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Before Babel: Ancient Tales from Genesis
Retold in Reconstructed Proto-Indo-European

Bertrand C Barrois

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BEFORE BABEL

The oldest of legends retold in the mother of European languages

PREFACE

I composed Before Babel to fill a hole that persists after two centuries of dry academic work on Proto-Indo-European. It seems a shame that nobody has composed a sample of reconstructed text with any literary merit. Schleicher’s fable is clever, but his outdated theories of the proto-language were comically Indo-centric, and his little fable does not do justice to the poetic power of the language.

I looked no further than Genesis and Psalms to find suitable texts. I hope you find my light-hearted “translations” of the tales more substantial than Schleicher’s fablet, and more authentic than Ēnghū’s shameless calques on Latin models. They prove the point that the proto-language, though poor in abstraction, lent itself to narration and poetry.

I also take the opportunity to promote the unprovable theory that the tale of the Flood alludes to a conflict between ethnic groups that worshiped different gods, and that the name Noah (נֹעַ) derives from Indo-European *Nah₂u. Might Cain (כַּן), Abel (אַבֵּל), and Eve (חַוָּה) also have Indo-European origins?

The tales themselves use symbols that are not characteristically Semitic. Sacred trees and evil serpents are staples of Indo-European myth. Could the tales be Hebrew retellings of Indo-European fables?
In fond tribute to the web site Early Indo-European Online, created by the Linguistics Research Center of the University of Texas, I have structured my materials in similar fashion. Besides the annotated tales, the reader will find a précis of my grammatical conventions and a downloadable mini-lexicon, confined to well-attested roots.

Before the reader has a chance to sniff out my distaste for the too-fashionable and over-developed theory of laryngeals, I will freely confess it. Too many different phenomena have been explained by resort to laryngeals, and these theoretical explanations defy rigorous statistical validation via inter-branch correlations. I minimize the use of obscure notation, and will further vent my opinions in the notes on orthographic conventions.

Readers will find the syntax somewhat unorthodox. I was obliged to reinvent complex constructions by imitating models from recorded languages, and to violate canonical SOV word order at every turn. I invite the readers to do better, in the knowledge that some of you will succeed.

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In the beginning, God created the Heavens and the Earth.  
protemō q"ore Deivós nebhesa dheghom(m)-q"e  
- pro-tem-ō = first -- inst-sg of superlative used as adverb. (Superlative suffixes include *temo, mo, isto, istimo.)  
- q"or-et = he made -- weak-grade aorist from root *q"er > Sanskrit akarat  
- deivós = god, divine -- nom-sg, derivative of root *dyeu (sky)
nebh-es-a = heavens, clouds -- acc-pl of abstract neuter *nebh-ës
The suffix of abstract neuters alternates between *os in strong (NAV) cases and *es in weak cases, yielding genus/genera = γενος/γενε(σ)α = janas/janasi, etc.
dheĝhom(m) = Earth -- acc-sg (F) > ġdhom(m) > Greek χθοwa, Sanskrit kśām, Latin humus, Slavic zemę. The root is reduced to ġh.m in weak cases, hence Vedic jm-.

The Earth was unformed and void,

dheĝhōm ne-dhiçtá vana-au bhevet
  • dheňhom / dheňhom-s = the Earth -- nom-sg, feminine as if personified.
  • The nom-sg ending on M/N/R/L/A-stems is routinely suppressed, but compensatory lengthening takes place.
  • dheňc-ta / dig-dha = formed-- nom-sg (F), past passive participle of root *dhi(n)gh > Latin ficta. (This verb literally means to shape dough, or to build with mortar, but figurative derivatives include German dichten, to compose poetry.)
  • vana / euna = empty
  • au = but, whereas-- enclitic conjunction used to express opposition or contrast between simple or strictly parallel elements
  • bhev-et = it was -- imperfect of *bheu, connoting temporary state

and upon the depths was darkness,

bhudhnoisu-qʷe temos bhevet
  • bhudh-noisu = bottom, fundus, πυθμην -- loc-pl > Sanskrit budhnesu
  • tem-os = darkness -- nom-sg of abstract neuter *tem-ës
  • regʷ-os = darkness, ερεβος -- yet another abstract neuter

and the spirit was passing over the waters.

ut' an.mós udéni upéri peret
  • ute = and then, and so -- conjunction used to join complex clauses
  • an(?)mos / an(?)los = anima, ανεμος, anilam, anāl (Old Irish)
  • Synonym: ãtman, atμος, ãfpm < *at
  • Synonym: πνευμα < *pneus
  • udéni = water -- loc-sg of R/N-stem root *vëd-r/n
  • upéri = over, super -- comparative particle opposed to *upo
  • per-et / pi-per-t = it was passing -- imperfect of root *per

And now God said, "Let there be light," and (so) there was light.

nūn-qʷe voqʷet Deivós -- bhevoit leuks ute bhuvet leuks
  • nūn = now
  • qʷe = and -- enclitic conjunction used in simple lists
  • voqʷ-et = he said -- weak-grade aorist of root *veq
  • bhev-oi-t = let there be -- optative of root *bheu
  • leuks = light -- nom-sg, feminine as if personified
And he saw that the light was good,

**videt-q*e q*od kalya**
- *vid-et = he saw -- weak-grade aorist of root *veid*
- *q*od = that -- subordinating conjunction
- *kalya = good, beautiful -- nom-sg (F) > Greek καλλη*

and he separated the light from the darkness.

**skidet-q*e leuk.m apo temesës**
- *skeid-s(t) = he separated -- strong-grade S-aorist of same root*
- *Synonym:  *çrei(n) = separate, sieve > κρινω, cerno, crǐbrum, hrider. Easily confused with antonyms: κεραννυμι, śrayati = mix*
- *apo temes-ës = from the darkness -- Sanskrit fails to distinguish abl-sg from gen-sg for athematic nouns, but the particle serves to clarify the usage.*

The light he called day, but the darkness he called night.

**Hnomnyet-q*e leuk.m dinom temos-au nokt.m**
- *Hnomn-y-et = named -- factitive-denominative verb*
- *dino-m = day -- modeled on Sanskrit dinas, Russian день. May connote division. (Synonyms derive from *dyu, aus, dhegh, with reference to sky or burning heat.)*
- *nokt-m = night -- acc-sg, O-grade of root in NAV cases, E-grade in “weak” cases. (Hittite nekut suggests *neqt, but this should yield νεξτ vice νοντ in Greek.)*

And there was evening, and there was morning, a first day.

**vesqʷeros ausos-q*e bhuvetëm-- dinos p.r.mos**
- *vesqʷeros / vesperos = evening*
- *aus-os = dawn, eos, aurora -- nom-sg of abstract neuter *aus-ës*
- *bhuv-etëm = they were -- 3rd-dual of weak-grade aorist (Exact form of secondary ending is uncertain: tem, tom, tām.)*
- *p.r.mos = first*

Now God said, "Let there be a firmament amid the waters,

**nūn-q*e voqʷet-- bhevoit açmôn udéni medhyöi**
- *aç-môn = firmament -- Means sky in Indo-Iranian, but stone, anvil elsewhere.*
- *medhyoi / medhyei = amid -- loc-sg of adjective > Sanskrit madhye*

to stand between the waters above and the waters below."

**staHtévei inter vedôr uperi vedôr-q*e upo**
- *staH-tév-ei = in order to stand -- dative of supine > Latin statu*
- *inter = between -- particle employed when a mere locative won’t suffice*
- *vedôr = waters -- acc-sg (N). According to one currently fashionable theory, *vedôr connotes waters collectively, *vod.r the substance.*
And it was so. And God called the *firmament* heavens.

**bhuvet -- ute açmon(m) Hnomnyet nebhesa**
- The concept of a stable foundation could be conveyed by *stabhos*, which yields Germanic *stab* and Sanskrit *stambhati*, and is related to *staH* = stand.

And there was evening, and there was morning, a second day.

**vesqʷeros ausos-qʷe bhuvetēm -- dinos anteros**
- an-ter-os / al-ter-os = another, second -- serves as ordinal of *dvo*

And God said, "Let the waters come together, and let the dry land appear."

**nūn-qʷe voqʷet -- son-gʷemoit vedōr ute bhanyoit tersa**
- son / som = together -- particle used here as prefix
- gʷem-oi-t = let it come -- optative > Sanskrit *gamet*, Gothic *kumaiþ*
- gʷen-y-oi-t = let it come -- optative > Latin *veniat*, Greek *βαινοι*
- bhan-y-oi-t = let it appear -- optative of thematic root *bhan-yë*
- bhaH-yē-t = let it appear -- optative of athematic root *bhaH*
- These two roots have been confused. In Greek, *φαιν* = appear, *φη* = announce; but in Sanskrit vice-versa. Latin *fā* = announce, as in Greek; whereas Germanic *bann* < *banja* = announce, as in Sanskrit.
- tersa = dry land, terra -- nom-sg, feminine as if personified

And he called the dry land earth, but the waters around seas.

**Hnomnyet-qʷe t.r.sam dheĝhōm(m) vedōr-au ambhi moria**
- ambhi = around -- particle
- moria / maria = seas, maria -- nom-pl (N)
  (Ambiguous back vowel: Latin *mar*, Gaelic *muir* < *mor*)

And he saw that they were good.

**videt-qʷe qʷod kalya**
- kalya = good, beautiful -- nom-pl (N) to agree with *moria*

Then God said, "Let the dry land bear green plants, and grains, and fruits."

**ute voqʷet -- bheroit t.r.sa bholya ĝ.rH.na karpa-qʷe**
- bher-oi-t = let it bear -- optative > Latin *ferat*
- bhol-ya / dhal-ya = folia, *φυλλα*, *θαλλα* -- acc-pl (N)
- ĝ.rH.na = grāna, corn, зерно
- karpa = fruits, harvest

And it was so, and he saw that they were good.

**bhuvet ute vevoide qʷod kalya**

And there was evening, and there was morning, a third day.

**vesqʷeros ausos-qʷe bhuvetēm -- dinos treitos**
- trei-tos = third -- ordinal of *treis*
Then God said, "Let there be two great lights in the heavens

ute voqʷet -- bhevoitëm meg.lō leukē nebhessu
- meg.lō = great -- nom-dual of *meg.lo-
- leukē = lights -- nom-dual of *leuk-
- nebh-es-su = in the heavens -- loc-pl of abstract neuter *nebh-ēs

to set apart the day from the night,

sonter-dheHtévei dinom nektét
- dheH-té-v-ē = in order to put -- verbal noun from root *dheH
- son-ter = apart -- comparative particle opposed to *son / som
- apo nektēs = from the night -- substitute for abl-sg
  (Current theory predicts E-grade of root in the “weak” cases.)

to measure the days and months and years,

meHtévei dinons meHnesa samrōns-qʷe
- meH-té-v-ē = in order to measure, from root *meH
- meHn-es-a = months, moons -- acc-pl of abstract neuter, from a related root
- sam-rons = summers -- acc-pl

and he put stars into the heavens to light the earth

Hster.ns-qʷe dheHt en nebhesa luktévei dheĝhom(m)
- Hster.ns / Hsternons / Hsterlons = stars, stella, aster -- acc-pl
- dheH-t = he put, he did -- athematic aorist
- luk-té-v-ē = in order to light -- with weak-grade of root

And there was evening, and there was morning, a fourth day.

vesqʷeros ausos-qʷe bhuvetēm -- dinos qʷeturtos
- qʷetur-tos = fourth -- ordinal of *qʷetvōr

Then God said, "Let the waters generate living things,

nūn-qʷe voqʷet -- ġneHskoit vedōr gʷeivons
- gʷeivons = alive -- acc-pl of adjective
- ġneH-sk-oí-t = let it generate -- optative of an inchoative-iterative verb form, modeled on Latin root gnasc. The basic root is simply ġen.

and let birds fly in the heavens."

petoiēnt-qʷe Hvéyes nebhessu
- pet-oi-ēnt = let them fly -- 3rd-pl optative > Latin petant
- Hveyes = birds -- nom-pl of *Hveís > Vedic ves, Latin avis
And he made great serpents and fish and filled the water,
\[ qʷoret-qʷe \text{ meq.lons ogʰins peiskons-qʷe em-p.IH.s(t)-qʷe vod.r } \]
- ogʰins / ongʰins = serpents, ophidians -- acc-pl
- peiskons = fishes -- attested only in Latin & Germanic
- ḡdhuves = fishes, ἤθνες -- attested in Greek and Baltic
- em-p.IH.-s(t) = filled -- S-aorist, modeled on Greek \( έν-ε-πλησ 

and he made birds and flies and wasps and filled the air,
\[ qʷoret-qʷe Hvéins mūskans-qʷe vespans-qʷe em-p.IH.s(t)-qʷe an.mom \]
- mūskans = flies, midges -- acc-pl (F)
- vespans / vopsans = wasps (F)

and he made and beasts and reptiles and filled the earth.
\[ qʷoret-qʷe ḡhvēr.ns serpont.ns-qʷe em-p.IH.s(t)-qʷe dheŋhom(m) \]
- ḡhvēr.ns / gʰhēr.ns = wild beasts, fera, θηρ, звѣрь -- acc-pl
- serpont.ns = reptiles -- acc-pl of present active participle

And there was evening, and there was morning, a fifth day.
\[ vesqʷeros ausos-qʷe bhuvetëm -- dinos penqʷetos \]
- penqʷe-tos = fifth -- ordinal of *penqʷe

Then God said, "Let the earth generate living things:
\[ nūn-qʷe voqʷet -- ġneHskoit dheŋhom \ gʷeivons \]
- pečuns = cattle -- acc-pl (M/F)
- (s)negons = snakes, nagas -- acc-pl

And he saw that they were good.
\[ videt-qʷe qʷod kalyoes/oi \]
- kalyoes / kalyoi = good, beautiful, -- nom-pl (M)

Then God said, "Let us make a man in our likeness,
\[ ut' voqʷet -- qʷeroimē(n) vīrōm som.lom n.sbhos \]
- qʷer-oi-mē(n) = let us make -- 1st-pl optative
- vīrōm / virom = man -- specifically male
- som-lom = similar -- acc-sg, adjective derived from *som (together)
- n.s-bhos = to us > Latin nōbis

so that he might rule the birds, the cattle, the wild beasts, and the crawling things."
\[ ute reģoit Hvēins pečuns-qʷe ḡhvēr.ns serpont.ns-qʷe \]
- reģ-oi-t = let him rule
And then he made humans like unto himself, men and women,

**ute (d)ĝh.m.n.ns svoei som.lons qʷoret -- viróns gʷ.nans-qʷe**
- (d)ĝh.m.n.ns = homines -- acc-pl, derived from *dheğhom
  (Skeleton root gets vocalized as homines, gumans, žmones, doini)
- gʷ.nans = women -- acc-pl of A-stem feminine

And he said to them, "Go and multiply,

**voqʷet-qʷe -- ite augsete-qʷe**
- ite = go -- 2-pl imperative
- augs-ete / aug-éy-ete = wax, augment -- The latter is properly causative.

and rule the fish of the sea, and the birds of the air, and the beasts of the earth.

**reğete-qʷe peisk.ns moréisyo avéins-qʷe an.mosyo ĝhvēr.ns-qʷe (d)ĝhmosyo**
- The pseudo-adjectival genitives ending in *syo are non-restrictive in this context, hence follow the nouns that they modify. Restrictive modifiers normally precede.

Behold, I have given you green plants and seeds and fruit as food."

**veidete -- yusbhos dhalya sehmena-qʷe karpa-qʷe svō paHtum dedoHa**
- yusbhos / vosbhos = to you -- dat-pl of personal pronoun
- seh-men-a = seeds -- acc-pl (N) of verbal noun from root *seH (to sow)
- svō / svei = so, as -- cf. Old Latin seī, Oscan swae, Gothic swō, Greek ὠς
- paH-tum / paH-dhrom / paH-dhлом = food, fodder -- acc-sg of supine of root *paH > Sanskrit pitum, Latin panem, pābulum
- Synonym: gʷroHm.n = βρωμα, grāmen, "voramen"
- de-doH-Ha = I have given -- 1-sg perfect from root *doH. The perfect expresses completed action that bears upon the present, unlike the aorist of narration.

And there was evening, and there was morning, a sixth day.

**vesqʷeros ausos-qʷe bhuvetēm -- dinos sekstos**
- seks-tos = sixth -- ordinal of *seks

And thus the heavens and the earth were finished.

**ute kom-qʷ-r.toes/oi bhuvont nebhesa dheğhōm-qʷe**
- The prefix *kom emphasizes the perfective aspect of the verb. Perfective prefixes are rare in Greek and Sanskrit, but common in all other branches.
- qʷ-r.-toes / qʷ-r.-toi = made -- nom-pl of perfect passive participle from root *qʷer

But on the seventh day, there was an end of the works and God rested,

**alyo sept.mom dinom vergō(n)om antom est ute çoieto Deivōs**
- sept.m-os = seventh -- ordinal of *sept.m
- vergō(n)om = of the works -- O-stem gen-pl ending varies: ōm / önōm / ōsom
- çoi-eto = lay down -- weak-grade middle aorist from root *çei
- logh-eto = lay down -- Middle voice serves to distinguish lie/lay from lay/layed.
And he said, "Let the seventh day be holy."

etí voqʷetqʷe -- sept.mos dínos yagwo syēt
- eti = and also -- used interchangeably with *ute
- yagwos = holy, worthy of worship > Greek ἁγιός
- s-yē-t = let it be -- athematic optative from root *es, connoting permanent state

GARDEN OF EDEN

(Genesis II)

No trees had grown, and no clouds had watered the ground ...

God had made the heavens and the earth,
Deivos qʷeqʷore nehesa dheḡhom(m)-qʷe
- qʷe-qʷor-e = he had made -- 3-sg perfect used in anterior sense

but no trees had grown,
n' avaugér alyo drēves
- drēves = trees (F) -- nom-pl of root *d.r.v
- doru = wood (N) -- from same root
- av-aug-ér = they had grown -- 3-pl perfect from root *aug

and no rain clouds had watered the ground,
n' udvodér-qʷe ombhroes/oideḡhom(m)
- ud-vod-ér = they had watered --3-pl perfect from root *ved
- ombhroes / ombhiro = clouds -- related to root *nebh

there was no tiller of the fields,
n' est-qʷe aratôr aḡro(n)om
- es-t = there was -- imperfect of root *es. Present tense would be *es-ti.
- ara-tôr = tiller, arator -- nom-sg, from root *HerH (plough, oar)
- aḡro(n)om = of the fields
but now a mist came and watered the ground.

**ute nūn mıghla gʷomet udet-qʷe dheghhom(m)**
- gʷom-et = it came -- weak-grade aorist > Sanskrit *agamat*, Greek *ἐβη*
- mıghla = mist -- nom-sg from root *mi(n)gh*, connoting both urination and rain
- ude-t = watered -- weak-grade aorist from root *ved / u(n)d*

God formed a man from clay and blew into his nostrils,

**dhíghet Deivós vīróm gloioet bhloHt vīróei en mukter.ns**
- dhíg-h = formed -- weak-grade aorist from root *dhi(n)gh*
- dheik-s(t) = alternative strong-grade S-aorist > Latin *finxit*
- gloioet = from clay -- abl-sg
- bhloH-t = he blew, inflated -- athematic aorist from root *bhoH*
- vīróei = to the man -- dat-sg
- muk-ter.ns = nostrils -- acc-pl of agent-noun *muktēr* from root *mu(n)g*
  
  (The verb ordinarily connotes release of breath, but here the intake.)

and blessed him, and the man came alive.

