The place of Armenian in the Indo-European language family: the relationship with Greek and Indo-Iranian*

The main purpose of this paper is to present lexical correspondences that unite Armenian with Greek and/or Indo-Iranian. They include shared innovations on the one hand, and isolated lexemes on the other. These two lexical corpora — lexical innovations on an inherited basis and isolated words — can be placed within the same temporal and spatial framework. After the Indo-European dispersal Proto-Armenian would have continued to come into contact with genetically related Indo-European dialects. Simultaneously, it would certainly also have been in contact with neighbouring non-Indo-European languages. A word can be of a substrate origin if it is characterized by: (1) limited geographical distribution; (2) unusual phonology and word formation; (3) characteristic semantics. The material presented here, albeit not exhaustive, allows to preliminarily conclude that Armenian, Greek, (Phrygian) and Indo-Iranian were dialectally close to each other. Within this hypothetical dialect group, Proto-Armenian was situated between Proto-Greek (to the west) and Proto-Indo-Iranian (to the east). The Indo-Iranians then moved eastwards, while the Proto-Armenians and Proto-Greeks remained in a common geographical region for a long period and developed numerous shared innovations. At a later stage, together or independently, they borrowed a large number of words from the Mediterranean / Pontic substrate language(s), mostly cultural and agricultural words, as well as animal and plant designations. On the other hand, Armenian shows a considerable number of lexical correspondences with European branches of the Indo-European language family, a large portion of which too should be explained in terms of substrate rather than Indo-European heritage.

Keywords: Armenian historical linguistics, Armenian etymology, Indo-European comparative linguistics, Indo-Iranian lexicology, Greek lexicology, Mediterranean substrate.

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Introduction

The dialectal position of Armenian has attracted the attention of Armenologists ever since Heinrich Hübschmann (1875/1877) proved that Armenian does not belong to the Iranian group of Indo-European languages and should be treated as an independent branch of the Indo-European family. Mainly under the influence of the centum / satam division, Armenian was considered to be in close relationship with the Aryan and Balto-Slavic languages for a long period, until Pedersen (first in 1906: 442), Meillet and others noted that the number of Greek-Armenian agreements is greater than the number of agreements between Armenian and any other Indo-European language. The relations between Armenian and Greek are sometimes regarded within a larger Balkan context including Phrygian, Thracian and Albanian.

Some scholars argued that there are a large number of similarities between Greek and Armenian, which allow for the postulation of a common Graeco-Armenian language.\(^1\) It is now clear, especially after Clackson’s (1994) thorough, albeit somewhat hypercritical treatment, that this case is not as strong as it is for Indo-Iranian and Balto-Slavic. The contact relations between Proto-Greek and Proto-Armenian may have been intense, but these similarities are considered insufficient to be viewed as evidence for discrete Proto-Graeco-Armenian.\(^2\)

There are also connections between Armenian and Indo-Iranian on the one hand, and between Armenian, Greek and Indo-Iranian on the other. Armenian is usually placed between Indo-Iranian to the east and Greek to the west, and on the northern side it might neighbour Balto-Slavic (and/or Germanic and others). The dialectal unity of Armenian, Greek, (Phrygian,) and Indo-Iranian is often discussed.\(^3\)

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The place of Armenian in the Indo-European language family

After the well-known large-scale investigations of Porzig (1954) and Solta (1960), in the period between 1970’s and 1990’s there have been made a number of attempts to study the relations between Indo-European branches by means of statistics: Tischler 1973, Davies / Ross 1977, Bird 1982 (updated 1993), Coleman 1992, etc. With respect to Armenian one has to mention especially the works of Jahukyan, 1980, 1983, and 1987: 86–222. For a critical account of these studies, see Clackson 1994: 7–8, 193–198. For a recent attempt to recover the first-order subgrouping of the Indo-European family using a new computational method, see Ringe / Warnow / Taylor 2002: 102-106.

As far as the morphological and lexical isoglosses are concerned, in these statistical investigations Greek and Indic mostly appear among the closest languages to Armenian. As an example, in the table below I present Jahukyan’s data on the first five language branches displaying the highest number of common features taken from his lists of 27 phonetic, 35 morphological, and 1400 lexical isoglosses.

<table>
<thead>
<tr>
<th>Phonological</th>
<th>Morphological</th>
<th>Lexical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Greek 14</td>
<td>Indic 20,5</td>
<td>Greek 878</td>
</tr>
<tr>
<td>2. Phrygian 12,5/13,5</td>
<td>Greek 18</td>
<td>Germanic 783,5</td>
</tr>
<tr>
<td>3. Thracian 11/13</td>
<td>Anatolian 17</td>
<td>Indic 661,5</td>
</tr>
<tr>
<td>4. Slavic 11</td>
<td>Tocharian 16,5</td>
<td>Italic 636</td>
</tr>
<tr>
<td>5. Iranian 10,5</td>
<td>Italic 16</td>
<td>Baltic 625,5</td>
</tr>
<tr>
<td>6. Baltic 10</td>
<td>Iranian 13,5</td>
<td>Slavic 579,5</td>
</tr>
<tr>
<td>7. Celtic 9,5/10,5</td>
<td>Slavic 13</td>
<td>Celtic 542,5</td>
</tr>
</tbody>
</table>

Rather than discuss here the different theories of the relationships between Armenian and other language branches and tackle every individual isogloss, which would require a copious monograph, I shall limit myself to a general outline of the most relevant issues regarding Greek and Indo-Iranian. After a short methodological outline (§1) and sections on phonological and morphological agreements (§§2–3), I shall turn to the main goal of this paper, the lexical material. Applying the methodology outlined in §1, I shall select the most illustrative examples from the lists that have been used before and will add some new material that has not been discussed in this context before. Additionally I present a number of new etymologies which are marked as HM.

In cases where I give no references, the relevant etymological material can be found in HAB and Martirosyan 2010 s.v.

1. Method

The methodological and thematic background of this paper largely coincides with that of Clackson 1994, so I simply omit these discussions and refer the reader to this exemplary monograph.

A crucial methodological point of departure is that archaic features and independent developments are not significant for determining a close genetic relationship between two languages or dialects. Instead, one should rely on shared innovations from the outset. The draw-
back with this method is that there is often (if not always) the possibility of independent innovations yielding similar results. Nevertheless, the cumulative evidence decreases the likelihood of chance in such cases.

On the other hand, if a competing feature is present in a certain group of dialects that is otherwise confirmed by a number of isoglosses, it should be taken into account even if we cannot formally decide whether we are dealing with an archaism or innovation. Thus Armenian, Greek, Phrygian and Indo-Iranian make use of the *e*-augment (§3.1) whereas other dialects do without it, and it is impossible to decide whether the presence or absence of an augment is to be regarded as dialectal innovations made in late Proto-Indo-European. Nevertheless, this is a significant isogloss, because a similar dialectal distribution is found, as we shall see, for a number of morphological and lexical variables.

In the case of, e.g., the genitive ending *-osjo-, however, some archaic traces are also found in other branches, for example Italic and Celtic (see §3.2). This is reminiscent of e.g. IE *h₂snér, gen. *h₂sr-ós ‘man’ that is basically represented by the dialect area under discussion (Armenian ayr, gen. arn, Skt. nár-, Greek ávp, gen. ávpròς, Phryg. avap, cf. also Alb. njëri ‘human being, person’) but has also left some traces in Italic (Osc. ner-) and Celtic (Mir. ner ‘boar’, MWelsh ner ‘chief, hero’).4 A similar case is *h₂erh₂-uer/n- ‘arable land’. Such cases cannot be regarded as significant for the purpose of subgroupping or establishing areal contacts.

When an etymon is only found in two or three non-contiguous dialects, it may theoretically represent an archaic PIE lexeme that has been lost elsewhere5 and is thus not significant for our purpose. But when an etymon appears in a few dialects that can be regarded as contiguous at a certain stage, we should take it seriously even if the etymon has no PIE origin and cannot be thus treated as a shared innovation in the genetic sense. Two Indo-European dialects that were spoken in the same geographical area at a period shortly before and/or after the Indo-European dispersal could both develop shared innovations as a result of their interaction with neighbouring non-Indo-European languages.

After the Indo-European dispersal Proto-Armenian would have continued to come into contact with genetically related Indo-European dialects. Simultaneously, it would certainly also have been in contact with neighbouring non-Indo-European languages. A word can be of a substrate origin if it is characterized by: (1) limited geographical distribution; (2) unusual phonology and word formation; (3) characteristic semantics.

Theoretically, these two lexical corpora — lexical innovations on an inherited basis and substrate words — can thus be placed within the same temporal and spatial framework. As far as the relationship between Armenian and Greek is concerned, matters are particularly complicated for two principle reasons: (1) it is often very difficult to know whether we are dealing with an innovation or a substrate / cultural word, and (2) aside to lexical correspondences confined to only Armenian and Greek, there are also a large number of lexical agreements between Armenian, Greek and a few other European dialects. Many of these words belong to the semantic fields of the physical world, fauna, flora, agriculture and crafts. They may, therefore, shed some light on cultural and geographical characteristics of the environment where Proto-Armenian might have contacted Proto-Greek and other dialects in a late period around the time of the Indo-European dispersal. For these reasons, in section six, following the subsection on Armenian and Greek only, I also provide a few characteristic examples reflecting the broader areal context. I then present a brief discussion on

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5 For the problem of determining a PIE word, see e.g. Mallory/Adams 2006: 107–110.
the substrate (section 7) and add a summarizing table divided into semantic fields. Wherever a lexical agreement is likely to be an innovation rather than an isolated etymon, I mark it by shading.

2. Phonological isoglosses

2.1. A major and very complicated issue is the centum / satəm division which puts Greek and Armenian on different sides of the line. Together with Indo-Iranian, Balto-Slavic and Albanian (the situation in Luwian is disputed), Armenian belongs to the satəm group of languages which show palatalisation of the palatovelars and absence of a labial element in their reflexes of the labiovelars.6

2.2. Another phonological feature that unifies Indo-Iranian, Balto-Slavic and partly Armenian is the ruki/iurk-rule, the special development of *s after r, k, i, and u.7 It is interesting that Armenian shows a twofold development of *-rs- as reflected in t’aršamim and t’aṙamim ‘to wither’; the -rš- reflex is in line with the ruki-development, whereas -r- betrays an assimilation of *-rs- to *-rr-, also seen in Greek. This issue can be placed within the framework of the development *s > h in Armenian, Greek, Iranian, Phrygian and Lycian (and also Brythonic Celtic). Both developments may have resulted from a common change, although independent innovations are not unlikely either.8

2.3. The so-called “prothetic vowel”, viz. Gr. ἀ- (and ὀ-) : Arm. a-, and Gr. ἦ- : Arm. e- vs. zero in other languages, is now interpreted as a vocalized reflex of the PIE initial laryngeal followed by a consonant (see the table below). It is considered an important isogloss shared by Armenian and Greek, and possibly also Phrygian and Albanian.9 Clackson (1994: 36) notes that this may represent an areal feature since initial laryngeals might also have left vocalic reflexes in the Anatolian languages. However the latter statement seems to be uncertain.10

<table>
<thead>
<tr>
<th>PIE</th>
<th>Gloss</th>
<th>Greek</th>
<th>Armenian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>*h₁reg′os-</td>
<td>‘darkness’</td>
<td>ἐρέβος</td>
<td>erēk(-uv)</td>
<td>Goth. riqis</td>
</tr>
<tr>
<td>*h₁neψη</td>
<td>‘nine’</td>
<td>ἐνέα</td>
<td>inn</td>
<td>Skt. nava</td>
</tr>
<tr>
<td>*h₁le/o(ə)pek-</td>
<td>‘fox’</td>
<td>ἀλωπης</td>
<td>atuēs</td>
<td>Skt. lopāśa-</td>
</tr>
<tr>
<td>*h₁ster-</td>
<td>‘star’</td>
<td>ἀστήρ</td>
<td>astl</td>
<td>Hitt. ḫašer-</td>
</tr>
<tr>
<td>*h₁nedμn</td>
<td>‘name’</td>
<td>ὄνομα</td>
<td>anun</td>
<td>Skt. nāman-</td>
</tr>
</tbody>
</table>


8 For references and a discussion of these two issues see Clackson 1994: 54, 210n; for *s > h, cf. Szemerényi 1985; Schmidt 1988: 602. Note that the change s > h in Lycian and Brythonic Celtic is certainly not a common archaism with Greek, Armenian, and Iranian according to received opinion on the matter (cf. already Meillet 1896: 151 on Celtic).

