## CLEAN

*h $h_{1}$ erh $h_{X}$ 'wash'. [Puhvel 1:116]. Hit ārr(a)-~ arriya- 'wash', TochA yär- 'wash'. The agreement of Anatolian and Tocharian would seem good evidence for PIE status for this word.
*kleu- 'clean'. [IEW 607 (*kkleu-); Wat 31 (*kleu-)]. OLat cloāca 'gutter, sewer' (although the Latin grammarians cited a verbal form cluō 'clean' as the basis of this form, the verbal form is not elsewhere attested), OE hlūt(t)or 'pure', OHG hlūt(t)ar 'pure', Goth (acc. pl.) hlūtrans 'pure, clean', Lith šlúoju 'sweep', Grk $\kappa \lambda v ́ \zeta \omega$ 'wash'. Although sometimes cited here, Wels clir 'clean, bright' is almost certainly an English loan. The distribution of cognates suggests that this word was at least known in the west and center of the IE world.
*leuh 3 - 'wash, bathe'. [IEW 692 (*lou-); Wat 37 (*leu(ə)-); GI 147 (*loHo-); Buck 9.36; BK 581 (*law-aћ-/ *law-aћ-)]. Lat lavō 'wash, bathe', Myc re-wo-te-re-jo 'for bathing', Grk $\lambda 0$ v́ $\omega$ 'wash', Arm loganam 'bathe, wash myself'. Although these forms correspond semantically, there are some phonological problems. Both the Mycenaean and Armenian forms point to $h_{3}$; the nasal present exhibited in the Armenian word is purely an Armenian development.
${ }^{*} m(e) u h_{X}$ 'wash (in urine?)'. [IEW741 ( *meu-)]. MIr mūn 'urine', OPrus aumūsnan 'wash', Lith máudyti 'bathe', Latv maudât 'bathe', maût 'submerge', OCS myjg 'wash', Rus mytĭ 'wash', Grk (Cypriot) $\mu v \lambda \alpha ́ \sigma \alpha \sigma \theta \alpha t$ 'wash oneself', Av mū $\begin{aligned} & \\ & \text { ra- }\end{aligned}$ 'dirt', OInd mútra- 'urine'. Old Indic, Baltic and Slavic all point to ${ }^{*} m u h_{X^{-}}$. The Greek form is rather unclear ( $u / \bar{u}$ ?; $\lambda$ for $\delta$, not $<\delta \lambda$ ?). The semantics is also difficult and may suggest an underlying meaning 'wash' developing into some stocks as 'dirt' rather than 'wet'. Alternatively, the semantic development may possibly be related to the ritual practice of washing in cow's urine which is attested in India. It might be noted that human urine was also employed by the Romans as a mouthwash (the ammonia brightened teeth) and urine was a regular component of mouthwashes and toothpastes up to the eighteenth century.
*neigW - 'wash'. [IEW761 ( ${ }^{*}$ neig $^{\mu_{-}}$); Wat 44 ( ${ }^{*}$ neig $^{W}$ ) ; Buck 9.36]. OIr nigid 'washes', ON nykr 'water spirit', OE nicor 'water spirit', NE nix ~ nixie 'water sprite', OHG nihhus 'water spirit', Grk vi̋ $\omega$ 'wash', Av naēnižaiti 'washes', OInd nénekti 'washes'. Cf. also the derivative *nigw tos 'washed, clean': OIr necht 'clean, pure', Grk ớvintos 'un-washed', OInd niktá'washed'. The Old Irish form points to a root in the shape
*neig- rather than *neig ${ }^{W^{-}}$, and thus may not belong with this cognate set. Aside from this uncertainty, the root is reasonably well attested for PIE.
${ }^{*}{ }^{p}$ euh $h^{-}$'clean (by straining or sieving)'. [IEW 827 ( *peu-); Wat 51 (*peuz-)]. OHG fowen 'sieve, clean grain', OInd paváyati 'cleanses, purifies'. Cf. also the various derivatives *puh ${ }_{X}$-to-s 'cleaned': Lat putus (with short -u-perhaps influenced by putāre 'to prune, clean') 'clean', Av pūtika'serving as purification', OInd pūtá- 'clean'; *puh ${ }_{x}$-ro-s'clean': MIr ūr 'new, fresh', Wels ir ~ iraidd 'fresh, green', Lat pūrus 'pure, spotless'. The distribution of the root ${ }^{*} p e u h_{X^{-}}$and its derivatives suggests solid reconstruction to PIE. Attempts to connect this root with *puh ${ }_{X}$ r-fire' ( $\pm$ 'the purifier') are highly speculative.