**bhlaqhs(t)-qʷe vīróm ute gʷeiv.s(t) vīróś**
- bhlaqh-s(t) = S-aorist of root *bhlaqh* or *blagh*
- gʷeiv-s(t) = came alive -- strong-grade S-aorist modeled upon *ajīvišīt*

And God planted a garden in[to] the east, and there he put the man

**ghordhom dheHt Deivós en austrom toter-qʷe vīróm stelyet**
- ghordom = garden, hortus
- aus-trom = east -- acc-sg, related to *aus-ēs* (dawn) from root *aus* (burn). Opposed to *vesqʷero / vespero / vestero* (evening, west).
- to-ter = thither (dynamic)
- tosmi = there (static)
- stel-y = installed -- Imperfect -- Factitive verb *stel-yē* has no distinct aorist. Yields Greek *ἐστελλε*, with altered meaning.

And from the ground he made to grow
trees pleasant to the eye and fruits sweet to the tongue,

**augéyet (d)ḡhomoet druns svāduns oqʷoei karpa-qʷe svaduá denḡhévei**
- aug-é-y = made to grow -- Causative verb *aug-éyē* has no distinct aorist.
- (d)ḡhomoet = from the ground, humus
- druns = trees -- acc-pl
- svāduns = sweet, pleasant -- acc-pl of U-stem adjective
- denḡhévi / linḡo- = to the tongue, licker -- dat-sg

and put a giver-of-life tree into the middle of the garden,

**eti dreum-qʷe ayu-dohHtōr.m medhyōi en ghordhom dheHt**
- ayu / aiv = life, health
- doH-tōr = giver -- acc-sg of agent-noun
and a tree giver-of-vision

**dreum-q*े visti-doHtôr.m**

- vis-ti / vid-ti = vision -- combining form of I-stem verbal noun
- ġnoH-ti = knowledge -- combining form of I-stem verbal noun
- There is no known semantic distinction between I-stem and U-stem variants. The I-stem yields Greek nouns in σις < τις, and Latin nouns with extended stem *tion*. The U-stem yields Latin and Sanskrit supines, as well as some Germanic words in *t < þu.*

And God put the man in the garden as tiller,

**ute dheHt Deivôs vîróm en ghordhom aratrô**

- arH-trô = as arator -- instrumental of role or specification

and he commanded the man, saying,

**deiçs(t) vîróei, veq*ons**

- deiç-s(t) = he commanded -- S-aorist > dixit, adhaikšīt, εδειξε
- diç-et = alternative weak-grade aorist (unattested) from same root
- veq-ons = saying -- present active participle of root *veq

"You may eat the fruit of all the trees,

**ap' alnoibhos druōm estum karpa maghesi**

- apo = from -- Inserted to clarify usage, because abl-pl has merged with dat-pl.
- al-n-oibhos = from all -- abl-pl of *al-no (all), closely related to *al-yo (other) > Old Latin olle, Germanic all, Gaelic uile
- es-tu-m / ed-tu-m = eating -- nom-sg, supine of root *ed
- magh-esi = thou mayest, thou canst -- 2-sg present indicative

but do not eat (however) from the vision-tree.

**n’ ede-au ap’ visto-druës**

If you will eat of her, you will die."

**q"o-svô edēsi apo taës, to-svô m.r.tos esēsi**

- q"o-svô ... to-svô = if ... then -- fanciful reinvention of conditional conjunctions. The conjunctions coined by recorded languages are not authentic models. Greek uses *ei ... ev*, Sanskrit *yad ... yad*, German *wenn ... so*, Gothic ibai ... ḣan, Russian ecnu ... mo, and Latin *si* ...
- ed-ēsi = thou shalt eat -- Feasible condition expressed via subjunctive.
- es-ēsi = thou shalt be -- Yields Latin future eris.
- apo taës = from her -- substitute for abl-sg of A-stem demonstrative. (Trees are feminine, especially when personified, as is this unique tree.)
- m.r.-tos = dead -- past passive participle of root *mor-yê*
Then God said, "It is not good for man to be alone."

_ute voq*et Deivós -- ne-vesū q*od vīrós vidhvos syet_
- vesū / su = happy, good, eu -- inst-sg used as adverb
- vidhvos = widower, bachelor (M)

So out of the ground, God made the beasts and the birds,

_ute ĝhvēr.ns Hvēins-q*e q*oret Deivōs (d)ĥhomoet_
- (d)ĥhomoet = from the humus -- abl-sg of O-stem variant
- Unusual OVS word order driven by focus.

and he brought them to the man,

_bhoret-q*e vīróei_

and the man gave them names

_ute vīrōs toibhos Hnomena doHt_
- toibhos = to them -- dat-pl
- Hnomena = names -- acc-pl of neuter noun. (The initial laryngeal left traces in many branches: Greek _ονόματα_, Russian _имена_, Old Irish _ainmanna_.)
- doH-t = he gave -- athematic aorist. Default SOV word order.

...to the cattle of the field and the birds of the air and the beasts of the plain,

_Pecübhos agrosyo Hvibhós-q*e an.mosyo ĝverbhós-q*e p.l.tēusyo_
- p.l.t-éu-sy0 = of the plain -- pseudo-adjective from root *p.l.t-u
  (not to be confused with participle *p.lH.-to = filled)

but there was no fitting beloved for the man,

_n’ est alyo sata kāra vīróei_
- alyo = but -- conjunction used to oppose complex clauses
- sata = satisfactory
- kāra = beloved, whore

So God caused the man to sleep, and pulled out a bone,

_ute supéyet vīróm Deivōs osti deuks(t)-q*e_
- sup-éy-et = he caused to sleep -- Imperfect
  (Causative form has no distinct aorist.)
- osti / kostim = bone (N) or rib (F) -- acc-sg
- deuk-s(t) = he pulled -- S-aorist modeled upon Latin _duxit_

and closed the wound in the chest with hide

(S)tegs(t)-q*e v.l.nom bhreusōi (s)kutō-bhi
- (s)teg-s(t) = covered, hid -- strong-grade S-aorist > Latin _texit_, Greek _εστεξε_
- v.l.nom = wound, vulnus -- acc-sg. Latin remodels this as an abstract neuter.
  (The skeleton root gets vocalized as _vuln_, _ovl_, _vran_.)
- bhreusoi / bhreusei = in the breast -- loc-sg
(s)kutō-bhi = with hide -- instrumental construct

and formed a woman from the bone and brought her to the man
qʷoreːt-qʷe ap’ ostēis gʷénam bhoreːt-qʷe vīrōei
• ap’ ostēis = from bone -- substitute for abl-sg

And the man said, "She is the bone from my bone and the flesh from my flesh."
ute voqʷet vīrōs -- sā tod óstī me(n)oet ostēyet tod krovi-qʷe meoet krovēyet
• sos, sā, tod / yos, yā, yod = he, she, it -- nom-sg pronouns
• me(n)oet = from my -- abl-sg of possessive adjective > Old Latin meōd
(The proper genitive form of the pronoun defies reconstruction.)
• krovis / kroivos = flesh, blood, κρεας -- nom-sg

Therefore shall a man leave his father and mother,
tosmoet linēqʷeti vīrōs patér.m mātér.m-qʷe
• tosmoet = therefore -- abl-sg of extended root *tosmo > Sanskrit tasmāt
• linēqʷeti = he shall leave -- 3rd-sg subjunctive from root *li(n)q > Sanskrit rinākati, with accented nasal infix, but Latin future linquet
• patér.m mātér.m-qʷe = father and mother -- acc-sg. Accent shifts in weak cases.

but cleave to his wife, so that they be yoked.
gʷ.náei au adi gliōēti ute yugóm bhevōnti
• Pun: *gliōis connotes glue as well as the clay of which men are made.
• gliō-ēti = he shall cleave -- subjunctive of root *glēi
• yugóm = yoke, junction -- nom-sg (N)
• bhev-ōnti = they shall become -- subjunctive of root *bheu

They shall love and they shall stick.
lubhyōntoi leipōntoi-qʷe
• Missing verse, rediscovered by telepathic communication with ancient authors.
• lubh-y-ōntoi = they shall love -- from root *leubh-yē
• leip-ōntoi = they shall stick -- from root *leip
They were naked, but they knew it not.

They were naked, but they knew it not.

nogʷ*.tō estēm alyo ne ţnoHtēm
  • nogʷ*.tō = naked -- nom-dual -- This adjective resembles a participle.
  • ţnoH-tēm = they knew -- 3rd-dual athematic aorist

But the serpent was more knowing than other beasts.

au alyo(n)ōm ĭghverōm ţnoHteros
  • vīs-ogh*his = poison-opidian -- combining form of *vīsom (N)
  • ţnoH-ter-os = more knowing -- comparative

He said to the woman, "Has God forbidden eating from the trees in the garden?"

voqʷet-qʷe gʷ.ṇāei -- proti-dedoице Deivōs estum apo druōm ghordhoi
  • proti = against
  • de-doіc-e = he has commanded -- perfect
  • es-tum / ed-tum = eating -- acc-sg of verbal noun from root *ed
  • apo = from -- particle used with genitive as substitute for ablative

And the woman said to the serpent, "We may eat the fruit of the trees,

voqʷet gʷéna ogʷhéyei -- karpa druōm estum maghovēs(i)
  • magh-ovēs(i) = we may -- 1st-dual present indicative
but he has forbidden one tree in the middle,
\textit{alyo proti-dedoiçe oinam dreum medhyöi}
\begin{itemize}
  \item oinam = one -- acc-sg (F)
\end{itemize}
nor should we even touch it, lest indeed we become mortal."
\textit{ne tangövës(i) eti svō-ne m.r.tō ghe bhevövës(i)}
\begin{itemize}
  \item tang-övës(i) = we shall touch -- 1st-dual subjunctive
  \item bhev-övës(i) = we shall be -- 1st-dual subjunctive
  \item Sanskrit uses a hodgepodge of primary and secondary endings in the subjunctive, but Greek uses primary endings consistently. We shall follow the Greek model.
  \item svō-ne = lest, so not
  \item ghe -- because the serpent is asserting something surprising
\end{itemize}

But the serpent said to the woman,
\textit{voqʷet alyo ogʷhis gʷ.naei --}

"You will not perish. God knows that having eaten from that tree,
\textit{ne gʷdhinéHtetës ghe -- Deivós ĝnoHtí qʷod (ed)edvosē apo taës druës}
\begin{itemize}
  \item This verb should be in the middle voice, to avoid confusion with \textit{destroy}, but the authentic 2nd-dual middle endings are unknown, so we would have to substitute the plural. The use of active voice dodges that problem.
  \item gʷdifH-sy-etës = you will perish, decline -- 2nd-dual S-future of root *gʷdhiH

> Greek \textit{φθισετον} (active) or \textit{φθισεσθον} (middle)
  \item gʷdhinéH-etës = you shall perish, decline -- 2nd-dual subjunctive with nasal infix

> Greek \textit{φθινητον}, Sanskrit \textit{kšiñāhas}
  \item (ed)edvosē = having eaten -- nom-dual of perfect active participle. Reduplication seems optional, because it is semantically superfluous. The nom-sg suffixes are \textit{vōs} / \textit{vons}, with "weak" form \textit{us}, and feminine \textit{usia}.
\end{itemize}

you will see with your eyes, and you will become gods, and you will know good and evil.
\textit{veitsyetës oqʷōis, bheusyetës-qʷe deivō, ĝnoHsyetës-qʷe vesum deusom-qʷe}
\begin{itemize}
  \item veid-sy-etës = you will see -- S-future
  \item bheu-sy-etës = you will be -- S-future
  \item ĝnoH-sy-etës = you will know -- S-future
  \item vesum = good -- acc-sg (N)
  \item deusom= bad, evil, dys -- ordinarily a prefix, but here remodeled as an adjective
\end{itemize}

The woman having seen that the tree bears good fruit and is pleasing to the eyes,
\textit{gʷéna (ve)vidusia qʷod bhereti dreus su-karpa eti oqʷoibhos svādus est}
\begin{itemize}
  \item bher-eti = bears -- present of root *\textit{bher}
  \item tol-y-eti = bears -- present of root *\textit{tol-yē} / \textit{t.IH}.
\end{itemize}

and desiring for knowledge, she grasped an apple and devoured it,
\textit{ĝnoHtim ĝhoryonta-qʷe labhet gʷroHt-qʷe abloom}
• ĝhory-ont-a = desiring -- nom-sg (F) of present active participle of root *ĝhēr-yē
  > Doric Greek ἡροντι, Sanskrit haryanti, Latin horiuntur
• labh-et = she grasped -- weak-grade aorist of root *la(m)bh > Greek ελαβε
• gʷroH-t = devoured -- athematic aorist > Greek ἐβρω
• ablom / amlom / malom = apple -- Unaspirated *b is rare.

and she gave an apple to the man, and he bit.

doHt-⋆e sa ablom vīróei bheids(t)-qʷe sos
  • bheid-s(t) = he bit -- strong-grade S-aorist of root *bhi(n)d > Sanskrit abhaisīt
  • bhidh-et = he bit -- alternative weak-grade aorist > Latin fīdit

and they saw, and they knew their nakedness,
ute videtēm ĝnoHtēm-⋆e svom nogʷ.tum

and they sewed clothes from leaves.
sivetēm-⋆e vestra apo dhalyobhos

• siv-etēm = they sewed
• ves-tra = clothes -- acc-pl (N)
• apo dhalyobhos = from leaves -- abl-pl

Having heard the sound of feet in the garden,
(ke)kusvosē pedōm svonom ghordhōi
  • pedōm = of feet -- gen-pl, with E-grade root in the “weak” cases
  • (ke)kus-vos-ē = having heard -- perfect active participle of root *Hkous

the man and the woman hid themselves in the shade between the trees.
kudhonto vīrōs gʷēna-⋆e en skotōm drusú medhyōi
  • kudh-onto = they hid themselves -- 3rd-pl middle aorist of root *keudh
  • en = into (dynamic) -- The static sense could be conveyed by the locative case, but the
dynamic preposition into demands the accusative.
  • skotom = shade -- acc-sg (M)
But God called out to the man, "Where art thou?"

**ute ĝhvet Deivós vîróei -- q"osmi essi ?**
- ĝhv-et = called out -- weak-grade aorist of root *ĝhve-yë
- q"osmi = where? -- cf. *q"oter = whither?

And the man said, "I have heard a sound -- it was you walking through the garden,

**voq"et-q"e vîróós -- svonom kekousa -- tu ghordhoi t.ṛH. ĝhonģheHs**
- svonom = sound -- acc-sg
- ke-kous-a = I have heard -- 1st-sg perfect of root *Hkous > akoukα
- tu = thou -- used for special emphasis in context
- ĝhonţheH-s = you were walking -- 2nd-sg reduplicated imperfect
  > Sanskrit ajaḥās, Germanic gangis (reduplicated present)
- ĝheHs = you walked -- athematic aorist > Sanskrit aḥās
- t.ṛH. = through -- particle -- vocalized as trā in Latin

and I have been afraid, because I am naked, and so I have hidden."

**bhebhoia q"osmoet nog".tos esmi ute kekudha**
- bhe-bhoi-Ha = I have been afraid -- 1-sg perfect of root *bhei
- q"osmoet = because, why? -- abl-sg of extended root *q"osmo
- esmi = I am -- 1st-sg present
- ke-kudh-Ha = I have hidden -- 1st-sg perfect > Greek kεκυθα

And God said, "Who hath told thee that thou art naked?

**voq"et Deivós -- q"is dedoiće q"od nog".tos essi**
- q"is = who? (M/F)
- q"od = what? (N)
- q"oteros = which? (M)

Hast thou eaten from the forbidden tree?"

**edesta apo proti-diçtaês druës**
- ed-es-ta / ed-ed-ta = you have eaten = 2nd-sg perfect of root *ed
- diç-taês = commanded -- gen-sg (F)

And God said to the woman, "What hast thou done?"

**voq"et-q"e Deivós  g".náei -- q"od dhedheHta?**
- dhe-dheH-ta = you have done -- 2nd-sg perfect
  (Compare *dhi-dheH-si reduplicated present.)

So the woman said, "The serpent hath mislead me, and I have indeed eaten."

**voq"et-q"e g"énə -- apo-dedouke me og"his ute ededa ghe**
- de-douk-e = he has pulled -- 3rd-sg perfect of root *deuk > Germanic tōh / tōg
- ed-ed-a = I have eaten -- 1st-sg perfect
So God said to the serpent,
\[\textit{voqʷet-qʷe Deivós ogʷhéyei}\]

"As thou hast done this, so thou shalt be lower than the cattle and the beasts.
\[\textit{svō-qʷe dhidheHta ute pecévōm ġhvērōm-qʷe niteros esēsi}\]
- ni-ter-os = nether -- comparative formed from particle \(*ni\)

Upon thy belly thou shalt crawl, and humus shalt thou eat, forever.
\[\textit{(s)negēsi breusōi edēsi-qʷe (d)ghomóm en aivons aivōm}\]
- \((s)\)neg-ēsi = thou shalt crawl
- bhreusoi / bhreusei = on breast or belly -- loc-sg
- aivons = ever, ætates, eons -- acc-pl from root *ayu / aiv = life, health
- en aivons aivōm = εν τοις αιωνας των αιωνων

I shall put enmity between thee and the woman, between thy sons and her sons.
\[\textit{dusm.n enter gʷénam tve-qʷe dhidheHōmi enter tvons suHtóns svons-qʷe suHtóns}\]
- dus-m.n = enmity, badness -- acc-sg (N) verbal noun of *dus / divis
- tve = thee
- dhi-dheH-ōmi = I shall put -- 1st-sg present indicative or subjunctive
- enter = between (dynamic) -- cf. *medhi (static)
- tvons ... svons = thy ... his/her -- acc-pl of possessive adjectives
- suH-tons / suH-nons = sons -- acc-pl, participles of *suH = to be fertile

He shall step on your head, but thou shalt hurt his heel."
\[\textit{tvod kapot ēpi steibēti sperneuti-qʷe svam persnam-au gʷhenēsi}\]
- kapot = head -- acc-sg (N) -- O-grade in NAV cases, E-grade in "weak" cases
- ēpi / opi / ana = upon, onto (dynamic) -- with object in accusative
- steibh-ēti = he shall step -- subjunctive > Greek \(στειβητι\)
- sper-neu-ti = he spurns -- indicative
- sper-nēv-ēti = he shall spurn -- subjunctive
- au = but -- enclitic conjunction used to oppose simple elements
- persnam = heel -- acc-sg
- gʷhen-ēsi = thou shalt injure > Sanskrit \(hanasi\), Latin \(de-fendas\)

And God said to the woman,
\[\textit{voqʷet-qʷe Deivós gʷ.náei}\]

"I will multiply the pain of the womb, and in pain shalt thou bring forth children.
\[\textit{gʷherbhosyo gʷolóm augéyōmi eti sununs gʷoló-bhi tokyēsi}\]
- gʷherbhosyo = of the womb -- gen-sg
- gʷolóm = pain -- acc-sg, derived from verbal root *gʷel-yē
- gʷoló-bhi = with pain -- instrumental construct
- tok-y-ēsi = thou shalt bring forth -- 2nd-sg subjunctive of *tek-yē > Greek \(τικτης\)
yet thou shalt love the man, and he shall rule over you."

