any homeland theories). This vocabulary provides rather unassailable evidence that the proto-language existed at least until c 7000 BC.
TIME-DEPTH

The ranges of Indo-European time-depth. A = the time of the earliest attestation of the various IE stocks; B = the time-depth of the initial appearance of the latest items of the reconstructed PIE culture in the various regions of the IE stocks; C = the date of the inception of the Neolithic in the regions of the various IE stocks; D = the time-depth of the arrival of the Indo-Europeans in various regions according to the "Kurgan model" of IE expansions; E = approximate dates commonly ascribed to the proto-languages (e.g., Proto-Celtic, Proto-Germanic) of the various IE stocks.

BC if it had been situated in the Near East (Anatolia to Baluchistan) or Greece and later if the homeland is situated outside of the nuclear zone of Neolithic developments. The second horizon of temporal markers is somewhat less secure because of the nature of either the linguistic or archaeological evidence. The presence in the PIE vocabulary of some terms such as 'wool', 'plow', and words for wheeled vehicles is supported strongly on linguistic grounds; however, the precise location and dates for the inception of these items is archaeologically less certain. The most recent would be carts and wagons which do not appear in the archaeological record anywhere in Eurasia prior to the fourth millennium BC. Terms for metals are linguistically problematic; copper could date anywhere from the seventh millennium BC onwards while silver, arguably part of the IE vocabulary, is not generally found earlier than the fourth millennium BC and then confined to the Near East, the Caucasus and eastern Europe. If the horse is taken to be domestic, the earliest domestic horses would appear to date no earlier than the fifth millennium BC (some would argue even later) and are geographically circumscribed to eastern Europe. On both osteological evidence and the evidence of fibres recovered from prehistoric sites, it has been argued that the exploitation of sheep for their wool only began at the end of the Neolithic, again c. 4000 BC. This would also be the same time in which we begin to see evidence of the plow in Eurasia. Broadly speaking, there is evidence to presume that the reconstructed Indo-European lexicon contains elements whose "reality" should not long pre-date c. 4000 BC.

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A terminal date for Proto-Indo-European is more easily arrived at through the historical testimony of the IE languages. Anatolian appears already by at least 2000 BC and the terminal date of Proto-Indo-European can then be no more recent that 2500 BC. Other than perhaps 'bronze' which cannot be reconstructed with certainty to PIE, there are few if any cultural diacritics that can provide us with a more precise terminus ante quem for Proto-Indo-European. On the other hand, archaeological evidence for the late Bronze Age and Iron Age may help to provide approximate chronological markers for the differentiation between either individual stocks (e.g., Celtic and Germanic) or within stocks.

The Utility and Limits of Absolute Dates

Absolute dates are a critical part of any attempt to situate the Indo-Europeans in the prehistoric record but their absolute dates also have their limitations. The date ranges proposed for Proto-Indo-European are not of the same order of precision as
absolute dates employed by archaeologists based on radiocarbon, dendrochronology or cultural seriation against historically anchored data. By its very nature, any “late” word for a new technological item or other cultural or environmental innovation must begin in an idiolect (individual speaker) and then spread throughout the linguistic continuum. Such words will be ascribed to the proto-language when they are found to meet minimal requirements of distribution and when they cannot be dismissed as independent creations involving different IE stocks employing common derivational processes. Every new word is, consequently, a loanword with a source either internal or external to the language family in which it is found. The most commonly accepted model of IE dispersals envisages a linguistic continuum whose borders were continually extending until it was impossible for all of its speakers to maintain the same course of linguistic evolution. Regional differences would then appear and lead to the formation of dialects, languages, and ultimately stocks. The speed at which these differences might emerge among different IE-speaking populations was probably by no means constant across the entire linguistic continuum of Proto-Indo-European nor were all elements of IE phonology, morphology, or vocabulary equally likely to undergo some form of differentiation. For example, *m is very stable among the different IE stocks while *kw underwent a variety of different evolutions. Hence a late invention such as the wagon and its name may have passed among speakers of Proto-Indo-European with relatively stable borders or among a proto-language which had expanded rapidly but where the existence of only small dialectal differences still permitted the original word to pass between speakers. On the one hand, there is no linguistic means of knowing precisely what one is dealing with when examining lexical reconstructions while archaeology is of no help at all unless one believes that he or she knows precisely what cultures spoke Proto-Indo-European and also what the phonetic inventory of each culture was. Hence the localization of lexical items in both space and time depends to a large degree on where and when one wishes to locate the IE homeland.

On the other hand, lexical-cultural items do provide some evidence for discriminating between different hypotheses. For example, if one wishes to maintain that the PIE homeland was in Greece and that the Proto-Indo-Europeans had been established there since 7000 BC and that they had dispersed from there over the rest of Eurasia by, say, 4000 BC, then one can evaluate the plausibility of such a proposal in light of the reconstructed lexicon. The hypothesis suggests that the basic reconstructed vocabulary was already present in Greece since 7000 BC. On the other hand, elements of the reconstructed vocabulary that do not appear anywhere in Eurasia until after 4000 BC, e.g., wheeled vehicles, and animals such as the horse, reconstructed to PIE, are unknown in Greece until after 2000 BC. To maintain that the language spoken in Greece since 7000 BC evolved into the Greek language requires us then to accept: 1) that the language spoken there since 7000 BC underwent no significant phonetic change for millennia (otherwise the Greek words for wheeled vehicles and horses would be detected as loanwords) and 2) that they acquired these terms from outside Greece from a population still speaking Proto-Indo-European (since the loanwords were adopted in the same form as we would reconstruct to PIE on the basis of the other IE stocks). As neither of these assumptions is plausible, then either the place or the date (or both) of this particular homeland solution must be wrong.

See also Indo-European Homeland, Proto-Indo-European, Subgrouping. [J.P.M.]

Further Readings

TIN
There is no reconstructible term for 'tin' in PIE although there are some clear instances of shared terms or words borrowed from common substrates. Late Lat stannum or stagnum both refer to a mixture of lead and silver, probably a relic of galena smelting and the cupellation process involved in the extraction of silver from lead. In this form we can see the confusion of lead and tin metallurgy. The Germanic forms (ON tin 'tin', OE tin 'tin' [> NE tin], OHG zin 'tin') are to be associated with the Latin whose initial s- may either be an instance of s-mobile or phonetic adaptation, perhaps a missegmentation of an original attributive *hagios technom 'tinny metal'. The original source language remains unknown. OIr créd 'tin' (found in composition crédumae 'bronze', i.e., 'incopper') is probably an ablaut variant of the same word. *kʷreit-form whose zero-grade gives Wels Prydain 'Britain' and OIr Cruithen 'Cruthin' (name of an ethnic group in early Ireland which was applied to the Picts of northern Britain), hence it was the 'British' metal, a reference to the important tin deposits in Cornwall. Alternatively, the narrowest reference may not have been to the smelted metal but to the ore, cassiterite. If
this is so, the Irish masculine noun may ultimately be related to OIr cré ‘clay’, Wels pridid ‘clay’ and Lat creta ‘chalk’, though casserite itself is a dark brown mineral, it gives a characteristic white streak. Grk καισαίτερος ‘tin’ has all the hallmarks of an Aegaean loanword. Efforts to provide it with an IE etymology have not been successful nor has the attempt to relate it to the ethnonym Kassite. Beneath the Sumerogram NAGGA and the Akkadogram ANAKU, Hititite describes tin as dankui-, which is homophonous with, and therefore probably identical to, the adjective ‘dark, black’. Such a form is an unusual referent for tin which is usually thought of as ‘white’ and we probably see another instance of the ancient confusion between tin and lead.

The absence of a term for tin, the major constituent alloy which is combined with copper to make bronze, has often been employed to indicate a terminal date before which PIE unity was dissolved, i.e., sometime during the “Copper Age” but before the “Bronze Age”. The chronological significance of our inability to reconstruct a PIE ‘tin’, however, is more complex. The earliest material to be alloyed with copper appears to have been arsenic (or at least copper ores naturally high in arsenic were employed). The alloying of arsenic and tin with copper reduced air bubbles in the casting and provided for a much tougher implement or weapon. Arsenical bronzes are generally found in a horizon that predates the appearance of true, i.e., tin, bronze. This horizon appears by the mid fourth millennium BC and includes the Kuro-Araxes culture of the Caucasus, the Kemi Oba culture (with its presumably imported arsensical bronzes), the late variants of the Tripolye culture such as Usatovo, the Corded Ware culture, Ezero, etc. But tin bronzes are also known sporadically from the end of the fourth millennium BC in the Near East and by the very early third millennium BC occasionally in Europe, e.g., within the Corded Ware culture. At sites such as Troy, which began c 2900 BC, the earliest bronzes were arsenical and tin bronzes did not appear in any number until c 2200 BC. Tin bronzes are found elsewhere in the early Mediterranean and in India during the early third millennium BC but generally it is not until nearly 2000 BC that tin bronzes are widespread in the Aegean. They appear in central and western Europe after 2000 BC but earlier in Italy where local tin sources may have favored their early development.

The problem with the late appearance of tin has much to do with its rarity in nature as it is by no means as ubiquitous as copper and the manufacture of bronze required extensive exchange systems to carry tin from the locations where it naturally occurred. These were limited to locations such as Cornwall, Brittany, possibly the Massif Central of France, Iberia, northern Italy and the Erzgebirge of Central Europe. Tin is also poorly represented in India and 70% of the copper objects in the Indus culture have one percent or less of tin alloyed with them. This pattern would encourage the expectation that words for tin in the various IE stocks may well have shown some interstock relationships, e.g., Italic and Germanic, but these words would be unlikely to reflect pan-IE terms as IE differentiation would have been well on its way before tin began to appear in many regions of Eurasia. On the other hand, arsenical bronzes should have been known in some regions at least by the period c 3500–3000 BC, i.e., the period in which we recover some of our earliest evidence for both wheeled vehicles and silver, two items that one may attribute to PIE-speakers. This technology, however, does not seem to be recoverable through linguistic means. This unrecoverability is not altogether surprising as arsenical bronzes were replaced by tin bronzes and it is even questionable whether a prehistoric community would have required a separate term for such an alloy rather than employing some modifier on their existing word for ‘copper’. See also Gold; Iron; Lead²; Metal; Silver. [M. F. H., J. P. M.]

**TIRED**


*λεθά- ‘sleep’, TochB klis- ‘kill’ (historically the causative), TochS sruk- ‘suck’; OFr gétier ‘suck’; Wels klis ‘sleep’; Gmc *slaked ‘grief’, Goth lats ‘fatigued, exhausted’. E WG 218-219. OInd lehdyde/o-), Lith lēnas ‘lazy’, gentle’, OCS lēna ‘lazy’ (Balto-Slavic < *lethaj-d-no-), Alb lodhet < *lehjedeto ‘becomes tired’, Grk (Hesychius) ληθέον ‘be tired’, TochB lal- (< assimilated from *λήθ-j-d-n-) ‘exert oneself, tire oneself out’. Perhaps related to the homophonous *λεθά- ‘leave, let’ CI NE let (< *lethaj-d-e-o-), Alb le (< *λήθ-j-d-e-o-) ‘leave, let, abandon, allow’, and surely Lith leidmi let in/out, let go, issue ‘though the -i- of the latter form is difficult. Without the *-d- we have the underlying *lethaj-e-o- in Ht lāi- ‘let go, allow’. As a word meaning ‘grow slack, become tired’ it is widely attested, though perhaps significantly not at the extreme of the IE world. Probably dialectal in late PIE and largely supplanting the previous word.


*στρεύομαι ‘be fatigued, exhausted’. [VV 441]. Grk στρεγμα ‘am exhausted, worn out, suffer distress’, TochA sruk ‘kill’ (historically the causative), TochB sruk- ‘die’. Though restricted to two stocks, the geographical distribution of the reflexes strongly suggests at least late PIE status for this word. See also Sick; Slack; Sleep; Soft; Weak. [D. Q. A.]

**TISZAPOLGÁR CULTURE**

The Tiszapolgár culture forms the early Copper Age culture of eastern Hungary and eastern Slovakia (c 4400–3700 BC).
Settlements are found generally in the lowland plains. Domestic architecture is not well known but does show evidence of small (c. 4 or 5 m long) rectangular houses, hearths, pits, and querns. It has been suggested that the houses, post built with mud walls, were perhaps less substantial than the earlier Neolithic houses of the same region. Moreover, while Neolithic settlements showed longer term settlement, those of the Tiszapolgár culture show thinner occupation layers and no evidence for defensive architecture.

The agricultural economy of the culture is not well attested but the remains of domestic animals include cattle, ovicaprids and pig as well as dog while the hunted animals include red deer, roe, aurochs and wild pig. Remains of brown hare are recovered from graves.

The culture produced a wide variety of ceramics and stone implements. More impressive were the copper shaft-hole axes and occasional gold pendants.

The primary evidence for the culture relates to its burials which occur both in settlements and cemeteries. The typical form of grave was flexed burial in a pit. Sex was marked with males buried on their right sides while females were buried on their left. This practice is found elsewhere in Europe, e.g., the later Corded Ware culture, and in Asia, e.g., the Tazabagyab, Bishkent, Vakhsh, and Swat cultures. All of these other cultures are generally identified as linguistically Indo-European. Grave goods consisted of pottery, copper tools and ornaments, obsidian tools, boar tusks and mandibles (typically found with males), stone and antler axes (males), dog burials (mainly males) and beads (females).

According to the "Kurgan model" of IE expansions, the Tiszapolgár culture represents a final "Old European", i.e., native non-IE culture, which collapsed in the face of Kurgan intrusions. On the other hand, those who seek the IE homeland either in Anatolia with the spread of the Neolithic economy or in central Europe would identify the Tiszapolgár culture as part of the IE continuum. That the culture shows a strong sexual dimorphism in burial ritual, typical of other cultures commonly identified as Indo-European, and an apparent decrease in stable settlement, all suggest patterns of social and economic change that have been variously attributed to local processes and steppe intrusions.

See also BODROGKERESZTŰR CULTURE. [J.P.M.]

Further Readings

TO

*throd 'at, to'. [IEW 3 (*ad-); Wat 1 (*ad-)]. Olr ad- (preverb), OWels ad 'to', Wels add- (prefix), Lat ad 'at, to', ON at 'at, to', OE æt 'at, to' (> NE at), OHG æz 'at, to', Goth at 'at, to', Phryg ἀδ- 'to'. Widespread and old in IE.

*do− *de 'to, toward'. [IEW 181–183 (*de− *do-); Wat 10 (*de-)]. OIr do− du 'to', OLat en-do 'in', Lat dō-nec 'up to', OE to 'to' (> NE to), OHG zuo 'to', Goth du 'to, towards' (with d− rather than t− because it always occurred in an unstressed syllable), Lith da 'up to', Latv da 'up to', OCS do 'up to', Grk δε 'toward', Av -da 'to'. Old in IE.

See also ADPREPS, AWAY. [D.Q.A.]

TOCHARIAN LANGUAGES

Tocharian is the name given, more than a little arbitrarily, to two languages once spoken in what is now the Chinese province of Xinjiang in northwestern China. They are chiefly known to us from the remains of their literatures brought to light by Prussian, French, Japanese, and Anglo-Indian archaeological expeditions into this part of China in the two decades immediately preceding the First World War. The Tocharian documents are datable from the sixth through eighth centuries of our era. What we have are rarely whole documents but rather typically single leaves of manuscripts originally brought as votive offerings to the various Buddhist shrines in and around the inhabited area. There they were left and subsequently were covered by the desert sands and preserved in the almost rainless environment. Aside from this Buddhist religious literature, almost always translations from Buddhist Hybrid Sanskrit, the language of Mahayana Buddhism, there are also remains of medical, commercial, and legal documents.

The two languages were spoken along the northern rim of the Tarim Basin. Tocharian A (also called "Agnean" or "East Tocharian") is attested in documents of the regions of Qarashahr ("Agni" in Old Indian, Yanqi in Chinese) and Turfan in the center of Xinjiang. Remains of Tocharian B are also found in those areas and also further west, from around Kucha (whence the alternate name "Kuchean" or "West Tocharian"). Already in 1908 there was enough known about these languages to make it certain that linguists were dealing with Indo-European languages of a heretofore unknown group, e.g., Lat pater 'father', māter 'mother'. TocharA pācer, mācar, TochB pācer, mācer. Early investigators labeled this new group as "Tocharian" under the assumption that their language was the same as that spoken by the Tocharoi who in the first half of the second century BC era were driven by the Hsiung-nu from Gansu in western China. After crossing Xinjiang, they settled in southern Kazakhstan and adjacent areas. In subsequent centuries, under the leadership of one of their subtribes, the Kushans, the Tocharoi settled in Bactria and eventually conquered a large area of northern India. In Chinese historical records the Tocharoi are referred to as the Yuezhi. The evidence for the identification of the Tocharoi with the "Tocharians" is meager though not wanting altogether but the identification is more usually than not rejected. However, in the absence of any better name, the designation has stuck.

It is clear that Tocharian B was the language of the kingdom of Kucha, used for both administrative and ordinary literary purposes. It was apparently used as a liturgical language both in the Kuchean kingdom and further east where it is found side by side with Tocharian A. Nowhere are Tocharian A documents found by themselves and no Tocharian A documents other than those of a religious content have been found. A few Tocharian A documents are glossed in Tocharian B and/or an early form of Uighur (the Turkish language spoken by the contemporary inhabitants of Xinjiang). These facts have led to the supposition that Tocharian A was no longer a spoken language but rather preserved only as a liturgical language of a population that itself spoke Uighur and that even as a liturgical language it was in competition with Tocharian B.
Comparing Tocharian A and B it is clear that the latter is the more conservative representative of proto-Tocharian. Tocharian A has lost all Proto-Tocharian final vowels, with the consequence that a very large number of words are one syllable shorter than their Tocharian B counterparts and the loss of the final syllable, where so much of the inflectional morphology was located, has had a significant impact on the shape of the language’s morphology, particularly that of nouns.

On the southern edge of the basin, across uninhabitable desert from the areas where Tocharian A and B are found, in the Loulan (natively Kroraina) area, we find traces of another small kingdom whose administrative language was a variety of Middle Indic (Kharoshthi Prakrit) but whose native language, attested in the form of a few loanwords in the Middle Indic administrative language, looks to have been a third Tocharian language, “Tocharian C” if you will.

Though geographically closest to Indic and Iranian, from which both Tocharian languages have borrowed heavily in the area of religious and other technical vocabulary, the Tocharian languages do not seem to be particularly closely related to them. Surprisingly Tocharian seems to share more vocabulary with Germanic than with any other Indo-European stock and in general its lexical and morphological closest kin seem to be with the western Indo-European languages rather than with those of the eastern rim. However, the number of special relationships that Tocharian shows with any other Indo-European stock is small and this relative lack of shared innovations with other groups suggests that from a very early time the pre-Tocharian dialect(s) of Proto-Indo-European may have occupied a somewhat isolated position vis-à-vis other late Proto-Indo-European groups. If one wishes to emphasize the “western” connections, then the population movements that brought the pre-Tocharians to their historical locations seem to have required a migration from a relatively western location vis-à-vis the center of the Proto-Indo-European group to its far eastern edge, whatever that might mean in terms of actual geography.

Description

From the phonological point of view Tocharian is distinctive in the merger of all three manners of stops (voiceless aspirated, voiceless unaspirated, and voiced aspirated) in a single series of voiceless unaspirated stops. Many IE stocks merge the voiced aspirated and voiced unaspirated stops but only Tocharian and Anatolian merge all three and in Anatolian the merger is not complete in word-final position. Tocharian also merges palatals, velars, labio-velars, and palatais + -u- as a set of plain velars. The only exception to this general merger is in final syllables where the labio-velars and velars + -u- remain distinct as -kʷ. Thus *k₁, *g₁, *g₂, *k₁, *g₁, *gh₁, *k₂, *g₂, *gʷ₂h₁, *ku, *gy, *ghu, all become Tocharian k in most instances. Tocharian is further characterized by the palatalization of both dentals and tectals (palatais, velars, and labio-velars) before PIE front vowels; on the other hand, in the absence of front vowels, Tocharian behaves as a centum language, e.g., TochB kante ‘hundred’, unlike its Indo-Iranian neighbors. Tectals appear as s in this position when palatalized while PIE *d and *dh appear as Tocharian ts, and PIE *t appears as ts before PIE *s and as c elsewhere. The different fate of PIE *t when palatalized means that palatalization must have preceded the merger of the three manners of stops. Some-what later in this history of Tocharian PIE *i, *e, and *u merge as Tocharian y (appearing as a when stressed in Tocharian B) and *ê (< *ê or *chê) and *o merge as Proto-Tocharian *e (TochC e, TochA a). The most common developments of PIE sounds in Tocharian are given in the accompanying table.

While the phonological system of Tocharian shows significant innovations in comparison with its PIE ancestor, other parts of the grammar have been quite conservative. Tocharian merges the inherited neuter with the masculine in the singular and the feminine in the plural and like Germanic proliferates n-stems enormously. Late in its history original postpositions become phonologically attached to the preceding noun as a new set of case endings. In the verb the imperative is innovatively marked with a prefix pa- and unlike most IE groups the second person singular ending of the verb shows a -r- rather than an -s-. However, both noun and verb preserve the three-way PIE distinction of singular, dual, and plural. The noun preserves, at least in part, five of the eight PIE cases (namely: nominative, accusative, genitive, ablative, and vocative) and the verb shows three of the PIE moods (nominative, optative, and imperative). Two of the PIE aspects (‘present’ and aorist; the PIE perfect is represented by the Tocharian past participle), and two PIE tenses (present and past, the latter from the PIE aorist past, along with rebuilt traces of the PIE imperfect).

Tocharian Origins

The earliest certain evidence for the Tocharians derives from their own records of the sixth century AD. Chinese historical records, which report no ethnic or linguistic changes during the previous seven hundred years, allow the linguistic situation of the sixth century AD to be projected back to at least the end of the second century BC. Any attempt to establish a still greater antiquity requires certain assumptions, e.g., the fact that the two surviving representatives of Tocharian are markedly different and would require (presumably) an extended period of separation after the formation of the Proto-Tocharian stock, some have estimated c. 1000 years, but this time-depth is by no means certain nor is it certain that this differentiation necessarily took place in Xinjiang. Also, the Tocharians have frequently been identified in Chinese historical sources as a people known to the Chinese as the Yuezhi, situated according to Chinese documents north of the main bend of the Yellow River and south of the Altai, go back to about the fifth century BC.

Unlike most other extinct groups of IE speakers, we are particularly fortunate with regard to the Tocharians in one respect. There is graphic representation of their appearance in caves in Kucha (Qizil and Qumtura) that served as Buddhist
## Proto-Indo-European and Tocharian Phonological Correspondences

<table>
<thead>
<tr>
<th>PIE</th>
<th>TochB</th>
<th>PIE</th>
<th>TochB</th>
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<tbody>
<tr>
<td>*p</td>
<td>p</td>
<td><em>pʰ</em></td>
<td>pʰ*</td>
</tr>
<tr>
<td>*b</td>
<td>p</td>
<td><em>dʰ</em></td>
<td>dʰ*</td>
</tr>
<tr>
<td>*bh</td>
<td>p</td>
<td><em>bʰ</em></td>
<td>bʰ*</td>
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<tr>
<td>*t</td>
<td>t - c</td>
<td><em>tʰ</em></td>
<td>tʰ*</td>
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<tr>
<td>*d</td>
<td>t - ts - 0</td>
<td><em>tʰ</em></td>
<td>tʰ*</td>
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<tr>
<td>*dh</td>
<td>t - ts</td>
<td><em>dʰ</em></td>
<td>dʰ*</td>
</tr>
<tr>
<td>*k</td>
<td>k - s</td>
<td><em>kʰ</em></td>
<td>kʰ*</td>
</tr>
<tr>
<td>*g</td>
<td>k - s</td>
<td><em>gʰ</em></td>
<td>gʰ*</td>
</tr>
<tr>
<td>*gh</td>
<td>k - s</td>
<td><em>gʰ</em></td>
<td>gʰ*</td>
</tr>
<tr>
<td>*kʰ</td>
<td>k - s</td>
<td><em>kʰ</em></td>
<td>kʰ*</td>
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<tr>
<td>*gʰ</td>
<td>k - s</td>
<td><em>gʰ</em></td>
<td>gʰ*</td>
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<tr>
<td>*kʷ</td>
<td>k - s - kw</td>
<td><em>kʷ</em></td>
<td>kʷ*</td>
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<tr>
<td>*gʷ</td>
<td>k - s - kw</td>
<td><em>gʷ</em></td>
<td>gʷ*</td>
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<tr>
<td>*s</td>
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<td><em>lʰ</em></td>
<td>lʰ*</td>
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<td>*r</td>
<td>r</td>
<td><em>rʰ</em></td>
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<tr>
<td>*u</td>
<td>an/an</td>
<td><em>uʰ</em></td>
<td>uʰ*</td>
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<tr>
<td>*m</td>
<td>am/am</td>
<td><em>mʰ</em></td>
<td>mʰ*</td>
</tr>
<tr>
<td>*l̥</td>
<td>a/a</td>
<td><em>l̥ʰ</em></td>
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</tr>
<tr>
<td>*t̥</td>
<td>at/at</td>
<td><em>t̥ʰ</em></td>
<td>t̥ʰ*</td>
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<td>*i</td>
<td>(y/a/y)ā - a/a</td>
<td><em>iʰ</em></td>
<td>iʰ*</td>
</tr>
<tr>
<td>*e</td>
<td>(y/a/y)ā</td>
<td><em>eʰ</em></td>
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</tr>
<tr>
<td>*e</td>
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<td>*a</td>
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<td>*o</td>
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<tr>
<td>*u̥</td>
<td>ā</td>
<td><em>uʰ</em></td>
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<td>*h₁</td>
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<td><em>h₁ʰ</em></td>
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<td>*h₃</td>
<td>0</td>
<td><em>h₃ʰ</em></td>
<td>h₃ʰ*</td>
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<tr>
<td>*h₄</td>
<td>0</td>
<td><em>h₄ʰ</em></td>
<td>h₄ʰ*</td>
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</table>

Note: The phonetic symbols used in the table follow the conventions of the International Phonetic Association (IPA).
shrines. These depict tall individuals with red or blond hair, blue or green eyes, wearing the garb of the Iranian-speaking Sassanians and armed with broadswords. These descriptions also match Chinese descriptions of the Yuezhi who are themselves portrayed on statues for the first century BC from Khalchayan in Bactria as light-haired and blue-eyed.

The unquestionable evidence for European intrusions into the province of Xinjiang has been abundantly augmented by the remains of over a hundred naturally preserved mummies of a Europoid or, at least, Caucasoid physical type. The earliest of these mummies have been dated to c 2000 BC. The archaeological context for at least some of the Europoid burials is the Qawrighul culture (c 2000 BC) whose burials in shaft-graves, lined with timber or stone, and surrounded by enclosures bear some broad resemblance with Copper Age and Bronze Age cultures of the Eurasian steppe. Moreover, the presence of offering-places associated with the heads and legs of horses has direct parallels with steppe cultures. These links, however, are more broadly generic rather than specific with any particular culture and so the question of the origin of the recently defined Qawrighul culture itself must still remain open.

One might expect that the identification of a Caucasoid or Europoid physical type might secure the earliest identification of Indo-Europeans in western China but the matter is more complicated. In addition to the evidence of the mummies we also have human skeletal remains retrievable from burials from c 2000 BC onwards and these are believed to reflect several types of Caucasoids, the earliest reputedly bearing the greatest similarity with populations of the steppe-lands from the Ukraine across Siberia; later populations show greater similarities with prehistoric populations of Central Asia. There were thus several movements of Europoid populations into Xinjiang and this is hardly unexpected as the region was not only occupied by Tocharian-speakers but also by Iranian- (Khotanese Saka) and some Indic- (Karosthi Prakrit) speakers. For the most part, the mummies themselves are distributed both temporally and spatially in regions where one might expect Tocharians although some of the earliest mummies predate our historical records by up to two thousand years and their linguistic identity can hardly be secure. Genetic analysis of the Xinjiang mummies is still in its infancy but does indicate that the mummies reflect the same DNA patterns found among the earliest stratum of European populations. The earliest evidence of the Mongoloid physical type in this part of Xinjiang is set to c 1000 BC and it would appear that the ancestors of the Tocharians were probably in the Tarim Basin prior to the expansion of the Chinese into the same region.

Associating the arrival of the Tocharians with a specific archaeological culture is extremely difficult. The mummies, for example, are generally unaccompanied by metal artifacts and their own cultural milieu as well as that of the historical Tocharians is simply too poorly known to posit connections with cultures outside of Xinjiang. The employment of twill in the weaving of the textiles associated with the mummies points to more westerly connections but this could involve distant connections anywhere from the Caucasus to western Europe.

Although the Tocharians are not closely associated with the Indo-Iranians, the origins of the latter cannot be entirely disassociated from Tocharian origins. Contacts between the two language stocks seem to be quite late, i.e., no earlier than the first millennium BC, e.g., Old Persian- or Prakrit-Tocharian loans, or more recent. Almost all discussions of Indo-Iranian origins would locate the staging area of their migrations in the steppe and forest-steppe of Kazakhstan and western Siberia in the period c 2000 BC. This was the period during which the steppe was occupied by the Andronovo culture, a broad cultural horizon of various cultures who were primarily engaged in mobile stockbreeding. It is possible that the ancestors of the Tocharians may have been part of the Andronovo culture, the sites of which are found on the western highland approaches to the Tarim Basin; however, the absence of loanwords between early Indo-Iranian and Tocharian does not provide any linguistic support for such a hypothesis.

One of the ways of maintaining an early linguistic separation between Tocharians and Indo-Iranians within an archaeological context is by associating the ancestors of the Tocharians with the Afanasevo culture (c 3500–2000 BC) of the Altai-Yenisei region. The culture has often been derived from west of the Urals because of the Europoid physical type of its population, its employment of mixed stockbreeding (cattle, sheep, possibly horse), some evidence for wheeled vehicles, and ceramic forms (pointed-based vessels, censers). In one model, the Afanasevo culture would be seen as the initial expansion of a mixed stockbreeding-agricultural society across the eastern steppe in the advance of the later Andronovo (?Indo-Iranian) culture which then replaced it. There are also
some tenuous connections between the Afanasevo culture and western China. If these should be strengthened, we may have a model for the earliest Indo-European movements into Xinjiang. But even here, it must be noted that not all archaeologists accept the derivation of the Afanasevo culture from the west and if it should prove to have a purely local origin or be more closely related to cultures of Central Asia, other solutions to the problem of Tocharian origins would have to be devised.

See also Indo-European languages; Qawarghul culture

Further Readings


**Etymological Dictionaries**


**Origins**


**TODAY**

"*h30-ddie" (today) [Del 297]. Lat *hodie* (today), OInd *a-dya* (today). Temporal adverbial; Lat *hodie* is based on the composition of a demonstrative pronoun and the ablative case of 'day', viz. *h-o-die* while the Old Indic form joins an adverbial particle with an old instrumental (*a-dyasi) on this day'. Independent formations and not reconstructible for PIE.

See also Time. [PB.]

**TONGUE**

"*d3ghu<hi" (tongue). *IEW* 223 (*d3ghu*); Wat 15 (*d3ghu*); Gl 714 (*tighbu*); Buck 4.26. OIr *tenga* 'tongue', MWels *tafwat* 'tongue', OLat *danga* 'tongue', Lat *lingua* 'tongue', OCS *tung* 'tongue', OE *tun* 'tongue', OE *tunge* (NE *tongue*), OHG *zunga* 'tongue'. Goth *tang* 'tongue', OPrus *insiuvis* 'tongue', Lith *likvis* 'tongue', OCS *jzyk* 'tongue', Rus *jzyk* 'tongue', Arm *keu* 'tongue', Av *hica* 'tongue', OInd *jhih* 'tongue', Tocha *kantu* 'tongue', TochB *kantwo* 'tongue'. The loss of *d- before *-a- is probably regular in Baltic and Slavic. In Tocharian we have metathesis (*kanto < *takwo) while in Lithuanian, Armenian, and possibly Latin we have the initial rebuilt by influence of various words for 'lick'. The Celtic words reflect an initial *sd-*. The remodeling in Indo-Iranian is more difficult. In any case a very strong candidate for PIE status.

See also Eat and Drink; Mouth. [D.Q.A.]

**Further Readings**


**TOOL**

"*k'wru<si" (z tool). *IEW* 938-940 (*sker-); BK 246 (*k'3jar-/*k'4jar-). Lith *kivis* 'ax', Rus *sery* 'sickle', OInd *kervi* 'weaving instrument'. A word of the center and east of the IE world whose various meanings offer little scope for precise semantic reconstruction. From *k'er-* do make' or possibly (*s)ker- 'cut'.

See also Augur; Ax; Club; Craft; Cut; Handle; Hook; Knife; Make; Net; Oak; Pin; Plow; Quern; Razor; Reins; Sickle; Slings; Spear; Sword; Torch; Wedge; Wheel; Whetstone; Yoke. [D.Q.A.]

**TOOTH**

"*h30-dont* 'tooth'. *IEW* 289 (*dent-); Wat 11 (*dent-); Gl 714 (*dent*); Buck 4.27, BK 418 (*a*-) ('*kam-/*k'm-). OIr *dett* 'tooth', Wels *dant* 'tooth', Lat *dens* 'tooth', ON *tann* 'tooth', OE *taph* 'tooth' (NE tooth), OHG *zand* 'tooth', Goth *tunfis* 'tooth', OPrus *dantis* 'tooth', Lith *dantis* 'tooth', Rus *desna* (Proto-Slavic *det-snd* 'gum', Grk *kddov* 'tooth' (Aeolic *kddou* 'teeth'), Arm *atam* 'tooth', Av *at-dant-* 'tooth', OInd *dant-* 'tooth'. The oldest reconstructible word for 'tooth' in IE. In origin the participle of *h30*-'eat', cf. Hit *Adam-* 'eat'.

"*gmbhos* 'tooth, set/row of teeth; peg'. *IEW* 369 (*gmbho-); Wat 19 (*gmbh-); Gl 714 (*kem-); Buck 4.27, BK 280 (*k'am-/*k'm-). On Kambrel 'comb', OE comb 'comb, crest' (NE comb). OHG *kamb* 'comb', lith *za.sup* 'edge, brim', Lat *zups* 'tooth', OCS *tsupa* 'tooth', Alb *tsemb* 'tooth, tusk', Grk *koukos* 'large wedge-shaped bolt or nail', OInd *jambha* 'tooth', Tocha *kam* 'tooth', TochB *keme* 'tooth'. Cf. *gembh- 'show the teeth, snap at, bite' if this latter verb is not itself semantically a backformation from *gmbhoso* 'tooth'. A newer word than *h30-dont-, but clearly of PIE date.

See also Anatomy; Eat and Drink; Mouth. [D.Q.A.]

**TOOZH**

Further Reading

TRANSFUNCTIONAL GODDESS

TORCH
*ʤhōḥaṣ* 'torch'. [IEW 495 (*ʤhuökʰʱ*); Lat *lāx* (~ *lacēs* 'torch', *facetus* 'fine, courteous, polite' (~ *'shining*), Lith *žvāke* 'candle'). The underlying verb is seen in Alb *dukem* (< *ʤhuakʰ-e-o-*) 'appear, am visible, show up', Grk (Hesychius) *διαφάσσειν* (< *ʤhuakʰ-e-o-*) 'show through, be transparent'. A word of the west and center of the IE world.

See also SHINE, TOOL. [D.Q.A.]

TORTOISE
*ʤheluoḥs* 'tortoise'. [IEW 435 (*ʤhel-o-*)]; Wat 22 (*ʤhel-a-); GL 451 (*ʤel-u-*). OCS *žel′y* (gen. *žel′ive* 'tortoise', Rus *žolv′i* 'tortoise' (obsolete in NRus), *žel′ivk′ tumour* (~ *hard lump under the skin*), SC *želva* 'tortoise', Grk *χῆλως* (~ *χελώνις* 'tortoise'). By its distribution, at least a word of the center of the IE world. The morphological shape (a noun in *-uh-) is quite old in IE; therefore, it is likely that this word was once pan-IE. It should be noted that the word generally refers to the 'tortoise' or *Testudo* rather than the marine variant, i.e., the 'turtle'.

The tortoise or turtle has been employed in early debates on the IE homeland since its northern distribution was limited to areas south of Scandinavia and northern Germany which had been once advanced as homeland territories. The tortoise is known from the TRB culture of northern Europe and in Neolithic contexts from Latvia and Estonia. Its value for resolving the IE homeland problem is minimal at best.

See also ANIMAL. [D.Q.A.]