9 For literature and a discussion, see Martirosyan 2010: 714–716; de Lamberterie 2013: 29–34. See also Schmidt 1988: 602. For Phrygian, see Ligorio / Lubotsky forthc. (section 4.3); for Albanian, see Demiraj 1994.

10 For a discussion, see Kloekhorst 2006 and his manuscript monograph on Hittite accentuation, notably the section “Words containing aC(-)”. 
2.4. Vocative accent. Armenian manuscripts and dialects provide rich evidence for vocative forms accented on the first syllable: háyrik ‘o father’, máyrik ‘o mother’, Kárapet, etc.; dial: T’iflis áxp ‘o brother’, vúrt ‘o son’; Loṙi órdi ‘o son’; Hamšen háyr-i ‘o father’, màyri ‘o mother’; AKn hárşuk ‘o sister-in-law’, mér ‘o mummy’; Moks xrółper ‘o uncle’, t’ágävur ‘o king’, Nor-Bayazet hárs-e ‘o sister-in-law’, Hóromsim, Máyran, Márgrit, tnákolner “you whose house may be destroyed!”, even word combinations, such as türban harse “you, dear sister-in-law (to whom I may be sacrificed)”, Hröp’soma Xat’un ‘o you, Lady Hröp’sim’.

The vocative with initial accentuation may be considered an Indo-European inheritance. In Vedic Sanskrit, the vocative, when accented, has the acute on the first syllable, e.g., voc. pıtā vs. nom. pítā. The same is found in Greek: ἀδελφὲς vs. ἀδελφός ‘brother’; δέσποτα vs. δεσπότης ‘master (of the house), lord’; πάτερ vs. πατήρ ‘father’, etc.; in modern Iranian languages: in Persian, the stress is on the initial syllable of the vocative noun or phrase. In Kurdish Awroman, when no vocative particle is present the stress is brought forward to the first syllable of a noun.\(^{11}\) This isogloss is highly hypothetical.

3. Morphological isoglosses

3.1. One of the most significant morphological isoglosses shared by Armenian, Greek, Phrygian and Indo-Iranian is the *e*-augment (cf. §1), e.g. Arm. 3sg aorist *e*-ber ‘brought’ from PIE *é-b’h/er-et: Skt. á-bhar-at, Gr. ἔφερ-ε; Arm. 3sg aorist e-git ‘found’ from PIE *é-vid-et: Skt. á-vid-at, Gr. εἶδε < ἔϝιδ-ε; Arm. 3sg aorist e-d ‘put’ from PIE *é-d/er-et: Skt. á-dhā-t, Gr. dial. ἔθη, cf. suffixed forms, Gr. ἔθη-κα, Phrygian e-daes.\(^{12}\)

3.2. The genitive ending *-osio- (Skt. -asya, Gr. -ωο, Arm. -oy,\(^{13}\) etc.) of the nominal o-stems has been taken over from the pronominal declension. It is basically restricted to Indo-Iranian, Greek and Armenian and has been interpreted as either a dialectal Indo-European innovation or a morphological isogloss.\(^{14}\) Given the appearance of this genitive singular ending in Italic (*-osio in early Faliscan inscriptions and in one early Latin inscription, the Lapis Satricanus, c. 490 BC, and in the name Mettoeo Fufetioeo) and Celtic (*-oiso in three or four Lepontic inscriptions from before 400 BC), it is now possible to argue that the spread of a genitive singular*\(^{-}\) took place relatively recently, not much earlier than the period of Italo-Celtic unity. It has been argued that the ending *-osio- was also present in Anatolian. As an archaism it cannot, therefore, be used as an isogloss. Nevertheless, it is somehow significant that, as in case of the *e*-augment, Armenian sides with Greek and Indo-Iranian in having *-osio- as a specific genitive marker of o-stems.\(^{15}\)

\(^{11}\) See Martirosyan 2010: 748–749 and Martirosyan forthc.
\(^{13}\) Meillet 1900: 17.
3.3. A commonly cited morphological feature found in Armenian, Greek and Indo-Iranian (and perhaps also Celtic) is the instrumental marker *-bʰi(s). Furthermore, Greek and Armenian share the use of *-bʰi- as the instrumental singular marker, probably due to extension of the athematic instrumental plural marker *-bʰis that is also shared by Indo-Iranian. After a lengthy discussion, however, Clackson (1994: 68–74, 87) concludes that the two languages are likely to have made independent developments and denies the significance of this isogloss. He does admit the importance of this feature, however, for the dialect group Armaeno-Graeco-Indo-Iranian.\(^\text{16}\)

3.4. *meh\(_1\) prohibitive particle: Arm. mi, Skt. mā, Av. mā, Gr. μη, Alb. mo.\(^\text{17}\) The Armenian prohibitive particle mě is probably reflected in Urartian me(i).\(^\text{18}\) The value of this isogloss is uncertain in view of Toch. AB mā ‘not, no’, which expresses both simple negation and prohibition (Adams 1999: 445–446).

3.4. *h₂ou-i-kʷ(id): Arm. oč ‘not’, Gr. οὐκ, οὐκὶ ‘not’. However, an inner-Armenian development is not excluded.\(^\text{19}\)

3.5. *-nu-presents are attested in Armenian, Greek and Indo-Iranian in a number of verbs that lack them outside this area: *h₂r-nu-: Arm. ánnum ‘to gain, obtain, take’ (Armenian, Greek, and probably Iranian, see §4.1.9); *əs-nu-: Arm. z-genum ‘to put on clothes’ (Armenian and Greek, see §6.1.16); *gʷer-nu-: Arm. jėnum ‘to be/become warm, burn’ (Armenian and Indic, see §5.2.13).\(^\text{20}\)

As an example of the -nu-extension on Armenian grounds, note Arm. lnun, 3sg.aor. e-lič ‘to fill, be filled’ from QIE *plehu-: Gr. πιμπλημ, -αμαι ‘to fill, make full’, πλέως, Ion. πλεος ‘full’, Lat. plēre ‘to fill’, Skt. par ‘to fill’, pres. *pīprati, etc. (cf. Arm. li ‘full, abundant, whole’ and lir, i-stem ‘plenitude’ vs. Gr. πληρως ‘full; in full’). The aorist e-li-c’ derives from *e-plē-ske, with *ske/o- added to the old root aorist *plē-s–, cf. Ved. āprās, Gr. ἐπλήσας, etc.

3.6. The *ni-preverb in Armenian and Indo-Iranian.

*ni-si-sd-el-o-: Arm. nstimin, 3sg.aor. nst-a-w, impv. nist ‘to sit’ < *nihīst-e-; Skt. ni śidati, Av. niśhīdati, MPers. ništastan ‘to sit’. The form is based on the reduplicated present form *si-sd- from PIE *sed- ‘to sit’: Skt. śidati, Gr. ἱκόω, Lat. sidō, etc. The verbal form *ni-si-sd-el-o- ‘to sit’ is a significant isogloss shared by Armenian and Indo-Iranian. Other languages only have the deverbal noun *ni-sd-o-: Lat. nidus m. ‘bird’s nest, residence’, OHG nest ‘nest’, cf. Arm. nist, o-stem ‘seat, site, base; royal residence, capital’, Skt. niḍā m.n. ‘nest, lair, bird’s nest’, etc.\(^\text{21}\)

3.7. *-ŋ-present in Armenian (-anem) and Greek (-άνω).

*li(n)kʷ-ŋ- ‘to leave’: Arm. lk’anem, 3sg.aor. e-lič ‘to leave’, Gr. λείπω, λιμπάω ‘to let, leave’; cf. Skt. rec-, pres. riṅkti ‘to leave, let, release’, Iran. *raič ‘to leave, let, abandon’, Lat. linquō, liquī ‘to leave, quit, forsake; to abandon’, Ofr. léicid ‘leaves’. Arm. 3sg.aor. e-lič is de—


\(^{17}\) Martirosyan 2010: 468–469. For Albanian mo, see Demiraj 1997: 275–276.


\(^{19}\) For references and a critical discussion, see HAB 3: 561–562; Clackson 1994: 158; 2004–05: 155–156; Martirosyan 2010: 531. The most recent treatment of this correspondence is found in de Lamberterie 2013: 21.


rived from thematic aorist *ē-likʷ-e-t, cf. Gr. ἐλιπέω, and the imperative lik’ reflects IE *likʷ-e, cf. Gr. λιπέω. PIE nasal-infixed present *li-n-kʷ- was remodelled to *li(n)kʷ-η-: Gr. λιμπάω and Arm. lk’anem (cf. *bʰeg- ‘to break’, nasal present *bʰ-n-eg-: Arm. bekamem, 3sg.aor. e-bek ‘to break’, Skt. bhaij-, bhanákti ‘to break, shatter’, OIr. bongid, -boing ‘breaks’, etc.). I agree with the view22 that this is likely to be a shared innovation (pace Clackson 1994: 84–85).

This type of presents became productive in Armenian, cf. e.g. *prk-skelo- (sk-present): Arm. harc’anem, 3sg.aor. e-harc ‘to ask, question, inquire’, Ved. prçchāmi, MPers. pursīdan ‘to ask’, Lat. posće ‘to ask, demand’, etc. Arm. 3sg.aor. e-harc ‘derives from thematic imperfect *e-prk-sk- et, cf. Skt. āprçchat. Note also Arm. imper. harc’ vs. Skt. prçchā.

3.8. The *-η-presents (see the previous paragraph) and a few other Graeco-Armenian isoglosses are treated by Clackson (1994: 74–87) as ambiguous with respect to the question of whether they represent shared innovations or independent developments: the suffix *-olā- in Greek -όλης (e.g. μαυνόλης ‘raving, frenzied’) vs. the Armenian quasi-participles in -ot, the usage of the PIE verbal suffix *-sk- (Greek -σκ- in Ionic iteratives and -e- in the Armenian aorist) with restriction to past time, peculiar verbal reduplication seen e.g. Gr. δαίδαλλω ‘to embellish’ and Arm. cicālim ‘to laugh’, etc. Naturally, one should welcome such a sound and cautious approach. However, the cumulative strength of these morphological (and a few phonological) features and a great number of such lexical agreements gives additional weight to the evidence.

4. Lexical isoglosses between Armenian, Greek and Indo-Iranian

4.1. Material.


4.1.2. *polio-i/*polieh: PArm. *(p)oliya- > Arm. ali-k′s, obl. ale-a- ‘wave’; ali-k′s obl. ale-a- ‘grey hair; old age’; Gr. πολιός, fem. πολιάς ‘whitish grey (of hair and of foaming seas)’ (cf. especially πολιαί ‘grey hair’ which stands for Arm. alik’ e.g. in Proverbs 20.29); MPers. pīr ‘old, aged’ < *parya-, Kurd. pēl ‘wave, billow’, etc.23 In view of Mycenaean po-ri-wa, the Greek word has been reconstructed as *πολιό- and its close connection with Arm. ali-k’ has been doubted (Clackson 1994: 163–164). Beekes (2010, 2: 1219), however, notes that the appurtenance of the Mycenaean word is quite uncertain and prefers to reconstruct *polio-.