And God said to the man,

"Because thou hast listened to the woman, and hast eaten from the tree,

therefore the humus shall be cursed.

In sharp toil (instr.) thou shalt till forever;

thorns shall grow from the soil, and thou shalt eat the harvest of the fields.

In sweat, thou shalt have a share,

until thou returnest to the soil

Thou art a human from humus, and to humus thou goest."

Then the man called the woman Eve, because she is the ancestress of all.

The name Hava (חוה) resembles the Hebrew root for life (حياة) but could just as easily derive from the P.I.E. root *Hav > Latin avus, Gothic awo.
And God gave them garments of hide.

**ute doHt Deivós tobhōm (s)kutosyo vestra**
- tobhōm = to them -- dat-dual
- (s)kutosyo = hide, leather -- gen-sg

And then he said, "The man has become like *one of us*, knowing good and evil,

**voqʷet-qʷe -- bhebhúve oinoei n.sōm som.los, vesum deusom-qʷe ĝnoHnts**
- Unredacted polytheism -- God is speaking to his sons -- more in Chapter VI
- bhe-bhuv-e = he has become -- perfect > Sanskrit babhūva, Greek πεφυκε
- oinoei = to one -- dat-sg
- n.s-ōm / nos-tr-ōm = of us, of our -- cf. Greek `ήμων < *ησμῶν

so lest he grab fruit from the tree and become immortal,

**svō-ne ghrebhnuyęt karpa apo druęs ute bhevoit-qʷe ne-m.r.tós**
- ghrebh-nu-yē-t = that he might grab -- optative expresses potentiality
- Synonyms: *ghrebh = la(m)bh = ghe(n)d = em
- Another pun: Each of these words connotes both *grasp* and *understand*.

but rather live forever,

**gʷeivoit-au en aivons**

let us drive him from the garden into the fields."

**ağoinę(n) tom ghordhoet en agrayns**

And God placed a guardian in the east,

**stolet-qʷe speçtór.m auströl**
· aĝ-oimën = let us drive -- 1st-pl optative > Latin agâmus
· *aĝ originally referred to driving goats, hence *âgêos > âiç
· speç-tôr = guardian -- agent of *speç-yê
· aus-tr-oï / aus-tr-eï = east -- loc-sg, derived from verb root *aus = burn

carrying a torch, and barring the path to the tree.

**bhlogeom bherons -- anti-staHns-q*e druëi pont.m**
· anti = in front, ante
· bhlogeom = torch, φλοξ -- also related to English black (charred)
· pont.m = path -- This word traveled far. The Germanic branch received it in a form that clearly bypassed Grimm’s Law. The Sanskrit form is pathan.

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The tale of Cain and Abel scrambles the historical progression from hunter-gatherers, to nomadic herdsmen, to sedentary farmers. After killing his brother, Cain reverts to hunting, and his alleged prior occupation as tiller is forgotten in Chapter VI, where Noah is described as the first tiller.

Conflicts between farmers and herdsmen occur even today, so I have given Cain a motive: He wanted to put idle Abel to work in the fields.

Adam and Eve lay together and conceived a son.

**Atta Hava-q*e son-çoi onto ute suHnéum ĝneHtëm**
· Atta = Adam, Daddy
· Hava = Eve, Ancestress -- possible related to Hebrew חוה
· son-çoi-onto = they lay together -- 3rd-pl middle of weak-grade aorist.
  (This is a euphemism. The plain term for sexual intercourse is *yèbh / yobh-yö.)
· suH-néum / suH-tóm / suH-nóm = son -- acc-sg, from root *suH = to give birth
• ĝneH-têm / ĝon-etêm = conceived, begot -- thematic or athematic aorist

And Eve said -- I have acquired a son from God.
voqʷet-qʷe Hava -- qʷeqʷriHa suHnéum deiwójet
- The original Hebrew text uses the verb QNH (קדש) connoting purchase, but the Septuagint and Vulgate translate it as εκτησαμην < κταομαι and possedi. The name QYN (קִנְי) seems to be connected, but the medial Y seems out of place.
- qʷe-qʷriH-Ha = I have bought -- 1st-sg perfect of root *qri(n)H > English hired

And Eve named the son Cain after the bitter price in the garden
ute Hnomnyet Hava suHneum Qʷoinom ap’ açréus qʷinoet ghordhoi
- qʷoinom = price, ποινη, цѣна -- acc-sg (M)

And in the second summer, she bore his brother.
ute anteröi samröi-qʷe bhrātr.m toket
- bhrā’tr.m = brother -- acc-sg
- tok-et = she bore -- weak-grade aorist of root *tek > Greek ἔτεκε (The literal meaning of this verb is to flow from a source.)

And Eve named the brother Abel after the sweet fruit in the garden.
ute Hnomnyet Hava bhrātr.m Ablom apo svadéus karpoet ghordhōi
- The name Abel (הבל) has no known Hebrew root.
- ablom / amlom / mālom = apple -- acc-sg
- Apples are native to the region around the Black Sea.

Abel became a keeper of sheep, but Cain a tiller.
Ablos ovéyōm paHstōr bhuvet Qʷoinos au aratōr
- ovéyōm = of sheep -- gen-pl
- paHs-tōr = shepherd -- nom-sg, from *paHs, variant of *paH = feed

Years having passed.
yēroes/oi (te)tokvóses
- yēroes / yōroes = years -- nom-pl
- (te)tok-vōs-es = having passed, flowed -- nom-pl of perfect active participle.
  (This is a nominative absolute construction. Honi soit qui mal y pense.)

Cain brought to the Lord the harvest of the field,
bhoret Qʷoinos Potéyei aratósyo karpons
- arH-tósyo = of the [arable] field -- gen-sg

but Abel brought a firstling of his flock.
Ablos au peçévōm gʷerbhom
- gʷ.ɾ.bhom / gʷ.l.bhom = womb, newborn, calf -- acc-sg > Sanskrit garbham, Slavic ژربه, Greek βρεφον / δελφον, Germanic kalb
And God smiled upon Abel and his gifts, but turned from Cain.

```
smeis(t) Deivós ēpi Ablom donóns-qʷe vortet-au apo Qʷoinoet
```
- **smei-**s(t) .. ēpi = smiled upon

To Cain he said -- Why are you angry?

```
Qʷoinóei voqʷet -- qʷosmoet anğhus essi?
```
- **qʷosmoet** = why, whence? -- abl-sg of extended root *qʷosmo
- **anğhus** = angry, anxious, narrow
- **gʷ.r.H-us** = heavy, (fig.) sad

If you act well, then you will win.

```
qʷo-su aģhesoi, to-svō venēsoi
```
- **aģhesoi** = you will act, conduct thyself -- 2nd-sg middle S-future
- **venēsoi** = you will win -- 2nd-sg subjunctive

If you act badly, then you will have bad intent, and evil will rule you, so rule yourself.

```
qʷo-dus-ağyesoi, to-svō dus-venskēsi, eti mēlos tve reğsyeti, ute reğgoiso sve
```
- **dus** = bad, dys -- prefix
- **vol-y-ēsi** = you will want -- 2nd-sg subjunctive
- **venskēsi** = you will wish -- 2nd-sg subjunctive -- contrast with *venēsoi
- **reğ-oi-so** = rule thyself -- 2nd-sg optative used as middle-voice imperative

Then Cain said to his brother -- Come -- Let the two of us go to the field.

```
ute Qʷoinos bhrārei voqʷet -- gʷeme -- iyēvē(n) aratóm
```
- **gʷeme** / gʷen-y-e = come -- 2nd-sg imperative
- **iyēvē(n)** = let us go -- athematic optative (with mood sign yē vice oi)
- The verb *ei can take a destination as direct object.

The two having entered the field, the senior slew the junior.

```
(y)eyvosē aratóm, gʷhonet senyōs yunyos.m
```
- **(y)ei-vos-ē** = having gone to -- nom-dual, nominative absolute
- **gʷhon-et** = he slew -- weak-grade aorist > Latin de-fendit
sen-yōs = senior -- nom-sg comparative
yun-yos-m = junior -- acc-sg comparative
Comparative suffixes include *yos, tero.

And God said to Cain -- Where is thy brother?
voqʷet Deivós -- qʷosmi bhrāter?

But Cain said -- I don’t remember. Is it I who am my brother’s keeper?
voqʷet-au Qʷoinos -- ne memena -- esmi eγo orbhosyo paHstōr?
orbhosyo = of the orphan -- gen-sg. (Cain is being sarcastic. Orphans were always put to hard work to earn their keep.)
me-men-Ha = I have remembered -- 1st-sg perfect of root *men
eγo = I -- Subject pronoun is included for special emphasis.

And God said -- The blood of thy brother calls from the earth that has drunk it.
voqʷet-qʷe Deivós -- bhrātrēs esar ġhvēyeti pibusēs aratōet
esar < esH-R/N = blood -- nom-sg (N), declines like *vod-R/N
ġhvēyeti / ġheveti = call out > Sanskrit hvayati / huvati, Russian зовēт
pib-us-ēs = having drunk -- gen-sg same as abl-sg, to agree with antecedent -- perfect active participle of root *poH, commonly reduplicated as *pib / bib

Whenever thou shalt till the field, it shall not feed thee.
qʷon-dō aratōm kersēsi, ton-dō tve ne paHyēti
qʷon-dō ... ton-dō = when ... then
kers-ē-si = thou shalt till -- root *kers > English harrow, horse.
paH-yē-ti = it shall feed -- athematic subjunctive resembles optative
Irony: *paHyēti echoes *paHstor.

So thou shalt flee and wander around the earth.
ute bheugēsi ambhi-ġhenḡheHyēsi-qʷe dheḡhom(m)
bheug-ē-si = thou shalt flee > Latin fugas, Greek φευγμής (dialectical root)
ġhe(n)-ġheH-yē-si = thou shalt walk > Sanskrit jahāyāsi, Gothic gangais, cf. Baltic root żeng
The tale of Noah apparently alludes to the catastrophic Black Sea Flood of 5600 BCE. The legendary history was not scientifically confirmed until the 1980s, when geologists got permission from the Soviet regime to take sediment samples. The evidence remains controversial, but I take Ryan & Pitman’s theory as fact.

After the end of last ice age, around 5800 BCE, the sea level rose until the Mediterranean spilled over the thin strip of land separating it from the Pontine -- until then a landlocked freshwater lake -- cutting a narrow channel and filling it with saltwater. By the best estimates of geologists, the water level would have risen 80 meters in two years, and the shoreline would have receded very slowly, allowing the inhabitants to walk to safety with their animals, although boats might have been lifesavers for those who attempted to wait out the flood on high ground and soon found themselves surrounded by rising water.

The preamble tells of a rivalry between “sons of the gods” and “sons of the ground”. Lest you have any doubt that gods means sky-gods, read the tale of Babel closely. The gods descend to punish the uppity builders of a tower, most likely a fortified burg on high ground. I read this as an allusion to ethnic warfare between the Proto-Aryans and their neighbors around the Black Sea, so I have reimagined the Nephelim as Proto-Aryans who fancied themselves nepotes of the sky-god.

The Semitic authors of Genesis saw themselves as the survivors, and took literary revenge by having both sides drown, but they named the legendary boatman Noah -- which makes no sense as a Hebrew word, but perfect sense as the P.I.E. word Nahus.
Men had multiplied on the ground,  

\( \text{vīroes/oi (d)ghémi avaugér} \)

and had begotten daughters,  

\( \text{ḡeḡonér-q\*e dhughátr.ns} \)

and the sons of God had seen  

\( \text{ute deivósyo suHnéves vevidér} \)

that the daughters of men were fair,  

\( \text{q\*od vīro(n)om dhughátres kalyaes} \)

and had desired them and chosen wives  

\( \text{ute lelasér ḡeḡusér-q\*e ḡ\*énans} \)

and begotten Nepotes.  

\( \text{ḡeḡonér-q\*e nepôt.ns} \)

They were the mighty ones.  

\( \text{toi Hneres bhuvont} \)

- av-aug-ér = they had multiplied -- 3rd-pl perfect, in anterior (pluperfect) sense
- dhughátr.ns / dhúktr.ns = daughters -- acc-pl
- ḡeḡon-ér = they had begotten
- ve-vid-ér = they had seen
- le-las-ér = they had [sexually] desired  
  (Root *las-yē yields Sanskrit \( \text{laṣati} \), Greek \( \lambda\lambdaα\lambda\epsilon\tau\alpha, \lambda\alpha\sigma\tau\eta \).)
- ḡeḡus-ér = they had tasted, chosen
- nepot.ns / nepet.ns = grandsons, nephews -- acc-pl  
  (Sanskrit treats the acc-pl as a “weak” case, hence possibly E-grade.)
- toi / yoi = they -- Demonstrative and relative usage varies by branch.
- Hneres = ῥήπ, nara -- connotes strength (viz. Gaelic \( \text{ner} \))

Then said the Lord, "Man is of flesh and blood.  

\( \text{nūn-q\*e voq\*et Deivós -- vīrós krovys} \)

- voq\*-et = he said -- weak-grade aorist

He is mortal, but he shall live for a hundred years."

\( \text{m.r.tós esti alyo g\*eivēti ç.ntom yērons} \)

- m.r.-tós -- The distinction between \textit{dead} and \textit{mortal} is routinely confused.
And God saw that earth-men and sky-men were enemies,

\[\text{ut' vevoide Deivós q*od (d)ĝhomikoes/oi deivikoes/oi-q*e dusmónes bhuvont}\]

- (d)ĝhom-ik-oes = earth-men -- Alternatively: *ĝdhom.loi > χθαμαλοι
- deiv-ik-oes = sky-men, god-men
- dus-món-es = enemies

So he was angry, and he said,

\[\text{ut' anĝhstor voq*et-q*e}\]

- anĝh-stoi = was angry, anxious -- 3rd-sg middle S-aorist
- (Schleicher’s fable uses *agh-nu-toi in the present tense.)

I shall destroy the earth-men and beasts, crawling things and birds.

\[\text{noç(e)yōmi vīróns (d)ĝhomikons ĝhvēr.ns-q*e (s)negons Hvéins-q*e}\]

- noç(e)y-ōmi = I shall destroy

But God loved Noah.

\[\text{alyo Nahu-potim Deivós lubhyet}\]

- Root *naHu < **neh²u -- possible source of Hebrew name NWH (ניָו) > Greek ναυς, νηϝ-; Sanskrit nāus, nāv-
- Nahu-potis = Noah, ship-master
- lubh-y-et = he loved -- Imperfect

The Earth stank into God’s nose,

\[\text{(s)mordet dheğhōm Deivóei en nasom}\]

- (s)mord-et = stank -- weak-grade aorist of root *(s)merd > Latin merda
- Alternatively *pū, but this root can also connote purify.
  > Latin putēre and putāre, Sanskrit pūyati and puṇāti
- en nāsom = into the nose -- acc-sg

and he saw that blood had flowed on the Earth.

\[\text{vevoide-q*e q*od krovis susréve (d)ĝhemi}\]

- su-srév-e = it had flowed -- perfect of root *sreu > Latin rivus
- krovis / esar = blood

Then God said to Noah,

\[\text{ut' voq*et Deivós Nahu-potéyei}\]

I am thinking of putting an end to all living things,

\[\text{tong(e)yō antum g*eivons toutons}\]

- tong(e)y-ō = I am thinking -- 1st-sg present indicative
- antum = end -- acc-sg of supine (Root is homophonous with *an = breathe)
for the earth is full of violence.

svō dheṅhōm gʷhentéus p.IH.na
  • gʷhen-téu-s = of violence killing, injury -- gen-sg of supine > Latin de-fensū
  • p.IH.na = full -- nom-sg (F) -- vocalized as Latin plēna, Sanskrit pūrṇī

So make a ship from (with) wood,

qʷere nūn nāhéum dórū-bhi
  • nāhéum / nāv.m = ship, navis -- acc-sg, from verbal root *(s)naH = swim
  • dórū-bhi = with wood -- instrumental construct

and smear it with glue.

limpe-qʷe gleio-bhi
  • limpe = smear -- imperative
  • Synonyms: *ongʷ, *selbh / selp

The beam should be 300 cubits long, and 30 cubits high.

bhalanģs tri-ç.ntom olénans d.IH.ģhos syēt, tri-dec.m-qʷe olénans ordhos
  • bhalanģs / bhalāṅnos = beam -- nom-sg
  • d.IH.ģhos = long -- vocalized as Sanskrit dīrghas, but Greek ὀλίχος
  • dec.m = ten
  • olénans = cubits -- acc-pl (F)
  • ordhos = high, arduus, ὀρθος -- nom-sg
Cover it with a thatch, and put in a door.

(s)keve (s)tegō-bhi, dheHe-q*e dhvor.m
- (s)kev-e = cover -- imperative
- (s)tegō-bhi = with a thatch -- instrumental construct
- dhvor.m = door -- acc-sg > Latin fōrum (Theory predicts O-grade in the NAV cases.)

I shall flood the land to kill all living things,

upo-plevōmi t.r.sam ute ktenyōmi g*eivons toutons
- Why is God speaking in the Subjunctive instead of the Future? The Subjunctive expresses what shall be, by way of injunction, whereas the Future expresses what will be, by way of prediction. But God is in a unique position. His will shall be.
- upo-plev-ōmi = I shall flood -- 1st-sg subjunctive of root *plev-ýē (Compound modeled upon German über-flutet, Sanskrit upa-plavati.)
- en-unéd-emi = I shall inundate -- 1st-sg subjunctive of *u(n)d / ved, with the Sanskrit-style nasal infix: uné̂dmi
- kten-y-ōmi = I shall kill > Greek κτεινομι
- toutons = all (especially people) -- acc-pl

But you will swim on top of the water,

tu au udéni uperi (s)naHyēsi
- udéni = in/on the water -- loc-sg, weak grade of root *vod-R/N
- (s)naH-yē-si = thou shalt swim -- 2nd-sg subjunctive of root *(s)naH

together with wife, and sons, and daughters-in-law.

g*.nā som suHnubhís-q*e snusabhís-q*e
- som / kom = together with
- g*.nā = with wife -- inst-sg
- suHnubhís = with sons -- inst-pl (accent on ending)
- snusabhís = with daughters-in-law (accent on ending)

Of every living thing, bring a pair into the ship, so that they should not die:

bhere touto(n)ōm g*eivo(n)ōm yugóm en nāheum, svō-ne m.r.toes/oi syēnt
- yugom = yoke, pair, couple -- acc-sg (N)
- The synthetic form *mor-y-oi-êntoi is unspeakably cumbersome.
Horses, ducks, geese, and even hens had not been domesticated by 5800 BCE. Herewith the likely manifest of *peçevs worth saving from the rising waters ...

- aŋyos / capros / ghaidos = goat
- ovis / agños = sheep, lamb
- g'ous / stauros = cow, steer
- porços / sūs = pork, sow
- çvōn = hound, canis

of walking and running, flying and crawling things,

- ġhunghontōm dromontōm-q'e, petontōm serpontōm-q'e
  - ...ont-ō'm -- gen-pl of present active participle
  - dromons = running
  - petons = flying

of male and female animals, wild and tame.