See also Pure. [M.N.; R.S.P.B.; D.Q.A.]

## EARTH

*dhéĝhōm 'earth'. [IEW 414-415 (*ĝhðem-); Wat 14 (*dhghem-); GI 720-721 (*d ${ }^{\text {h }}(e)$ gेh $^{h}$ om-); Buck 1.21; BK 608 (*dag-/*dəg-)]. OIr dū (gen. don) 'place, spot', Lat humus 'earth', OPrus semme 'earth', Lith žẽmé 'earth', Latv zeme 'earth', OCS zemlja 'earth', Alb dhe (< *dhghem-) 'earth', Grk $\chi \theta$ ف́v 'earth', Phryg $\zeta \varepsilon \mu \varepsilon \lambda \omega$ 'man' or 'earthly', Hit tēkan, taknas ‘earth', Av zằ, zzm- 'earth', OInd kṣắ, kṣam- (gen. jmáh) 'earth', TochA tkam 'earth', TochB kem. The PIE word for 'earth'. The extension of this root to denote human beings, seen in the Phrygian example above, has many other parallels, e.g., OIr duine 'person', Wels dyn 'person', Lat homō 'man', Lith žmuõ 'person'. The derivation has been variously explained as 'human' < *being who lives on the earth' or the belief that humans were created from the earth although here one might have expected a derivation from one of the words for 'dirt', 'clay' or, finally, the concept of 'man' as a microcosm of the earth, cf. creation myths involving the carving up of a giant to form the various parts of the landscape.
*h $h_{1}$ er- 'earth'. [IEW 332 (*er-); Wat 17 (*er-); Buck 1.21; BK 419 (*ar-/*ər-)]. ON jorð 'earth', OE eorðe 'ground' (> NE earth), OHG erda 'earth', ero (< *erā) 'earth', Goth aírba (Gmc < *ertā) 'earth', Grk $\check{\varepsilon} \rho \bar{\alpha}$ ‘earth'. Perhaps also Wels erw 'field' although it may derive from the root for 'plow' (< *h2erh ${ }_{3}-u$ un-i). Uncertain is Lith érdvé 'place', cf. árdvas, ar̃dvas, er̃dvas, er̃tas 'wide'. Possibly a late dialectal term of the west and center of the IE world.

See also Cosmology; Earth Goddess; Ground; Man.
[R.S.P.B.]

## FOAM

${ }^{*}$ spoh $_{x}{ }^{i-n o / e h}{ }_{\text {a }}$-'foam'. [IEW 1001 ( ${ }^{*}($ s $)$ poimno-); Wat 64 (*(s)poi-mo-)]. Lat spūma 'foam', pūmex 'pumice-stone', OE fām 'foam' (> NE foam), OHG feim 'foam', OPrus spoayno (< *spainā) 'foam (of beer)', Lith spáine 'foam (of beer)', OCS pěna 'foam', SC (s)pjëna 'foam', Sogd pym'kh 'foam', Oss fink ~ finkæ (< *fina-kā-) 'foam', OInd phéna- (sphéna-) 'foam'. The reconstruction is uncertain in many details. The alteration between *-m- and *-n- in the cognate forms is due to assimilation rather than an original *-mn-. If Av spāma'spittle, slime' belongs here, then the underlying form would be *spoh ${ }_{x}$ mos. The Baltic and Slavic forms with acute accent require a laryngeal. The word may originally derive from a root *speh ${ }_{X}{ }^{1}$ ' 'to spit'. The Indo-Iranian *ph was generalized from ${ }^{*} p h_{X} i$ - in other forms. Despite problems of detail, this does appear to be the PIE word for 'foam'.