TOUCH
*tāg* 'touch'. [IEW 1054–1055 (*tāg-*)]; Wat 69 (*tag-*); GL 371; Buck 15.71; BK 100 (*tʰlak-*/*tʰlak-*). Lat *tangō* 'touch', *integer* 'undamaged' (~ *'untouched*', *tagāx* 'thievish', *taxīm* 'secretly', *taxō* 'estimate, assess', OE *bacian* 'touch lightly, stroke', Grk *τεταγὼν* 'seizing'. At least a word of the west and center of the IE world.

*dēg- 'touch' (pres. *dōgei* ~ *dēge/o-*). [Buck 11.13]. ON *taka* 'touch, take, seize', Goth *tēkan* 'touch', TochB *tak* 'touch' (TochB pres. *tēk-, subj. *tek-*). The exact morphological match of ON *taka* and TochB *tak* and Goth *tēkan* and TochB *tēk* would seem to guarantee at least a late PIE status for this word.

*mīl-k* 'touch lightly'. [IEW 724 (*melk-*); Del 269]. Lat *mulceō* 'stroke, touch lightly, fondle', Old English *mīl* 'strokes, touches'. Though not widely attested, the geographical distribution of that attestation strongly suggests PIE status.

*klep- 'lay hand to'. [IEW 604 (*klep-*); Wat 31 (*klep-*)]; Buck 11.56; BK 266 (*kʰl̥a博文*/*kʰl̥a博文*). Pres. *klēp'eo-*/In Grk *κλίπτω* 'steal', TochB *kalyp- 'steal'; cf. TochB *klep* 'steal'. Other presents: Goth *bihila* 'steal', OPrus *ąkūlips* 'concealed', TochB *kalp- 'find, get, achieve, obtain', *klspe- 'touch (with the hands), investigate, test'. Cf. also OE *hielītre* 'halter' (> NE *halter*), OHG *haltrā* 'bridle', OE *helma* 'rudder, tiller' (> NE *helm*), *hielle* 'handle'. Reasonably widespread, certainly in PIE.

*ghrei-* 'touch lightly, graze (the surface of)'. [IEW 457 (*ghrēi-*); Wat 23 (*ghrēi-*)]. Lith *grėją* 'skim (cream)', Grk *χρίον* 'touch the surface of a body lightly, graze; (hence) rub or anoint (with oil), coat with color'. A word of the center of the IE world. The Germanic words sometimes adduced here, OE *grima* 'mask, helmet, ghost', MDutch *grime* 'dirt', seem semantically very distant.

See also STEAL. [D.Q.A.]

TRACK
*pedom* 'footprint, track'. [IEW 791–792 (*pedo-m*); cf. Wat 47 (*ped-*); GL 237 (*pʰet-om*); BK 44 (*pʰ[la]-*/*pʰ[la]-*). Med. ined (DIL inad)< (*em-pedo-*) 'position, place, trace', OIr *pēr* 'ground', ON *lét* 'step', Lith *pēda* 'footprint', Lat *peda* 'sole, footprint', OCS *pōta* 'ground', Grk *πεδόν* 'ground', Arm *het* 'footprint', Hit *pēdan* 'place', Av *pādam* 'track', OInd *pādam* 'track', perhaps TochA *pats* 'bottom', TochB *patsa* 'bottom' (if < *pēdeh₂*). From *ped-* 'foot'. PIE status.

See also FOOT. [A.D.V.]

**TRANSFUNCTIONAL GODDESS**

Although there is no linguistic evidence to posit the existence of a PIE transfunctional goddess, a female figure who provides support to the three estates of the priesthood, warrior and herder-cultivator, there is abundant structural evidence of such a figure among various IE peoples.

The Indic Devi (OInd *dev* 'female deity') was a transfunctional goddess. She represented wisdom (Devimahātmyam 3.12), and warrior power (Devimahātmyam 3.42 et passim), in fact, her teeth became red after she devoured her enemies (Devimahātmyam 11.44–45). She also had control over conception (Devimahātmyam 1.75). Various Indic goddesses: Lakṣmī, Alāksmī, Umā, Pārvatī, Durgā, Kālī, and Sarasvatī are subsumed into Devī, according to Tantric philosophy. Her pre-Indo-European origins are reflected in bird and snake iconography; she rode in a chariot yoked to swans (Devimahātmyam 11.13) and she carried a snake (Devimahātmyam 11.14). It must be noted that this ascendency of a female deity in no way reflects a gynocentric society, for Devī grants 'wealth, sons...and prosperity' (Devimahātmyam 12.41).

Devi was born from the united light which emanated from the bodies of the major Indic deities. Each gave her an attribute: weapons, jewels, the lotus, lions, and armor. Thus armed, Devi saved the world from the enemies of the deities. One may compare Lakṣmī, who gave each of her attributes to a different deity, and the Greek Pandorā, the 'all-giver' or the 'gift of all'.

The Iranian goddess Ardāvī Sūra Anāhītā, the 'moist' (or 'flowing'; cf. OInd *te- to flow*) one, the strong one (OInd *sūra* 'strong', heroic; cf. Oftr *caur* 'warrior'), the pure one (OInd *an-āhitā* 'without a stain') was invoked in the Avesta and in Iranian inscriptions dating to c. 400 BC. Anāhītā was a transfunctional goddess who bestowed wisdom upon the priests,
valor upon the warriors, and fecundity upon all others. She was a river goddess, personified as a woman of great beauty. She is particularly invoked in Avesta, Yasht 5. In Old Persian inscriptions dating from the reign of Artaxerxes II (405–359 BC), Anāhītā was named second only to the supreme god, Ahura Mazdāh.

Athēnē was the Greek goddess of wisdom and craft, and she brought victory in war. She was not Proto-Indo-European in origin; she has the greatest affinity with Near Eastern warrior goddesses such as the Syrian Anat. According to Hesiod (Theogony 924), she was born from the head of Zeus, after the god had swallowed his wife Mētis 'wisdom, counsel'. The transfunctional Athēnē was invoked in inscriptions as Hygieia 'health', Polias 'guardian of the polis', and Nīkē 'victory'. Although she was a virgin, she was invoked by women who wished to conceive, as 'Mother'. She won the patronage of Athens by participating in a contest with the Water god Poseidon. Each gave a gift to the city: Poseidon, a well of seawater; Athēnē, the olive-tree. The Athenians voted, and decided that the olive-tree was of greater importance. According to St Augustine (De Civitate Dei, 18.9) the women voted for Athēnē, who won the contest by a single vote. Poseidon was angry with the outcome of the vote, and, to appease him, the right to vote was taken away from Athenian women, along with the right to confer their names upon their children.

Roman Minerva (= Greek Athēnē) was goddess of wisdom, handicraft, and war, particularly strategic war; she was born fully armed from the head of Jūpiter, her father. Minerva became part of the Roman state triad: Jūpiter, Jūnō, Minerva. In Etruscan inscriptions, which may be the oldest attestations of this goddess, Minerva is called Menrva, Menerva, or Menarva. When associated with Mārs, Minerva was called Nērīō (cf. Porphyryon, Commentum in Horatium Flaccum, Epistles II.2.209), a name which may be cognate with Germanic Nerthus, Greek ἄβιπ, Olnd nara- 'man'. The term means 'strength' and hence 'manly strength, heroic man'. Plautus (Truculentus 515) calls Nērīō the wife of Mārs. Nērīō, just as Minerva, represented the one who inspires the power to fight.

Irish tradition is replete with examples of trifunctional goddesses although here they are generally deconstructed into different divinities representative of their constituent functions. That this deconstruction is precisely the process that has occurred is most easily seen in the history of the three Machas, divine figures all bearing the same name but whose careers reflect different aspects of the transfunctional goddess. The first Macha was the wife of Nemed, one of the earliest settlers of Ireland, and was herself a prophetess. The second Macha (Macha Mongruad) vied for the kingship of Ulster defeating her male opponents and was known as a warrior (and also one of the battle-goddesses). The final Macha (Macha Sanraith) came to live with the widower Crunniu and brought him prosperity. In a striking parallel with the Indic tradition, she ran a race against the king's horses and, crossing the finishing line first, gave birth to twins.

See also Goddesses, River Goddess. [M.R.D.]

TRB CULTURE

The TRB (Trichterbecher or 'Funnel-necked-beaker') culture is the primary Neolithic culture of the north European plain c 4500–2700 BC. Sites are distributed from the Netherlands across northern Europe, including the Netherlands, south Scandinavia, Germany, Poland and the northwest Ukraine.

TRB settlements range from small camp sites to large villages, in some instances surrounded by multiple ditch and palisade constructions. Rectangular houses on the order of 15 x 6 m in size, have been excavated as well as horseshoe-shaped buildings. The settlements exhibit a mixed agricultural basis, with marked regional patterns that range from lowland agricultural sites to upland sites with a presumably pastoral economy. Cereals from Scandinavian sites include wheat (Triticum monococcum, T. dicoccon, T. aestivum), barley (Hordeum vulgare), and brome (Bromus secalinus) while among the fruits was the apple (Malus sylvestris); residue of oil from flax (Linum usitatissimum) has been recovered from a flax. TRB sites in Poland have also yielded spelt (Triticum spelta), millet (Panicum miliaceum), pea (Pisum sativum), lentil (Lens culinaris) and flax (Linum usitatissimum). Among the domestic animals cattle predominate, followed by pigs and ovicaprids very much in third place. Wild game included...
The TRB culture occupies an important role in any discussion of IE origins since its territory is broadly coincidental with that of the later Germanic and possibly Baltic and Slavic languages, and, perhaps more importantly, its distribution is also broadly coincidental with the Globular Amphora and Corded Ware cultures which are widely regarded as major vectors for the expansion of the IE languages. Moreover, as it yields evidence of the plow, wheeled vehicles, and the horse (wild or domesticate is uncertain), it can accommodate the minimum cultural requirements for identifying a prehistoric culture as potentially Indo-European. Its origins are a topic

red and roe deer, elk, aurochs, wild pig, bear, horse, badger, wolf, fox, beaver, hare, otter, wildcat, lynx, marten and in the Baltic region, seal. Fish remains have included carp, pike and eel as well as shellfish. Wood remains have included alder, birch, beech, elm, maple, oak, pine and yew.

In technology, there is evidence for both the plow and wheeled vehicles, at least in the eastern region of TRB distribution. The ceramics are typified by beakers and amphorae with wide flaring mouths and a series of cult vessels are also known, particularly from Danish ritual complexes. Copper was acquired by exchange while stone “battle-axes” were also known. The rich flint industry also involved the mining of flint. Burial varies on a regional and chronological basis and includes inhumation in pits, timber graves of box- and tent-like construction, stone cists, megalithic tombs and earthen long barrows. Traces of apparent mortuary houses and large ditched-enclosures have also been uncovered.

TRB II g. TRB pot with wagon; h. Stone “battle-ax”; i. Stone “battle-ax”; j. TRB Pot (Phase A); k. TRB “milk flask” (Phase B); l. TRB funnel beaker (Phase B).
of considerable controversy and it has been derived variously from Neolithic cultures of western, central and eastern Europe (Rössen and Lengyel cultures) although recent opinion has rather emphasized its indigenous character and sought its origin in the acculturation of local hunter-gatherers who apparently resisted the agricultural economy of their southern neighbors until forced by changing environmental conditions to adopt the new subsistence base. For those arguing an IE origin either in the initial spread of the Neolithic economy or a later expansion from central Europe, e.g., the Linear Ware culture, then the TRB culture is generally identified as Indo-European. On the other hand, in the "Kurgan solution" to the IE homeland problem the TRB culture has been cast in the role of an indigenous non-IE culture, marked by associations with the Mother Goddess, and ultimately replaced by IE cultures such as the Globular Amphora, Baden and Corded Ware cultures.

See also Corded Ware Culture; Globular Amphora Culture; Linear Ware Culture. [J.P.M.]

Further Reading

TREE

*dór* (gen. *dórus*) 'wood, tree'. [IEW 214–217 (*dérui*), Wat 12 (*dérui*), GL 525–526 (*t*orw/*tr*eru/*tr*eru-); Buck 1.42, Fried 140–149, BK 151 (*t*ar/*t*ar-). OIr *dair* (Dill. *dair*) (gen. *daro*) 'oak', Wels *där* (pl. *darwen*) 'oak' (< Proto-Celtic *daru-* with unexplained *-a- rather than *-o-), Grk *δόρος* 'tree trunk, wood; spear', Hit *tāru* 'tree, wood', Av *dāuru* (gen. *drāoś*) 'tree trunk, piece of wood, wooden weapon', Olnd *dūru* (gen. *drōb - drānab*) 'wood', TochAB or 'wood' (TochB [pl.] *drwa* 'firewood'); with a generalized zero-grade: Myc *du-ru-to-mo* 'woodcutters', Olnd has *dru-* 'wood, wooden implement; tree, branch', one should compare Olfr *drui* (Dill. *druhi*) (< *dru-uid-*) 'druid, i.e., knower of trees'; from an extended *drugh-*, perhaps originally a collective: Lith *drūtas* 'strong (as *t*re-like), Alb *drize* 'Christ's thorn' (*dr-* [< *drah-1-] + -e, a diminutive suffix), Grk *δρῦς* 'tree, oak'; from *drugh₁/δehr₁-*. OCS (pl.) *driva* 'wood', Alb *drух* 'wood, tree', *drushk* 'oak', from *drįjom*: On *tē* 'tree, wood', OE *trēow* 'tree, wood' (> NE *tree*), Goth *triu* 'wood, tree'; from *deruj₁/eh₁-*. Wels *derwen* 'oak' (pl. *derwrl*), ON *fjar* 'tree', OE *teoru* 'tree' (> NE *tree*), Lith *dėrvā* 'tree', Latv *dārva* 'pitch', OCS *drěbo* (< *drįjom*) 'tree'. The evidence of Greek, Hittite, Indo-Iranian and Tocharian reveals that the neuter paradigm was the basic one in PIE while Germanic-Baltic-Slavic show a regularly derived thematic formation *driegom-* with new e-grade, that may itself be a dialect form in late PIE. Cf. the metaphorical use of *oak* and 'true' in the related set: ON *tryggr* 'trustworthy, faithful', OE *trew* 'trustworthy, faithful' (> NE *true*), Goth *tragwts* (< *dreh₁-/*jo-*) 'trustworthy, faithful'.

The generic word for 'tree' is one of the best attested words in the entire IE vocabulary, with cognates in at least eleven stocks. Many of these cognates simply denote 'tree' or 'wood'. But in a strikingly large number of cases we find some metonymic or functional extension of meaning, for example, 'bow, spear' (NPer *darūna* 'rainbow'), 'tough', or 'spoon' (Arm *targa*). Or there appears to have been a shift to a specific tree, as in Wels *derwen, oark* often we find a metaphoric shift of some sort such as 'firm', 'brave', 'hard' or indeed in Grk *δρυ-αχαρπίας* as in 'the knotty, ironwood hard Acharnians'. These associations of 'tree' to property are most salient in Germanic where phonologically unimpeachable cognates show up not only with the sorts of meanings cited above but more particularly with meanings like 'truth', 'loyalty', e.g., ON *trú* 'belief'. The relative status of these arboreal as against tree-derived meanings have understandably provoked controversy which has not been resolved by attempts to keep the two sets of meanings entirely separate on purely linguistic grounds. The huge number of reflexes of this term include all the ablauts and many other phonologically possible variations; full-grade *dérui* as in Wels *darwen, oark* as in Grk *δόρος* and zero-grade *dru* as in Grk *δρῦς*.

The most important arboreal taxonomic ambiguity is between 'tree/wood' and the specific meaning of 'oak'. In Albanian, for example, *drui* means 'wood' but *drushk* means 'oak'. The strong evidence, however, is in Greek and Celtic. The latter includes a complete set of terms related to druidic cult: 'oak', 'acorn', and 'mistletoe'. In Greek some evidence indicates the standard tree *δέντρον* (as in Pindar) while other reflexes of *dérui* such as *δρῦς* strongly suggest 'oak' in religious contexts such as *Διδύμες* or *Zeus's grove*. In terms of Celtic and Greek, one might claim that the original meaning would have been 'oak', specifically the English or brown oak, which was dominant through much of Eurasia. The oak was then critical in a druidic-type cult and was also strongly associated with such properties as hardness, truth and loyalty, as the oak is to this day. During the extensive migrations, often into areas where oak was rare, the meanings shifted to other trees such as the pine or larch or to objects made of wood, or to generic 'tree/wood'. Despite the allure of this 'oak hypothesis', the bulk of evidence, particularly the meaning 'tree' found in peripheral stocks such as Germanic, Hittite and Tocharian, convinces most scholars that the original denotation of *dérui* was 'tree, wood' and it was only shifted to 'oak' in specific stocks.

*widhu* 'tree, forest'. [IEW 1177 (*widhu*), Buck 1.41; Wat 78 (*widhu*).] OIr *lid* 'tree', Wels *wydd* 'tree', ON *vidr* 'forest', OE *widu* 'wood', OHG *witu* 'wood'. Dialectally west IE. Since three of the five terms denote 'tree' or 'forest' or 'wood', we can postulate a peculiar syncretism of three distinct arboreal referents which are kept apart in most languages and probably were in PIE.

*Krênos* 'tree, brushwood'. [IEW 633 (*kre-*)]. Olfr *cram* (with secondary *-a- rather than expected *-e-*) 'tree', Wels *pren* 'tree', Gaul *prenne* (a kind of?) large tree', Grk *κρίνος* (with *-i- as sometimes in the neighborhood of *-e- or *-i- instead
of -e-) ‘holm-oak’. Related are Wels pry’s ‘woods’, OE hyst ‘hilllock, height, wood, wooded eminence’, OHG horst ‘wood, wooded eminence’ from *kʰr̩stọ-. A new full-grade is seen in OCS chvras’tje ‘brushwood’, Rus khvorośt ‘brushwood’ (< Proto-Slavic *chvorośt- which was rebuilt on the model of *chvoja ‘needles or branches of coniferous tree’). A dialectally limited form for ‘brush’. Ethnographically, cultures such as the PIE always seem to have words for ‘brush’ and/or ‘brushwood’; *kʰresnos thus fills a gap in the proto-system. 

See also Plants, Trees. [PE]

Further Readings

TREES

Arboreal terminology is one of the best attested in early PIE vocabulary. It is uniquely and equally well supported by two sets of hard facts: the pollen deposits that indicate the distribution and chronology of trees and from one to two dozen long recognized sets of cognates that appear to be solidly reconstructed to early IE, e.g., *bherθ̩g̩s ‘birch’. These facts are often strongly supported by archaeological data.

During the Boreal period, and the following, warmer Atlantic (c 5000–3000 BC), approximately the time of PIE unity, and then the Sub-Boreal, enormous amounts of tree pollen were deposited over the entire area of the early IE-speaking world, wherever it was situated. This palynological evidence yields a rich panorama of the groves and dense forests that were scattered intermittently across Eurasia from Atlantic Europe to the Urals and beyond. Palynological analysis and the woods recovered from archaeological excavations attest that the following trees were salient and widespread: birch, pine, willow, alder, aspen and poplar, juniper and cedar, apple, maple, hazel, elm, the nut trees, linden, ash, oak, hornbeam, beech, and cherry; in fact, all the forms that are strongly supported on linguistic grounds are also found botanically, except for the yew (for which there are two terms in IE). Naturally, the frequencies and distributional profiles changed through time and vary over space: the birch and poplars, for example, were far less frequent by Atlantic times when, on the other hand, we witness large stands of mixed hardwoods, above all the oak, which then partly retreat and diminish before the climax forests of beech (with a hornbeam understory).

Careful study of the pollen reveals important regional complexes, notably northern, eastern, and southern ones, often reflected in semantic shifts as different IE tribes moved into new environments. For example, the ‘birch’ term shifts to ‘ash’ in Latin, due to the paucity of birches in Italy, whereas, for similar reasons, the early ‘ash’ term shifts to ‘beech’ in Greek and Albanian. But the overall picture is one of a fairly consistent and far-flung presence of the eighteen major genera. Also, careful palynological study explodes the homeland arguments based on a single tree, the ‘beech’ in particular, but also the ‘birch’, since distributions of trees during the Atlantic period differed markedly from those of today. Proponents of the “beechline” argument have chosen to ignore the palynologically well-attested eastern beech of the Caucasus. Finally, it is sometimes possible on botanical grounds to isolate a species as the most probable or at least the most frequent referent of arboreal terms reconstructed linguistically, e.g., the Scots pine.

The second basic fact is the excellent correspondence between sets of cognates that are attested in six to eleven stocks. These normally reveal reconstructed meanings at the level of the genus, seldom the species of the tree unless only a single species occupied a given area. The main lexical roster of IE trees (of varying claims to antiquity) include the following powerful sets:

Ash: *ḥes(k)-, Fraxinus excelsa (otherwise ormus, ooxyarpa, and Sorbus aucuparia).
Beech: *bheḥa-gos, Fagus (possibly) sylvatica and orientalis.
Elm: *k6σ(V)jos; Corylus
Hazel: *pešk- and possibly *kos-; Pinus sylvestris (also Abies alba and Picea excelsa).
Willow: *ειτ-., *sal(i)-, (perhaps) *urβ-; Salix

Moreover, there are additional cognate sets of demonstrated albeit weaker IE status (in a few cases, such as the ‘apple’, a good but not conclusive case has been made). These comprise:

Alder: *hæl(ṣ)-sos, *uerno/eh-, Alnus barbata, and possibly regionally incana, viridis and glutinosa.
Apple: *hebVλ-, *meb/lom, Malum sp.
Aspen/poplar: *h₂osp, Populus (probably) tremula, (also possibly) nigra, alba and canescens.
Cherry: *kmnom- *kn̩s-, Cornus mas, Prunus padus, etc.
Elm: *u(n)a-g-, *helem, Ulmus sp.
Hazel: *kos(V)los, Corylus (mainly) avellana, (possibly also) colurna and maxima.
Juniper/cedar: *heleu-, Juniperus sp. and/or Cedrus sp.
Linden: *lenteh-, *leiμeha-, Tilia (probably) cordata, platyphylos, (possibly) tormentosa, dasystyla.
Maple: *kleinus, *hekt, Acer (probably) campestris and platanoides, (perhaps) pseudoplatanoides.
Nut: *he-g-, *kne-, (possibly in west) Corylus, (probably in east) Juglans regia and Castanea sativa.

In a striking number of cases there are two or even three terms for one genus, e.g., ‘willow’, ‘apple’, ‘maple’, ‘nut’, ‘yew'.

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The Distribution of Indo-European Tree Names

<table>
<thead>
<tr>
<th>Species</th>
<th>Form</th>
<th>Celt</th>
<th>Ital</th>
<th>Gmc</th>
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<th>Alb</th>
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<td>Alder</td>
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<td>Sloetree</td>
<td>*dhergh₅</td>
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<td>Willow</td>
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</table>

This multiplicity of reconstructed forms may involve geographical complementation, e.g., eastern versus western dialectal terms, or functional specialization where there was the use of one part or of one species of tree for a specific purpose, e.g., willow osiers are used for baskets and fences. To a degree that goes beyond other semantic sets, the arboreal terms and the tree names in particular indicate a relatively strong western-central area that includes Celtic,Italic,Germanic,Baltic and Slavic. Among these Slavic shows the highest rate of mutual correspondence, which may suggest that its ecological area corresponds relatively closely with that of the earliest Indo-Europeans. It should also be observed, however, that a number of the terms for trees, though found across a range of west or central European stocks, may have entered the continuum of early IE languages from non-IE substrates, e.g., one if not both of the 'apple' words. The relative paucity of inherited tree names in Indo-Iranian could easily be accounted for by the long sojourn of these groups in the relatively tree-less region of the Kazakhstan steppe and Central Asia. In addition to the often discussed names for particular genera of trees, there are also some excellent terms for the basic parts of the tree: branch, root, bark, twig. Indeed, we can assume that the speakers of PIE were strongly oriented to their forests and groves as sources of anything from firewood, timber and bast to religious and artistic inspiration. Combined linguistic, archaeological and even modern ethnographic evidence demonstrates many specific uses and functions of trees: the ash, hornbeam and oak for spears.
yew, hazel and aspen for wands and other sacred or ritual instruments; the willow for wishes. More interesting are the large complexes, notably those involving the oak and the birch. We can reconstruct at least two names for the 'oak' and the word for 'tree' is so strongly connected with the 'oak' that at least a case can be made that this was its primary meaning. The term for 'acorn' is also well attested and we have a weaker but still cognate 'mistletoe'. Archaeologically and historically there is overwhelming evidence for worship in oak (and beech) groves, and for religious and mythological association of the oak with mountains, lightning and a high god; in short, many parts and aspects of the oak form part of an early druidic sort of religion.

Quite different from the oak complex is the symbolic sphere of the birch. The word that we can reconstruct with confidence appears to have been feminine both grammatically and lexically. In folklore and myth from the Baltic to the Vedic texts of India, the birch seems for long to have symbolized young, virginal femininity. The birch and oak, however, are but extreme examples of the many nuances of every arboreal term, including 'branch' and 'root', and of the rich texture of nuance that interconnects the members of the arboreal set as a whole to each other and to many other symbols in the early IE world.

See also Alder, Apple, Ash, Aspen, Beech, Berry, Birch, Branch, Cherry, Elm, Fir, Fork (of tree), Grove, Hawthorn, Hazel, Hornbeam, Juniper, Knot, Linden, Maple, Mistletoe, Mulberry, Nut, Oak, Pine, Plants, Sap, Sloe, Spruce, Willow, Yew. [EE]

Further Readings

TRICKSTER

A mythological "Trickster" is not a figure easily located nor much investigated in the broad Indo-European context. No remainder of any believable Trickster-Culture Hero has been found in any of the various IE traditions; that is, as a primitive mythic being of vast but semi-comic dimensions and erratic and disorganized powers, who blunders into the creation of human culture (but who may also be the originator of death among humankind). Although in no way assignable to PIE antiquity, there are reflections of a Trickster god in the divine pantheons of IE-speaking peoples. We can tentatively point to the Greek Hermès who shows contrary and reversing patterns of action, an emblematic image of masking, trouble-making, and even of the perverse. The same is true of the Norse god Loki, 'first creator of tricksters,' who is identified as one of the Æsir, the gods of sovereignty, order, and war, and yet is called both an enemy and a servant of the other Norse gods. Georges Dumézil showed the clear parallelism between Loki and the Ossetic Syrdon, who displays the same contrary and malignant nature, and the same servant's role, among the Nart heroes of the Ossetian tales, but he was reluctant to equate these two figures with the archaic and archetypal Trickster-type as explored in Amerindian cultures by Paul Radin and defined by Carl Jung. Nevertheless, Dumézil did argue for at least generic comparisons between the Norse Loki, the Roman Tarnpeia, the Avestan Angra Mainyu as well as the Ossetian Syrdon.

One important mode of the Trickster is locatable in the IE epical context, where he already appears in the person of Odysseus, the great-grandson of Hermès, in the *Iliad*, called he of many wiles (πολυµήτης), a crafty, manipulative, untruthful but respected hero and war-king whose friend and divine ally was Athéné, the goddess of craft and of intelligence. Odysseus sets up a pattern that will be seen widely elsewhere in IE epic, by being often paired with a "straight", hunts and physically heroic warrior, in this case the hero Diomèdes. Such a pairing of Trickster-hero and a muscular and unthinking partner is also seen in the Welsh Cei is himself a complicated, two-sided figure, a warlock but also a great warrior, who eventually declines into the buffoon-like Sir Kay of the later Arthurian romances. In the Old Irish hero-tales, such as the Ulster Cycle, some tricksterish characteristics are seen in such mocking, trouble-making and contrary figures as Brietiu Nemthenga (poison-tongue) and Dubhthach Doeltenga (chater-tongue). A special reflection of the warrior-Trickster appears in the Serbo-Croat heroic songs collected by Parry and Lord: "Tale of Orasacs" or "Tale the Fool" acts as planner, spymaster, executioner and jester to a collective of hero-warriors and border-fighters. Trickster can be associated with figures who aid and assist in the warrior function, especially with the Smith, also a master of craft and (like the most archaic Trickster) a creator of culture. Their similarity also includes the manipulation of magical powers, and their "blackened", distorted, and disheveled appearance, in which both show contrast to and reversal of the usual perfection of the surface of the hero-warrior's persona. Possibly Smith and Trickster descend from the same root, as they are usually closely allied with but not precisely part of the most archaic IE ideological structure. In general, the IE epical Trickster, the most widely seen example of the general type, acts as a foil to the usual warrior-hero, showing special knowledge, craft, and word-skills, he is also
TRICKSTER

likely to be a survivor, as the usual hero is not. The erotic element seen in the Trickster in other non-IE traditions is mostly missing, or not very prominent, in the IE versions of the Trickster's acts and adventures. See also CRAFT GOD; ESCHATOLOGY; SMITH GOD. [D.A.M.]

Further Reading

TRIPOLYE CULTURE

The Tripolye culture stretches from Romania (where it is known as the Cucuteni culture) to the western Ukraine and dates to the period c 4500–3000 BC. The culture is attested from well over a thousand sites in the form of everything from small villages to vast settlements comprised of hundreds of dwellings surrounded by multiple ditches. The arrangement of houses and other structures is often seen to be in the form of a circle or concentric circles with one or several houses in the center of the settlement. An alternative arrangement includes rows of houses aligned along the side of a river. The houses themselves may vary from small dwellings, presumably of a nuclear family, to much larger houses, including examples with a second storey. The larger structures have been taken to be the dwellings of extended families while the size of the settlements has been correlated with clan or tribal units. Clay-built ovens and hearths are known from the interior of sites and clay models of houses attest the existence of furniture and wall decorations. In some instances buildings identified

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Tripolye a. Distribution of the Tripolye culture.

b. Village of Kolomiyschina; c. Two-storey house; d. Tripolye house; e. Tripolye house with multiple ovens.
as shrines have been uncovered and clay platforms ("altars") have frequently been identified in structures.

Wood remains indicate something of the range of the arboreal environment of the Tripolye culture and include fir (Picea excelsa), pine (Pinus sylvestris), alder (Alnus), birch (Betula), hornbeam (Carpinus betulus), beech (Fagus sylvatica), oak (Quercus robur), elm (Ulmus laevis), linden (Tilia cordata), ash (Fraxinus excelsior), and hazel (Corylus avellana). The mixed agricultural economy is attested with the remains of wheat (Triticum monococcum, T. dicoccum, T. aestivum, T. spelta), barley (Hordeum vulgare), millet (Panicum miliaceum) and oats (Avena). Among the lentils and pulses there are pea (Pisum sativum) and bitter vetch (Vicia ervilia). Other plant remains for the early and middle period of the Tripolye culture include the cherries (Prunus cerasifera, P. domestica), the vine (Vitis) and apricot (Armeniaca vulgaris) which by the Late Tripolye period were augmented by further forms of cherries (Prunus spinosa, Coryus mas, Cerasus avium), pear (Pyrus), apple (Malus), grape vine (Vitis vinifera), hawthorn (Crataegus) and wayfaring-tree (Viburnum lantana). Among the domestic fauna cattle generally predominate but ovicaprids and pig are also well represented except in the latest periods where a shift in settlement into the more arid steppe region sees a very marked decline in domestic pig on late Tripolye settlements. Wild species included red and roe deer, elk, aurochs, wild pig, horse, bear, beaver, badger, otter, wolf, fox, wildcat, marten, hare, squirrel, cricetus (hamster), and isolated instances of antelope, wolverine, polecat, lynx, hedgehog, mole, vole, spalax and citellus (squirrel).

The Tripolye culture attests a wide range of material culture: flint tools, polished stone axes, imported copper ornaments and tools. Simple plowshares have also been uncovered. Of special note are the stylized figurines and fine wares of painted pottery, less frequently ornamented in relief or by excision. These reflect an extensive system of ornamentation which include both zoomorphic and anthropomorphic figures which have been interpreted as reflections of religious beliefs. The anthropomorphic figurines are usually female and ornament on ceramics has also been associated with a female deity or deities. There is a wide variety of other motifs which have generated considerable speculation, e.g., trees are depicted and have been interpreted as sacred trees, cattle have been interpreted as aspects of a bovine goddess.

In origin, the culture is seen as a projection of southeast European agriculturalists to the east and its closest genetic connections, seen particularly in ceramics, are with Neolithic cultures of the Balkans (Boian, Hamangia) and the Linear Ware culture. On the other hand, the Tripolye culture was in regular contact with the steppe and forest-steppe cultures, especially
the Sredny Stag and Yamna cultures. The culture has been
variously seen as Proto-Indo-European where its architecture
has suggested the extended family type ascribed to the Indo-
Europeans or a non-IE culture that was first threatened and
then overwhelmed or absorbed into the putatively IE steppe
cultures to its east (as in the “Kurgan theory”). In its later
phases, it shows evidence of an amalgamation of both native
cultural elements (painted wares, figurines) and steppe
elements (shell-tempered coarse wares, kurgan burials).

See also KURGAN TRADITION, SREDNY STAG CULTURE;
USATovo Culture, YAMNA CULTURE. [J.P.M.]

Further Reading

TROOP see COMPANION

TROUT

*piskoš* ‘trout (Salmo trutta); fish’. [IEW 796 (*pisk*);
W) 48 (‘pisk’); Gl 454 (‘*pisk* — ‘*pisk*’); Buck 3.65].

OIr lace (gen. éisc) ‘fish’ (< *piskoš* with new full-grade
but in any case assuring the cluster -sk- rather than -sk-),
Lat piscis ‘fish’ (with a not well-explained change from an o-
stem to an i-stem), piscina ‘fish-pond’, ON fiskr ‘fish’, OE fisc
‘fish’ (> NE fish), OHG fisk ‘fish’, Goth fisk ‘fish’, perhaps
Allt pisk ‘fish’ (if not borrowed from Lat piscis), Olnd picchá-
calf (of the leg), picchila — picchala ‘slimy, slippery’.

Although the Old Indic word conforms well with linguistic
expectations its underlying semantics are rather complicated.

There appears to be a widespread association in many different
language stocks between the call of the leg and the belly of a
fish full of roe, e.g., Rus iskr ‘fish roe, call of leg’, NDutch
kuit ‘fish roe; call of leg’, Estonian kala ‘fish roe’ and
säre (leg)- mari ‘call of leg’. Some iconographic support
comes from the presumably Indo-Iranian burial in the Iron
Age tombs of Pazyryk in the Altai mountains where an
individual was tattooed with a fish down the length of his
right shin, thus rendering his call the equivalent of the fish’s
belly. Rus (and other Slavic) piskat’ ‘groundling (Cyprinus
gobio)’, sometimes included here, is probably rather a
derivative of *pisk- *whistle’ (because of the noise such fish
make). Latin and Germanic show an identically constructed
denotative verb, *pi(k)*sk-ehre- Lat piscari ‘to fish’, ON
fiska ‘to fish’, OE fiscean ‘to fish’ (> NE [verb] fish), OHG
fiskon ‘to fish’, Goth fiskan ‘to fish’. The nearly certain
derivation of *piskoš* from *pik-sko- ’spotted’ or the like
indicates that the earliest ichthyological meaning was ‘trout’.

Similarly in Slavic we have descendants of a late PIE *pik-ro-
meaning ‘trout’, e.g., Czech pstruh, Rus pestrusha, or in Celtic
and Germanic derivatives of *perk- ‘speckled’, e.g., Mlr erek
‘speckled, trout, salmon’ (but Wels erek only ‘speckled’). OE
forn(e) ‘trout’, OHG forhanna ‘trout’ (but Grk pépyn ‘perch’
rather than ‘trout’). Possibly Hit parhut ‘a fish’ may also belong
here. Widespread and old. The distribution of the trout covers
all of Europe and extends well into Asia. It seems likely that
already in the later stages of PIE this word was becoming
generalized to ‘fish’ and competing with *dhighlu-, ‘fish’.

See also FISH, SALMON. [D.Q.A.]

Further Readings
Sadovsky, O. J. (1973) The reconstruction of IE *pisko- and the
extension of its semantic sphere. JIES 1, 81–100

TROY

The famous settlement of Troy (identified with the modern
site of Hisarlik in northwest Turkey) provides the name for the
early Bronze Age culture of northwestern Anatolia.

The culture, which marks the beginning of the early Bronze Age in
this region, dates to c 3300 BC (although the site of Troy
itself is some centuries later). Sites such as Troy I, Demirci
Huyuk, Klaszomenai-Limantepe are all fortified with stone
dwells and reflect the incipient urbanism of this period with
early metal working, craft specialization, etc. Troy itself
represents a deposit over 20 m high that is divided into 41
architectural levels spanning eight main periods and many
sub-phases. Through the course of its existence it has been
variously assigned as a marker for Indo-European intrusions
into (or out of) Anatolia.