- orğhilōm dhēlevōm-q'e, ġhverōm damo(n)ōm-q'e
  - The gen-pl ending does not always draw the accent. O-stems bear static accent.
  - dhēmena = female (sucklable)
  - dhēlévia = female (with nipples)
  - orğhilos = male (with oρχιες)
  - peselos = male (with penis)
  - v.rsen = male (Greek αρσην)
  - damos = tame animal

Bring your food: grains and beans and fruits and roots.

- bhere yusterom paHtum -- ġ.rH.na bhabha-q'e karpa vrāda-q'e
  - yus-ter-om / vos-ter-om = your -- acc-sg, comparative used as possessive adj.
  - yusmōm = your -- gen-pl > Greek `υμων
  - bhabha = beans -- nom-pl
  - vrāda = roots, worts, rhiza

And Noah did what God had directed.

- dheHt Nahu-potis q'od dedoiçe Deivós

Then God commanded Noah,

- ute diçset Deivós Nahu-potéyei
  - deiç-set = he said -- strong-grade S-aorist
"Go into the ship, with your household,

**ité náheum vëičō som**
- veiços / voiços = household
- domos / demos = house, people

I have seen that thou art righteous.

**vevoida qʷod rektós essi**
- rek-tós / regús = righteous

Bring with thee seven pairs of all clean animals,

**bhere tve-som çventōm sept.m yugá**
- çventós = pure -- from root *çundh* (cultic)
- putós = pure -- from root *pū* (cultic)
- niqʷtós = washed -- from root *ni(n)gʷ*
- klustós = washed -- from root *klud*

and one pair of unclean animals,

**ne-çvento(n)ōm-qʷe oinom yugóm**

and seven pairs of the birds,

**Hveyōm-qʷe sept.m yugá**

male and female,

**v.rsen dhēlu-qʷe**
- Even birds must have had nipples back then.
- The Septuagint says αρσεν και θῆλυ, without case endings.

that their kinds should live on the cleansed earth.

**ute gʷeivoënt ĝenesa niqʷtai (d)ĝhemi**
- niqʷtai = washed -- loc-sg (F) to agree Earth (F)
- ĝen-es-a = kinds, genera -- nom-pl of abstract neuter ĝen-ēs
- gʷeiv-oi-ënt = that they should live -- optative > Latin *vivant*

The clouds will bring rain to the earth for many days and nights,

**ombhroes/o (d)ĝhméi v.r.sam bherōnti monghons dinons nokt.ns-qʷe**
- monghons = many -- acc-pl
- poluns = poly -- acc-pl -- from root *p.lH.* = to fill
- v.r.sam = rain -- acc-sg (F) > Latin *rörem*, Greek *φερόῃ*, Sanskrit *varšam*

and all living things shall die.

**ute moryōntoi gʷeivoes/oi toutoes/oi**
- mor-y-ōntoi = they shall die -- subjunctive middle
And Noah did what the Lord had commanded.

And Noah did what the Lord had commanded.

The clouds came, and the rain came down, and the sea rose,

- or-set = it rose -- active in Greek and Sanskrit, passive in Latin

and the earth became invisible,

- vid-men-a = visible -- present passive participle of root *veid
- bhuv-et = it became, fuit -- weak-grade aorist

but the ship swam.

- snaH-s(t) = it swam > Greek 
- pleu-s(t) = it floated > Greek (active voice)
- pleu-sto = it floated > Sanskrit (middle voice)

The sea conquered the whole earth

- solvom = whole, entire -- acc-sg > Latin , Sanskrit sarvam
- sogh-et = took possession > Greek (active voice)
- sek-seto = conquered -- Sanskrit (middle voice)

and covered the mountains twenty cubits deep.

- (s)tog-et / (s)teg-set = hid, covered > English thatch
- (s)kov-et = hid, covered > English sky
- g(orans = mountains -- acc-pl (F)
- viçënti = twenty

And all living things on the dry land perished,

- moryontoi = all, all -- acc-sg > Greek

and beasts, birds, and serpents were no more.

- bhuvont-q = hid > English

But God remembered Noah and the cattle,

- me-men-et = he remembered -- reduplicated aorist
so a wind came, and the clouds left,

**ut’ ventós gʷomet ombrhrois-au liqʷont**
- ventós / veH-tós / véH-tor = wind
- liqʷ-ont = they left -- weak grade aorist > Greek ἑλπε, Sanskrit aricat, but Latin *liquit* shows strong grade

and after a hundred days, the sea subsided,

**ç.ntom dinons poster ni-sdetoi mori**
- ni-sd-eto = sat down -- weak-grade aorist (middle voice)

and the ship sat upon a high place.

**ute sdetoi nāheus ṑp’ ordhóm**
- ṑpi = upon > Latin *ob*

And in the tenth month, the mountains appeared.

**ute deçmöi meHnesi bhanont gʷoraes**
- bhan-on = they appeared -- from root *bhan* > Greek ἐφηνε
- bhaH-sont = they appeared -- from root *bhaH* > Sanskrit *abhāsīt*

Now Noah let loose a bird,

**nūn luset Hveim Nahu-potis**
- luet / lūset = he let loose -- alternative aorists from root *lū > Greek ἐλυσε*

but the bird nested upon a dry place and did not return,

**al yo ni-sdetoi Hveis ṑpi seus(k)om ne vortetois-qʷe**
- seusom / seuskom / sesqʷom = dry -- acc-sg
- vort-eto = he returned

so he let loose a second bird,

**ut’ anterom Hvéim luset**

but this one returned carrying a leaf,

**sos au vortetois bholyom bherons**
- sos / yos = he

so he knew that the sea had left.

**ut’ vevoide qʷod liqʷet mori**

So Noah and his wife and sons and wives and cattle left the ship,

**ute liqʷont nāheum Nahu-potis gʷéna-qʷe suHnéves-qʷe snusáes-qʷe peçéves-qʷe**
and God commanded, "Go forth and multiply and fill the earth."

\[ \text{dicset-q}^* \text{e Deivós -- ité augsete-q}^* \text{e p.IH.néHte-q}^* \text{e dheghom(m)} \]
- p.IH.néH-te -- with nasal infix > Sanskrit \( \text{prñāta} \)
- p.IH.-ete = fill -- 2-pl imperative > Latin \( \text{com-plète} \)

Then Noah built an altar, and made burnt sacrifices,

\[ \text{ute Nahu-potis yago-stēlom dhikset dhūméyet-q}^* \text{e} \]
- yago = worship, hagio -- combining form
- stēlom / stolom = stela, stall, stool
- dhūm-ēy-ēt = he smoked -- causative-denominative verb
- Terms for construction: *\( \text{dhi(n)}gh \) applies to mortar, and *\( \text{teks} \) to carpentry or textiles, but *\( \text{str_ng(h)} \) seems less specific and spawns diverse variants in many branches: \( \text{strike}, \text{strong}, \text{stringo/strictus, στραγγω, stru(v)o/structus} \).

and God having smelled the pleasant smoke,

\[ \text{Deivós-q}^* \text{e svādum dhūmóm (od)odvōs} \]
- (od)od-vōs = having smelled -- nom-sg of past active participle of root \*\( \text{od} \)

he said in his breast, "I shall not flood the dry land again, and kill the living things \( \text{voq}^* \text{et-q}^* \text{e bhreusōi -- n'} \text{ anterom upo-plevōmi tersam ktenyōmi-q}^* \text{e g}^* \text{eivons} \)

Men are evil, but the earth will always remain,

\[ \text{vīróes/oi duséves s.úti, alyo dheghhōm manēti en aivons} \]
- s.úti = they are -- 3rd-pl of athematic root *\( \text{es} \), with weak grade in plural
- man-ēt = it shall remain

when you sow and harvest, summer and winter."

\[ \text{q}^* \text{on-dō (se)seHēsi karpēsi-q}^* \text{e samrōm ġheimrōm-q}^* \text{e} \]
- (se)seH-ēs = thou sowest -- 2nd-sg subjunctive of root *\( \text{seseH} \) > Latin \( \text{seres} \)
- ġheim-rom = winter -- acc-sg, with optional suffix to match *\( \text{sam-rom} \)

So Noah became the first tiller of the fields.

\[ \text{ute Nahu-potis p.r.mos aratōr bhuvet} \]

Now God said, “Let us make a pact:

\[ \text{nūn-q}^* \text{e voq}^* \text{et Deivós -- paçoimedha} \]
- The following verbs are all 1st-pl middle optatives:
  - paço-oi-medha = let us make a pact > Latin \( \text{pangāmus, Greek πηγνυοιμεθα,} \) but Sanskrit \( \text{paç} \) and Gothic \( \text{fah} \) attest unvoiced *\( ç \).
  - bheidh-oi-medha = let us trust > Latin \( \text{fidāmus, Greek ψεθομεθα} \)
Do not eat bloody flesh,

**n’ edete krovyom memsom**

- krovyom = raw, cruor, κρεφας
- memsom = meat, mensa

Lest the blood shed by you be remembered as a sin unto you.

**svō-ne yusbhis ĝhu(s)tóm esar aghesē yusbhos smeroitor**

- aghesē / agesē = sin, ache, awe -- inst-sg of abstract neuters. (These two roots have been thoroughly confused. English *ache* < *acan* matches Greek *αγος* and Sanskrit *āga* phonetically, whereas *awe* < *agis* matches *αχος* and *aghās*.)
- ĝhu-tom / ĝhus-tom = poured -- acc-sg (N) of past passive participle. (The root could be either *ĝheu* or *ĝhu(n)d*. The former yields Greek *χεφ* and Sanskrit *āga* phonetically, whereas *ache* < *acan* matches Greek *αγος* and Sanskrit *āga*.)
- smeroitor / me-mor-oi-tor = it might be remembered -- 3rd-sg passive optative > Latin *memorātur*, Sanskrit *smareta* (middle voice)

And I too shall not flood the land again

**eĝo eti n’ anterō upo-plevōmi tersam**

When you shall see the bow after the rain,

**qʷon-dō poster v.r.sam bhugóm veidēte**

- bhugóm = bow -- acc-sg

Then it shall be a token of the covenant.”

**ton-dō paçtéus deiç.m.n esēti**

- deiç-m.n = token -- nom-sg (N) of verbal noun
Mohenjo Daro (above) dates from 2600 BCE.

The authors of Genesis may have imagined the tower as a Ziggurat, but the Ziggurat of Ur (at left) was not constructed until 2100 BCE -- long after the linguistic diaspora.

The men of the earth knew one language but few words.

(dh)ĝhomikoes/oi oinam denghúm pava-au vërđha ĝnoHnt

- pava = few -- acc-pl (N)
- verdha / vordha = words, verba -- acc-pl (N)
- ĝnoH-ênt = they knew -- athematic aorist > Greek ἐγνώευ

They migrated from the east, and they settled in the plain.

trH.sont austroet viçsênt-q*e p.l.tum

- trH.-sênt = they transited > Sanskrit atāriśīt
- p.l.tum / p.l.H-tum = plain, flat -- acc-sg > Greek πλατυς, Sanskrit pritus
- veiç-sênt = they settled -- strong-grade S-aorist of root *veiç > Sanskrit avekšīt

And formed clay and baked it and said,

gloiom dheiksênt peq*sênt-q*e voq*ont-q*e

- dheik-sênt = they formed -- S-aorist of root *dhi(n)gh > adhaikšīt, finxit
- peq*-sênt = they baked -- S-aorist of root *pēq > apakšīt, coxit (Note that Latin converts *penq*e > quinque, *peq" > coqu in P...Q contexts.)
"Come, let us build ourselves a city,
gʷemete dhidheHyēmë(n) vestum

and a tower with its head in the heavens,
ordhom bhorĝhóm-qʷe kapetē nebhessu

that we may become famous,
ute clutoes/oi bhevoimē

lest we be scattered over the earth.
svō-ne st.rH.toes/oi syēmē(n) t.rH. dheĝhom(m)

Then the gods went down to see the man-made city and the tower
nūn-qʷe niter eiṣënt Deivói derçtévei vīrōis qʷ.r.tóm vestum bhorĝhóm-qʷe

And they said, "Behold, they are one people,
voqʷont-qʷe -- derçete, oina touta s.ńti

and they speak one language,
oinam denğhüm veqʷonti

they have become like us, and this is only the first of their deeds;

whatever they want to do, they attain.

\textit{q’od dheHtum volyonti, tod dheHtum maghonti}

- \textit{dheH-tum = the doing} -- acc-sg of supine
- \textit{volyonti = they want} -- 3rd-pl present of root \textit{*vēl-yō}
- \textit{magh-onti = they can, they may} -- 3rd present of root \textit{*magh > Greek μηγ...}
- \textit{nonç-ontoi = they attain, “carry off”} -- 3rd-pl middle present of root \textit{*no(n)ċ}

Come, let us climb down and fell the tower,

\textit{g’emoimë(n) -- ni-skandoimë(n) çadyoimë(n)-q’e bhorghóm}

- \textit{skand-oï-më(n) = let us climb > Latin \textit{scandamus}, Sanskrit \textit{skandema}}
- \textit{çad-y-oï-më(n) = let us fell > Latin \textit{caedamus}, Sanskrit \textit{śadayama}}

and mix-up language to the humans,

\textit{miskoimë(n)-q’e denghúm (d)ghomikoibhos}

- \textit{misk-oï-më(n) = let us mix}

that one may not grasp the speech of others."

\textit{ute ne ghrébhnuyet oinos alyo(n)ōm voq’óm}

So the gods scattered the humans through the earth, to east and west,

\textit{ute st.rH.sënt deivoes/oi (d)ghomikons t.rH. dheghhom(m) -- austroei vesq’eroei-q’e}

- \textit{st.rH.-sënt = they scattered > Greek \textit{εστορσε}}
- \textit{st.rH.-et -- alternative aorist > Sanskrit \textit{astarat}}

and left the city.

\textit{ut’ vestum liq’ont}

Its name shall be Babel.

\textit{Hnom.n Bhalhal esēti}
ADAM’S PSALM

Psalm 104 (in traditional Hebrew and modern Protestant numbering) or 103 (in the Septuagint, Vulgate, and King James Version) is a uniquely beautiful composition that bears testimony to the Creator through nature and echoes the early chapters of Genesis. This psalm is unusual in employing no abstract vocabulary, and this feature makes it uniquely apt for demonstrating the poetic potential of the proto-language.

The “translation” recovers the terse character of the original Hebrew text. The style was spoiled in the Septuagint by the wordiness of Greek, which uses articles and particles to tiresome excess.

The psalm is first presented as a whole, in two dialects side-by-side -- one biased to Greek & Sanskrit as usual, the other some sort of Proto-Latin. Alternative choices of words are shown in parenthesis. The annotation shows roots in bare stem form, with minimal grammatical commentary.
<table>
<thead>
<tr>
<th>English</th>
<th>Esperanto</th>
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</table>
| bhlagoit an.los to Dghem-supot
ō Dghem-s-pōti Dyeu-pāter megistos essi
tu lukĉ-hi clevesĉ-q*e vestōs
tu dyeum tetonta svō skvevom
tu bh.l.ĝnons vod.r (s)tetogta
tu nebhesa ūnêkci svō rotōm
tu HveHtobhis ambhi-perHsī svō petrohbis
tva v.R.H dla HveHtōr bherti (...)| bhlaghāt anima eiom Sontem Ğhom-potim
ō Ğhom-pōti Dyu-pater megistos essi
luke clutate-q*e vestos
tu dyum tetenesta svei skvevō
tu trabens aq*am tetegesta
tu ombrons yunges svei rotōd
tu ventois ambhi-trās svei petrois
tva vernda ventos bhert
tu ognim bhlegontem dhakyes bhlaghemen |
| tu dheghom(m) bhudhnōm adi dhidhēta
ute sa ne tremoito (tresoito)
(s)tetotga tam mori-bhi svō vestrō
vēdōr k.l.noisu uper staHtt
acuēs tvoet v.R.H.dhoet apo bhog*eto
tonetro apo bhog*eto
H.r.s.nt g*oreyes ni-sdentoqe p.l.tēves
adi diction stolōm
eti ne-t.R.H.menom morgom dhidheHta| tu Ĝhomom bhundhom adi dhedhakesta
ut eia ne tremāt
tetegesta eiam marīd svē vestrō
aq*a kolnoisu super stāt
acūd tvōd verdhōd apo bhūget
tonetōd apo bhūget
orsont ardhoi sup-sedontorqe plānoi
adi dictom stlokom
eti ne-trāmenom margenem dhedhakesta
ute n-antarōd sub-meżgēt mari tersam |
| bhreuna loukoisu ghevonti
clöinoisu srevonti (rinēHnī)
p.l.tēves ĝheverbhōs poHm.n didoH.ñī
eçvoes terstum satyontoi
Hvēyes veiçonti ambhi
garyonti osdoisu medhyōi
unēûs k.l.nons ap’ v.r.saēs
tersa tvois bhuktōis (doH tôis) satā| bhunes loukoisu ghundont
cleinons enter reivont
plānoi Ĝ*herebhos pōti(one)m (di)dānt
eçvoi terstum satyontor
aVīs veiçonti ambhi
kanont osdoisu medhiōd
undes kolnos vrosād
tersa tvois bhrukoisos (donois) satis |
| augēyesi pećubhos dhalya Ĝ.RH-na-qe
ute arayēt (kersoi) viros aģrōns
ute bherēt karpa apo tersaēs
poHm.n yestōm ute çerd sperghoīt
Hbhrūs-qe smeyoito bh.l.ĝeyoiot-q’e
paHtum-qe ute q*erpom Hnerom syēt| augēyes pecubhos bholya Ĝrāna-qe
ut arēt viiros aģrons
ute bherāt karpa tersād
pōti(one)m bhervitam ute cord sperghāt
bhrs-qe measātor bholgātor-q’e
pādhlom ute q*orpos nertom syēt |
| Pergono meg.loes dreuns polHu unēsti
bh.RH.gaes aģoīes-q’e augxoniti
Hvēyes nisdōns medhyōi dhidheH.ñīti
(s)trozdoes perq*oisu veiçonti
aģrons karkarons ghaidoes kteionti
eti çasobhos bhórghoes s.ñīti| Vorsānos magnons druns plēnōd unedt
bhrāgenoi aģoīlo-q’e augxon
avīs nisdons medhiōd dhidheHent
trōzdoies perq*oisu veiçont
ardhons karekons ghaidoī ksīont
eti casobhos bhorktois sōnt |
bhlaĥhoit an.los tom Sont.m Dĝhems-pôtim
ō Dĝhems-pótì Dyeu-páter meģistos essi
  - bhlaĥ / bhlagh = to bless, brahman, flamen, ḍlago
  - an(?)lo / an(?)mo = breath, soul, wind
  - tom Sont.m = him who is (acc) = YHWH (יהוה)
  - Dĝhems-pótis = Earth Master (gen-nom)
  - Dyeus-patēr = Sky Father (nom-nom)

tu lukē-bhi çlevesē-qʷe vestós
  - luk = light
  - çlu-ēs = glory, κλεος, слава
  - ves = to clothe, vest

tu dyeum tetonta (tetenesta) svō skevom
  - tetonta = tetenesta = tendisti
  - skevo = covering, sky
  - svō / svē = like, as -- Syntax varies when used as preposition. Greek casts its object into same case as the referent, whereas Latin uses the ablative of specification.