See also Smoke; Wet. [R.S.P.B.]

## GROUND

*bhudhnó- 'bottom' > 'ground, depth, foot, root'. [IEW 174 (*bhudh-m(e)n); Wat 10 (*bhudh-); Buck 12.34]. MIr bonn 'sole of foot', Lat fundus 'bottom, piece of land', ON botn 'bottom', OE botm 'bottom' (> NE bottom), OHG bodam 'bottom', Grk $\pi v \theta \mu \eta v^{\prime}$ bottom, depth, root', $\pi v \nu \delta \alpha \xi$ 'bottom, depth', Av bŭna- ( < *bundna-?) 'bottom, ground, depth', OInd budhná- 'bottom, foot, root'. Arm bun is a loanword from Iranian, as is Mari pundaš, which points to *bund(n)a-. Later Indian languages also have -nd(h)-, e.g., Prakrit bundha-. The relation between the two Greek forms must be first established as they clearly have the same base and exactly the same meaning. Grk $-v \delta$ - cannot be from ${ }^{*}$-ndh-. (The argument that the place-name $\Pi v \delta v \alpha$ proves Macedonian origin for $\delta$ < *dh is incorrect as the name I $\varepsilon \rho \alpha \dot{\alpha} \pi v \tau / \delta v \alpha=-\pi \varepsilon \tau \rho \bar{\alpha}$ on Crete indicates that the word was not Macedonian but a pre-Greek word probably meaning 'rock'). The old explanation that -no- <-mno- seems both unnecessary and improbable as all languages would have reduced -mno- independently (as Greek still retains the original form). The development *-dhn- > *ndh(n)- is quite understandable. The Germanic alternation of dentals is due to Kluge's Law ( $C n>p p, t t, k k$ ); the Germanic $m$ is secondary. The original meaning in PIE seems to be 'bottom', i.e., 'the (flat) base of a hollow object or space'; the meaning 'ground', which is not found in Greek, is secondary.
${ }^{*}$ telh $h_{X}$-om ~ ${ }^{*} t{ }_{l} h_{X}$-om? 'floor (of planks)?' [IEW 1061 (*tel-); Wat 69 ( ${ }^{*}$ tel-); Buck 1.21]. OIr talam (gen. talman) (< *telh ${ }_{X}$-mon-?) 'earth, ground', Lat tellūs (gen.) tellūris 'earth', meditullium (< *-toll-i-) 'inland, middle', ON bel 'ground', pil(i) 'plank, wall of planks', OE pel 'floor', pille 'plank of a floor', OHG dil(o) 'plank', OPrus talus 'floor of room', Lith tiles (< *tll $h_{X^{-}}$) (pl.) 'planks at the bottom of a ship', Latv tilandi 'planks at the bottom of a ship', ORus tǐlo ( < *tlh $h_{X}-0-$ ) 'bottom', Rus tlo 'bottom', OInd tala- 'surface, bottom'. The Germanic, Baltic and Slavic forms appear to belong together; PIE status depends largely on the validity of the Old Indic cognate. The relation between 'planks' and 'floor' remains uncertain as well as other possible cognates, e.g., OCS steljo 'spread out (bed, roof)'; Grk $\tau \eta \lambda i ́ \alpha ~ ' p l a y i n g ~ t a b l e ' ~$ should be rejected since a lengthened grade is most improbable and the underlying meaning may derive from 'sieve'. Connection with the PIE root *(s)telh $X_{X}$ ' 'flat' is likewise uncertain.
*dhĝh(e)men ~ *dhĝhmeh ${ }_{\mathrm{a}}(-i)$ ? 'on(to) the ground'. [IEW