The Armenian, Greek and Iranian (if *parya- is reliable) words are particularly close to each other in having both meanings (‘wave’ and ‘grey hair, old’) and reflecting *polio-. Perhaps we can also add Skt. palitā- ‘grey, grey of old age, aged’, though this is uncertain.24 Other languages have *polio- ‘pale, grey’, which seems to be unrelated: Lat. pallidus ‘pale’ < *palwo-, OHG falo ‘faded’ < P Germ. *falwa-, OCS plavo ‘white’, etc.25

4.1.3. *h₂(e)l₁h₁/*h₂-n(e)h₁-: Arm. alam ‘to grind’ < *al-n-, Gr. ἀλέω ‘to grind’, MInd. āṭā ‘flour’, Av. aśa- ‘ground’ < *aṛta-, MPers. ārd ‘flour’ < *aṛta-, Khot. ārr- and Sogd. ’rn ‘to grind’ from Iran. *arṇa-. See also §4.1.4.


24 See Mayrhofer EWAia 2, 1996: 103–104.

4.1.4. *h₂(e)lh₁-tr-i-: Arm. alawri, ea-stem ‘mill; female grinder (of corn)’, Gr. ἀλετρίς ‘woman who grinds corn’. If Pers. ās, āya ‘mill’, Sogd. ‘rōd ‘mill’ and other Iranian forms reflect *alārdrā ‘mill’, a similar *tr-formation of *h₂(e)lh₁- ‘to grind’ (see §4.1.3), then this is a lexical isogloss among Armenian, Greek and Indo-Iranian, as is the root *h₂(e)lh₁-. Note also Arm. alewr ‘flour’ and Gr. ἀλευρον ‘flour’ (§6.1.1).


4.1.6. *h₂(e)iḡ- ‘goat’; Arm. ayč, i-stem, ‘goat’, ayči, obl. ayceas- (probably from fem. in *-iže-), Gr. αἴξ, αἰγὸς f. ‘goat’ (compositional aiyi-), YAv. izāena- ‘leathern’, perhaps also Skt. eṣa- m. ‘a kind of sheep’ and Alb. dhi f. (she-)goat’; note also the i-less form: Skt. ajā- ‘goat’, YAv. aza- ‘goat’, Lith. ožysis ‘goat’, etc.28

4.1.7. *h₂ner, gen. *h₂νρ-ός ‘man’: Armenian ayr, gen. arn, Skt. nár-, Av. nar-, Greek ἄνὴρ, gen. ἄνδρος, Phryg. avar, cf. also Alb. njeri ‘human being, person’; note also traces in Italic (Osc. ner-) and Celtic (MWelsh ner ‘chief, hero’). For the areal distribution, compare, e.g., gen. *-osio- and *h₂erhs-uer/n- ‘arable land’.


In view of the vocalic discrepancy in the Greek forms ἐρός and ἄρος, two different roots may be posited: *h₁f₁s-en- (with Arm. aín and Indo-Iran. *Hṛșan-) and *h₂yf₁sen- (with Skt. vršan- ‘manly; male animal, bull, stallion, etc.’, Lat. verēs ‘boar’, Lith. veřis ‘bull, ox, ox calf’, etc.), respectively.29 According to Pronk (2010), the second part of the Proto-Indo-European determinative compound *g(e)h₁s-ursēn ‘bull’, lit. ‘cow-male’ (Toc. A kαυρς ‘bull’, B kauɾe ‘bull’, Oic. kursi, later kusi ‘bull calf’, Skt. gō-ṛṣa- and gō-ṛṣaḥa- ‘bull’, etc.), was reanalyzed in Greek, Indo-Iranian and Armenian as *-sēn and started to lead an independent life.30 Whether one accepts this attractive scenario or not, we are nonetheless dealing with a lexical isogloss between these three branches (pace Pronk 2010: 176f). Note the abundance of such isoglosses in the domain of animal husbandry (see Table set A).

4.1.9. *h₂r-nu-: Arm. ainum ‘to gain, obtain, win, take, grasp’, Gr. ἀρνομα, aor. ἀρόμεν ‘to win, gain’, probably also Av. arnmau- ‘to grant, allot, provide’ (see §3.5 on nu-verbs).


27 Clackson 1994: 95–96; Martirosyan 2010: 42; Beekes 2010, 1: 78–79.
29 For references and a discussion, see Martirosyan 2010: 112.
30 Note that, in the Atharva-Veda, Skt. rṣabh-ı is usually a real male animal, whereas vrṣabh-ı is generally used symbolically, often referring to, e.g., Indra or Agni (Lubotsky apud Pronk 2010: 172, 175–176).
are left with a correspondence between Armenian and Greek. This isogloss... 

4.1.11–12. *h2gīpīː-: arcur 'eagle' and *tkiH-(i)no-/*tkiH-enon-: cīn 'kite' (§4.2).


4.1.14. *dʰmhbʰ-: Arm. damban, dambaran 'tomb, grave'; Gr. ταφή f. 'interment', τάφος m. 'funeral rites; grave, tomb', τάφωρ f. 'ditch, trench', δάπτω 'to bury' from *dʰmbʰ-ī.ό. Probably here also belongs YAv. daxma- 'grave' (dissimilated from *dafora- < *dʰmbʰ-no-). The appurtenance of Old Pruss. damb 'ground' is uncertain. PArm. *damb(a)r- 'tomb' (< *dʰmbʰ-ro-/re₂h₂, cf. Gr. τάφος) may have been borrowed into Abkhaz a-damra 'tomb, grave, dolmen'. Note also Arm. t’omb 'mound; fence, wall around a house' and Gr. τύμβος m. 'mound, burial mound, grave' (see §6.1.18). In view of the aberrant vocalism comparable to burgn and durgn, as well as Arm. t’- instead of d’, here we may be dealing with a substrate intermediation.31

4.1.15. *hēgošuk-i-: Arm. iž, i-stem 'viper', Gr. ἔχις, -ωζός, gen. ἔχιος 'viper; name of a monster', Skt. āhi- m. 'snake, adder', YAv. ažī- m. 'snake, dragon'. The assimilation *-gʰuk-i > *-gʰy- and the problem of the Armenian vocalism are due to a generalization of the genitive *e/uvaultbelow- from gen. ἔχιος. If the Indo-Iranian forms belong rather to PIE *h(e)ŋʰuk-i (Arm. awj, i-stem 'snake', Lat. avus m.f. 'snake', Lith. angis f. 'snake'), then we are left with a correspondence between Armenian and Greek.

4.1.16. *gĕruH-: Arm. cer, o-stem 'old man; old', cer-anam 'to become old', Skt. sar 'to age, grow old', jārās- f. 'old age', YAv. zar- 'to age, grow old', γέρας n. 'gift of honour' (originally 'old age'); *gĕruH-ont-: Arm. cer-un(i)- (ea-stem) 'old', Skt. jārant- 'old', Oss. xerund 'old', Gr. γέραν 'old man'. A different formation: Olc. karl 'old man', OHG karal 'old man', etc.32

4.1.17. *gʰouvio- (or *gʰwusuy-ido-): Arm. kogi, gen. kogw-o-y, ins. kogw-o-v 'butter', Skt. gāvya-, gāvyā- 'consisting of cattle, coming from or belonging to a cow (as milk, curds, etc.)', YAv. gāvya- 'coming from cattle, consisting of cattle', Gr. adj. βόσκω(ν), e.g. ἐννεά-βοιος 'worth nine beeves'. This isogloss is based on the PIE word for 'cow' (Arm. kov; cf. nom. arew vs. oblique areg- 'sun'). SEE AUTHOR'S ADDITION ON P. 177.

4.1.18. *hērsh-uern-: Arm. harawun-k’ (acc.pl. harawun-s) 'sowing; seeds; sowing-field; arable land', Gr. ἀποφάσα f. 'tilled or arable land; pl. corn-lands, fields', Skt. urvārā- f. 'arable land, field yielding crop', Av. urvārā- f. 'food plant, plant, ground covered with plants, flora'. As in cases of e.g. gen. *-osīo- and *heter- 'man', Celtic and Italic are added: Mfr. arbor, NPl arbanna, OIr. gen. arbe 'grain, corn', Lat. arvum 'ploughed land'. Armenian, Greek and Indo-Iranian are unified by the *-r/n- heteroclitic declination (seen also in Celtic) and the semantics. If the original meaning was 'grain, crop' (cf. Iranian and Celtic), we might treat the semantic shift as an innovation. However, the *-r/n-declension is rather archaic. The value of this isogloss is uncertain.

4.1.19. *mṛto-: Arm. mard, o-stem 'man, human being' (renders Gr. ἀνθρωπος or βροτος in the Bible), Gr. βροτός m., f. 'mortal man; mortal'; Skt. mṛtā- 'died, dead' (verbal adj.), Av. marata- 'dead'; cf. privative *n-mṛto-: Skt. amṛta- 'immortal', YAv. aṃśa- 'immortal', Gr. ἄμβροτος 'immortal, divine'; with different vocalism: Skt. māṛta- m., Av. marata- m. 'the mortal

33 See already Meillet 1896: 152.
one, man', Gr. μορτός ‘dead’, etc. Armenian, Greek and Indo-Iranian agree in *-to- as well as the semantic shift from ‘dead’ to ‘mortal’ and therefore represent a significant isogloss (cf. Meillet 1896: 151).

4.1.20. *kieλon-: Arm. č’eum ‘to go, set forth, march off, break camp’, č’og-, suppletive aorist of ειτ’αμ ‘(to start) to move, stir; to undertake’; OAv. šauaite ‘to move’, YAv. fra-šiši-: ‘approach’, OPers. šiši- ‘to set forth, go, march’; Gr. σενόμαι ‘to be in violent motion, hurry; to walk, rush (to)’; participle *k’hut-: moved’. Arm. č’u, o-stem ‘setting out, departure; campaign, expedition; journey’, Skt. cyutá- ‘moved (wankend, in Bewegung geraten)’, YAv. mainišušišta- ‘vom Geist angetrieben’, Gr. ἐτί-αντός ‘rushing, gushing’. This isogloss is based on PIE *kei(h)₂-, cf. Gr. κιω, κινέω ‘to set in movement, drive away, shake’, Lat. ciēre ‘to move, stir up’, citus ‘fast’.


4.1.22. *(p)ste/en(-o)-: Arm. stin, gen. stem ‘breast of a woman’; Skt. stāna- m. ‘breast of a woman, mother’s breast, nipple’; YAv. ṣṭāṇa- m. ‘breast of a woman’, MPers., NPers. pestān ‘breast’; Gr. στήνον· στῆϑος (Hesychius); probably also Toch. A pāśšām, B pāścane dual ‘woman’s breasts’ < PIE thematic dual *pstenō. The other cognates have an initial *sp-, cf. Lith. spenžis ‘nipple’, Otc. speni ‘teat, nipple’, etc.

4.1.23 *k(e)rH- ‘to tie, attach, bind’: Arm. sarem ‘to form, make; to equip, prepare; to stretch; to weave, etc.’ (Middle Armenian and a number of non-contiguous dialects); sarđ, i-stem ‘spider’ (Bible+; dial.) from *kṛ(H)-ti-; Iranian *sar- ‘to tie, attach, link’; OAv. sār- ‘to mix, unite with’, Parth. sar ‘community’ (only in pd … sr ‘together with’),38 Pashto sarā adv. ‘together’, etc.

*k(e)r(H)-ieh₂ ‘band’: Arm. sari-k’, ea-stem ‘chain, fetters, bands’ (5th century onwards); Gr. καιρία ‘tape or cord used for ligatures’, κείρια f. ‘girth of a bedstead; swathing-band, bandage’, καιροσέων (Homer) ‘close-woven’, καιρόω ‘tie the καιροί onto the loom’.39

The Iranian verb is usually derived from IE *kérh₂- ‘to mix, tie’: Skt. ā-śīrta- ‘mixed (with milk)’; Gr. κεράννυμι, aor. κεράσ(ο)ια ‘to mix, mix up (especially of wine with water); to temper (of the climate)’. However, this is uncertain, as is the appurtenance of Skt. śṛṅkhalā-, śṛṅkhal- ‘chain, fetter’.