tu bh.l.ĝnons (trabens) vod.r (s)tetogta (tetegesta)
  - bh.l.ĝ-no = beam, Balken, fulcrum, φαλαξ, болозно
  - trab = beam, thorpe
  - (s)teg = to cover, hide
  - (s)tetogta = tetegesta = tegisti

tu nebhesa yunékxi svō rotom
  - yu(n)g = to yoke
  - roto = chariot

tu HveHtorbhis ambhi-persi svō petrobhis
  - vē-tor / vē-to / ven-to = wind (either subject or object of veH = to blow)
  - perH = to pass -- reduplicated in Sanskrit
  - pet-ro = wing

tva v.rH.dha HveHtōr bherti (...)
  - v.rH.dho = verb, word, γρημα
  - Synonyms connoting to carry or transport: bher, tol-yë, por-yë, veģh, ne(n)ç, ...

tu bh.l.ĝont.m ogním (paHur) dhidhēsi bhlaghmon.m
  - Pun on homophony between flagrans/φλεγων and brahman/flamen

tu dheģhom(m) bhudhnóm adi dheđhēta (dheđhakesta)
  - bhudh-no = bottom, Boden, fundus
  - dheđhēta = dheđhakesta = fheľhakeste = fēcisti
ute sa ne tremoito (tresoito)
  - trem / tres = tremble, τρέμει / τρέει

(s)tetogta tam mori-bhi svō vestrom

vedōr k.l.noisu uper staHt
açuës tvoet v.rH.dhoet apo bhogʷeto (bhuget)
  - k.l.no = hill, collis, κλον
  - açu / açru = sharp, acute, acrid
  - bhogʷ = to fear, φοβεει
  - bhug = to flee, φευγει

tontoet apo bhogʷeto
  - ton-tro = thunder, tonitus

H.r.s.nt gʷoreyes (açroi) (ardhoi) ni-sdontoi-qe p.ltéves (plânoi)
  - H.r. = to rise, oritur, ορνυσι
  - gʷori = mountain, giri,  góra
  - ardho = high, arduus, ορθος
  - açro = high, ocris, άκρος

adi diçtóm stolóm (stlokom)
  - stolo / stloko = locus

eti ne-t.rH.menom morgom dhidheHta
  - t.rH. = pass through, transit
  - -meno = -able

ute n-anterom upo-plevēti (sub-mezģēti) mori tersam
  - sub-mezģ = submerge

bhreuna (bhunes) loukoisu ghevonti (ghundonti)
  - bhreun = spring, Brunnen, φρέαρ -- an R/N stem
  - bhun = font -- possibly altered to avoid confusion with front (forehead)
  - louko = clearing, lea, lūcus
  - gheu / ghund = to pour, giessen, fundere, χεφει

çloinoisu srevonti (rinéHnti)
  - çloino = incline, lean
  - sreu = to flow, stream, ρεφει
  - rei / rí(n)H = to flow, run
  - Latin rīvus could derive from either root.

p.ltéves ĝhverbhós poHm.n (potionem) didoH.ńti (dant)
eçvoes terstum satyontoi
  - terstu = thirst, dryness (supine form used as adjective)
Hvéyes veiçonti ambhi
garyonti osdoisu medhyöi
  - osdo = branch, Ast

unétsi k.l.nons ap’ v.r.sàës
tersa tvois bhuktóis (bhruktois) satá
  - bhug > bhukto = functus (cf. break, fractus)
  - bhrugʷ > bhrukto = fructus

augéyesi pecúbhhos dhalya ĝ.ṛH.na-qe
ute arayët (kersoit) virós ağróns
ute bheryët karpa apo tersaës

polHm.n yestóm (potionem bhervitam) ute çerd sperghoït
Hbhrú-s-qe smeyoîto (mirát) bh.lgéyoîto-q'e
  - yesto = yeasted, brewed
  - spergh = to spring, σπερχει
  - Hbhrú = brow, front, οφρυς
  - smei = to smile, miratur, смеется

paHtu-m-qe (paHdhrom) ute q'erpo Hneróm syët
  - paHtu / paHdhro = food, pabulum
  - q'erpo = body, mid-riff, corpus
  - Hnero = strong (cf. ἁνηρ)

Pergonos (Vorsanos) meg.loes dreuns polHu unésti (undes)
bh.rH.gaes aiğoes-q'e (aigoi) augsonti
  - I have heretically reimagined Pergonos and Vorsanos as sons of Dyeu-pater.
  - Pergonos = Parjanya, Perkunas, Fjorgun -- a lesser rain-god
  - Vorsanos = Ouranos -- a lesser sky-god
  - bh.rH.го = birch, fraxinus, береза
  - aiğo = oak

Hvéyes nisdóns medhyöi dhidheH.útí
(s)trozdoes perq'oîsu veiçonti
  - (s)trozdo = thrush, turdus, στρουθος

açrons karkarons (karekons) ghaidoes kteionti
eti çasobhos bhorghhoes s.útí
  - karkaro / kareko = hard, craggy, stony
  - ghaido = wild goat, haedus
  - ktei = to possess or dwell, κταεται
  - bhorghho / bhorgho = high place, refuge
  - çaso = hare
meHns.m dhidheHta meHtévei samrons
saHul (saHvelyos) vesqʷerom ĝnoHti
temos (temedhrons) dhidheHta ute bhevoit nokts
- temedhro = tenebra
- vesqʷero = west, vespers, вечер

qʷon-dō ghrobhoet gʷ.mskónti ĝhvēres visvoes (touloi)
- ghrobho = lair, grave
- gʷ. msk = βασκει -- iterative of gʷem / gʷen-yo
- olno / touto = all, total
- solvo / visvo = all, whole, solus, ἡσος

v.l.qʷikoes memsoet ap’ vertonti
reudonti-qʷe deivoet pre(ç)skóntes
- memso = meat, mensa

qon-dō saHul H.r.skétoi austerői
ton-dō i.ñti çeubdhum (çeitum) (lēgdhum)
- austero = east (cf. dawn)
- çeubh = to lie down, cubere
- çei = to lie down, καίει
- leg = to lie down, λέγεται

vīrós-au aṅrōns eiti
verģeti-qʷe do (ad) vesqʷerom
- verģ / verg = to work, ῥεγγεται

ō Dyeus-páter tvā verğa montgha
- montgho / mongho = many, много, maha (cf. meg = mickle, magnus, μεγαλος)

m.ñti-bhi tvā solvom vevorťta (vevergesta)
- menti = mind

dheţhōm tvō(n)ōm ktiménōm p.IH.ñá
gʷeivo(n)ōm p.IH.ñá
- ktei-m.n = possession, home, κτείμα

tosmi (toteri) au meg.lom mori esti
ne-rēdhomnōm dgʷhuvōm p.IH.ñóm

gʷeivo(n)ōm meg.lōm meinōm-qe
- rēdh / rē = reason, count, rētur/ratio, αριθμος
- meino = minor, from verb root mǐ(H) = to diminish

meg.loes ogʷhiyes nāHvees-qe tosmi snaH.ñtı
dhidheHta ute skandoient v.l.moisu (volvoisu)
- skand = jump, scandere
- v.l. na / v.l. ma = wave, Welle, волна, ürmī
visvōes tubhi derçonti
- derç = to look, δερκεται

bhogons didoHsi samroisu
qon-dō didoHsi
ton-dō ghirebhinti (...)
- There are many verbs connoting take, seize, have, grasp, and figuratively understand, but none of them is preserved in more than three branches, and any nuanced distinctions among them are unknown: *em, la(m)bh, ghe(n)d, ghrebh, kap-yē, ghabh-yē*
- bhogo = share of food < to break = Sanskrit *bhajati* > *bhaga* (cf. Greek *φαγ*);
- bhugo = share of food < to make use = Sanskrit *bhunakti* > *bhoga*
- bhrukto = share of food < to make use = Latin *frangit* > *fractus*

qon-dō deicēsi ĝhestom
ton-dō bhrūsoes su-p.l.néHentoi

qon-dō Hbhrūm ap’ vertesi
ton-dō anghhontoi
- angh = be anxious

qon-dō dh.mom lambhési (...)
ton-dō m.r.tum i.ńti

qon-dō pneum.n st.rH.néusi
ton-dō nevō ĝneHtōes
- nevō = anew -- adverbial use of instrumental case

novyētoi-qʷe tersa
clūtōs syēt potis en aivōns aivōm
satōs syēt potis svoisu vergoisu
dheghhōm derçetiqʷe
gʷorins tanēkti (tanget) ute toi dhūmonti
gʷ.ṛ.Hemi (gratōm) potim svō d.H.ghū (longōd) gʷeivōmi
sengʷhōmi (kanōm) potēyei svō d.H.ghū (longōd) aivōmi
svadēvia svō medhu (meli) syēt voqs me(n)os
- gʷ.ṛ.H -- This root has two meanings, both with reference to the throat:
  - (1) he swallows, devours = *жрёт*, vorat, βιβροωσκει, giráti
  - (2) he sings praise = *жрёт*, grātitur, gūrdhāyati, grñāti
- sengʷh = to sing, ὑμη
- kan = to sing, hen, cantat

ĝhor-yēmi potim
- ĝhor-yē = to desire, horitur, χαρει
linqʷyēnt duséves apo dĝhmēs
ne-regéves-qʷe (ne-reçtoi) ne bhevōnti (manōnti)

bhalgoit an.los Dĝhems-potim Dyeus-patér.m
ghvéye svod yağyom Hnom.n
• ghvéy / ĝheu = to call upon, зовёт
ORTHOGRAHNY AND GRAMMAR

In the course of composing Before Babel in a reconstructed language, I was obliged to make numerous arbitrary decisions about orthography, grammar, and usage. Since this is not a scholarly work, I shall not bother to defend them. Herewith a rundown of my idiosyncratic conventions and a more-or-less mainstream précis of grammar ...

P.I.E. ROOT TEMPLATES

- The basic root structure was Consonant-Vowel-Consonant (CVC), in which the “V” could be a pure vowel, a diphthong, or a liquid (hence, CE̱C, CE̱UC, CRC), and the “C” could also be a cluster (hence, SCR_NC).
- Rare initial clusters included PT, PN, KN, and the permutable “thorn” clusters: KT = TK, GD = DG, GDh = DGH, ...
- Many roots were prefixed with an erratically preserved (“mobile”) S, and some were internally nasalized, but these capricious modifications rarely served to differentiate quasi-homophonous roots.
- Certain sequences of voice and aspiration were originally forbidden (especially D_G, D_Gh and Dh_K) as well as roots containing two consonants of the identical class (e.g., labials, dentals, palato-velars, labio-velars, or liquids). However, these uncommon sequences could be generated via reduplication or by operation of Grassmann’s Law.
- Taking these constraints and unequal letter frequencies into account, we may estimate that the root template would generate only 600-900 roots, without regard to distinctions among the basic pure vowels. The template could generate a larger number of roots by making distinctions among pure vowels, or by making more use of the rarer phonemes.

ORTHOGRAPHIC CONVENTIONS

- The hypothetical laryngeals are simply written H where they serve to generate dialectical vowel prefixes (e.g., o-vomu, a-stηρ, e-ρεβος), or to “close” CV roots (e.g., *dheH, doH, staH). The opaque notation h¹, h², h³ might be clarified by writing h⁰, h⁴, h⁵ instead, but linguists continue to debate the number of distinct laryngeals and their correspondence to Semitic counterparts, ™ n " y.
• **Colored vowels** are commonly supposed to derive from laryngeals (i.e., \( A < *h^2 \)), but the three basic vowels are simply written \( E/A/O \) in accord with pronunciation, because the bare laryngeals are unspeakable. How would you say \(*h^2-r^{-}h^2\) without actual vowels?

• Germanic and Balto-Slavic merged the two **back vowels**, and Sanskrit merged all three basic vowels, but Latin and Greek preserve the three-way distinction, the ratio in roots (though not stems or endings) being roughly \( E:A:O = 44:33:22\% \). Pokorny’s lexicon gives one the impression that \( E \)'s were overwhelming most common, but whatever the origin of colored vowels, \( A \)'s could not have been rare. Comparison of paired cognates between Latin and Greek shows roughly 70% agreement, or as much as 80% agreement when allowances for routine \( E/O \) gradation are made, and this implies that majority rule is a fairly reliable way to identify original \( A \)'s.

• **Ambiguous vowels**: The colored vowel \( A \) is identified on the basis of classical evidence, unless Greek and Latin disagree. In the absence of other evidence, a colored vowel may be suspected from the absence of telltale \( E/O \) gradation. Vowels of **variable or uncertain grade** are written \( Ê/Ö \).

• **CAC roots** (e.g., \( svad \)) are problematic because there is no appropriate interior slot for the \(*h^2\) laryngeal in the structural template. Such roots are written with \( A/Ā \) in accord with actual pronunciation.

• The **semi-vowels** are written \( I/U \) in diphthongs or zero-grade contexts, but \( V/Y \) when they serve as consonants without syllabic value.

• **Long vowels** inside CVC roots are attributed to routine \( vṛddhī \) gradation, but long vowels elsewhere may arise in other ways: \( ð < oe \).

• The unvoiced **velars** are written \( Ç/K/Q/ÇV \), the voiced velars \( Ġ/G/Gʷ/GV \), and the aspirated velars \( Ġh/Gh/Gʰ/GhV \). The evidence for a four-way distinction among unvoiced velars is very strong, but the \( G\/Ğ \) distinction is shaky.

• Velars are left **unmarked by default** in the absence of clear evidence to the contrary, to wit, transformation to sibilants in satem languages or to labials in certain centum languages. (Sanskrit muddled the putative \( G\/Ğ \) distinction by palatizing both, at least before erstwhile front vowels. Consequently, only Balto-Slavic evidence can be fully trusted to distinguish \( G/Gh \) from \( Ġ/Ğh \). Dilemmas arise when Balto-Slavic and Indo-Persian disagree.)

• The **syllabic consonants**, traditionally written \( R/L/M/N \), are written idiosyncratically here, with dots to either side as potential insertion points for vowels. Thus, roots written in **skeleton form** as \( C.R.C \) may fill out as \( CÈRC \) or \( CRÈC \). Liquids combined with laryngeals -- written \( .RH \) and \( .LH \) between consonants -- may yield \( īr/ūr \) in Sanskrit, but \( rē/ră \) in Latin, and \( ρη/ρω \) in Greek. (Two-sided combinations such as \( δολιχος \), \( στοργνημι \), \( κιραγνημι \), \( βαλάνος \) also reflect uncontroversial laryngeals, but Latin \( culmus \), \( culmen \), cognate to Greek \( καλαμος \), \( κολονος \) do not confirm the presence of a laryngeal.)

• **Pronunciation** -- Those of us not privileged to have been born an Arya in a previous life find it difficult to pronounce the voiced aspirates \( Bh/Dh/Gh/Gʰh \). One will not incur bad karma by pronouncing them as \( Bβ/Dð/Gγ/Fw \). In order to maintain the \( Ç/K \) distinction, one may pronounce \( Ç \) as \( Š \), and likewise \( Ġ \) as \( Ž \).
PRÉCIS OF GRAMMAR

My grammatical conventions are biased toward Greek and Sanskrit, but they eschew certain clearly dialectical features of this recognized sub-family:

- Grassmann’s Law -- deaspiration of the initial phoneme in doubly aspirated contexts such as ἀθέγχος > Greek τείχος and Sanskrit dehas
- Past-tense augments, used to mark the Imperfect and the Aorist
- Initial vowels of laryngeal origin, when unique to Greek

SYNTACTIC CONVENTIONS

- **Word order** follows the rule of *focus-first*, which overrides default SOV order. Restrictive adjectives and possessives are assumed to precede the nouns they modify, but non-restrictive and complex modifiers are placed in trailing position to avoid hideous left-branching structures. We have pompous priests and ancient bards to thank for the convoluted syntactic structures that torment us today.
- **Conjunctions** are indispensable. It is difficult to say much of interest without them. The pedigreed enclitics *qʷe, au, vē* are used with simple, strictly parallel elements; whereas *ute, eti, alyo, svō, qʷod* are favored with complex elements such as clauses, and they are usually placed in leading position.
- **Particles** have come to play a triple role as prefixes, prepositions, and adverbs. They are used sparingly here to clarify the usage of noun cases, and they are often associated with the verb instead.
### Particles used as Adverbs, Prepositions, and Prefixes

<table>
<thead>
<tr>
<th>Basic Form</th>
<th>Meaning</th>
<th>Suffixed Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>per, pro</td>
<td>before</td>
<td>proter, proti</td>
<td>against</td>
</tr>
<tr>
<td>(s)upo</td>
<td>below, down</td>
<td>(s)uper(i)</td>
<td>above, up</td>
</tr>
<tr>
<td>en</td>
<td>in, into</td>
<td>enter</td>
<td>between</td>
</tr>
<tr>
<td>vi</td>
<td>apart</td>
<td>viter</td>
<td>against</td>
</tr>
<tr>
<td>ni</td>
<td>down</td>
<td>niter</td>
<td>lower than</td>
</tr>
<tr>
<td>pos</td>
<td>behind, after</td>
<td>poster</td>
<td>behind, after</td>
</tr>
<tr>
<td>ana, nō</td>
<td>on, onto, upward</td>
<td>anti</td>
<td>against, in front</td>
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<tr>
<td>apo, po</td>
<td>from</td>
<td>apter</td>
<td>after</td>
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<td>ud</td>
<td>out</td>
<td>utter</td>
<td>outside</td>
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<tr>
<td>som</td>
<td>together, with</td>
<td>sonter</td>
<td>asunder</td>
</tr>
<tr>
<td>kom</td>
<td>together, with</td>
<td>konter</td>
<td>against</td>
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<tr>
<td>ecs, eğ</td>
<td>out, ex</td>
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<tr>
<td>epi, ob</td>
<td>on</td>
<td></td>
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<tr>
<td>ambhi</td>
<td>about</td>
<td></td>
<td></td>
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<tr>
<td>adi, adhi</td>
<td>to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t.r.H</td>
<td>through, across</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bhi</td>
<td>(instrumental)</td>
<td></td>
<td></td>
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<tr>
<td>medhi</td>
<td>amid, between</td>
<td></td>
<td></td>
</tr>
<tr>
<td>do, de</td>
<td>to, from</td>
<td></td>
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</tr>
</tbody>
</table>

### CONJUGATION OF VERBS

- **Tenses and moods** -- Greek and Sanskrit display an elaborate system of verb inflections, which may be partly dialectical, since these two branches constitute a recognized sub-family. The tenses include Present, Imperfect, Future, Perfect, and several different Aorist formations; whereas the moods include Indicative, Subjunctive, and Optative, at least in the Present tense. The aspectual distinctions among past-tense formations are muddled in Sanskrit, but they have been either maintained or sharpened in Greek.

- **Suffixes and infixes** -- The Rix-Cogwill theory lays out the conjugation classes of the Present tense, but it does not provide a convincing account of their aspectual differences, which are speculatively attributed to Aktionsart. Besides causative, factitive, denominative, and inchoative-iterative classes, there are enigmatic nasal infixes and suffixes. The nasal elements were used promiscuously in Latin and Sanskrit, but they are applied
sparingly here. They may have served to disambiguate verbs with homophonous roots (e.g., *ves = dwell or clothe, *puH = purify or putrefy, *gh.r.bh = grab or groove) but each branch made its own choices. There may also have been subtle aspectual distinctions among the various Aorist formations, but they are now obscure, so one must lean on attested forms.