*ghom-) 'on the ground', OPrus semmai 'down', Lith žemaĩ 'low, below, underneath', Grk $\chi \alpha \mu \alpha i ́\left(<~ * d h g h m m e h_{a}\right.$ ? ) 'on the ground', OInd jmán 'on the ground', kșamă 'on the ground'. Adverbs derived from *dhĝhem- 'earth' are much debated. The form in -en is supposed to be *hen 'in'; the word for 'man', *dhĝhemōn (Lat homō < hemō, etc.), is supposed to be derived from this adverb. The Latin form is a normal locative from humus, the Baltic is a normal adverb in *-aí < *-oi. Grk $\chi \alpha \mu \alpha i ́$ is now suggested to contain a locative suffix *-eh ${ }_{2}(-i)$ from a Lindeman variant *dhghm-. OInd kṣamā might be a similar formation.

The wide semantic field of *bhudhnó- which ranges from 'ground' to 'wooden stand', etc., was pressed by W. Porzig to suggest that the various meanings could be best explained by presuming an original IE environment that involved marshy land and settlement raised on timber supports, in short, the so-called Swiss "lake-dwellings", actually lake-side dwellings, where houses were raised above the wet ground on wooden piles. Even Porzig saw that this was hardly evidence to erect a new homeland solution which archaeologically would be regarded as fantastic and linguistically without compelling evidence.

See also Earth; House. [R.S.P.B.]

## Further Readings

Hajnal, I. (1992) Griechisch $\chi \alpha \mu \alpha i ́$ - ein Problem der Rekonstruktion? Rekonstruktion und relative Chronologie, Akten d. VIII Fachtagung der Idg. Gesellschaft, ed. R. S. P. Beekes, Innsbruck, 207-220.
Porzig, W. (1933) Boden. Wörter und Sachen 15, 112-133.