Troy initially began as a fortified settlement (Troy I, c 2900
BC) surrounded by rubble-filled stone walls that may have
stood over 7 m high. The interior comprised single-roomed
houses, including an apsidal house. Apsidal houses are taken
by some as markers for IE movements from the Balkans
southwards (they are also found in Greece where they play a
role in some discussions of Greek origins; in actual fact, they
are widely found across Europe from the Neolithic period

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onwards and are no certain ethnic marker in themselves although they might indicate the movement of a particular architectural tradition). Remains of both cereal agriculture (wheat) and stockraising (cattle, sheep/goat) have been recovered. Ceramics bear many parallels with those of the Bulgarian early Bronze Age cultures, such as Ezero, and the proposition that some form of close interaction sphere is probable. Some adduce other parallels such as the stone-built fortresses which are also found at Ezero in Bulgaria and Mikhaylovo north of the Black Sea. On the basis of twenty-seven proposed Thracian–Trojan isoglosses, L. A. Gindin has suggested that the Proto-Thracians predominated in the early settlement of Troy. According to the “Kurgan theory” of IE origins, steppe pastoralists reorganized the populations of the Balkans about such citadels and hence Troy I and related sites might mark the earliest intrusion of Indo-Europeans (Proto-Anatolians?) into Anatolia. Others would prefer to reverse the direction of proposed movements and influences and derive the European parallels from Anatolia. Although the domestic horse is not found here at Troy until much later (cognates for the horse word can be found in Luvian), the presence of the horse in western Anatolia on other sites does emerge by this time.

By Troy II (c 2500 BC) the interior architecture of the site with its great megaron ‘large house’ and large circular hearth has often been interpreted as a royal residence. During this phase of occupation a series of hoards of gold and silver were also deposited which can be paralleled across Anatolia at other sites (the so-called “Treasure Horizon”). Cultural contacts across the Aegean are particularly marked. Face urns (vessels shaped and ornamented as a head), similar to those also known in the Baden culture, begin to appear (and will continue through several more periods).

Of the periods, much emphasis has been placed on Troy VI (c 1700–1300 BC) which sees the earliest evidence for the domestic horse at the site and a horizon of occupation that has frequently been ascribed to a new people. The linguistic identity of the Trojans at this time has been much discussed since there are some hints that names current in the Iliad are to be found in Hittite and Luvian texts of the fourteenth century while traces of Anatolian names are found in Homer’s catalogue of Trojan allies in the Iliad. Prominent among the names is the Hittite reference to the country of Wilusa (cf. Ḫili, Grk Φήλος), which on occasion even carries the same epithet, i.e., Grk Φήλος κατευθύνη and Hit alati wilusati ‘steep Wilusa’. The non-Anatolian sounding personal name Alaksandus is compared with Grk Ἀλεξάνδρος/Alexandros (the son of King Priam, whose own name has been compared with Luv Pariya-muwax). These names have prompted some to argue that the occupants of Troy VI may have been Anatolian, specifically Luvian in their speech. Alternatively, as Troy VI has been regarded widely as a possible marker of intruders, some have suggested that it may have been occupied by Phrygian populations from the Balkans (although they remain linguistically unattested until the eighth century, long after Troy itself was abandoned). This period also sees the appearance of Minyan Ware, a pottery found in both Anatolia and widely over Greece, which some have seen as a marker of Greek movements into Greece. During Troy VII (c 1300–1100 BC) there is a sudden break (between Troy VIIa and VIIb) which sees the appearance of knobbed ware, a ceramic style distinctive of the Balkans, which offers another candidate for Balkan intrusions which have also been assigned to the Phrygians. For those who enjoy literary-historical speculation, late Troy VI or the following Troy VII are the traditional candidates for Homer’s “Troy” described in the Iliad.

See also Anatolian Languages; Baden Culture; Ezero Culture; [J. P. M.]

Further Readings
TRUE

*\textit{h}s\textit{an}t\textit{-} 'real, true'. [IEW 340–341 (*\textit{es}-); Wat 17 (*\textit{es}-); Gl 256, 264 (*\textit{es}-)]. Lat \textit{s}\textit{on} 'guilty', ON \textit{san}\textit{ar} 'true, guilty', OE \textit{s}\textit{ôn} 'true, genuine, real, justice, truth' (cf. NE soothsayer), \textit{s\textit{ô}d\textit{an}} 'prove true, bear witness' (> NE soothe), Hit \textit{as\textit{a}n} - 'being, existing, real, true', Av \textit{ha\textit{t\textit{a}y\textit{a}}-true', OInd \textit{sa\textit{t\textit{y}}-true' (Indo-Iranian < \textit{*h}s\textit{pt\textit{t}ös)}, \textit{s\textit{â}nt-} 'being, existing, real, true'. In origin the present participle of \textit{*h}\textit{es}- 'be' but already in PIE specifically 'true, real' as well as 'being, existing'. Also already of PIE age is its juridical use as a confession of guilt, e.g., Hit \textit{as\textit{a}n\textit{-}i\textit{yamun\textit{-}at'it (is) true, I did it'}.

\textit{*u\textit{e\textit{h}r\textit{os}} true'. [IEW 1166 (*\textit{w\textit{e}r\textit{-}o}); Wat 77 (*\textit{w\textit{e\textit{r}}o-}); Gl 370; Buck 16.66]. OIr \textit{f\textit{r} true', Wels \textit{gw\textit{ir} true', Lat \textit{v\textit{e\textit{r}}us 'true', OHG \textit{war} 'true'. A northwest IE adjective formed on the root \textit{*u\textit{e\textit{h}r}- 'confidence, faithfulness, agreement', e.g., ON \textit{vær\textit{r}'friendly', OCS \textit{ver\textit{a} belief, confidence, faithfulness'. An expanded form \textit{*u\textit{h}\textit{e\textit{r}h\textit{t}} perhaps occurs in Lat \textit{ver\textit{eri} revere, honor', Latv \textit{vē\textit{rītēs} notice, see', Grk \textit{en\textit{p\textit{o\textit{v\textit{n}tāt they supervise', Hit \textit{wer\textit{e}t fear', TochA \textit{war\textit{-}smell', TochB \textit{war\textit{-sk}-smell'}.

\textit{See also Belief; Tree. [E.C.P., D.Q.A.]

Further Reading


TRZCINIEC CULTURE

The Trzciniec culture is a middle Bronze Age (c 1600–1200 BC) culture of Poland and the western Ukraine, the remains of which are found from the Vistula to the middle Dnieper. Architectural remains are normally not well preserved but there is evidence for both surface and semi-subterranean houses. In the eastern Trzciniec site of Pustyntka, fifteen to twenty houses were arranged in several rows along a lake side; the houses measured about 10 x 5 m in size. Mixed agriculture with cattle followed by pig appears typical and the technology employed both bronze and flint tools, especially sickle blades; the ceramics indicate a Corded Ware ancestry for the culture. Burials are found both under flat graves and barrows and the burial of a man and woman or even multiple burial, perhaps in a wooden mortuary house, is known. The placement of males in the central chamber of mounds has suggested that these may have served as collective tumuli for patriarchal families. Trzciniec is regarded as the western component of a common Trzciniec-Komarov culture group with regional differences of site location, ceramic styles and mortuary practice. Generally, the Trzciniec along with the Komarov culture is associated with the Proto-Slavs.

\textit{See also Corded Ware Culture; Komarov Culture; Slavic Languages. [J.P.M.]}

TURN, TWIST

*\textit{k\textit{we\textit{l}}-} 'turn' (pres. \textit{*k\textit{we\textit{lo}}-}). [IEW 639 (*\textit{k\textit{\v{e}l}-); Wat 33 (*\textit{k\textit{\v{e}l}-); Gl 622 (*\textit{kh\textit{\v{e}l}-); BK 317 (*\textit{k\textit{\v{e}l\textit{jul\textit{-}\textit{/k\textit{\v{e}l\textit{jol-}}})].

*kwel- ‘turn’. Olr ćloid ‘turns back, defeats’, Alb qeshe (< *kwelod-s-m) was’, Grk ćlukt- (< klut< *klut-) ‘turn; become’, TochB klukt- ‘turn, become’ (Toch < *kwelod-ske-o). An enlargement of the previous verb.


*derbh- ‘turn, twist’ (or ‘bundle, bind together [by twisting]?). [IEW] 211–212 (*derbh-); Wat 12 (*derbh-). OE tearflian ‘turn, roll, wallow’, OHG zerben ‘turn about’, Rus dórōb ‘box, sieve’, Arm torn ‘cord’, Av daraβo- ‘bundle of muscles’, Parāč andar ( < *ham-darb-) ‘sew’, Olnd dybþat ‘knots, ties’. Perhaps Grk δάρμη ‘basket’ belongs here if a hypothetical *daphē has been influenced by τάρμη ‘large basket’ (itself of unclear etymology—perhaps one or both of these words has been borrowed from some other IE group).

In the IE east (Armenian, Iranian, Indic) this verb seems to have meant ‘bundle, bind together (by twisting)’. In the extreme west (Germanic) the basic meaning was apparently ‘turn, twist’. In a central area (Slavic, Greek) it would appear to have been ‘plait’. It is not easy to determine which of these meanings was more original for what is obviously an old word in IE.


TURN, TWIST

OCS svrabō 'scabies'. The attestation of this word is geographically central and western in IE. Probably a late and dialectal word in PIE.

*(y)rep- 'turn, incline'. Grk ἰέπω 'incline oneself, be inclined to', ἰονί 'inclination', TochA rapurhe 'desire, cupidity'. Perhaps dialectal in late PIE.

See also BEND, NECK, RUB, SHAKE, TEAR²; WAGON, WHEEL, WIND. [D.Q.A.]

TWIN

*jemōs 'twin'. [IEW] 505 (*jemom-), Wat 79 (*jem-); Gl 680–681 (*qemom-). Olr emon 'twins, Lat geminus ( < *jemom-) 'twin', Av yama- 'twin', Olnd yama- ( < *jemōs) 'twin'. Perhaps also Lat Remus by assimilation to Romulus, cf. the Indo-Iranian (mythological) figures: Av Yima, Olnd Yama. On the other hand, ON Ymir, the name of a giant, is not relatable; the stem vowel must be long to account for the desinence. Lith jumis 'double fruit' is similarly questionable. Despite several dubious cognates, the solid attestation of this word from Ireland to India confirms that it was the PIE word for 'twin'.

See also COSMOLOGY, DIVINE TWINS. [M.E.H.]
**UNCLE**

*I pḥtru(o)* 'male paternal relative; father’s brother'. [IEW 829 (*προυτοιο-ς*); Gl 669 (*προτρουνο-ς*); Buck 2.51; Szem 11; Wordick 124–125]. Grk πατρος 'male paternal relative', (particularly 'father’s father, father’s brother'). Although attested in a single stock, it shows both an unusual and non-productive derivational process that suggests considerable age within Indo-European. Moreover, there are further derivatives which greatly increase its geographical spread. Thus we have *p(h)tr(u)tos* 'relating to the father’s side' in Lat patrus 'father's brother' (regular from *pḥtru(o)* or *pḥtr(u)tos*), (Old) Lith straus 'grandfather, old man', Lith straus 'father's brother, mother's sister's husband', OCS stroy 'father's brother', OCS stroy 'mother's brother', Rus stroy – stroy 'father's brother', Av tārīya 'father's brother' (Balto-Slavic and Iranian with different reductions of the difficult initial cluster *pt*r-), Olnd pītrvā́ 'father’s brother'. In Greek and Armenian the same form gives πατρος 'step-father', Arm yavray 'step-father' with a different semantic specialization.

There is no certainty that either *pḥtru(o)* or *pḥtr(u)tos* was the designation for 'father's brother' in PIE. Certainly it was in a series of dialects that gave rise to Balto-Slavic and Indo-Iranian. *pḥtr(u)tos* is certainly a possible candidate as the PIE shape of Lat patrus. In modern western languages, where Eskimo kinship systems tend to dominate, matrilineal and patrilineal uncles are not differentiated, a situation also seen in some minor terms, notably Lith dēde 'uncle'. The relationship of this word to OCS djadu 'grandfather' (but note Rus djadja 'uncle') indicates that this is a reduplicated child-word, of the same sort as is seen in Grk ἰδιος 'uncle'.

**?*ḥeuh₂₂** - 'grandfather, (?) mother's brother'. [IEW 89 (*auo-s*); Wat 4 (*auo-)*; Gl 669 (*HauH₂₂*); Buck 2.51; Szem 11; BK 416 (*haw-*)]. As 'mother's brother' attested only in derivatives: MWeis ewyth(y)r 'uncle', Bret eontr 'mother's brother', Corn eawnter 'mother's brother' (Celtic < *ḥeuh₂₂e(on-tro-s)*), Lat avunculus (< *ḥeuh₂₂Vn-tlo-s*) 'mother's brother; mother's sister's husband', (Plautine) aunculus (whence French oncle, NE uncle and Alb ungh 'uncle'), OE ejm (< *e-ham*, still dissyllabic in Beowulf) 'mother's brother' (> NE [Scots] em 'uncle'), OHG oheim 'mother's brother' (as if < *ḥeuh₂₂o(h)₂₂os*), OE wur (< *ḥeuh₂₂w₂₂os*), ORus ui 'mother's brother', OCS uj 'mother's brother', OPrus ur 'mother's brother' (OPrus and Slavic < *ḥeuh₂₂os*).

Derivatives include OIr aue 'grandson', ON æ'gr'andfad, possibly Alb vella 'brother' < 'cousin' < 'mother's brother's son' reflecting either a metathesized diminutive *awelā < *awelā < *ḥeuh₂₂h₂₂o-(h)₂₂o- or compound *awelā < *ḥeuh₂₂h₂₂o-(h)₂₂o-*h₂₂o-. Certainly there was a thorough-going tendency in the west and center of the IE world to create a term for 'mother's brother' on the basis of undoubtedly PIE *ḥeuh₂₂os* 'grandfather'. Whether we can reconstruct an additional meaning 'mother's brother' for *ḥeuh₂₂os* in PIE itself is much more problematic.

*ṣesrijos* 'pertaining to a sister, sisterly; sister's son; ?mother's brother'. In the latter meaning only in Arm k'ti 'mother's brother'. Related are OSwed sweri 'mother's sister's son', OE swor – (ge)sweor 'mother's sister's son', geswiwe 'sister's son; mother's brother's sister's son, father's sister's son. Assuming 'sister's son' as the oldest meaning allows us to explain Arm 'mother's brother' as an example of reciprocal naming (cf. OIr aue 'grandson' from *ḥeuh₂₂os* 'grandfather').
or OHG enikl ‘grandson’ from ano ‘grandfather’.

7*mehtrous ‘mother’s brother’. [cf. IEW 700–701], Grk μιστρος ‘mother’s brother’. No other direct cognates exist but Robert Beekes has suggested that the existence of a PIE feminine *mehtrūs ‘mother’s sister’, presupposes the prior existence of such a masculine form which may have only survived in Greek.

7*dhehyr ‘uncle’. [IEW 235 (‘ dhe- ~ dhe-dh(e)’); Buck 2.51]. Perhaps Lith dėdė ‘uncle, father’s brother, mother’s sister’s husband’ (if not borrowed from Russian), Rus djadja ‘maternal uncle’ (cf. the related OCS ḍjadja ‘grandfather’), Grk ἰδεῖς ‘uncle’. The relationship between these words is not certain as the Lithuanian word may be a borrowing from Russian and, although both the OCS and Russian forms are related, the latter is not derived from the former. At best, a word of the center of the IE world but possibly also independently formed based on common word forms employed by children, e.g., NE dad(dy).

Mother’s Brother

Since Delbrück’s analysis of IE kinship terms it has been clear that terms for *h₂euh₂s ‘mother’s brother’ are derived from *h₂euh₂os ‘grandfather’ although some languages possess a number of other derivatives for ‘mother’s brother’ that most regard as later developments (e.g., Grk μιστρος ‘mother’s brother’, OInd mātula- ‘mother’s brother’). Nevertheless, the association between the two terms has been regarded as crucial evidence for reconstructing an Omaha kinship system for Proto-Indo-European. Along with the proposed identity of ‘sister’s son’ and ‘daughter’s son’ under a common form *nepōs, the Omaha system would predict the lexical identity of ‘grandfather, mother’s father’ and ‘mother’s brother’, here suggested under a common term *h₂euh₂os. The argument rests on the proposition that as some stocks give the meaning ‘grandfather’, some give the meaning ‘mother’s brother’, and some give both meanings, it is logical to reconstruct both denotations to the proto-form. The evidence for this is in fact considerably more circumstantial and as with attempts to assign two kinship denotations to *nepōs, there are also critics of those who would try to unite ‘grandfather’ and ‘mother’s brother’ under *h₂euh₂os.

The meaning ‘grandfather’ is uncontested as that is the meaning (and the only meaning according to the critics) one recovers from the lexically cognate sets. Unlike the arguments concerning *nepōs where individual stocks do combine the two kinship categories under the same term, all of the proposed evidence for ‘mother’s brother’ rests on derivations from *h₂euh₂os and there is no certain example in any stock where precisely the same form gives both ‘grandfather’ and ‘mother’s brother’. The derivations vary according to stock or even within the same stock. Celtic extends the original root with the suffix *-tro-, Latin extends with a diminutive *-tlo-, Germanic forms a compound with *-haima- variously explained as ‘house’ (PIE *Roinos), i.e., ‘one who lives in grandfather’s house’ or with *Roiimos ‘value’, i.e., ‘dear grandfather’, cf. Wels tad-ua ‘grandfather’ (< ‘dear father’). Lithuanian extends with *-haimos. Old Russian and Slavic both employ the familiar derivational suffix *-jos. On comparative grounds then ‘mother’s brother’ cannot be shown to be one of the meanings of *h₂euh₂os. Moreover, it is not attested with the meaning ‘mother’s brother’ in either Anatolian or Armenian where there is no derived form for ‘mother’s brother’ but only the basic form ‘grandfather’. Finally, the critics argue, one cannot even advance a common derivational form of this word back to PIE: the various root-related forms for ‘mother’s brother’ would appear at best to be post-PIE developments in every individual stock in which they appear; moreover, these are confined to the western and central parts of the IE world.

One is left then with a circumstantial “tendency” in the west and central regions of the IE world to employ the word for ‘grandfather’ when coining a word to denote ‘mother’s brother’ (obviously, supporters of the Omaha hypothesis would argue that this tendency was driven by the fact that the two denotations had been combined in the same word in the proto-language). It could be argued that even in Omaha kinship systems there is only a tendency to equate ‘mother’s brother’ with ‘grandfather’ (and the latter term need not refer exclusively to ‘mother’s father’). It is noteworthy that in Omaha itself (the “eponymous ideal” of the Omaha kinship type) there is no equation of ‘mother’s brother’ with ‘grandfather’. Heinrich Hetterich suggests (as many others had before him) that there was no specific term for ‘mother’s brother’ in PIE (or at least we have no grounds for reconstructing one) and that the cross-relatives were probably denoted descriptively (e.g., in addition to the etymologically difficult OIr amnair ‘mother’s brother’, Old Irish commonly employed a descriptive term, brathair māthar ‘mother’s brother’). To explain the widespread tendency to derive the word for ‘mother’s brother’ from ‘grandfather’ the critics of the Omaha hypothesis often point to the special relationship obtaining between the ‘mother’s brother’ and ‘sister’s son’ among the early IE stocks.

It has often been observed that in patrilineal societies, as one would reconstruct for Proto-Indo-European, the relationship between father (and father’s brothers) and son is that of a stern disciplinarian and obedient child, i.e., the relationship is emotionally “cool”. In contrast, the boy will enjoy a much more affectionate relationship with his mother’s brother who is outside the boy’s lineage. Examples of such a relationship can be cited from early IE peoples, the most frequently quoted being that of Tacitus (Germania 20) on the early Germans where he observes that a sister’s sons (sororum filios) are regarded to be related to their mother’s brother (avunculum) nearly as closely as to their own father (pater) and some tribes prefer to extract hostages on the basis of such a relationship as it involves a greater emotional hold on the family. Tacitus clarifies the situation by emphasizing that the line of legal descent and inheritance is from father to son. Here and other examples from both the early historical record of the Indo-European peoples and ethnographic samples from the rest of
the world indicate that such relationships between mother's brother (or maternal grandfather) and nephew are common. These relationships may have been intensified by the custom of fostering where a son would be sent to live with his mother's brother, e.g., the Irish Cú Chulainn and his mother's brother Conchobar. The reasons for such a relationship are generally attributed to a number of factors: both the son and mother's brother are connected to each other through the same woman with whom they share an affinitative bond (mother-son, sister-brother); in a patrilineal descent system, the mother's brother (or mother's father) will have no authority to exercise over his sister's children since they are raised in a different kin-group (this is the opposite of the avunculate which operates in matrilineal systems where 'mother's brother' will occupy the role of stern disciplinarian as descent is reckoned along the mother's line; in this situation the father is in a more friendly relationship with his son). Hetterich suggests that as the Indo-Europeans moved to a more settled society, interpersonal relationships between previously distant relations became much closer and intense and new terms were required to designate them. In the case of the 'mother's brother', the term for the only other male who occupied a higher generation and might stand in an affinitative relationship with a boy would have been the 'maternal grandfather' and it was from this word that new terms for the 'mother's brother' were derived. O. Szemerényi, while agreeing with the interpersonal relationships, suggests rather than the derivation is more easily explained by the fact that when the maternal grandfather (mother's father) died, her eldest brother would assume her father's position, i.e., the eldest 'mother's brother' was invariably a potential 'grandfather'.

See also Grandfather, Kinship. [M.E.H., J.P.M.]

Further Readings

UNDER


IE. Cf. Lith nerst ‘plunge, dive into’, nerëve ‘water nymph’. Note that the north is to the left when facing the rising sun, which was the PIE orientation for direction; the north is also the ‘low’ in contrast to the south where the noon-day sun reaches its height.

See also Adjectives, Direction, UP. [D.Q.A., A.D.V.]

UNDERWORLD

A number of Proto-Indo-European deities were represented as belonging to the underworld, beneath the physical surface of the earth. Their duties could include ruling or judging the souls of the dead, aiding the souls' transition between life and the afterworld, overseeing the processes of decay or rebirth from the soil, and guarding mineral resources. These deities were regarded with fear and were placated with special chthonic sacrifices, such as pigs or black animals.

Rulers of the underworld could be gods or deified men. The Greek god Hādê̄s (also called Ans and Audôneus, Roman Dits or Plótô) is the most clearly depicted chthonic deity, accepting the souls of the dead into his subterranean kingdom but not interacting with them in any way. The mineral resources of the earth were his, and he is often depicted with a wolf's cap which represents both his function as guard dog at the gate of his realm and the wolfish ferocity of his character, attested by such epithets as παντοπόρος ‘all-devourer’ and ζωοκοπός ‘body-devourer’. But although he was viewed with dread for what he represented, Hādê̄s was not considered to be hostile to humanity; another of his epithets was πολύζενος ‘hospitalable’, and the name Hādēs can be analyzed as ‘reunionist’ from *sĝ-wâd-, referring to the souls' reunion with their ancestors. Appropriate sacrifices to Hādēs were black cocks, cows, sheep, or pigs, offered in the evening or at midnight in a pit.

Rulers of the dead in other branches of IE often had some more important aspect as well. The Norse Þórr was god of battle and thunder as well as the leader of the souls of thralls or those who did not die a warrior death. Slavic Perun, Lithuanian Perkūnas, and Thracian Zalmoxis, all thunder gods, also were associated with the spirits of the dead, as was Baltic Peculis or Patolls (with many variant spellings). Peculis was closely connected with Lithuanian Velniaus (also Veltias, Old Russian Veles or Volos), god of horned animals but also god of the underworld. Here the link is between the death aspect and the fertility aspect of the underworld.

There is some evidence in both Hittite and Baltic for a goddess of the dead, a chthonic solar deity, akin to the Hittite Lē′wānti, but this is probably the result of borrowings. Greek Dêmê̄tēr too has underworld associations; at Phigalia in Arcadia there was a cult of Dêmê̄tēr as Death-Mother, and her daughter Persephône was Hādē̄s' consort for part of the year. But in both of these cases, the death aspect is a facet of the vegetation cycle, the fallow period which precedes new growth, rather than a real connection with the spirits of the human dead.

In some IE branches the ruler of the afterworld was a deified
man, an ancestor of the human race and the first man to die. Indic Yama discovered the Path of the Fathers and followed it to the afterworld, where he became King of the Dead (RV 10.14). His original responsibility was merely to preside over the happy reunions of the spirits of the dead, but in later literature he chose who would die, pursued and captured their souls, and judged the dead. In the west, Celtic Donn and his grandfather Bili were both considered original ancestors of the Celtic people and gods of the dead.

Indic Varuna, god of creation and cosmic law, assisted Yama in judging the souls of the dead and consigning some to annihilation or punishment; in Avestan tradition Mihrâ, Sraosha, and Rashnû shared the judging, and in Hâdês, according to Greek tradition, Minôs, Rhadamanthys, Æacus, and Triptolemus performed the same function.

Also associated with but not resident in the underworld were the psychopomps, gods who guided the spirits of the dead to their final destination. Indic Pûšan, the pathfinder and god of flocks, and Greek Hermès, the messenger god, both had this as a secondary function.

Another aspect of the underworld is the decay and disintegration of death; this was represented in Indic by Nîrtâ and his consort Nîrput, to whom only black grains or animals were offered. Iranian Nasu was an Iranian double of Nîrtâ, with a Roman counterpart in Lúa Mâter. It is probable that Polish Nýia can also be added to the list, giving sufficient evidence to posit a PIE goddess of decay.

Death itself can be seen as a personified agent: Greek Thanatos, the Roman Orcus, and Breton Ankou track down and capture the souls of those who are to die. These are gods without personalities or cults, and need not be taken as reflections of a PIE original. However, there is evidence throughout the different branches for sinister female spirits or goddesses connected with death and the underworld. Greek Moira, originally a minor goddess of fate, became linked with death and was occasionally represented as the dealer of death. The Erinyes, avengers of wrongs, the Harpies, birdlike spirits, and the Keres, malevolent birds of prey, were all female death-goddesses connected with death and the underworld. Greek Hekate, goddess of war, sometimes referred to as the three Morrígans; Germanic Frau Holle, Batavian Nehalennia, Frisian Hludana, and Polish Nyia can also be added to the list, giving sufficient evidence to posit a PIE goddess of death.

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URINATE

\*h₃meğihe/o- (*h₃min(e)gh-) 'urinate'. [IEW 713 (*meği-); Wat 40 (*meği-); Buck 4.65]. Lat meiō ~ mingō 'urinate', ON miga 'urinate', OE mīgan 'urinate', Lith mėžū ~ mėžu 'urinate', Latv mīzu ~ mēzu 'urinate', SC mizati 'urinate', Grk ὑμείγαω 'urinate', Arm mizem 'urinate', Av mēzaiti 'urinates', Olnd méhati 'urinates'. With wide geographical spread and near identity in form and meaning, the verb is a very strong candidate for PIE status. Cf. the nominal derivatives: OE mica 'urine', Grk ὑμείγα 'urine', Arm méz 'urine', Av mēzaiti 'urine', gao-maeza 'cow-urine', Olnd meha- 'urine', TochB miše 'urine'. These are all very banal derivatives of the basic verb, none of which is necessarily very early.

See also ANATOMY; CLEAN. [D.Q.A.]

URNFIELD CULTURE

The Urnfield culture is the major late Bronze Age (c 1300-700 BC) culture of temperate Europe. Its name derives from its most characteristic site type, cemeteries involving the deposition of the cremated bones in an urn, usually capped by a plate or specially designed top, and accompanied by weapons and ornaments. Settlements are known and concentrations have suggested tribal territories across the Urnfield territory. Defended settlements, especially hillforts and promontory forts, are among the most spectacular along with a number of lake-side and island sites. Much less substantial undefended sites are also recorded. Technologically, the Urnfield culture embraces the final development of late Bronze Age metalwork, seen in bronze swords, razors, knives, sickles, a wide variety of pins, and sheet metal work displayed in the production of helmets, armor, shields and vessels. The culture is divided into many regional groups, the most substantial being the Lusatian (Lausitz) group or culture that occupied Poland, east Germany, the former Czechoslovakia and the western Ukraine.

The Urnfield culture has often been ascribed with individual or multiple ethnic identities and a number of IE expansions have been credited to the appearance of urnfields in the peripheral regions of Europe. As the urnfields of western Europe occupy the same region as the later Hallstatt and La Tène cultures, it has been identified as Proto-Celtic. This identification has been regarded as particularly important with regard to the emergence of the Celts in Iberia since the subsequent Celtic-associated cultures, the Hallstatt and La Tène, are virtually absent from Iberia while there is at least evidence for some Urnfield contacts although, it must be admitted, the distribution of Urnfield sites does not correlate specifically with Celtic settlement. The appearance of the Villanovan culture in Italy and its subsequent development in the late Bronze Age has also been credited to Urnfield migrations (also simply to technological and ritual diffusion) and hence the Urnfield culture has been seen as Celtic andItalic (and Venetic). Further east, where the Urnfield culture appears in Croatia or east central Europe, an Illyrian identity
URNFIELD CULTURE

has been sought while those who seek the Slavic homeland in Poland would claim the Lusatian culture as Proto-Slavic.

See also Celtic Languages; Golasecca Culture; Hallstatt Culture; Italic Languages; La Tène Culture; Villanovan Culture. [J.P.M.]

USATOVO CULTURE

Usatovo is a late variant (c 3500–3000 BC) of the Tripolye culture occupying the northwest area of the Black Sea. The culture has been regarded as a mixture of native southeast European Neolithic elements (painted ceramics, figurines, flat graves) and culture traits drawn from the steppe cultures (shell-tempered coarse wares, tumulus burial, horse). It also displays metallic items, both arsenical bronze and silver, which suggest more distant contacts with the north Caucasus. Within the “Kurgan model” of IE expansions, the Usatovo culture reflects the domination of the Tripolye agriculturalists by the presumably IE-speaking steppe tribes. On the other hand, the territory of the Usatovo culture was not previously occupied by the Tripolye villagers and Usatovo expansion into the steppe region around Odessa may account for a much more complex cultural genesis. Either way, the Usatovo culture shares similarities with a series of other terminal Copper Age/early Bronze Age cultures of the Balkan-Danubian region and a circum-Pontic interaction sphere of contacts (seen, for example, in the spread of copper and bronze daggers) would appear to have extended from the steppe south through the Balkans to north Anatolia and Troy.

See also Cernavoda Culture; Kurgan Tradition; Tripolye Culture; Yamna Culture. [J.P.M.]

USE

*dheug- 'be useful, produce something useful' (pres. *dheugel). [IEW271 (*dheug-); Wat 14 (*dheug-); Buck 5.87]. Olr duel (< *duelhlo-) 'fitting', dulan (< *duelhneh-) 'poem', ON duga (pres. daug) 'be useful', OE dugan (pres. deag) 'be useful', dyhtig 'doughty', ge-dlegen 'carry out, prevail', OHG tugan (pres. toug) 'be useful', tuht 'usefulness', Goth dugan (pres. daug) 'be useful', Lith daug ~ daugi(a) 'much', Latv daudz 'much', Rus dužyj 'strong, healthy', Grk ὑπογείων 'meet, attain a goal, achieve success, good fortune', τέυχος 'prepare', OInd doháti ~ dúgdhi 'extracts, milks' (< *dheugel). Widespread and old in IE.

*bheug- 'use' (pres. *bheugéti/*bheugátor). [IEW 153 (*bheug-); Wat 8 (*bheug-)]. Lat fungor 'am engaged in, perform', perfungor 'use up', OInd bhunakti 'aids, serves, protects', bhunkte 'enjoys, uses, consumes'. Though not widely attested, the geographical distribution strongly suggests PIE status.

?*neud- 'use, enjoy'. [IEW 768 (*neud-); Wat 44–45 (*neud-); Buck 9.423]. ON njóta 'use, enjoy', nyt 'profit, advantage', naut 'work animal, ox', nautr 'wealth', OE néotan 'use, enjoy', nyt 'profit, advantage', néat 'work animal, ox' (> NE neat), OHG niozan 'make use of', nóz 'cattle', Goth niutan 'attain, enjoy', ga-niutan 'obtain, catch', Lith nauda
'use, property', Latv nauda 'money'. Restricted to Baltic and Germanic; perhaps a word of the IE northwest.

See also Accomplish, Clean, Milk. [D.Q.A.]

**UTERUS**

*g(w)elbhus* 'womb'. IEW 473 (*g(w)elbh-); Wat 24–25 (*g(w)elbh-); Gl 716 (*k'elb-3'), Buck 4.47, BK 338 (*k'elb-/ *k'elb-). OE cillor-lamb 'ewe lamb', OHG kilbur 'ewe lamb', Grk δελφός 'uterus', ἀδέλφεσ (ἐκ *σμ-G welbheios 'from the same womb') 'brother', Av garoubuš 'new-born animal'. Also *g(w)olbo- 'womb, fruit of womb' in ON kalfr 'calf', OE cealf 'calf' (> NE calf), OHG chalb - chalp 'calf', Goth kalbo 'calf', Grk (Hesychius) διλφός 'womb', Av garawo- 'uterus', Olnd garbha- 'uterus'. The Germanic words suggest an initial *g-, the Grk *g-. Indo-Iranian is indecisive. The pre-Greek *g(w)- (attested Grk ἰδ-) may owe its labialization to assimilation to the following *-bhr-. Conversely the non-labialized initial in Germanic may be dissimilatory. In either case *g(w)elbhus would appear to have been at least the late PIE term for 'womb'. More difficult to relate are: ON hlæppr 'young animal, whelp', OE hwælp 'young animal, whelp' (> NE whelp), OHG welp 'young animal, whelp' (< *k'elbhos), OCS zreby (< *g(w)eribhë-1) 'foal', Grk βρέφος (< *g(w)reßhos) 'foetus; new-born; more distant yet are Hit huélpi- 'young, fresh, new, unripe; new-born animal' or Lat vulva - bolva - bolba 'womb' and Olnd ulba- ~ ulva 'membrane covering the embryo; womb, vulva'. Perhaps we have more than one word here, sufficiently similar in phonological shape and semantic referent to have naturally influenced one another in ways we cannot now disentangle. Alternatively there may have been a single PIE form whose meaning was such that its shape was subject to taboo deformation.

See also Anatomy, Bear 2, Sexual Organs and Activities. [D.Q.A.]
VAKHSH CULTURE

The Vakhsh culture is a late Bronze Age culture situated in the middle and lower reaches of the river Vakhsh of southern Tadzhikistan. It is dated to the period c 1700–1500 BC and would appear to be somewhat later than the neighboring Bishkent culture with which it shares many parallels. Settlement evidence is meager but does attest to the use of stone walls and mud-brick constructions; at Kangurt Tut in the Vakhsh valley the houses contained living quarters, hearths, and storage pits for grain (barley and wheat). Faunal remains revealed cattle, followed by sheep/goat, horse, donkey, camel, deer and dog.

The Vakhsh culture is known primarily from its burials. These were made in catacomb graves with entrance shafts blocked by earth and stones and the whole grave covered over with a mound. The ritual use of fire was associated with a quarter of the tombs. Males were buried on their right sides, females generally on their left; orientation was to the north. In some cases the graves served as cenotaphs—occasionally clay figurines replaced the remains of the deceased. The grave goods were generally poor: hand-made pottery predominated as one would expect from a pastoral society although 30% of the vessels were wheel-thrown. Among the few metal remains were razor-like knives and mirrors; arrowheads were made of flint or bone.

The ceramics of the Vakhsh culture contain a mixture of both steppe wares and those more typical of the BMAC and the culture has been interpreted as an amalgam of two traditions, one involving settled agriculturalists and another of more northerly based pastoralists who may have engaged in long distance transhumance with their flocks. But Bertille

Vakhsh a. Distribution of the Vakhsh culture.
VAKHSH CULTURE

Lyonnet has suggested that there are problems in seeing the culture as a simple amalgam. The paucity of metal artifacts has suggested that identifying the Vakhsh culture as part of the Andronovo continuum of well developed metal-using cultures is far from entirely certain while some 19% of the ceramics have no local parallels in Andronovo or the neighboring territories. As is the case with the Bishkent culture, the Vakhsh culture has generally been linked with early Indo-Aryan movements southwards from the steppe which involved a certain amount of cultural assimilation as they passed through Central Asia but Lyonnet warns that if the Andronovo component is uncertain we may be dealing with an unknown ethno-linguistic element.

See also BISHKENT CULTURE, BMAC, INDO-IRANIAN LANGUAGES.

