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**IMPORTANT DEFECTS IN
INDO-EUROPEAN PHONOLOGY**

By

EDWIN W. FAX



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The benefits of education and of useful knowledge, generally diffused through a community, are essential to the preservation of a free government.

Sam Houston

Cultivated mind is the guardian genius of democracy. . . It is the only dictator that freemen acknowledge and the only security that freemen desire.

Mirabeau B. Lamar

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IMPORTANT DEFECTS IN INDO-EUROPEAN PHONOLOGY*

1. In empiric Indo-European grammar universal generalizations have been based on inadequate knowledge and controlled by a limited, not to say myopic, vision. The preconceived idea, the lurch toward phonetic or morphological optation, has nullified or even stultified the examination of evidence. It has seemed an end desirable in itself and making for precision to maintain flimsy differentiations and phonetic deductions have been made from equations between words sometimes certainly cognate but identical only *ex hypothesi*. In the reconstruction of the state of things prior to documentation linguistic science has moved, and in the nature of things must move, in the vicious circle (§ 51). Taken by itself, any individual equation is true only in so far as it seems to be true. Let several equations yield corresponding results, however, and their coherence may justly produce a conviction of probability sufficient rigidly to be accounted for proof. Of such convictions is the texture of linguistic science wrought. Yet the very affectation of rigorous procedure—of method—tends to produce the blindness of the preconceived idea and so defeats our actual counsel of perfection.

2. OLat. *quom*, with.—By way of illustration let us look at the conflicting testimony of the cognates of OLat. *quom* (*com-/cum*). From *quom* and Welsh *pwŷ* we must infer a primate with initial *kw* or *k^w*. The only evidence excluding *kw* is the evidence of Volscian *co-vehriu*: Lat. *curia* (Italic primates *co-vīrio-* / *ā*). Without really examining this evidence, Brugmann (*Gr.* 2, 2. 852) has rejected the testimony of *quom* and *pwŷ*, at the cost of having to explain away the *qu* of *quom*

*In this paper lack of types is responsible for a few irregularities in transcription. The consonants *m n r* (sometimes raised) do duty also as vowels (accents omitted). For underdotted *d n h* Roman instead of Italic characters are used. For an anceps vowel the curled circumflex (not very marked) has been used, but not rigorously. Unusual characters have sometimes been recruited from different fonts.

Owing to these typographical difficulties the actual issuance of the paper has been more than two years delayed.

and of separating Ir. *co-* from Welsh *pyw*.¹ This constitutes a glaring instance of the stupefaction produced by the preconceived idea for, if we focus our attention, not on the general Volscian treatment of *k^w*, but on the primate *k^wo-viriō-*, dissimilation of *k^wow-* to *kow-* seems perfectly admissible. The IE. primate for OLat. *quo(m)* was *(s)kwo(m)*² rather than *(s)k^wo(m)*; or rather it was *(s)kw-om*, extended from *sku-/ksu-*, 'with' (: Lat. *secu-tus*, see TAPA. l. c.; infra § 34) by the addition of *-om*, picked up from IE. *som*, 'with'; unless it was an accusative ending of a stem **sku-*. On Lat. *sequor*: *ἕπομαι* (not *ἔπομαι*) see JAOS. 34. 333, 1; cf. § 3.

3. The *ππ* of *ἕππος* and *ταππάματα*.—The equation of *ἕππος* with Skt. *áṅva-s* falls short of rigor in the quality and breathing of the initial vowel,³ but *-ππ-* has always been supposed rigorously

The *κατά* group does not belong with *kwom/kwom*, but *κατ-* (frequent in composition) and *κατά* mean 'lying [down]- along' (-in, -upon, adjacent to) and obviously belong with *k'ēi*, 'iacere' (*ēi* proved by Skt. *su-ḡi-ma*: *ὄρε-σκῶος*; Bartholomae correctly writes the Avestan root as *sāy*). With *κατ'* (<*k'ə-t*) cf. Lat. *super-stet*: *κατά* is a nom.-voc. masculine in IE. *ta*, cf. *ἡπύ-ρα*, OLat. *Aperta* (Apollo-epithet), Umbr. *Prestota*. This *ta* (*ā* as in the *ἑππο-σάας* and *agricola* type, see CQ. 8.50; TAPA. 44. 119) is related to, or has been converted into, the fem. *ta* in Lat. *in-stita*, *anti-stita* (: *ἀντι-στάρης*). The IE. preposition *k'ə-t* (*k'ə-ta*), 'down' is perhaps also to be admitted in Lat. *ca(t)-tēna*, 'chain' (: *κατα-ρῆπει*, see definitions in Liddell & Scott), cf. Skr. *vi-tāna-s*, a special sort of 'binding' for the head (cf. *√ten*, § 31). The prius *k'ə-ti*, (stem, or a locative)= 'bed' in (*αὐτο-*)*καο-ι-γγητος*, 'in (eodem) lecto gnatus'; but it might mean 'litter' (? : Lat. *catulus*, 'one of a litter,' i. e. brood laid in straw), cf. the discomposite (?) *κάσις*, 'brother,' originally 'one of the litter.' There is a Celtic primate **k(w)m-ta*, 'cum,' from IE. *kwom* extended, with pretonic reduction to **km-ta*, on the analogy of **(s)m-etā* : *μετά* (TAPA. l. c.). For the phonetics of IE. *kw-/k-* see also Persson, *Beitr.* p. 123-128. In the Gallic proper name *Cintu-gnatos*, *ἑππῆσιος*, legitime natus,' if=bed-born, the prius *cintu* will belong to the root *k'ēi* (: : Lat. *ventus* : *√wē*).

²On the literature for the treatment of IE. *skw-/ksu-* see CQ. 11, 213 fn.

³I am inclined to explain *ἕππος* as a Greek epithet that has ousted original **ἑπ(π)ος*. The primate may have been IE. *s[w]-ik'wo-s*, 'geschwind,' with posterior cognate to Skt. *īḡā*, 'might.' The development of the sense 'geschwind' may have occurred as in *geschwind*, cf. MHG. *swint*, 'gewaltig,' whence 'stark, schnell.' Unaspirated **ἑππος*

to match *çv-*, and to show that in Greek alone of the labializing tongues *-k¹w-* had a different treatment from *-kw-*. This conclusion is not certain for, as Skt. *ácva-* is represented in Celtic both by *epo-* and hypocoristic *eppo-*, so the double consonant of *ἵππος* and "*Ἴππος* may be hypocoristic (cf. on Lat. *vacca* : Skt. *vaçā*, 'cow,' in JAOS. l. c.). As further documentation in the effort to prove *-ππ-* < *-k¹w-* Boeotian *ταππάματα* (crasis for τὰ ἀππάματα cf. Corinna's ἀππασάμενος=ἀνα-κτησάμενος) and ἔππασις (=ἔγ-κτησις) have been explained by *κῦρος*: Skt. *çvā-trá-s*, defined without sound warrant by 'gedeihlich'.⁴ But in ἀππασάμενος, ταππάματα, ἔππασις the explanation of ππ from μπ accords with like sporadic assimilations in various dialects (see Buck, *Greek Dial.*, § 69.3) and the phenomenon of *-ππ-* < *μπ-* is not more isolated—and so unverifiable—than the assumption of *-ππ-* from *-μππ-*. The proper names Θώππαστος, Γυνόππαστος, may have hypocoristic ππ, cf. Ἄγαθθώ, Βίοττος, Μέννει (Buck, l. c. § 89.5), while the derivation of *-όππαστος* from *όπάζω* is at least as probable as from *πάομαι*.⁵

is not proved by names like Ἄλκιππος, Λεύκιππος, which, if not from a psilotic dialect, will have been influenced by the hypocoristics Ἄλκων, Ἄλκετος, Ἄλκος, Ἄλκισ (cf. Ἄλκη, E, 740), and Λεύκος (Homer, cf. Lat. *Lucius*), Λεύκων. For the semantic ('horse': 'swift' or 'strong') cf. Skr. *vājin-*, celer fortis; equus. To [*k*]s(w)ik¹wen- we may also refer *ικανός*, potis capax: Skt. *icvará-* GAV. *isvan*, potis; cf. perhaps Av. *isu* if=hard (epithet of winter). But there is still another possibility, viz. that IE *ek¹wos*, the swift (>horse), gave way dialectally to IE (k)s(w)-*ippos* (*pp* hypocoristic), cognate with Eng. *swift* (also='swallow') and Skt. *kṣīprá-*. Generally speaking (*pace* Oertel, Lectures p. 306), it makes no difference whether 'horse' preceded 'swift' or conversely, for sometime in its history the primate *ek¹wos* meant both 'horse' and 'swift'. Let me quote here for its semantic value Epictetus 1.2.10: "Why, are all horses swift? Are all dogs sagacious?"

'Presumably because of the native lexicographer who defines by *dhana-s*, interpreted in the occident by 'wealth'; but in a lexical group of synonyms *dhana-s* is quite as likely to have the sense of *snehopātram* (= 'deliciae'); cf. *çvātra-* in its usual sense of 'tidbit.'

⁵The root of πέπαμαι πολυ-πήμων was either (1) *pā/pō* (cf. Lat. *potior*); or (2) *pā* is a variant of the root *pen* in *πένεσθαι*, 'laborare laborando parare,' and ultimately akin to *pen/pā* in Lith. *pen-ėti* (Lalis): Lat. *pascit*. Note a comparable restriction of meaning in Fr. *lavourer*, 'to till, plow' < Lat. *laborare*. For a brief list of Sanskrit

4. The Schwa Indogermanicum.^{5a}—If we insist on a rigorously methodical procedure the doctrine that *i* in Skr. *pítár-*, ‘father’ (: Av. *pítar-*, *ptar-*, *patar-*) is identical with the *a* of *pater* must be challenged. If we give due consideration to Skt, *go-ptár-* ‘[cow-] protector’ (see on evanescent *go-* IF. 26. 32), we can not legitimately exclude the oldtime derivation of *pítár-* from $\sqrt{pā}$, ‘to protect’ (IE. *pō(i)*,⁶ but *pā* in Lat. *pāscor*). In *pítár* *i* may be the legitimate reduction-form of the *i*-diphthong, while in *pater* *a* will be the reduction form to *ō* in *pō*. Challenge to the extreme of skepticism the actual derivation of *pítár-* from $\sqrt{pāi}$, and lay all emphasis on the baby-word *papa*: still we must admit, in the light of Indo-Iranian (=Skt.) *bhártar-/bhartár-*, ‘husband, protector,’ *bhartrī*, ‘wife,’ that *pítár*, ‘father, protector,’ if not actually cognate with *pā’tar-*, ‘protector,’ at the very least owed its agent suffix, albeit pre-Indo-Iranian, to some categorical association with the nouns in *-tar*.⁷ In *go-p[i]tár-*,

root doublets in *-an/ā* see JAOS. 34. 341. We have the root *pā* as a verbal noun in the Latin proper name *Agrip(p)a* (*pp* is hypocoristic). Thus *Agri-ppa* (= *agri-cola*) is a compound of IE. type, but not the curious thing surmised by Schulze in KZ. 32. 172 fn. but recalled in his Latein. Eigennamen. The origin of the glossal definition ‘qui in pedes nascitur’—from earlier *aegre partus: Agri-ppa* (!)—is clearly revealed in A. Gellius 16.16.

^{5a}The point I am about to make is that IE. roots in *āx(i)* had reduction grades represented in the historic tongues by genuine *i* on the one hand and on the other by *a*. Thus we have in Greek from the root *sp(h)ē(i)* the derivatives *σπίης* and *σπάδιον* (: Lat. *spatium*); while in Latin, *situs* is a participle from the root *sē(i)*, to leave, but *satus* from the homonymous root *sē(i)*, to sow.

⁶On the alleged *ə* in *khid*: *khūd*, etc., see § 42 D.

⁷The case for the development of Skr. *pítā*’ from the babyword *pappa* would be much stronger if *mitā*’: babyword *mamma* were also found for ‘mother.’ I have derived the formal IE. noun *māter-* from $*[t]māter-$, ‘cutter’ (see for the semantic KZ. 45. 134; JAOS. 32. 392), and this derivation seems to me to find some confirmation in the Hesychius gloss *ἄλο-μήτρα*, ‘wood-grub,’ original sense *ἄλο-τόμος*. As to the Agni epithet *Mātariçvan-*, I find it hard to decide between my later explanation as $[t]Materiae-puer$ and the earlier (from *mātar-çvan-*) ‘having-water-as-his-mother’ (see also Gray, *Vāsavadattā*, p. 64, n. 1). We really come back to *materiae-puer* if we define by *in-matremens*, taking the prius as a locative (*mātarī-*, oxytone like gen. pl.

Indo-Iranian *pitar-*,⁸ 'protector,' is assured. In the overwhelming schematization of Sanskrit only one type of agent noun is preserved, the type of δότωρ, *Stā-tor*; but Indo-European also had the reduced type of δοτήρ : Lat. *dā-tor*, σπατήρ : Lat. *in-stitor*;

mātrnām, cf. μητέρι μητρι). See RV. 8. 91. 17, where Agni's 'Mothers' (*mātāras*) are the drillsticks (see Lanman's *Sanskrit Reader*, p. 215, s. v. *mātr*). For the Greek riddles of the mother (μήτηρ) of the fire see Oehlert, Raetsel u. Raetselspiele p. 92 sq., interpreting Hesiod Theog. 177-181 (Rzach).

*Formally considered, θυγάτηρ and Skr. *duhitār-* are in conflict (1) with Av. *duǵədar-* / *duγδər* (<IE. *dhugdhēr-*) and (2) with Goth. *daúhtar* (<IE. *dhuktér-*). Of these forms the first is normal, the second reveals the resistance—the at least half-conscious resistance—of the suffix *ter* against the normal phonetic treatment of *gh+t* (>*gdh*). For the principle see Verner in KZ. 23. 128, cited in AJP. 33, 383. The trisyllabic forms θυγάτηρ: *duhitār-* also reveal the pre-dominance of the suffix *ter*, and I see no objection to regarding their penultimate vowel as analogical or as an IE anaptyctic vowel—the anaptyxis being due to a conscious resistance against the phonetic change of *gh* to *gdh*. Expressed in a proportion: IE. *-pter* (in Skr. *go-ptár-*): IE. *pstér-* | *pitér-* (πατήρ | Skr. *pítár*): : IE. *dhugdher-* | *dhuktér-* : IE. *dhug[h]stér* | *dhughiter* (in θυγάτηρ | Skr. *duhitār*). The prevailing tendency—as in the Avestan and Slavic lexica of Bartholomae and Berneker—to belittle the definition of IE. *dhugdhēr* as 'milkmaid' or 'suckling' is mere *blague*. If Lat. *filia* may be ascribed to √*dhēi*, to suck(le), by the same token we may derive Skr. *duhitār-* from √*duh*. Nor can we get away from the formal identity of the suffix of relationship (*ter*) with the identical agential suffix. The impulse away from the infantile reflexes *pappá* (*mammá*) to the formal *patēr* (*mātēr*) is sensibly accounted for by the accidental convergence of *pappá* on *p[ə]tér* (in Skr. *go-ptár*), and the only reason for refusing this sensible account is a predilection and determination to belittle all non-material elements (i. e. all elements not merely phonic) in the prehistory of language. No sentimentalism, the cynics cry. The father was not the protector; the daughter was not the suckling (sucker or suckler); perish the milkmaid! Be it further noted that θυγάτηρ *duhitār-* may owe their penultimate vowel to an analogy with a lost IE. *dhə-tér-* | *dhī-tér-* from √*dhēi*, to suck(le). Before specific association with the baby-word *pappá pter* will also have become a mere title like *sire sir*. It is even more probable that IE. *pater* meant originally 'protector', cf. Fustel de Coulanges, *La Cité Antique*, iv. ch. 1: car ce mot <*pater*> qui désignait la puissance et non pas la paternité, n'a pu s'appliquer alors qu'au chef de la famille.

and many scholars (e. g. Walde, *Lex.* p. 742) explain Skr. *-šṭhar-* (Av. *-štar-*) in *savya-šṭhar-* (with *šṭh* from **savye-šṭhar-* cf. Av. *raθaē-štar-*) as from *-sth[ət]ār-*.