## HILL

*bherĝh-~ *bhrĝh- 'high; hill, mountain'. [IEW 140-141 (*bhereğh-); Wat 8 (*bhergh-); GI 576-577 (*bh $\left.(e) r \hat{g}^{h}-\right)$; Buck 1.22; BK 19 (*bur-g ${ }^{\text {y }} /$ /*bor-g $^{\text {y }}$-)]. MIr brī (gen. brega) (< *bhrĝh-) 'hill', Wels bre 'hill', Gaul -briga (*bhrĝh-ā) 'hill', ON bjarg ~ berg 'mountain', OE beorg 'mountain', OHG berg 'mountain', Goth bairgahei (< *berga-) 'mountainous region', OCS brĕgŭ 'riverbank', Rus béreg 'riverbank' (Slavic with problematic -g), Arm erkna-berj 'sky-high', Av bərəz- (nom. barš < *bh(e)rĝh-) 'high; hill, mountain', Oss bærzond 'high, mountain'. The PIE word for 'high', 'hill' or 'mountain'.
${ }^{*}$ kolh $_{X}$-ōn ~ *klh $h_{X}$-n-ós ‘hill'. [IEW 544 (*kel-); Wat 28 (*kel-); GI 577 ( ${ }^{*} \mathrm{k}^{h}$ el-); Buck 1.22]. Lat collis (with early loss of laryngeal) 'hill', OE hyll (< *huln-i- < *klh $h_{X} n i-$ ) 'hill', MDutch hil(le), hulle 'hill' (ON holmr, holmi' 'island', OE holm 'wave, sea, island', OS holm 'hill'), Lith kálnas 'mountain', kalvà 'hill', Latv kal̂ns 'mountain', kaĨva 'hill, river island', Grk кодळ́v $\eta$, код $\omega v o$ ¢́ 'hill'. Uncertain is ON hallr, OE heall ( $>$ NE hall), Goth hallus (< *kolh ${ }_{x} n-u$-) 'rock'. Lat columen 'top' is from *kelamen < *kelh ${ }_{X}-m_{n}$ (with syncope culmen). Very doubtful is Hit kalmara- 'mountain'. From *kelh $X^{-}$ 'project, tower up'. With Baltic, Germanic and Greek from one paradigm, this is certainly the PIE word for 'hill'.
${ }^{*} g^{W}{ }^{W}$ orh $_{X^{-}} \sim{ }^{*} g^{W} r h_{X^{-}}$'mountain; mountain forest'. [IEW 477-478 ( ${ }^{*} g^{\underline{U}}$ er-); Wat 25 ( ${ }^{*} g^{W}$ erz-); GI 574 ( ${ }^{*} H k^{0} r$ ri- $)$; Buck 1.22; BK 363 ( ${ }^{*} q^{\text {'W }}$ ur-/* $q^{\text {'W }}$ Or- $)$ ]. OPrus garian ( $<{ }^{*} g^{W}$ Orh $_{X}-$ ) 'tree', Lith girià (fem. gìre) (< *g ${ }^{W} r h_{X^{-}}$) 'forest', Latv dziŗa ~ dzire 'forest', OCS gora 'mountain', Rus gorá 'mountain', Alb gur (< ${ }^{*} g^{W}{ }_{r} h_{X^{-}}$) 'rock, stone', Av gairi- 'mountain', OInd girí'mountain' (Indo-Iran ${ }^{*} g^{W} r h_{X}-i-$ ?). PIE had a root noun, probably ${ }^{*} g^{W}{ }^{W}$ or $_{X}-S$ (gen. ${ }^{*} g^{W}{ }_{r} h_{X}$-ós). Perhaps the Indo-Iran $i$-stem originated in the nom. *gäris (< *g ${ }^{W}$ orh $_{X} s$ ). Grk $\beta o \rho \varepsilon ́ \alpha \varsigma$ 'northwind' is uncertain here as well as Grk (Hesychius) $\delta \varepsilon i \rho o s ~ ' h i l l '$ which is secondarily derived from a compound. The semantic shift to 'forest' in Baltic is not uncommon as forests tend to be associated with mountainous regions and parallel developments have been observed in other languages and language families.
?*men- 'mountain'. [IEW 726 ( *mn-t-); Wat 41 ( *men-); GI 574 ( $\left.{ }^{*} m(e) n-t^{h_{-}}\right)$; Buck 1.22; BK 533 (*mun-/*mon-)]. Wels mynydd (< *monio-) 'mountain', Lat mōns (gen. montis) (< *mon-ti-) 'mountain', Av mati (< *mṇ-ti) '(mountain) height'. These are all probably independent derivatives from a word for 'neck' which itself derives from *men- 'project, stick out'.

The existence of multiple words for mountains has been employed by GI to demonstrate that the earliest IndoEuropeans lived in a mountainous region (cf. also words for 'cloud', 'thunderstorm', etc.), specifically the highlands of the south Caucasus and Armenia. Such conclusions are ingenuous in the extreme as possession of a virtually universal conceptual category can hardly have any bearing on the specific location of a population and there is nowhere in Eurasia where one could set the Proto-Indo-Europeans where they could be expected to have never encountered a mountain or hill.

See also High; High-One; Peak. [R.S.P.B.]