4.1.24. *(s)p′eut- ‘zeal, haste’: Arm. p’oyt’, o-stem (also i-stem) ‘zeal, diligence; haste; zealous, diligent; hastily’, p’ut’am ‘to hasten, hurry, strive’; Gr. σπουδ-ή f. ‘haste, zeal’, σπεύδω ‘to hasten, hurry, strive’; MPers., NPers. pōy- ‘to run’, ManParth. pəwld- ‘to hasten’. The problem of Arm. -t can be solved by positing *(s)p’eu̯t → *p’yot(t)⁴¹.40 Beekes (2010, 2: 1381–1382) notes

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44. For the place of Armenian in the Indo-European language family

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Lith. spūstį ‘to press, squeeze; to push, drive on; (intr.) to hurry’ as the only certain cognate for the Greek and does not mention the Armenian and Iranian forms. If the Baltic form is indeed related, the isogloss becomes less significant, although the semantic identity of the Armenian, Greek and Iranian cognates is more impressive.

4.2. Pair isoglosses. If two lexemes are contextually related with each other and both represent the same dialect area, the significance of these isoglosses increases. In this section I present two such pairs.

4.2.1. *hrgipi-ː Arm. arcui, ea-stem: gen.sg. arcu-o-y, gen.pl. arcue-a-c ‘eagle’; Skt. rjipyā- ‘epithet of an eagle’, m. ‘eagle’, YAv. arizifiā.parna- adj. ‘having eagle-feathers’, MPers. ‘lwf ‘eagle’ (= phonetically /āluš/), āluh ‘eagle’, etc.; Gr. aιγυπιός m. ‘vulture’, aιγύπτων ἄετως ύπω Μακεδόνων, cf. also ἄργιοπος· ἀετός. Μακεδόνες. The formal difficulties of Gr. aιγυπιός (the expected form is ἄργυρι-πιός) may be due to folk-etymological association with aiξ ‘goat’, aιπνός ‘high and steep, sheer’ and γυψ ‘vulture’.42

Discussion: *hrgipi- and *tkhiH-(i)-no-/*tkiH-eno- (4.2.1+2). In RV 4.38.2, etc. the horse Dadhikrā- is compared with rjipyāṃ syenāṃ. Vedic rjipyā- is an epithet of syenā- ‘bird of prey, falcon, eagle’, Av. saēna- ‘a big bird of prey’, Gr. ikτίνος m. ‘kite’.43

Arm. arcui (gen. arcu-oy) is the principal word for ‘eagle’, and its derivation from *hrgipi-in native terms is secure both formally and semantically. The contextual relation with *tkhiH(i)-no-/*tkiHeno- ‘bird of prey’ (from which Arm. c’in, o-stem ‘kite’ certainly derives as a native word) that belongs to the same isogloss area makes the native origin of arcui impeccable. I therefore see no reason for denying a direct derivation of arcui from late Indo-European *hrgipi- and treating it as an Iranian or Urartian loanword. Urartian arṣibi- that is found in a horse-name and has no Hurrian match should be regarded as an Armenian loanword.

Armenian arcui largely functions in poetic association with a swift horse and in figures such as ‘eagle-winged’ and ‘sharp-flying as an eagle’. In the epic fragment on the abduction of the Alan princess Sat’ınik by King Artašēs (Movsēs Xorenac’i 2.50), the horse of Artašēs is compared with arcui srat‘ew ‘sharp-winged eagle’. In Aždahak’s dream (Movsēs Xorenac’i 1.26), the dragon-riding hero was dashing with eagle’s wings: arcuoy imn ardasew slaečal t’ewok’. In a kaftā-poem to the Alexander Romance we find sran’t’ac arcwiw ‘sharp-riding eagle’.

These figures probably go back to the Armeno-Graeco-Indo-Aryan poetic language, cf. Skt. āsū-pātvā ‘swift-flying’ as epithet of syenā- ‘eagle’ (cognate with Arm. c’in ‘kite’), Gr. ὀκυ-πητις ‘swift-flying’ (used of horses and hawks), ὀκυ-πτερος ‘swift-winged’; cf. also Av. arizifiā.parna- ‘eagle-feathered (arrow)’, Lat. acci-piter ‘hawk’, etc.44

4.2.3. *kelomiēhː Arm. pl. sami-k’, gen. samea-c ‘the pair of yoke sticks; rudder’; Skt. śāmyā- ‘pin of a yoke, peg, wedge’, yuga-śāmyā- n. ‘yoke and yoke-pin’; Av. simā- f. ‘yoke-pin’ (Yašt 10.125, perhaps for *səmā-), dual yuu(i)hiḥ.səmī- ‘(having) yoke and yoke-pin’ (Videv-
received an explanation. I propose to derive it from

sametē-s

'shaft, pole', etc.

This etymology is restricted to Armenian, Greek, and Indo-Iranian, possibly also Hittite, simeti-k' ‘peg for fastening yoke to bullock’s neck’. Outside of Indo-Iranian, note Gr. κάμαξ, -ακός f. m. ‘pole, shaft; pole to support the vine; shaft of a spear; tent pole’, MHG hamel ‘shaft, pole’, etc.

4.2.4. *deh- ‘to bind’: Arm. *ti- ‘tie, bond’ in ‘samäi-ti > sameti-k’ and sametay-(k'/n) ‘the tie of sami, yoke band’, Gr. δεσις ‘to bind’, Skt. dā-ladāti ‘to bind’, Av. dā- ‘to bind’. This etymology is restricted to Armenian, Greek, and Indo-Iranian, possibly also Hittite, tije/a-zi ‘to bind?’ (cf. Skt. dyāti), tijamar / tijaman- n. ‘cord, string’ and Alb. diuaj ‘sheaf’.

To the best of my knowledge, the Armenian by-form *tay- ‘bond’ (sametay-k’; dial. *sametay-n, *samotay; other dial. compounds: *beran-tay, *bn-a-tay, *vz-tay, etc.) has not yet received an explanation. I propose to derive it from *dh1-ti-: Gr. δεσις ‘binding, joint’, and Skt. -diti- ‘Gebundenheit, Fesselung’ (in dā-diti ‘boundlessnes’).

Discussion: *ke/omihe₂ and *deh- (4.2.3+4). Armenian sami-k’, gen. samea-c ‘the pair of yoke sticks; rudder’ (Severian of Gabala, John Chrysostom, Grigor Narekac‘i, etc.; preserved in a number of dialects) is mostly attested in a compound with *tay- ‘tie, band’ which is represented in several forms: sameti-k’, ins.pl. sameteawk’ (Sirach 28.23–24, 30.27), sametē-k’, acc. sametē-s, ins. sametēw-k’ (Jeremiah 5.5, Severian of Gabala, John Chrysostom, etc.); samet, i-stem (ins. pl. samet-i-w-k’ [var. lect. sameteawk’, sametiw’k’, etc.] in Job 39.10, see Cox 2006: 251); sametay-k’ (Commentary on Jeremiah by Mxit’ar Goš, 12th cent.); samotik (Grigor Narekac‘i, Oskip’orik); sametēn-k’ (Grigor Tat’ewac‘i), all meaning ‘the tie of sami, yoke band’. The compound corresponds to Gr. δεσις ‘band, fetter’ or ίμας ‘leathern strap or thong’ in the Bible translation.

The component *tay in sametay, albeit attested in a Middle Armenian source only, seems to be reliable and old since it is confirmed by data from both western and eastern dialects. In a folk incantation against the Evil Eye from the Jalvaxk’ region one finds samota < *sam(ow)y-tay (Lalayeanc’ 1892: 13a). Identical to this are samoda and somat‘a found in ritual songs of Palm Sunday in Basen and Jalvaxk’ respectively (Grigoryan 1970: 323). In Xotorǰur, a dialect that is both geographically and linguistically close to the Karin/Ērzrum group, to which Basen and Jalvaxk’ belong too, one finds samotek’ (YušamXotorǰ 1964: 506b), obviously from *samotay-k’. In these forms the first component comes from sam(ow)y, the genitive singular of sami. It is also found in samotik (Grigor Narekac‘i and Middle Armenian). As for the eastern dialects, we find Ėrabał, Hadrut‘, etc. sambētan and Łazax sameten; which presuppose *sametay-n. The widespread form sametan may also be derived from *sametayn, with a common development ay > ē.

50 In the Sebastac‘i Bible, we find šl‘ay ‘chain’ instead of sametik‘.
51 The form sametē (ins. sametēw-k’) vs. sameti is reminiscent of the puzzling auslaut of aštē / aštē (ins.pl. aštēwak’) ‘spear’ from Iran. ‘arštē- ‘spear’, cf. O.Pers. and Av. arštē-, etc. (HAB 1: 221a; Olsen 1999: 865). If the -ē proves to be original, one might think of a possibility that IE *dh1-ti- yielded *tey- > *tē, with a development *h₁- > Arm. -ē between consonants. More probably, however, -ē was taken from obl. aštē- and sametē-.
In dialects we also find compounds with beran ‘mouth’ (\textit{beran-tay}), bun ‘trunk, shaft’ (\textit{bn-a-tay}), or ‘buttocks’ (\textit{or-ti-k} and \textit{or-tay-n}), viz ‘neck’ (\textit{vz-tay}), etc.

Since Bugge,\textsuperscript{53} Armenian sami-k’ has been interpreted as an inherited word. Some scholars are inclined toward an Iranian origin of the Armenian word.\textsuperscript{54} However, there is no compelling reason for this. There are no Iranian forms that would be formally and semantically compatible with the Armenian word as a source of borrowing.\textsuperscript{55} Note that the second component of the compound sameti is not attested independently, and this is another (albeit not decisive) indication that sami is archaic.

It is especially important that both sami and *ti/tay belong to the same dialect area, namely Armeno-(Graeco-)Indo-Iranian. This situation is reminiscent of another case, PArm. *andi- ‘doorframe, threshold’, that has been preserved only in the compound dr-and-i (ea-stem) and can be derived from *h₂(e)nHt-ieh₂, which is also to be regarded in terms of an interchange between feminine suffixes, cf. YA v. ašīu- f.pl. ‘door-post’ vs. Av. ašā- ‘house’, Skt. ātā- f.pl. ‘door-frame, door-posts’ and Lat. antae f.pl. ‘square pilasters, wall posts of a temple’.

Taking into account all that has been said above, I am inclined to treat Arm. sami-k’ / samea- ‘the pair of yoke sticks’ as a native match of Skt. śāmyā- ‘pin of a yoke’. Theoretically, the Armenian form may be derived from *samīya- < *komieh₂.

5. Lexical isoglosses between Armenian and Indo-Iranian

5.1. Armenian and Indo-Iranian.


5.1.2. *n-budhno- ‘bottomless’: Arm. andund-k’, o-stem, Skt. a-budhnā- ‘bottomless’, MPers. a-bun ‘baseless, bottomless’ (compare Skt. budhnā- ‘bottom, depth, the root of a tree’, Gr. πυθμήν, -ένος ‘bottom, depth, base’, Lat. fundus ‘bottom’, OHG bodam, etc.).

The close relationship between the Armenian and Aryan words is also seen in the mythological context: Arm. Andndayin awj ‘the Abyssal Serpent’ (in an incantation against the snake and scorpion); a black serpent (sev ōj) at Andndayin caṙ ‘the Abyssal Tree’ (in an incantation from the Akn area); Andndayin t’agavor “Abyssal King” in a New-Year’s ritual formula related to a spring in Kamarkap, a village in the same area of Akn.\textsuperscript{57} Compare the Rigvedic primordial Serpent of the Depth, Áhi- Budhnyà-, whose origin and abode is the dark bottom of the waters, as well as the Cosmic tree in the bottomless (a-budhnā-) abyss.\textsuperscript{58}

\textsuperscript{56} Martirosyan 2010: 72–77.
\textsuperscript{58} Martirosyan prepar 2.

The etymology may broadly be ascribed to the Armeno-Graeco-Indo-Iranian dialectal area. Arm. bak ‘courtyard, pen, circle, halo’ matches the Indo-Iranian noun *bʰágā- from *bʰeh₂g- both formally and semantically. The semantic specification ‘portion, share, allotment’ > ‘landed allotment’ is also seen in Iranian languages (Aram.-Iranian *bāγa- ‘landed property, estate, fief’, Sogd. β’γ ‘garden’, MPers. bāy ‘garden’, etc.) and may be due to independent developments. Compare the case of harāw ‘south’.