5. In brief, my conviction regarding Indo-Iranian *i* as a reduction form of *ā* is that it is a genuine *i* and started in reduction forms of *āi* roots, with doublets in *-ā*. Thus *sthi-tā-* has the *i* of diphthongal $\sqrt{sthāi}$, but *στα-ρός* has a reduction *ā* (schwa, if one will) from $\sqrt{sthā}$. In Indo-Iranian the *i:āi* alternation was generalized for the *-ā* roots. Indeed, the basis for analogical interchange between *ā* and *āi* roots in Indo-Iranian is well-nigh unlimited. Granting that $\sqrt{dā}$, 'dare' (but impv. *dā-šva*), is a different root from *dā*, 'dividere, to share' (=IE. *dāi*, whence certainly Lat. *dās* and impv. [-infin.] *dā[i]*, like Skt. *parā-dā'i*, 'dēdere'), their liability to thorough interfusion in Indo-Iranian is to be taken for granted; cf. e. g. their like participles *-dita-* (also *dinā-*, 'divisus') and *-tta*; and surely the *i* of *dita-* and *dinā-* is Indo-European; cf. Av. *sinā-*, 'scissura,' pte. to $\sqrt{sk'hēi}$. Let us further marshal the like *ā-* forms of the roots *sā* (IE. *sāi*, 'to bind') and *dā / dhā*. pf. *sasāu*: *dad(h)āu*; aor. *asāt*: *ad(h)āt*; impv. *sā-hi*: *dhā-tu*; infin. *-sāi*: *-dāi, sātum*: *d(h)ātum*; verbal *-sāya*: *d(h)ā-ya*. These correspondences in the *ā*-forms surely justify us in interpreting the *i*-forms as analogical, e. g. aor. *sī-māhi*: *dhī-māhi* (cf. *adīmāhi*); *sitam*: *ad(h)āta*; infin. *situm*: *dhitum*. Without any phonetic mystification, then, passives like Skt. *sīyate* (*:dhīyate, dīyate*)⁹ will contain IE. *i*: *ā^xi*.¹⁰ In KZ. 36. 76-86 Pedersen sought a rule,

⁹If we bear in mind the double treatment of IE. *ei* (*ai* and *i* in Greek), Skt. *dīyate*, 'dividitur,' may be directly equated with Hom. *dal[y]erau*. In the Avesta, the (medio-) passive type of *ni-dayeinte*, 'deponuntur,' may well correspond, not with the type of Skt. *dhīyāte*, but to the type of Skt. (middle) *dāyate*, 'shares'; while Av. (middle) *snyānte* will conform to the type of *dhīyāte* (see Bartholomae, *Gr. Ir. Philol.* § 147, 13⁴.)

¹⁰Excluding *-yā* roots, Whitney's list has 25 roots in *-ā* that lack verb form or derivatives with *i, iy* (passives) or *e* (i. e. *ai*), *ey* not counted; and 24 with such forms. Of the 24, far the most are clearly related to roots showing *āxi* in other tongues, and so are many of the other group of 25. Entire uniformity was not secured, witness Skt. *chāta / chita*, 'caesus': $\sqrt{sk'hēi}$ (see e. g. Walde, s. v. *scio*).

contingent on conditions of accent and syllabification, for Indo-Iranian *i* out of the reduction $\check{a}(\vartheta)$, but the contingencies do not breed conviction, and it seems unreasonable to go on identifying the *i* of Skt. *-dīta-*, *dīna-*, 'cut,' with the *a* of *dávos*, instead of with the *ι* of *δαυρός*, 'carver'; cf. Lat. *sino* : $\sqrt{\text{sēi}}$. IE. ϑy out of prevocalic ϑi yielded Indo-Iranian *-ay-* because, as in European, ϑ was phonetically an *a*-sound.

6. No IE. instrument suffix *-ə-tro-*.—Very sorry morphological superstitions have been engendered by writing equations between words closely cognate but not identical. Thus from *ἄροτρον* (Gortyn. *ἄρατρον*), OIr. *arathar*, 'plow' : Skr. *arī-tra-m*, 'tiller,' an instrument suffix *-ətro-* has been deduced. But the derivation of the penultimate *o(a)*, *a*, *í*, from ϑ is a pure gratuity, since *o* and *a* may both represent IE. *o*, and *-i-tra-* is common enough in Sanskrit to have been spread by irradiation. Quite as common and very certain in Sanskrit are instrument nouns and names of the bodily parts in *-atra-*,¹¹ e. g. *ám-a-tra-*, 'pail,' *kṛntátra-* (passive sense), 'shred,' *gāyatrā-*, 'song,' *pátatra-*, 'wing,' *yájatra-*, 'adorandus,' *vádhatra-*, 'lethal weapon,' *sa^mskṛtatrá-*, 'chopping bench'; cf. fem. *varatrā*, 'strap.' What with the glib ease of explaining *i* in Skt. *jan-i-tár-* and ϵ in $\gamma\epsilon\upsilon\epsilon\tau\omega\mu$, $\gamma\epsilon\upsilon\epsilon\tau\acute{\eta}\rho$ from IE. ϑ —so Wackernagel in his *Ai. Gram.* i, § 16—one tumbles into the pitfall of Lat. *gen-e-trix* (*-e*-proved by Osc. *Gen-e-tai*, dative; cf. also *meretrix*, *accipetrina*) : Skr. *jan-i-trī*.¹² The *-e-* of $\tau\epsilon\rho\text{-}\epsilon\text{-}\tau\rho\omega\mu$ is supported by the *-e-* of Lat. *terebra*, while the *-a-* of OIr. *tar-a-thar*, 'borer,' if not a gradation *o/e*, may be due to its assimilation with *arathar*, 'plow'; cf. for the idea $\phi\alpha\rho\acute{\alpha}\epsilon\iota$ $\phi\alpha\rho\acute{\rho}\epsilon\iota$, 'plows' (*a/o* as in Lat. *arat*, Gortyn. *ἄρατρον* : $\acute{\alpha}\rho\acute{\rho}\epsilon\iota$ *ἄροτρον*) : Eng. *bores*, Lat. *forat*, 'pierces.' Lat. *verētrum*, 'mentula'—**verētrum* : *vereor* only by scholars' etymology—may be cognate with Skt. *varatrā*, 'strap' (cf. $\sigma\chi\omega\lambda\acute{\iota}\omega\mu$, 'restis,' but in Aristophanes 'mentula angue lentior');

¹¹Bartholomae, *Lex.* 1612, derives G Av. *spayathra*, 'prosperitas,' from a present stem *spaya-*, comparing *gāyatrā-*, *kṛntátra-*, *tarutra-* ('victorious'), etc. This explanation is valid in principle for $\phi\acute{\epsilon}\rho\epsilon\tau\rho\omega\mu$: Skt. *dhār-a-tī* : $\phi\acute{\epsilon}\rho\epsilon\tau\rho\omega\mu$: Lat. *fert*, Skt: *bharti*, $\phi\acute{\epsilon}\rho\epsilon$.

¹²In *Gr.* 1², § 536 Brugmann acknowledges the alternation ϵ : ϑ in $\phi\acute{\epsilon}\rho\epsilon\tau\rho\omega\mu$: Skt. *dharitram* (cf. also *Kvg.* § 213¹), but in *Gr.* 2. 3. § 24 again identifies ϵ in $\acute{\alpha}\rho\epsilon\mu\omega\varsigma$ $\gamma\epsilon\upsilon\epsilon\tau\omega\mu$ with Skt. *i* in *ániti*, *janitár-*.

unless *veretrum* (: Lat. *urina* etc.) still more simply meant 'waterer'; cf. *σωλήν*, 'water-pipe: mentula.'

7. As regards the *-i-tram* forms (list in Macdonell's *Vedic Grammar*, § 152), believers in the dissyllabic bases will readily admit that the penultimate *i*, however widely diffused by irradiation, may be as legitimately derived from the $\bar{a}^x i$ bases as the *u* of *tár-u-tra* is derived from an $\bar{a}^x u$ base. Let us take for our instance the Vedic hapax *bharíttram*. It probably means, as Böhtlingk has surmised (*PW*,² s. v.), 'striker' and belongs in that case with Lat. *ferit*, not with *fert*. Even if the native interpreter defines correctly by 'arm,' the arm will still be a 'striker' (cf. *cubitus catapultast mñhi*, Plautus, Cpt. 796). Clearly if *bharíttram* is from *bherēi*, 'ferire,' its *i* is IE. *i*; and it will still be IE. *i* if from \sqrt{bher} , 'ferre,' cf. *bharíman* 'erhaltung' (: *pra-bhárman*, 'auftragen der speise'; note from the synonym \sqrt{dher} , *dhárman-*, 'ritus': *dháríman-i*, 'arbitrio, ritu'), which, thanks perhaps to mere irradiation, has \bar{i} from ϑi (cf. *præfericulum*, 'sacrificial tray': *fer(i)culum*, 'food on the tray').

8. As I have previously suggested, however, the entire extension of *-itra-* in Sanskrit may be due to irradiation. In *caríttram*, 'foot, leg,' I have found a tautological compound (CQ. 8. 54), with a prius *car-* (: *cáranā-s / m*, 'foot') and a posterius **ítram*, 'goer > 'leg' (cf. *gā-tram*, 'limb; wing' < 'goer'; Lett. *kāja*, 'foot' : *κτε* 'goes,' Bezzenberger in KZ. 47. 82). The sole Avestan instance of *-itra-* is *dvar-itra-m*, 'leg' (: \sqrt{dvar} , 'ire'), and this is as likely as Skt. *caríttram* to be a tautological compound. Thus the Indo-Iranian evidence for *-itra-* all converges on the sense of 'leg' and, to say nothing of irradiation from Skt. *caríttram* to *bharíttram*, mere formal analogy would produce from the Skt. pair *cárate* : *caríttram* a corresponding pair like *pávate*, 'sifts' : *pavíttram*, 'sifter.' True, *pav-i-* may come from a base *pewē(i)*, 'pavire' (cf. Hirt. *Ablaut*, § 408), not different in the end from *pewā*, 'purgare.'¹⁸

9. No IE. suffix ϑs .—Of all the materials that have been perverted to the support of the equation IE. $\vartheta >$ Skt. *i* nothing is

¹⁸Walde, s. v. *puto*, develops the sense of 'purgare' from 'caedere,' without realizing that he thereby unites the *pūrus*-sept with the *pavio*-sept.

quite so airy as the equation between the suffixes of κρέας and Skt. *kravis*. In *krav-is* *is* is true IE. *is*¹⁴ (cf. *κόνις*: Lat. *cinis*) and is attested in Greek by the Homeric gen. pl. κρέϊ'ων, with accent after κρεών, gen. pl. of monosyllabic stem *krew-* (: Av. *xrū-m*, acc.)¹⁵ graded like Av. gen. pl. *vay-qm* : *vi-* (cf. Skt. *vé-s*, nom. and gen. sg.; *váy-as*, nom. and acc. pl.). The Homeric neut. pl. κρέατα may be entirely identical (stem *krew-^{nt}-*), or in gradation (stem *kruw^{nt}-*), with Lat. *cruent-a* (Celsus and Pliny ap. *Thes. LL.* 4. 1238. 66): Av. *xrvant-* 'cruentus.' In the neut. sg. κρέας *-as* is entirely due to analogy, thus: dat. pl. *κρεφι(σ)-σι (=Skt. *kravīh-śu*): κρέφα(τ)-σι :: n. sg. *κρεφισ (cf. gen. pl. κρεϊ'ων) : κρέας.

10. A word is also needed on the derivation of the κρέας group. Along with Lat. *caro*, it belongs with the root *ker*, doublet *krēu* (cf. § 46) 'to cut.' The *u*-root appears again in Av. *xru-žd-ra-*, 'hard,' cf. Eng. *hard* (i. e. 'what cuts'): √*ker*. In lexical Sanskrit *krū-d-ayati* (*ūd < usd*), 'macht dick, fest,' the element *-sd-* is from √*sed*, and the complex is to be compared with Germ. *festsetzen*, as κρύ-σταλλος and Lat. *crusta* (AJP. 34. 38) with *feststehen*.

11. Extension of the paradigms in *-as*.—The tendency to seek unitary, rather than heteroclitic, IE. paradigms in the historic forms of Greek and other tongues is far too pronounced. In the nouns in *-as* many different elements may be merged. As the paradigm of κρέας has come from the interplay of stems in *is* (κρεϊ'ων), *-es* (Lat. *cruor*), *-^{nt}-* (Lat. *cruentus*, Av. *xrvant-*), and *ū* (Av. *xrū-*), a like upbuilding may be expected for κέρας, *-es* stem in Skt. *śiras*: Lat. *cerebrum* (<*k¹eres-rom*,¹⁶ not *kerasrom*!), *-^{nt}-* stem in gen. κέρ-ατ-ος, *-u* stem in Av. *srū-*; cf. *-nu* stem in Lat. *cornu* (: *-^{nu}-* in Homeric gen. κέραος?). Homeric δέμας, 'frame'—predominantly used (1) as the 'Greek Accusative,' but also

¹⁴Cf. also the *ya / i* stems in *kravya-vāhana-s* and *ákravi-hasta-s* (KZ. 45. 133, note i), though *-kravi-* may here be a locative and the compound have meant 'non-insanguine-manus.'

¹⁵Cf. instr. κρυ-ο-, prius of κρυβεις, see TAPA. 44. 122; and on the *ē/ō* instrumental AJP. 38. 87.

¹⁶The *i* of Skt. *tamis-ra-*, 'tenebrosus' (: *tāmas-*, 'tenebrae') is no more from IE. *ə* than is the *u* of *tārus-*, 'proelium' (: *tāras-*, 'impetus'); the *i* of *çocis-* is the *i* of *çocí-*.

(2)=Lat. *instar*—may well be the prevocalic samdhi form of **dem^{nt}-i* (loc. sg.) ‘frame > body,’ from ‘that which binds, frames, incorporates.’ In *κῶας οὔδας*, etc., the *-es* stem is also found (*κῶεα, οὔδεος*) and, curiously enough, *οὔδάσδε* may actually have come from *οὔδατ-δε*. With the *-as* stem *-ā* stems also interplay, as in Homeric *σκέπας : σκέπη*, with either *-es* or *-ā* admissible in *ἀνεμο-σκεπέων*. In any *ā* dialect interplay of **σκεπᾶ*’-[σ]ων on **σκεπέ*[σ]-ων might have yielded, especially for *ῥυθμοὶ διπλάσιοι*, **σκεπα-ων* (*v v-*). Monosyllabic stems also interplay with *-as* stems. Who shall say that *γέρ-α*, alleged acc. pl., was not originally acc. sg. (: Av. *gar-*, f., ‘laus’; cf. *-es* stem in *garah-*)? So Homeric acc. pl. *κρέα* may be an original acc. from neut. sg. **kreu^{nt}-*, if not from fem. **kreu^m-*.

12. No. IE. *ə* in Skt. 1st. pl. mid. *-mahi*.—IE. *ə* is at most but the penultimate reduction stage of a long vowel (Skt. *i* of a long diphthong), the ultimate stage being zero (cf. Skt. ptc. *-dhita-s*; *-ddha-s*). The equation of *-μεθα* (primary and secondary ending) with Skt. *-mahi* (secondary only), GAv. *-maidī*, is a mere optation. In Homer, before vowels, *ai* and *-oi* lost their *-i* in the meter (particularly in dialogue, cf. Shewan, *Class. Weekly* 9. 161), and similarly reduced forms must have dictated proparoxytone accentuation in forms like *ἄνθρωποι λύεται*. As Sanskrit *-e* has corresponding samdhi forms, the samdhi was probably proethnic. It is perfectly legitimate to regard *-μεθα* as the prevocalic samdhi form, but now adopted in the script, corresponding to Av. preconsonantal *-maide*, which in the Younger Avesta became secondary also. For the generalization of a single samdhi doublet note how in the Avesta, trifling exceptions apart, *-a* stems maintained only the form in *-o* as nom. sg. masc., and made of it a prius of composition as well.