Further Readings


VALLEY

*dholh*os 'valley, vault, cavity'. [IEW 245-246 (*dhel-): Wat 13 (*dhel-). Wels döl 'valley, meadow', ON dalr 'valley, bow', OE del 'valley' (> NE dale), OHG tal 'valley', Goth dals 'ravine, valley', OCS doli 'pit, valley', dólë 'below', dólni 'being below', Rus dol'valley, under side', doljni 'being below', perhaps Grk θήλος 'vault' (though its connection here has been doubted), Sarmatian sere 'ravine', Yazghulami dūr 'ravine'. Cf. also OE dell 'ravine, dell' (> NE dell), MHG telle 'ravine' (as if < *dholhJos-), ON dei 'small valley', OHG tuola 'small valley' (as if < *dholhaoeha-), ON daela 'ditch' (as if < *dhelhau-ROM-a-), Grk θῆλαιος 'inner room of a house, storeroom, abode; sheepfold, hold (of a ship)' (as if < *dλhλω). Some have claimed the Slavic words are borrowings from Germanic but more commonly they are taken as native. The Greek words are often rejected on phonological grounds, though they are not problematic if we derive them from *dholh- rather than *dhol-*. Widespread and old in IE.

*lonkoven-eh* - 'valley'. [IEW 676–677 (*lonkà)]. Late Lat *lanca (< Gaul?) 'depression, bed of river' whose reflexes are found in the south of France, in French-speaking Switzerland and in northern Italy, Swiss German lauch 'trough' (from the same source), Lith lankà 'valley, river-meadow'. OCS loka 'gulf, valley, meadow, marsh', Rus (dialect) luka 'river-meadow, flood plain', TochB lenke 'valley'. From *lenk- 'bend'. The agreement of Balto-Slavic and Tocharian would seem to guarantee this word for at least late PIE.

VARNA

Varna refers to the famous Copper Age cemetery on the Black Sea coast in Bulgaria. The cemetery, which dates to the period c 4500–4000 BC, is one of if not the richest known in early prehistoric Europe. It has yielded so far 281 graves which may be divided into three groups: fifty-six cenotaphs where the burial was altogether absent or only a few bones have been deposited; ninety burials in the extended position which have been usually assigned to males; and sixty-five burials in the flexed position (assigned as a rule to females). The head is generally oriented NNE. The wealth of metallic and other objects in the graves was exceptional. Several graves contained clay masks which were decorated or had features such as the mouth delineated by gold and copper ornaments; these were identified as female masks as they are easily paralleled by the masks depicted on female figurines in the east Balkans. Scepters and perforated axes with gold decorated handles were found. Over three thousand objects of gold (6 kg) were recovered along with a large quantity of copper artifacts. Other goods included fifty stone axes, bone and antler objects, a thousand shell ornaments, stone beads, flint blades, scrapers, and six-hundred pots.

The variation in wealth among the graves has generally been interpreted as indicating marked differences in the status of the deceased and, consequently, has supported the hypothesis that this region of the east Balkans already saw the development of some form of stratified or ranked society in the Copper Age. It is important to note that among the
wealthiest burials were several assigned to males and burials with a golden diadem and scepter are plausibly interpreted as symbols of power. Children were sometimes accompanied with very rich grave goods and symbols of authority which suggests that they belonged to important families. The general conclusion is that Varna along with several other contemporary cemeteries of the same region reflect well stratified societies. This interpretation has been held to be in contrast with that of other mortuary evidence for the Balkans that suggested egalitarian societies during the Neolithic and Copper Age.

In the "Kurgan theory" as propounded by Marija Gimbutas, marked social hierarchies with males at their apex were introduced to the Balkans by the Indo-Europeans who should have appeared in the region only after the floruit of the Varna cemetery. She interpreted the rich male burials at Varna as indicating the localized acquisition of exotic goods by tradesmen and not evidence for the emergence of IE chieftains although she also suggested that the movement to personal possessions (in opposition to communally-held wealth) may have been under the influence of Indo-Europeans. Jan Lichardus endorses this latter theory and has suggested that pastoralists from the steppelands (the Sredny Stog culture) would have periodically come into contact with the settled agriculturalists of the east Balkans (we know that they obtained copper from them which was exchanged as far east as the middle Volga) and influenced the local social structure and beliefs with their own. That a steppe element may have been involved has been recently supported by the discovery of a small cemetery at Giugiulești on the lower reaches of the Prut. Here were found burials interred according to the rituals of the steppe, e.g., buried in the flexed supine position, use of ochre, catacomb and timber constructions, and with artifacts typical of the steppeland cultures (the Novodanilovka culture) but there were also objects more typical of Varna, e.g., a gold decorated "baton". Another feature, sometimes attributed to the Indo-Europeans by supporters of the "Kurgan theory", is the marking of sex in the burial rite and at Varna and several other sites, males are placed in a position (extended) that contrasts with that of females (flexed).

It has also been suggested that the Varna cemetery may reflect something other than social status of the individuals but that there is persuasive evidence for the expression of religious ideologies, some of which have been proposed with reference to traditions found among the Indo-Europeans. Some 20% of the grave pits lack any evidence of the deceased and it is held unlikely that all of these can be explained simply as individuals who died too distant from the site to be buried within the cemetery. They include some of the wealthiest burials and it has been suggested that they reflect the deposition of the symbols of power and not the leaders themselves. The widespread practice of replacing a king (or a substitute), ritually or otherwise, is known throughout the Near East and neighboring territories where it has long been placed in an interpretive framework which associates the king with the fertility of the land which may be renewed by despatching the former king after a set period. In this scheme, the exceptionally wealthy graves, with ornaments and objects arranged in the same relative location as those graves with skeletal remains, may represent the ritual "killing and disposal" of the leader of a society after a set time period. It has also been suggested that the presence of copper tools, especially those employed in the working of wood and metal, were symbolic of the concept of the craftsman as specifically the "creator" as occurs frequently in IE religious literature where smith deities are portrayed as fashioning the world, other deities or mankind. Three of the "smith" burials were found adjacent to the three burials with clay masks which has prompted their interpretation as matched pairs of male "smith" burials and female masked burials. It should be emphasized that while various archaeologists have attempted to interpret the burials in light of evidence taken from Indo-European cultures, none of these models is in any way unique to the Indo-Europeans.

See also Social Organization. (J. P. M.)
VAULT

*kamareh₂*- 'vault'. [IEW 524 (*kam-er-): Wat 26 (*kamer-); Buck 7.21]. Grk καμάρα 'vault', Av kamara 'belt'. From *kam-er- 'bend, curve'. Common Latin camera is a Greek loan which gives French chambre > NE chamber. A central isogloss or possibly borrowed into Iranian from Greek which itself borrowed it from an unknown source.

VEGETABLES

*αλύ* - 'esculent root'. [IEW 33 (*ālu-)]. Lat álūm = álūm 'garlic', álūm = álus 'comfrey (Symphytum officinale)', OInd ālū - 'an esculent root (Arum campanulatum)', ālukām 'the esculent root of Amorphophallus campanulatas'. The exact meaning of the ancestor of these two words, if indeed their similarity reflects inheritance rather than chance resemblance, is not determinable. Indeed, even in the Latin cognates there is a marked difference between comfrey, whose roots and leaves were employed as poultices for curing fractures, and garlic, which was consumed both for culinary and medicinal purposes. But even the exact shape of this word difficult to recover. It is quite possible (certain in the case of Greek) that this word has been borrowed at various times from one IE language to another.

*kēhi3kom* 'edible greens' (< *'foliage?'). [IEW 544 (*ēkeo-); GL 84 (*ēkō-); Buck 5.65]. On ē (Proto-Gmc *ēh(w)ōn-) 'aftermath, second crop of hay', OPrus schokis 'grass', Lith šėkas 'green fodder', Latv šēks 'green fodder', OInd sāka - 'pootherb, vegetable, greens'. Though its attestation is sparse, it is also wide. Note that it refers to animal food in the west but human food in the east. Clearly a word of PIE date.

*kremh₂us* (gen. *krēmy phoneNumber*) (wild) garlic (Allium sativum or Allium ursinum). [IEW 580 (*krem-); Wat 32 (*krem-); Buck 5.68]. Mtr crem - 'grain' 'garlic', Wels craf 'garlic', perhaps Grk κρέμπ(μ)υον - κρήμπ(μ)υον (if from *kremh₂usom) 'onion'. Cf. the derivative *kremh₂usom: OE hramsanda, garlic' (> NE ramson). OHG ragusa 'wild garlic', Lith rėmūsė 'wild garlic', Rus cēremša 'wild garlic', and perhaps Grk κρήμπ(μ)υον if from *kremh₂usom. A word of the west and perhaps center of the IE world.

Except for Greek this word refers to the wild garlic (Allium ursinum). Garlic is poorly preserved in the archaeological record and the earliest evidence for domestic garlic (Allium sativum) derives from Egyptian tombs of the eighteenth dynasty (sixteenth–fourteenth centuries BC) while Akkadian texts suggest its existence in the Near East by the early second millennium BC. In Europe remains are known buried under the volcanic ash at Pompeii. The domestic garlic is believed to derive from Allium longipes Regel, the wild garlic of Central Asia, northern Iran and southeastern Turkey. Other varieties of wild garlic are distributed across southern Europe. It is not one of the plant remains found in the Swiss lake-side dwellings which offer the most abundant evidence for early preserved organic material in Europe.

*rmpk* - 'a carrot'. [IEW 750 (*mrk-)]. OE moru - more 'carrot' (> NE more), OHG moraha 'carrot', Rus morkov 'carrot', Grk (Hesychius) βάκχαρα 'wild vegetables'. At least a late IE term in the west and center of the IE world. The carrot (Daucus carota) is a native of western and central Asia, particularly Afghanistan, and its spread to Europe is at least before the Christian era. Indeed, remains are known from Swiss lake-side dwellings consistently from the Neolithic period through the late Bronze Age. The wild carrot has a reputation for being both tough and unappetizing but the leaves might also be employed for medicinal reasons such as easing bladder problems.

*rēpēh₂ - *rēpha₂* 'turnip' (Brassica rapa or B. napobrassica). [IEW 852 (*rāp-); Wat 53 (*rāp-)]. Lat rāpum < rāpa 'turnip', ON rōfa 'bony part of a horse's tail', OHG rūba - rāba 'turnip', Lith rūpe 'turnip', OSC rēpa 'turnip'. Cf. Grk ῥάπυς - ῥάφυς 'turnip', ῥάφανος 'cabbage'. Cf. also Lat rūpina 'turnip field', Lith rūpiona 'turnip field' < *rēpēneh₂. The interchange of *-'e- and *-'a- in the attested reflexes makes the exact shape of this word difficult to recover. It is quite possible (certain in the case of Greek) that this word has been borrowed at various times from one IE language to another. In some form, however, it is likely to have been at least late PIE in date in the west and center of the IE world. The wild turnip is distributed over Europe and western Asia. The date of its domestication is unknown although the Romans employed the turnip in northern France.

*kau16s* - 'cabbage (Brassica sp.)'. [IEW 537 (*kau-li-); Wat 27 (*kau-); Buck 5.69]. Lat caulis 'cabbage', Grk καύλος 'a vegetable of the cabbage kind: cole, kail, cauliflower', Ht kalts(is)na (a kind of vegetable). In both Latin and Greek there are identical words meaning 'stem, stalk'. The dialectic distribution of this word suggests that it may have been borrowed by the three IE groups from some Mediterranean source but the fact that it appears to be a specialization of the meaning 'stalk' (earlier cabbages, etc., had a distinct stalk) means that the word itself is of PIE date. The distribution of the wild cabbage encompasses the Mediterranean and Atlantic coast from whence it was probably domesticated at some time before the Roman period.

See also Agriculture; Food; Plants; Stalk | [A.D.V.]

VENETIC LANGUAGE

Venetic is an Indo-European language of northeast Italy (the Veneto). The language is attested among the archaeological remains of the later phases of the Este culture that ran from c 900 to 182 BC. The Venetic language is attested from about two-hundred short inscriptions (none longer than...
ten words) that date from c 550 to 100 BC. The earliest were written in a North Etruscan alphabet while those from c 150 to 100 BC were written in the Roman alphabet. By the first century BC Venetic disappeared in the face of Roman (and Latin) power.

The Este culture included towns at Este (ancient Atestine), Padua, Verona and Vicenza. The inscriptions are found on stone pillars, tombs and especially on votive offerings, in particular bronze pins or nails found at the shrine of the goddess Reitia at Fondo Baratela which were placed there by women. Here there are known some twenty-four inscribed pins or nails dedicated to the goddess (they have also been explained as styli for inscribing wax tablets).

The Venetian language is clearly Indo-European and direct correspondences with Italic can be made, confirming the meaning of at least some words and indicating particular features of Venetian phonology, e.g., inscriptions in the earlier script employ z where in the Roman script the words begin with a d, cf. zonasto – donasto. Although there is a certain amount of uncertainty in how Venetic should be transcribed phonetically, the meaning of at least some of the words causes no great problem. For example, the pronoun *exo ‘I’ corresponds to Lat ego while Venetic *vhraterei would render Lat fratri ‘to the brother’. Venetic ke has been seen to be phonologically cognate with either Lat -que ‘and’ or Grk *kei ‘and’; syntactically it seems to function like Lat et ‘and’ or the Grk kei, i.e., it unites the two nouns on either side of it rather than serves as an enclitic. The inscription me*exo zonasto vhuxia vhouxontiha saiñezei reitiae could be rendered in Latin as me donavit Fugia F(o)ugontiaca *sanatrici (an unattested feminine of sanatrix) Reitiae ‘Fugia F(o)ugontiaca gave me to Reitia the healer’. Venetic zonasto ‘gave’ is explained as an s-aorist with a personal ending derived from the root aorist class (seen, for example, in Grk ἔδο -to ‘he gave’). There are also examples of Venetic zoto ‘he gave’, without the s-particle. The name vhuxia has been explained as equivalent to Av baoxtar ‘savior, liberator’ and derived from *bheug(h)- ‘purify, free’. The paucity and brevity of Venetic inscriptions precludes Venetic playing any significant role in the reconstruction of the PIE lexicon although it does offer a number of examples of otherwise widespread cognate sets, e.g., Venetic ekvon ‘horse’ (< *h1eKuo-), Venetic teuta ‘people’ (< *teuetha-). There are also examples of words that have generated more discussion, e.g., Venetic ekvopeθaris has been translated as the personal name ‘Equipetarius’, as an occupational title such as ‘charioteer’ or ‘groom’ (with an underlying *h1eKrous ‘horse’, which is quite plausible as a number of its occurrences are associated with the depiction of a horse or chariot), or a priest who presided at the funeral.

The dialectal position of Venetic has been a source of considerable controversy. The hypothesis that it is closely related to Illyrian has not proven widely accepted nor is it likely to do so unless there is some really solid evidence of the nature of Illyrian other than place and personal names. Many regard Venetic as an Italic language, co-ordinate perhaps with Latino-Faliscan and Osco-Umbrian. Certain peculiarities, however, have suggested to some that it may be an independent Indo-European stock. The Venetic accusative of the first personal pronoun, me*exo, establishes a paradigm exo/ *exo which is in obvious contrast with Lat ego/me and has been argued by some to be more reminiscent of Germanic, e.g., Goth ik/mik; however, these similarities have been generally attributed to independent creations in both stocks where the nominative singular influenced the accusative. Perhaps more striking is Venetic selboiselseb ‘himself’ which finds an Old High German parallel in selboselbo. But this single correspondence seems weak grounds to thrust Venetic out of the Italic and into the Germanic world although some would still hold to the view that Venetic perhaps demands a status separate from Italic.

The Este culture which reflects the archaeological background of the Venetic inscriptions derives from the Proto-Villanovan horizon that spanned the length of Italy at the end of the Bronze Age. Its own more distant connections would then lie north of the Alps in the central European urnfields.

See also Este Culture; Indo-European Languages; Italic Languages. [J. P. M.]
VILLAGE

*keiten ~ *kiéts 'belonging to the household' (hence > intimate, dear). [IEW 539–540 (*këiti-); Wat 27–28 (*këi-); Buck 7:122]. Olfr céæm 'dear', MWels cu ~ cu't 'dear', ON hjón ~ hjôm 'one of the household'; (pl.) married couple, hyskí 'household, family', OE hwæn ~ hwæradan ~ hwisc 'household', hwisan 'pl. members of a household', hwicæp 'domestic, familiar', OHG hton 'married couple, parents, family members', hwisan 'husband', hwâ 'wife', hwisc 'family', Goth heīwa-fraja 'master of the household; host', Latv šēva 'wife', Olcd šêva- 'intimate, dear, šiva- 'kind, friendly, auspicious, dear' (whence Šiva- 'Shiva'). Lurking behind these words is either a root noun *këi- or a stem *këitu-*këitu- 'household, village as social unit' from *këi- 'lie, either from *kê- those that sleep together or, since *kê- + *hjên may mean depen 'on', from *kê collective dependents'. These words are widespread and old in PIE.

*kiémos 'household, village'. [IEW 539–540; Wat 71 (*këi-), GI 155; Buck 7:122]. Ofr céæm 'dear', MWels cu ~ cu't 'dear', ON heimr 'abode; world', heima 'home', OE hám 'home' (> NE home). haðman 'have intercourse with, cohabit with, marry', OHG heim 'home', MHG heimen 'take home, marry', Goth haims 'village, country (i.e., not city), OPrus (pl.) semins 'household servants', Lith šiema 'family', Latv šaime 'family', OCS sëmija 'household servants', sëmija 'family', Grk κώμη (< *kómeva-) 'village' (cf. κουδουμάτι 'sleep'). The Baltic family represented by OPrus casimis 'village, Lith kiamas 'courtyard, village, farmstead', kaimas 'village, hamlet, country (i.e., not city), kaimyamas 'neighbor' reflects a Proto-Balto-Baltic borrowing from Germanic (hence Proto-Balto-Baltic *kê- rather than *kê-) or at least some phonological influence of Germanic or some more western IE group). With the suffix *-ro- we have Arm sêr 'devotion', sîrem 'love'. A word of the west and center of the IE world.

*tiktis (gen. *tikitis) 'settlement'. [IEW 626 (*këiti-); Wat 71 (*kêi-); Buck 19:16]. Grk têitôs 'settlement', Av sti- 'settlement', Olcd ksîtî- 'settlement'. A word of the southeast of the IE world from *kêi- 'settle'. Other derivations of *ktei- include Myc. ko-to-na 'parcel of land' and Arm sên 'village'.

*tikós (gen. *tikôs) 'social unit of settlement, extended family group'. [IEW 1131 (*teikt-); Wat 75 (*teikt-); GI 646 (*teikit-); Buck 19:16]. OCS viś 'village'. Grk τρικότειον 'those divided into three tribes', Av viś- 'manorhouse, court, village', Olcd viș- 'dwelling, tribe, clan'. Other derivatives exist, such as from *vikeys-: Lat villa (< *viëš-s-lehr-) 'farm; house in the country', Umb luce-com 'building', Goth weîs 'village', Olcd veîs- 'house', TochB ile 'place, locality, from *uîoks: Lat vicus 'village, quarter (of a city)', Grk (πλοῖξ) 'household', Olcd veîs- 'house, bordello'. (Cf. Indo-Iranian *uïaks 'dweller, inhabitant' in Av vaïsa- 'servant', Khot btsa- 'servant', Olcd veîs- 'dweller, tenant, inhabitant, neighbor'.) This is the basic PIE word designating a settlement unit composed of a number of extended families which was later extended to the complex of buildings they occupied and, later still, to the socio-political unit. Its use as a socio-political designation is brought into sharp focus in the compounds of this word with *pôtis 'lord' and *pôtmih- 'lady'. OPrus waispattin (acc.) 'woman of the house', Lith viëšpatis - viëšpatis 'lord, master, sovereign', (diaI.) viëšpatsi 'wife', Alb zot (< *uïkëhë-pot-) 'master, lord, god', zonne 'lady; married woman, wife', Av višpatt- 'lord, overlord of a clan', Olcd višpati- 'lord of the house, chief of a settlement or of a tribe', višpatsi 'lady; wife'. The difference in formations suggests that these words are independent creations in the stocks where they are attested or that they have undergone more or less radical rebuilding. The underlying verb probably appears in Indo-Iranian: Av visata 'stands ready', Khot bist- 'enter'. Olcd visäti 'settles down, enters, arrives', though some have seen this verb as a denominative formation from Proto-Indo-Iranian viš- 'lives'. Lith visëtë 'be a guest' and Grk oïkëo dwell are definitely denominative verbs. An alternative theory proposed by O. Szemerényi suggests that it derives from *viëš- 'go, march' and, therefore, it designated a social unit on the move, as in NE gang. The same lexical derivation, however, has led E. Pulgram to suggest that the underlying semantics was 'enter' and that the word indicated the enclosure that separated the clan's living space from the outside world, i.e., the defensive area controlled by the family or clan unit.

See also FAMILY, MASTER, MISTRESS. [A.D.V, D.Q.A.]

Further Readings


VILLANOVAN CULTURE

During the late Bronze Age (c 1100–900 BC) most of Italy was spanned by the Villanovan culture. This culture is documented primarily by cremation cemeteries with urns and a wide variety of metallic goods such as razors, tibulace (brooches), pins, swords, buckets, helmets and armor, all of which can be related to the central European urnfields. Traditionally, the advent of the Villanovan culture, the Piano-Timmiari horizon, was ascribed to central European warriors who crossed the Alpine passes and swept through Italy.
spreading both their culture and IE languages. Such models are now regarded as considerably overstated and the spread of Urnfield characteristics are often derived from other methods of diffusion. As a vehicle for the spread of the IE languages in Italy, the Villanovan culture always faced one serious obstacle in that it underlay not only the territories of IE-speaking groups but also that of the Etruscans who are generally recognized as non-IE speakers. On the other hand, as an Italian expression of the general Urnfield phenomenon, it does accommodate the hypothesis that the ancestors of the Celts and Italic languages were the same and derived from central Europe.

See also Golasecca Culture; Italic Languages; Urnfield Culture; Venetic Language. [J.P.M.]

VINE see WINE

VISIBLE

*thēquis* 'obvious'. [IEW 78 (*̣tʰus-*)]. OCS (j)avē 'obvious', Av avis 'obviously'. From *hau- 'perceive'. A late word of the center of the PIE world.

*Iaterces* 'visible'. [IEW 213 (*derk-); Wat 12 (*derk-); BK 180 (*cάr-/*cʰar-)]. Grk -δέρκετος 'visible', OInd dārsatā- 'visible'. From *derk- 'see'. Perhaps inherited, perhaps independent creations in the two stocks.

See also PERCEIVE. See. [D.Q.A.]

VOICE

*Iovkos* (gen. *Iovkoś) 'voice'. [IEW 1135–1136 (*iULkwj-s); Wat 75 (*iULkw-); GL 127 (*wekho-)]. Lat vox 'voice', Grk (acc.) δόξα 'voice', Av vàs 'voice', Olnd vàk 'voice', TochA wak 'voice', TochB wek 'voice'. From *uek- 'speak'. Widespread and old in IE.

See also NOISE; SOUND; SPEAK. [D.Q.A.]

VOMIT see SPEW

VULTURE

There is no standard IE term for the vulture in the IE languages although the vulture was certainly well known to the speakers of the proto-language no matter where they were originally situated. Arm uses angi 'vulture', Grk ἀετός 'vulture', and the Indian a rather wide range of terms, of which bhāsa- is the best known and possibly related to Grk φίλον 'lame-geir or bearded vulture' < *bhêsneh-; IEW 111 (*bhāso-/*bhēso-). Another possible correspondence derives from...
*gʷJtur- (IEW 482 (*gʷJtur(os))): Lat [ji]tur 'vulture', Grk βλουσφ- 'shaggy', as in Homer βλουσφ-άπις 'vulture-eyed, grim-looking'.

Though vulture terminology varies greatly from language to language, both Greek and Old Indic share a common mythology concerning their parenting habits. The five major Indian vultures are said to be all derived from one father through separate mothers while a Grk γύνι is said to have female species only, that reproduce at will. Vultures, of which there are five major species in Europe and western Asia, are largely ubiquitous, distributed from Ireland to India, and beyond.

Iconographically, the vulture is dramatically represented on the walls of the shrines at Çatal Hüyük. In the so-called "Vulture Shrine", six headless corpses are seen as various prey to seven vultures which has seen a variety of interpretations, including the concept of excarnation, i.e., the exposure of bodies so that they may be defleshed by birds, a practice later reflected in the mortuary practices of the Zoroastrians (and some North American Indians). Deposits of the bones of vultures and other carrion birds are known from the Palaeolithic onwards across Eurasia and in the absence of specific mythic motifs not to say a reconstructible PIE word, it is impossible to press the vulture any further into Indo-European studies.

See also BIRDS. [J.A.C.G.]
WADE

*μαθ- 'wade'. [IEW 1109 (*μαθ-); Wat 73 (*wadh-); Buck 10.47]. Lat vadó (with new long grade) 'ford (a river)', ON vada‘go, push forward, wade (through)', OE wadan 'wade' (> NE wade), OHG wātan 'wade'. Cf. the derivative: *μαθομ 'ford': Lat vadum 'ford', ON vād 'water', OE wæd 'water', gewead 'ford', OHG war 'ford'. A late western dialectal term in IE.

*γεθ.γή- 'enter water, wade'. Slov gāziti 'wade', SC gāziti 'step, wade', Olnd gāhate 'penetrate, enter (water), wade'. Though only attested in South Slavic and Indic, perhaps a late word of the eastern part of the IE world.

See also DIVE; FLOAT; GO; SWIM. [D.Q.A.]

WAGON

*μεγήνος 'wagon'. [IEW 1118–1120 (*μεγήνo-); Wat 74 (*μεγή-); Gl 627 (*μωγή-); Buck 10.75; BK 301 (*μαγ-/*μαγ-)]. Olr lēn 'wagon', Wels gwain 'wagon', TochA wākm 'way, manner', TochB yakne 'way, manner' (and similarly *μεγήνος in ON vagn 'wagon', OE wægn 'wagon' [> NE wain], MDutch wāgen 'wagon' [borrowed > NE wagon > Wels wagen], OHG wagan 'wagon'). This word is derived from *μεγή- 'ride' and the pattern of its distribution suggests PIE status. Related constructions include *μεγήνιτω 'vehicle': Lat vehiculum 'vehicle', Olnd vahittam 'vehicle'; and *μόργος 'wagon': OCS vōzī 'wagon', Myc wo-ka 'chariot', Grk (ε)χας 'chariot'.

*μεγή-μεγήνος-ιθά 'wagon-chassis'. [Buck 10.75]. Grk έμεγήνος (Attic έμεγήνο with secondary h-) 'framework or chassis of a four-wheeled wagon; Ursa Major', TochB amaks-pašt '± wagon-master' (where -pašt reflects a -*pth2-h- 'one pertaining to the way', an excentric thematic derivative of *pontoh2s 'way'). The evidence for this word rests on these two stocks unless we include Khot mas- in mašpa- 'road' (if < *‘± wagon-place'). If this is a PIE word (and borrowing between Greek and Tocharian seems ruled out), then we have an old compound *h2em- 'hold on to' and *h2ečs- 'axle', a 'hold-axle' if you will.

*κρόνος 'wagon'. [IEW 583–584 (*κρόνο-); Wat 30 (kers-); Buck 10.75]. Olr carr 'wagon', MWels carr 'wagon' (< Celt *kρόνοs), Lat currus 'chariot, wagon'. Lat currus 'wagon for freight' is a loan from Celtic (a variant currum provides the origin of NE car). A word of the far west of the IE world unless one also includes here Grk (Hesychius) σαρος 'wagons' which, if related, would have been borrowed from a satem language. Derived from *kres- 'run'.

Wagons
Main distribution of the earliest archaeological evidence for wheeled vehicles (fourth-early third millennia BC).
Archaeological Evidence

Wheeled vehicles are clearly assigned PIE status not only through the words for the vehicles themselves, but also because of reconstructible words for 'axle', 'wagon pole', 'nave', and 'wheel'. These vehicles are commonly ascribed to the latest period of PIE "unity" before sharp divisions developed among the different IE dialects, languages and stocks. As the earliest wheeled vehicles in the world appear in the fourth millennium BC, it is presumed that the major divisions between the IE stocks did not occur until this period or sometime after it.

The earliest evidence for wheeled vehicles consists of both artistic representations of wagons or the actual remains of vehicles, the latter of which are generally recovered from graves. The place of origin for the wheeled vehicle is uncertain and candidates range all the way from Mesopotamia in the southeast, northwards through the Caucasus, then onto the south Russian and Ukrainian steppe, and finally into central Europe. In all these regions there is evidence for the early development of wheeled vehicles by the fourth millennium BC. It is generally presumed that vehicles may have been invented in only one of these locations and diffused swiftly across a broad region of Eurasia; however, some have argued for multiple points of origin such as the Near East and western-central Europe. The reasons for this latter argument is that fixed axles are found from Mesopotamia to central Europe but evidence of rotating axles, a different principle of locomotion, is found in the western Alpine region during the late Neolithic and Bronze Age and further west to the Atlantic. Such distinctions do not, however, affect the dating of the earliest wagons, irrespective of point of origin, to the fourth millennium.

The form of the earliest vehicles is generally ascribed to two basic types: the cart, a single-axle vehicle with two wheels, and the wagon, a double-axle vehicle with four wheels. The early Mesopotamian wheeled vehicles are known purely through pictographs which are not particularly informative. They reveal what appear to be covered sledges resting on either rollers or, more likely, four disc wheels. These are dated to the late fourth millennium BC. Actual finds of wheeled vehicles from the Caucasus (Georgia and Armenia) are more recent (third and mainly second millennium BC) and less numerous than the over 250 wagon burials now known from the Ukrainian and Russian steppe in the late fourth to early second millennium BC. The social context of the burials has been debated: some argue that they represent high-status objects placed with emerging aristocracies (as would later be the case in the burials of Scythian royalty in the Iron Age of the same region) while others have pointed out that other than the wagons themselves, there is nothing to distinguish these graves from contemporary burials of the Yamna, Catacomb and Novotitorovka cultures.

The association of vehicles with burials does suggests that the ritual of conveying the dead to the cemetery by way of a wheeled vehicle extends back to the fourth millennium BC.

Wagons 1 b. Vehicle depicted on TRB pot from Bronocice, Poland; c. Wagon-cup model from Szigetszentmarton, Hungary; d. Construction of tripartite disc wheels; e. Yamna burial with wagon; f. Wagon from Armenia; g. Catacomb burial with wagon.
It is well attested in the Iron Age burials of the steppe and reported by Herodotus. The conveyance of the deceased to the cemetery is a well-known theme of early Greek art and is also seen depicted in Etruscan art. Wheeled vehicle burials are seen widely over Europe, from the Celts in the west to presumably (Indo-?) Iranians east of the Urals, e.g., at Sintashta. This practice is also seen in clearly non-IE contexts such as Mesopotamia (the royal tombs of Ur) and China (the royal cemetery at Anyang).

The steppe burials offer good evidence for the appearance of the wagons of the late fourth and early third millennium BC. The wagons comprised a rectangular base of wood planks and removable sides which might be covered with wickerwork. The floor of the wagon might have consisted of mats. The frame rested on two axles (all complete steppe vehicle burials contain four-wheeled wagons) on which were mounted tripartite disc wheels. Axles might measure about two meters long. The draught-pole, which could measure some two to three meters long, might be Y-shaped and where there is evidence of the yoke, it indicates a paired team. Given the weight of the wagons (a reconstructed wagon with disc wheels comes to over 250 kg), the inefficient harnessing techniques then available, and the evidence of paired animal burials, the wagons were drawn by oxen rather than horses.

The earliest evidence for wheeled vehicles in central Europe tends to be representational rather than actual. It consists of pictographs inscribed on the sides of megalithic tombs which have been interpreted as paired oxen, some of which appear to be pulling a primitive two-wheeled wagon. Better evidence derives from the TRB culture where a pot from the Polish site of Bronocice depicts a series of four-wheeled wagons with a Y-shaped pole which terminates in a V-shaped yoke. The ox team that would have pulled such a wagon is not shown. All of this evidence can be comfortably set to the fourth millennium BC. The clearest evidence from central Europe derives from the Baden culture of Hungary where two cemeteries have yielded each a clay vessel in the form of a wagon. Clay discs, which are frequently interpreted as model wheels, are also known from the Balkans from the late fifth millennium BC onwards (and further afielid); they have been alternatively interpreted as spindle-whorls for weaving.

Regarding the wagon, the best that can be said is that there is solid evidence for its existence from central Europe to Mesopotamia by the fourth millennium BC and it may be possible to push the dates for its invention back to the fifth millennium although absolutely compelling evidence for such a date has not yet been discovered. As for its point of origin, there is no decisive location where it can be shown to have developed earliest. In terms of solutions to the IE homeland problem, the wheeled vehicle is a better chronological than spatial marker. Wheeled vehicles, for example, occur in the TRB culture which supports an IE origin on the steppe (the "Kurgan solution") would normally regard as an indigenous culture of central and northern Europe which was not obviously affected by expansions from the steppelands although contacts between the two regions might well have been possible. The context of the invention of the wagon has been variously assigned to settled agriculturalists of central Europe or to more mobile pastoralists of the steppe regions.

The Chariot and the Indo-Europeans

There has long been a close association between the light horse-drawn chariot and the earliest Indo-Europeans and it is the chariot that one encounters as the classic vehicle of warfare among the early Indo-Aryans of Vedic India, the Homeric and Mycenaean Greeks, and the Celts of western Europe. In many of these languages the inherited wheeled vehicle terminology is also found to be specifically assigned to the chariot rather than the wagon. This evidence has led to the long held presumption that the chariot was employed by the earliest Indo-Europeans in their expansions (from whatever homeland they might be assigned). Further support for the ascription of the chariot to the PIE period is the widespread motif of the sun being pulled across the sky by a team of horses and such striking parallels as the selection of the horse that excelled on the right side of the chariot for the victims of the horse sacrifice in both ancient India and in Rome. Two arguments, however, have strongly militated against assigning 'chariot' to PIE antiquity.

The chariot is commonly described as a light two-wheeled vehicle employed for the purposes of warfare or ceremony. The implications of "light" are the most important since within the context of the IE world, this implies a vehicle drawn by the horse rather than oxen, and a spoke-wheel rather than a disc wheel (battle-wagons have been drawn by other forms of equines in the Near East but not within the contexts of IE speakers). On lexical grounds, there is no convincing evidence for the assignment of the spoke-wheel to PIE; the earliest terms for 'spoke' in the various IE stocks are at best metaphorical extensions of other words, e.g., Grk κοίλος 'lower leg' but Grk (Homeric) ἐκτάκτηνας 'eight-spoked (wheel)'. In fact, other than broadly related forms found in other IE languages (Myc wo-ka 'chariot', Grk ἐξολοθραμ 'vehicle', Grk κύκλος 'wheel', cicle, cycle, Olnd ekrat- 'wheel, sun disc') there is no close connection between the Greek and Old Indic chariot terms although both stocks attest chariotry from the second millennium BC.

The second problem with ascribing chariotry to Proto-Indo-European is the chronology of light-weight vehicles. Generally, the archaeological presumption is that some form of spoke wheel would be a prerequisite for the invention of the chariot. Occasionally there is evidence proposed that the chariot may have predated the spoke wheel. A two-wheeled vehicle with wheels some 60 cm in diameter was recovered from a Catacomb burial at Maryevka in the Ukraine, presumably of the third but possibly second millennium BC. If accepted as a horse-drawn cart, this would not materially advance the age of the chariot which is well attested in the Sintashta culture south-east of the Urals. Dating from c. 2100 to 1700 BC, this culture provides abundant evidence
Wagon

Wagons II Earliest spoked-wheeled vehicles: a. Lion hunting from a chariot from the Hittite site of Malatya; b. Cylinder seal from Kultepe; c. Chariot scene from Mycenae; d. Chariot from Lchashen, Armenia; e. Chariot from Sintashta.

Further Readings

Wall
IE derivatives of *deigh- refer to 'dough', thus ON deigr ‘dough’, OE dag ‘dough’ (> NE dough), OHG teig ‘dough’. Goth daigs ‘dough’ (Gmc < *diōghos ‘what is kneaded’), OCS deža ‘baker’s trough’, Rus deža ‘baker’s trough’ (< *doigheh-, ‘instrument for kneading’).

The substance from which the walls were made, *dhoigh-o- (cf. perhaps Alb dhe ‘earth’), came to be applied both to the finished product, e.g., Grk τοῖχος ‘wall’, Av uz-dæza- ‘wall’, and clay-like substances, e.g., Germanic ‘dough’. The semantic context of most of the cognates cited suggests that *dīghs indicated the enclosing wall of a settlement or fortification, i.e., an earthen or clay bank, rather than the wall of a house. In Homer, for example, τοῖχος is applied to walls of defense such as the city-walls of Troy and only the o-grade τοῖχος is applied to the walls of a house but as they also indicate the side of a ship, it is clear that this term is already distant from any etymological association with clay.