However, the Armenian word has an a-stem instead of the expected o-stem. If the a-stem is old (note that we have no evidence for any declension class from the so-called Golden period), we can posit a feminine or collective *bʰeh₂g-(e)h₂. Alternatively, we might assume an old Aryan borrowing: *bʰág-á- ‘portion, share, allotment’ > PArm. *bʰag-a- > *bak-a- ‘landed allotment, encircled estate’, with the consonant shift g > k (cf. the well-known case of partēz ‘garden’, which is usually treated as a very old Iranian loan reflecting the devoicing shift d > t).

The basic meaning of the Armenian word thus is ‘landed allotment, encircled estate’, which easily developed to ‘courtyard’, ‘sheep pen’, ‘circle’, etc. For the semantic fluctuation between ‘courtyard, pen’ and ‘garden, estate’, note, e.g., Goth. garda ‘Viehhürde’, gards ‘house, family; court’, OHG garto ‘garden’, OEngl. geard ‘enclosure’, Engl. yard ‘yard’, Lat. hortus ‘garden; pleasure-grounds’, etc. For the semantic shift ‘courtyard, pen’ > ‘halo’, cf. Turk. ayl and kutan, both displaying the meanings ‘overnight sheep pen’ and ‘moon halo’. An older example is Hitt. 上がって- c. ‘courtyard; halo (of the moon or the sun)’. We can see that this pattern is widely represented in Asia Minor and adjacent areas.60 (HM)

5.1.4. *h₁eqʰ-ihrː-: Arm. ezn, gen.sg. ezin, nom.pl. ezin-k’, ezan-c’ ‘bullhook, ox’; Skt. ahī- f. (vṛkṣi-infection) ‘cow, female of an animal’ (RV), Av. azi- (devi-infection) ‘milking (of cows and mares)’; the appurtenance of OIr. ag n. ‘cow, cattle’ (< *agʰ-es-) is uncertain. Arm. ezn (gen. ezin) may be a frozen accusative in *-ihrː-m. The gender change is somehow reminiscent of the other important designation of bovids, Arm. kov ‘cow’ from the PIE generic name for ‘bovid’.

5.1.5. *pro-h₂zɛnh-oː ‘breath, air’: Arm. eran ‘gentle breeze; winnowing wind; a wind-spirit’ (*pro-h₁n-oː > *e-ra(h)n-oː with a regular prothesis before #r-); Skt. prāṇā- m. ‘breath, breathing out, air’; MidIran. *frānā- ‘air’ (cf. Sogd. բկռ, βկռ’n, etc.), *pāt-frānā- ‘ouverture d’aération’ > Arm. pɑtuhan ‘window’. The Indo-Iranian form is composed of PIE *pro- (cf. Skt. prā ‘before,

60 If this etymology of Arm. bak is accepted, we have to treat Georg. bak‘i ‘hedged pen for cattle; yard; moon halo’ and the related forms as armenisms. Georgian-Zan *baga- ‘sheep-pen, goat-pen, crib’, if related, can have been borrowed from Proto-Armenian *baga- prior to the devoicing consonant shift.
forward, forth, in front', Arm. era- ‘first’, etc.) and *h₂enhi- ‘to breathe’: Skt. anī ‘to breathe’, 3sg.pres. ánti, cf. *h₂enhi-mo-: Gr. ἀνεμος m. ‘wind’, Lat. animus m. ‘mind, soul; the element of air (as the principle of life); spirit’, anima f. ‘breath; soul, life; disembodied spirit, soul, ghost; soul, spirit; air as the substance of wind, an air current, wind, breeze’, etc. (HM)

5.1.6. *loukeno-: Arm. lusin, o-stem ‘moon’, Skt. rocaná- n. ‘light, luminous sphere, firmament’, YAv. raocana- adj. ‘shining, light’ (see §5.3.2 for the discussion).

5.1.7. *prHyo-: Arm. haraw, o-stem ‘south; southern wind’, Skt. pírva- ‘being before, going in front, first, former; eastern’, OAv. pouruuiia- ‘first, initial, former’, YAv. pauruua-, paouruua-, pouruua- ‘being in front, first, former, southern’; OCS prvō ‘first’, Toch. B parw ‘earlier; first’, Alb. pārē ‘first’, etc.; with a different suffix: Lith. pirmas ‘first’, Lat. prims ‘first’.61 This etymology has been proposed by Jahukyan62 and, with few exceptions,63 has largely remained outside the scope of Indo-European etymological studies. Armenian and Indo-Iranian are unified by *-uo- (this is also found in Slavic and Tocharian, for example) and the meaning ‘going in front’ with a further shift to a compass direction. The direction (‘south’) is identical in Armenian and Iranian, but it is difficult to ascertain whether this is due to chance or not.

5.1.8. *hšmeig6-o-: Arm. mēg, o-stem (also i- or a-stem) ‘mists, fog, darkness’, Skt. meghā- m. ‘cloud, gloomy weather’, Av. maēga- m. ‘cloud’, Parth. mēg ‘cloud, mist’. The other cognates continue *hšmeig6-leh₂: Gr. ὀμίχλη ‘mist, fog’, Lith. miglu, OCS migla ‘fog’. Arm. mēg may also be an Iranian loanword. However, this is not compelling. Note the o-stem of the word, as well as the dialectal *mēg-l-im ‘to cloud’ comparable to Dutch dial. miggelen ‘staubregnen’, etc.64

5.1.9. *pelork-6- ‘rib, side’: Arm. yorsays adv. ‘supinely, lying on the back’ (John Chrysostom, Philo, etc.), yorsaysal ‘id.’ (Proverbs 6.9;65 yorsaysal ankeal in Canon Law, with ankanim ‘to fall down’), yorsaysen ‘to cause to lie down; to let fall, overthrow’ (Paterica, Grigor Narekaci, etc.); without y-: orsayseal ‘lying on the back’ (Paterica), orsayseal ‘supine’ (Movšēs Xorenac’i 1.12).66 Skt. pāṛśvu- f. ‘rib’, pāṛsvā- n. ‘the region of the ribs, side, flank’, YAv. parasu- ‘rib’, Khot. pālsuā- ‘rib; spoke’, MPers. pahlūg, NPers. pahlū ‘side, rib’, Oss. fars ‘side’, etc. The connection of this Indo-Iranian word with OCS prosi ‘chest, bosom’, Russ. pěrsi ‘breast, bosom’, Lith. piršys ‘chest of a horse’, etc. is considered uncertain.67 This attractive etymology has been proposed by Jahukyan (1991: 42; 2010: 556a) but has remained outside the scope of standard Indo-European etymological studies.

The Armenian word is composed of the prefix y- ‘at, in, on’ and an otherwise unattested word for ‘rib, side’, *ors- < *pork-6-. The semantic pattern is widespread in Armenian: t’ēkn ‘shoulder, back’ > t’ikn tal / t’iknel ‘to recline’, kōl ‘rib, side’ and kōhīn ‘side’ > an-kōhīn and an-kōhīnim ‘to recline, lie down’, kīt’-un-k’ ‘back’ > kīt’n-īl ‘to lean, recline’, paṅk ‘rib, side’ > paṅkím ‘to lie down’.68

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64 Martirosyan 2010: 457–458, 466, 715 (with a hypothetical explanation for the loss of an initial *h- before *-m- in Armenian); Beekes 2010, 2: 1077.
65 In Proverbs 6.9 (Zöhrapae 1805, 3: 149): Minēcēw yerb yorsaysal kas óv vat, kam erb i k’nøy zart’ic’ēs “How long wilt thou lie (οὐκ θυμήσεσθαι), o sluggard, and when wilt thou awake out of sleep” (Brenton 1851: 793).
68 No acceptable etymology is recorded in HAB 3: 408–409.
69 See HAB s.vv. and Martirosyan 2010: 368–369, 376.
Jahukyan does not specify the nature of -ays. I propose to explain -ay as a (collective) suffix seen in a few formations such as ap*-ap'-ay-k' ‘rocky and steep place’, bal-ay-k’ and balbal-ay-k’ ‘pretext, ostensible reason or accusation’. It probably has an adverbial origin, cf. Arm. i-ver-a-y ‘on, over’, Gr.  ὑπερ ‘over, plenty; beyond; above’, ὑπέρα ‘upper ropes on the sails’, Lat. s-uper ‘above, over’, suprā ‘above, over, on the upper side of’ (see Martirosyan 2010: 592–593). We can posit an underlying ‘orsay(k)-’ ‘the region of the ribs / Rippengegend’.

The “pure” form *(y)orsay has been preserved in the dialect of Nor-Jula: ḫûsra angnel ‘to lie down or recline like a superior’ from *yors-an-kan- (cf. yorsayseal ankeal in Canon Law), and *yors-ank- > ḫûrsang tál ‘id.’; the development *y-orsay- > ơnh ‘the region of the ribs’ (from ơnh ‘spine, back’).

The o-vocalism is found in a number of words in the same semantic field, such as kol ‘rib, side’, ơnh ‘spine, back’, or ‘buttocks’, p’or ‘belly’ and k’ov ‘side’. An astonishing parallel for *y-orsay-eal ‘supinely, lying on the back’ (from *orsay- ‘rib, side’) is ơ-y-ohn-eal ‘id.’ (from ơnh ‘spine, back’).

The final -s points to a frozen accusative-locative plural *ors-ay-s. There are a number of similar frozen formations belonging to the same semantic sphere, such as *beran-s-i-vaṣyr ‘lying face downward’ > Nor-Jula b’arazver (with beran ‘mouth’), *p’or-s-i-vaṣyr ‘(lying) belly downward’ > Łaraba p’orsavær (with p’or ‘belly’).72

5.10. *kelomieh: Arm. pl. sami-k’, gen. samea-c ‘the pair of yoke sticks; rudder’; Skt. śāmyā- ‘pin of a yoke, peg, wedge’, Av. simā-, -sami- f. ‘yoke-pin’; further: Gr. καμίξε–, -ακός f. m. ‘pole, shaft’, MHG hamel ‘shaft, pole’, etc. (for a thorough discussion, see §4.2.3.4).

5.11. *kubh-ro- or *(s)kubh-ro-: Arm. surb, o-stem ‘pure, clean; holy’, Skt. subhrā- ‘shining, glimmering, beautiful’, cf. sōbh/-subha- ‘to be beautiful; to shine’, sūbh- f. ‘beauty, splendour, ornament’, etc. Note also Khotanese sura- ‘clean, pure’ (for a discussion, see §5.3.1).

5.2. Armenian and Indo-Aryan.

5.2.1. *sm(H)-eh2 ‘year’: Arm. am, a-stem ‘year, age’, Skt. sámā- ‘year, season’; further: YA v. hám-i, OIr. sam ‘summer’, note also Arm. amain and OHG sumar ‘summer’. The original meaning was ‘summer’.73 Arm. am and Skt. sámā- agree both in *-ā- and semantics.