13. Reduced *a^x(ə)* in Sanskrit.—In the ritual word *uddhatānta-s*, raised end, *-dhata-* is explained as from *-hata-*, ‘percussus,’ and, in view of Germ. *auf-schlagen*, this derivation is semantically admissible. Nor is the samdhi *ddh* < *d+h* phonetically impossible in a complex of pure Sanskrit origin. But Skt. *ddh* < IE. *d+g^{wh}* is unthinkable. In the funeral ritual (AGS. 4. 2. 11 sq.), where archaisms are even to be expected, *uddhatāntas* designates a clay bank thrown up in the corner of a burial-

plot to serve as a fire-emplacement or altar. In the Avesta ritual *uz-dāna-m* is an emplacement (1) for the cookpot at a burial (Vd. 8. 74) and (2) for the bones of a corpse (Vd. 6. 50). If we correlate the ritual word *uzdānam* with the ritual word *uddhatāntas*, then *uddhata-* will be a ptc. to $\sqrt{dhā}$, cf. *θετός* and Av. *da-θram*, 'festsetzung.' So in Greek *ἀνα-τίθημι* is used of 'erecting an altar.'

14. No IE. β and δ sounds: *ἄρκτος*, 'bear.'—A glaring instance of phonetic bravura is exhibited in the current primate for *ἄρκτος* (*ἄρκος/ἄρκιλος*): Skr. ${}^r kṣā-s$, Av. *arša-* (perhaps graded like Lat. *ursus*), Gallic *artos*. This primate is ${}^{*r}k^1\beta os$, wherein the notation $k^1\beta$ has for its object to differentiate this equation from those in which ξ matches Skt. *kṣ*. For ${}^{*r}k^1\beta os$, drawn out of the circumambient atmosphere, ${}^{*r}k^1st(h)os$ were quite as admissible, and ${}^{*r}k^1st(h)os$ admits of two or even more derivations. Nor are derivations to be scorned in linguistics because, from another point of approach, they offer some, albeit an elusive, control over the original phonetic constitution of the primate. One primate is ${}^{*r}k^1[i]-sthos$, 'cave-dwelling' (see *Bull. of the Univ. of Texas*, no. 263, § 79¹), a sense prettily accordant with our knowledge of the palaeologic cave bear; and apt for the byforms *ἄρκος*, *ἄρκιλος* (${}^{*r}[k^1i]-k^1os/k^1ilos$, 'in cave lying'; cf. Skt. *giri-ζας*, *ὄρεσκῆφος*). But the bare primate ${}^{*r}k^1s-tos$ yields the sense 'iniuriosus' (cf. ap. Uhlenbeck, Skt. *arçāsānās* and its cognates), and herein *-to-* is a suffix otherwise employed in animal names (Brugmann, *Gr.* 2. 1, § 311; on *-stho/st(h)i* see AJP. 37. 38, n. 2).

15. Given a primate ${}^{*r}k^1stos$, $\rho\kappa\tau < {}^r k^1st$ may be accounted normal, and we may then explain the predominance of *s* over *t* in Sanskrit and Avestan by the influence of *ukṣān-*, 'bull' (*-ukṣā-s*), and other Indo-Iranian names of animals in *-rṣān-* (cf. *Gr.* 2. 1. 296; 2. 2. 653); or to the general prominence of the suffix *so* in IE. animal names (*Gr.* 2. 1, § 472, e). In such class names suffixal assimilation, Bloomfield's 'congeneric adaptation', is to be expected. There is no reason why the Indo-Iranic primate of Skr. ${}^r kṣās$ (Lat. *ursus*) need ever have been anything but ${}^{*r}k^1s-o-s$, 'nocens.' In Gallic *artos rt* may continue (1) ${}^r k^1[s]t$ (cf. OIr. *ort*, 'er erschlug,' < **orcht*), or (2) ${}^r [k^1]st$ (cf. OIr. *tart*,

'thirst,' ap. Thurneysen, *Gr.* § 178). It calls for really sharp criticism that, for no other reason in the world save to provide documentation for the *t* (out of a putative *þ*) in *artos*, OIr. *tinaid*, 'evanescit' (cf. *tēidm* 'pestis'), has been separated from the sept of OEng. *þwinan*, 'to pine, dwindle' (see Walde, s. v. *tabeo*) and equated with *φθίνει* (§ 41).

16. Hariolation has never gone further in empiric—and constructive—phonetics than in the setting up of the entire category of etymologies for which *þ* and *ð* have been claimed. These I propose presently to examine in detail, but it will make for clearness first to treat apart a few questions that would otherwise arise in the course of the detailed etymological discussion.

17. Consonant metathesis in Greek (*τίκτω* < **τυκτω*): *πτολεμος*/*πόλεμος*.—In *Ἀρχε-πτόλεμος* we have the composition type of Av. *vānāt-pešāna-*, 'winning-battle,' in which *-at* may be IE. *-et* (cf. *Gr.* 2. 1, § 313, γ; and § 49 below); or else, ^{nt}. If the latter, as currently believed, prim. Gr. **Ἀρχατ-πολεμος* (whence by metathesis **Ἀρχα-πτολεμος*) was revocalized after the *Ἀρχέ-κακος* type, cf. OPers. *xšāyāršan-* (*ā* < *a+a*), 'ruling-man,' with Skt. *kṣāyād-vīra-* (same sense); and *μενε-χάρμης* with its synonym *μενε-πτόλεμος* (*πτ* for *τπ*). For its metrical convenience *-πτολεμος* was stereotyped as a simplex.¹⁷ *Ἀρχε-πτολις* is not of record (cf. *ἀρχέ-πολις*), but *περσέ-πτολις* has an aoristic prius *περσετ* < *περ-θ-σετ* (see *Gr.* 2. 3, § 256 for the type); cf. OLat. *pesēstas*, 'pestilentia,' (< *perdset* + *stāt* 'regio': Germ. *stadt*) and haplological *pestis* (*posterius sthi-*; or else cognate with Skt. *stīn*, acc. pl., 'gentem'; cf., with due alterations, AJP. 34. 38).

18. The IE. prepositions *e-k¹s/i-k¹s-/k¹s-* (*g¹hs*).—On the composite nature of *e-k¹s*, with the suggestion of *i-k¹s*, Brugmann has already made a suggestion (*Gr.* 2. 2. 640). Of the preverb *ik¹s*—really clear and relatively numerous examples exist. In Sanskrit we have *iś-kar-tār-*, 'ef-fector' (< *ik¹s-skartar-*, pace Güntert, nuper), i. e. 'zurüster'; *iś-k¹tis*, 'heilung' (i. e. 'effectio artis magicae,' cf. *krtyā*, 'magic'); *iś-tānā-*, 'rauschend' (i. e. 'ex-

¹⁷It seems not to have been noticed that Skr. *hodha-*, 'stolen property,' is a discomposite of *sahodha-* (*o* < *a+ū*), 'furtum'; nor that the Skt. preposition *sahā* is a discomposite from the type of *sahā-vatsa-s*, 'with a calf,' cf. *ἐχέ-κολλος*, 'having glue; with glue', *ἐχων* 'with.'

tonans'); *iš-tárga-*, 'vor- oder neben-kämpfer des hauptkriegers' (-*tárga-* cognate with Hesychian *ταργάναι* πλόκαι and *σαργάναι* δεσμοί : $\sqrt{twer-g-}$, cf. Lith. *twérti*, 'fassen, zäunen'). Thus the *ištárgas* was an 'out-shield,' cf. *ἀσπίδες* and Eng. *lances*, *bayonets*, terms designating soldiers by their arms.

19. Greek examples of *i-k*'s are scarcely less transparent. *ικ-τίνος* 'kite' (note also pl. *ικτίν-ες*) from *ιξ* + [*σ*] *τίν(ο)-*, 'thief,' cognate with Skt. *stená-s/tāyá-s* (cf. *tās*-[*s*] *karya-m*, 'furtum'). The 'weasel,' *ικ-τί-δ-*, was also, like the kite, a thief (see e. g. Kluge's *Wbch.* s. v. *frettchen*). The root of the posteriora *-τίν(ο)-* and *-τι-δ-* was (*s*) *tē(i)*, as in Lat. *mus*-(*s*) *tēla*, 'mouse-thief' > 'weasel.' We have *r* and *l* extensions of the root in *σπερίζω*, Goth. *stīlan* (: Lat. *tollit*, 'lifts, takes, steals,'¹⁸ cf. *φώρα*: *φέρει*, noting for the suppletion of *fero/tuli* the Greek combination *οὐ* *πλατᾶς οὐ* *φερτᾶς* in Euripides, *Hec.* 159). See on *stīlan* JEGPh. 6. 244. Those who write the root as *stāi* are misled by Doric *τατόμενος*, 'desiderans, pining for, darbend.'¹⁹ *ἰχθύς*, 'fish,' is also a compound of *ik*'s- (*ig*'hs) + *dhū-s*. Whether the original sense was (1) 'gasper, panter,' i. e. 'efflans' (cf. Herodotus, 9, 120, *ἡσπαιρον ὄκος περ ἰχθύες νεάλωτοι*), or (2) 'croaker, bubbler,' *dhū-* belongs with OBulg. *dujō*, 'efflo.' In view of the IE. alternation *iw/yū/ū* (see Wackernagel, *Ai. Gr.* 1, § 81; Fay, JEGPh. 12. 417) *-dhū-s* is not to be separated from Skr. *dhīva-rá-s*, 'fisher.' Cf. also Lat. *suf-fio*, 'fumigo,' probably contracted from **suf-fivio*.

19a. Sanskrit *hyás*, 'heri,' and other time adverbs.—The doctrine that IE. *kj* (*j* more spirantic than *y*, but there was really no such sound, see CQ. 9. 104 sq.) yields *κτ* is responsible for the equation of *ικτίνος* with Skt. *cyená-s*. Just as little is the *χθ* of *χθές* from IE. *g^hj*. Skt. *hy-ás*, 'yesterday,' is a temporal gen.

¹⁸Note may here be made of Skt. *-trp-*, 'stealing,' Av. $\sqrt{tarəp}$, with a *p* taken over from the root of *κλέπτω*, though, indeed, it may be that \sqrt{klep} was an I.E. by form for \sqrt{tlep} .

¹⁹Leo Meyer, *Hdbch.* 2. 744, also gives 'ermangelnd,' with sane, but neglected, comments on the definition. The root was *tāi/tāu*, 'to thaw, pine.' As Meyer also suspected (2.721-722), *τη'ύσιος*, 'vanus,' is to be connected with Skt. *tā-vat-i* (loc.), quasi 'tantuli' (cf. Lat. *huius* with depreciatory sense). He also (2.184) properly connects *αῖσιος*, 'vanus,' with *αἶσιος*.

from IE. $g^1hēi-/g^1hī-$, 'the past' (: $\sqrt{ghēi}$, 'discedere, evanescere'). Lat. *her-ī* is from the IE. heteroclitic stem g^1hes- (cf. Skt. *dhas-* : $\sqrt{dhā}$); $\chi\theta-ēs / \acute{\epsilon}\chi\theta-ēs$, also a temporal genitive, is from still a different heteroclitic stem, IE. $g^1hē-t-$, gen. $-g^1ht-ēs$ (cf. Lat. *dō-t-*, 'gift' : Skt. *-tti* in *bhāga-ttis*). Elean $\sigma\epsilon\pi\acute{o}\varsigma\chi\theta-ēs$ (Hesychius) is from gen. $g^1hy-er-os$; cf. Skt. *uś-ar-* (cpd. *prius*) 'mane,' Skt. *vās-ara-s*, 'matutinus,' $\chi\acute{\epsilon}\acute{\iota}\mu\epsilon\pi\omicron\varsigma$. To complete this group of words: (1) Lat. *crā-s* (temporal gen., cf. *crās-ti-nus*) is from $k^1r-ā-$, 'break' (of day; for semantics of 'tomorrow' cf. Span. *mañana*, Fr. *demain*) : Av. *fra-sara*, 'cras' (*Zend-Pehlevi Glossary*); root in Skt. $g^1nā'ti$, 'breaks.' (2) Skt. *g^1v-as* 'cras' is also a temporal gen. from $k^1ū-$, 'swelling, auctus' (cf. Homer's description of the morn $\delta\phi\rho\alpha \mu\acute{\epsilon}\nu \eta\acute{\omega}\varsigma \eta\eta \kappa\alpha\iota \acute{\alpha}\acute{\epsilon}\xi\alpha\rho\omicron \iota\epsilon\rho\acute{\omicron}\nu \eta\mu\alpha\rho$, i 26; © 66). (3) Other femporal genitives are found in the Skt. advb. *sa-dyās*, 'eodem die'; $-dy-ās$ from a stem $dāi-$ $dī-$, cognate with Eng. *ti-me ti-de* ($\sqrt{dāi}$, 'dividere'). Cf. also [see AJP. 38. 231], with loc. *dī*, Skt. *sada-dī*, 'usually,' quasi 'cottidie'; with stem $-dī-$, *sada^m-dī-s*, 'sempiternus'; with stem *dyo-* / *diyo-*, $\acute{\alpha}t-dios$, 'sempiternus,' $\mu\upsilon\nu\nu\theta\acute{\alpha}-dios$, '*breviternus' (but cf. $\delta\iota\chi\theta\acute{\alpha}-dios$, 'two-divided' with $\delta\iota\chi\theta\acute{\alpha} \delta\epsilon\delta\alpha\iota\epsilon\rho\alpha\iota$, o 23). The $-dyās$ of *sadyās* recurs in $\chi\theta\iota-\zeta\acute{o}\varsigma$ (*prius g^1ht-i*, loc. : g^1ht-es , gen.), generally an advb. in Homer. (4) In Skt. $a-dyā'$, 'hodie' (? $\langle h \rangle o-die$) $-dyā$ may be an instrumental (fn. 15), or compounded of loc. $-dī+ā$ (IE. \acute{e} , 'dar'), cf. Av. *zastay-a*, 'manu-in.' (5) Abl. $-dy-os$ in Latin *nudius tertius* = from-now-tide the third $\langle day \rangle$.

20. In Latin, *i-mago*, 'impression (in wax),' certainly belongs with $\acute{\epsilon}\kappa-\mu\alpha\kappa\rho\nu\omicron$, 'impression of the feet' (Euripides, *Elec.* 535); see KZ. 45. 114. Its $\acute{\iota}$, if not due to popular association with *imitor*, may come from ik^1s- , *imago*—for which there is some evidence in Lucr. 4. 101; Cic. *Tusc.* 1. 34; cf. IF. 26. 42—having been shortened by the law of *conscribillo* (AJP. 31. 384), cf. *ātrōces* (Fay, ap. Walde, p. 867). Cf. Av. *maga-*, 'pit (? in the clay) about the altar,' cognate with $mā\gamma a-$ 'pit' : $\sqrt{mā(i)g/māig}$.

21. Incontrovertible proof of g^1hs- (k^1s- , v. examples infra, § 25, sq.) is found in Skr. *dhāūkate*, 'appropinquat,' which has $dh \langle g^1hst$, whence $g^1zd h \rangle$ Skt. *dh*. The uncompounded root, in a weak form, was *tuk* (cf. Miklosich, *Slav. Wb.* s. v. *2tuk*, 'berühren, anstossen' < : $\tau\acute{\omicron}\kappa\omicron\varsigma$, 'battle-ax, pick' >). Like Lat.

tundit, Skt. *tujánt*, this is one of the numerous extensions of \sqrt{tu} , 'to strike.' The compound with g^1hs- , 'ex,' had the sense of Eng. 'to strike out for, approach' (i. e. 'prope ire,' cf. Germ. *anstossen* 'prope esse').²⁰ As regards the preverb, cf. *ex-* in 'exire in provinciam (in terram, ad aliquem),' locutions which in Sanskrit would take the simple accusative. As in *dhāúkate*, so in Lat. *escendit*, *ex-* suffers evanescence. In Avestan, $(e)k^1s$ is found in $\sqrt{xstā}$ ($xst < k^1s-st$, not k^1s-t ; see § 36) beside $\sqrt{stā}$, cf. GA.V. (Ys. 51. 4) *kuθrā mərəzdikā axštā* = 'ubi veniae exstant.' See also AJP. 37. 70, note 3. Confirmation of Skt. $dh < gh^1s-t$ may further be found in *dhola-s*, 'drum,' posteriorly *-tola-* : \sqrt{tu} , 'to strike' (cf. *τύπανον*, 'drum'); and in *dhāla-m*, 'shield,' posteriorly either (1) IE. *tēlom*, 'thin board' (cf. *tēlom* in Eng. *thill/deal*; and see for the semantic Skeat, *Concise Dict.* s. vv. *shide shield*); or (2) = IE. *dhōro-m* : *θύραξ*, 'cuirass.'