*serk- ‘to construct or repair a wall’. [IEW 912 (*serk-); Wat 58 (*serk-)]. Lat sarcō ‘repair, amend, make amends’, Umb sarsite (< *sarcīte) ‘repair’, Alb gjarkez ‘peritomeum’ (< *that which surrounds), Grk ἔψυς ‘enclosure, hedge, fence, (courtyard) wall; courtyard; net, snare, defense, bulwark’, ὑπάκαιν – ἐκάκαιν ‘enclosure, fence; trap, pitfall’, Hit sar-nin-k- ‘compensate’, TochB serke ‘cycle, circle’ (< *that which encloses). The underlying concept here may well involve that of a ‘circle’, i.e., enclosure, rather than any specific reference to repairing an enclosure.

The concept of repairing through the use of wickerwork is evidenced by the Lat derivative sarcīna ‘bundle’ and by the Latin idiom sarci(re) tectus ‘in good repair’ (< *(well) enclosed and covered’). The geographic spread of the etymon suggests PIE antiquity.

See also Circle, Fence, Fort, House, Village. [A.D.V.]

WANDER

*hel- ‘wander’. [IEW 27–28 (*ål-); Wat 2 (*al-)]. Lat ambulo ‘take a walk’, Lat altuīiti(ēs) ‘go astray’, Grk ἀλαίνω – ἀλαίνον ‘wander about’, ἡλίασκο – ἡλίαινο ‘go astray’, ἀλασμάσω ‘avoid, shun’, ἀλασμό ‘escape’, ἀλαίνω ‘be beside oneself’, TochAB ܲ ‘keep off’. It may be that we have two verbs here: (1) ‘wander’ which appears in Latin, Latvian, and Greek, and (2) ‘avoid’ that appears in Greek and Tocharian. If all these words belong together we have evidence for at least a late PIE verb. If there are two separate verbs the evidence suggests at best two dialectally restricted IE verbs.

See also Go, Come. [D.Q.A.]

WANT


The geographic spread of the etymon suggests at best two dialectally restricted IE verbs. See also Desire, Pray. [D.Q.A.]

WARFARE

Unless one can specify the earliest location of the Indo-Europeans it is impossible to discuss specifically the nature of their warfare. Nevertheless, certain general observations may be made which may be taken in conjunction with other discussions pertaining to the social organization of war-bands, leadership, warriors in IE literature, IE deities concerned with war, and terms for weaponry.

Warfare of some sort would appear to be a universal in human society although the frequency of its occurrence might vary considerably over region, people or time. It most certainly existed in pre-IE times such as the Mesolithic when hunter-gatherers were distributed across Eurasia after the end of the Ice Age. Presumably organized violence would seem to have appeared particularly where there existed stable subsistence resources. The control of such territories would stimulate competition and require maintenance and protection. Hence, evidence for trauma associated with violent death through warfare can be found in Mesolithic cemeteries both in the Baltic region and along the middle course of the Dnieper River in the Ukraine. In both cases there were very rich but localized marine or riverine resources that may have stimulated competition that led to violent engagements. The weapons producing the trauma are generally arrows and spears.

During the Neolithic period, the earliest period to which we might attribute the economy of Proto-Indo-European, there is intermittent evidence of warfare, trauma, and defensive architecture across much of Eurasia. Analysis of a mass burial of men, women and children in a pit of the Linear Ware culture indicates that the polished stone axes employed in that society were not only used for cutting down trees. Neolithic enclosures in southern Britain show clear evidence for attacks and burning by opponents armed with bows and arrows. The presence of enclosures is widespread over much of Europe and although one of their functions may have been to mark out sacred precincts or areas of a settlement, it would be difficult, especially given the evidence from Britain, to presume that they did not also have a defensive function and that
warfare was a common enough occurrence in Neolithic Europe. In general, one of the features that accompanies the adoption of a settled way of life through agriculture is a sense of territoriality and fixed defensible resources, and hence a correlation between agriculture and warfare has long been observed. It should be emphasized that land is not the only reason for raids and warfare and there is abundant evidence for other causes, e.g., security, prestige, obtaining women. The growing social complexity of Eurasia through the Neolithic suggests that both material wealth and competition were probably becoming increasingly important and could have stimulated armed aggression. For this reason the stark contrast between an essentially "peaceful" European Neolithic, the "Old Europe" of Marija Gimbutas, and the intrinsically aggressive populations from the Pontic steppe is not only difficult to sustain but inherently unlikely. Warfare did not begin in Europe because of the introduction of the speakers of IE languages, it had preceded it no matter where one locates the IE homeland.

The reconstructed vocabulary of PIE suggests that at least by late IE there were warriors grouped in some sort of operational unit, e.g., *koroś 'army, war-band', *lehsuōs 'people under arms', *teuteh₃r 'people (under arms?)', with (military) leaders, e.g., *hēgōs 'leader', *korojōs 'leader', *nunats 'leader', lord', *h₁reigés 'king'. The frequent application of *wolf* to warrior behavior and evidence for berserker-like activity, sometimes induced by a stimulant, is also widespread in IE. From the lexicon of material culture we find that early Indo-Europeans had at their disposal certain implements that may have served in war as well as the hunt, e.g., knife (*uwen-), dagger (*h₁ɡwus), spear, (*ɡw₁eru, *h₁eiksmo/eh₃r, *kúh₁los, *ghai-so-s,), ax (*h₁edh₁es), bow and arrow (*ɡw₁(є)h₁th₁, *h₁tus, *h₁érus). Further evidence for warfare is suggested by the presence of a fortified enclosure which may be found in either widespread or regionally confined sets of cognates (*peh₁-s, *leheh₁g, *th₁nos, *q₁ri-s). Finally, there are verbal reconstructions such as *sēg₃h- 'hold fast, conquer' and *seru 'booty, spoils of a raid' whose semantic sphere is primarily related to military activities or at least the exploitation of physical force.

The picture gained from lexical-cultural reconstruction pertaining to the technology of warfare is vague enough to permit one to situate the earliest Indo-Europeans in most areas of Eurasia during the Neolithic. Every weapon indicated in the PIE vocabulary, although manufactured from metal (bronze or iron) by the time of its earliest attested lexical occurrence, could be ascribed a Neolithic predecessor made from flint, chert, obsidian or some other stone. Moreover, the age sets and/or war-bands postulated by some for the Proto-Indo-Europeans find close ethnographic parallels among tribes in Africa and North America whose own social organization need not be much more complex than that which we would expect for many later Neolithic populations. It is also in the later Neolithic and early Bronze Age that we find the regular ascription of weapons in male graves which may suggest either the existence of specialized warrior associations or, at least, the recognition of warfare as one of the appropriate social roles of males in society.

As to the nature of IE warfare, other than the relatively banal conclusions that one can draw from the IE vocabulary, e.g., raids for booty, livestock, very little else can be determined. What is known from many peoples of the world on a social level similar to that which we ascribe to the earliest Indo-Europeans is that armed hostility may be both ritualized and graded according to increasing levels of violence and destruction (cf. early Irish literature which distinguishes between 'raids' and 'routs'). This may involve unarmed defiance through display (chest-pounding, insults, etc.), duelling with long-distance weapons which minimize the opportunities to inflict serious injury, to hand-to-hand combat between individuals, and then full massed battles. All of these variations of the rules of engagement, however, seem so far to be unrecoverable from PIE antiquity.

See also Age Set, Army, Social Organization, War God, Warriors.

Further Reading

WAR GOD

*maγor- 'god of war'. [Wat 39 (Mawort-), Del 74]. OLat Māvors (god of war), Lat Mās (god of war), Olnd (pl.) Marutās 'wind gods'.

The concept of a PIE War god results from the projection of the Latin Mārs into Indo-European where his name is compared with that of Inđra's companions, the Maruts, of Old Indic mythology. To make the etymological link more plausible, one must consider Olāt Māvors, but the name of the itallic god is Māmers in Oscan, which implies dissimilation (*m - m > m - v) in Māvors. Further difficulties arise when one considers the reduplicative form Marmar in the Carmen Arvale and the Etruscan Marmarace. Recent research tends to give the priority to Olāt Māvors (claiming assimilation in Osc Māmers and contraction in Lat Mārs). The name looks like a compound of which the second element would be *vert-'turn' (Lat vertere) and the first perhaps *magh(e)s- (cf. Grk μάχομαι 'fight' < PIE *mih₁egh-), with an original meaning 'he who turns the combat'. Still, the equation Mārs:Marutās, attractive as it may be if the basic function of Mārs is war, is usually rejected where Mārs's agrarian connotations rather suggest a rural deity of the peasant-soldier. To be sure, the Maruts are the companions of the Vedic War god and are associated with the storm wind (Vāyu, the storm-wind, is also a major War god), but they rather appear as the celestial equivalents of the mātṛya- 'youth, young warrior' which has rightly been compared with the ancient Middle Eastern mari-ia-an-ru, a group of young charioteers in Mitanni, and with members of the military Mannerbund (Ofers marika- [Proto-Indo-Iran *marīyaka-] 'member of a retinue'). The term would be semantically comparable to other youth's terms applied to
a military context, e.g., OHG kneht, NE knight, NHG knabe versus knappe 'page, esquire', and may be related to Grk μείρας 'girl, boy', Lat maritus 'married', Wels morwyn 'girl', etc. < IE *mērōs 'youth'. In view of all this, the reconstruction of an IE War god *māṣor- is hardly justified on linguistic grounds.

See also WARRIORS. [E.C.P]

WARM see HEAT

WAR OF THE FOUNDATION

Within the mythological system reconstructed for PIE, the "War of the Foundation", also known as the "War of the Functions" or "War of the Divine Classes", refers to a battle fought between the representatives of the first two functions (the judicial-religious and military) and the third (procreative, fertility) in which the third function is (forcibly) incorporated into the whole of society. Its primary reflection is held to occur in Norse mythology and Roman pseudo-history but traces of it are found in a number of other IE traditions.

In Norse mythology, primarily in the Prose Edda, there is related the conflict between the Æsir and the Vanir. The Æsir gods are led by Óðinn and Þor (the representatives of the first and second functions respectively) while the Vanir are led by Freyr, a patron of fecundity, and other gods associated with fertility (Freyja, the sister of Freyr, and Ægir). Before the war the Vanir attempt to corrupt the Æsir by sending to them Gullveig 'gold-frenzy' but the Æsir burn her. The Æsir attack the Vanir initiating the first war in the world which promised to be inconclusive as each side ravaged the lands of the other to no ultimate advantage. The participants decide to end the conflict themselves and hostages are exchanged with the three principal Vanir (Njörðr, Freyr and Freyja) coming to live with the Æsir. The Vanir are thus properly incorporated into the rest of divine society. In one version, the pact of peace is cemented by both parties spitting into a crock which was subsequently used to mix the mead of poetry.

The Roman version of the tale is the familiar story of the Sabine War. Here Romulus, who combines both the qualities of the priest in establishing the city of Rome and that of a warrior (he is the son of Mars) leading his warbands, finds that the city of Rome still lacks the aspect of "fecundity" which is possessed in abundance through Titus Tatius and his Sabines. During the war, Titus attempts to bribe Tertia, the daughter of the Roman charged with guarding the Capitoline hill, and this theme of golden bribes has been compared by some with the role of Gullveig in the Norse account. As the war pitches back and forth to no apparent end, the Sabine women place themselves between the two forces and, in marrying the Romans, forge the communities together into a whole which now embraces all three functions.

Parallels from other IE traditions are not so precise. Elements of the "Second Battle of Mag Tuired" in Irish myth, which may be interpreted as the eschatological confrontation has also been taken to possess traces of the "War of the Functions" where the conflict pits the Tuatha Dé Danann (the first two functions) against the Formorians who have a tenuous association with fertility. But unlike the Norse and Roman myths, there is no "incorporation" of the enemy into the social whole. The Trojan War has also been analyzed in terms of the functional war with the Greeks representing the first two functions and the Trojans the third. A better parallel is seen in ancient India. Here it is the representative of the Second Function, Indra, who refuses the admission of the Asvins into the divine circle of power. The latter are the "Divine Twins" and as such, representatives of the Third Function. They are assisted in the incorporation by Mada, the demon of the mixing of the poetic mead at the conclusion of the war between the Æsir and Vanir. Indra is coerced into admitting the Asvins to the central power of the other deities.

See also COMPARATIVE MYTHOLOGY, COSMOLOGY, ESCHATOLOGY, WARRIORS. [J.P.M.]

Further Readings


WARRIORS

Whatever the theories that have been propounded concerning a Proto-Indo-European social organization, the group or segment operating in what Georges Dumézil identified as the fonction guerriere, his Warrior or Second Function, that is, the function dedicated to the forcible defence or armed expansion of any given society, is one that evidently appears early and occupies an important social and possibly a political role. This conclusion is suggested by the fact that the early IE word for 'people,' as in OIr tuath (from PIE *nteutēs), or Greek λαός, may in fact signify 'the people in arms', that is, the warriors. Distinct warrior groupings with their own codes of conduct also appear in early codes marked by an independent 'willfulness' (OInd svadhī ‘inherent power, habitual state, custom’ which is cognate with Grk ἄθλος ‘custom, usage, habit’ and OLat (pl.) suadelles ‘members of an association’). A later meaning is 'group of comrades'. The most archaic IE sources also display two other dimensions of the warrior: as a fighting elite, organized in high-status clans, and defined politically as an aristocracy, and as an imaginative projection of superior, even superhuman warrior virtues collected into the form of the hero. In terms of PIE myth, the origin of the warrior elite (or, the hero who exemplifies its excellences) is almost always cast back into the shadowy Past Time; it may be conjectured that the perfect origin-tale referring to the warrior has him springing directly from the earth, without parents or any human intervention, as in the case of the Greek σπαρταῖος of the 'sown men' (i.e., those who claimed descent from the dragon's teeth sown by
Kadmos) of the ancient Kadmean myth. This Second or Warrior Function, whatever its origins, continues as a potent socio-political force, projecting what one scholar (Joel Grisward) has called its “totalitarianism”, its thrust toward weakening and co-opting the powers of the First (Sovereign) Function, while either ignoring or denigrating the powers of the Third Function, powers of supportive increase, wealth, and sexual force. In historical terms, we can note that both of the classical Mediterranean civilizations, the Greek and the Roman, experienced this totalitarianism in the advance of aristocracies to political dominance and the retreat and even the obliteration of monarchical sovereignty: in Greece aristocratic dominance is seen from about the eighth to the fourth centuries BC, and in Rome for the period of the Republic, that is from about the late sixth to the late first centuries BC.

**Organization**

Research into the subject of the IE warrior usually begins with a focus on the collective, the war-band, mainly because we have good evidence of these warrior organizations from Germanic, Irish Celtic, Indic and other IE-speaking traditions. Admittedly, this evidence is rather late, that is, dated to the late Bronze or Iron Age, but the evidence is supported by more archaic linguistic data bearing on war-band terminology. At base, our information on the war-band seems to identify two modes: the initiation-cohort of young, adolescent males with their older trainers or models, and the true *mannertuend* or *comitatus*, the warrior group connected to or following a particular war-leader or chieftain. The two modes may be combined, as when the Irish *fianna*, defined as ‘war and hunting bands’ who live and fight on the edges of ordinary society, are also said to be involved in initiating the young men of the tribe into adult warriorhood. The first mode may be composed of bands of adolescent youth, separated from society and in transition to full warrior status, as seen, for example, in the Irish *Tain Bo Cualnge* “Cattle Raid of Cooley”, where *in macread*, ‘the youths’, often translated as the ‘boy troop’ of the king (and being kings’ sons themselves) were associated with the magnificent hero-champion Cú Chulainn who was their leader. Another, historical example of an initiation cohort is made visible in the Athenian social institution of the *ephebeia*, in which adolescent males were trained and readied for full societal membership and warrior status; this ephebe has been shown (by Pierre Vidal-Naquet) to have emphasized, in its training, the “dark” side of warfare—night attacks, trickery, disguise, ambush and secrecy. Both of these instances show a focus on an essential adolescent difference, perhaps on different aspects of the confrontations and contests, involved in game and play.

The *comitatus* was the Latin word given by Tacitus to describe a Germanic warrior-band bound to its war-leader by mutually sworn oaths; the leader sworn to deal faithfully with his followers so far as loot—and, presumably, glory—was concerned; the warriors in turn were oath-bound to obey and, especially, were sworn not to survive a war-leader slain in battle. An example of this ethos of terminal loyalty is found in the Anglo-Saxon poem “The Battle of Maldon”. In such an IE warrior organization as this the particular emphasis is always on the personal tie between the leader and his “man”, and also on the fact that the leader was never simply a commander or tactical expert, but was expected to show at all times a personal example of courage and fighting skills.

Our evidence, both historical and literary-legendary, seems to show the paramount importance of the exceptional IE warrior. The historians Polybius and Dionysius of Halicarnassus describe the Gaulish warrior-elite who advanced to fight naked “before the host”, the Welsh Celtic Triads, which refer in a series of triplets to information that was important to remember about the ancient affairs of the “Island of Britain” in Arthurian times, speak of the three “diademed men” or “gorgeted men” who were always expected to be at the forefront of the host in battle. The image of the Champion is very strong in this IE evidence; the fighter showing his individual prowess is always given precedence over any display of military mass, discipline, or war-group solidarity. An IE-speaking people like the Romans made a special point of emphasizing strict military discipline and mass maneuver, yet they found themselves facing the older IE mode in the form of Gallic and Germanic fighting tactics and their emphasis on the single champion. In Virgil’s *Aeneid* strict Roman discipline is anachronistically inserted into the wars between the Rutulians and Aeneas’ forces, and the poem criticizes, while it praises, those warriors who broke formation to show off their personal bravery or *virtus*. Still, the well-known Roman institution of the Triumph, though evidently cast in an Etruscan (non-IE) guise, was based on the celebration of a victory won by a Roman commander, the *triumphator*, in personal combat with an enemy chief. In general outline, then, the IE evidence elevates and even idolizes the single and singular warrior in combat: he is the cynosure, more admired than any commander, unless the commander is himself a war-skilled and courageous individual, one who leads by example.

In fact, the IE warrior who is the center of a great deal of attention is the warrior who has entirely escaped social control of any kind; the warrior seized by the psychic spasm called *furor* or *wut* or, in the Norse-Icelandic sagas, the fighter called *berserksgangr* ‘gone berserk’. In this phenomenon—widely apparent in the IE evidence bearing on the fighting-man though not only there—the individual warrior, battle-mad, passes out of any human control. The best etymology of *berserk* (*< "bear-shirt") stresses its animalized element; the fighter stricken by this crazed situation abandons any human personality and turns feral, becoming like a bear or a wolf. The Old Irish equivalent is the *rastrad*, "the act of contorting", exemplified in the behavior of the hero Cú Chulainn when pressed in battle or angered, which emerged as a total distortion of his features (the warp-spasm) and his assumption of a single-minded aggressive stance. Some theories have suggested that the Norse *berserkir*, at least, may have used hallucinogenic mushrooms to achieve this maddened state.
in which they became, among other things, more or less impervious to wounds, there is no final proof on this score, and it is most likely that the warrior's furor-filled state was induced by auto-suggestion and triggered by frustration or some other intense emotional situation or crisis. In fact the berserk-warrior carries to an extreme a marked sense of the isolation and separation of the IE warrior as a type, that is, showing what Dumézil has called the "dysfunctional" warrior ethos, completely turned against society, and not amenable to any direction, rule or command. However, we ought to note that warrior-heroes can be "shamed" into regaining control of themselves, as Cú Chulainn, enraged, was first calmed and quietened by women flaunting their sexuality at him, and then literally cooled or quenched in cauldrons of cold water. Magical or quasi-magical satire can also affect and de-energize an enraged warrior.

**Weapons and Tactics**

Archaeological findings, at least those dated from the Bronze Age on, give us a certain cross-check against the epical and other accounts of the IE warrior's weapons and war-tactics. These discoveries confirm, for example, that the horse-drawn war-chariot was used by Celtic and, earlier, Mycenaean warriors, though eventually it would be replaced by the true war-horse. The war-chariot pulled by two horses is featured in Indic epic, in the Greek *Iliad*, and in Irish Celtic hero-tales, though there is a strong suspicion that the sole use of the chariot by the elite hero-warrior may have been an imaginary construct—there is no good evidence, for example, for charioteery as early as the *Proto-Indo-Europeans*. In all three of these epic traditions the chariot carried one warrior of rank along with his charioteer; the charioteer was in theory a non-combatant (at least in the Irish tales, though he could be directly involved in and at risk at the action of battle, as in the *Iliad*). Ordinarily the war-chariot was not deployed as a shock-weapon: in the Indic epic *Mahabhara* it is used as a platform from which the warriors shoot their great bows; elsewhere it delivered the elite fighter to the battle and then withdrew. Caesar describes the Gallic chariot (*essedum*) he saw used in this manner, and he also describes the "play" the Gallic chariot-warrior made, running and balancing on the chariot's draught-pole at speed; such displays were also part of the repertoire of the Old Irish epic heroes.

The riding horse was known to early IE-speakers, yet the three IE contexts named ignore the ridden horse in favor of the heroic chariot, as we have noted. In fact, the appearance of what we would call a true cavalry was not very significant in military terms in, for example, the two classical civilizations, where horsemen (Grk *hippos*, Lat *equites*) were important in a socio-economic sense, since only a noble or aristocrat could afford the animal as a mount. The horseman would reveal his true value as a fighter, in fact and in imagination, only after the development (in the second–fourth centuries AD, reaching Persia and Byzantium by the sixth century and western Europe by the eighth century) of an effective means to control the horse, and the appearance of the true saddle-and-stirrup to steady the rider. After this advance we will fairly soon see the *ritter*, *cavalier* or *caballero* or the knight, that is, the heavy-cavalry horseman, and eventually, in the medieval period of western European history, we can also see a return to a recognizable IE social pattern, as this society is again described as a readably bifunctional structure, the horsed, armed and armored knights shown as Second Function, war-making *bellatores* protecting the First Function *roratores*, those who pray, and the Third Function *laboratores*, those who work.

Technology, history, and the works of the imagination are also combined in our reconstruction of the weaponry used by the IE warrior. The *Iliad* knew of the 'well-honed bronze', a slashing-sword, but the primary weapon in this epic is the warrior's heavy spear, used either to throw or to thrust. The spear and the sword together mark off the warrior, to some degree, as he appears in most IE traditions, and this pattern continues into the early medieval period (also the time of the great Eurasian folk-migrations and invasions) when the earliest heavy horsemen made their appearance, and sword-and-lance certainly identify the medieval knight of a later period. Other weapons of war are known; the war-hoe is seen either as a primary heroic weapon, as in the Indic epic evidence, or more often as a vaguely suspect missile-weapon, as it is in the *Iliad* and elsewhere; it is altogether absent from any early Irish text—although the sling is known—and whenever it does occur later it is clearly a borrowed motif. Sometimes the warrior-hero is overarmed: in the Old Irish tales, supreme warrior-heroes like Cú Chulainn are provided with an elaborate personal armory, including any number of different spears, javelins, swords and even shields with sharpened edges, to say nothing of mysterious and nearly unidentifiable weapons like this hero's *gae bolga*.

In literature the sword remains the IE warrior's weapon *par excellence*. Both heavy slashing-swords and shorter stabbing-swords have frequently been found in Celtic and other burials; it has also been suggested that from about the seventh century AD that technical advance in iron-smithing called damascening or faggot-forging began to produce very superior steel swords, swords that increasingly make their appearance in the epic and saga literature as "named" weapons, possessing a kind of power and personality of their own, and inherited or otherwise passed on from warrior user to user. There are also hints that the (western) IE warrior may carry not one but two swords: the first an heirloom or "family" blade, the second a personal weapon. Evidence for these two swords, and what they might signify, comes mainly from the Norse-Icelandic sagas, but also from Welsh, Irish, and Spanish epic contexts.

**War Gods and the Second Function**

The identification of specific and unmistakable war gods, gods strictly associated with the IE Second or Warrior Function and only concerned with that function, is not as simple or easy as it might seem. Problems of identification
and interpretation, of obscure sources difficult to use, lost
data, names without descriptions—all this conspires to
cruffuse our conclusions. To begin with a clear image and
usage, the Indic god Indra, with his following of wild Maruts,
obviously belongs in the warrior's function and acts as a
warriors' emblematic god, yet Indra must have replaced
another Indic god, Vayu, who is closer to the wind-and-
weather god type, while in the related Indo-Iranian pantheon,
after the Zoroastrian reforms, Indras (Av Indara) furious
divinity is replaced by Mithra, a god with wide cosmic
responsibilities including the military. The Roman War god
Mars would seem to follow the pattern of uncomplicated
predictability, yet Mars had a significant association with the
wilderness, with the dark unknown, not only with licit
combat, and on the other side be patronized husbandry and
good order on the cultivated land. By the evidence of myth
the Greek War god Arès probably belongs in a pre-Hellenic,
pre-IE stratum, though Enyalios, with an IE root and meaning
'war-fury' and later taken as an adjective-substitution for Arès,
shows up in the earliest Greek (Mycenaean) Linear B texts.
When we bring in the Gallic, associated Celtic, and Germanic
areas, where war and the warrior obviously had a huge and
dramatic place, the IE Second Function divinity, his meaning
and his cult, becomes very hard to identify and track.

Rome was aware of the warlike Gauls from the fourth
century BC onward, and eventually Caesar, commanding in
Gaul, gave Roman names to the Gallic gods; Mars, as a War
god, is one of these names. The Gallic Mars may be equated
with one or more than one of a number of Gallo-Celtic gods
whose names and images, at least, we know. Iconography
and analogy draw our attention to Sucellos, a god who seems
to have some connection to the wilderness (as Mars does to
the Roman forest-god Sylvanus). Sucellos may be a forest-
deity who is also shown wielding a hammer, the like the Norse
Þor. Yet the true Gallic 'thunderer' is the god Taranis
(*taranu-), whose name means the same as the Germanic
War god Donar, and to this Taranis humans were supposed
to be sacrificed by fire, which we think of as a Second Function
sacrificial mode. Then there is Ogmios, whom the Celts,
according to one Roman observer, equated with Héraklès,
and Ogmios clearly is parallel to the Irish god Ogma in the
Irish myth-epic, 'the strong one' who leads men in arms. Yet
again we know of the Gallic Teutates, sometimes depicted
with helmet and lance, and whose name perhaps shows that
he leads 'the people in arms'. There is also some important
evidence describing chief-gods, gods we would identify as
divinities of the IE Sovereign Function, but whose power
extends and operates through all functions; a Gallic Jupitor is
widely known who, like the Roman Jupiter in his War god
guise, was called on for assistance in war; the Irish parallel to
him would be Lugus or Lug, whose powers are not constricted
into or by any one function. Finally, there is Celtic (especially
Irish) evidence for a feminine war-deity, called Bodb, Macha
or the Morrigan, an embodiment of the quasi-sexual seizures
of 'fiery combat', who may be both friend and foe to heroes.

The other IE people well known to the Romans, the Germanic
tribes, throw up some confusions of their own so far
as the War god or the Warrior god is concerned. The Teutonic
'thunderer' Donar, has already been mentioned; we would
see him transformed into the god Þor or the Scandinavians,
as Wotan became ON Öðinn. Yet so far as the "religion" of
the Germanic-Scandinavian warrior is concerned, their War
god might be taken either as Þor in the First Function or
as Þor in the Second: Öðinn represents the uncontrollable,
the uncertain, chaotic, dark, fatal energy of combat; a god
who is similar but not identical to him would be the Elbe
Slav Svantovit, bringer of victory, oracle, and also associated
with the revelation contained in alcoholic drink. Þor seems
to show the sacral energy released in war as it is controlled
and socialized, so Þor's hammer is his special weapon against
inhuman forces, personified as giants and monsters; other IE
'striking' gods, like the Russo-Slav Perun and the Lithuanian
Perkūnas, are more in the mode of Þor. The feminized side
of war-making is seen here as well: Óðinn accepts the battle-
dead as sacrifices, but only half of them; Freyja, goddess of
love (and, in this case, of death) takes the rest.

The warrior's god clearly assumes a great number of postures and stands for any number of potencies, from the
general guardianship of society, to the symbolizing of war as
a primal, extrahuman force, to the representation of utterly
individual berserker energies. His ambiguity, like the warrior's
ambiguity, is paramount. So far as cult is concerned, it seems
that the IE warrior usually 'worshipped' his god by offering
blood; the sacrifice of his enemies and finally the sacrifice of
himself. Such an offering continues on into the post-pagan
period, when the IE warrior is more or less Christianized.

We can tentatively conclude that there was no unitary, PIE
'War god'. Perhaps we can also say that the club-armed
thunder-gods (Þor, Indra, Sucellos) represent the intuition
that war, that most important warrior activity, like thunder,
was natural but also frightening and dramatic, an awful but
natural event for the warrior and for his IE society.

Aspects of Indo-European Ideology

The IE warrior, operating in Dumézil's definition of a
Second Function, is also tied to other aspects and operations
of that functional system, and to the rest of the tripartative
system as well. There are four themes or scenarios that need
to be laid out and briefly examined here: (a) the "War of the
Foundation", (b) the cattle-raiding myth, (c) the theme of
the "Sins of the Warrior", and (d) the Óðinn warrior/Þor
warrior bifurcation.

(a) The "War of the Foundation" or "Interfunctional War". In
this mythic confrontation the IE First and Second
Functions are allied, and face off against, master, and finally
incorporate into one triplex whole the different but signifi-
cant potencies of the Third Function. The victory of
sovereign and war-like forces is for a time held off by the
powers of this Third Function, but the latter is eventually
defeated by the over-mastering magical potency of some
dominant First Function figure. The paradigmatic Inter-functional War is often identified as the one that takes place between the Norse divine divisions of the Æsir and the Vanir; Indic epic-myth (in the Mahābhārata) and Roman myth-history (the confrontation succinctly called the Rape of the Sabine women) lays out the same situation, while other examples have been suggested, taken from the Greek _Iliad_ and from certain Norse sagas. Of the various reflexes of Inter-functional War, the Scandinavian and Roman show the most complete scenario: the opposition between First and Second Functions on one side and the Third Function on the other (Æsir against Vanir, Romans against Sabines); the attempt by the Third Function to win by means of a Golden Bribe (Gullveig [power of gold] tempts the Æsir, Titus Tatius tempts Tarpeia); the act of _grande magie_ that ends the battle (Óðinn hurls his magic spear across the battle-line, Rōmulus successfully calls on Jūpiter); and, finally, the peaceful juncture of the two sides. In other reflexes of this war, for example, the _Mahābhārata_ and the _Iliad_, no joining of the two opponents occurs. An important point here is that Second Function war-like force is not seen to be enough to overcome the mythical enemy’s complex power-field.

(b) The IE or PIE cattle-raiding myth. This scenario is based on a situation in which the key element, the herds of cattle which are both the secular and the sacred capital of an IE nomadic collectivity, are stolen by a non-IE enemy people, retaken by force by an IE warrior élite, and then are returned by the victors to a First Function priestly class for the appropriate sacrifice to the upper powers. The cattle-raid as a warrior activity is widely known and deployed throughout our IE sources; here it is sacralized and even cosmicized. A sacralized aspect is seen in the Indic royal consecration, the _rajasya_, which includes a mock cattle-raid. In epic terms, cattle-raids are featured in the _Iliad_ and the _Odyssey_; they, of course, make up a separate category of Old Irish heroic tales, where eleven _tána bó_ or ‘Cattle-Raids’ have survived to us, the best known being the _Táin Bó Cúalnge_. Returning to the mythic level, it has been suggested (by Bruce Lincoln) that the cattle-raid is part of the same mythic context as the “Combat with the Tricephalic Monster”.

(c) The “Sins of the Warrior” is an important IE theme that was examined by Dumezil in two successive treatments, the later differing slightly in emphasis and conclusions from the earlier. In this theme a warrior-hero figure commits three sins or delicts against each of the three functions, that is, he serially violates one or more of the bundle of rules that define and govern these functions. The clearest example of these three sins is contained in the legend of Starkaðr or Starcatherus, the “old hero” who appears in Saxo Grammaticus and briefly in _Gautreksaga_. Starkaðr’s three sins are regicide, a cowardly flight from battle, and another regicide committed for money; his first sin also involves the IE theme of the royal Threefold Death. The career of Héraklès, whose heroic biography puts him close in type to Starkaðr, shows his three sins as, first, ignoring the will of the sovereign god, Zeus; second, killing a foe by treachery; third, committing adultery. In the Indic _Mahābhārata_ the warrior-king Sisupala (whom Dumezil substituted for the god Indra in his second treatment of the Sinning Warrior theme) sins against the Second Function by attacking his enemies in a cowardly fashion, attacks the First Function by preventing the great horse sacrifice necessary to Indic kingship, and commits a sexual delict by secretly lying with a married woman. In all of these examples the sin brings a fitting punishment, and after the last sin the warrior-hero dies. It appears that the IE warrior-hero should be a great sinner, a frequent and unashamed defier of functional rules, and a close examination of the careers of these warrior-heroes will usually reveal incidents more or less closely resembling the paradigmatic three sins of the warrior.

(d) As a last example of an ideological theme, the IE theme displaying the bifurcation and opposition between a warrior of Pörr and a warrior of Óðinn was first extracted from the North German legend of Starkaðr, over whom the two gods named had a debate, the one granting him certain boons while the other attached matching ills to the benefits. Despite the fact that the god Pörr was inimical to Starkaðr because of the latter’s Giant ancestry, this hero appears to be a Pörr-warrior, for the two types are differentiated according to whether the warrior is drawn toward social service, especially service to kings, or places himself in opposition to kings and to the Sovereign Function. The king’s Champion, the standard-bearer or, in the sagas, the royal “forecastle-man” would be defined as Pörr-warriors. The bifurcation is clear in a saga such as _Egils saga Skallagrímssonar_ but it is not at all limited to the Scandinavian North. Another characteristic division between the two types has the Óðinn-warrior show tricksterish features, while the Pörr-warrior plays a straight but vulnerable hand, often falling victim to the very king he serves. Finally, a pairing of warrior-heroes that has a close familial resemblance to the Pörr-warrior/Óðinn-warrior theme contrasts a more fatal or dangerous warrior-type to his “straight” partner: examples would be Arjuna and Bhismak in the Indic epic, and Cei and Bedwyr in the old Welsh sources.

See also _Age Set_, _Comparative Mythology_, _Cow_, _Horse_, _Threefold Death_, _Three-headed Monster_, _Wagon_, _Warfare_, _War God_, _War of the Foundation_.

Further Readings:


WASH see CLEAN

WASP

*h₂yospóŝa* - 'wasp'. [IEW 1179 (*yobhsā*); Wat 78 (*wopsā*); GI 453 (*wobhς-*)]. MWels gw(y)chu (pl.) 'drones', Lit vespa 'wasp', OE waes - waps 'wasp' (> NE waps), OhG wafta - welfa 'wasp' OPrus wobse 'wasp', Lith vaps(v)a 'wasp', Lat vaspere 'wasp', OCS osa 'wasp', Rus osa 'wasp', (dipl.) osva 'wasp', MPers vafr*z* 'wasp', Baluchi gwáz 'bee, wasp, hornet' (Iranian < rebult *wobhŝ-a*). From *h₂yosp- 'wasp' as one which builds (≡ weaves) a (wasp-)nest. *h₂yosp-s-eh₂* - clearly is of PIE age itself but it is morphologically a derivative from *h₂yosp- 'wasp' which may be preserved in a different form in NHG (Bavarian dial.) webes (< *wobhŝeh₂-*) 'wasp'.

See also BEE; HORNET; INSECTS; TEXTILE PREPARATION. [D.Q.A.]

WATCH

*bheudh*- 'pay attention, be observant'. [IEW 150-151 (*bheudh*); Wat 8 (*bheudh*); GI 150 (*bheudb*); BK 1 (*baw/*baw*).] Pres. *bheudhetor*; ON bjöða 'ask, offer', OE beódon 'ask, offer', OHG biotan 'ask, offer', Goth ana-biudan 'order', OCS bljudo 'observe', Rus bljudi 'observe, pay attention to', Grk hêxidoumai 'examine, experience', Av bádaiti 'notices, observes', Olnd bljóðati 'is awake, wakes up, observes, understands'; pres. *bhu-n-dh*- OIr as-bíon 'refuse', Lith bunda 'awake', Grk πεξιδούμαι 'examine, experience'. Cf. also TochA pot- 'flatter', TochB paut- 'flatter'. Widespread and old in IE.