- Voice -- There were Active and Middle voices in Greek and Sanskrit; but there is an R-Passive in Latin, Celtic, and Hittite. The Middle voice was properly used in a reflexive sense, but it was also used (quite superfluously) with many inherently intransitive verbs. In the absence of a rule, one is obliged to follow attested forms.

- Personal endings -- Last but not least, endings, ‘nuff said.

So now, in painful detail ...

**Present-Tense Classes of a Model Verb (3rd-sg & 3rd-pl, Active)**

<table>
<thead>
<tr>
<th>Class</th>
<th>Indicative</th>
<th>Subjunctive</th>
<th>Optative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thematic (Sanskrit Class-1)</td>
<td>deuk-eti</td>
<td>deuk-ěti</td>
<td>deuk-oi-t</td>
</tr>
<tr>
<td></td>
<td>deuk-onti</td>
<td>deuk-ěnti</td>
<td>deuk-oi-ent</td>
</tr>
<tr>
<td>Stative, Fientive, Factitive (Sanskrit Class-4)</td>
<td>deuk-y-eti</td>
<td>deuk-y-ěti</td>
<td>deuk-y-oi-t</td>
</tr>
<tr>
<td></td>
<td>deuk-y-onti</td>
<td>deuk-y-ěnti</td>
<td>deuk-y-oi-ent</td>
</tr>
<tr>
<td>Causative (Sanskrit Class-10)</td>
<td>duk-ěy-eti</td>
<td>duk-ěy-ěti</td>
<td>duk-ěy-oi-t</td>
</tr>
<tr>
<td></td>
<td>duk-ěy-onti</td>
<td>duk-ěy-ěnti</td>
<td>duk-ěy-oi-ent</td>
</tr>
<tr>
<td>Inchoative-Iterative (Sanskrit Class-6)</td>
<td>du(k)-sk-ěti</td>
<td>du(k)-sk-ěti</td>
<td>du(k)-sk-oi-t</td>
</tr>
<tr>
<td></td>
<td>du(k)-sk-őnti</td>
<td>du(k)-sk-őnti</td>
<td>du(k)-sk-oi-ent</td>
</tr>
<tr>
<td>Thematic + Nasal Infix (Sanskrit Class-6)</td>
<td>dunk-ěti</td>
<td>dunk-ěti</td>
<td>dunk-Ői-t</td>
</tr>
<tr>
<td></td>
<td>dunk-őnti</td>
<td>dunk-őnti</td>
<td>dunk-Ői-ent</td>
</tr>
<tr>
<td>Athematic (Sanskrit Class-2)</td>
<td>deuk-ti</td>
<td>deuk-ti</td>
<td>duk-yē-t</td>
</tr>
<tr>
<td></td>
<td>deuk-ńti, -ęnti</td>
<td>deuk-ęnti</td>
<td>duk-yę-nt</td>
</tr>
<tr>
<td>Accented Nasal Infix (Sanskrit Class-7)</td>
<td>dunkěk-ti</td>
<td>dunkěk-eti</td>
<td>dunk-yē-t</td>
</tr>
<tr>
<td></td>
<td>dunkěk-őnti</td>
<td>dunkěk-ęnti</td>
<td>dunk-yę-nt</td>
</tr>
<tr>
<td>Nasal Suffix NU (Sanskrit Class-5)</td>
<td>duk-něu-ti</td>
<td>duka-langeti</td>
<td>duka-lang-ęt</td>
</tr>
<tr>
<td></td>
<td>duka-lang-ęnti</td>
<td>duka-lang-ęnti</td>
<td>duka-lang-ęnt</td>
</tr>
</tbody>
</table>

- Definitions
  - Causative verbs signify *to cause an action.*
  - Inchoative/inceptive verbs signify *to begin an action.*
  - Stative/essive verbs signify *to possess a quality.*
  - Fientive verbs signify *to acquire a quality.*
  - Factitive verbs signify *to impart a quality, or to make into a thing.* *(They may be described as deadjectival or denominative.)*
  - Other denominative verbs signify *to function as a thing.*
• The suffix -skë- yields *prccáti = po(r)scit and *gaccháti = βασκεῖ, as well as inchoatives in Latin, iteratives in Greek and Hittite, and the -ish in English.

• Suffixes reconstructed as -yë-, -hlyë-, -eh¹-, and -eyë- convey a spectrum of stative, fientive, factitive, and causative meanings, but they get mixed-up semantically as well as phonetically, and no branch makes a four-way distinction. (Greek στελλω < στελιω and βαινω < βανιω versus κοϝεω; Latin -venio, -cavio; Sanskrit -ya-, -āya-; and Slavic -i-(и), -ě-(ѣ) all show two-way distinctions; whereas Germanic weak verbs display a single suffix -j-.)

• There are further denominative verbs bearing the widespread suffix -ā-. Hittite uses the manifestly laryngeal suffix -ahh- on denominative verbs.

• Many (but not all) Class-6 verbs in Sanskrit, characterized by their accented thematic vowel, are nasalized in the Latin fashion: *limpáti = rumpit and *piṁçáti = piŋk-te = pingit, but not *tudáti = tundit.

• There is some correlation between the use of Class-7 nasal infixes in Sanskrit and nasal infixes in Latin: *rinákti = linquit, *chinátti = scindit, *bhínátti = findit, *pinásti = pinsit, *bhunákte = fungitur. (Given the paucity of examples, the statistical significance of this correlation bears further analysis.)

• With few exceptions, the nasal suffix applied to CVC roots in Sanskrit & Greek is -nu-, but with CV(H) roots -nā- or simply -n- (e.g., φθινει, κλινει, κτεινει). The suffix -nā- could alternatively be regarded as an infix: CVnēH. These elements have no discernable meaning.

• The Slavonic suffix -нѫ- (nǫ) attests *non, but Lithuanian -nuo- attests *nō. (Modern Slavic languages pronounce -nǫ- as -nu-, but don’t be fooled.) These suffixes are used exclusively on perfective verbs.

• The Germanic languages use nasal suffixes on a few denominative verbs, signifying to-act-like-a-(noun) and to-become-(adjective).

• Hittite uses an infix -nin- and a suffix -nu-, both with causative significance.

### Aorist and Perfect Forms of a Model Verb (3rd-sg & 3rd-pl, Indicative Active)

<table>
<thead>
<tr>
<th>Model</th>
<th>Them. Aorist</th>
<th>Sig. Aorist</th>
<th>Perfect</th>
<th>Participle</th>
<th>Supine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanskrit &amp; Greek</td>
<td>é-duk-ét</td>
<td>é-deuk-s(t)</td>
<td>de-dóuk-e</td>
<td>duk-tó</td>
<td>dēuk-tu</td>
</tr>
<tr>
<td>Latin</td>
<td>deuk-ét</td>
<td>duk-set</td>
<td>de-duk-e</td>
<td>duk-tó</td>
<td>duk-tu</td>
</tr>
</tbody>
</table>

• There is a modest but statistically significant correlation between the form of the Aorist (Thematic vs. Sigmatic) between any pair of classical languages.

• Latin contrasts strong grade in the Present with weak grade in Thematic Aorists (e.g., venit/vēnit), or weak grade in the Present with Sigmatic Aorists (dīcit/dīxit). In Greek and Sanskrit, vice versa.

• In Sanskrit as well as Latin, verbs that use any sort of nasal infixes or closures in the Present show weak grade there. Nasal infixes are rare in Greek.
### Reconstructed Personal Endings

<table>
<thead>
<tr>
<th></th>
<th>Active-1</th>
<th>Active-2</th>
<th>S-Aorist Active</th>
<th>Perfect Active</th>
<th>Middle-1</th>
<th>Middle-2</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-sg</td>
<td>ō, mi</td>
<td>o-m</td>
<td>sēm</td>
<td>a &lt; h²e</td>
<td>a &lt; h²oi</td>
<td>a &lt; h²o</td>
<td>ar &lt; h²or</td>
</tr>
<tr>
<td>2-sg</td>
<td>e-si</td>
<td>e-s</td>
<td>s(s)</td>
<td>ta &lt; th²e</td>
<td>e-soi</td>
<td>e-so</td>
<td>e-sor</td>
</tr>
<tr>
<td>3-sg</td>
<td>e-tī</td>
<td>e-t</td>
<td>s(t)</td>
<td>e</td>
<td>e-toi</td>
<td>e-to</td>
<td>e-tor</td>
</tr>
<tr>
<td>1-du</td>
<td>o-vēs(i)</td>
<td>o-vē(n)</td>
<td>svē(n)</td>
<td>vé(n)</td>
<td>o-vedhoi</td>
<td>o-vedha</td>
<td>o-vor</td>
</tr>
<tr>
<td>2-du</td>
<td>e-tēs</td>
<td>e-tēm</td>
<td>stēm</td>
<td>tēm</td>
<td></td>
<td>(use plural forms instead)</td>
<td></td>
</tr>
<tr>
<td>3-du</td>
<td>e-tēs</td>
<td>e-tēm</td>
<td>stēm</td>
<td>tēm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-pl</td>
<td>e-mēs(i)</td>
<td>o-mē(n)</td>
<td>smē(n)</td>
<td>mé(n)</td>
<td>o-medhoi</td>
<td>o-medha</td>
<td>o-mor</td>
</tr>
<tr>
<td>2-pl</td>
<td>e-te</td>
<td>e-te</td>
<td>ste</td>
<td>tē</td>
<td>e-dhvoi</td>
<td>e-dhvem</td>
<td>e-dhumor</td>
</tr>
<tr>
<td>3-pl</td>
<td>o-nti</td>
<td>o-nt</td>
<td>sēnt</td>
<td>ēr</td>
<td>o-ntoi</td>
<td>o-nto</td>
<td>o-ntor</td>
</tr>
</tbody>
</table>

Note: 'ė' denotes a vowel of variable or uncertain grade or length.

- Primary endings were used with the Present and Future Indicative and also the Subjunctive; secondary endings with the Imperfect and the Optative.
- Athematic roots or suffixes may add either ēnti or ṇti (written .ńti) in the 3rd-pl.
- There may have been a distinction between the 2nd-dual and 3rd-dual endings, but idiosyncratic variations among languages frustrate identification of the vowel. Those languages that preserve the secondary endings of the dual contrast them as follows: Sanskrit tham/tām, and Greek τον/την, but Slavonic flips the contrast to ta/te < *tō/te.
- The optional final (n) on 1st-pl and 1st-dual secondary endings is modeled on Greek μεν and Hittite weni, but Sanskrit omits it.
- The S-aorist endings employed in various languages are highly idiosyncratic. Vedic and Slavonic suggest that the 2nd-sg and 3rd-sg may not have borne any ending at all, but Classical Sanskrit and Greek inserted vowels to make ss and st easier to pronounce. The tense sign could also be combined with Perfect endings to yield sa, sta, se, ... ser.
- Sanskrit invented Middle forms for the S-Aorist and the Perfect, but they have no support from Greek.
Participles and Verbal Nouns

<table>
<thead>
<tr>
<th>Type</th>
<th>Suffix</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present Active</td>
<td>o-nt-</td>
<td>formed from 3rd-pl</td>
</tr>
<tr>
<td>Present Passive</td>
<td>o-meno-</td>
<td>often conveys “-able”</td>
</tr>
<tr>
<td>Perfect Active</td>
<td>vōs, us-</td>
<td>reduplicated</td>
</tr>
<tr>
<td>Past Passive</td>
<td>tó- or nó-</td>
<td>always athematic</td>
</tr>
<tr>
<td>Infinitive (M or F)</td>
<td>tu- or ti-</td>
<td>focus on action</td>
</tr>
<tr>
<td>Verbal noun (N)</td>
<td>mṇ, men-</td>
<td>focus on result</td>
</tr>
<tr>
<td>Human agent (M)</td>
<td>tor, tér, tr-</td>
<td>focus on actor</td>
</tr>
<tr>
<td>Instrument (N)</td>
<td>tro-, tlo-, dhro-, dhlo-</td>
<td>focus on means</td>
</tr>
</tbody>
</table>

SEMANTIC PROPERTIES OF VERB CLASSES

One daring claim of the Rix-Cowgill theory contends that telic verbs (i.e., those that express actions with natural endpoints) tended to form root aorists, whereas atelic verbs tended to form root presents, and that the nasal elements in the present and the sigmatic element in the aorist served the purpose of aspect-switching. By this token, nasalized presents should go with root aorists, and root presents with S-aorists. (It should be understood that the original root formations eventually became thematic.)

In his last published work, *Lexikon der Indogermanischen Verben*, the late Helmut Rix was more circumspect than others who try to speak in his name. James Clackson, for one, misuses the LIV data to mount a flawed defense of the claim in question. He tallies the data and notes, “Nasal infix presents of the type *linek*’ti are overwhelmingly found beside root aorist formations.” However, he neglects to tally the counter-examples in order to establish that infixed presents are disproportionately found beside root aorists. And yet he dares to conclude, “The nasal infix is used in late PIE to form imperfective present stems from telic verbs.”

Consider the data: Infixed presents are abundant in Latin, but not in Sanskrit. If we arrange the pedigreed verbs (excluding those with V-suffixed and reduplicated perfects) to look for correlations, we see that Latin data tend to refute Clackson’s first statement. Do you perceive a correlation between verb classes and Aktionsart? I do not.
### Latin: The m. Aorist

<table>
<thead>
<tr>
<th>LATIN</th>
<th>Them. Aorist</th>
<th>Sig. Aorist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root Present</td>
<td>ag/ēg, cap/cēp, ed/ēd, em/ēm, faci/fēc, fodi/fōd, fru/bru, fugi/fūg, gradi/grad, i/i, loqu/loqu, lu/lu, ru/ru, su/su, spu/spu, sed/sēd, scab/scāb, stat/stet, veni/vēn, vert/vert, vide/vīd,</td>
<td>auge/aux, coqu/cox, clep/cleps, dīc/dix, dūc/dux, frīg/frix, lūd/lūs, mane/mans, reg/rex, scrib/scrips, sculp/sculps, speci/specx, torq/tors, trah/trax, trūd/trūs, turge/turs, sūg/sūx, teg/teg, ūr/uss, urge/urs, verg/vers, veh/vex, vīv/vīx,</td>
</tr>
<tr>
<td>Infixed Present</td>
<td>fend/fend, frang/frēg, fund/fūd, hend/hend, linqu/linqu, rump/rūp, scand/scand,</td>
<td>ang/anx, find/finx, fung/funx, jung/junx, ling/linx, ming/minx, mung/munx, ningu/nix, plang/planx, ping/pinx, string/strinx, ungu/unx,</td>
</tr>
</tbody>
</table>

### Tense, Mood, Aspect, Aktionsart (and all that)

<table>
<thead>
<tr>
<th>Tempus</th>
<th>Present, Past, Future (self-explanatory)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aorist</td>
<td>customary tense of narration, usually remote past</td>
</tr>
<tr>
<td>Future</td>
<td>predictive, can also express feasible conditions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mood</th>
<th>Indicative = usual mood of discourse or narration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjunctive</td>
<td>injunctive, potential, or conditional</td>
</tr>
<tr>
<td>Optative</td>
<td>expresses first- and third-person imperatives, wishes, purposes, and contra-factual conditions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Imperfective = habitual, progressive, or stative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective</td>
<td>expresses completed action</td>
</tr>
<tr>
<td>Anterior</td>
<td>expresses completed actions that bear upon subsequent states, or occur prior to subsequent events</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aktionsart</th>
<th>Telic = closed-ended, may be either punctual or durative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atelic</td>
<td>open-ended, may be either durative or stative</td>
</tr>
</tbody>
</table>

- The Perfect “tense” is actually Present-Anterior. It expresses completed actions that bear upon the present. For example, *has seen* means *knows*.
• Stem classes and case endings -- There are two distinct declensions. The athematic declension encompasses I, U, A, and consonantal (“C”) stems, and the thematic or O-stem declension, which has idiosyncratic case endings.

• Accent and gradation -- Current theory maintains that the athematic declension employed kinetic accent and dynamic vowel grade. The evidence is contradictory and confusing, because recorded languages have generally fixed the position of the accent, although they may show persistent vowel gradation. In deference to current consensus, we follow paradigms that allow for these phenomena.

• Gender -- the joy of sex. A majority of inanimate nouns are masculine by default, but derivational suffixes determine gender. Trees and insects tend to be feminine, but substances tend to be neuter. Things of nature are feminine (e.g., the Earth, Light, Night) when personified as a goddess.

Reconstructed Case Endings

<table>
<thead>
<tr>
<th>Case</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Athem.</td>
<td>O-stem</td>
<td>Athem.</td>
</tr>
<tr>
<td>Voc</td>
<td>#</td>
<td>e</td>
<td>H</td>
</tr>
<tr>
<td>Nom</td>
<td>s, –</td>
<td>os</td>
<td>H</td>
</tr>
<tr>
<td>Acc</td>
<td>m</td>
<td>om</td>
<td>H</td>
</tr>
<tr>
<td>Gen</td>
<td>es, os, s</td>
<td>osyo</td>
<td>us</td>
</tr>
<tr>
<td>Abl</td>
<td>es, os, s</td>
<td>oet &gt; ōt</td>
<td>bhōm</td>
</tr>
<tr>
<td>Dat</td>
<td>ei</td>
<td>oei &gt; ōi</td>
<td>bhōm</td>
</tr>
<tr>
<td>Inst</td>
<td>eH &gt; ē</td>
<td>oH &gt; ō</td>
<td>bhōm</td>
</tr>
<tr>
<td>Loc</td>
<td>i</td>
<td>oi, eī</td>
<td>us</td>
</tr>
</tbody>
</table>

• The nom-sg ending on R, L, M, N, and A-stems (sonants) is generally suppressed, but compensatory lengthening takes place: tors > tōr, etc.

• Recorded languages struggle to make distinctions among the nom-sg, gen-sg, and nom-pl endings -- all three being variations upon es/os/s. Kinetic accent and/or dynamic gradation help to distinguish the gen-sg.

• The gen-sg ending, generically written ēs, is realized in various grades, and even in null grade: évēs > eus, évēs > eis.

• The loc-sg ending i is thought to be a late development, and it never draws the kinetic accent, hence udēni vice udnī (“in the water”).

• The nom-pl ending oi employed in Italo-Celtic and Greek was presumably borrowed from the pronominal declension. Latin seems to have had provincial dialects that favored ōs < oes over ī < oi.
The inst-pl ending was simplified from oibhis to ōis at some stage. The former appears abundantly in Vedic texts, but the latter is attested in many branches.

The dat/abl-pl ending is almost too similar to the inst-pl ending, but Germanic and Slavic have -m- wherever Sanskrit and Italo-Celtic have -bh-. One school of thought argues that the dat-pl ending was properly mos, and the inst-pl ending bhis. (This theory is not half so amusing as my own waggish idea that the substitution was due to a stuffed-up nose. As the Elephant’s Child said to the Crocodile who stretched his nose into a modern trunk in Rudyard Kipling’s story, “You are hurtig be.”)

The inst-sg ending is ostensibly nothing but an elongated vowel, but instrumental constructs with bhi yield Greek φι(ν) and Slavic ом(ь).