22. The IE. preverb *bhe*, 'ex, extra,' has been inferred by Brugmann, (*Gr.* 2. 2, § 625) from Slavic *be*, 'extra > sine': Skt. *ba-hís*, 'extra.' It is remarkable how many simple etymologies can be adduced in support of this preverb: (1) Skt. *bha-sád-*, 'podex' (? $< po + sd + ek-$), lit. 'exsedens'; (2) $\phi\text{-οιράω} < bh^e + oito-$ (ptc. to \sqrt{ei} , of the type of *φόρος* : \sqrt{bher}) = *ex-itus* (cf. also Brugmann, *IF.* 28. 288); (3) Lat. *fe-stino*, *-stino* being nearest akin, semantically as well as morphologically, to Lith. *staig-nai*, 'confestim,' while *confestim* (? *-m* from *statim*) is from *-fe-stoihī-* (*-stih-ī*), instrumental of an *-ī* abstract from $\sqrt{stei-gh}$ —unless Lith. *stóju*, 'I tread' (i. e. 'σρέιχω') rather attests a briefer root-form *st(h)ēi*; (4) Lat. *fe-stūca*, 'stalk' (lit. 'exstans'), cf. Skt. *stúkā*, 'tuft,' and other cognates ap. Boisacq. p. 902-3. Before accented verbforms (Brugmann, *Kvg.* § 42. 4 c; § 45. 4) *bhe* was liable to reduction to *bh-*.

23. Alleged instances of IE. β , δ . The latest collection of the etymologies involved will be found in Brugmann-Thumb, *Gr. Gram.* § 117. These, with a few more from other sources, will now be reviewed, not without a full sense of the reader's prejudice in favor of the older combinations to which he has been long inured.

²⁰In Greek, *πέλας* is a nom. advb. = 'striking, touching, near' (: *πλάμαι*, cf. *ad-pellere*, 'to bring near'). When next Walde considers *appellare* let him recall Eng. *accosts*.

24. κτίλος, 'still, tame.'—Already correctly explained in substance in *Bull.* § 79, note 2, as a blend of *στίλος (:√sthāi, cf. Eng. *still*, a later secondary derivative) +*k*¹(*w*)i-los, cognate with the posterius of Lat. *tran-quillus*.²¹ As for κτίλος, 'ram,' it is unlikely that this ever meant 'tame.' The ram was rather the 'settler' in a sexual sense (cf. cognates of κείμαι ap. Boisacq). Or κ-[σ]τίλος='a grege extans,' applied to the ram at seasons when he was 'non admissarius,' as indeed daily to the milking-pen.

25. κύπος. Compacted of τύπος, 'blow, din,' and κόπος, 'blow,' unless from (ἐ)κ-τύπος, 'out-din.'

26. [ἐ]κ-τείνει, 'slays' <'sternit, prosternit' (i. e. 'stretches out on the ground'). Augmentless forms like ἐκ-ταθεν, 'extendebantur (humi)' were falsely analyzed as ἐκταθεν. Note the following Homeric examples. Δ 544, πρηγέες ἐν κονίησι παρ' ἀλλήλοισι τέταναντο; N 655, θυμὸν ἀποπνείων. . κείτο ταθείς ('iacebat extensus' > mortuus); Φ 119, πρηγῆς ἐπὶ γαίῃ κείτο ταθείς (cf. Euripides, *Phoen.* 1698, ἐκτάδην κείσθον=quasi 'extensim iacete'); Δ 536, ἐν κονίησι παρ' ἀλλήλοισι τετάσθην continued by πολλοὶ δὲ περικτείνοντο καὶ ἄλλοι (cf. M, 245). With N 655, Φ 119, *Phoen.* 1698, especially compare Δ 691, κατὰ δ' ἐκταθεν ὄσσοι ἄριστοι (also γ 108, E 858, N 780) and δ 537, ἐκταθεν ἐν μεγάροισιν.

27. περι-κ-τίονες, 'circumhabitantes,' more literally 'spreading around (circumtendentes).' The prius may be περίξ compounded of περ(ι)+ίξ (§ 21), or of περὶ+(ἐ)ξ; the posterius -τίονες belongs with Skt. √tāy, 'to stretch, spread,' doublet of √tan (§ 35); cf. περικτείνοντο cited above (§ 26), and Skt. pari+√tan, 'umgeben'. But περίξ may be from περί+k¹s (§ 21); cf. IE. *prok*¹s- in Lat. *proximus*: Skt. *praś̥ṭhas* (<*prok*¹s+*sthos*), 'vorangehend, praś̥ṭhis 'seitenmann, ein nebens t e h e n d e s seitenpferd' (AJP. 37. 70, n. 3). The word *praś̥ṭhis* furnishes indubitable evidence for Sanskrit deaspiration in the sequences with *sthy* (l. c. 65, n. 2). But περίξ may belong with περι-σός, running over (-σός:-σεύω); see § 19, in the essay below.

²¹Tautological compound of **drāmo*, 'sleeping' (: Skt. √*drā*, Lat. *dormit*)+**quinos* (: *quies*). The root was *k*¹(*w*)ēi, as found in κείται: Lat. *quies*, whence Greek might have had in fact both *τίλος and *κίλος

28. Ἀμφι-κ-τύονες, 'circumcustodientes.' Here the -κ-, as well as the bad spelling with antepenultimate ι for υ, is due to imitation of περικτίονες; and -τύονες really belongs with Lat. *tueor*.

29. Skt. *kṣanóti*, 'wounds,' belongs with Cretan κατα-σκένη, aor. opt. *κάνοι*, 'deleat,' OPers. *vi-kanāhy*, 'deleas.' The root (s)*k^h*(*h*)*en* is a doublet of *sk^h*(*h*)*ēi* (see references in § 3), as to which, with all its phonetic varieties, see Boisacq. s. v. σχάζω. Original Greek forms in (σ)κεν/(σ)κον yielded to the κτεν/κτων forms of § 26. [The last sentence is due to a suggestion of Professor R.G.Kent.]

30. ἄρκτος, and the "bear" -sept. See § 14.

31. Skt. *tákṣati*: Lat. *texit*, τέκτων.—The primate was *tek^hseti* 'weaves, binds, builds.' Between the κτ of τέκτων and the *kṣ* of Skt. *tákṣan-*, 'builder,' a precise phonetic equation does not, and certainly need not, obtain. The primate of τέκτων was *tek^hs-(t)en-* (second *t* also subject to loss by dissimilation, see *Bull.* § 77), compacted of the rootnouns *tek^h s-* and *ten-* ('stretcher weaver,' cf. Lidén, IF. 19. 332). In Greek, -κτ- <*h^hst* is normal (in ἐκ[σ]-τείνω, e. g.). Or else, in Greek τέκ(τ)ων <τ> is due to a blend of *τεξών and of *τεκ[σ]-τωρ (: Lat. *textor*, with *x* for *c* by re-derivation). Bear in mind also the IE. interchange of the suffix *t(w)en* with fem. *t(w)eri*, an interchange extended in πέπειρος: πέπων beyond the range of *wen* stems (see *Bull.* § 88, note 1; infra, § 48); cf. *īvarás*: Av. *īsvan-*.

32. ὄκταλλος, 'eye' (see also *Bull.* § 79, note 2). The primate was *ok^w-tlos* 'seer,' extended to *ok^w-tl-nos* (? also in Lat. *ocellus*, if from **ocĉĉellus*). On the suffix -*tlo-* see Brugmann, *Gr.* 2. 1. 345. In the Skt. dual *ak-ṣ-i ṣ* belongs with (e)*s* in OBulg. gen. sg. *očese*, see Boisacq, p. 722. The delabialization of *ok^w* took place in **okyomai* > ὄσομαι and in **okye* > ὄσοε. For the principle see Osthoff in IF. 27. 174. On the *ṣ* of Av. *aṣi* see provisionally § 9fn., below.

33. Av. *ṣ-itis*, Skt. *kṣ-itis*, 'dwelling.'—The primate was [e]*k^hs-itis*, 'exitus,' cf. Skt. *ud-yānas*, 'out-going' > 'garden, park,' and Eng. *dwells* <'wanders.' Skt. *kṣ-étram* was originally the 'out-field,' (cf. *ager Romanus*, used of extramural territory), as Av. *čarāna-*, 'field,' was the 'locus errationis'; cf. Lat. *colonia* i. q. 'praedium colono commissum' (see *Thes. LL.* 3. 1704; 49).

Or *kšétram* (root *sk^hhēi/k^hsēi*, see § 29) was a 'cutting': *σκί-ρος*, 'copse, copseland'; cf. Eng. *thwaite*: Norweg. *tveit* and Fr. *coupe*, 'clearing'; and see TAPA. 37. 18.

34. Skt. *kš-atrām*: Av. *xš-aθ ram*, 'regnum.—The primate was *ksw-a^xtrom*. On *ksw-*, ξύ-ν: Lat. *co-*, etc., see TAPA. 44. 115 sq. and JAOS. 34. 332; supra, § 2. The posterius *-a^xtrom* belongs with Skt. *√at*, 'errare': *atasám*, 'gebüsch, gestrüpp.' To the evidence for IE. *√et* presented in TAPA., l. c., add ἐξ-ωτικός, 'out-landish' (Plautus), Av. *gav-aθya-*, 'cow-herd' (: Goth. *aw-ēþi*, 'sheep-herd').²² With *kš-atrām*, 'gefilde,' cf. Av. *xš-aθrī*, 'weib' <'co-errans.' As a collective, *kšatrām*, 'regnum' = quasi 'reges,' but the original sense of *kš-atrīyās* may have been 'co-errantes,' members of the wandering band of Aryan invaders,

35. κ-τίσις 'settlement,' Rhod. κ-τίσι-να, 'township.'—κ-τίζει clearly means 'establishes a settlement (colonizes) beyond the bounds of the home land. It is a compound of [*e*]k^hs-+*ti-dyéti (*ti*.²³ : Skr. *√tāy*, by form of *√tan*—see § 3⁵—'to stretch, spread out'; cf. also on περι-κ-τίσις in § 27, above). This root has developed the sense of possession in Lat. *tenet*, *obtinēt*, 'spreads over,' as in Livy 29. 27. 7.

36. κ-τάομαι, 'obtineo,' κ-τήματα, 'cherished holdings.'—Unless these have κτ from τκ (see *Bull.* § 79, note 2), they come from a compound of intensive [*e*]k^hs-+√tēi, 'tenere' (cf. rootnoun *t-ā- in § 35). Or κ- may be due to a blending of *τήματα with κειμήλιον (κτῆμα ἀπόθετον, Eustathius), though [é]κ- in κτῆμα would give the note of ἀπόθετον. Dat. pl. κ-τήμεσι (h. Hom. 30. 10), 'pecudibus,' may attest a collective κ-τῆνος, 'tied-out': *tenēt*, 'binds,' OBulg. *teneto*, 'net, tendicula.' For *pecus*, 'tied,' see

²²Also σ-ῶτρον (<*ksw*+*ōtro*-, 'goer. leg spoke of a wheel'; cf. *wheel* = 'goer' in Walde s. v. *colo*), collectively used of the 'felloes' constituting the rim over the spokes; hence ἐπι-σσωτρον, 'tire.' On the phonetics of *ksw-* see above, § 2.²

²³I explain *ti-* as a locative (=infinitive) to a rootnoun *tā(*i*). The posterius *-dyéti* is a composition-form of *√dā* (cf. OBulg. *dajom*, 'I do' like Skt. *dyāti*: *√dā*, 'vincire'). The *-dyéti* (Gr. -ζει) conjugation arose from syntactical groups with infinitivals, cf. Lat. *in conspectum dare*, causals to *conspicere*; *in fugam dare*, causative to *fugere* (cf. also § 42, end). In like manner σχι-ζει may mean 'in scissuram dat' (AJP. 37. 170).

TAPA. 41. 34. The nearly synonymous Avestan root $xšā(y)$, 'adipisci, potiri' : Skt. $kṣáyati$, 'potitur, regnat,' is quite different, being a compound of intensive $[e]k^1s$ with the root $sā^x(i)$; doublet of Indo-Irarian \sqrt{san} , 'adipisci.' With Av. $xš-<k^1s-s-$ (but $š<k^1s$) cf. Skt. $-kṣ-<šs$.

37. $[\acute{e}]κ-τηδών$, 'vein' (of a tree, in German called *faser*, i. e. 'filament'). The original sense was 'stretching out' > stretched out, thread, filament, fibre'; cf. $τένων$ etc., ap. Walde, p. 771, remade in late Latin as *tendo*, 'tendon.'

38. $[\acute{e}]κ-τέρας$, 'cherished possession, keepsake,' $-τερας$: $τηρεῖν$, 'curare (aliquem)'; $[\acute{e}]κ-τέρας$ quasi 'ex-curatum.' OBulg. *chraniti* 'servare' (: Av. *haurvaiti*, see Berneker, *Slav. Wb.* 1. 398) is not related.

39. $<γ>δοῦπος$,²⁴ 'pounding noise,' arose by misdivision of $ἐρίγδουπος$, epithet of Zeus, the pounder with the thunderbolt. With $ἐριγδο-$, 'pounding' (: $ἐρέκει$ 'pounds'), cf. $βαδός$, 'walking,' $λίγδος/λίγδα$, 'mortar' (see Boisacq, s. v.). The posterior, $-υπος$, belongs with Skt. \sqrt{vap} , 'icere' (cf. $-udhyas$, 'effabilis' : \sqrt{vad} , 'fari'), and with $upalá$, 'upper millstone' (originally 'pestle').²⁵ Thus $(γ)δοῦπος$ is a false discomposite (cf. § 17, note 17), unless $γδο-$ be connected with Skr. *gadgada-*, 'gestammel,' or with *gadā*,²⁶ 'club, pestle,' and the entire compound interpreted as 'very-pestle-striking.' Here note $ἰγδη$, 'mortar' ($ἰγδος$, 'noisy dance'), from the root of Lat. *icere*, 'to strike.' The feminine $ἰγδη$ is probably a reciprocal to $*ἰγδος$, 'pestle,' cf. $λίγδος/λίγδα$, 'mortar' above.

40. Competition between $[e]g^1hs > g^1zh$ and $[e]k^1s$.—Skt. $kṣárati$, 'effluit, evanescit,' is a compound of $[e]h^1s + \sqrt{ser}$,

²⁴Not an aphonetic variety of $κτύπος$ (§ 25), nor connected with ($ἐχθο-$) $δοπός$, 'hostile,' which is from $*ἐχθο-όδο-πος$, 'on an outroad keeping' ('insidiator'); $ἐχθο-$ (like $δοπισθο-$ in compounds) belongs with $ἐχθός ἐκτός$ (see ap. Heerwerden, *Lex. ἐχθοι* ξξω), and ultimately with $ἐχθρός$ (see AJP. 31. 420).

²⁵ $ὑπερος/ὑπερον$, 'pestle,' are not derived from $ὑπερ$, 'over,' but conversely. Likewise $ὑπό$ is derived from the under of the two pounders. The root[†] was $(s)ωep$ (cf. Lat. *super*), see Walde, s. v. *dissipo*. On $(k)σω-$, 'co,' see § 34.

²⁶But *gadā* and *gadgadas* may be united under a root *gad*, 'to break, crack,' Scottice *usurpatum*.