*sverk*xK- 'watch over, be concerned about' (pres. *sverkhtht*). [IEW 1051 (*svergh*); Wat 68 (*svergh*); GI 105]. ON sorg 'sorrow, pain', syrgja 'be concerned about', OE sorg 'sorrow, pain, grief' (> NE sorrow), sorgian 'grieve, be sorry for, be anxious about', OHG s(w)org 'sorrow, pain', s(w)orgenn 'be worried about, care for, be sorry for', Goth sorga 'sorrow, care', saurigan 'take care for, look after' (Gmc nouns < *sþurh*Keðh-; except for ON syrgja, all the Germanic verbs reflect denominative *sþurh*K-ch-1*). OPrus but-sargs 'householder', absergisma- 'protection', Lith sérgt 'keeps watch over', sargas 'guard', Latv sargs 'guard', Olnd súrks 'takes care of'. The geographical distribution virtually assures PIE age for this word. The nature of the final consonant is ambiguous. A *-gh* would work for all languages or, since Lithuanian suggests an original athematic present an alternation of *-g* (from *sverkhθmī and generalized in Baltic) and *-k* (from e.g., *sverkhθhī and generalized in Germanic) would also be possible.

See also PERCEIVE, SEE, SHOW. [D.Q.A.]

WATER

*ũjdu* 'water'. [IEW 78-80 (*ъued-); Wat 73 (*вод*); GI 579 (*вод*); Buck 1.31; BK 483 (*вод*/*вод*-)]. Olr usce (< *ud-p-s-kîo*) 'water', Lat unda 'wave', Umb utur (abl.) une (< *utdn*) 'wave', OIR wārin - wār water', OE water 'water' (> NE water), OHG wazz 'water', Goth watō 'water', OPrus (masc.) unds (neut.) wundan 'water', Lith vandu 'water', Latv ūdens 'water', OCS voda (with -ndn-) 'water', Alb uje (< *uldrjɔ-?*). Grk ὕδωρ (gen. ὕδατος) 'water'. Phryg θέου 'water', Arm get 'river', Hit water (gen. witenas; pl. wîtûr) 'water', Av vai-dî- (< *vēd-?) 'watercourse', Olnd udan- (gen. udnâs) 'water', TochA wār 'water', TochB wār (Toch < *udrom*) 'water'. The Hittite paradigm points to an original (nom.) *ũd-t-, (gen.) *ũd-n-s, (loc.) *ũd-en(i), with a collective *ũd-ôr (acc. *ũd-en-m, gen. *ũd-en-o). The PIE word for 'water'.

*h₂ep- - *hjeₚ* - living water, river. [IEW 51-52 (*îp*); Wat 3 (*îp*); GI 578 (*Hapb*); Buck 1.31]. OPrus ape 'river', Lith ūpe 'river', Av âs (gen. âpo) 'water', Olnd âp- (nom. pl. âpas; acc. pl. âpas) 'water', TochAB āp-*river'. Hit hapa- 'river', sometimes connected with this word, probably belongs rather to *h₂ep(h)-* 'river'. Uncertain are river names in âpa, OHG âfja 'river name suffix', Thracian *Aron* (river name). Grk ἄρη (river name) is undoubtedly non-IE.

*h₂ekeₚ*eh₂- 'water'. [IEW 23 (*akîa*); Wat 1-2 (*akîa*); GI 579 (*akb*); Buck 1.31]. Lat aqua 'water'. ON ö - ö - a 'river, water, OE ér 'water, water, OHG ahr 'river, water, Got haf 'river, water'. Limited to Latin and Germanic. On sg* (sea, seagods) is supposed to have *h₂ekeₚ*ës. The verb 'to drink' (e.g., Hit ekuzz, TochAB yek*), which points to a long *ë*, need not belong here for semantic reasons.

*jiuₚ* 'water?' [Del 183]. OPrus ë̄tum 'sea', Lith jøres (pl.) 'sea', jura 'swamp', Latv jūra 'sea', Thracian ë̄tum (name of a river). If Lith jūra derives from *jêuhrₚ*- (< *jêurₚ*?-), we have an ablauting r-stem with a root *jêuhr*-/*jêurh*- but the Lithuanian ablaut may be secondary. Although sometimes cited here, Arm ʒur 'water' cannot come from *jur-*.

*jêôT* 'water?'. [IEW 80 (*xer*); Wat 77 (*wêr*).] Lat ë̄tintari 'plunge into the water' (*ë́tīntār (urīne) is a secondary development), ON ë̄r (< *xhr*- 'fine rain', OE ë̄rig 'moist', OPrus wurs (if from *xîrs* 'pool'), Arm xair (< *xair*: the *-r* is problematic) 'marsh', Luv xâr(*sa) 'water', Av xâr 'rain', Olnd xâr(t) 'water, rain' (disyllabic: *xâr*). The Old Indic disyllabic forms point to *xēhₚ*- (or *xēhjₚ*). Olr fîr milk has been claimed as cognate (< *xêhjₚ-r-t-o*). The existence of ON aurur 'moistness' is doubtful. Neither do Lith vëtriu 'boil' nor OCS vîtrë 'boil, seethe' belong here. Nevertheless, distribution still assures PIE status.

*qûp* - 'water'. [IEW 1149 (*uovo*).] OPrus wîpysan 'cloud', Lith ūpe 'river', OCS vapa 'lake, marsh, pond', Hit
wappu- 'river bank', OInd väpi 'pond'. All the connections here have been challenged and any reconstruction is very uncertain.

See also Lake; River; Sea; Wet. [R.S.P.B.]

Further Reading

WAVE

*p*uh'ami- 'wave'. [IEW 1140–1142 (*uei*); Buck 1.35; BK 505 (*wal-/*wall-*)]. OE wélm – *wylm* boiling, heat, OHG walm 'wave', Av varami- 'wave', Onl *tarnni- 'wave', perhaps TochB *yolme (< *yelhâmo-?*) 'pond'. As the primary meaning of the Germanic words refers to agitation through heat, these are not really comparable to the Indo-Iranian forms and do not permit the reconstruction of a PIE word for 'wave'.

See also Boil. [R.S.P.B.]

**WEALTH**

wax

*köhrn* (oblique *köhn- and *köhn-en-) 'wax'. [IEW 532 (*körn-)]. Lith *korys* 'honey-comb', Latv *kārns* 'honey-comb', Grk *κηρύς* 'honey-comb', these three (< *kēhrṇjon*) *κηρός* 'wax' (> Lat céra 'wax') > OIr *cēr* 'wax', Wels cwyr *wax*, etc., Alb *huall, hoje* (< *kôl-ja*) with irregular development of *-j* from *-n- < pre-Alb *xôn- < PIE *-skehn-*) 'honey-comb'. Cf. also ON hunung 'honey', OE *hun* 'honey' (> NE honey), OHG *hunag* (< *köhrn-on-kö- 'that which is derived from beeswax') 'honey', OPrus *cucan* (< *köhn-n-ko*) 'brown', Grk *κηνόξ* (Doric *κηνός*) (< *kēhrn-kō- metathesized from *kēhn-n-ko*) 'golden', Onl *kānčana- (< *kōhn-n-ke-no-*) 'golden'. An archaic term for 'wax', a neuter noun, is concealed in Grk *kērōs* which was loaned into Latin as a feminine and hence into Celtic. A neuter derivative noun for 'honey-comb' is, but for gender, an exact match with the Baltic terms, pointing to a common stem also found dissimilated in Albanian. Derivatives referring to 'honey' are also found in Germanic and as color-terms in Baltic, Greek and Indic.

*uos(h)-ko- 'wax, flowable, oozy'. [IEW 1180 (*yokso-); Wat 78 (*wosko-); GI 523]. ON *vax* 'wax', OE *wax* 'wax' (> NE wax), OHG *waehs* 'wax' (< Proto-Gmc *waeks* metathesized from Proto-Gmc *waskan*), Lith *vaskas* 'wax', Latv *vasks* 'wax', OCS *vosko* 'wax', Rus vosk 'wax'. A northwestern term which is semantically matched by Alb *dylle* (< *gheid-lom*) 'wax' from the root *to pour*. This may refer to the low melting temperature of wax, a property of paramount importance for the development of bronze casting using the technique that still goes by the name of cire perdue 'lost wax'.

This technique begins to appear widely in Europe from at least c 1200 BC onwards.

See also Bee; Honey. [M.E.H.]

way

*sentos* 'way, passage'. [IEW 908 (*sent-*); Wat 58 (*sent-*)]. OIr *sēt* 'way', Wels hynt *way', ON *sinn* 'time', sinni 'way, company', *sinna* 'travel', OE *sēf* 'way, side', *sīhan* 'go, depart, travel, wander', OHG *sind* 'way, side', *sindôn* 'go, depart, travel, wander', Goth *sīps* 'time'. Arm *antac* 'way, passage', TochA *sent* (< *sēntu*) 'street'. From *sent- 'go'.

See also Find One's Way; Road. [D.Q.A.]

**WEAK**

*josios* 'weak'. [IEW 680 (*los*); Buck 4.82]. Goth lasius 'weak', TochB *fesvi* (pl.) 'attacks of weakness'. Cf. with a different formation: ON *lasinn* 'weak', NE lazy. The exact formal and semantic equation argues for late PIE status for this word.

*hēpeus* 'weak'. [IEW 52 (ap-)]. Lith opūs 'tender, delicate', Grk ηπευνός 'fragile, weak, maimed, halting', Onl apva 'a certain illness', apuvāyate 'become ill, spoil'. Cf. also Av *afsa-'damage, injury*. Perhaps a derivative of the locative deriv *hēpovhepeu* back(wards). Cf. ON *flur* 'turned the wrong way', OHG abuh 'turned the wrong way' (< *hēpuko-*)

See also Sick; Small; Tired. [D.Q.A., J.C.S.]

**WEALTH**

*hwēp(e)n- 'goods, wealth'. [IEW 780 (*op-); Wat 46 (*op-); GI 649–650 (*Hop-*/-čn-); Buck 11.42; BK 391 (*Hopb-*/-Hopb-*)]. Lat *opus* (< *opunitus* ) 'rich, wealthy, opulent', Grk *ἀπένθος* 'wealth', ἀπένθος 'well-off, wealthy' (< early Greek *απενθίοι* with transfer of the aspiration to the preceding *p- and thence to *apemnos*, perhaps ὁμήν 'nourishment, grain, rich cake'. Hit *happina(nt)- 'rich, Av anlah-vant- 'wealthy', Onl *apnas*- 'wealth'. A root noun *hwop* is attested in Lat *Opes* (deity of abundance, opes (pl.) 'possessions, abundance, wealth, *inopes* 'without resources, poor', *copia* 'abundance, plenty'. Cf. also OIr *sommac* 'rich, and *doimn* 'poor' from *su-op-s-miao* and *dus-op-s-miao* respectively. Widespread and old in IE. Because of the initial *a- (rather than *o-) the Greek word is often taken to be a borrowing from some Anatolian source. However, the fact that the Greek word is an s-stem, unparalled in Anatolian and in Greek a largely unproductive category which would not normally attract a borrowing (and is, moreover, the exact equivalent of Av anlah- and Onl apnas-) speaks strongly against the borrowing hypothesis. Thus the initial laryngeal must be *h2- and the common association of this word with the semantically divergent Anatolian set with suffixal *-r- that includes Hit *happar - hapir* 'business, trade, compensation, payment, price', *happiyrē- 'town' (< *market*), Lycan *epirijeti* (< *h2ēp(e)pi(e)ri(e)*) 'sells', which must begin with *h2-, must not be correct. Perhaps, instead it should be connected with *h2op- 'work'.

WEALTH

wealth), ą-ray-a- (< *p-reh1-o-) 'scant, poor, meager'. Distribution strongly suggests PIE status. From *rehi- 'give, bestow' which occurs only in Indo-Iranian: Av rə- 'grant, concede, vouchsafe', Olnd rätti 'gives, bestows'.

*loik'nes- 'inherited' possessions'. [IEW 669 (*loik²o-s); Wat 36 (*leik²-); Buck 11.61]. ON lán 'loan; leased land' (borrowed > NE loan), OE læn 'loan, lease, grant, leased land', OHG lēhan 'leased land' (< Proto-Gmc *læhna-; cf. the verb in ON lja 'lend', OE onlēon 'lend', OHG līhan 'lend'), Av ræxnah- 'inheritance, goods', Olnd réknas- 'inherited possessions'. Distribution confirms PIE status. From *leik²- 'leave over' (e.g., Lat líquó 'leave', Grk λέινω 'leave'). The semantic development from 'leave' to 'loan' has been problematic and is usually resolved by assuming that the underlying verbal meaning originally embraced the concept of 'to be left wanting, to be deficient', e.g., Grk (Homeric perf) λέινω, Grk (Hesychius) λέικνω 'I am left wanting', Av ræcaya- 'to make to evacuate', Olnd rikit kr- 'make empty, leave'. This hypothesis then explains the Indo-Iranian forms that denote 'inheritance' not as 'something that one leaves' but rather as 'what has been left vacant by the loss of its owner'. The development in Germanic appears to have involved the notion of 'leaving the use of something to another' which was specialized to mean 'lend'; in early Germanic this lending was limited to property but did not include the lending of money which was culturally foreign to the early Germanic tribes.

?*uosu 'goods'. [IEW 1174-1175 (*uēsu-)]. Luv wäsú 'goods', Olnd vású 'wealth, goods, riches, property'. Perhaps independent creations in the two stocks in which they appear (cf. OIr láo sine *uosu] 'goodness, kindness' with the same morphological formation but a different semantic derivation). However, the derivation of a word for 'goods, wealth' from the adjective meaning 'good' is widespread in IE.

See also RICH. [E.C.P., D.Q.A.J.

WEASEL

*Kormon- 'weasel, ermine/stoat (Mustela erminea)'. [IEW 573-574 (*kor-men-); GI 441]. Rheto-Romance carmn 'weasel' (a borrowing from Venetic or Illyrian), OHG harno 'ermine', Lith sarmuo 'wild cat; ermine, weasel', 'weasel, ermine', Latv sarmulis 'ermine', sērmulis 'ermine'. A word at least of the northwest of the IE world.

Mustela erminea is found across Eurasia from Ireland to Japan but is absent from the Mediterranean area, i.e., most of Iberia, Italy and Greece. It is known in Kazakhstan, Kyrgyzstan, Tadzhikistan, and south into Afghanistan and northwest India.

?*(h)uiselo- 'weasel (Mustela nivalis)'. [IEW 1134 (*veis-); cf. Wat 75 (*veis-); GI 441-442 (*veis-)]. Nlr fial 'ferret', Nice visla 'weasel', OE we(s)uile 'wesle 'weasel' (> NE weasel), OHG wisula. Probably from *veis- 'give off an unpleasant odor', though such a designation might better fit the polecat than the weasel, e.g., lounart - folcmar 'polecat' (< *foel/stinking marten') as opposed to the pine marten (sweatmart). It may be that Grk αἰέλουπος 'cat', also 'weasel', belongs here as well if it is from *(h)uiselo- + oro- -tail'. (The usual derivation of aiolo + oro- as being with waving tail may be folk-etymological.) Bulg vlacsa 'weasel', Rus laska 'weasel', if < Proto-Slav *vilastka- with metathesis from *visalika-, perhaps should be put here as well (but see next entry). If the word is restricted to Germanic and Celtic then we have evidence only for a late dialect word of the far west of the IE world. If the Greek and Slavic evidence is admitted, then a word at least of the west and center.

?*lohëk- 'weasel'. Latv luoss 'weasel', Rus laska 'weasel', Pol laska ~ laska 'weasel', Bulg (v)laksa 'weasel', NPers àsás 'weasel'. If all these words belong together and are related by inheritance rather than borrowing, then there is evidence for a word of the center and east of the IE world. The Slavic evidence may show crossing of two originally independent words, *lohëk- and *(h)uiselo-.

The weasel is ubiquitous across Eurasia, absent only from Ireland, and is also known in Anatolia, Afghanistan and Chinese Turkistan. Other varieties of weasel, e.g., the Siberian weasel (Mustela sibirica), are found in northwest India. The original semantics here are confused. That the Irish term does not yield a meaning 'weasel' is hardly surprising as the animal was not found in Ireland but rather the stoat, which is recognizable large. As the Irish word, however, indicates 'ferret', which is in effect a domesticated polecat, it is probably a late introduction to Ireland. (Ferrets appear to have been deliberately bred to combat rabbits for the past 2000 years and the earliest certain references date to the first century AD.) But the meaning 'domestic' polecat' is perhaps closer to the underlying meaning of *veis- which does accord much more closely with the polecat, which emits a foul-smelling musk when frightened.

See also MAMMALS, MARTEN; POLECAT. [D.Q.A., J.P.M.]

WEDGE

*dheubhos 'wedge, peg'. [IEW 268 (*dheubh-); Wat 14 (dheubh-)]. NE dowel, OHG (dim) tūblia 'peg' (Gmc < *dheubh-i-lo-), Grk (Hesychius) τῦπος 'wedge'. The difference in formation suggests that these words may be independent creations from a common root but, if so, that root is nowhere else attested.

See also TOOL. [A.D.V.]

WEEVIL see INSECTS

WET

*hires- ~ *hirs- 'liquid, moisture'. [IEW 336 (*rosa-); Wat 17 (*ers-); Buck 15.83]. Lat rōs 'dew', Lath rasa 'dewy, dew covered', OCS rūsa 'dew', Alb rēsh 'it rains', Av Raasha (rivername, Volga), Olnd rása- 'liquid, moisture'. An old root noun and solidly reconstructed to PIE.

*m(ed)had- 'become wet, moist, fat'. [IEW 694-695 (*mad-); Wat 38 (*mad-); Buck 15.83; BK 537 (*mat-/ *mat-)]. Ol maitid 'breaks, bursts forth, gushes', Lat macéo 'to be moist, drip', ON matr 'food', OE mete 'food' (> NE
WHEAT

*leb-10-‘wet, moist’. [IEW 654–655 (‘lat-‘), Wat 35 (‘lat-‘)]. Mit laith ‘beer, moisture’, lathach ‘mud’, OWels llat ‘slime’, ON ledja ‘foam, dirt’, OHG letto ‘clay’, Lith Lait-pute (river name), Latv Late (river name). Grk λάταξ ‘drops’, of which Lat latex ‘a liquid, fluid’ is often presumed to be a loan, is obscure and has been supposed to be of substratal origin. Distribution suggests a northwestern IE term.


*veg- – *ugw- ‘wet’. [IEW 1118 (*veg-‘), Wat 74 (*wew-‘), GI 47; Buck 15:83]. ON vókr ‘wet, moist’, Grk ὑγρός ‘liquid, fluid’. Lat ovidius ‘wet’, although sometimes cited here, is not very plausible; connections have also been proposed with ûmère ‘to be humid’ from a zero-grade *ug-‘sm-. Indo-Iranian forms such as Av uksývan ‘spray’, Olrd uksati ‘moistens’ are more likely to represent a distinct root associated with the word for ‘ox’. Weak case for PIE status.


*hi:wes- ‘moist, especially of the ground or plants’. [IEW 1171–1172 (‘yes-‘). Umb vestikatu ‘to offer libation’, OE wós ‘juice, broth’, NDutch waa ‘layer of mist of fine drops’, OHG wasal ‘moist ground’, Latv vasa ‘forest with wet ground and blue clay’, iesava ‘moisture, tree sap’. ON vás ‘trouble, difficulty’ (< caused by bad weather) is problematic and unlikely here but modern Scandinavian forms like Danish and Norwegian os (< Gmc *wós-/*wésa) ‘stale air, smoke’ might fit. Distribution suggests a northwestern term.

*senhândhr- ‘congealed moisture, slag’. [IEW 906 (*sendhro-‘)]. ON sindr ‘metallic slag’, OE sinder ‘metallic slag’ (> NE cinder whose spelling has been influenced by French cendre), OHG sintar ‘sinter ‘slag, slat, scum’, RusCS sjadny ‘clotted (blood)’, SC sédra ‘lime, slag’, Czech sadra ‘gypsum’. The underlying meaning seems to be ‘hardened or coagulated moisture’. The Slavic forms must derive from *sendrá (with *d and not *dh) or *senhádhrá-. The latter form might also underlie Germanic. The limited distribution suggests at best a dialectal term and perhaps a loanword.


See also DEW, METAL; RAIN, RIVER.

Further Reading

WHEAT

*púhrós ‘wheat (Triticum sp.). [IEW 850 (*pú-ro-‘), Wat 53 (*pú-ro-‘), GI 566 (*pú*‘), Buck 8:43]. OPrus pure ‘bromegrass (Bromus secalinus)’, Lith purá ‘winter-wheat’, Latv pār ‘winter-wheat’, OCS pyro ‘wheat, millet’, Rus pyrej ‘couch grass (Agropyrum [= Triticeum] repens)’, Czech pyr ‘couch grass’, Slow pír-spel, Grk πυρός ‘wheat’, πυρύς ‘(stone of) a fruit’. OFRS fyr ‘furze’ (> NE furze) is rejected both on account of its meaning ‘furze’ rather than ‘couch grass’ and its short rather than long vowel, i.e., < *pyrei-. A word limited to the center of the IE world; probably late. It may be that we have a derivative of *pieh-tw-strike (down)‘, but only in Baltic does the latter come to have any agricultural meaning, namely ‘mow (grass)‘. Another possibility is that we have here a derivative of *peuh-t ‘purify’ as ± that which is winnowed or the like. One might compare Lat triticum ‘wheat’ from teró ‘rub, thresh’, Olr cruthnecht ‘wheat’ (< *red stuff for winnowing), or OCS píšenca ‘wheat’ (< *[g]rain for grinding’.

*sepit ‘wheat’. Hit-sepiti ‘wheat’. Perhaps a PIE word though no known cognates exist outside of Hittite. The suffix -i is an unproductive one of PIE age, existing otherwise only in *měiht ‘honey’ and *hel bh ‘barley’. It is hard to see how such a word was formed any later than PIE times.

*ga:ondh- ‘wheat’. Hit kant- ‘(einkorn-)wheat’, Av ganunanta- ‘wheat’, NFers gandum ‘wheat’, Baluchi gandim (< *gandoma-) ‘wheat’, Khot ganama (< *gandama-) ‘wheat’, Olrd godhúma- ‘wheat’, TochB kant- (< *godhu-r-?) ‘bread’. The Old Indic form is the result of folk-etymological re-analysis into go- + dhúma- ‘cow-smoke’ but the differing forms this word takes in Iranian suggests, perhaps, borrowing rather than inheritance. On the other hand, arguing for inheritance might be the apparent derivational seen in the Tocharian B word for ‘bread’. Thus it is possible we have a PIE word for ‘wheat’ attested on the southern and eastern peripheries of the IE world or, as is more usually assumed, a Near Eastern cultural borrowing from some unknown source.
The Archaeological Evidence

The native distribution of wild wheats generally comprised the territory from southeast Europe across Turkey and as far east as Iran (or, in the case of bread wheats, into Central Asia and Afghanistan). Wild wheats occur on Near Eastern sites by the tenth millennium BC and domestic wheat is claimed in Syria by c 9000 BC. It also occurs on early Neolithic sites in Turkey and across Europe where it is found in Ireland and Scandinavia by c 4000-3500 BC. It is known in Neolithic and Eneolithic cultures along the Dnieper, e.g., the Dnieper-Donets and Sredny Stog cultures, as well as the Bronze Age steppe cultures and it is known in the Caucasus since the Neolithic. From the beginnings of the Neolithic it is also found on sites both in and adjacent to India. Consequently, it is conceivable that the earliest Indo-Europeans did not possess a word for ‘wheat’.

The absence of a clear, widespread cognate term for ‘wheat’ in IE is remarkable in that, like barley, it represents the earliest and most important of domestic cereals (today it is the primary domestic cereal and accounts for 20% of the world’s caloric intake). As the most valuable cereal in terms of nutrition and one that could be prepared in a variety of different ways, it was also generally the preferred food of consumption. The genus *Triticum* is now generally divided into a number of different species, all of which saw early domestication. Like barley, cultivated wheats can be divided into hulled and free-threshing varieties. The hulled varieties retain the pales on the kernel after threshing and required pounding in order to separate the pales from the grain itself. The free-threshing or naked wheats can simply be winnowed after threshing in order to recover the kernels as the pales and glumes will have fallen away. Such distinctions were marked enough that different names were employed for the different classes of wheat in antiquity. Moreover, the cultivated wheats most widely found in the archaeological record included a number of different species. *Triticum monococcum* (einkorn wheat) commonly produced one grain per spikelet and is the earliest of the domesticated wheats. *Triticum turgidum* comprises a number of different wheats, formerly divided into different species. These include emmer and durum wheat. Emmer wheat was generally the principal crop on most wheat assemblages in both southwest Asia and Europe during the Neolithic but it did exist alongside einkorn. A crossing of the domesticated *Triticum turgidum* with the wild cereal *Aegilops squarrosa* produced the primary wheat of today, the bread wheat (*Triticum aestivum*). The two would have encountered each other as domestic wheats moved into the Caspian and the domesticated bread wheats are found from the fifth millennium BC in the Caucasus and north of the Black Sea and then through the later Neolithic through central and northern Europe. Early IE communities would, therefore, have known a wide variety of wheats (today there are over 17,000 different varieties) and one might presume that they had several names for the various types of early wheats. It is possible that names for some of these varieties are presently concealed under some of our reconstructed terms for ‘grain’. See also Agriculture, Barley, Grain, Plants. [D.Q.A., J.P.M.]

**WHEAT**

- *k*\(^w\)ek\(^w\)l\(om\) (pl. *k*\(^w\)ek\(^w\)l\(eh\)) = *k*\(^w\)ok\(^k\)los ‘wheel’ [IEW 640 (*k*\(^w\)ek\(^w\)lo-); Wat 33 (*k*\(^w\)(e)-\(k\)\(^w\)l-\(oh-\)]; GI 622 (*k*\(^w\)ok\(^k\)olo-); Buck 10 76; BK 317 (*k*\(^w\)j\(b\)ul-\(l\)\(o\)\(k\)\(^w\)lo-]. From *k*\(^w\)ek\(^w\)l\(om\) ON hwel ‘wheel’, OE hweolh ~ hwel ‘wheel’ (> Ne wheel), hwecgel ‘wheel’, MHG wel ‘wheel’, MDutch wiel ‘wheel’ (Gmc shows evidence of both *k*\(^w\)ek\(^w\)l\(om\) and *k*\(^w\)ek\(^w\)l\(om\), the latter with the stress on the first syllable on the analogy of the original plural). Phryg k\(x\)\(k\)l\(o\)\(x\)\(l\)\(e\)\(x\)l\(e\)\(x\)l\(e\)l\(e\)’Ursa Major’ (i.e., ‘the chariot’), Av \(c\)\(z\)\(x\)\(x\)\(a\)‘wheel’; OIr \(c\)\(a\)\(k\)\(r\)\(a\)‘wheel; sun disc’; from *k*\(^w\)ok\(^k\)los Grk \(k\)\(\k\)\(u\)\(k\)\(l\)\(a\)\(x\) (pl. \(k\)\(x\)\(u\)\(k\)\(a\)\(l\)\(a\)\(l\)\(a\)’wheel; circle, cycle’ (< *k*\(^w\)ok\(^k\)los), Toch\(A\) \(k\)\(u\)\(k\)\(a\) ‘wagon’, Toch\(B\) \(k\)\(o\)\(k\)\(a\) \(‘wagon’ (Toch < *k*\(^w\)ok\(^k\)los). kokal-p\(a\)nta ~ wagon-master (kokale + panta- ~ he of the way) from a putative PIE *p\(\theta\)th2-eh\(r\) (cf. *p\(\omega\)th2-\(s\)2 ‘way, path’). Both *k*\(^w\)ek\(^w\)l\(om\) (pl. *k*\(^w\)ek\(^w\)l\(eh\))—less likely is the paradigm *k*\(^w\)ek\(^w\)l\(om\), pl. *k*\(^w\)ek\(^w\)l\(eh\)2—and *k*\(^w\)ok\(^k\)los appear by their distribution to be early in PIE; the latter is perhaps originally a derivative of the former. From *k*\(e\)l- ‘turn’, i.e., ‘the turner’. Formally very similar are Baltic words meaning ‘neck’ (also < ‘the turner’): Lith k\(a\)\(k\)\(a\)\(s\) ‘neck’, Latv k\(a\)k\(a\) ‘neck’, and the Lat pop\(l\)es ‘back of the knee’. However, the semantic disparities suggest that these latter forms are independent creations. Also semantically closely related, though morphologically different, are (1) *k*\(^w\)ol\(os\) in OIr cal ‘wagon’ (< *k*\(^w\)ol\(o\)\(l\)\(o\)\(d\)\(u\)al), Grk n\(o\)\(l\)\(a\)\(s\) ‘axis of the celestial sphere’, Toch\(B\) kele ‘navel; center’ (< *hub’), (2) *k*\(^w\)ole\(x\) in OCS k\(o\)\(l\)\(o\)\(l\)e\(x\) ‘wagon’ (< *k*\(^w\)ole\(s\)); and (3) *k*\(^w\)el\(o\)m in ON hwel ‘wheel’, OP\(\nu\)rus kel\(a\) ‘wheel’. The original dual in Old Irish suggests that the primary referent was a two-wheeled cart.

- *h\(y\)\(w\)\(r\)\(g\)\(b\)\(h\)\(g\)\(h\) ‘wheel’. [GI 623 (*Hwergh\(h\)]; Puhvel 3: 339-400. Hit hurk\(i\) ‘wheel’ (cf. [acc. pl.] + hurku ‘the Four Wheels’ [i.e., part of ‘Ursa Major’]), Toch\(A\) war\(k\)\(a\)nt ‘wheel’, Toch\(B\) yer\(k\)\(w\)\(k\)\(a\)nt ‘wheel’ (Toch < *h\(y\)\(w\)\(r\)\(g\)\(b\)\(h\)\(g\)\(h\)–upto–on– or *h\(y\)\(w\)\(r\)\(g\)\(b\)\(h\)\(g\)\(h\)–y\(g\)\(h\)\(i\)–upto–on– having a wheel-shape’). Toch\(A\) shows dissimilatory loss of the second *w*-while Toch\(B\) shows an inner-Tocharian lengthened grade in the first syllable or Tocharian A shows sporadic but paralleled shortening of the first syllable). Compare also Toch\(B\) yer\(t\)er ‘wheelrim, felloe’ < *h\(y\)\(w\)\(y\)\(e\)rg–tor–, an agent noun from the same *h\(y\)\(w\)\(y\)\(e\)rg–turn’.

- *d\(r\)\(h\)\(o\)\(g\)\(h\)\(o\)\(s\) ‘wheel’. [IEW 273 (*d\(r\)\(h\)\(o\)\(g\)\(h\)\(h\)g\)]; Buck 10 46, 10 76; BK 84 (*dar–*dar–). OIr droch ‘wheel’, Grk t\(o\)\(p\)\(o\)\(s\) ‘wheel’, Arm d\(a\)\(r\)\(g\) (c *d\(r\)\(h\)\(o\)\(g\)\(h\)\(h\)g–, with metathesis in the first syllable) potter’s wheel. From *d\(r\)\(h\)\(o\)\(g\)– run’. Perhaps independent derivatives in Celtic and Greek. However, the apparent secondary derivative in Armenian may be evidence for a greater antiquity of this whole group in PIE.

- *ro\(\(\theta\)\(o\)\(t\)h\(o\)\(h\) ‘wheel’. [IEW 866 (*ro\(\(\theta\)\(o\)\(t\)h\(o\)h–)]; Wat 54 (*ret–), GI 622 (*ro\(\(\theta\)\(o\)h–); Buck 10 76. OIr roth ‘wheel, circle’, Wels rh\(o\)d ‘wheel’, Lat rota ‘wheel, wagon’, OHG rad ‘wheel’, Lith
The earliest wheels employed in locomotion (there are also clay discs which have been variously interpreted as models of wheels or spindle-whorls) are tripartite disc wheels. These would be massive block wheels formed usually from three large planks which would be fastened together by mortise and tenon. The exterior shape would be cut into a circle while a nave would be cut out of the middle. Generally, the round nave indicates that it is the wheel rather than the axle that rotates, i.e., a fixed axle; in some areas of Europe the archaeological record shows rectangular naves, suggesting that the axle rotated as well. The earliest wheels in the steppe-land regions measured from 45 to 80 cm in diameter.

See also Axle, Run, Tool, Turn, Wagon [D.Q.A., J.P.M.]

Further Reading

WHITE

**Kohnyrous** ~ **Kohnyin** 'whetstone, hone'. [IEW 541–542 (*Ko:no-); Wat 32 (*ko:)]. From **Kohnyon**. NPs *san 'hone', OHG *sana- (with Middle Indic -n- for expected *-n-) 'whetstone, hone', TochB *rak *t 'sharpen' (if < *rakani-es-chi) (Gk kóivos 'pine-cone, cone', usually put here is rather from *Rósinos and a derivative of *Kós 'pine'), from **Kohin** in ON hein 'hone', OE hein 'hore' > NE hone', Av saéni 'point', yet another formation is to be seen in Lat cós (gen. cótis) 'whetstone'. These formations are all dialectally limited but they attest the existence of a secure PIE **Kehi:0**. 'sharpen, hone' (preserved as a verb only in OHG sihát - sáhtis 'sharpen', whes').

The use of a stone for sharpening would extend well back into the Palaeolithic where stones might be employed in sharpening wood, bone or antler points. Stones might also be employed for polishing surfaces by grinding them down, a practice which is attested at least as early as the Mesolithic and was in massive use in the Neolithic with the appearance of the polished stone ax. With the arrival of metals we find our earliest whetstones or hones (some make the distinction as to whether the object being sharpened is large, such as an ax, or small, such as a razor) from at least the third millennium BC onwards.

See also Knife, Sharp, Tool [D.Q.A., J.P.M.]

WHITE

**h2erg-** ~ **h2erg-es** 'white'; **h2erg-qt-om** 'silver'. [IEW 64–65 (*arit-ij-); Wat 3 (*arg-); Gl 617 (*Har-1); Buck 9.65, 15.64; BK 403 (*har-ak/*-har-ak-)*]. Orl argat 'silver', Wels arian 'silver' (< Proto-Celt *h2erg-qt-om), Lat argentum ( < *h2erg-qt-om) 'silver', Grk ἀργύρος 'silver', ἀργη 'white'. Arm arcat 'silver', Hit harkis 'white', Av arzatam 'silver', OPers ardata- 'silver' ( < *h2erg-qt-om; zero-grade based on the adjective), OInd árju-na- (full-grade based on 'silver') 'light, white', TochA árki 'white', TochB árkiw 'white' ( < *h2ergu-hjen). This is the clearest root for 'white' which possessed a zero-grade u-stem and s-stem adjectives and a full-grade derivative noun for 'silver'. These forms have mutually influenced each other. The root is widely attested and attributable to PIE.

**hēlbiōs** 'white'. [IEW 30 (*albho-); Wat 2 (*albo-); Gl 685 (*albo-); BK 467 (*hal-/**hal-)]. Lat albus ( < *hel-bho- 'white', Umb allo- 'white', OHG albi 'swan', OCS lebedi 'swan', Grk ἀλβος ( < *hēl-bho-) 'white leprosy, Hit alpa- cloud'). Cl. also OPrus alvis 'lead', Lith alvis 'tin', Rus olavo 'tin' ( < 'white metal'). Widespread and old in IE.

**bhelhiw** 'white'. [IEW 118–120 (*bhel-), 160 (bhel-uo-s), Wat 6 (*bhel-); BK 15 (*hal-/**hal-)]. From *bholhios Wels bal 'white-faced', NE ball 'horse with white blaze', Goth bala(n)- 'shining, gray of body' (said of horses and only attested in Latin writers), Lith balas 'white', Latv bals 'pale', Alb balle 'forehead', from *bhihlos Grk ἁλάς 'white', Arm bal 'pallor', from *bhihlos OE bal 'fire', OCS běla 'white', Rus beli 'white', OHG bıio 'gleam, forehead'. The pair *bholhios and *bhihlos may suggest an older paradigm *bholhiw, gen *bholhus. Other formations are seen in Lith balta(s) 'white', Latv bals 'white' ( < *bholh-1-to), OPrus balo 'forehead', Alb balash 'a horse with a white spot on its forehead', bal 'having a white spot on the forehead (said of horse and sheep)' ( < *bholhiw-1-0? [h-ash]). Lat lúvus ( < *bhihlyus) 'blond', lúrus ( < *bhihly- so) 'bright, gleaming (of flowers)' (if this is not simply a thematic derivative of lūs 'flower'), ON blár 'blue', OHG blau 'blue' (Gmc < *blihly-1-0). The underlying verb is apparently preserved in Lith balti 'grow white, pale'. Widespread and old in IE.