5.2.2. *h3nēbh ‘nave, hub of wheel’: Arm. aniw, o-stem (also a-stem) ‘wheel; axle of a chariot; wheel as a torture instrument’; Skt. nābhi- f. ‘nave, hub of wheel; centre; navel (of the body or the world); origin, relationship, family’, nābhya- n. ‘nave, hub of wheel’; cf. also YA v. nāf-m. ‘nave, origin, blood relationship’ (for the semantic relationship cf. Arm. port ‘nave’, ‘tribe, generation’), OPr. nabis ‘hub, navel’, OHG naba ‘hub’, nabalo ‘navel’, Lat. umbilicus m. ‘navel; centre, middle’ < *h3nēbh, Gr. ὀμφαλός m. ‘navel, umbilical cord’. This isogloss can be considered valid only if Skt. nābhi- indeed reflects *h3nēbh-i- (vrddhi-derivation) rather than *h3nēbh-i-.74

5.2.3 *s(e)Hd-h-jo- ‘successful’ and *s(e)Hd-h-jε-o/ ‘to succeed, be successful’: Arm. aj, o-stem ‘right’, aj-oł and y-aj-oł ‘skilful, successful’, (y-)aj-oł-em ‘to have success’; Skt. sādhya- m. ‘a class of divinities’, sādhati ‘to succeed, reach the goal’, siddhā-, siddhra- successful’, sādhū- ‘straight, effective’, sādhvati ‘to succeed, be successful’.75

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70 For more examples and a discussion, see Jahukyan 2010: 796.
72 Alternatively, one might treat the final -s as a relic of *si- from PIE *kei- ‘to lie’ (cf. Gr. κείναι ‘to lie’, etc.), which is visible in Armenian hiwsis(t) ‘north’ if indeed from *seukai-ki(y)jo- (see Martirosyan 2010: 412 with ref.). This is less probable, however.
73 The original paradigm has been interpreted as follows: *s(om)-eh2, genitive *səm-h-ös.
74 Ritter 1983; Martirosyan 2010: 89–90.
5.2.4. *hṝ̄ye-i-: Arm. arew, u-stem, old gen. areg 'sun; sunlight; life': Areg k'atak 'the city of the Sun' (Gr. Ἡλίου πόλις, e.g. Genesis 41:45, 50), areg, gen. aregi 'the 8th month', areg 'eastern', areg-akn 'sun', etc.); Skt. ravi- m. 'sun, sun-god' (Upaniṣad+), ravi-putra- m. 'son of the Sun' (Kāṭhaka-Brāhmaṇa); probably derived from a PIE verb that is reflected in Hitt. ḫaru(ma)nae-i- 'to become bright, get light, dawn'. According to Demiraj (1994: 71), Alb. (vē) rē 'klar, deutlich machen, sehen' also belongs here.

In view of the -i of Sanskrit ravi-, Arm. arew, u-stem 'sun' and gen. areg < *areg-i- may be interpreted as reflecting an old HD i-stem: nom. *hṝ̄ye-oi > PArm. *arew-u(y), gen. *hṝ̄ye-wi-ös (rather than *hṝ̄ye-ös, as is frequently assumed) > PArm. *areg-i-.

5.2.5. *Hkek-ih2-: Arm. ak'is, i-stem 'weasel'; Skt. kaśikā- f. 'Ichneumonweibchen' or 'weasel' (RV 1.126.6), and kāsa- 'weasel'. Skt. kaśikā- f. is considered a derivation from *kaśi- f. The connection with MPers., NPers. xaz 'marten' and Lith. šėkas 'Iltis' is uncertain. The absence of palatalization of *-k- before a front vowel in Armenian is perhaps due to dissimilative influence of the palatal *-k-: *k-k > k's. Possible reconstruction: nom. *Hkek-s, oblique *Hkek-. Compare the analyses of atuēs 'fox' (u-stem) and iž 'viper' (i-stem). We may be dealing with a common borrowing from an unknown source. (HM)

5.2.6. *yehg-nu-: Arm. gang 'sound', Skt. vagñú- m. 'sound, noise'; cf. Lat. vāgīre 'to cry, wail', etc. For the metathesis (*vagn- > *wing- > *gang-), cf. *b/hudn-o-: Lat. fundus 'bottom' and Arm. anand-k'-, o-stem 'abyss' vs. Skt. a-buddha- 'bottomless'. (HM)

5.2.7. *hkek'-o-: Arm. erg, o-stem 'song; poem; 'playing (music)', ergem 'to sing; to play a musical instrument; to praise'; Skt. thematic noun arkā- m. 'ray, light, shine; song, magic song', root noun rc f. 'song of praise, poem, stanza, verse', ārcati 'to sing; to praise; to shine'; Hitt. ārkū-2, ārk- 'to chant, intone' (from *hrek'-a/ark'-). Toch. A āyrk, Byarke 'worship, reverence', probably also Olr. erc 'sky'. Arm. erg, o-stem 'song' and Skt. arkā- m. 'shine, song, magic song' represent a thematic noun and should be regarded as a shared innovation.

5.2.8. *singi-o-: Arm. inj, u-stem 'panther, leopard' (renders Gr. πάρδαλις 'panther, leopard' in the Bible, e.g. ἐνναίνιν : ὁμοιον παρδαλείν in Revelations 13.2; i leranc' /shwanjuc' : άπο ὄρεων παρδαλεών in Song of Songs 4.8); Skt. sinhá- 'lion'. The connection with Toch. A śīsāk, B sečak 'lion' is uncertain.76

The assumption that the Armenian word has been borrowed from an unattested Iranian form is not compulsory. Nor is it plausible, since: (1) none of the Iranian languages have preserved a trace of this etymon; (2) the loss of the PIE initial *s- is regular in native Armenian words, whereas in Iranian loanwords Armenian preserves the h-; and (3) the semantic difference indicates that it is an old word. Note especially that Arm. inj and Skt. sinhá- are found in a comparable mythical context. In Armenian incantations the Evil Eye often appears as an inj 'panther', an arīwe 'lion', and a viśap 'dragon' coming up out of the sea (compare inj etc. in the famous dream of Daniel 7,77 and in Aždahak's dream in Movsēs Xorenac'i 1.26); he roars like a cloud (amp/b) or a lion (arīwe/aruc) or a bull (c'ul).78 The animals inj 'panther' and arīwe 'lion' are also listed with gel 'wolf' and yj 'snake' in a Daralagyaz incantation (K'ajberuni 1902:


112a^Nrl\), which starts with the name of *Surb Daniel* ‘St. Daniel’ (cf. the aforementioned vision of Daniel).^79

For the association of Arm. *inj* (*singʰ-o*-: Skt. *sinḍá*-) with thunderous cloud note RV 5.83.3 where the thunder of Parjanya is compared to the thunder roar of a *sinḍá*- ‘lion’,^80

In view of the absence of secure IE cognate forms, one may assume that the Aryan and Armenian (possibly also Tocharian) forms reflect a common borrowing^81 from a North Pontic or Near-Eastern source. Possibly related forms in non-IE languages are: the old Central Asian word for ‘lion’, *sengha/singha*, Tibetan *seṣe*, *singe*, Zhań Zhuń *saṅgo*, etc.; North Caucasian: PEC *čámnj* ‘lynx, panther’, Chechen *čoṅ* ‘snow leopard’, *Avarg čiṅqą* ‘lynx’, Lak *ćǐtįq* ‘tiger, leopard’, Akusha *čirj* ‘panther’, etc.; Akkad. *sin/mk/gurru* ‘a hunted mountain feline, gopard’; Chadic: Kwang *sèmk-, sèngi* ‘lion’, Chibak *zing’e* ‘lion’, etc.^82

5.2.9. *g^w^ou-d^e^h₁-eh₂* ‘a lizard’, lit. ‘cow milker/sucker’: Arm. *kov-a-di-ac’* (also *kovideay, kov-di-c’*) ‘a kind of lizard’ (renders Gr. *καλαβώτης* ‘spotted lizard, gecko’ in Leviticus 11.30) reshaped from an older *kov-di-a*; Skt. *godhā*- f. ‘Iguana, a species of big lizard’. In later literature (Nonnus, Galen) and dialects the Armenian word has been replaced by *kov(a)uc* ‘a kind of lizard’, composed of *kov* ‘cow’ and *uc* ‘sucking’. There are many semantic parallels in other languages: Xurāsānī Pers. *boččoš* (preverb *bī + čōš* ‘Sauger’) ‘a kind of Eidechse, die nach dem Volksglauben nachts in die Hürden schleicht und den Ziegen am Euter saugt’, Ukr. *moloko-sis* ‘lizard’, etc.^83


5.2.11. *gʰेi-o*-: Arm. *ji*, o-stem ‘horse’, Skt. *háya*- m. ‘horse’. Skt. *háya*- is usually derived from *háya- ‘to impel, set in motion; to hurl; to help’ (presumably derived from PIE *sʰeί- ‘to drive; to throw’). Arm. *ji* ‘horse’ and Skt. *háya*- m. ‘horse’ represent a poetic word, belonging to the “language of gods”, as opposed to the PIE word for ‘horse’, viz. *hə́kwo> Arm. ēś ‘donkey’.^84

Kurdish * délazï ‘horse’ is only recorded by Chodzko in 1857 among the Kurds of the Rishvand tribe in Iran near Alamut, between Qazvin and Rudbar. It is composed of *dēl ‘female’ (cf. *dēlagur* ‘female wolf’) and the otherwise unknown *zï*, which was earlier considered to be a loan from Arm. *ji* (HAB 3: 152b). Garnik Asatryan (1997)\(^85\) rejects this view saying that this Kurdish dialect had no contact with Armenian during the whole period of its history. He therefore treats this word as the only remnant of Iranian *zaya*-, the theoretical cognate to Skt. *háya*- ‘horse’. If this interpretation is accepted, we are dealing with an isogloss between Armenian and Indo-Iranian.

5.2.12. Arm. *marmin*, o-stem ‘body; flesh’; Skt. *márman- n. ‘vulnerable point of the body’, MInd. *mamma*- n. ‘weiche Körperstelle’. There is no consensus about the origin of the Indo-Aryan word. If the Aryan word is related with Lith. *mėlenmy̲s* ‘die um die Nieren liegenden

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^82 For the forms and a discussion, see Pinault 2002: 330–331; Witzel 2003: 14–15, 45, 47; Behr 2004–05; Blažek 2005.


^84 The vocalism is slightly problematic. Alternative: a substantivized *-to-participle *gʰ-e-to- (de Lamberterie apud Olsen 1999: 40; see also Viredaz 2005–07: 7–9).

^85 I am indebted to Garnik Asatryan and Vardan Voskanian for this information and a copy of the paper.
Fleischteile’ and others, Arm. *marmin* cannot be treated as a native word because of the vocalism and the -r.\(^{86}\) Compare Arm. *šali* ‘raw flesh, body, corpse’ vs. Skt. *śárir*– n. ‘the body, bodily frame, solid parts of the body’.

5.2.13. *g\(^{w}\)h\(_r\)–nu- ‘to be warm, burn’: Arm. *jēnum* or *jēanim* (aor. *jēr-a-* from sigm. aor. *g\(^{w}\)h\(_r\)-s*) ‘to be/become warm, burn’; Skt. *ṛḥuṭi* ‘to glow, light’ from *g\(^{w}\)ṛ-\(_t\)u-* (see §3.5 on *nu-verbs*).

5.2.14. *ḥHl-eḥ*: Arm. *sāl*, i-stem (prob. also a-stem, as reflected in a borrowing into Georgian *sala* ‘a flat roundish stone to play with’) ‘a large flat block of stone; anvil’; Skt. *śilá-* ‘stone, rock, crag’. The appurtenance of Goth. *halls* ‘rock’ and others is uncertain.

5.2.15. *ḥHs-ti–*: Arm. *sast*, i-stem ‘rebuke, scolding, censure, punishment, chastisement, threat; indignation, wrath’;\(^{87}\) *sastem* ‘to rebuke, remark indignantly, reprimand angrily, threat’, *sastik* ‘intense, hard, violent, rigid’; Skt. *siṣṭi*– ‘punishment, command, instruction’; from the root *k\(_{v}\)lust\(_{t}\)–*: Skt. *śasti* ‘to punish, control, command, instruct’, Av. *sāh–* ‘to teach’, *sāsti* ‘lehrt’, *sāx-


\footnotesize{\textit{90} Since Hübschmann, \footnotesize{\textit{90}} Armenian *sast* has been interpreted as an inherited word although some scholars are inclined toward an Iranian origin instead.\footnotesize{\textit{91}} However, there is no compelling reason for the latter, and I do not understand the extreme confidence of, e.g., Xačaturova (1979: 372), who claims that Arm. *sast* is indisputably (“бесспорно”) an Iranian loanword. There are no Iranian forms that would be formally compatible with the Armenian word as a source of borrowing. Besides, the Armenian word is semantically closer to the Indic than the Iranian forms. I therefore follow Hübschmann, Ačaṙyan and /Jcaronahukyan in directly deriving Arm. *sast*, i-stem ‘rebuke, punishment, indignation’ from *ḥHs-ti–* and thus identifying it with *siṣṭi*– ‘punishment, command, instruction’ and positing an Armeno-(Indo-)Aryan isogloss.