'fluere.' In the Avestan causative *vi-γžārayeiti*, 'effluere facit,' γž (alternating with žγ) represents IE. *g¹zh*, cf. on *dhāūkate* in § 21. In Av. *α-γδōnwamna-*, 'non desinens' (for *α-γžānwamna-*, according to the lexicon of Bartholomae), γžānw- is a present stem composed of *g¹zh*, 'ex,' + *sa-nu-*: √*sē(i)*, 'decrescere' (cognates in Walde, s. v. *sino*). Further cf. § 42-43.

41. φ-θείρει, 'destroys.'—From a primate compounded of *bh(e)*, 'ex' (see § 22) + √*ster*, 'sternit, prosternit.' But the Greek root φθερ may be a blend of φερ (: Lat. *ferit*, 'strikes') + θερ (: Skt. *dhā'rá*,²⁷ 'schneide, klinge'). The compounds of φθείρει cited by Brugmann, *Gr.* 1² § 920. 4, admit but by no means require the definition of φθείρειν by a metaphorical 'fluere'.

42. φ-θίει, 'delet,' φ-θίει, 'evanescit,' φ-θίσις, 'tabes.' A. Four (and more) roots in *i:ā^xi*, with the sense of 'to vanish, flow (off), become weak, decay' are of record, namely: (1) *tw-ī*, akin to *tāi/tāu_x* in Lat. *tabeo*, etc. : (2) *dhw-ī*, in English *dwindle*;²⁸ (3) *sw-ī*, in German *schwinden*; (4) *gw-ī* or *g^w-ī* in Skt. *jinā'ti*, 'senescit.' Add (5) Skt. √*rī*, 'fluere,' and (6) **lī* in *pra-laya-s* (: Lat. *lētum*). By combining *bh(e)*, as in § 41, with either *tw-ī* or *dhw-ī* we get φ-θί. B. The root *bhēi*, 'κόπτειν' (cognates in Berneker, *Slav. Wb.* 1. 117; cf. AJP. 32. 403 sq.) was also entitled to forms meaning 'caedere, schlagen' (: Eng. *slays*, 'necat'), and to an abstract **bhitis*, 'κόπος' (in the sense of 'exhaustion, fatigue'), so that φ-θίσις might be a blend of **φισις* (: √*bhēi*) and **θισις* (: √*dhwī*)—C. Or, to reason analogically, φθ- may come from IE. *bhy-* as πτ- comes from *py-*. In that case, a root √*bhy-ā^x* (extension of, and frequently incorrectly written for, *bhēi*) might have had an abstract **bhy-ə-tis* > **φθαισις*, whence φθίσις (vowel from φθίσις), cf. φ-θόνος, 'dwindling, pining, envy,' if from √*bhy-en*. From √*bhy-ā^x* (or √*bhy-ā^wi*) φθάνει is derived, answering semantically to Eng. *beats*, 'anticipates,' as in 'beats running.'—D. Or φ-θιρός, 'annihilated,' belongs with differently graded Skt. *bā-dhi-tá-s*, 'annulled.' Skt.

²⁷No well-developed IE. root *dher*, 'caedere,' is known to me, but as *bher*-forms would have the competing senses of 'ferre' and 'ferire' forms of √*dher*, 'ferre,' were analogically liable to the sense of 'ferire.'

²⁸Cf. also θάνατος, death': Skt. *a-dhvanīti*, 'dwindled,' from √*dhwen*, a doublet of √*dhwē* (§ 3, n.5).

$\sqrt{b\bar{a}-dh}$ is compounded of $\sqrt{bh\bar{e}i} + \sqrt{dh\bar{e}(i)}$ and means 'premere' <'caedendo premere.' It is formed like $\sqrt{r\bar{a}-dh}$: Goth. *-rē-dan* Lat. *reor*. In *bā-dhi-tás* the posterius is IE. *-dhitós*, the true ptc. of $\sqrt{dh\bar{e}i}$ (cf. § 4). A 'root' similarly compounded, namely, Skt. *sādh* (*sā-* for *sāi*, cf. *sī-na-m*, 'property,' with true *i*: $\sqrt{san/s\bar{a}}$, 'adipisci,' cf. § 3, n. 5), has a weak rootform *sidh*,²⁹ ptc. *si-ddhā-s* < **si-dhtó*. Hence we may infer **bī-ddhas*: *bā-dh* (cf. $\sqrt{bhid-}$ with *d* as in *khād-* 'scindere' <'caedendo scindere')³⁰ or even a composition form *-b(d)dhas*. Lat. *de-fessus* < *-bhəddhos*, 'wearied,' will have started as 'down-beaten' (cf. *κόπος*). Then $\phi\theta\iota\acute{o}s$ (from a composition-form *ḅh[ə]-dhitós*) will be intermediate between Skt. *bādhitás* and Lat. *fessus*, so that the Greek root $\phi\theta$ may be the ultra-reduced form of the compound root *bhē(i)-dhēi*.³¹

43. Skr. *kṣīnāti*, 'delet': Av. gen. *ašyo*, 'tabis; perniciēi.'—This verb is derived from $[e]k^1s + \sqrt{s(w)\bar{e}i}$ in OHG. *swīnan*, 'schwinden' (cf. § 42, A. 3; Walde s. v. *siat*), which may be adequately defined by 'to throw (out), scatter, pour; trickle, seep, flow (off).' Or all the forms may be united under a root

²⁹The alternation *khād / khid* (*-d* from $\sqrt{d\bar{o}}$) is precisely similar; and the penultimate diphthong in *khedā*, 'borer' (pace Wackernagel, *Ai. Gr.* 1, § 15), is by no means to be separated from the *ae* of Lat. *cae-lum*, 'chisel.' The root is a *d* extension of $(s)k^1(h)\bar{e}i / (s)k(h)\bar{e}i$ (§ 29), and we have *ei* in Lat. *caedo* as well as in Av. *saed*; true IE. *i* in GAv. *sinā*, 'scissura,' as in Skt. *chitás* (§ 5). The specialized sense of 'chews, eats' recurs in Lat. *cibi-cīda*. On 'eats': 'cuts' add to the examples in AJP. 26. 197 Lith. *kir̃sti* (Lalis), 'comedere' < **krt-ti*: \sqrt{kert} , 'to cut, eat.'

³⁰Whoever doubts this semantic development may consult AJP. 32. 405, n. 2, and Walde, s. v. *ferio*. It is a pity that the semantic doctrine taught for *ferio* is completely forgotten by Walde s. vv. *caedo*, *scindo*, so little does that scholar correlate his learning. He is just as forgetful in phonetics, for under the same lemmata he denies the alternation Lat. *ae*: IE. *āxi*, though he recognizes this gradation s. vv. *caelum*, *scio*, *saeta*.

³¹In such compound roots, as I shall elsewhere show (AJP. 37. 169), the prius really occurs as the case form of a rootnoun (=infinitive); cf. also § 35, n. 23. The syntax of such roots is the syntax of Eng. *does love*. Cf., pending a fuller treatment elsewhere, Jackson, *Av. Gr.* § 724. 4.

kswēi, extended by *p* in Lat. *dis-sipo* (see Walde s. v., and references in § 2, n. 2). Skt. *kṣi-p-āti* also means 'annihilates.'

44. *ἑρέχθει*, 'beats, pounds': a *dh* extension of the root of *ἑρέγματα*, 'beaten, pounded pease.'—We have a like *dh* added to the root *mreg* in OEng. *breyden* (see *Gr.* 2. 3. 375). Skt. *rākṣas* (neuter), 'goblin,' is a derivative of *rākṣati* (: ἀλέξει), 'protects.' For the shift to the bad sense—unless we operate rather with the folklore principle of giving a bad dog a good name to propitiate him—cf. Lat. *defensio*, 'prosecution, punishment,' *piaculum*, 'guilt,' *sacer*, 'sacred, detestable'; Skt. *āsura-s* 'god, demon'; *δαίμων* and *demon*; Av. *daēva-*, 'demon'; Germ. *götze*, *gütchen*.

45. *χθών* 'earth.'—Phonetics has never proceeded with greater rigor to reach such mistaken results as in the study of the cognates of *χθών*. Perhaps the superlimit of colorature was reached by Pedersen, when he connected Ir. *dú*, in vague local phrases, with *χθών* (*Kelt. Gr.* 1. 89). Equal extravagance used to connect Skt. *kṣú-*, food, a plain derivative of \sqrt{ghas} , 'edere,' with *ἰχθύς*, 'fish.' Mention has already been made (§ 15) of the hario-lation, adopted by Pedersen and Thurneysen, whereby OIr. *tinaid*, 'evanescent,' for no other reason in the world than to find further documentation for the *t* of Gallic *artos*, has been divorced from the sept of Lat. *ta-beo*. Instead of complicated phonetic assumptions, simpler assumptions of heterocclisis will account for the members of the *χθών*-sept.

46. As above for *ἄρκτος* (§ 15), so for the sept of *χθών*, we must first seek the definition that preceded 'earth,' the meaning before the last. Then we can more rationally attack the phonetic problems. Long ago, I am happy to find, before linguistics became so sophisticated as to scorn derivation, this original sense was—somewhat sentimentally—divined. Thus in the first Petersburg lexicon (s. v., p. 533) *kšám-*, 'earth,' was derived from the root *kšám*, 'ertragen,' 'in dem die erde als bild der geduld aufgefasst wird.' Uhlenbeck modifies this for the better when he says, 'vielleicht zu *kšámate* (die erde wäre als die "ertragende, dul-dende" aufgefasst).'²² If we expand this suggestion by availing ourselves of the current doctrine of root-groups, all doubt as to

²²It should be put more concretely still ('die tragende'), cf. Lat. *tellus*, 'earth': *tollit*, 'lifts,' *tulit*, 'bore.'

the most primitive form of the root *kšam*, 'tolerare,' must disappear. This root, extant in Sanskrit only, comes from *sg¹h-em* : $\sqrt{seg^{1h}}$ ³³ (in $\xi\chi\epsilon$: Skt. *sáhate*) :: $\sqrt{tr-em}$ (in Lat. *tremít*) : \sqrt{ter} (in Skt. *taralás*, 'tremulus'; cf. Brugmann, *Kvg.* p. 297). He who possesses even a hand-lexicon of Sanskrit can convince himself that \sqrt{sah} also means 'tolerare.' Thus the Sanskrit nominative *kšā-s*, 'earth' is from *k¹sō[m]-s*, 'ferens, tolerans,' used of the earth as 'bearer' of all things (cf. Skt. *viçva^mbharā*, *dharaā*, *dharañi-s*, *dhāritrī*); and Av. *zā* is from [*s*] *g¹hō[m]-s*, the strong form correlated with $\chi\alpha\mu\acute{\alpha}$, Lat. *humī*: OBulg. *zemīja*.

47. Alongside of Skt. *kšās* we have *kšo-nís*, (1) 'multitude'; (2) 'earth' (also, from the inclusive dual, 'sky'; but cf. Eng. *firmament*). The sense of 'vis, multitudo' is found in Skt. *sáhas* and, what seems not to have been observed hitherto, in $\delta\chi\lambda\omicron\varsigma$ (< **sog¹h-los*). Skt. *sáhás-ram*, 'thousand,' is from *seg¹hes*, extended by the suffix of **sog¹hlos*—a simpler explanation than that offered in TAPA. 44. 126. In view, however, of root-groups like Skt. *drām/dru*, cf. IE. *trem/tru* (in Eng. *throw*, 'shake, brandish') : \sqrt{ter} 'to shake' (§ 46), cognate with \sqrt{ter} , 'to turn, twist, use a drill,' we may derive *kšās*, *kšonís* from the root doublets *kšam kšu* (: $\iota\sigma\chi\acute{\upsilon}\varsigma$, ' $\delta\chi\lambda\omicron\varsigma$,' $\iota\sigma\chi\upsilon\text{-}\rho\acute{\alpha}$ [adj. with $\chi\theta\acute{\omega}\nu$ in Aeschylus='terra firma'], $\xi\chi\upsilon\rho\acute{\omicron}\varsigma/\acute{\omicron}\chi\upsilon\rho\acute{\omicron}\varsigma$ 'validus': Skt. *sáhu-ris*, *violentus*).—The relation of Lat. *humānus* (also containing **ūmānus* : Skt. *ūmas*, 'amicus'—by no means from **hoi-manus*!) to Skt. *kšonís* (for *m/n*- if not from *mn* by Schmidt's law—cf. Skt. *yāna/yāma*-, $\pi\upsilon\gamma\mu\acute{\eta}$: Lat. *pugnus*) was pointed out in *MLN*Notes 22. 37 for the wayfaring man, if not for Walde, to see.

48. If $\chi\theta\acute{\omega}\nu$ also comes from $\sqrt{seg^{1h}}$, 'ferre, tolerare,' it may derive, to push literal equation to the superlimit, from a primate

³³Really $\sqrt{sw-eg^{1h}}$ [cf. $\epsilon\iota\sigma\chi\acute{\upsilon}\varsigma$ (in § 47) <reduplicated *(*s*)*wi-s(w)-g¹hū-s*], which bifurcated into $\sqrt{s-eg^{1h}}$ and $\sqrt{weg^{1h}}$ (: Lat. *vehit*). On the preverb (*k*)*sw* see § 2, n. 2. The simplex *eg¹h* occurs in Av. *azī*, 'trächtig' (: Skr. *ahī*, see Leumann, *Wb.* p. 30), used of cows and mares. In the ritual formulas of Vd. 9, 37 sq. *azī gauš* designated a sacrifice for the master of the house, while *vazī gauš* is an offering for his workpeople, i. e. 'vehens' pro 'vehentibus' (adapted from Geldner, *KZ.* 27. 254), not (with Bartholomae)='säugend.' Cf. also Skt. *vodhar-* (: Av. *vaštar-*), 'zugtier, träger.' We may have a like bifurcation of $\sqrt{sw-en}$ in Skt. \sqrt{san} =*van*, 'to win.' The simplex root *en* is found in $\acute{\alpha}\nu\acute{\omicron}\omega$ (<*n-nu-ō*) $\acute{\alpha}\nu\acute{\omicron}\tau\omega$: $\acute{\omicron}\nu\acute{\iota}\nu\eta\mu\iota$ 'fructum adipiscor'; cf. $\acute{\alpha}\nu\omega$. In $\acute{\alpha}\nu\acute{\omicron}\omega$ <*s(w)-n-nu-ō* we have the root with *sw*.

*[z]g¹h-t-wen-, formed like Skt. *kr-t-van*-³⁴. (accent in disaccord with vocalism). The simpler primate *[z]g¹h-t- will be a weak grade of the formative type of Av. -hāgəṭ-, 'sequens' (in *ašiš-hagəṭ-* 'Aši-follower,' cf. also -βρ-ω-τ- in ὄμοβρός): √*sekw*. Brugmann's explanation of this -t- (*Gr.* 2. 1. 423) is unattractive. We have a like -t-+the -wē(n)s- of the perfect ptc. in Skt. *mādhvā*^ms-, primate *māg¹h-t-wē(n)s-*, 'effundens.' For the old explanation, as found in Grassmann, is certainly right. The gods to whom the epithet *mādhvā*^ms- is applied are the sky-lightning-wind-weather-rain-gods, i. e. θεοὶ ὀμιχοῦντες. As for *Varuna*-, the concept of εἰρός is secondary. We must begin with Οὐρανός as οὐρέων, 'mingens.' The sense 'broad' is from 'sky,' not the other way about.

49. Ἐρεχθεύς: χθών (if with χθ for θχ).—The earthgod Ἐρεχθεύς, also named Ἐριχθόνιος, was a 'son of Earth.' His name, I surmise, originally meant 'cleaving the earth,' and came from **ēret-*χεύς (or even from ἐρ[εθ]εθ-χεύς). Here **ere-t-*, 'cleaving' (< √*erē* 'separates'; or **ere-dh* in Skt. *ardh-á-s*, 'half': Lith. *ardýti*, 'trennen'; cf. ἐρέθω, ἐρεθίζω in Persson, *Beitr.* 637; 841, note 2), is the prius (cf. Ἀρχετ- in § 17); and *[s]g¹hēu-s 'earth' (: Skt. *kṣo-nis*) is the posterius. Observe how with its ēu *[s]g¹hēus matches the stem of Ζεύς, 'sky.' In Ἐριχθόνιος (*< *ēret-χονιος*) the common prefix ἐρι- has replaced ἐρε- (see also Brugmann-Thumb, § 162 on the interchange of e/i/o in the prius of this type of compounds). Or **erit-*, 'scindens,' formed like Skt. *sarít-*, 'fluens' > flumen, has competed with **eret-*. No compelling reason requires us to believe that the governing prius in Indo-Iranian -at-compounds was a present ptc. (§ 17); cf. Av. *vikərəṭ-uštāna*-, quasi 'dele-vita-.' The ι (for ε) of Ἐριχθόνιος may also show the influence of Ἐλελίχθων, Ἐνοσίχθων;³⁵ cf. ἐρυσίχθων.