The abl-sg ending et or ed is attested by Hittite it. It is applied to all five stem classes in Old Latin, but only to the O-stem declension in Sanskrit.

### Kinetic Accent and Dynamic Gradation in Athetic Declensions

<table>
<thead>
<tr>
<th></th>
<th>Strong Form</th>
<th>Weak Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father</td>
<td>patér-</td>
<td>patr'-</td>
</tr>
<tr>
<td>Brother</td>
<td>bhrā'ṛer-</td>
<td>bhrā'ṛr-</td>
</tr>
<tr>
<td>Tree (F)</td>
<td>dréu-</td>
<td>dru'-</td>
</tr>
<tr>
<td>Wood (N)</td>
<td>dōru</td>
<td>dōrv-</td>
</tr>
<tr>
<td>Sky</td>
<td>dyéu-</td>
<td>div'-</td>
</tr>
<tr>
<td>Ship</td>
<td>naHéu-</td>
<td>naHu'-</td>
</tr>
<tr>
<td>Son</td>
<td>suHnéu-</td>
<td>suHnu'-</td>
</tr>
<tr>
<td>Dog</td>
<td>čvón-</td>
<td>čun'-</td>
</tr>
<tr>
<td>Door</td>
<td>dvór-</td>
<td>dur'-</td>
</tr>
<tr>
<td>Earth</td>
<td>dhé̤ghom-</td>
<td>(d)ĝhm'-</td>
</tr>
<tr>
<td>Generic</td>
<td>Co'C-</td>
<td>CeC'-</td>
</tr>
<tr>
<td></td>
<td>Cē'C-</td>
<td>CeC'-</td>
</tr>
<tr>
<td></td>
<td>CéuČ-</td>
<td>CuC'-</td>
</tr>
<tr>
<td></td>
<td>CēnC-</td>
<td>ČnC'-</td>
</tr>
<tr>
<td>Suffixed</td>
<td>CV'C-os</td>
<td>CV'C-es-</td>
</tr>
<tr>
<td></td>
<td>CV'C-u, i, tu, ti-</td>
<td>CV'C-ěu, ę, téu, těi-</td>
</tr>
<tr>
<td></td>
<td>CV'C-mn</td>
<td>CV'C-měn-</td>
</tr>
<tr>
<td></td>
<td>CV'C-tor-</td>
<td>CV'C-tor-</td>
</tr>
<tr>
<td></td>
<td>CV'C-tér-</td>
<td>CV'C-tr' or -tr'-</td>
</tr>
<tr>
<td>R/N-stem</td>
<td>vēdor or vôd-ṛ</td>
<td>vědn- or udn'-</td>
</tr>
</tbody>
</table>
• O-stems bear static accent, either on the root or the stem.
• The NAV cases (except possibly for the acc-pl) are considered “strong” cases. The principle of kinetic accent is that the accent advances toward the end in “weak” cases, but it recedes to the root in the voc-sg.
• The professional terminology is designed to bewilder: acrostatic, proterokinetic, hysterokinetic, amphikinetic, etc. Why not say leapfrog?
• The “weak” form of U/I-stems is ostensibly CVC-éu, éi, but the suffix gets reduced to ú, í before the endings bhos, bhís, su. The accent is unaffected.
• In Greek and Sanskrit, contra Ringe, the “weak” form of the suffix tér is tr-’ before vowels, but tr’- before bhos, bhís, su.
• Theories about water, and about R/N-stems generally, are in flux. Recent theories, subject to incessant revision, argue for a distinction between water the substance and bodies thereof, but the newer theories are not necessarily less fishy.
• A good reference on this topic is Don Ringe’s From Proto-Indo-European to Proto-Germanic, but his presentation is doctrinaire, and the reader should take the details with salt. (He was probably wrong to conflate tree with wood.) Wikipedia, that dubious modern oracle, throws its weight behind Ringe’s paradigms.

The application of these rules to “tree” and “wood” -- key words in the tales -- is tricky. Sanskrit and Greek make a clear distinction: drus vs dāru, and δρῦς vs δόρος. Sanskrit declines these nouns as regular U-stems, but Greek declines them differently from U-stem adjectives, which are included for comparison. Neither language shows kinetic accent on these words.

### Declensions of “Tree” and “Wood” in Sanskrit & Greek

<table>
<thead>
<tr>
<th>Case</th>
<th>per Ringe</th>
<th>Tree</th>
<th>Tree</th>
<th>Wood</th>
<th>Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom-sg</td>
<td>*dóru</td>
<td>drus</td>
<td>δρῦς</td>
<td>δόρυ</td>
<td>βαρύς</td>
</tr>
<tr>
<td>acc-sg</td>
<td>*dóru</td>
<td>drum</td>
<td>δρῦν</td>
<td>δόρυ</td>
<td>βαρύν</td>
</tr>
<tr>
<td>gen-sg</td>
<td>*dréus</td>
<td>dros (āus)</td>
<td>δρυός</td>
<td>δούρος</td>
<td>βαρέγος</td>
</tr>
<tr>
<td>dat-sg</td>
<td>*drévei</td>
<td>drave (avāi)</td>
<td>δρυί</td>
<td>δούρι</td>
<td>βαρέγι</td>
</tr>
<tr>
<td>inst-sg</td>
<td>*drúh¹</td>
<td>druna, dṛvā</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loc-sg</td>
<td>*drévi</td>
<td>drāu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nom-pl</td>
<td>*dóruh²</td>
<td>dravas</td>
<td>δρύες</td>
<td>δούρα</td>
<td>βαρέγες</td>
</tr>
<tr>
<td>acc-pl</td>
<td>*dóruh²</td>
<td>drūs (uns)</td>
<td>δρῦς (uvς)</td>
<td>δούρα</td>
<td>= nom-pl</td>
</tr>
<tr>
<td>gen-pl</td>
<td>*drévoHom</td>
<td>drūnām</td>
<td>δρυόν</td>
<td>δούρον</td>
<td>βαρέγων</td>
</tr>
<tr>
<td>dat-pl</td>
<td>*drūmos</td>
<td>drubhyas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inst-pl</td>
<td>*drūbhi</td>
<td>drubhīs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loc-pl</td>
<td>*drūsu</td>
<td>drusu</td>
<td>δρυσί</td>
<td>δούρεσι</td>
<td>βαρέσι</td>
</tr>
</tbody>
</table>

Umlaut: δούρ < δορφ. Digamma was lost in classic Greek: βαρείς < βαρέγες.
The declension of “sky” demonstrates kinetic accent and dynamic gradation more clearly, and the classical languages agree closely.

**Declension of “Sky” in Sanskrit & Greek**

<table>
<thead>
<tr>
<th>Case</th>
<th>per Clackson</th>
<th>Sanskrit</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom-sg</td>
<td>*dyeu-s</td>
<td>dyaus</td>
<td>Ζεύς</td>
</tr>
<tr>
<td>acc-sg</td>
<td>*dyeu-m</td>
<td>dívam</td>
<td>Δίφα</td>
</tr>
<tr>
<td>gen-sg</td>
<td>*div-ès</td>
<td>divás</td>
<td>Διφόζ</td>
</tr>
<tr>
<td>dat-sg</td>
<td>*div-éi</td>
<td>divé</td>
<td>Διφí</td>
</tr>
<tr>
<td>inst-sg</td>
<td>*div-éh¹</td>
<td>divā’</td>
<td></td>
</tr>
<tr>
<td>loc-sg</td>
<td>*dyēv-i</td>
<td>diví</td>
<td></td>
</tr>
</tbody>
</table>

**DERIVATIONAL SUFFIXES**

- Common adjectival suffixes include -ó, -tó, -nó, -ló, -kó, -likó, -yo, and -u.
- Another common suffix appearing on both nouns and adjectives is -ró.
- Comparatives and superlatives are formed with -yos/ísto or -tero/temo.
- Nouns possessing qualities can be made from adjectives with -mon or -mén. (Compare verbal nouns formed with -mṇ or occasionally -mo.)
- The only widely attested suffix for expressing abstract qualities as nouns is -ës. Dialectical suffixes include -tāti (F), -osti (F), and -tvo (N).
- Animate agent nouns are routinely made from verbs with -tor or -tér.
- Inanimate instruments are expressed with -tro, -tlo, -dhro, -dhlo (N)
- The common diminutive suffixes are unaccented -ko and -lo.
- Feminine forms bear the suffixes -ia or simply -a < h².
The standard reference work of Indo-European lexicography is Julius Pokorny's hypertrophic *Indogermanisches Etymologisches Wörterbuch*, which lists 2,222 suspected roots. Many users conclude that Pokorny set low thresholds for phonetic and semantic matching. It is difficult to discredit any given entry by objective criteria, but many of them are very doubtful.

An even more fantastical work is Calvert Watkins's *American Heritage Dictionary of Indo-European Roots*. The few of his fanciful etymologies that can be verified serve to make the point that a given root can spawn derivatives with very diverse meanings.

Unlike these bloated horrors, my conservative mini-lexicon is confined to roughly 700 adequately attested roots, plus variants and derivatives. It is apparent that Pokorny chose to err on the side of including doubtful items, whereas I choose to exclude them. I rate the items in terms of the number of major branches of the Indo-European tree that attest them, but there is no sound way to identify and discount inter-branch loans.

I have split off the most obvious Greco-Latin loanwords, but roughly one-quarter of the remaining items are thinly attested, being found in no more than two branches. Such items are particularly suspect when the branches in question are in geographic or cultural contact. It is even evident that the Balto-Slavic branch must have been in cultural contact with the Indo-Persian branch at some point.

A significant number of the thinly attested roots are found only in Greek and Sanskrit, which are thought to constitute an eastern sub-family on account of their virtually identical verb systems. These items should be deemed dialectical.

Some even more thoroughly attested items are suspect for a different reason. Just as animals have legs, so do their names, and plants can travel too. Such items should be deemed post-P.I.E. *Wanderwoerter* unless their distribution is nearly universal.

Roots found in only one branch are effectively lost, because there is no sound way to distinguish them from roots newly coined within that branch. There is no way to know how many valid roots have been dismissed for lack of a second attestation.
It is possible to tell the damnedest lies with statistics, and bloated compilations that include unknown amounts of spurious material furnish the raw material for mischief. One might hope that a well-scrubbed database of indisputably inherited roots would provide reliable material for statistical investigations of phonological or grammatical phenomena. For example, it might be possible to test selected claims of laryngeal theory and the Rix-Cowgill theory of verb classes by examining inter-branch correlations.

It is difficult to make the proper phonetic distinctions between quasi-homophous roots. The working vocabularies of recorded languages typically comprise 3,000 roots, but the monosyllabic template does not generate quite so many distinct roots unless all essential phonetic distinctions are taken into account. Unfortunately, the key phonetic distinctions have sometimes been effaced in the attesting branches. Distinctions among pure vowels, among velar sub-classes, and among aspiration states are most frequently elusive.

It is also difficult to make the proper semantic distinctions among quasi-synonymous roots. There are too many alternative terms for fire, flame, and burning; for grasping, capture, taking, and having; and so forth.

Topical arrangement highlights the preoccupations of P.I.E. culture: family, farming, fishing, food, fire, fighting, religion, rule, and crafts. The working vocabulary of the proto-language must have been rich in specialized terms, but only a fraction of the specialized terms can be recovered.

The full mini-lexicon takes the form of two downloadable Excel files: (1) sorted root list without supporting attestations, and (2) a topically arranged spreadsheet of attestations, along with my snide, amateurish, and speculative comments. I am perpetually revising these files as I come to regret my prior follies. A simplified version of the root list is appended below, without notes on reliability or distribution.

### Sorted Root List

<table>
<thead>
<tr>
<th>MEANING</th>
<th>RECONSTRUCTED FORMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>hear, acoustic</td>
<td>(a)kous</td>
</tr>
<tr>
<td>man, strong, andro-star</td>
<td>(a)ner</td>
</tr>
<tr>
<td>blow like wind</td>
<td>(a)veH</td>
</tr>
<tr>
<td>remain, dwell &gt; was</td>
<td>(a)ves</td>
</tr>
<tr>
<td>want</td>
<td>(e)gʷh.l.H</td>
</tr>
<tr>
<td>free, liber (cf. people, grow)</td>
<td>(e)leudh-ro</td>
</tr>
<tr>
<td>nine</td>
<td>(e)nev.m</td>
</tr>
<tr>
<td>darkness, erebos</td>
<td>(e)regʷ-ės-</td>
</tr>
<tr>
<td>belch, eructate</td>
<td>(e)reug</td>
</tr>
<tr>
<td>red, ruddy, erythro-</td>
<td>(e)rudh-ro</td>
</tr>
<tr>
<td>brow, front</td>
<td>(o)bhrū</td>
</tr>
<tr>
<td>tooth &lt; eating</td>
<td>(o)dont</td>
</tr>
</tbody>
</table>

1 You may contact the author to request a current copy. E-mail: BBarrois@verizon.net
navel
rain, cloud, umbra
mist, fog, rain < micturate
nail
name
reach, arrive (cf. REG)
run, flow
apple
stone, hammer, anvil
sharp, pointed, high, acrid, sour
to
drive, act
driven animal, goat
field, acre
axle, shoulder
awe, fear
ache, pain; sin, distress
axe
lamb, agnus
heat, burn, kindle
oak
early, morning
bronze, ore
eternity, eon, ever
life, health
young
nourish, aliment > old, tall, full-grown
other, but, otherwise
all
white
elk, fawn, hind
alder
around, both
end
other, second
breathe > soul, anima
onto, until, ante, anti
duck, anet
narrow > anxious
ankle, joint, corner
asuras, aesir
water, riverbank
reach, attain, touch, apt
from, after
water
arm, joint
white, silver, clear
earth, pasture, tillage
rowing, oar
plough, oar
(o)mbh-lo
(o)mbh-ro
(o)migh-lo
(o)nogh
(o)nomen
(o)reig
(o)ri(n)H
abl-o, aml-o, māl-o (?)
ac-mon
ac-u, -ru, -ri, -ro
adi, adhi
aĝ
aĝ > āg-o, āg-yo, aiĝ
aĝ > āg-ró
aĝ > aks-i, -lo
agh-ēs, ag-ēs-
agh-o, ag-o
ag*esi, aksi, aski (?)
ag*n-o
aidh > i(n)dh
aiĝ-o, aiĝolo, aḡōlo (?)
air, ayer
ais, ayes
aiv > aiv-ō
aiv > ayu
aiv > yov-en, yun-ko
al > al-tó
al > al-yo, al-tero
al > ol-no > ol-lo
albh-o
alc-yo
aln-o
ambhi
an > an-tó
an > an-yo, an-tero
an(e) > an-mo, -lo
ana, anu, anti, na
anat-ī, ant-ī
angh-u
angw-lo, angu-lo
ans-u
āp
āp, (y)ap (?)
apo, ap-ter
aq-o
ar > ar-mo, ar-dhro
arĝ-u
arH > ar-tó
arH > rē ... -tro, -dhro, -mo
arH > rō ... -tro, -dhro, -dhlo
arrow  arq-o
bear, ursus  arkt-o > arkt-o > .r.kt-o
righteous, ready  art-o
noble, aryan, aristocratic  ār-yo
autumn, harvest  asen-
despite, however (enclitic)  au
wax, eke, augment  aug-ēyo, auks, vaks-yo
burn  aus > aus, eus, ves
dawn, aurora  aus > aus-ēs-
dawn, east  aus > aus-ter-o
spring, vernal  aus > ves-ēr, ves-ro
away  avo, au
bird  av-i > vi
grandparent, uncle (mother's side)  bel-o, bol-skọ (?)
big, strong, good  bh.l.ğ
flame, torch, char, black, bleach  bh.l.ğ-no > bhalanğ
beam, phalanx  bh.l.H > bhl-e-s, bhl-e-w
blow, inflate  bh.l.H > bhl-vo, bhēl-o
blue, flavus, white  bh.l.H > bhol-yo, bhlē-dhro
bladder, follicle, phallos  bh.r.ğh > bhor-g-o
spring, vernal  bh.r.ğ-o
bright  bh.r.v
boil, brew, yeast  bh.rH.ğ-o
birch (cf. bright)  bha-bha, bha-ko
bean, fava  bhāg
beech  bhaH, bhan-yo
announce, show, appear  bhardh-a/o
barley, farina  bhars
thick, fat, pachy-  bhe(n)gh-u
beaver (cf. brown)  bhebher-o
good, well-being, better  bhed-ro
run, frighten  bhēg-yo
fear  bhei
fidelity, bide, federate  bheidh
bind  bhendh
bear, carry  bher
be (fientive), become  bheu, bhū
alert, wake; notice  bheudh
bow, bend  bheug(h)
flee, frighten  bheug-yo
bee  bheu-ko
split, fission, bite  bhi(n)d
bless > priest, brahman, flamen  bhlagh > bhlagh-món
bake, prepare food  bhog
bore, split  bhor
bare, barefoot  bhos-o
brother  bhrårter
break  bhre(n)ğ
grumble, thunder
fry, roast
well, spring
belly, breast
partake, use, brook, fruct-
brow, front
partake, function
bottom, fundus
goat, buck, bull
short, fast, brevi-, brachy-
stalk, straw, reed
hundred
heart
have faith or trust, put-heart
herd, crowd, troop
separate, sieve, riddle
mix, cook
fall, cause downfall
shitty, bad
cold
toil, tire
hoof
goat, boar, deer (cf. hoof)
hare
hate, battle, enemy
lie down
horn
gray, hoary
incline, (h)lean
arse, tail, thigh, buttock
hear, listen
heard-of, renown, fame
branch, plough
shell, conch
shoulder, hip
whistle
white
sacrifice, housel, sanctify, purify
dog, hound
green, cyan, black
long, dolicho-
look
tree, wood, oak
tears
brother-in-law (husband's brother)
tame, domestic
to, from
ten
finger, digit < ten
day < division

bhrem
bhresğ
bhreu-R/N
bhreus-o
bhrögʷ
bhruH
bhu(n)į
bhudh-no, -men
bhūğ-o, bhuk-ko
bregʰ-h-u, mregʰ-hu
c.l.m-o > colmo, calamo
c.n.tom
c.r.d
bhrūgʷ
bhreus
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c.n.tom
c.r.d
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bhruH
bhu(n)į
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bhūğ-o, bhuk-ko
bregʰ-h-u, mregʰ-hu
c.l.m-o > colmo, calamo
c.n.tom
c.r.d
point out, teach
deic	right
deks-o, deks-tero
house, timber
dem > dem-dhro > dem-bhro
household, people
dem > dem-o, dom-o, dom-u
tongue (cf. call out)
d-en-ĝhu
tooth < eating
dent < ed-ont
tear
der
deur
dem > dem-o, dom-o, dom-u
drag, draw, hold tight
dh.rei, dhroim, dhroum (?)
dare, brave
dh.r.ĝh
daddy, uncle
dh.adh-o, dhei-o
divide
dh.rei, dhrai, dhroum (?)
foliage, thallo-
dhal-
to burn
dhal-yo