**Kueitis** ~ **Kuitros** 'white'. [IEW 628–629 (*kuei-); Wat 33 (*kwei-); Buck 15.64]. On hvitr 'white', OE hvitt 'white' ( > NE white), OHG (h)vitz 'white', Goth hvit 'white'. Lith švitrās 'bright', OCS svět 'light', Av spaeta- 'white', Olnd svētā 'white, bright'. Widespread and old in IE.

**plhj** 'dull white, pale'. [IEW 804–805 (pel-); Wat 48 (pel-)]. Mtr liith 'gray', Wels llwyd 'gray', Lat pallidus ( < *plhj-no-do) 'pale', ON ful 'fallow, dun', OE fela 'fallow, dun' ( > NE fallow), OHG falo 'fallow, dun' (Gmc < Proto-
WHITE

Gmc *falwa-), Lith pilkas 'gray', palvas 'pale yellow', OCS plavá 'white', Alb plak 'old man', Grk παλίντης 'gray', σκολιός 'gray', Arm alik 'white', Av pournasa 'gray', OInd palita- 'gray'. Distribution indicates PIE status for this word that denotes a paler shade of white.

*bhrødhnás 'pale'. [cf. IEW 136 (*bher-)]. OCS broní 'white, variegated', Rus brón 'white, variegated', OInd bradhna- 'pale red, yellowish, bay'. A word of the center and east of the IE world.

See also COLOR; LIGHT; SHINE; SILVER. [M.E.H., D.Q.A.I

WHOLE see HEALTHY

WIDOW

*yudheyeðu- 'widow'. [IEW 1127-1128 (*yudhēyā); Wat 74 (*with-e-wo-); Gl 661-662 (*widheu-); Buck 2.76; Szm 23]. OIr fedb 'widow', Wels gedwed 'widowed', Lat vidua 'widow', OE wiðewe 'widow' (> NE widow), OHG wituwa 'widow', Goth wiðuwa 'widow', OPrus widuwe 'widow'. The widest distribution of this word insures its PIE status.

The widow's paramount status is assured by the wealth of cognates from Celtic to Indo-Iranian. It is commonly derived from a root *yudh- 'to be separated' (the same source as found in NE woods from their function as boundaries and perhaps extrapolated from a compound *ui-dh(e)h1: 'put apart') as seen in Lat dividó 'I divide' (< *dis-ui-dhēh-e-0-), TochAB wak- 'separate, distinguish, decide' (< *ui-dhēh1-skē-e-0-), OInd vidhā- 'distribute, apportion, bestow'.

Although we can reconstruct a word for 'widow' to PIE, there is no corresponding word for 'widower', which is normally derived from the feminine form. It has been argued that as a man might have had more than one wife or was free to marry again, he would not likely remain in an unmarried state long nor did a male having been widowed describe any particular legal position. The existence of a word for 'widow', on the other hand, suggests that after the death of her husband, a woman did occupy a particular status (and contrary to popular belief, she often survived her husband and was not required to commit suttee). There is no reason also to presume that she did not have the option to marry again. As the plight of Pénélopē in the Odyssey indicates, she might be inducted by suitors; similarly, the early Indians recognized bridal self-choice (swayamvara) where a widowed woman might invite suitors and, perhaps after a contest (cf. again the contest of the bow in the Odyssey), announce her own choice.

See also CONCUBINE; KINSHIP; MARRIAGE; WIFE; WOMAN. [M.E.H.]

WIFE

*pottuhr- 'wife'. [IEW 842 (*potni); cf. Wat 52-53 (*poti-); Gl 661 (*pothren); Buck 2.32; Szm 22.3; Wordick 197]. OPrus wais-pattin 'wife, mistress', Lith viešpatnė 'wife', Alb zonje (*dzo-ptni < *witsā-patinā) 'mistress of the house', Grk πότνια 'mistress', Myc po-tn-ja- 'lady, wife', Av pātī- 'mistress', OInd pātī- 'mistress, wife'. At least a word of the center and east of the IE world.

*prihēhē- 'wife'. [IEW 844 (*pri-); Wat 53 (*pri-); Szm 31.2]. On Frigg (wife of Öðinn), OE frige 'wife', OHG Friga (wife of Wotan), Av friya- 'dear, own', OInd priya- 'spouse'. From *prihē- 'be pleasing, one's own' which, some argue, is derived from *per- 'house' (< *perhēr-; Luv parma 'house'. While the derivatives are of PIE status, the specific semantic correspondences could well have developed independently in the various stocks.

*sulogD 'bed-fellow' = 'wife'. [IEW 658-659; Buck 2.32]. SerbCS suloqu 'wife', Grk ἀλωγος 'bed-fellow, spouse'. A word at least of the center of the IE world.

Terms for 'husband' and 'wife' often reflect the general Indo-European terms 'man' and 'woman', but the terms *pōtis and *pōtnihr- 'lord' and 'lady' seem to have functioned in this sense more than any other forms, although when combined with the feminine noun *uk-, settlement, homestead' the terms come to assume a quasi-political sense. It is perhaps significant that *pōtis does have a persistent feminine counterpart in the form *pōtnih, with a non-productive feminine suffix *-nih-. An Albanian derivative of this word, zonje, often mistakenly related to the word for woman, *gënh, signifies the mistress of the extended family and usually refers to the wife of the lord but to his mother! If this situation obtained in IE times, a term for 'married woman' was perhaps common to this day. Other terms for wife are based on the common roots *prihē- 'love, desire' and the root *h₂u- 'lead (in marriage)' which also reflect the status of females in a society practicing virilocal post-marital residence. However, the oft-repeated assertions that IE society was "patriarchal" need to be qualified in light of the evidence that some provisions were made for female roles in the family that did not derive from their marital status alone.

See also CONCUBINE; KINSHIP; MARRIAGE; WIFE; WOMAN. [M.E.H.]

WILD (GOD)

*rudlos 'the renderer, one who tears apart'. [IEW 869 (*rud-lo-)]. Lat rullus (< *rudlo-) 'rustic, boorish', Rullus (personal name), OInd Rudra- (name of a god). From *rudh-, 'rend'. This equation is open to challenge in that the name of the Old Indic deity has been also variously explained as the 'howler', e.g., Lat rudere 'howl', Rus rušdat 'cry', OInd roḍiti 'cry', or 'heaven' or 'earth' as suggested in the dual compound OInd rōdast 'heaven and earth'. In Vedic mythology, Rudra is represented as the wild one, associated with chaos, and as an archer firing placque, cf. the Greek Apollo who 'shoots' placque into the Greek forces who have offended his priest. The Vedic
god has been identified with Śvra; alternatively he has been claimed to be the deity of the storm, of the mountains and forests (i.e., the wild lands), the hot season, the leader of dead souls, the divine shepherd, the lord of procreation, vegetation, and fertility. Essentially he seems to be the divinity of wild nature, dangerous, unpredictable, unbound and frightening. Although he has structural similarities with other deities in other IE stocks, there are no grounds for postulating a PIE deity here on purely lexical grounds. Recently, K. Witzczak has also proposed that ORus (Novgorod) Rāglā (< Proto-Slav *rādlā) (a particular god) be put here which would provide a phonological match but, unfortunately, all we have is the name and no attributes by which it might be associated with Rudra.

See also Medical God. [E.C.P]

Further Readings

WILLOW

*sal(ik)*- (tree) willow (Salix spp.). [IEW 879 (*sal(ik)*); Wat 56 (*sal(ik)*); GI 539–540 (*sol(e)lik*); Fried 53–57]. OIr sal (gen. salech) ‘willow’, Wels helgy(en) ‘willow’, Lat salix (gen. salicis) ‘willow’, ON selja (*salkjōn*) ‘willow’, OE sealh ‘willow’, OHG salaha ‘willow’ (OE/OHG < *salko/eh2*). A word of the west of the IE world but it may be associated with the next entry.

*veliko‘eh2* willow (Salix spp.). [IEW 1140–1141 (*velica*); cf. Wat 75 (*wel-*); GI 540, Fried 53–57]. OE velig ‘willow’ (> NE willow), Myc e-ri-ka ‘willow’, Grk ἕλιξ ‘willow’. A word of the west and center of the IE world which may have crossed with *sal(ik)*-..e.g., *salk-* > *sal(ik)-after *velic*.


The first name *salik-* was presumably used for the tree willows and is attested in three western stocks, in all cases denoting ‘willow’. These are probably cognate with the second set of forms built on *veliko‘eh2*-, e.g., OE welyg ‘willow’; the alternation of sw- (reflected in Greek aspiration), s-, and w-occurs irregularly elsewhere. The PIE *salik-* may be supported by Anatolian, that is, Hittite words for ‘meadow’ (*wellā* and ‘grass’ (*welku*), and one might note the willow’s preference for moist meadows and similarities between bush willows, some willow leaves, and tall steppe grasses, but all this remains speculative.

The third ‘willow’ name, *veit-, probably used for the bush or osier willows, is one of the most widely attested in the PIE lexicon as it is found in nine stocks. In seven of these, the reference is not only to the tree but, by metonymic extension, to withies and diverse objects made from them, notably the felloe (the rim around the wheel beneath the tire). For example, OInd vētas- and Av vaētī- both refer to ‘willow’ and ‘switch’ and in two other stocks, Latin and Greek, obviously related words serve for ‘willow’ and ‘felloe’ (Lat vitis and Late Lat vitus). The willow thus represents an intersection between the arboreal semantics and the semantics of technology; particularly one of its best attested parts—the wagon or chariot. Both the main willow names seem to be related to basic verbal roots for ‘bend, twist, wind’ (*selk- and *veit-). Moreover, an additional weakly attested willow name, *urf- (Lat [pl.] verbēra ‘lash’, Rus vērba ‘osier’), may be derived from yet another verbal root for ‘bend’ and ‘twist’, *yret-.

The willow is a moisture-loving tree found all over Eurasia, particularly along the banks of rivers and streams. In quantity, it was one of the first trees to occupy northern Europe after the retreat of the ice sheets but with the rise of forests, the willow retreated through time from southern Europe although it was still present as a very small part of the overall pollen rain. Botanically, the willows dichotomize into bush willows (e.g., the golden, purple and pussy willows) and the tree willows, which range from six to well over thirty meters in height. Technologically, willow shoots, wood and bark lend themselves excellently to making baskets, fences, felteles and many other artifacts. Taxonomically, one finds a strong tendency for speakers to subdivide the willows; in Russian folk speech, for example, about seven kinds of willows are designated by at least twenty-one names. In light of this, it is hardly surprising that the willow, like many other kinds of trees, has two strongly attested names that variously complement each other, e.g., the contrast in the Germanic and Greek areas.

See also Bend, Textile Preparation, Trees, Wind2 [PF]

WIND1

*h2uehju:s* wind’. [IEW 83 (*ue*).] Lith vėjas ‘wind’, Av vāyu- ‘wind’, OInd vāyu- ‘wind’. Whether the Lithuanian form replaced an older *vēju-* is quite uncertain, the form could well be recent, cf. OCS vējo ‘blow (of the wind)’. The Indo-Iranian form, however, could well date from PIE times as it is also the name of a god, i.e., the Vedic Vāyu.

WIND

*"h2y-ehl* -'wind'. [IEW 82 (*ay(e)-), GI 584 (*Hw-)]. Wels awel 'wind, breath', Grk ἀέλα ('*afel-ya') 'storm'. If the two forms are cognate, they cannot be derived from *h2y-ehl* (beside *h2y-ehl*- 'to blow'). Welsh requires a full grade *h2yehl*-but *h2yehl-1* is not known from *h2yehl-1*. The forms may thus be unrelated.

*(s)keh1(y)(e)r(1) - *(s)kah1(y)(e)r(1) -'north wind'. [IEW 597 (*kēwero-), Wat 31 (*kēwero-)]. Lat carus 'north wind', ON skár 'storm', OE scér 'shower' (> NE shower), OHG scér 'storm', Goth skāra (winds)/'whirl(wind)', Lith šują 'north wind', šūtas 'cold, northern', OCS севе́ра 'north', SC севе́р 'north', Arm սուր 'cold, shower'. Although sometimes taken here, Olr սուր 'bad weather' does not exist. Accentuation in Lithuanian and Serbo-Croatian indicate a laryngeal (< *keh1(y)u-). The Latin form must therefore derive from *Rkiwere-. The different formations and ablaut point to an old r-stem. We find *keh1(y)er (Slavic). *keh1(y)ur (Lith šgiatan). *Rkiwer (Lat), and *kēh1(y)r- (> *kūh1r-) Lith šūtas, for *šūtras, (German, Armenian). Hence the underlying paradigm is (nom.) *Rk1h1-ur (*keh1-yør, (acc.) *Rk1-ur-ı (gen.) *Rk1-ur-ıš). Germanic and Armenian have *s-. Distribution suggests at least a word of the west and center of the IE world.

See also BLOW. [R.S.P.B.]

WIND²

*sper- 'wrap around'. [IEW 991-992 (*sper-); Wat 63 (*sper-)]. Lith spartas 'band, ribbon', Grk σπείρω (linen) cloth, wrapper, garment; sail cloth, canvass, σπείρα 'coils; (pl.) twists and coils of net', σπάρων rope, cable, σπέρω 'a kind of broom plant used for making ropes and cords', Arm p'arem 'enclose, surround'. Not widely attested but well enough so that we probably have a (late) PIE word, perhaps geographically limited to certain "central" dialects.

*(s)pren-ge (Gmc *brenk-)-'wrap up, construct'. [IEW 992 (*sperge-)]. Lith springsū 'choke, become choked or obstructed', Latv sprāgā 'cord, construct', perhaps Grk σπάρων 'swathe in swaddling clothes', σπάργα (pl.) 'swaddling clothes', without the "s-" we have MHG phrengen 'oppress', TochAB prank- 'restrain oneself, hold back'. These words would all appear to belong together, despite the lack of an exact phonological match. Perhaps a "popular" word subject to a certain amount of phonological deformation. Probably of late PIE status.

*vei- 'twist, wind around'. [IEW 1133-1134 (*vei-); Wat 74 (*vei-)]. OE wär 'seaweed' (> NE ware), Lith višulas 'whirlwind, heavy gale', vėstas 'corset', vėstytį 'swaddle, swathe', Latv viests 'bundle', Rus vikh(o)r/"whirlwind", Arm gi 'juniper', Olnd veša 'dress, garb', veštytę 'twines about'. Largely, but not exclusively, eastern in distribution, related to *vei(h)b- 'plait, wattle'. Certainly (late) PIE in date. See also TURN; WILLOW; WINE. [D.Q.A.]

WINE

*vw(h)nom (< *vw(h)nom) ~ *uw(h)nom 'wine'. [IEW 1121 (*w(h)-); cf. Wat 73 (*vinum); GI 557-564 (*w(e)o)lno-]. Buck 5.92. Lat vinum (< *uw(h)nom?) 'wine', Alb (Tosk) verë (< *w(e)o)lmëh-) (Gheg vëne) 'wine', Myc w-o-no'wine', Grk ὑπὸ 'wine', Arm γιν (,< *voin(h)-) or *voin(h)-) 'wine', Hit wiyana- 'wine', Luv wim-ya- 'pertaining to wine', Hierl uv-ya-ana- 'wine' (Proto-Anat *uyyana-). Similar forms in Germanic (e.g., OE win (> NE wine), OHG win, Goth wein 'wine') and Slavic (OCS vino, Rus vino 'wine') are generally taken as loans from Latin vinum although Gamkrelidze and Ivanov have suggested that these are actually cognate with the forms of the other stocks. The presence in Old Church Slavonic of a derived word vinjaga 'grape' (whose second part -jaga 'fruit' is found in this shape only here) would strengthen the case for inheritance rather than borrowing. The Latin form is also generally regarded as the source of the Celtic words for 'wine', i.e., OIr fin, Wels gwin although here too GI suggests that a lengthened zero-grade *uina- might explain the Celtic forms (and also the Baltic, Lith vynas 'wine', Latv vīns 'wine', though these may also be loanwords from Slavic and/or Germanic). In any event, this word is thoroughly IE in appearance and plausibly connected with *weι(h)w- 'twist, wind' (cf. Lat vitis 'wine'). The two forms, *uwpnom and *uw(h)nom, would be regular neuter derivatives (whose gender is expected in Proto-Indo-European for fruits and berries and similar edible plant products) of *uw(h)en 'grapevine', preserved in Grk (Hesychius) ἱππα 'grapevine' (where Hesychius' spelling is usually taken to represent *vivjy). The fact that the shape of this word bears such a close resemblance to that of Near Eastern words for 'wine', e.g., Hattic wēnu- 'wine', Arabic waḥm, Hebrew yayin and that this region is likely to have originated wine production has traditionally thrown the IE correspondences into some doubt although it has also been maintained that the Semitic designations could be derived from an IE source.

*tris- 'wine'. [IEW 1096 (*tris-)]. SC tris (< *tris-), 'grapevine, reed', Alb trishe (< *trishe2) 'offshoot, suckling, sapling', Grk (Hesychius) θυπαια (< *tris舅h2) 'vineyard' (in Crete). SC tris 'reed' is a different word; the fact that Proto-Slavic shows *tris- rather than the expected *tris- (with backing of original *-s- after *-r-, *-u-, *-s-) may suggest a borrowing from some more western IE stock. Known only in the center of the IE world.

The Archaeological Evidence

The domestic grape vine (Vitis vinifera) is derived from Vitis vinifera subsp. sylvestris which, although it possesses smaller and acidic berries, is still capable of being fermented into wine. The distribution of the wild vine would seem to extend across the Mediterranean from Iberia, south France, Italy and Greece, across both the northern and southern shores of Turkey, the Caucasus and beyond the Caspian Sea. Northwards the wild grape can also be found in the southern Ukraine (especially the Crimea) and up the Danube. Finds of sylvestris in European Neolithic sites are by no means rare and they have been uncovered in late Neolithic/early Bronze Age Iberia, in the Mesolithic and later in southern France, Italy and Greece, Neolithic Yugoslavia, and Neolithic Turkey.
During the Neolithic period further north they have been encountered in the Swiss lake-side dwellings, Neolithic Germany, late Neolithic/early Bronze Age Romania, late Neolithic Moldova (middle and late Tripolye culture). The furthest north grape pips have been discovered in the Neolithic is southern Britain and more surprisingly, a number of impressions of grape pips have been found on Neolithic potsherds from Sweden which would date to c 4000 BC. It might be noted that at this time the average summer temperature in Sweden was 2.5°C higher than today.

The identification of the domestic vine can be difficult and the date of its earliest attestation is disputed. There does seem to be a consensus that domestic grapes had already appeared as early as the early Bronze Age in the east Mediterranean, i.e., by c 3500–3000 BC. On the basis of length to breadth ratios of recovered grape pips, it has been suggested that the domestic vine appeared in Greece as early as the late Neolithic, i.e., c 4300–2800 BC, and the discovery of grape pips outside of their natural range in the Levant has suggested domestication as early as c 4500–4000 BC. The domestic grape was certainly present in Turkey (Troy), Crete and Greece in the range c 3000–2000 BC, including Macedonia where domestic grapes are identified before 2000 BC. The spread of the domestic grape from the east Mediterranean westwards would appear to have been slow and the earliest appearance of domestic grapes (pips) in Italy is c 900 BC and they are generally thought to have reached the west Mediterranean through the Greek and Phoenician colonies (although an independent origin in the west Mediterranean has also been suggested) from whence they passed northwards to the Celts who especially prized both wine and the special serving sets and vessels employed in the consumption of wine during the Iron Age. The vine also appears in domesticated form quite early in Baluchistan where there is evidence by the third millennium BC and at the same time in India.

As wine can be manufactured from the wild grape, the reconstructed lexeme need not presuppose that the early Indo-Europeans who possessed this word knew the domestic grape although the latter is possible. The earliest evidence for wine, identified through the presence of tartaric acid as a residue in a ceramic vessel, has been recovered from a Neolithic site in the northern Zagros (Hajji Firuz Tepe, Iran) and dated to c 5400–5000 BC. The earliest traces of tartaric acid prior to this discovery were from a vessel at Godin Tepe, Iran, that dated c 3500–2900 BC. From the known distribution of the wild grape and the domesticated grape, it would seem that if the lexeme reconstructed to PIE indicated the wild variety, it has neither chronological nor diachronically useful geographical implications for the location of the earliest Indo-Europeans other than relegating a north European origin less likely. If the original sememe is to be reconstructed ‘wine (< *domestic grape)’ then there is no solid evidence for the referent of the underlying meaning earlier than the fifth millennium BC when the domestic grape first appears in the eastern Mediterranean,
WINE

anywhere between Greece and the Levant. Since wine both could and was made from the wild grape, there is an almost endless number of ways that a word for it might have been inherited or borrowed between different IE languages depending on their prehistoric distribution.

See also FERMENT; SACRED DRINK. [D.Q.A.J.P.M.]

Further Readings

WINNOW

*pet(e)n- -- *pet(e)n- 'wing, feather'. [IEW 826 (*pet-); Gl 455 (*pet<er<)h)] . BK 45 (*petn<at<); BK 35 (*petn<at<). OIr ém 'bird', O'Wels eterin 'bird', Wels edn 'bird', Lat penna (< *pet-n- 'feather', ON fjôðr 'feather', OE flód 'feather' (> NE feather), OHG fela 'feather', Grk πεταόν 'wing', Arm t'irás in t'ānīm 'fly', Hit pittar - pattr 'wing'. With the Anatolian cognate, PIE status is assured. From *pet- 'fly'.

*pomór- wing, feather'. [IEW 850 (*por-no-)]. OE fearn 'fem' (> NE fern), OHG farn 'fem', Lith šparnas 'wing', Latv špara 'wing', Av parzno- 'feather', OInd parna- 'feather'. Cf. OCS pera 'feather', TochB (pl.) parwa 'leathers'. See also BIRD; FEATHER. [J.A.C.G.]

WINTER see SEASONS

WIFE

*h3merg- 'wipe off' (pres. *h3myŋnět). [IEW 738 (*merg-); cf. Gl 94-95 (*me(r)k)]. Grk ἀμπεργεῖα 'wipe off', AV marazitai - marazitai 'strokes', OInd mŋkati - mŋkati 'wipes off, purifies'. Though attested only in Indo-Iranian and Greek the exactness of the morphological match, and the archaic present formation that is recoverable, would seem to assure its (late) PIE status.

See also MILK. [D.Q.A.]

WITH

*kom (mat) 'with, side by side'. [IEW 612-613 (*kom); Wat 32 (*kom); BK 256 (*kam<am>/*kam<am>). OIr com- 'with', Wels cyf- 'with', Lat cum 'with', ON g- (verbal prefix), OE ge- (verbal prefix), OHG gä- (verbal prefix), Goth ga- (verbal prefix) (Gmc < *ko- where PIE *k- has given -g- in this unstressed syllable), OCS kó 'toward', Grk κορώ 'together', in common' (if < *kom-), OInd kam 'toward'. Old in IE.

*sékʰ-o- 'following'. [IEW 896-897 (*sekʰ-o-), Wat 57 (*sekʰ)]. OIr séch 'past, beyond', Wels heb 'without', Lat sectus 'after, beside, otherwise', Latv scenē 'by, along', Av haca 'from, out of; in accordance with', OInd sācā 'together with', sakām 'with'. A derivative of *sekʰ- 'follow'. Old in IE.

*som- 'together'. [IEW 903 (*som-); Wat 57 (*sem-); BK 184 (*sam-/*sam-)]. OPrus san- 'with', Lith sam- 'with', OCS so- 'with', Av ha(m)- 'together, OInd sam- 'with'. A word of the center and east of the IE world. Derivatives in OIr samain 'festival of November 1, Halloween/All Saints', OE -sann 'together', OHG sann 'together', Goth samana 'together', in common, OInd saman 'together': *snp- by Grassmann's Law: Grk ἀδελφός 'brother (of the same womb)', ἀδελφός 'partner of one's bed, bedfellow'. From *sem- 'one'.

*ks̃in 'with'. [IEW 903 (*ks̃in); Wat 33 (*ks̃in)]. Lith šob 'with', OCS šo- with', Rus s(o)-'with', Grk ἅπα - σώ 'with, by aid of'. Both Baltic and Slavic appear to have lost the initial *k- in this (unstressed) form very early, the same loss is seen within the history of Greek. A word of the center of the IE world.

See also ADPREPS. [D.Q.A., C.F.]
of an earlier "dangerous one" that took place after Anatolian had separated from the rest of Indo-European. Alternatively, Gl suggest that this word for 'wolf' should be divided *v(ə)l-kwo*, a derivative of *vel-*, 'tear, lacerate'.

*vuk*/*fhw*– 'she-wolf'. [IEW 1178–1179 (*vukʰ*). On ylgr 'she-wolf', OHG wulpa 'she-wolf', Lith vilke 'she-wolf', Rus volčça 'she-wolf', Oldn vřífi- 'she-wolf'. Cf. the similarly derived Grk λίσσα 'martial rage, madness, rabies'. A normal feminine derivative, itself of PIE date, of the previous word.

*ulpt* 'wolf'. Olfr fæl'wolf', Arm gayl'wolf'. Perhaps from *uia 'woe' as 'the woeful one' (either from the mournful cry because the animal induces woe in the human). Though not widely attested, the geographical distribution of those attestations strongly suggests PIE status.

*h2l*/*edn* (gen. *h2l*/*edn*os) 'creatures, (wild) animals, wolves'. [cf. Gl 413 (weit-); Puhvel 3:355]. ON vittn (< *h2l*/*edn*nios) 'animal, wolf', Hit huettar (gen. huetnas, pl. huitātā) 'creatures, (wild) animals, wolfpack'. Though only certainly attested in these two stocks, the archaic stem argues strongly for PIE antiquity. Probably from *h2l*/*edn*- 'be alive', otherwise seen only in Luvian. Possibly belonging here too are certain Slavic words for werewolf: Slov vedane (gen. vedán; vedav) 'werewolf', Ukr viščun 'werewolf', OCzech vědí (pl.) 'she-werewolves', though particularly in Ukrainian this word has been subject to phonological deformation. The agreement of Germanic and Hittite would seem to assure a reconstructed meaning 'wild animal' but the association with 'wolf' is obviously very old (as the 'wild animal par excellence').

*dhe*/*h* ('gen. *dhe*/*h*os) 'wolf'. Phryg δάος 'wolf', Grk ὃς 'jackal, wild dog, panther'. Latin and Greek show a derivative with a new full-grade, *dhe*/*h*-*nos: Lat fāmus 'deity of forests and herdsmen' (whose feast was part of the Lupercalia), Grk (Hesychius) θαίσσων 'wild animal, beast; the constellation Lupus' (compare the neo-Latin derivative in NE fāna). In both Latin and Greek there is at least the possibility that *dhe*/*h*-*nos had some reference to wolves. Slov vedanec (gen. vedánek; vedavec) 'werewolf', Ukr viščun 'werewolf', OCzech vědí (pl.) 'she-werewolves', though perhaps in more recent times in Ukrainian this word has been subject to phonological deformation. The agreement of Germanic and Hittite would seem to assure a reconstructed meaning 'wild animal' but the association with 'wolf' is obviously very old (as the 'wild animal par excellence').

*b*/*doh*/*hus* (gen. *b*/*doh*/*hus*os) 'wolf'. Phryg δάος 'wolf', grk ὡς 'jackal; wild dog; panther'. Latin and Greek show a derivative with a new full-grade, *dhe*/*h*-*nos: Lat fāmus 'deity of forests and herdsmen' (whose feast was part of the Lupercalia), Grk (Hesychius) θαίσσων 'wild animal, beast; the constellation Lupus' (compare the neo-Latin derivative in NE fāna). In both Latin and Greek there is at least the possibility that *dhe*/*h*-*nos had some reference to wolves. Perhaps a late dialect word in PIE—or originally an epithet for wolves or other large carnivores. Often, though not compellingly, related to OCS daviti 'strangle'. The latter may better be related to NE die, etc.

The wolf (Canis lupus) was common throughout Eurasia, including India, and was the ancestor of the domestic dog. It tends to occur on Neolithic sites in small numbers, sometimes in moderate numbers on Baltic sites. Considerable linguistic discussion has revolved around the fact that the name for such a common wild animal shows an o-stem, regarded by many as a recent formation (while the feminine form with an i-stem has been regarded as the typical marking of a wild rather than domestic animal). The archaeological evidence makes it clear that no matter where the earliest IE-speakers lived, they were acquainted with the wolf.

The Wolf in Indo-European Belief

The wolf, together with the bear, would be the primary dangerous wild carnivores with whom the Eurasian Indo-European-speaking peoples had to deal, and this beast will be important as an animal enemy, partner, and also image or symbol. IE divinities with lupine associations are not uncommon: the wolfish (λύκειος) aspect of the Greek god Apollo seems to connect him both to death and to fertilizing and life-giving powers, in consonance with the other doubled or contradictory aspects of this god, who surely resembles another god with wolf names and companions, the Norse Odin. Following the line of lupine ambiguity, mythic representations of the wolf make the animal both a monstrous, ravening enemy of humankind (the Norse wolf Fenrir, offspring of Loki, Volsunga s. 36, 39) and a nurturing "natural" mother-beast, such as the wolf-bitch Lupa who suckled the twins Rómulus and Remus (Lactantius, Instr. 1.20.2; Plutarch, Romulus 4).

The sign of the wolf (or the wolf-pack) is clear enough in Greek age set confraternities such as the Athenian Ὑπέβαία and the Spartan κρυπτεία: the adolescents in these peer-groups prepared for full warriorhood by behavior that was exactly reversed from the norm: they prowled at night, were hidden and covert in their actions, used tricks, trap, stratagem and ambush and all the techniques forbidden to the true adult warrior-hoplite, in his daylight discipline. However, these young warriors-in-training eventually would be reintegrated into their societies, while a "wolfish" activity or character, from Hittite times on (but especially well illustrated in the Germanic sources) defined an outlaw, one whose crimes had put him outside society, and who can be hunted like the wolf, i.e., be both "killer" and "to be killed"; cf. Germanic warg. Werewolf or man-wolf activity may not be simply solitary, as shown by a widely-recurring belief in destructive, night-roaming bands or confraternities of lycanthropes who had abjured the laws of society. These "secret bands" have also been connected to the German Wilde Jagd or Wutende Heer, legendary affiliates of Death and the Devil, and instances of bloodthirsty and destructive werewolf bands are also known in the Iranian sources and in Baltic and Slavic folklore.

The wolf-image ordinarily would be attached to the aggressive second function warrior but what might be called wolf-kings are also seen. Lykos or 'wolf' was a king-name in ancient Thebes; Sigmund and his son (in Volsunga saga) took their lycanthropic posture and powers from wolves' skins once worn by two shape-changing princes (konungasynir, Vols. c. 8) while the violent war-king of Norway, Harald lāla, himself showing a near-berserker image, had his own berserker band of Wolfskins, Ulitheðnar (Heimskringla 19).

In the heroic-epic literature the isolated individual returns, and the wolf may often be imitated by the hero, no more so than in that saga just mentioned where Sigmund and Sinjotti roam (and kill) as wolf-men and lurk in an underground den. In an "historical" saga such as that of Egil Skallagrimson, the wolf not only seems to be a family totem (the family's patriarch named Kveld-Ulfr or Evening Wolf, Egil himself as ullgrar 'wolf-gray'), is also associated with the god Odin, to whose
grim service at least some of Egil's family is devoted. Öðinn's wolves, according to the verses of Egil and other warrior-salads, are fed with those who are slain by the victorious fighter, but Öðinn is also named the 'wolf-killer'. He finally claims the warrior, who also is the wolf, and who will be killed in his turn.

See also AGE; SET; CRIME; DOG; HELM-HOUND; MAMMALS; WARRIOR. (D.Q.A., J.P.M., D.A.M.)

Further Readings


WOMAN

*gʷénha (gen. *gʷénha) 'woman'. [IEW 473–474; (*gʷénā; Wat 25 (*gʷen-); GI 660–661 (*kʷen-); Buck 2.22; Szem 22.1; Worldick 194–195; BK 347 (*kʷan-/kʷ-an-)]. OIr ben (gen. mná) 'woman, wife', OE cwene 'woman, female serf, prostitute' (> NE queen), OHG quena 'wife', Goth qinō 'wife' (Gmc < *gʷenēh₁-n-), OPrus genna 'wife', OCS žena 'wife', Rus žena 'wife' (Balto-Slavic < *gʷenēh₁-), Grk γυνή 'wife', Arm kin 'wife', Hit ṣin-ni 'women', Luv wanattini - unattini -women', Av gnā- 'wife of a god, gnāna- 'jna- 'woman, wife', jaini- 'woman', NPers zan 'woman', Oldn gnā- 'goddess, divine female', jaini- 'woman, wife', TochA sâni 'woman', TochB sâna 'woman' (Toch < *gʷen-eh₁) 'woman'. With lengthened grade *gʷeni- we have ON kvæn 'woman, OE cwenn 'woman, wife, consort' (> NE queen), Goth qens 'wife', Av ānā- 'wife, Oldn jaini- 'wife'. Another derivative is seen in TochA kâli 'woman', TochB klîye 'woman' (< *gʷph₂h₁-en- with dissimilation of l...n < n...n). Archaic in morphology, widespread and old in IE.

In many primitive societies an adult's marital status is taken for granted and distinctions between man and woman on the one hand and husband and wife on the other are rarely made. The most common Indo-European term for an adult marriageable female is *gʷénha whose ablauting stem vowels suggest an original athematic noun. Szemerényi has attempted to derive this noun from *gʷou- 'cow' (> *gʰu- -en-) and has produced many examples from both modern languages, e.g., Rus koróva 'cow' can also mean 'bride' in some dialects, and many ancient examples, e.g., OIr vásga 'cow; wife', MWels anueir 'young cow' but OIr aindir 'young girl', to illustrate that such a derivation would probably has never been seen as gratuitously insulting in a pastoral economy (rural Texas ranchers even today can refer to wives and sweethearts as 'heifers' and remain unslapped; cf also 'filly'). Nevertheless, the phonology of such a derivation is questionable and the morphology of such an ad hoc suffixation is unscientifically opaque. It is far better to take *gʷenha as an unanalyzable root in PIE.

See also WIDOW, WIFE. (M.E.H.)

WOOD see TREE

WOODPECKER

?*(s)p(e)lkovēh₁ (<some kind of) bird, (Italian, Germanic) wood-pecker'. [IEW 999 (*s)pikó-; GI 459 (*s)pʰik₁-o-)]. Lat picus 'woodpecker', pica 'jay; magpie', ON spett 'woodpecker', OHG speh 'woodpecker', OPrus picle 'fieldfare', Olnd pikā- 'Oriental (Cuculus saturatus) or Indic cuckoo (Cuculus canorius?)'. In spite of the uniqueness of this bird and its dramatic behavior, there seems to be no common IE word for the woodpecker although this is the meaning in the two west IE stocks that preserve this root. It might be noted that the Picenes, one of the ancient peoples of Italy, derive their name from this root, allegedly because of some totemic association.

See also BIRDS. (J.A.C.)

WOOL

*u/h₂neh₁- 'wool'. [IEW 1139 (*uḷ-nā); Wat 76 (*wel-); GI 498–499 (*Hw₁-n-); Buck 6.22]. Wels gwlan 'wool' (whence OIr olann), Lat lāna 'wool, lánagō 'down', OE wul(e) 'wool' (> NE wool), OHG wolla 'wool', Goth wulla 'wool', OPrus wilna 'shirt', Lith vilna 'wool', OCS vilna 'wool', Rus võlna 'wool', Grk ἄνεος 'wool', Hit hulana­(by metathesis < *ulhna) 'wool', Av varana 'wool', Olnd ûrna- 'wool'. Widespread and old in IE.

Although wool is the commonest secondary product of sheep raising in historical times, it would not have been a property of wild sheep nor the earliest domestic sheep. These were characterized by fleeces which consisted of a short fine undercoat that was covered by a hairy outer coat of coarse kemp, all of which moulted each spring. Consequently, the utility of wool as a fabric for textiles would have been exceedingly limited and all evidence for Neolithic wool has been disputed (Neolithic textiles are almost invariably made of plant fibre). Woolly sheep appear to have been bred in the Near East by the fourth millennium BC, possibly earlier. It is about this time that a larger variety of sheep begins to appear in Europe which some suggest may have borne a much woollier coat, and wool begins to be recovered from European sites about 3000 BC. That wool was important in Bronze Age Europe is well attested, particularly in the Linear B tablets where the raising of sheep for wool appears to have been a major industry. Moreover, from about 4000–3000 BC, there is a rise in the relative quantity of sheep on European sites while it is possible that "wool" was produced and exploited

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earlier in the Neolithic period, i.e., from the seventh millennium BC onwards, the archaeological evidence, the existing evidence of words for 'wool', and the technology employed in its exploitation all suggest a rather late, i.e., fourth millennium BC, date for PIE 'wool'.