5.2.16. *ker-\(_{v}\)\(_{o}\)-* n. ‘cream of milk’: Arm. *ser* ‘cream of milk, skin on milk or sour clotted milk’ (Zgōn-Afrahat, Middle Armenian; widespread in the dialects); Skt. *ṛh\(_{u}\)śas* n. ‘cream, skin on milk’.\footnotesize{\textit{92}} Mayrhofer (EWAia 2, 1996: 617–618) hesitantly derives the Sanskrit form from the root *śār-\(_{v}\)\(_{n}\)āti* ‘to smash, crush, break’ from *k\(_{e}\)r\(_{h}\)₂-, cf. Gr. *κεραίζω* ‘to destroy’, etc. (HM)

5.2.17. *sk\(_{H}\)l-–*: Arm. *sxale\(_{l}\)im* ‘to err, be mistaken; to stumble; to fail, miss’; Skt. *śkh\(_{al}\)ati* ‘to stumble, stammer, fail’. Here belong also Arm. *śel* ‘slanting, crooked, oblique’, *śil* ‘squint-eyed’, dial. ‘mistake; disorder’; Lat. *scelus*, gen. *sceleris* n. ‘misdeed, crime’, Gr. *σκελλός* ‘crook-legged’, *σκόλιος* ‘wicked, crooked’ (on the other hand, note Gr. *σφάλλω* ‘to fall, stumble, be mistaken’). The twofold development of *sk\(_{H}\)–* as Arm. *s-* and *sx-* is puzzling. Most probably, *sxale\(_{l}\)im* is a loan from the Indo-Aryan language of the Near East,\footnotesize{\textit{93}} while *śe\(_{l}\)/śil* has been inherited from Indo-European.

\footnotesize{\textit{86} For a critical discussion of the etymology of *marmin*, see de Lamberterie 2013: 44–47.

\footnotesize{\textit{87} In the Bible translation, Arm. *sast* corresponds to, e.g., Gr. *ἐπιτίμησις* ‘castigation, censure, criticism’ and *ἀγανάκτησις* ‘vexation, wrath’.

\footnotesize{\textit{88} See Durkin-Meisterernst 2004: 306a.


\footnotesize{\textit{90} Hübschmann 1897: 488–489; HAB 4: 178; Jahukyan 1987: 130, 173, 551 (hesitantly); 2010: 669a.


5.3. Discussion.

5.3.1. Native or loan? The examination of Armenian-Indic correspondences is complicated in several respects. Firstly, scholars often state that Arm. arew, erg and others were borrowed from Aryan in the middle of the second millennium BC. This view is untenable since at that period the development PIE *e > Aryan a had already taken place, as is seen in Mitanni panza ‘five’. Besides, these poetic words are culturally and/or semantically associated with each other and are all Armeno-Indo-Aryan (or Armeno-Graeco-Aryan) correspondences, and some of them clearly preclude the loan theory: arcui ‘eagle’, ji ‘horse’, c’in ‘kite’, etc. For the association between ‘bird, eagle’, ‘horse’ and ‘sun’ in poetic language, cf. e.g. Skt. pataigā- adj. ‘flying’, m. ‘bird; flying horse; sun’.

Secondly, there is always a possibility that the Indic might have had an Iranian cognate even if it is not attested in the Iranian languages themselves. This point is often illustrated using the Armenian word nirh ‘dormancy, slumber’. On the basis of its appearance, the word is seen as a loan from an Iranian *niδrā-. In Iranian such a word is not attested, but we do know that it exists in the Indo-Iranian subgroup at large because of Vedic Skt. nidrā- f. ‘slumber, sleepiness’.

Thirdly, in individual instances it is often very difficult to identify a word as an inherited word or an Iranian borrowing. Armenian and Iranian are independent branches of Indo-European but sometimes parallel phonetic developments complicate a judgement on the status of a lexeme. A frequently cited example is Arm. naw ‘boat, ship’: is it an Iranian loan (cf. Oss. naw/nawæ ‘boat’, Khot. no ‘boat’, Parth. nāvwāz ‘skipper’ > Arm. nawaz ‘boatman’) or an inherited word next to Skt. náu- ‘boat’, Gr. ναῦς ‘ship’, Lat. nāvis, is ‘ship’, OIr. nau ‘ship’?

It is usually the cumulative evidence that tips the balance. Arm. surb, o-stem ‘pure, clean; holy’ (Bible+) has been taken as cognate to Skt. śubhrā- ‘shining, glimmering, beautiful’. On the other hand, the Armenian word may have been borrowed from Middle Iranian *subra-, itself a lost cognate of Skt. śubhrā-. A number of circumstances point to the native origin of the Armenian form, though, individually taken, none of them is decisive: (1) the o-stem of the Armenian; (2) the metathesis *­b/hsuperr- > Arm. ­rb­; (3) the semantic difference; (4) the absence of direct evidence for this lexeme in the Iranian language group. The last two arguments have become insignificant in view of Khotanese suraa- ‘clean, pure’, which has been regarded as reflecting the theoretical Iranian form *subra-ka-. On the whole, it seems more likely that we are dealing with an Armeno-Indo-Iranian lexeme rather than an Iranian loanword in Armenian.

See also the discussions on ji ‘horse’ (§ 5.2.11) and sami (§ § 4.2.3–4).

5.3.2. Armeno-Indo-Iranian poetic or mythical lexicon. We have discussed poetic words inherited from the Armenian-Greek-Indo-Iranian dialect union (see arcui ‘eagle’ and c’in ‘kite’). As for the Armeno-Aryan poetic words, we have already discussed ji ‘horse’ and arew ‘sun’. We have also discussed two Armeno-Aryan words in the mythological context: andund ‘abyss’ and inj ‘panther’. Here I shall elaborate on ‘sun’ and ‘moon’.

Arew, gen. Areg- ‘Sun God’ is attested in Movsēs Xorenac’i 2.8 and in folkloric texts. Most explicit is the following folk prayer from Larabat: Astco c’ncu lnaco arignak, im eress k’o otdan taka, du im xoxek’s pahes “O du göttlich strahlende Sonne! Dein Fuss ruhe auf meinem Antlitz! Bewahre meine Kinder” (transl. Abeghian 1899: 43). Note also that this word appears as an oath formula or as an interjection of astonishment. Arm. arewl‐ g- ‘sun, Sun God’ and Skt. ravi- m. ‘sun, Sun God’ (Upaniṣad+) derive from a proto-form *h₂reyi- and may be regarded as an Armeno-Aryan poetically or sacredly marked designation of ‘sun’ replacing the PIE unmarked profane word for ‘sun’, *səh₂ul-. This is reminiscent of the case of Arm. ji vs. Skt. hāya- which we have already discussed.

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It is remarkable that the Armenian word for ‘moon’, *lusin*, is also in a way related to the Armeno-Aryan unity. The word has an o-stem (abl. *lusn-o-y* in Eznik Kołbac’i, ins. *lusn-o-y* in Jeremiah 8.2) and is usually derived from *loukeno-*. Skt. *rocanā*-n. ‘light, luminous sphere, fir-mament’, YAv. *raocana-* adj. ‘shining, light’. Next to this, however, there is also reliable evidence for gen. *lusn-i* (abundant in the Bible) which may point to both *i*- and *a*-stems; this can be confirmed by ins. *lusn-i-w* (Movses Xorenac’i 2.77, etc.) and ins. *(z-)*lusn-a-w (Anania Širakac’i, 7th cent., Abrahamyian 1940: 581.20) respectively.

This leads us to the derivation of *lusin* from *louksneh2*-f. ‘moon’, month’ and OCS luna f. ‘moon’, cf. Av. *raoxšna*-adj. ‘shining’, OPr. *lauxnos* nom.pl. ‘luminous’, as well as Arm. *lusn* ‘white spot’. The internal -i- may be analogical (cf. *kalün* ‘acorn’ vs. Gr. *βάλανος* ‘acorn’). In view of the v-declension of *lusin*, however, it is tempting to assume a blend with *loukeno-* ‘light, luminous (sphere)’.

My working hypothesis can be formulated as follows: Armenian inherited PIE *louksneh2*-f. ‘moon’, cf. Lat. *lūna* (Praeneaste *losna*) f. ‘moon’, and OCS luna f. ‘moon’. In a late period around the Indo-European dispersal, Proto-Armenian shared the thematic innovation *loukeno-* ‘light, luminous (sphere)’ with Indo-Iranian (cf. Skt. *rocanā*- and YAv. *raocana-*). Subsequently, PArm. *lüsna*-f. ‘moon’ blended with *lousino-* ‘luminous’ and resulted in *lusin* ‘moon’, displaying o-, a-, and i-stem forms.

5.3.3. Other issues. A lexical correspondence, albeit perfect both semantically and formally, cannot be considered as significant for the purpose of this paper unless we demonstrate that we are dealing with a shared innovation rather than an archaism. In some cases we are dealing with very interesting correspondences, the nature of which is quite hard to determine. Such ambiguous correspondences, even those which are more likely to be archaisms, should not be ignored if they display recurrent patterns. Future studies should gather all such correspondences and try to estimate their cumulative strength.

Armenian *y-arrem* (aor. stem *y-ari*, imper. *ari*) ‘to rise, arise, get up, stand up, wake, resurrect’ derives from PIE *h₃r-i*- ‘to rise’: Hit. *arai-/*ari- ‘to rise, arise, lift; to raise’, CLuw. *ari(±a)-* ‘to raise’ < *h₃r-oi-/*h₃r-i-; Lat. *orir-, -īrī*, ortus ‘to appear above the horizon, rise; to rise from bed, get up; to begin, be born’; Skt. *ar-,* ‘to set in motion, move; to arouse, excite’, *ṛṇāti* ‘to rise, move’, Av. *ar-,* redupl. pres. *ira- ‘to reach’, *ira-*n. ‘attack’, YAv. *armao- ‘to set in motion’; Gr. ὀρνύμι or -ω, med. ὀρνυμαῖ ‘to rise, rouse, stir (up), urge on, move’.

3sg.pres.act. *iyarti*, med. ἱρτε < *Hi-H(α)r- > PArm. *Hiyar-* > *(i)yar-. This would match Skt. *iyarti* (next to *ar-*). One is tempted to treat this as an Armenian-Aryan isogloss; note especially *ni-si-sd-e/o-: Arm. *nihist-e-,* Skt. *nīśdāti* and Av. *nīshīdāti* ‘to sit’ (see §3.6). However, the reduplicated present seems to be an archaic feature in Indo-European and is not productive in Armenian. The reduplicated structure of PArm. pres. *(h)ipe- (with suppletive aor. *arb-*) ‘to drink’ from PIE *(pi-ph₃-e- > *pibeti (Skt. *pibati*, Lat. bibō, Osr. *ibid* ceased to be sensed at a very early stage, and a new present was made by a nasal affix: *(h)ipnem(ī) > *ampem.*

Another complicated but intriguing example is Armenian *targal* ‘spoon’ (attested in Movsēs Xorenac’i 2.47 and ubiquitous in the dialects) that seems to derive from *(dry-, a zero-grade form of the PIE word for ‘wood’). A perfect semantic match is Skt. *dārvi* f. / *darvi* f. ‘spoon’, though this has a full grade in the root. But now we have a wonderful match that can solve even the problem of the suffix: Hit. *gāstary-ālī*-n., which refers to an implement used for

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* Meillet 1936: 21. For a full discussion of *lusin* and related words, see Martirosyan 2010: 320–322.

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grinding or crushing, probably something like ‘pebble’. For *-al(i) in designations for implements or the like cf., e.g., Hitt. AŞḫulāli- n. ‘distaff’. I wonder, therefore, whether Arm. targal is an Anatolian loanword.