day
dhegh

do, put
dheH
suck, suckle > teat
dheH, dhei, dhēl (?)
run, flow
dheH, dhei, dhēl (?)
yesterday
dh'hester
humus, ground (feminine)
dh'hom
human, chthonian, of the ground
dh'hom
fish, ichthys
dh'ghū
decline, phthisis
dh'gʷhī
dough, mortar, shape, wall
dh(ng)h
bad, evil, deception
dhreug
doughter
dhukter
smoke > breath, soul
dhū
smoke > dusk, dust, fuscus
dhū-mó
work or fight together
dhver, dūr
town, fence, fort
doH
door
drom
give
dus-men, -mó
run
du-no
work or fight together
drough
town, fence, fort
dus
mal-, dys- (prefix)
dus
hatred, enemy
dvo
out of, ex
dy-u > deiv-ó
horse
dy-u > dyeu, div
eat, feed
dy-u > dyu-patér
tooth < eating
ecs, eĝ
echeghog
out of, ex
ecv-o, eq-o
horse
ed
eat, feed
ed > od-ont > dent
tooth < eating
eğh-i
hedgehog
eğo, eğho
I (nominative form)
ei
go
ei > ei-sk
seek, ask
ei-o, yo, yosmo
that (is, ea, id)
ice
eis
elk, fawn, hind
el > el-ni-o, el-it (?)
be
buy, seize
elc-és-
in, into
em
sword
en, en-ter
boar
epi > ob
atop, around
eri-o, arvi-ko, vervi-ko (?)
goat, sheep, aries
esa-R/N
be (perm.)
ens-i
e and even, and also
er epi > ob
breath, soul, atman
ehi
heart, veins
ēt-ro, ēt-or
wide, broad
eur-u
sister-in-law (brother's wife)
ětm-én, -ó
graph, scribe, carve (cf. groove)
gēl-dho,
grow old and gray, geronto-
kin, kind
grain
beget, be born
gō, approach
gal > gal-yo ...
grow old and gray, geronto-
call, cry out
gal > gal-yo ...
call, cry out
gar > gar-yo ...
indeed (enclitic)
ge, ghe
indeed (enclitic)
gal > gal-yo ...
cold
gal > gal-yo ...
kin, kind
gō, approach
gal > gal-yo ...
son-in-law
ge, ghe
beget, be born
gēl-dho, -u
sister-in-law (brother's wife)
jen > jen-ēs, jen-t
chin, cheek (feminine)
jen-u
knee (neuter)
jen-u
chew (cf. jaw)
jen-u
taste, choose
gēu
dig, grave, groove (cf. carve)
gēus
dig, grave, groove (cf. carve)
gh.r.bh
grab, grip, grasp (fig. understand)
gh.r.bh
go, approach
ghabh-(é)yo
give, have, take
ghaid-o
good
goat
ghans, -ro
goose, gander
get, grasp
gh(n)d
defecate
ghed
go, walk, leg
ghēH, ĝhen-ĝheH
gape, yawn
ghēi, ĝhai, ĝhan-yo (?)
winter
ghēim ... -ro
yellow, gold
ghel ... -u, -to, -ro
desire, yearn, greedy
gester = dh'ghes-ter
yesterday
ghes-to, ĝhes-ro
hand
ghes-to, ĝhes-ro
pour, libate
gheu, ĝheud, ĝhu(n)d (?)
call, cry out (cf. tongue)
gheu, ĝhe-va-yo (?)
smooth, glabrous
ghladh-o
ground, earth (feminine)
ĝhom = dh'ĝhom
man, of the ground
ĝhomen = dh'ĝhomen
garden, fence

gut-string, yarn, hernia

gorse, horror (hair standing on end)

stranger, guest

glow

wild animal, ferox, thera

cleave, split

clay, cleave, glue

can, know

peg, nail, comb, tooth

bird calls (echoic)

throat > swallow, cry out

acorn

calf, womb, globus, brephos, delphys

heavy, difficult, serious, sad

throat > praise, call out

mountain

throat > swallow, devour

live, alive

kill, torment, hurt

come, go

woman, wife

want

decline, phthisis

kill, harm, smite, strike

burn, heat > warm

animal’s den

granule, grind, frendere, hordeum

cow

bow

island

hill-top, rise

bald

circle, ring

cart, harrow; to plough

black

beloved, friend

hailstone

one-eyed, blind

healthy, hale, whole

forest, heath

beautiful, kallo

curve, bend, bow, camber

sing, throat, hen

hemp

head

capture

hard, harsh, stony

fruit, harvest

hollow > cup, bowl
hew wood
hollow > bone, reed, stalk
high, heap
hind (hornless)
limp, march
skeleton
cherry, red fruit tree
hart, cerf (cf. horn)
hide, conceal
(h)lade, load, place
clamor, (h)laugh
close, exclude > (key)
steal, thief
hide, conceal
shinbone, ham
gnat, (h)nit
nut
hook, claw
hip, coccyx, vertebra
split wood
neck
with, together; against
war, army, reprisal
hazel
bone, rib
sense > hear, acoustic
sense > pay attention, show
heap, accumulate
bird calls, croak, cough
onion, garlic, (h)ramp
meat, raw, blood
with
kill, harm, cten- (cf. phthisis)
possess, reside > home
grasp, catch
hare
bark, bay, weep, howl, babble
left
salmon, lox
lake, puddle, hole
desire, lust, wanton
reach, climb, surmount
lip
lie, lay
light, easy, swift
let, allow, lenient
lick (cf. tongue = *denghu)
grease, glue, adhere
lumbar
long
kau > kau-yo, kau-dh
kau > kav-o, kau-lo
kauk-o
kem-o
keng
kenk-lo
keremus-o
kēr-vo
keudh, kūdh
klādh
klag, klak
klāv-i, klau-dh (?)
klep-t
klūd-o
knā-mo, kon-mo
kneid-a
knū > (k)nūd, (k)nūk
kog-...
koks-o
kol
kols-o
kom, kon-ter
kor-yo
kosel-o
kost-??
kou > (a)kou-s
kou > kov-eyo, s-kou-yo
koup-yo
kra.... k.r.k
krems-o
krov-yo, krov-i, kroiv-o
ksun
kten-yo
kti(n) > ktoi-mo, kti-tu
la(m)bh
lagus-o, algs-o (?)
laH
laiv-o, lav-yo
laks-o
lak-u, lag-u
las-yo
lē(n)gh
leb-a
legh
legʷh-u
leH > lēd, lēn (?)
leigh
leip
lendh-o
lēngh-o < d.IH.gh-o
desire, love, enjoy
people, free, grow
tell a lie
light, illumination
leave
linen
play
wash, lye, lather
foliage, leaf
lea
loosen, solve, dissolve
louse
soft, mild < milled
mill
milk
dead, death, murder
die
forget
not
can, may
boy, girl
neck, mane
mark, margin, border, road
ocean
mare
mother
me (oblique form)
mix, mingle
crush
honey, mead
amid, middle
much, big, mega-
measure (cf. moon, month)
moon, month
measure, merit
mix, mingle
deception, evil, mal
multi, melior, μαλα
blue-black, painted
meat
remain
remember, mind
boy, girl (cf. mortal)
submerge, plunge
micturate, uninate
mist, fog, rain
diminish > minor
wage, reward
speak incoherently
mutual exchange, common
leubh-yo
leudh-o
leigh
leuk
li(n)q
lín-o
loid, lusd (?)
lou
loubh-o
louk-o
lū, lūs
lūs
m.l._ > m.l.-dho, m.l.-du
m.l._ > m.l.-yo
m.l.g > lact-o, galakt (?)
m.r._ > m.r.-tó, m.r.-dhro
m.r._ > m.r.-yó
m.r.s
mā
magh
maghu, maqu
man-yo
marg-o
mari, mori (?)
mark-o
mātér
me
me(n)gh
me(n)k
medh-u, mel-i
medhny-o
meğ-o, meğ-lo, moğ-no
meH > med, met, mēr
meH > mēn-s, men-ōt
meH > mēr-ēyo
meisk = meiks
mel, mol, mal
mel, mol, mal
melan-ō
mems-o, mens-o
men
men > me-men, men-ṭi
meryo-ko
mesg > merg
mi(n)gh
mi(n)gh > miğh-lo
mi(n)H > mein-o
misd-o
mluH
moin
fur, hide
much, many
soon
ant, pis-mire (cf. worm)
marrow, brain
moss, wet
mucus, blow the nose, nostril
mute, mystery, mutter
moo
mouse
fly, midge, mosquito
granny, nanny
water
nose
not, un-
attain, carry
fog, heaven
kidney
lead
nephew, grandson
man, strong, andro-
need, be necessary, use
nine
new
wash, clean
nether, down
nest < sit down
navel
kill, harm, be noxious
nail
naked
night
name
we, us (oblique forms)
now
eight
swift
smell
fire
one
forearm, elbow, ulna
raw, uncooked
shoulder
anoint
snake, eel, ophidian
eye
raise, rise, ortho, arduous
eagle, erne
orphan, heir, worker
testicle, male
mois-o
mongh-o
moqs
morvi-ko
mosg-o > marg-o
mos-o, mosk-o
mu(n)g > muk-ter
mūd-yo
mūk, mūg-yo
mūs
mūs-a, musk-a
nan-a, ann-a
nār-o
nās-o
ne
ne(m)c, no(n)c
nebh > nebh-ēs, nebh-lo, ombh-ro
negw-ro
nei
nogh > nogh-lo, onogh
nogw- ... -ō, -nō, -tō
nokt, neqw-t
nomen = onomen
nos, n.smo
nūn
oct.m, octo
ōc-u
od-(é)yo
ogn-i
oin-o
olena
ōm-o
oms-o
ongw-, ong
ongw-h-i, ogw-h-i
oq-o
or ... -yo, -nu, -sko, -dho
or > or-no, or-lo
orbh-o
orğh-i
arse, tail, thigh, buttock
mouth, oral
branch, twig
ash tree
bone, rib
aurochs, bison
ear
sheep, ewe
egg (cf. bird = AVI)
fill
full, complete
plural, poly-
folk, plethora, plebs
feel, palm, finger
field, flat, plain
before, ...
first, prime
pass through
fasten (fig. binding promise)
fall, fall upon
feed > fodder, pabulum
feed > shepherd
fire
father
few, small, child
livestock, property
chest, wing, flank
axe (weapon)
skin, pelt
five
cook, digest
tart
oak, fir
heel
last year
penis
fly, dart
fern
feather, wing
paint, color
pound > sand, dust
pound > pestle
fat (substance)
fish
beat; weep, complain (fig. beat breast)
plait
swim, float, flow
flea
sneeze, pneumonia
foot
ors-o
ős
osd-o
os-ko, os-no, os-i (?)
ost-i
our-o
ous
ov-i
övi-o, oi-o (?)
p.l.H¹ > p.l.(n)H
p.l.H¹ > plē-nō, plē-tō
p.l.H¹ > pol-ú
p.l.H¹ > pol-yo, pol-ko, plē-dho
p.l.H² > pāl, pala-ma, pāl-ko (?)
p.l.H² > plā-nō, p.l.-tō, p.l.-tū
p.r._ > per, pro, prai
p.r._ > per-mo, prē-mo
p.r.H > pera, por-tō
pac, pa(n)g
pad
paH ... -dhro, -dhlo, -no
paH > paHs
paH-v-R/N
patēr
pau ... -rō, -ko
pecu
pekt-o
pelecu
pel-to, pel-no
penqe
peq
perd
perq-o
persn-a
peruti
pes > pes-no, pes-lo, pes-ēs-
pet
pet > pern, papart, pterid ...
pat > pet-tro
pi(n)ĝ, pi(n)c, peic, poic
pi(n)s > pē(n)s-o
pi(n)s > pis-tlo
piH-v-R/N
pisk-o, pisk-i
pla(n)g, plēk
plec-t
pleu
plūs-a
pneu-s, sneu-s
pod
drink
pale, pallid, fallow
foal, young
path, bridge (2)
piglet, farrow
after, post
master, husband
ask, request
be friends, be at peace
freeze
against
sneeze
fight with fists, puncture
purify, cleanse
foul, stink, rot, pus
make, create
worm
body, midriff
cut, shorten
and (enclitic)
four
who, what
price, penalty
circle, wheel
buy
regulate, direct, reach
ruler, rex, reich
righteous, upright
reach, arrive
darkness, erebos (cf. ARĜU)
discuss, reason, converse, count
item of property
tear, cut, scratch
ride
rigid (cf. REG)
rope, rod
weep, wail, roar
red, ruddy, erythro-
belch, eructate
run, flow
wheel, ride, chariot
rip, rob, rive, rift, bereave
care, love, respect, guard, sorrow
seek, follow
sun
salt
summer
understanding
satisfied, perfect
sit, set

poH, pib, pi(n)
pol-o
pōl-o
pont-o
porc-o
pos, pos-ter
pot-i
prec-sk
prei
preus ... -to, no, vo
pro-ter, pro-ti
pter, ster
pu(n)g
puH ... pu-tā, pu-ro, pu(n)H
puH ... pu-téyo, pu-yo, pu-lo
q.r._ > qer
q.r.m-i = v.r.m-i
q.r.p-o
q.r.t = s-k.r.t
qe
qetv.r
qo, qi
qoin-a
qol-o, qoql-o
qri(n)H
reg
reg > règ, règ-én
reg > reg-u
reg > réig > rënk (?)
regʷ-ēs-
reH, rē-dh
rei
reic
reidh
reig-ó
rēsg-o
réud
rēudh-o, -ro
rēug
ri(n)H, ri-nu
ro-tó
ru(m)j, roubh
s.r.g, st.r.g, stH.g (?)
sāg
sāH-v-L/N, sāvel-yo
sal
sam-ro
sap-yo
sa-tó
sed > sed-(é)yο, si-sd
be victorious
sow > seed
cut, saw, section
six
willow, sallow
salve (cf. slip, lipo-)
half
sing
old, senior
seven
seek, follow; say; see
serpent, reptile
dry, sere, sec
cut, cleave
cut, shear
cut, sharp
cut, shear, shorten
hollow out
left
jump, climb
cover, contain (fig. sky)
hide, leather
cut, skin, scythe, schizo-
shit, sarn, scato-
shadow, shade
slack, relax
slip, slime, slide, slick, lapse
cheek, chin, mustache
smile, smirk
remember
stink
small
berry
mess, mud, smut
swim
swim > boat
snake, snail
spin, sew > needle
sinew, nerve (cf. sew)
snow
marry
daughter-in-law
whole, intact, safe
with, together; without, hetero
same, all
that (M/F/N nominative)
jump, hurry, be eager, frog
look
spit, spew
spur, ankle > spurn, kick

segh
seH > sē-men, sē-tó, se-s-
sek
seks, sveks
selk-o
selp-ēs-, solp-i
sēmi
sēngʰʰ
sen-o
seq
serp-ent
seus-o, seus-ko > ses-quito
s-k.l.p
s-k.r._
se-s-k.r.p
skabhb
skāiv-o, skav- yo
skand
s-keu
s-keu > s-ku-tó
ski(n)d
sko-R/N
skot-o
s-lāg, langu
s-leim, leib, lab
s-mac- ro
s-mei > smeil, meid, meir
s-mer, me- mor
s-merd
s-mol-o
s-mor-o
s-mūd-o
s-naH
s-naH > naH-u
s-neg-o
s-neH > s-nē-dhlo
s-neH > s- nēv-R/N > s-neu-ró
s-neigʰʰ
s-neu > neubh, numbh
s-neu > s-nus-a/o/u
solv-o
som, son- ter
som-lo
sos, sa, tod
s-p.r.gh > s-pre(n)gh, s-pru(n)g
s-pec
s-peiv > spyū, stiv, ptu
s-per(n)
spray, sprinkle (cf. strew)
spleen
foam (cf. spit)
arse, tail, thigh, buttock
whale
nose
stream, flow
star, stella, aster
scatter, strew, extend
stand, stop
establish, support
steer, taurus, bull
thatch, cover
step, stamp, trample
stick, puncture, prod
climb, march
(st)locus, stall, stela, stool
resound (cf. thunder)
strong, strict
scrape, shave
arrow
thrust, starling, stroutho-
storm, turbulence, twirl
self, own (cf. TU)
suck, suckle
sow, swine, hog
be fertile, give birth > son
sweet, pleasant
father-in-law (husband's father)
sweat
sleep
sister
so, as, thus
sound, swan
swarthy, black
sew
suffer, bear, carry
speak, interpret, loquacious
rub, abrade, attrite
pull, drag, touch
through, cross, terminus
thorn
twist, turn, torque > spindle
thirsty, dry, terrain
touch, take
thaw, digest
silent, quiet, tacit
heel, sole, flat surface
daddy, uncle
silent, quiet

s-per-yo
s-plēgh-én
s-poim-o
s-pūg-a
s-qal-o
sren
s-reu > sreu-mo, reiv-o
st.r._ > ster-lo, ster-no
st.r.H > st.r(n)H, st.rH.(nu)
staH
staH > stabh, stambh
s-taur-o
s-teig
steigh
stel-o
s-ton
strē(n)g(h) (?)
streig
strēl-o
s-tro-sd-o
s-tver-mo
su, sv-o
suţh, suc
suH
svād-u
svecur-o
sveid > svoid-ō, -rō
svep
svō, sveisor
svon
svordo-o
syu > seiv
t.l.H > tā, tol-yo, tul-yo (?)
t.l.q
t.r._ > ter-yo
t.r.gh
t.r.H > ter, trà
t.r.n-o
t.r.q
ta(n)g
thal
taH
tak-o
tāl-o, talamo
tat-o, att-o, tei-o
taus-o
thick, dense
flow, rush
beget (fig. flow from source)
weaving, carpentry, techno, textile
axe
dark, darkness, tenebra
cut
tense, stretch
heat, tepid
people, total population
possess > home
kill, harm, cten-
that (oblique)
think, imagine
thunder
house, beam, thorpe
three
tremble
shake
thrust
push, strike, beat, thud
thou, thee, thy
swelling, tumor, thumb
out of
udder
womb, entrails, belly
upward
accustom, learn, teach
oxen
tall, high
under, over, above, up
oven
and then, and thus, so that
wave (cf. wool)
moist, cloud
wool, hair, curl (cf. waves)
drag, pull (cf. helix)
wound
fox
wolf
root, wort, radix
speak > word, verb
speak > rhetor
worm
height, surface, upwards
rain, dew (from on high)
male
become, turn
wield power, ruler; well, valid, prevail
wane, want, waste, vanish, vacuum, vast

beget (fig. flow from source)
weaving, carpentry, techno, textile
axe
dark, darkness, tenebra
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people, total population
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rain, dew (from on high)
male
become, turn
wield power, ruler; well, valid, prevail
wane, want, waste, vanish, vacuum, vast
wet > wave
wet > water, wave
alert, wake
convey, weight
or (enclitic)
blow, wind
weave
dwell > village, wick, eco-
see > wit, know
we (nominative form)
win, love
wish
boar
wasp
speak
be aware
work, urge, energy
ture, trusted, verity
evening, vesper, west
spring, vernal < burn
clothe > vestment
remain, dwell > was > settlement
price, sale, wares, goods, vend
well, good, eu-
year, old age, veteran
be victorious
apart, against
twenty
widow, batchelor
forest, wood
manly, virile, heroic
poison, medicine
all, same, iso
vow
wax
want, will
vomit
you (oblique forms)
rye
worship, adore, holy, hagio-
copulate
twin
daughter-in-law (brother's wife)
liver, roe
year, hour, season
boil, brew, yeast, juice, zyme
wheat, barley, zea
young (having life)
yoke
you (nominative and extended forms)
Classical and Etymological Dictionaries Online