## RIVER

*h2eb(h)- 'river'. [IEW 1 (*ab-); GI 578 (*Hap ${ }^{h}-$ ); Buck 1.36]. OIr ab (gen.) abae (< *abā) 'river', Wels afon 'river', OBrit $A \beta o s$ name of Humber in Ptolemy's Geography, Lat amnis 'river', Hit hapa- 'river', Palaic hāpnas 'river', Luv hāpa/i-' 'river'. That the Anatolian words belong here cannot be regarded as certain. Germanic river names in -apa (e.g., OHG -affa) are too uncertain as evidence for PIE and may rather be non-IE; similarly Latv Abava (river name). Nor does this set include OInd ápp- 'water' which is formally and semantically different. The word may be little more than an Italic-Celtic isogloss with some possibility of greater antiquity.
*dehanu- 'river'. [IEW 175 (*dānu-); BK 83 (*dan-/ *dən-)]. Wels Donwy (< *Dāne/ouíios) (river name), Celt (in Lat) Dānuvius 'Danube', Av dānu- 'river', Oss don 'river' (whence the name of the river Don and element in Dnieper, Dniester, Donets), OInd dấnu 'drops' or 'gift'. Another possibility is that we have *dhōnu- (with difficult lengthened grade) 'river' represented by the Celtic and Iranian words and that this is a derivative of *dhen-' 'flow' otherwise seen in OPers danuvatiy 'flows', OInd dhánvati 'moves fast, rushes', TochAB tsän- 'flow' with other derivatives in Lat fōns 'spring' and TochB tseñe 'stream'. The latter proposal's distribution of forms more strongly suggests PIE status.
*dreuentih2 (river name) [IEW 205 (*druuent-)]. Gaul Druentia (river name), WRus Drywiaty (lake name), OInd Dravantī (river name). From *dreu- 'run' suggesting the 'running', apparently an epithet applied to river names.
*sreu-men- ~ *srou-mos 'flowing, streaming (in river
 1.36]. OIr sruaim 'river', ON straumr 'stream', OE strēam 'stream' ( $>$ NE stream), OHG stroum 'stream' (< Gmc *strauma-), Lith sr(i)aumuõ 'rapid flowing', Latv stràume 'rapid flowing', Rus strúmeň̆' brook', Thracian $\Sigma \tau \rho \bar{\jmath} \mu \omega v$ (river name), Grk $\dot{\rho} \varepsilon \bar{v} \mu \alpha{ }^{\prime}$ flow, river'. These words are derived from *sreu- 'flow' and indicate '(the act of) flowing, streaming' which has only secondarily been taken up in several languages to indicate 'stream, river'.
?*adu- 'river'. [IEW 4 (*ad(u)-)]. Venetic Adua (river
name), Germ Attel (river name), Latv Adula (river name), Thracian Atlas (river name), Av a $\delta u$ 'canal', OPers Adukanaiša(? name of a month). This entire set is constructed from river names whose mutual connection is much too uncertain to demand a common IE root; it should be rejected.
?*ak ${ }^{W}$ elieh ${ }_{\text {a 'river'. [Del 178]. Lat Aquilö (river name), Lith }}$ Akẽlè (river name), Thracian 'A $\chi \varepsilon \lambda o v$ (river name). To be rejected for the reasons set out above.
?*alontoseh ${ }_{a}$ 'river'. [Del 178]. Italian Alento (river name), Germ Elz (river name), Lith Alantà (river name), Dacian 'A $\lambda$ ov́ $\tau \alpha \varsigma$ (river name), Iran Alanta (river name). To be rejected for the reasons set out above.
?*nedih $h_{\mathrm{a}}$ 'river?' [IEW 759 (*ned-); BK 556 (*nat'-/ *not'-)]. OInd nadí- 'river'. Other river names such as Grk $N \varepsilon ́ \delta \alpha$ in Arcadia, Né $\delta \omega v$ in Messenia are probably non-IE rather than Illyrian while connections with names such as Thracian Néotos (river name) and NHG Nette is no more than a guess. The posited underlying root *ned- 'roar', thus the 'roaring (one)', is limited to OInd nádati 'it roars', hence this word may have been an epithet for naming a river but such a conclusion is hardly required.
?*h3eust-(i)o- 'estuary, river mouth'. [IEW 785 (*ōus-); Wat 46 (*ōs-); Gl 714 (*ois-/*oHs-/ous-th-)]. Lat ōstium 'mouth of river', Lith úostas ~ uostà 'river mouth, harbor', Latv uosts ~ uosta 'harbor', Rus ústĭje ~ ustī 'river mouth'. The analysis here is quite problematic. The Baltic and Slavic words cannot be derived from the word for 'mouth' found in OInd ás- 'mouth' but they can be cognate with OInd ósṭha'lip' through a nominative plural (e.g., OCS usta 'mouth' < 'lips'), which gives a root *ous-. Baltic uo- is unclear as is the acute accent in Lithuanian. The Latin word may continue *ous- or be derived from $\bar{o} s$ 'mouth' although in the latter case it would not be cognate with the words in Baltic and Slavic. A late dialectal term in some European stocks.