³⁴If the root *en*, 'adipisci,' is rightly restored in § 46, n. 33, above, the original sense of this Poseidon epithet may have been 'adeptus terram,' and εἰροσί-φυλλος, of a mountain, would have meant 'habens folia,' not 'quatiens folia.' The latter sense would have come to it from the idea that suggested ἐλελίχθων (Pindar) and σεσίχθων (not early), but the original sense would have been the sense of γαλή-(ς)οχος, 'earth-carrier' (: Lat. *vehit*); the current interpretation of 'earth-shaker' being due to the definition of Goth. *ga-wigana* by 'concussa,' instead of by 'commota, compressa.'

³⁵This *n* may be dissimilated from *r* (cf. fem. *krtvarī*, § 23). Note also *i-tvará-s*, *ga-tvara-s*, looking like tautological compounds with posterius -*tvara*-: √*tvar*, 'festinare.' But -*tvar*- need not exclude -*t-van*-.

50. ἰφθίμος, 'stalwart, constant.'—The root of the prius was *ēibh*, 'to bind' (see on the compound root *ksw-ēibh/p* TAPA. 44. 109-110) attested by Skt. *ibha-*, 'familia' (also a designation of the number eight). In the sense of 'elephant' *ibha-* may apply to the use of the trunk in 'enveloping,' and so 'binding.' In τὸ ἵπος, 'press,' we have a derivative from *ēip*, 'vincire' > 'vinciendo premere,' but Hom. [σ]_ϕ-ἰφια, only of sheep (μῆλα); means 'convincta,' i. e. 'herded.' The prius of ἰφθίμος is the abstract **ibhti-*, 'press,' and the derivative ἰφθι-μός describes one 'fit for the press' (of battle). If *ibhti-* meant strictly 'band' ἰφθίμος designated 'one fit for the band' (of soldiers). Wood in CPhil. 5. 304 properly connects Germ. *eifer* with ἵπος, pace Boisacq (!); see fn. 28, below.

51. Beginning with § 24 above I have passed in review all the words for which etymologies involving the equation of Skt. *kṣ* with κτ, χθ, φθ are now advanced. The current equations, I conclude, rarely connect cognate words and, where cognation does obtain, in no single case does τ or θ represent the (*k*)*ṣ* of the Sanskrit forms. The Sanskrit sibilant, on the contrary, continues IE. *s*, while the Greek dental continues the IE. dental of which it is the normal equivalent. If it be answered that my combinations in disproof of IE. *þ* and *ð* sounds also move in the vicious circle (§ 1), that is very true. How could it be otherwise? But my etymologies follow simple and well-known phonetic lines and do not set up a curious class of spirants which leave no trace of their spirantic character, save in complicated combinations like Skt. *kṣ*, Av. (*x*)*ṣ*, *xṣ*, *γṣ* (Latin *-x-* and *-rs-*), wherein I have vindicated, and chiefly by the recognition of the IE. preverb (*e*)*k*¹*s*, IE. (*k*¹)*s*.—The preverb *k*¹*s* is also assumed in Prellwitz lex. s. v. σβέννυμι, and in Walde, s. v. 2 frigo.

INDO-IRANIAN DIRECTION ADJECTIVES.

A. SKR. *jihmá* NOT AKIN TO $\delta\omicron\chi\mu\acute{o}s$.

1. In the previous essay, covering most of the typical cases, I maintained the thesis that IE. \varnothing never yielded Indo-Iranian *i*. With Pedersen in KZ 36, 74 sq. I hold that IE. \varnothing had <and never lost> in Indo-Iranian *a*-timbre. I particularly reject equations of final *i* in Sanskrit with Greek final *a*. In neut. *máhi*, great, *i* is true *i*, just as surely as it is in *bhā'ri*-, great, or in Lat. *omnis*. We also have true *i* in Skr. neut. pl. *sánti*: *ḍvra*, for *sánti* shows the same correlation of neuter with feminine that has been consummated in the Latin participles; cf. also the identity between Lat. n. pl. *praesentia* and the fem. abstr. *praesentia*. It is only in the reduction stages of $\bar{a}^{\omega}(i)$ roots, excluding analogy cases, that Skr. *i* corresponds, but not fully accords, with Greek *a*. In Lat. *praesentia* -*ia* is the sum of the endings *i* and *a*. The correlation of fem. \bar{i} with neut. \bar{i} corresponds to the like variation of \bar{a} with $\bar{ä}$.

2. Skr. *jih-má*-, deorsus, obliquus: entirely unrelated with $\delta\omicron\chi\mu\acute{o}s$. In *jihmá*- we have a reduplicated derivative of the root *hā*. Skr. 2 *hā*, discedere (*jihāte*) and Av. *a+zā[y]*, accedere, belong with Germ. *gehen*, and before generalization described some special mode of motion; perhaps, to follow the unintentional cue of the Petersburg lexica, 'to spring' (up before or away from)—not mere approach or departure; cf. $\chi\omega\rho\text{-}\epsilon\acute{\iota}$, accedit×discedit, and Lat. *venit*: *salva*.¹ Skr. 1 *hā* in *jāhāti*, relinquat; decedit (de), is the same root. To arrive at the special sense of *jihmá*- we have but to assume the connotation of 'decedens (i.e. deflectens) de via recta.' Observe how in Lat. *ob-līquos*, transversus, the root part *līqu*—or rather *likw* (cf. Plautine *relīcuos*)—is in all respects homonymous with the root of Lat. *līquit*. Thus obtains the semantic proportion of *jihmá*-: $\sqrt{hā}$:: *obliquos*; *līquit*. The sense of 'downward'² (RV) will have come from the application of *obliquos* to slopes and slants.

¹Skr. *éti* also means *venit*×*it*. I also note here, for the sake of a cross reference to TAPA, 44, 115 § 14, that, like the Latn compound *adit*, Skr. *éti* also means 'quaerit, precatur.'

²In *jihmá-bāra*- (and *nīcīna-bāra*-), *-bāra* should be corrected to *-vāra*, 'lid' or 'cover' (whence mouth, opening, top) of a jar, etc.; the compounds have the sense of 'topsy-turvey, top-down.'

3. The unrelated synonym *δοχμός* is from *dok¹smos*, and has for its nearest of kin *δοκάνη*, forked pole for a fishnet (cf. Lat. *furca*). It was originally a substantive (adj. form *δόχμιος*) and meant 'twig, bough' (cf. *πλόκανον: πλοχμός*). The sense of 'divergent' (de rectâ deflectens) originated from 'branching.' The root—with some evidence for *k* as well as for *k¹*—was *dē(i)k¹/g¹*, prehendere, rapere (diripere, divellere, mordere), capere; cf. Goth. *tahjan*, zerren; reissen: *δάκνει*, bites; and, with *g¹*, Goth. *tēkan*, to touch: ONorse *taka*, to take. Note *δέκεται* (without *i*), accipit: diphthongal *δέικνεται*, accipit (entertains). Both these exhibit mere shadings of the original sense. Particularly observe the isolated and archaic Skr. *dā'ṣa-s*, piscicapus, an old word of the chase. Other derivatives of the root designate parts of the body that seize, take, bite; as *δοχμή* (<*dok¹smā*), palmus³ (=4 digits; cf. Eng. hand for hand's breadth): the sept of Lat. *dextra*, the "right" hand being the 'taker,' *par excellence*; 'finger' in *δάκτυλος* and Lat. *digitus* (IE. *ig¹*), and 'twig'⁴ in Dutch *tak* (: Eng. *tack*); 'tooth' (cf. Eng. *fang* from 'seizer') in Swed. *tagg*, prickle, point, tooth (ultimately akin to Av. *dāstra-*, Skr. *dāmstra-*,⁵ tusk).

³The sole reason for ever doubting the cognation of Germanic *hand* with *hinpan*, to seize, was the intrinsic propriety of the definition (see my remarks in *The Nation*, April, 1911). This semantic correlation has been established by a large documentation in *Wörter und Sachen* 2, 200. See also Meillet in *MSL* 17. 62. Words meaning 'palm' need not be separated. From Folk Latin *branca*, paw (later, branch) comes Raeto-Romanic *braunca*, palma; gen. *δρακ-ός*, which meant 'seizer,' is given by Hesychius in the sense of 'palma.' Manus rapit capitve; palma accipit (but, etymologically, *palma pellit*). Berneker has gone sadly astray (*Wbch.* p. 690) when he refuses to connect the sept of Slavic *lapa*, paw, with the sept of the verb *lapati*, rapere. Pedibus manibusve animalia rapiunt.

⁴The variation finger: twig is found in Skr. *çā'kḥā* and in *vip*: of palm and twig in Lat. *palma*, cf. *palmes*; while in Greek the hand is described as five-twigged in *πέντ-οξος* (Hesiod), and in *πεντά-κλαδος* (*Etym. Mag.*).

⁵One may suspect the nasal infix to have come from the sept of Lat. *dens*, the influence by which Bartholomae also accounts for Av. *s* instead of *š*. So *δ-δαξ* has got its initial from *δδούς*. The loss of *o-* in the other members of the *dens* sept may be due to association with the *dāmstra-* group.

4. By denominative reaction from cognates meaning 'finger' etc. the sense of 'points, shows,' in δείκναι: *dicit*, was reached. From the common use of teeth as ornaments in prehistoric times we may explain Skr. *daçā*,⁶ fringe : Lat. *decus* ornament; *medecet*⁷ 'it ornaments me,' or 'it shows me off.' Skr. *dākṣa*, *habilis*, is generalized, cf. *habilis*: *habeo*, and *capax*, capable; note Eng. *a hand for*—*aptus*, *capax*, *habilis*. Skr. *dāçnōti* (deo alicui re sacra; cf. for like constructions in Latin Class. Phil. 5, 368), does homage (to a god with sacrifice), has been generalized from 'takes (implicit object, a taking) to a god by means of sacrifice.' In *dākṣate*, *sese dedicat*; *dedicatur*, (cf. the Latin sacral formula *do dīco dedico*), precious for its evidence of *ī* (: *ēi*), the implicit object is a person.

5. Returning to δόχμος, originally 'twig, branch,' but adjectivized⁸ (as Eng. branch is virtually adjectivized in branch road, etc.), we may note that it is cognate with δόκος, crossbar of a door—cf. Germ. *spriesse sprosse*, rung (of a ladder), crossbar, but originally 'shoot, twig'—and with δόκιδες, rods or twigs laid over a pitfall to support a "thatch" (Xenophon). I take the Homeric δόκοί to have been rafters. The sense of 'oblique'⁹ may have come from 'rafterlike' as well as from 'branching.'

⁶Similarly Alb. *θεκε*, fringe : Skr. *çākhā*, twig; also recall Eng. *sprig* and *spray*, ornamental patterns.

⁷As regards Lat. *docet*, shows; teaches, it is not to be separated from Av. *daç-š-aç*. *docebat*, even though *xš* requires us to admit a guttural *k* alongside of the palatal *k'* of the root; or aoristic *daçšaç* has *xš* from *k's-s* (§ 36, above).

⁸The derivative δόχμος was an adjective to start with.

⁹It is interesting to trace in The Oxford Dictionary the history of the word *splay*, oblique, which was adjectivized for the first time in literature by Matthew Arnold. '*Splay*' has clearly come from *display*, and so offers, by mere accident, a curious parallel with the correlation of δόχμος and δεικναι. Words like *splay* *bevel* *bias* show from what numerous sources the sense of 'oblique' may derive.

B. SKR. \bar{i} \bar{u} NOT CONTRACTIONS OF $i+\bar{a}$ AND $u+\bar{a}$.

a. Indo-Iranian¹⁰ direction adjectives in *-añc* (Sanskrit).

6. (1) The strong forms, like Skr. *ní-añc-* (written *nyāñc-*), downwards, are undoubted compounds, with posterius *añc*, bending, attached to the ordinary direction adverbs. These formations are entirely analogous with the type of Lat. *adversus*, nor is there any limit on the possibility of such combinations.

7. (2) "Middle" forms in *āc* are to be forthright admitted (but see § 8) for posteriors in *-ac*, e. g. *ápāc-*, back-bending, prius *āpa*.

8. (3) For alleged instrumentals, type of Av. *paiti-ča*, contrary, and *fra-ča*, prorsus, a "weakest" stem in *c* (*k*) only is taught, but quite erroneously. In *frača* we have *pro+*the word 'and' (Av. *-ča*, Lat. *-que*). The type originated in pairs such as Skr. *āca pārāca* = Av. *āca parača*, to and fro; cf. Lat. *susque deque*, up and down. Such phrases were adjectivized as in Skr. *uccā-nīca-s* and *uccā-vacā-s* (*ā* from *ā+ā*), up and down. Lat. *reciprocus* is the entirely normal development (*ci* from *co* from *que*) of *reque proque*, back and forth. Of these groups the separate members were also adjectivized, and this process may have been promoted by the abstraction of stems from compounds such as *uccā'-budhna-*, bottom-up, *nīcā-vayas-*, strength-down (exhausted). Note an outwardly like adherescent *-que* in the different type of Lat. *sesqui-pedalis* [one]-and-a-half-feet. In Indo-Iranian, as the *ka* suffix shows, the *-que* adverbs had been adjectivized and yielded a suffix *ka* prior to the operation of the

¹⁰In the cognate tongues the only parallels in any wise plausible are Lat. *pro-pinquos* and its opposite by irradiation *longinquos*. But *pro-pinquos* = prae manu (see AJPh. 31. 418.). IE *penk-wos*, hand (and five), belongs to the root *penk/g*, to grasp, see above, § 3, fn.); cf. *penkstis*, fist, in O Bulg. *pē-stī*: Germ. *faust*, from *pnkstis*. Lat. *pugnus* (root in *pungit*) is a parallel formation. The root *penk* occurs also in *finger*, from *penkro-*, and the *u* of *pugnus* has intruded in Av. *pux-da-*, quinctus. IE. *penk-wos*, hand, will have meant 'grasper'; but *pugnus*, 'striker,' cf. *πύξ*, adverb from nominative, striking; with the fist. If Lat. *prope* is not a back formation from *propinquos*, it may be a back formation from the dissimilated comparative *prop[r]ior*, neut. *prop[r]ius* : *πρόπαι*, before, in front of; or *-pe* is an aphetic form to Skr. *api*; cf. enclitic *-pi* 'ad,' in Lithuanian (so Brugmann ap. Walde).

palatal law, cf. Av. abl, *uskāt* : *usča*, supra. Av. *us-ča* has a prius UD-S, and so has Lat. *us-que*¹¹ (*ad*), on up (to). Beside Skr. *ápāñ*, off-turning, we have an entirely different *ápâ-ka-*, procul adveniens,¹² wherein *ka* is from *k^wo*,¹³ and *ápâ* has *â* with the final lengthening described by Wackernagel, ai. Gram. i § 264 sq. Still other adverbial combinations in *-kam* (see § 11 fn.) may also have entered into the development of the flexion type of *ápâ-ka-*. Avestan combinations of note with *-ča-ča* are *druča paurvañča* (*paurvañ-* acc. sg. fem.), sidewise and forward; *aorāča parāča tarasča*, deorsusque porroque obliqueque. Note *dašināča*, dextrāque, as silently corrected by Bartholomae in his lexicon after the erroneous explanation in Gr. Iran. Phil. i, § 389 as instrumental to an *añc* compound.