See also Hair, Sheep, Textile, Textile Preparation.

[D.Q.A., J.P.M.]

Further Readings

WORK

*verg- 'work' (pres. *yugieo-); [IEW 1168 (*verg-); Wat 77 (*verg-); Buck 9.12, 9.13]. ON yrka 'work, do', orka (*yugieh₂) 'be able to do', OE yrwyrcan 'work, do' (> NE work), OHG wurchen 'work, do', Goth wairfjan 'work', Grk πείγω ~ πέπω 'do' (in both cases the -e- is the result of the contamination with the vowel of the derived noun), Av varazrjeti 'works', TochA warkṣāl 'power, strength, energy', TochB warkṣāl 'power, strength, energy'. Cf. the widespread derivative *veŋdom in Gaul vergo-bretus the highest official among the Haedui, OBret guerg 'effective', ON verk 'work', OE weorc 'work' (> NE work), OHG werk 'work', Grk ἔπογ 'work', Arm gorc (with secondary -o-) 'work', Av varazr- 'activity'. Widespread and old in IE.

*hōpes- (noun) 'work'. [IEW 780 (*op-); Wat 46 (*op-), Gl 137 (*Hɔpʰ-); Buck 9.12]. Lat opus 'work' (whence the denominative verb operor 'work'), Av apah- 'work', Olnd āpas- 'work', TochA opsaly 'fit season, time of action', TochB eksalye 'fit' (season, time of action) (Toch < *hōps-el-i-). Cf. ON éfna 'work, make', éfnu 'stuff, tool', OE efnan ~ efnan 'work, make', OHG ubo 'peasant', uben 'set to work'. Widespread and old in IE. Perhaps related to *H30p- 'wealth'.

*derha- 'work' (pres. *dhiejeo-); [IEW 212 (*dha-); BK 122 (*t-ar-ah/-t-ar-ah-). Lith dar(i)au 'do, make', Latv darit 'do, make', Grk δέχεσθαι 'make, ὑπηρετήρ worker, servant', (Hesychius) δῆαν 'work'. A word at least at the center of the IE world.

*dheigh- 'work clay, smear; build up' (pres. *dheighi (~ *dhineghti). [IEW 244–245 (*dheigh-); Wat 13 (*dheigh); GI 43, 95 (*dehi-); Buck 5.53]. Olr con-utaicn (~ con-usinn-) 'builds', Lat linggo 'fashion', ON deigr 'dough', OE dāg 'dough' (> NE dough), OHG teig 'dough', Goth daugs 'dough', digan 'knead, form out of clay', Lith diežti 'whip, beat', Lat diezēt 'talk into buying', Rus děža ~ děža 'kneading trough', Thracian -dîjog 'fort', Grk τείγος 'wall', Arm dizanem 'heap up', Av paśi-dæazeyeti 'build a wall around' (whence NE paradise), Olnd dehmi 'smear, anoint', dehi 'wall', deha-'body', TochAB sisik 'fashion', TochA ssea 'figureine'.

*mag- 'work with the hands, form, shape'. [IEW 696–697 (*mag-); Wat 38 (*mag- ~ *mak-); Buck 9.11; BK 548 (*mak'/~*mak-)]. Mrl maisted (< *magstr-) 'act of churning', Wels maeddu (< *mag-ed-) 'beat, strike', OE maican 'make' (> NE make), OHG mahôn 'make', OCS mazati 'anoint, smear', Grk (aor. pass. inf.) μαγηνα 'knead', Arm macani- 'stick to, adhere to'. Numerous uncertainties concern this form. Since, in Irish, all other words for butter-making are borrowed from Latin, it is possible that maisted is borrowed as well; the term itself may be a Gallo-Roman form produced by the contamination of mastra < Grk μάκτρα 'kneading trough' with magis < Grk μαγή 'kneaded dough'. The Germanic forms seem to be fairly far removed semantically. The Armenian form may come from this root but may also derive from *mad-'curdle'.

See also Make; Press; Smear; Wall.

[D.Q.A.]

WORLD

*bheughlom 'world'. [IEW 147 (*bhulilo-); Wat 8 (*bheuo-); BK 8 (*buw-/~*bow-)]. OE bold, hol 'house', Lith bažkla 'habitation', Olnd bhavitram 'world'. From the root *bhu- (< *bhul-) 'be, exist, become' there are many words for 'habitation, dwelling, house' which, in a wider sense, may indicate the meaning 'world' (the place where we dwell, cf. Alb bota 'earth, bottom, world'). But even for the Old Indic word this meaning is uncertain. In the sense of '(all) living things' we find expressions like Umb duputrus petturpusus, Grk δῖξος τετράδειος, Olnd dvi-pad-čaitus-pad- 'two- and four-footers', a type which is of PIE date.

See also Be; Earth [R.S.P.B.]

WORM

*kʰrmi- 'worm, insect'. [IEW 649 (*kʰrm-); Wat 34 (*kʰrm-); Gl 445 (*kʰormi-); Bv 3.34, BK 3.32 (*kʰor-/kʰor-). Olr critim 'worm', Wels ptyr 'worm', OPrus girmis 'maggot, mite', Lith kirmis ~ kemis ~ kirmams 'worm, snake, dragon', kirmel 'worm, maggot', Latv cirmis ~ cirmen(i)s 'worm, mite, maggot, caterpillar', OCS cětv 'worm' (< *cirm, cf. cětrně 'red' [color made from certain insects]), Rus čěvř 'worm', Slov čin 'carbuncle', Alb krimb 'worm', NPers kirm 'worm', Os kalm 'snake, worm', Olnd ktmi- 'worm, insect; lac (red dye created from certain insects). Given the range of meanings of the various reflexes of this word, it is likely that PIE speakers had the category of what semantics interested in lexical universals call 'wug' (i.e., 'worms' + 'bugs') rather than the more restricted categories of 'worm' and 'bug' (or 'insect') that are more familiar to contemporary English speakers. In any case, widespread and old in IE.

*ürmis 'worm, insect'. [IEW 1152 (*ürmi-s); Wat 76–77 (*ürmis); Gl 445 (*ürmi- ~ *ürmo-); Bv 3.34]. Lat vermis 'worm', ON orm 'worm', OE yrwr 'worm, snake' (> NE worm), OHG yrwm 'worm', Goth wairmis 'worm', Lith varmas 'mosquito' (dia.) varmi (pl.) 'flying ants', OCS vermi 'grasshoppers, insects', Grk (Hesychius) ρομος 'woodworm'. Cf. OPrus wormyan ~ urminan 'red', Ukr vermyanjy 'red' (color derived from certain insects or 'worm-colored'). A phono-
logically similar form also appears in a number of IE groups meaning 'ant.' *tyrmsis and these other related forms appear to be a rime-word variant of the previous entry found in the center and west of the IE world.

*demels 'worn'. [IEW 201 (*demel-); BK 127 (*tum-* *tom-)]. Alb demẹje ~ demheči 'larva, caterpillar, maggot', Grk δεμέλεας (acc. pl.) 'leeches', (Hesychius) δεμέλεις (pl.) 'leeches'. A word of the IE center.

*matt- 'wound, maggot, insect'. [IEW 700 (*matth-); Wat 39 (*matt-); Wat 41 (*matth- / molt-); Buck 3.84]. On mađkr 'maggot, worm', OE maða 'maggot, worm, grub', OHG mado 'maggot, worm', Goth maþa 'worm' (Gmc *mapon-). Arm mat'ille 'house', Olnd matkuna 'bug'. Cf. ON motti 'moth, mite', OE mohpe ~ mohpe 'moth' (>NE moth), MHG matte 'moth'. The range of meaning and phonological shape for this word is at least as great as for the previous two entries. Nonetheless, it seems tolerably clear that we have a word of PIE antiquity.

See also Animal; Dragon; Insects. [D.Q.A.]

WORSHIP

*jag- 'honor, worship'. [IEW 501–502 (*jag-); Wat 79 (*yag-); GI 704 (*yak-); Buck 22.15]. Grk αἰώνιoi 'stand in awe of, dread; shrink from doing something', Av yazaita 'honors', yasna 'reverence for the gods', OPers yad-. 


*ōhēu(s) 'give, honor to'. [IEW 218–219 (*duēu- / duōu-); Wat 12 (*duēu-); BK 121 (*tuw-/ *tow-)]. OIr deōn ( < *dueno- 'strong', OLat duenos ~ duonos 'good', Lat bonus 'good', beo 'make happy, gladden; bless', beatus 'happy, without want, blessed', bellus ( < *duenolos) 'pretty, handsome, charming'. Olnd duivas- 'worship, reverence, obligation, favor, friendship', dvasyati 'honors, recognizes'. Old in IE. This word is usually taken to be an enlargement of *deh₁- 'give'. Somewhat more distant are OSax withon 'grant', MHG zwiden 'grant', presupposing a further enlarged pre-Gmc *deyeit-

See also Fear; Honor, Pray; Sacrifice. [D.Q.A.]

WOUND

*yul*νεθ- (~ *yom*νεθ-) 'bloody wound'. [IEW 1144 (*yel-), 1163 (*yer-); Wat 76 (*we1-); GI 414 (*wel-); Buck 4.85, BK 507 (*wet-/ *wol-)]. Lat vulnus 'wound, injury, blow', Alb varre (< *vorneh-) 'wound, injury, sore', Grk οὐλή (< *volneh-) 'scar'. With different vowel-grades: OCS rana 'wound', Rus rana 'wound' (< *troneh-), Olnd vanra- (< *ureno-?) 'wound', with different suffixes: OIr fuil 'blood', fulh 'bloody wounds', Wels gwelii 'wound, blood'. There seems to be sufficient overlap of form and meaning to group all of these words together as a single etymology. If so, it is clearly of PIE date. The interchange of *-u₁-, in the west, and *-r₁-, in the east, is difficult. If the *-r₁- is older, the *-u₁- might result from a cross with *ye1h₁-, strike, kill, die', but, on the whole, the *-u₁- looks more original.

*syeros* (suppurating) wound'. [IEW 1050 (*suer-); Buck 4.85]. Wels chwarren 'ulcer', OHG swero 'body pain', sweren 'fester', Rus khvory 'sick', Av xara- 'wound'. The initial khv- rather than the expected sv₂- of Slavic may mean this word was borrowed, or at least influenced, by some Iranian cognate. Sparingly attested but its geographical distribution certainly suggests at least a late PIE date.

*pveh₁- (suppurating) wound'. [IEW 1108 (*u₁-); Buck 4.85; BK 497 (*wu₁- / *wu₁-)]. Lith vioti 'ulcer, abscess, boil', Latv viņš 'suppurating wound', Grk ἀτειλή (< *othul₁-) 'wound'. It is probable, but by no means certain, that the Greek and Baltic words belong together. If so, perhaps a "centralism" in late PIE.

*ēh₁uru(s) - 'wound'. [IEW 338 (*ereu-)]. On νος (< *arw₁-) 'scar', Olnd ārus- 'wound'. Though not well attested, the close morphological and semantic relationship of the Germanic and Old Indic words guarantee PIE status, more particularly as there is no underlying verb attested from which these words might be independently derived.

*peles- 'wound'. [IEW 803 (*pel-); VW 356]. Grk ἀπελος (unhealed) wound, Tochā pāl 'wound', Toch B pila 'wound'. Again a word with sparse attestation, and no underlying verb, that is likely to be of late PIE age.

See also Die; Medicine; Sick. [D.Q.A.]
YAMNA CULTURE

The Yamna or Pit-grave culture or “cultural-historical region” spanned the territory from the Danube to the Ural in the Copper/ early Bronze Age, i.e. c 3600–2200 BC. Evidence for settlement is scarce, often meager remains from camp sites of pastoral nomads, but it does include a number of stone-built fortresses such as Mikhaylovka where a stone wall some two meters high defended a settlement of stone-built rectangular structures.

The economy of the culture, attested both by faunal remains from settlements and burials as well as site locations, suggests a high dependency on stockbreeding, either cattle or sheep/goat, in many of the regional variants. The horse was also well-known from the Yamna culture and its remains occur not only on settlements but also in rituals associated with burials. Although the emphasis appears to have been on stockbreeding, agriculture was also practiced in the more forested regions or major river valleys and a plow has been recovered from a Yamna grave. It has been argued that the Yamna culture reflects one of the earliest developments of semi-nomadic pastoralism. The evidence for this rests on the Yamna culture’s possession of the domestic horse (for riding), wheeled vehicles (for transporting families), the composition of its livestock which was suited to the open steppe, the occasional discovery on Yamna sites of deep steppe animals such as the camel and saiga antelope, and the burials of men, women and children, i.e., whole family units, that have been encountered far out on the steppe. Wild fauna from the Yamna culture include aurochs, red deer, saiga, onager (Equus hemionus), wild boar, badger, otter, wolf, fox, corsac fox, hare, beaver; traces of fish and tortoise are also recovered.

The overwhelming evidence for the Yamna culture derives from its tens of thousands of burials. These were made in shaft-like pits that might be roofed with a timber or stone slab covering. In certain regions, the stone slabs might include anthropomorphic stelae. The deceased were buried either on their backs with their legs flexed (the “Yamna position”) or flexed on their sides, with their heads generally oriented east or north-east, at least among the earliest phases. They were frequently covered, in many instances “saturated”, with ochre and the Yamna culture has alternatively been known as the Ocher-grave culture. Primary burials were covered with a kurgan (tumulus) although many secondary burials might have been later inserted into the fill of an earlier kurgan or the kurgan itself might have been enlarged to accommodate more burials. Grave goods consisted of pottery, stone tools and very occasionally weapons (flint spearheads, flint and metal daggers, antler ax-hammers), and copper artifacts.
Yamna I  b. Plan of Mikhaylovka, Ukraine; c. Plan of Yamna kurgan indicating primary (central) burial, secondary burials and enlargements of the tumulus; d. Anthropomorphic stelae as covering slabs for Yamna grave; e. Yamna burial under timber roof from the Ukraine.

Animal remains (cattle, sheep/goat and horse) are all recovered from graves as well.

Regional studies of the labor involved in the construction of the kurgans have suggested that they may reflect a tripartite social structure and the three social classes of early India have even been explicitly employed in describing the existence of Yamna "priests", "warriors" and "herdsmen". Although there does seem evidence for marked social differentiation, it does not suggest such specific classes.

The origin of the culture appears to lie both with the earlier Khvalynsk culture on the middle Volga and the Sredny Stog culture of the middle Dnieper. With its mobility, expressed both in the use of the domestic horse and wheeled vehicles which were pulled by oxen, the Yamna culture evolved as a vast area of cultural interactions and exchange. To the east, Yamna burials are found to the east of the Urals and some would derive the very distant Afanasevo culture of the Altai and Yenisei from the Yamna and related European steppe cultures. To the west, Yamna burials are found extending beyond the mouth of the Danube through Romania, Bulgaria, Serbia and Hungary.

The enormous area of distribution, its dynamic borders, and cultural life-style (e.g., horses, wheeled vehicles) of the Yamna culture has insured its general recognition as the archaeological reflection of a major group of the early Indo-Europeans. Its specific identification is disputed since models for IE origins diverge considerably in terms of the time and place of dispersal. Within the "Kurgan model", it is seen as a variant of late IE, ancestral to many although not necessarily all IE-speaking groups; those who reject the Kurgan model tend to limit the linguistic identity of the Yamna culture to the Indo-Iranians. The Yamna culture was followed in the west by the Catacomb culture and in the east of its distribution by the Poltavka and Srubna cultures.

See also Afanasevo Culture; Catacomb Culture; Khvalynsk Culture; Kurgan Tradition; Novotitorovka Culture; Poltavka Culture; Sredny Stog Culture; Srubna Culture.

Further Readings

YAWN

*gh(h)a1-eh2- 'yawn, open the mouth wide'. [IEW 419–420 (*gh(a)-); Wat 20 (*gh(a)); Buck 4:52; BK 234 (*ga-/go-)]. Lat hiāre 'yawn, gape', OHG getn 'yawn', Lith žiotu 'open, yawn', OCS zjo 'open the mouth wide', Rus zjēti 'yawn'. Also *gh(a)1-nēh2-. ON glīna 'yawn', OE giman 'yawn', OCS žinoti 'yawn, split apart, open mouth', Rus zinut 'yawn, split apart, open the mouth' (in Germanic we also find new ablaut grades in OE ginian 'yawn, gape', OHG ginēn 'yawn', and OE gānian 'yawn, gape' [> NE yawn], OHG geinōn 'yawn, gape'). Finally from *ghēh1-i-u- we have OCS žējō 'yawn' and TochA ṣēw- (*ghēh1-i-u-) 'yawn, gape' and from *ghōh1-eh2- is TochB käya- 'yawn, gape'. Subject to much morphological rebuilding in the form of different iterative-intensives, but still clearly a PIE word.

*ghēh2- 'yawn, open the mouth wide'. [cf. IEW 411 (*ghan-); BK 234 (*ga-/go-)]. ON gan 'yawn, cry, din', Grk κάνον 'mouth' (both < *ghēh2-nos), Grk κάσκον 'yawn', κανών 'talk with the mouth open', and words for the 'open mouth' (see *ghēh1-mtr s.v. 'mouth'). Distinct from and not as widespread as the previous word, it is still of respectable PIE antiquity.

See also Mouth, Sleep. [D.Q.A.]

YAZ CULTURE

The Yaz culture was the early Iron Age culture of Bactria and Margiana. It is dated to c 1500–1100 BC. Settlements emerge on top of earlier late Bronze Age sites or virgin ground; they sometimes exhibit stone towers and sizeable houses.

Yaz. Distribution of the Yaz culture (commonly associated with the culture depicted in the Avesta).
which are associated with large irrigation systems. Single manor complexes consisting of living and store rooms and open courtyards have also been uncovered. Ceramics were initially almost entirely hand-made but through time there was increasing use of wheel-thrown ware. The most frequent evidence of metal tends to be bronze arrowheads; sickles or carpet knives are also found. No burials assigned to the culture have been found.

With respect to location, date and a settlement type which may represent early Iron Age farmer-chieftains, the Yaz culture has been regarded as a likely archaeological reflection of east Iranian society as depicted in the Avesta. The marked absence of burials has also been interpreted as evidence for the Zoroastrian method of disposing of the dead through exposure rather than burial.

See also Indo-Iranian Languages. [J. P. M.]

YEAR

*vet- 'year'. [IEW 1175 (*vet-)]; Wat 78 (vet-); GL 685 (*vet-···); BUCK 14.73; BK 503 (*Wat[bar]/Wat[bar].) Mfr feis 'sow', Corn guis 'sow' (Celtic < *yeating'), Lat vetus (< vet-es- 'old', ON vedr 'ram, wether', OHG wädor 'wether', Goth wipras 'year-old lamb', Lith vėtūšas 'old', OCS větůčhá 'old', Alb vit (< vetos) 'year', vet 'last year', Grk (p)éros 'year', Hitt witt- 'year', Sogd wšnsy 'old', Olnd vatsa- ~ vatsara- (with same suffix as Germanic < *weto-) 'year', vatsa- 'yearling'. With a wide geographical distribution and morphological derivatives common to several stocks, this root is certainly of PIE date.

*haetnos 'year, new season'. [IEW 296 (*haet-)]; Wat 79 (*yèr-). Lat hēmis (< hō-·ôr-, with same formation as in ho-ōd 'today') 'of this year', ON yr 'year', OE gær 'year' (> NE year), OHG jár 'year', Goth jēr 'year', OCS jara 'spring', RusCS jara 'spring', Grk ἄποσ 'time, year', Luvian āra/-i- 'time', Av yāra 'year', Tochb tierwe (< *(h)en- [a demonstrative] + jēr- [+ the adjective-forming suffix] *yo- 'today'). A remote connection with *hēt- 'to go' is likely, paralleling the formation of *haetnos 'year' from *hēt- 'to go'. A good candidate for PIE status.

*perut- 'last year'. [IEW 1175 (*vet-)]. Orf on nūrid 'from the last year', ON fjord 'last year', Grk πέπον 'last year', Arm heru 'last year', Olnd par-ūt 'in past years'. This root appears to be an old locative or accusative of the zero-grade of *vet- 'year' prefixed with *per- 'forward, through'. Probably PIE in date.

*hētēnōs 'year'. [IEW 69 (*at-)]; Wat 4 (*at-); BUCK 14.73; BK 366 (*at-····at-···). Lat annus (< atnos) 'year', Umb (acc. pl.) acnu 'years', Goth (dat. pl.) apnam 'year'. *hētēnos is a nominal form derived from the root *hēt- 'to go' (cf. Olnd atati 'he/she goes'). Geographically restricted to a few western languages and clearly demoted as seen the period gone through, the revolving year'; a 'westerntmenism'.

*hēnen- 'year'. [IEW 314 (*en-)]; Wat 17 (*en-); BUCK 14.73; BK 424 (*en·-·en·-·). Goth framt far-·n-i nēja 'in the last year', Lith per-n-ai 'in the last year', Latv pēns (< extended form *per-hēn-o-yo) 'of last year', Rus (dialect) lo-ni 'of last year', Grk ἕνο 'year'. Limited distribution suggests dialectal IE. See also Seasons, Time. [P. B.]

YELLOW

*ghel- ~ *gel- 'yellow'. [IEW 429-430 (*ghel-)]; Wat 21 (*ghel-); GL 618 (*gel-); BUCK 15.69; BK 228 (*gel-····gel-). OIr gel 'white', Wels gel 'yellow', Bret gull 'brown', Lat helvus (< *ghel-····) 'honey yellow', fel 'gall', ON gulr 'yellow', gall 'yellow', OE geolu 'yellow' (> NE yellow), OHG gelo 'yellow', Lith gelius 'yellow', želva 'golden', Latv žīlts 'gold', OCS zelenū 'green', žlūta 'yellow', Rus zelenyj 'green', Grk χαλάρος 'green', χόλος 'gall', Av zairi- 'yellow', zara- 'gall', Olnd hār- 'blond, yellow'. When, in post-Indo-European times, 'green' and 'blue' became distinct from one another, words for 'yellow' were often sources for new words for 'green'. This root is recorded from Celtic to Indic and is assured in Proto-Indo-European. This also argues that the Proto-Indo-Europeans recognized yellow as a primary color and hence had at least a Stage III color system. See also Color, Green, White. [M. E. H.]

YESTERDAY

*(dh)ghjes 'yesterday'. [IEW 41 (*dhghjes)]; Wat 14 (*dhghjy-···-es-); BUCK 14.49. OIr inde 'yesterday', Wels doe 'yesterday', Lat hert 'yesterday', ON i gér 'yesterday', OE geosstra 'yesterday' (> NE yester), OHG gesteron 'yesterday', Goth gistra-dagis 'tomorrow' (Gmc < suffixed comparative *ghjes-ter-), Alb dje 'yesterday', Grk γθες 'yesterday', Av ſyō 'yesterday', Olnd hya 'yesterday'. The etymological basis of Goth gistra-dagis is puzzling, we have no PIE word for 'tomorrow' (utilizing mostly forms like 'in the morning' for that purpose). However, *(dh)ghjes 'yesterday' is certainly of PIE.

See also Day, Time, Today. [P. B.]

YEW

*hieus 'yew (Taxus baccata)'. [IEW 297 (*hio-······-ywo-)]; Wat 16 (*eio-······-···); GL 540-542 (*ei-wo-); Fried 121-125. OIr cō 'yew', ibar 'yew', Wels ywen 'yew', ON yr 'yew', OE tw 'yew' (> NE yew), OHG iwa 'yew', OPrus iws 'yew', Lith ieva 'bird cherry', Latv īeva 'bird cherry', OCS iva 'willow', Rus iva 'willow'. Hit gliey(a)n-?-yew. If Hitte is allowed, PIE status.

*taksos 'yew (Taxus baccata). [IEW 1059 (*tek-······-···); cf. Wat 69 (*tek-······); GL 541; Fried 125-129. Lat taxus 'yew', Rus tus 'yew', Grk τακσον 'bow', Scythian taks - 'bow', MPers taks - 'bow'. At least late PIE status but irregularities in the vowel correspondence are striking.

The first term is well supported by a half-dozen or more languages each in Germanic and Slavic, all of which denote 'yew'. The yew figured in early Germanic legal and ritual symbolism, e.g., the judge's staff, perhaps because of its special properties such as truly extraordinary longevity. Regular phonological correspondences between these cognates permit us to posit a central dialectal feminine o-stem. *hieus But
the central dialectal forms have another cognate in distant Hit eyan, which appears in ritual and legal texts with the meaning, scholars have concluded, of 'evergreen' and the yew occurs in a text that stresses its longevity, asking for a long reign for the king and queen; the yew flourishes in Anatolia and the north Caucasus. Moving away from tight semantic correspondences, we find a set of forms in Baltic meaning variously 'yew' or 'bird cherry'. In the same vein, the Greek forms denoted the 'bird cherry' or 'service tree'. The denotation in Greek and Baltic may have been motivated by shared properties (berries, red heartwood, etc.); in fact, one reputable hypothesis derives all the potential yew words from a PIE *hlei- 'reddish' which may also underlie Lat *ava 'grape'; by yet another hypothesis the entire 'yew' set, irrespective of the color term, is cognate with the 'grape' set in Latin and Armenian but this is speculative. In any case, *hlei-uros was a PIE term for the 'yew' (specifically the) English yew, stands of which grew throughout Europe, Anatolia and the Caucasus, and which had diverse ritual uses as well as providing the raw material for bows, as the second term suggests.

The bow, for which yew wood is ideal, was used from pre-PIE, i.e., Mesolithic, times on throughout Eurasia and naturally including the greater IE area. In fact, archery was a favored sport among the Vedic, Old Persian, Hittite and Mycenaean Greek aristocracies as frequently reflected in both texts and their visual arts. The English yew, incidentally, was so ideal for bows that the west European stands had been largely destroyed by the end of the Middle Ages. Above all, the Scythians, preserving an archaic pattern, made archery a quintessential aristocratic (and generally martial) skill, using a word taxsa (taxš in Mediaeval Persian) that is (almost too) transparently cognate with Greek τόξον (occurring about twenty-five times in Homer, including the climactic scene in the Odyssey). It has often been presumed that the Greek word was borrowed from the Iranian, either during the initial contacts between Greek colonists and Iranian-speaking steppe nomads north of the Black Sea in the seventh century BC or after Scythian archers later served as the Athenian police; however, the word is already present in late Bronze Age Greece, e.g., Myc to-ko-so-so-ko = Grk τόξον, 'bow maker'. Presumably a Proto-Greek and Proto-Iranian (?) form for 'yew' shifted to 'bow' by the same metonymy by which 'ash' went to 'spear' while a borrowed term σμιθκ was begun to be used for the tree. In two other stocks, on the other hand, the reflexes of PIE *taksos retained their original arboreal meaning, notably in the Slavic languages and Latin. In any event, the association of the yew with the bow is so widespread that even any discovery of a Neolithic or later bow in Europe will be predictably of yew, e.g., most recently the yew bow-stave of the Tyrolian "Ice-man". The yoke was later applied to horse traction until proper horse harnessing appeared (late in the west, earlier in China). The earliest depictions of wheeled vehicles also include representations of yokes, hence we find the graphic representations of yokes at least from the fourth millennium BC onwards, e.g., in the TRB culture, and also evidence for paired draught (paired oxen in burials) which would generally imply yokes although it has also been argued that cattle might also be yoked to vehicles or plows by their horns on the evidence of cord marks on horn cores from the TRB culture as well as ethnographic evidence. Traces of yokes are also known from the wagon burials found in the steppelands north of the Caucasus in the late fourth and third millennia BC. As the 'plow' is reconstructible to PIE a word for 'yoke' might almost have been predicted.

See also BOW, SHAFT, TOOL, WAGON. [D.Q.A., J.P.M.]

YOKE

*jugom 'yoke'. [IEW 508–509 (*ju-go-m); Wat 79 (*yug-o-); Gl 625 (*yuk'om), Buck 10.78]. OWels iou 'yoke', Lat iugum 'yoke', ON ok 'yoke', OE geoc 'yoke' (> NE yoke), OHG joh 'yoke', Goth juk 'pair', Lith jungas 'yoke' (whose form has been influenced by the corresponding verb), Grk ζυγόν 'yoke', Arm luc (whose initial has been influenced by *lukanem 'unharness') 'yoke', Hit yukan 'yoke; couple, pair', Av yugam 'yoke', NPers juy 'yoke', Olnd yugam 'yoke'. (Perhaps Grk cuing 'yoke' belongs here if it reflects *kom-tungo-). Different formations with identical meaning include *jugo-m 'yoke' in OE geoth and Olnd yuktam and yuges 'yoke' in OE gycer, Goth jukuz (< *yukuzi with assimilation of the second vowel to the first), OCS iyo (pl. iyo-sa) 'yoke', Rus iyo 'yoke'. The underlying verb *eug- (pres. *yu-nge-ti) 'joins, harnesses' is seen in Lat jungo 'join, harness', OHG untar-jauhtia 'l subjugated' (compare also ON eykt (< *eugtis) 'draft-animal'), Lith jungti 'join, harness', Grk ζυγευτείν 'join, harness', Av yuj- 'join, harness', Olnd yunaka – *yanja-ti 'joins, harnesses' (and yojyati 'joins together'). This word is widespread and obviously ancient in IE, failing to appear only in Albanian and Tocharian. (Though it has been suggested that *jugom might be independently derived in those stocks where it appears, there being nothing archaic or otherwise special about its morphological form, the fact that it does exist in this exact form so widely, even in languages, such as Hittite, where the underlying verb is not attested, makes the hypothesis of common inheritance by far the better one.)

The yoke was the normal method of harnessing oxen for their use in traction in pulling plows or wheeled vehicles. The yoke was later applied to horse traction until proper horse harnessing appeared (late in the west, earlier in China). The earliest depictions of wheeled vehicles also include representations of yokes, hence we find the graphic representations of yokes at least from the fourth millennium BC onwards, e.g., in the TRB culture, and also evidence for paired draught (paired oxen in burials) which would generally imply yokes although it has also been argued that cattle might also be yoked to vehicles or plows by their horns on the evidence of cord marks on horn cores from the TRB culture as well as ethnographic evidence. Traces of yokes are also known from the wagon burials found in the steppelands north of the Caucasus in the late fourth and third millennia BC. As the 'plow' is reconstructible to PIE a word for 'yoke' might almost have been predicted.

See also BOW, SHAFT, TOOL, WAGON. [D.Q.A., J.P.M.]

YOUNG

*hjau- 'young'. [IEW 510 (*jau-); Wat 79 (*jau-); Buck 14.14]. Olr NQ 'younger', MWels ieu 'younger', OE geong 'young' (> NE young), Goth jugs 'young', Lat juvenis 'young', Lith jaunu 'young', Latv jaunis 'young', OCS junti 'young', Av yvan 'youth', Olnd yuvan 'youth'. The various IE languages reflect some form of this root. Germanic employs a suffix form *hjau-þ-, Latin, Baltic, Slavic and Indo-Iranian reflect an extended zero-grade of *hjau-þ-. From *hjautis 'strength, vitality' the root is definitely of PIE status.

*hjauh-þ-kos 'youth'. [IEW 510 (*yauhKos); Wat 79...
YOUNG

(*yeu-); Buck 14.14. aIr 6ac (DIL 6c) 'youth', Wels ieuanc – ifanc 'youth', Lat iuvenis 'young (cow)', ON ung 'young'; OE geong 'young' (> NE young). OHG jung 'young', Goth juggs 'young', Olnd yuvasā- 'young'. From *h₂oju- 'strength, vitality', i.e. 'one possessed of vitality'. Widespread and old in IE.

*maghus 'young man', *maghuha- 'young woman'. [IEW 696 (*maghu-); Wat 38 (*maghu-); BK 545 (*mag-)]. Olr mug 'male slave or servant', Corn maw 'youth; servant', mowes 'young man', Bre mao 'youth; servant', OE mago 'son; man; servant', mag(ew)p 'maiden, virgin; girl; wife', NE māiden(en), OHG magad 'young woman', Goth magus 'youth', mawi 'young woman', magals 'young woman', Av mayava- 'unmarried'. As if from *magguos is OWel map 'son'; as if from *mak- is OIr mac(c). All possibly from *magh- 'able' (cf. *y̥uh₂hōs 'man' from *y̥eh₂h- 'strength, vitality'). A word mostly of the far west of the IE world with an outlier in Iranian.

*mērjos 'young man', *meriha- 'young woman'. [IEW 738–739 (*merjo-); Wat 38 (*man-); BK 522 (*mar-/*mar-)]. Latin maritus 'husband; lover, suitor' (< *meriha-to- 'one possessed of a young woman'), Alb shemēr 'co-wife, concubine; (female)

cownload (< older shemērē), Grk μείρα 'young man or woman'. Av mārya- 'young man', Olnd mārya- 'young man, lover, suitor'. Somewhat more distantly related is Lith merga 'girl'.

*koryos 'youth'. [IEW 577 (*ker-), Wat 30 (*kor-wo-); Buck 2.25; Szem 3.1]. Myc ko-wo 'boy', Grk κόρις 'boy, son', Kurdish kūr 'son'. At best a late word of the IE southeast. It is not certain that the Kurdish word belongs here and, if not, then the Greek word is best reconstructed as *koryus and taken as a derivative of *ker- 'grow'. The Kurdish word has also been plausibly taken as related to NPers kurre 'foal, colt', Oss kur 'steer, young ox' and, outside Iranian, to Macedonian κύρος 'bastard', and Hit kūrka- 'foal'.

Young men were designated in a number of ways, depending upon their functions and the attitudes they evoked, but the commonest term referring principally to their youthfulness was *h₂ajuh₂-p-kōs based on a widespread root for 'young'. Young women were often referred to by *m(e)riha-, a term which is reflected not only in terms for young women and wives in Greek and Albanian but by terms for bachelors or newly wed males in Latin and Indo-Iranian.

See also Age set, Warriors. [M. E. H., P.B.]
ZARUBINTSY CULTURE

Zarubintsy is the easterly variant of the Przeworsk-Zarubintsy complex of cultures that occupied the northern Dnieper region from the third or second century BC to the second century AD. The culture is known from about five-hundred settlements and cemeteries. The settlements include both open sites and hilltop villages defended by banks and ditches, the later indicating attacks from (Iranian-speaking) Sarmatian tribes. These settlements, consisting of ten to fifteen small houses that measured about 12 to 16 m², have been interpreted as the residences of single tribes. The economy was based on mixed agriculture. Among the plants raised were millet, wheat, barley, rye, pea, lentil, bean, hemp and flax. An unusually high percentage of wild faunal remains may suggest deliberate hunting for skins to supply the Black Sea trading towns. Burial was by cremation in an urn or pit. The territory, both in terms of geographical position and the evidence of early Slavic river names, is probably to be associated with the (Proto-?) Slavic language although there are scholars to argue both a Germanic or Baltic identity.

See also PRZEWORSK CULTURE; SLAVIC LANGUAGES. [J.P.M.]

Further Reading
Zarubintsy  b. House plan from Chaplin; c. Iron spear; d. Burial pit; e. Hand-made pot; f. Iron ax; g Fibula.
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### LANGUAGE INDEX (New Russian)

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**Alphabetic order:** a, å, ä, e, i (i), k, l, ly, m (m), n (n), o, p, r, s, ś, t, ts, u (u), w, y

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FIGURE ACKNOWLEDGMENTS

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Abbreviations:


*JIES* = *Journal of Indo-European Studies*

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2350 BC, in Nomadism and Pastoralism in the Circle of Baltic-Pontic Early Agrarian Cultures, ed. A. Kosko. Poznan, fig. 14, p. 188; HV 1/3, tab. 431.

Sredny Stog: b. Telehin, D. Ya. (1973) Seredn’o-Stohivs’ka Kul’tura Epokhy Midi. Kiev, Naukova Dumka, fig. 48, p. 88; c. ibid., fig. 41, p. 73; d. ibid., fig. 66, p. 141. e. ibid., fig. 39, p. 66; f. ibid., fig. 36, p. 61.


Tartaria: a. Vlassa, N. (1963) Dacia 7, fig. 8, p. 490; b. CG, fig. 8–12, p. 313; c. ibid., fig. 8–22, p. 320.


Trout: Sadovsky, O. (1973) JIES 1, p. 93.


Trzciniec: b.-e. Arkheologiya Ukrainskoy SSR 1 Kiev, Naukova Dumka, fig. 118, p. 438.


FIGURE ACKNOWLEDGMENTS