See also Flow; River Goddess; Run. [R.S.P.B.]

## SMOKE

*dhuh ${ }_{2}$ mós 'smoke'. [IEW 261 (*dhū-mo-); Wat 14 ( ${ }^{*}$ dheu-); GI 388 ( ${ }^{*} d^{h}$ eu-H/s-); Buck 1.83]. Lat fümus 'smoke', OPrus dumis ‘smoke', Lith (pl.) dúmai 'smoke', Latv (pl.) dũmi 'smoke', OCS dymŭ ‘smoke', Grk $\theta \bar{v} \mu o ́ s ~ ' s p i r i t ', ~ O I n d ~ d h u ̄ m a ́-~$ 'smoke'. OHG toum (< *dhouh ${ }_{2}$ mo-) 'steam' may be cognate but not MIr dumach 'sandbank, heap, mass, clouds, mist'. The word is clearly PIE and derives from *dheuh 2 - with a meaning difficult to establish, perhaps something like 'be in (com)motion, smoke'. The same root lies behind Hit tuhhā(i)'cough'.

* $k^{W} h_{a}$ uep- or ${ }^{*}{ }^{(w)}{ }^{(w)} h_{a} p-$ 'smoke, seethe'. [IEW 596 ( ${ }^{*} k u \bar{e} p-$ ); Wat 34 ( ${ }^{*} k^{W} \bar{e} p-$ ); Buck 1.83; Schrijver 260]. Lat vapor 'steam', Lith kúpu 'boil, seethe', kvépti (with ē) 'breathe, cough', kvãpas 'breath', Latv kûpêt 'smoke, steam', OCS kypěti ‘seethe', Alb kapitem 'am tired, exhausted', Grk $\kappa \alpha \pi v o ́ \varsigma ~(<~$ *kuh $h_{a} e p-$ ) 'smoke'. The second root form $* k^{(W)} u h_{a} p$-assumes metathesis, secondary ${ }^{*} k^{(w)} h_{a} e p->$ kuap- hence: Lat vapand Grk *kh $h_{a}$ uep- or *kuh $h_{a} e p->* k h_{a} e p-$; with b-variant, or rather -bn- > -pn-: Goth af-lvapjan ~ af-hapnan 'choke'. To be rejected here are: OIr ad-cobra 'want', Lat cupiō 'wish, desire', OInd kopáyati 'makes tremble, shake'. Perhaps a late IE term in Europe.
*(s)m(e)ug(h)- 'smoke’. [IEW 971 (*(s)meukh-); Wat 62 ( *smeug-); Buck 1.83]. OIr mūch (with $\bar{u}$ ) 'smoke', Wels mwg (with ŭ) 'smoke', OE smoca (< *smug-on-), smēocan (< *smeug-) 'smoke' (> NE smoke), Grk $\sigma \mu \bar{v} \chi \omega$ 'burn in
moldering fire', Arm mux (< *(s)mukho-) 'smoke’. The root vowel was *eu/u with the long $\bar{u}$ unexplained; the Arm $x$ is also unclear. At least a word of the west and center of the IE world.

See also Burn; Fire. [R.S.P.B.]

## Further Readings

Roider, U. (1981) Griech $\theta v \mu o ́ \varsigma ~ ' M u t '-a i ~ d h u ̄ m a ́ h ̆ ~ ' R a u c h ' . ~ K Z ~ 95, ~$ 98-109.
Schrijver, P. (1991) The Reflexes of the PIE Laryngeals in Latin. Leiden, Rodopi.