9. (4) It is further contended—but the phenomenon has no genuine attest in Avestan—that in the weak stems *pratic-*: *praty-āñc-* and *anūc* : *anvāñc-* *ī* and *ū* have come by contraction from *i+ə* and *u+ə*.¹⁴ To justify *ə* recourse must needs be had to a fresh, and altogether dissimilar posterior *ə^kw*, eye, cognate with Lat. *oculus*¹⁵ etc., and the theory has to be built up that

¹¹In considering separates like *absque usque* (not to be identified with the indefinite *usque* in *usque quaque*), I have thought of their starting as [*us(que)*] *usque*, [*on*] and on. Note again the ellipsis of "one" with *sesqui-*, and recall that in Sanskrit and Avestan, in a couple like *Aca Bca*, either *-ca* may be suppressed.

¹²If we rigorously construe *adveniens* in the definition, *ka* may be cognate with *-cī* (see § 19); and with *-kā* in *pairi-kā* (§ 20).

¹³To say what I think, I would write this primate as *k(w)-e*, an instrumental (see AJPh. 38, 87), an enclitic and hurry form to the Sanskrit interrogative *kūa*, ubi. Latin *quā—quā* reveals how the sense et—et may have originated. As regards the interrogative stem *ku* see Joh. Schmidt in KZ. 32, 394 sq. In *ἔπι* and the Umbrian *pu* forms I interpret *p-* as due to levelling between *ku* and *kwo* (*k^wo*) forms.

¹⁴In Grundriss 2, 1 § 248 Brugmann has silently corrected the erroneous explanation of Skr. *trī*, *tria*, as from *trī+ə*.

¹⁵The whole pother about *ππ* in *ἔπιπαρα* is due to the failure to recall the hypocoristic use of words for the eye in Greek; cf. Lat. *ocelle*, darling. Is it an earlier hypocoristic *k^kw* (instead of *k^wk^w*; cf. Ital. *acqua*?) that is preserved in *ἔκκων'δφθαλμῶν* and in Boeot. *ἔκταλλος* (: Lat. *ocellus*?) The *k'* of Av. *aši*, duo oculi, is due to proethnic alliteration with a cognate of *δέξυς*; cf. *δέξυτατον ὄμμα* and *ὄψις δέξυράτη* (both in Pindar); Lat. *oculi acres* and *acris acies oculorum* (Thes. LL. i, 359, 50 sq.). Or Av. *aši* owes its *š* to a prehistoric association with the sept of Lat. *acies*; or with the sept of Albanian *si* / *sü*.

oculus belongs to an $\bar{o}/\bar{\delta}/\bar{\theta}$ root. This is erroneous and we shall later see evidence that *ek^w* is an *e/o* root (§ 14).

10. For *ic* und *uc* in this group of words a simpler explanation will yield better results. Beside *nī-añc-* (Av. *ny-ānk-*),¹⁶ downbending, stood the adverb *nī-cā'*.¹⁷ The prius was *nī* (on *i* see Wackernagel, l. s. c., and cf. Skr. *nī-kāṣa-*); the posterius *-ca*, que (also with final lengthening; cf. *-quē* in Virgil). Note the ablative *nī-cā't* followed in RV by *uccā'*; Av. *us-ča*, but *uskā't* (§ 8). Nowhere in RV. does *nīcā'* mean more than *nī*¹⁸ would mean. The feminine *nī'-cī* may be from adjectivized *nī-ka-* (§ 8). So in *anūcī ū* is protracted *u*, cf. *anū-kāṣa-*.

11. It is more than likely, however, that *anvāñc-* is to be analyzed as *anu-vāñc-*. See for the graphic and phonetic problem Wackernagel, l. c. § 53, β. The posterius *-vañc-* is beyond all doubt in Skr. *viś-vañc-*¹⁹ Av. *viž-vank-*,²⁰ passim. The posterius *-vañc-* is not merely a synonym of *-añc-*, but it is *-añc-*,²¹ com-

¹⁶Did Av. *ny-āka-* mean the bent down one, senex?

¹⁷On oxytone accent of adverbs see Brugmann, Kvg. § 366, 7.

¹⁸In 2, 14, 4, *yó āva nīcā' babadhé* might be restored—accent secondary and apart—as *qui abs [que] deque pressit*. So in 2, 13, 12 *nīcā' sāntam úd anayas* may be conceived, with archaizing chronology, as *infraque iacentem supra sustulisti*. In 10, 34, 9 *nīcā' vartanta upāri sphurantī* (downward they roll, up they leap), *upāri[ca]* is thinkable (§ 8, fn.).

¹⁹The alleged prius *viśu* is—or began as—a grammatical fiction. In RV. 1, 84, 10 *vi-śuvānt-* designates diffused Soma; in 1, 164, 13 it is employed of smoke rising upward with *diffusion* (expansion), so that *-śuvānt-* makes a very good participle to *sū*, *premere* (or to *sū*, *agere*, *sūtā*, *driver*). In AV. 9, 3, 8 *vi-śuvānt-* is a division line, a middler, *pressing* or *driving* apart the halves. Later, this term, like *vi-śuva-*, designated the equinox, the time when day and night begin to *press* or *drive* apart. In still other RV compounds *viśu-* may be from *vi+su*, as in *su-vrt-*, well-rolling, *vi-śuvrt-*, well rolling off (both of a chariot); cf. *su-rūpa*,⁷ of good color, *vi-śurūpa-*, of divers (good) colors. Even *vi-śuna-*, *varius*, may be derived from *vi*, *dis-*, + a participle *-suna-*, *actus*, *pressus*.

²⁰What unlimited funds we grammarians have in the Indo-European and other prehistoric banks. Confronted with *viž-v-* (cf. *duž-vacanhō*, evil-speaking) Bartholomae writes his cheque for a prius *ūy'z'hu-*!

²¹A derivative of the root *añc* does designate a bent part of the body in Skr. *nī-añcanī*, lap; but *vañc* is rich in such derivatives: *vāñkeri*, rib; *vakśānā* (*-sanā* as a suffix is akin to the infinitive ending *-sanī*),

pounded with the preverb *su-*, co- (see TAPA. 44, 107 sq. and § 2 fn., above). The prius is *vī*, apart (cf. Skr. *vī-kāṣa-*; Gāth. Av. *vī*), expanded by *-s* (cf. *ud-s* above), and is of record as *vīš-* in Avestan; cf. also Skr. *ā'vis* her-*aus*, *ἀν-ώι[σ]στων*, inapertum (see AJP. 33. 391).

12. Summary. For the Indo-Iranian direction adjectives in *-añc-*, bending, we have admitted the grade in *-añc-* and (for the argument's sake) a weak grade in *-āc-*. The weakest grade in *c* has been denied, and the adverbial forms in question (Av. *fra-ča*; cf. Skr. *nī-cā*) have been explained as direction adverbs expanded by adherescent *kwe* (*k^we*), and; whence, eventually, upon adjectivization, the suffix *k(w)o-*. The alleged forms in *īc* and *ūc* have lengthened *ī* and *ū*, while their *c* belongs not to IE. *əkw*, eye, but to *k(w)e* (see, however, §§ 20, 25).

13. It now remains to examine the words in which, thanks to erroneous and premature definition, the posterius *əkw*, eye, has been chiefly recognized.

14. *ánika*, "antlitz, front, eigentlich zugewandt." Leumann goes on to compare *ἔνωπον*, *stirne, gesicht*; OIr. *ainech*: Welsh *enep*, *facies*. But *ἔνωπον* is a fiction, and Hom. *ἔνωπῆ*, *palam*, is still transparently *ἐν+ώπῆ*,²² in oculo. Celtic *enek^wo* (see Fick-Stokes, p. 48) simply means 'in-spiciens,' in the sense of 'species'; and exhibits the root of fut. *ᾔσεται*, but with *e*-vocalism.²³

belly; *vanāśana-*, flank; *vākśas-*, breast; cf. also with *uc*: *vak* (root in Lat. *vacillo*), *anūkā-* and *anūkiā-*, backbone (named from its curves): *anūcyā-*, arm (of a chair). The last group is not related, either in sense or morphology, to *ānū-kām*, successim, compounded of *anu* (with *ā* and *ū*) and the preposition *-kam*=Lat. *cum*, the whole=along with. It is not improbable that such adverbial forms in *-kam* entered into the creation of the suffix of the *āpā-ka* type, see § 8.

²²*τὰ ἐνώπια* is entirely apart. The word designates first a lobby or anteroom of a house, or even a tent, used as an armoire (place for arms); and second an annex to a stable wherein, after stalling their horses, men tilted up their chariots. Nearest of kin to *-(s)ωπ-* (unless, in the sense of armarium, we compare *τὰ δπλα*, arms) is Lat. (*prae-*) *sēpe*, fold, shed room for cattle.

²³For this sept *e*-vocalism is further certified by Lith. *eketė*, water-hole in the ice: *ākas*, same sense; cf. *δπ-ή*, smoke-hole. Bezenberger's comparison (BB, 27, 174) with [*ɸ*] *δχετός*, conduit (properly explained in Boisacq, lex. s. v.) is most improbable. The doublet *aketė* (cf. phenomena like *ἐχυρός*: *δχυρός* *ἐχεσ-φιν*: *δχος*, *modes-tus*: *modus-*) reflects the vocalism of *ākas*.

Cf. also the compound root $s(w)-ek^w$, con-spicere, in Goth. $s[w]aihwan$,²⁴ to see. OIr. *ainech* owes its *a* to intrusion of IE. *āno-*, face (in Skr. *āná- ānana-*). Surely, neither *ἐνωπον* nor Celtic *enek^wo-* gives any countenance to the derivation of Skr. *ánika-* from *eni+ek^wo-*.

15. Nor does *ánika-* genuinely mean 'face,' but actually and specifically 'splendor, sheen'; and so every RV occurrence may be rendered, even 8, 20, 12, where "glory is in your splendors" (rather than "on your faces") does well enough. The same is true for Av. *ainika-*. Bartholomae's first instance, e. g., is *a. brāzaiti*, splendor fulget. Not but that 'appearance, face' may be, and even in Indo-Iranian probably was, derived from "splendor." For the semantics see Walde, s. v. Lat. *facies*, and that whether *facies* is actually cognate with *fax* or not.

16. For the true definition of *ánika-* we must start from the sense of 'acies' (exercitus), common to Sanskrit and Avestan. We further have in RV *sam-anīká-*, proelium; *samīká-*, proelium; and *abhī'ka-*, collision. In all these the posterius is *-ika-*, cognate with Lat. *icit*, strikes.²⁵ For the derived sense of splendor cf. Lat. *ictus*, used of the sun's rays and the lightning's flash; also Ennius's *radiis icta lux* (i. e. luna), irradiated moon. Vedic *prátika-* also characteristically means 'splendor' (of Agni and other light manifestations), and is to be explained like *ánika-*.

17. The Avesta, as it has nothing to match the *i* of the *nícā* type (§ 8), has nothing either to match *i* in *ánika-* and *prátika-*. In Av. *ain-ika-* the posterius was *-iko-* (: Lat. *icit*), but Av. *paiti-ča*, diverse, varie, is *paiti+ča*, as in *frača* (§ 8); adjectivized in *paitika-*, if that means 'contrarius' ("strittig," Bartholomae). More like *prátika-*, on the face of things, is Lat. *antiquos* × *posticus* (*quo/co* only by paradigm levelling, unless

²⁴But in *προ-σώματα* (Epic plural=prae-spicientia) *σ-* is from *sw-*; cf. Goth. *siuns*, face.

²⁵In two of the three RV passages in which Grassmann defines loc. *ánike* by 'vor,' *ánike apā'm* (4, 58, 11) is best taken as (in) impetu aquarum; *ánike vāyós* (8, 91, 13) as (in) flatu venti; in the riddlesome third instance (9, 97, 22), *ánike kśós* may mean ad splendorem cibi (=ad splendendum cibum), of the bright Soma drop (Indu), conceived as a food.

the *p* of *posticus* promoted delabialization of *qu*). But Latin *-quo-* is here from *que* (§ 8). The *i* of *antiquos* is either like the *i* of *nícá*, or *anti-* is a case form of an IE noun *anti-s*: Lat. nom. pl. *antes*, rows. [These were the end rows, as native definitions show.] The quantity difference between *antiquos* and the Sanskrit locative *antiké*, *prope*, may be proethnic, however, showing *i* before consonants and *ĩ* before vowels, with levellings. In this shift of quantity we have the explanation for the Sanskrit longs mentioned above (§ 8) as due to "dias-tote." Graphically the Vedas here used shorts, but conversely Homer has in hiatus like longs that must be read as shorts.

18. Like effects but different causes. In the paradigm of *nĩ-añc-* (or *nĩyañc-*, with *iy* from *ĩ* before a vowel?), down-bending, I have derived the feminine, *nĩ'-cĩ*, from *nĩca-*, adjectivized from *nĩ+k(w)e* (§ 8). But fem. *prati-cĩ* (once paroxytone, *praticĩm*) may be also derived, like *prátĩka-*, from *prati* + *ĩko-*, striking against, colliding. Beside *sam-ĩká-*, collision; battle, the feminine nom. ag. was *sam-ĩcĩ*, as in acc. pl. *sam-ĩcĩ's* (*vr̥tas*), collidentia (*agmina*). The masculine stem *sam*<*y*>-*añc-* owes its <*y*> to a proportional analogy such as *praticĩ'* : *samĩcĩ'* :: *praty-áñc* : *sam*<*y*>*áñc-*. Cf. *astam-ĩké*, domum-*prope* (*domi*), where *ĩka-* suggests Fr. *près*.

19. Nor is this the only possibility, for *nĩ'-cĩ* may contain a posterius *-cĩ*, moving (: Lat. *cio*, *κίω κινέω*; see § 20). In *prati-cĩna-* (oxytone and paroxytone) *-cĩna-* will certainly mean "moving." Also in Av. *fra-ša-*, which described created man as "mobilis" (not merely "tauglich," as Bartholomae has it), we have a posterius *-kyo-*: and the adverb *fra-ša*, with verbs of motion, will have meant quasi "prae-moventer." The confix *kyo* is also exhibited in *περι-σσός*, going beyond, exceeding; in *ἔπι-σσαι*, going after, following, younger; in *μέτα-σσαι*, going (not lying) in the middle.²⁸ On *περισσός* further see § 25.

²⁸Some plausibility does attach to Brugmann's derivation of *νεο-σσοί*, chicks, from "new-lying." But "new-goers," of fledgeling birds, is no less likely. If birdlings alone were meant, *νεο-σσοί* might mean "new-callers" (: Lat. *cio* and Goth. *hai-tan*). From the root of *κίω* we have Av. *čī-θra-*, origo; herku n f t (for which Bartholomae's rendering of "seed" is a mere personal and stylistic shading); proles, and the sense 'proles' suggests *νεοσσοί*. It is also not unlikely that *νεοσσοί* contains a

20. Av. *pairi-kā*, witch (from circum-iens, or quasi circum-lega). The root of Skr. *cinóti*, gathers (note *ī* in *cīti*, gathering, AV) is found in Slavic with the sense of 'to do magic' (cf. Berneke, *Wbch.* s. v. *čín^u*, p. 176). The root had a long diphthong and may be written *k^wēi* or *k(w)ēi*. It appears as a denominative in *ποι-ρέι*, does; makes (see Boisacq). With *cinóti*, gathers, as Whitney has observed in his *Roots*, etc., *cinóti*, notes; observes, is identical. Eng. *gathers* and Lat. *col-ligit* also develop the sense of deduces (infers, considers). From the primary meaning of gathers there were a good many other developments, as:

A. culls (for excellence or inferiority); chooses, punishes (in *τι-ννμαι*), esteems (*τίω*); cf. *τιμή* honor; in the bad sense, penalty (<gathering, assessment).

B. gathers, brings together by driving, drives (in Lat. *cieo*).

C(B²). gathers together; intrans. assembles, convenit; cf. Δ 281, ἐς πόλεμον ... κίνυτο φάλαγγες—in bellum conveniebant (congregabantur).

D(B²). drives; intrans. drives along, speeds, as in Lat. *citus*. Lat. *lego* is also a verb of motion; see the lexica; especially cf. Lat. *carpi^t iter*.

If not written *k(w)ēi*, but *k^wēi*, thanks to the "law of socius," delabialization was due, in all the labializing (centum) tongues, whenever the root was reduced to *ky* as, e. g., in the secondary rootform *ky-ē-* (: *k^wēi* :: ἔκ-φρη-ται : ἐκ-φέρεται :: Lat. *cr-ē-vi* : *cerno*). Cf. also the *u-* determinative in Skr. *cy-āv-ate*, rhyming with Lat. *movet*. By levelling *k^wi* and *ky* forms yielded the root stage of Lat. *ciō*, κί'ω, κινέω. The root *kēi* / *kzi* is clear also in Lat. *bu-cē[i]tum/citum*, cattle-run: *keitī* in Eng. *heath*, Germ. *heide*.

21. Another case of like effect but different cause is presented by Skr. *a-pī-ciā*, obscurus. It belongs with Lat. *o-pā-cus* (see JAOS, 34, 336²), but the primate of both will have had *o-*, dar. The root was *pō(i)* (see also § 28).

posterius *g^hyo* : *g^hēi* / *g^hai* in Germ. *gehen* (: Skr. *jihīte*, § 2); cf. de ovo exire (Pliny), to hatch. From the same root we actually do have *χμος*, compounding form of *g^hemo-*, in *νεο-χμός*, of a newcomer, cf. *advena*, incomer (: *βαλvet*, goes); and not of one "novus in terra." As for the sense of "inauditus," uncompounded Lat. *novus* has also developed it.

22. Latin combinations of the direction adverbs with *-versus*, turning; Indo-Iranian combinations with *-añc-*, bending, and with *-cī- -cīna-*, moving; Greek combinations with *-σσο-* (from *kyo*), moving—these are not all. In the Avesta we have one contrast pair exhibiting in the posterius a root noun cognate with Skr. *syand*, to flow; speed, viz. *us-(s)yaš*, supra (nom. adverb), and *ni-syaš*,²⁷ infra, both found duly combined with verbs of motion. In this pair *us-* is from *uḍs* (§ 8); cf. with *s* not *š* *an-u[t]sa-vant* in Bartholomae's lexicon. This *s* was taken over by *nisyāš*, dissimilated from **ni-šyaš* or shifted, to match the *apyaš* type, from **nišyaš*.

23. In Av. *ni-xšata-*, deorsus, I would see *ni* compounded with *k¹ta*, lying (cf. on *κατά*, Ch. I. § 2, fn. 1.; on *a* from *ə* § 1). In Iranian this combination yielded **nisata-* whence, by blending with *nīkāt* (: Skt. *nīcā*, see § 8), *ni-xšata-*. With **ni-sata-* cf. my long standing analyses of *ἔσχατος* as 'outlying,' and of *τὰ ἔγκατα* as 'inlying' (TAPA, 41, 50).

24. Lat. *pro-cul* shows still another posterius, viz. *k^wol*: Skr. *cāratī*, moves along. In its makeup *procul* is strongly suggestive of *ἀγχι-μολον*, prope-iens > prope.

25. Greek *πέριξ* is also explicable as a nominative adverb, with a suffix *k*, cognate with *kyo* in *περι-σός* (: *περι-σσεύω*, where- in *σσεύω* belongs with Skr. *cyávate* (see § 20). To the root noun *kā^w(i)* weak cases in *k-* were due and a secondary nominative in *-ks*. So from *k²ē(i)*, quasi cubitus, in Skr. *ni-çā*, night (quasi decubitus; cf. *ni-drā'*, somnus), we get the weak stem *k¹* in loc. *ni-ç-i*, noctu.

b. Further alleged cases of *ū* from *u+ə*, *ī* from *i+ə*.

26. Skr. *ū < u+ə* and *ī < i+ə* have also been recognized in *anūpá-* and *pratīpá-*, 'gainst current, with posterius *əpo-*: Skr. *ā'p-as*, aquae. Skr. *īpa-*, current (: *ā'pas*), does indeed have to be admitted for *dvīpá-*, island, i. e., having two currents (*ī < i+ī*); cf. Av. *dv[y]-aēpa-* (*aē* from *əi*). The root was *ē(i)p*, premere, in *ίπος*, press: Germ. *eifer*.²⁸ In MS, the Veda

²⁷Final *qš*, instead of *qs*, is due to infection of **us(s)yas* by *apyaš*, with *qš* from *anks*.

²⁸This excellent etymology of Wood's is rejected by Boisacq in favor of a capricious combination of *ίπος* with Lat. *vix*, properly rejected in its

to which we owe the precious archaism of *stighnóti* (: στείχει), we have *anv-īpám*, along stream: Av. *ny-āpəm*, down stream. For *ī* in Av. *paiti-pa*,²⁹ if it really meant 'contrarius,' I suppose that at some early time, the analogy of the *antika-:antīquos* type (see § 17) made itself felt. The sense of 'press' for *-īpa-* remains evident in loc. *samīpe*, prope, from **sam-īpa-*, copress, i. e. entourage, comitatus; those that press (crowd) about. Cf. *astam-īké* in § 18.

27. It is not easy to define *anūpá-* in its RV. usage, though we can resolve all the adjectival senses given in PW.² into 'holding, containing' (water); as a substantive=(a) swamp; (b) water-basin; (c) bank. I resolve into *anu+upa:√vap*, to dam up.³⁰ Thus *-upá-* was a dam, *anūpá-* a dam running along, and it belongs with Skr. *vāpī*, longish tank, Slavic *vapa*, swamp (in Serbian, a certain river); cf. Lith. *ūpė*, river.

28. RV. *abhīpatás* (ablv.), in a phrase descriptive of a rain storm, has been defined by "at the right time, temperi"; and then derived from **abhīpa-*, inferred, with no great semantic probability (? quasi oppressio) from *sam-īpa-* (quasi compressio, entourage, § 26). The older definition, "from the cloud," has the advantage of being more explicit. I derive from *abhī* (ī in the sequence *vuvuv*) + a participle *pnt-*, compounding form of

turn by Walde. But Hom. *ἴψερα* and *ἴψαο* leave no ground for supposing *ψ-*. As for Lat. *vis*, it is an original nominative of a rootnoun of the type of *πύξ*, striking (whence, with the fist, § 5 fn.) and *vis* meant 'struggling, with a struggle,' and is to be connected with Germ. *weigand*, bellator; *weigern*, recusare.

²⁹The conditions do not coincide with the penultima shortening, as to which see Bartholomae, Gr. Ir. Phil. § 293, 1; 294. In its only occurrence the adjective *paitipa-* (with *dvaēpa-*) describes an island in-the-wash of the sea. We might accordingly divide as *paiti+pa-*, and define *-pa-* in the light of *ἀμ-π ω-ρος*, ebb (of the sea). In Sanskrit also the division *prati-pá-* is possible.

³⁰In the Vedic ritual *nī+vap* is used specifically of piling up (or strewing down) the altar seat of the officiating priest (cf. PW.,² s. v. *dhiśnya-*). There should be no doubt but that Umbr. *vap-cē-*, altar-seat, is from the same root. The phonetic law that Umbr. *v-* represents *ɾ* is entirely erroneous. Impv. *vutu*, lavato, comes by syncope or haplology from *wo[de]tōd*, or *wo[te]tod* (cf. Umbr. *utur*, water), cognate with OEng. *waetan*. to wet.

pa-nt-, covering (: *pōi*: Lat. *dant*: *dō*), the whole=over-covering, cloud. Nor is *abhī-pāt-* our only evidence for *pent/pnt*; cf. Germ. *abend*, for a primate *ē-pnt-o*.³¹ (prius IE *ē/ō*; cf. on *apīcia* : *opācus*, § 21): Skr. *ā-pi-tvam*, evening. I take it that *pra-pitvām* originally meant evening (*πρό-νύξ*), but connoted twilight. Thanks to *pra-* it was subsequently applied to the morning twilight.

29. Summary restatement. The adverbs in adherescent *k(w)e* (Skr. *ca*, see § 12) are not the only source of the Indo-Iranian suffix *ka* in direction adjectives. We also have a *k (c)* suffix, variously extended, which comes from the root *k(w)ēi/ky-*, movere, ire (§ 20). Cf. Skr. *ápā-ka-*, procul adveniens (§ 8, fn.), Av. *pairi-kā*, "circumiens" (§ 20): *πέριξ* (nom. advb., see fn. 10), circum-iens (§ 25). The *k* stem of *πέριξ* also occurs as *-c-* in the Sanskrit "weakest stems" like *pratī-c-* (on *ī* see § 8). In Sanskrit the nouns *ānīka-* (: Av. *ainīka-*), acies, splendor (only secondarily=facies); *sam-anīkā-*, proelium; *samīkā-*, proelium; *abhī'ka*, collision; *prātīka-*, splendor—all these have a posterior *-īka-* = *i c t u s* (§ 16). The Skr. fem. *sam-icī'* belongs to a masculine adjective **sam-īka-*, collidens; but *pratī-cī'* may be either from masc. *pratī-c-*, or represent an original epicene *pratī-cī'*, adversus movens. On *pratī-pā-*: Av. *paiti-pa-* etc. see § 26 seq.

³¹Cited from Kluge; also note the primates *ē-p[ə]-tén / tón-*.

INDEX.

The numerals refer to sections; superior 2 to Ch. ii.

Morphology	Lat. <i>praesentia</i> , sum of IE neuter plurals in <i>i</i> and <i>a</i> 1 ² .
Semantics	Eng. <i>finger</i> (: <i>fst</i> , <i>five</i>) fn. 10 ² ; <i>horse</i> fn. 3.
Suppletion	Lat. <i>fero</i> : <i>tuli</i> 19.

WORD-LISTS.

- Sanskrit.** *a-dya* 19a, *anika* 14², 15² *an(u)-vañc* 11², *anūpa* 26-27², *anv-īpam* 26², *apāṇ* 8², *apāc* 7², *apīcia* 21², *abhika* (cf. *samika*), *abhī-pat* 28², *aritra* 6, *astam-ike* 18². — — *ānūkam* 21², *āpitva* 28², *āvis* 11², — — *ibha* 50, *iś-krti iś-ṭani iś-ṭarga* 18 — — *ucca-nīca* 8², *udyāna* 33, *upala* 39 — — *krū-d-ayati* 10, *kśanoti* 29, *kś-atra* 34, *kśarati* 40, *kśā-s* 47 sq., *kśināti* 43, *kś-iti* 33, *kś-etra* 33, *kśoni* 47 sq. — — *khād / khid khedā* fn. 29 — — *gadā* 39, *go-ptar* 4 — — *caritra* 8; *cinoti* 20² — — *jihma* 2² — — *dhāla dhola dhāukate* 21 — — *takṣati* 31 — — *dakṣa daṣā* 4², *dāṣa* 3², *dāṣnoti dikṣate* 4², *dvīpa* 26², — — *dhatā* : *θερός* 13, *dhīvara* 19 — — *ni-añcanī* fn. 21², *ni-drā niṣā* 25², *nīcā ny-añc* 10² — — *pitar* 4 sq., *pratīka* 18², *pratī-cī(na)* 19², *pratīpa* 26², *praty-añc* 9², *par-pitva* (cf. *āpitva*) — — *bā-dhita* 42 — — *bharitra* 7, *bhasad* 22 — — *māhi* 1², *mīdhvams* 48 — — *rakṣas* 44 — — *vakṣas* fn. 21², *vap+ni* fn. 30², *vāpī* 27², *viś-vañc* 11² — — *cyena cvas* 19a — — *sada-di sa-dyas* 19a, *sam-ika* 16², *sam-īpe* 26², *sam(y)-añc* 18², *sādh / sidh siddha* 42, *stighnoti* 26² — — *hodha* fn. 17, *hyas* 19a.
- Avēstan.** *ainika* 15², *aši* 32, fn. 15² — — *usca* 8², *usyāš* 22² — — *aštā* 21 — — *paitīca* 8², 17², *paitīpa* fn. 29², *pairikā*, fn. 12², 20², *puxda* fn. 10² — — *frača* 8², *fraša* 19² — — *nī-xšata* 23², *nī-syāš* 22², *nj-āpəm* 26² — — *viš-vank* 11².
- Greek.** *áidios* 19a, *ἀμπτως* fn. 29², *Ἀμφι-κ-τύονες* 28, *άνω* fn. 33, *άν-ώιστος* 11², *ἀρκτος* 14. 16, *ἀροτρον* 6 — — *γδοῦπος* 39 — — *δάκνει δάκτυλος δείκνυται* 3², *δέμας* 11, *διχθά-διος* 19a, *δοκίδες* 5², *δοχμή δοχμός*. 3², 5² — — *εγκατα* 23², *είνοσί-φυλλος* fn. 35, *Ἐνοσί-χθων* 49, *ένώπια* fn. 22², *ένωπον* 14², *έξ-ωτικός* 34, *έπι-σσαι* 19², *έρέχθει* 44, *Ἐρεχθείς* 49 sq., *έρίγδουπος* 39, *έσχατος* 23² — — *θυγάτηρ* fn.

8 — — *ιγδη* 39, *ικτινος ικτίς* 19, *ἵπος* 50, 26², *ἵππος* 3, *ἰφθμος* 53, *ἰχθύς* 19, 45 — — *κατά κάσις* fn. 1, *κίνυμαι* 20², *κρέας* 9, *κτ-* (words beginning in) see table of contents § 24 sq. — — *λίγδος* 39 — — *μέτα-σσαι* 19², *μινυθά-διος* 19a, — — *νεοσσοί νεο-χμός* fn. 26² — — *ξύν* 34 — — *ᾠδαξ ὁδούς* fn. 5², *ᾠκκον* fn. 15², *ᾠκταλλος* 32, *ᾠππατα* fn. 15², *ᾠψεται* 14² — — *περι-κ-τίονες* 27, *πέρι-ξ* 27, 25², *περι-σσός* 27, 19² 25², *π(τ)όλεμος* 17, *προπαρ* fn. 10², *πύξ* fn. 10² fn. 28² — — *σερός* 19a, *σκέπας* 11, *σπάδιον*, *σπι-δής* fn. 5a, *στείχω* 26², *στερίζω* 19 — — *ταππάματα* 3, *τατώμενος* 19, *τέκτων* 31, *τιμή τίω* 20² — — *ἕπερον* fn. 25, — — *φ-θάνω* 42, *φ-θείρει* 41, *φ-θίνει φ-θόνος* 42, *φ-ουτάω* 22 — — *χθές χθι-ζός* 19a, *χθών* 45 sq.

Latin. *Agri-ppa* fn. 5, *antiquos* 17², 26², — — *branca* fn. 3², *bu-cetum* 20², — — *caedo* fn. 30, *catulus* fn. 1, *cerebrum* 11, *citus* 20², *cras* 19a — — *deceat* 4², *dextra digitus* 3² — — *fessus* 42, *fe-stino fe-stuca* 22 — — *ictus* (strike > flash, gleam) 16², *i-mago* 20 — — *longinquos* fn. 10² — — *mater* fn. 7, *mu(s)-stela* 19 — — *nudius* 19a — — *obliquos* 2², *o-pa-cus* 21² — — *pater* 4 sq., *pesestas pestis* 17, *posticus* (see *anti-quos*), *procul* 24², *prope prop[r]ior pro-pinquos* fn. 10², *proximus* 27, *pugnis* fn. 10² — — *que* < IE *ku-e* fn. 13², *quom* (with) 2, — — *reciprocus* 8², *relicuos* 2² — — *satus* fn. 5a, *sesquipedalis* 8², *situs* (see *satus*), *suffio* 19, *super* (√*swep*) fn. 25 — — *tollit* 19 — — *ursus* 14, *usque* fn. 11² — — *veretrum* 6, *vix* fn. 28².

Umbrian. *vapeř vutu* fn. 30².

Gothic. *ga-wigana* fn. 35, *saihwān* 14², *stilan* 19, *tēkan* 3².

German. *abend* 28², *eifer* 50, 26².

English. *fang* 3², *finger* fn. 10², *hard* 10, *heath* 20², *splay* fn. 9², *thwaite* 33.

Celtic. OIr. *aínech* 14², *en-ek^{wo}* (in-spiciens) 14², OIr. *tinaid* 15.

Slavic. *lapa* fn. 3², *vapa* 27².