There is a better Armenian match for Skt. dārvī f. and dārvī f. ‘spoon’, namely torg ‘wooden framework, loom’. Here again we find an interesting Anatolian cognate: HLuw. tarw-ijâ-prob. ‘wooden beam’. Further, note Arm. toṙn ‘pebble’ and Skt. drōṇ- n. ‘wooden vessel, trough, bucket’. Onomatopoeia and nursery words are usually considered insignificant for the problems of reconstruction. However, identical onomatopoeia and nursery words are not necessarily independent creations. Here again, cumulative strength can play a certain role in estimating a genetic relationship between two languages or dialects. Note correspondences such as Arm. a/lmidtæa/lmidtæa-a- ‘shouting’ vs. Skt. alalā and Gr. ἀλαλαγή ‘shouting’; Arm. atta ‘mother’ vs. Skt. attā ‘mother, older sister’ (other cognates differ in their semantics).

Table set A (sections 4–5)

Lexical isoglosses: Armenian, Greek and Indo-Iranian.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Sanskrit</th>
<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td>*phlMY-</td>
<td>Pleiades</td>
<td>*parýjainá-</td>
<td>alawunk' (Πλειάδες)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*polio-/iʌh₂</td>
<td>wave; grey</td>
<td>(palitá-)</td>
<td>*parýa-</td>
<td>ali-k' (πολιός, -άς)</td>
<td></td>
</tr>
<tr>
<td>*H̱mH-h2</td>
<td>year</td>
<td>sámā-</td>
<td>(ham-)</td>
<td>am, -a-</td>
<td></td>
</tr>
<tr>
<td>*y-b'udʰno-</td>
<td>bottomless</td>
<td>a-budhñá-</td>
<td>MP a-bun</td>
<td>andund-, -o-</td>
<td></td>
</tr>
<tr>
<td>A *sru-ťi-</td>
<td>stream, etc.</td>
<td>sruti-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B *sr(o)u-to-</td>
<td>stream, etc.</td>
<td>srótas-</td>
<td>OP rautak-</td>
<td>aᵣu, -o-</td>
<td>ρυτός</td>
</tr>
<tr>
<td>*hrey-i-</td>
<td>sun</td>
<td>ravi-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*pro-hxenH₁-</td>
<td>air, breeze</td>
<td>prāná-</td>
<td>*frāna-</td>
<td>eran</td>
<td></td>
</tr>
<tr>
<td>*loukeno-</td>
<td>luminous</td>
<td>rocaná-</td>
<td>rauca-</td>
<td>lusin, -o-</td>
<td></td>
</tr>
<tr>
<td>*prHwō-</td>
<td>east./south.</td>
<td>pārva-</td>
<td>paurua-</td>
<td>harav, -o-</td>
<td></td>
</tr>
<tr>
<td>*H̱meigʰ-o-</td>
<td>cloud, mist</td>
<td>meghá-</td>
<td>maēya-</td>
<td>mēg, -o-</td>
<td></td>
</tr>
<tr>
<td>*kH'I-ch₂</td>
<td>stone, rock</td>
<td>šilá-</td>
<td>sal, -i- (-a-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*kubʰ-ro-</td>
<td>shiny, rock</td>
<td>śubhrá-</td>
<td>Khot. suraa-</td>
<td>surb, -o-</td>
<td></td>
</tr>
</tbody>
</table>

Human, age, kinship.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Sanskrit</th>
<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td>*H̱nëɾ</td>
<td>man</td>
<td>nár-</td>
<td>nar-</td>
<td>ayr, gen. aᵣu</td>
<td>ánηρ</td>
</tr>
<tr>
<td>A *gersH-</td>
<td>old</td>
<td>järás-</td>
<td>zar-</td>
<td>cer</td>
<td>γέρας</td>
</tr>
<tr>
<td>B *gersHont-</td>
<td>old</td>
<td>járant-</td>
<td>Oss. zerrond</td>
<td>cer-un(-i)</td>
<td>γέρων</td>
</tr>
<tr>
<td>*mṛto-</td>
<td>mortal</td>
<td>-mṛta-</td>
<td>-mṛṣa-</td>
<td>mard, -o-</td>
<td>βροτος</td>
</tr>
</tbody>
</table>

For a discussion of all these words, see Martirosyan 2010 s.vv.
## Body, perceptions, mentality, belief.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Sanskrit</th>
<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ye[h]g-nu-</em></td>
<td>sound</td>
<td>vagnú-</td>
<td>gang</td>
<td></td>
<td>πρωκτός</td>
</tr>
<tr>
<td>*pr(o)Hkt-</td>
<td>buttocks</td>
<td>(prṣhá-)</td>
<td>(parṣa-)</td>
<td>erastan-k’</td>
<td></td>
</tr>
<tr>
<td><em>h,erk</em>-o</td>
<td>song</td>
<td>arká-</td>
<td>erg, -o-</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>m(o)rmen-</em></td>
<td>body</td>
<td>márman-</td>
<td>marmin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*skHel-</td>
<td>to err</td>
<td>skhálati</td>
<td>šil / saxal</td>
<td>σφάλλομαι</td>
<td></td>
</tr>
<tr>
<td><em>pel(ə)rk-u-</em></td>
<td>rib, side</td>
<td>pāṛṣu-</td>
<td>porasu-</td>
<td>(y)-ors-</td>
<td></td>
</tr>
<tr>
<td><strong>A</strong> <em>g</em>ker-os-</td>
<td>warmth</td>
<td>háras-</td>
<td>jer, -o-</td>
<td></td>
<td>δέρος</td>
</tr>
<tr>
<td><strong>B</strong> <em>g</em>er-nu-</td>
<td>to be warm</td>
<td>ghrñóti</td>
<td>jernum</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(p)ste/ēn-</em></td>
<td>wom. breast</td>
<td>stánā-</td>
<td>stín</td>
<td>στηνιον</td>
<td></td>
</tr>
</tbody>
</table>

## Movements, speech and other activities.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Sanskrit</th>
<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(s)Hd</em>-jo-</td>
<td>succeed</td>
<td>sidhyati</td>
<td>aj(-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>h₃r-nu-</em></td>
<td>gain; allot</td>
<td>aranauu-</td>
<td>arnum</td>
<td>ārṇom</td>
<td></td>
</tr>
<tr>
<td><strong>A</strong> <em>k</em>ē/ou-*</td>
<td>to go, move</td>
<td>cyav-</td>
<td>šauauaité</td>
<td>ēog-</td>
<td>σενομαι</td>
</tr>
<tr>
<td><strong>B</strong> <em>k</em>ju-*o-</td>
<td>moved</td>
<td>cyutá-</td>
<td>-šīta-</td>
<td>ėu, -o-</td>
<td>-συντος</td>
</tr>
<tr>
<td>*ēHτ-*ti-</td>
<td>punish, etc.</td>
<td>šiṣṭi-</td>
<td>sast, i-st.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(s)peud-</em></td>
<td>zeal, haste</td>
<td>Parth. peul-</td>
<td>p’oyi‘</td>
<td>σπουδ-η</td>
<td></td>
</tr>
</tbody>
</table>

## Fauna.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Sanskrit</th>
<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td>*h₃Vu(p)k-</td>
<td>fox</td>
<td>lopāśā-</td>
<td>*raupasa-</td>
<td>ahuēs</td>
<td>ἀλώπηξ</td>
</tr>
<tr>
<td>*h₂gjipio-</td>
<td>eagle, etc.</td>
<td>rjipyā-</td>
<td>arzifiō.</td>
<td>arci</td>
<td>αιγυπτιός</td>
</tr>
<tr>
<td>*kH1(-n)no-</td>
<td>bird of prey</td>
<td>šyenā-</td>
<td>saēna-</td>
<td>c’in, o-stem</td>
<td>ἵκτινος</td>
</tr>
<tr>
<td>*Hkek-[h]₁-</td>
<td>weasel</td>
<td>kaśkā-</td>
<td>ak’is, i-stem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*h₁g-w,ι-</td>
<td>snake, adder</td>
<td>āhi-</td>
<td>aži-</td>
<td>ēz, i-stem</td>
<td>ἐχίς</td>
</tr>
<tr>
<td><em>sing</em>o-</td>
<td>lion, panther</td>
<td>sînha-</td>
<td></td>
<td>inj</td>
<td></td>
</tr>
<tr>
<td><em>g</em>ou-d‘eh-</td>
<td>lizard</td>
<td>godhā-</td>
<td>kov-a-di-ac‘</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*g₂ei-o-</td>
<td>horse</td>
<td>háya-</td>
<td>(*zaya-</td>
<td>ji, -o-</td>
<td></td>
</tr>
</tbody>
</table>

## Animal husbandry.

<table>
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<tr>
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<th>Gloss</th>
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<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>h₃(e)jig-</em></td>
<td>goat</td>
<td>(eda-</td>
<td>(izaēna-)</td>
<td>ayc</td>
<td>αἰξ</td>
</tr>
<tr>
<td><em>h₃s-en-</em></td>
<td>male anim.</td>
<td>(ṛsaḥhā-)</td>
<td>arṣan-</td>
<td>arn</td>
<td>ἄρσην</td>
</tr>
<tr>
<td><em>ṛh₁ën</em></td>
<td>lamb</td>
<td>írant-</td>
<td>*varn-</td>
<td>garin</td>
<td>γαρίν</td>
</tr>
<tr>
<td><em>h₁gk-θw-</em></td>
<td>cow, ox</td>
<td>ahi-</td>
<td>aži-</td>
<td>ezn, g, ezin</td>
<td></td>
</tr>
<tr>
<td><em>g₂ou-ip-</em></td>
<td>of cow</td>
<td>gārcya-</td>
<td>gaoita-</td>
<td>kogi</td>
<td>-βο(ϝ)μος</td>
</tr>
<tr>
<td><em>h₂ũe-pḥw-</em></td>
<td>shepherd</td>
<td>gau-pā-lā-</td>
<td>avi-pā-lā-</td>
<td>hoviw, -a-ser</td>
<td></td>
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<tr>
<td><em>ker-e/os-</em></td>
<td>cream</td>
<td>sāras</td>
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Agriculture.

<table>
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<th>Gloss</th>
<th>Sanskrit</th>
<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
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</thead>
<tbody>
<tr>
<td>*h2leh-ur</td>
<td>flour</td>
<td>(MInd. āṭā)</td>
<td>*arua-</td>
<td>alewr</td>
<td>álēφον</td>
</tr>
<tr>
<td>*h2(ə) lh1-</td>
<td>to grind</td>
<td></td>
<td>*alu-</td>
<td>alaṛi</td>
<td>álēφόζ</td>
</tr>
<tr>
<td>*h2(ə) lh1-tr-</td>
<td>grinder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*xerhauεr/n-</td>
<td>arable land</td>
<td>urvārā-</td>
<td>uruuarā-</td>
<td>harawun-k'</td>
<td>ἀρουφα</td>
</tr>
<tr>
<td>*ke/omieh2</td>
<td>yoke-pin</td>
<td>šāmyā-</td>
<td>simā/-somi-</td>
<td></td>
<td>(καμαξ)</td>
</tr>
</tbody>
</table>

House, housekeeping, crafts, implements, building.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Sanskrit</th>
<th>Iranian</th>
<th>Armenian</th>
<th>Greek</th>
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</thead>
<tbody>
<tr>
<td>*h2enHt-ieh2</td>
<td>threshold</td>
<td>(átā-)</td>
<td>aθtūa-</td>
<td>*and-i-</td>
<td>anio ‘wheel’</td>
</tr>
<tr>
<td>*h3telb-</td>
<td>nave, hub</td>
<td>nābhi-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*b'ehg-</td>
<td>lot, estate</td>
<td>(bhāgā-)</td>
<td>*bāgā-</td>
<td>bak</td>
<td>(φαγειν)</td>
</tr>
<tr>
<td>*d'inhb-</td>
<td>tomb, grave</td>
<td>*dæf-ma-</td>
<td>danban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*k(ε)r(H)ieh2</td>
<td>to tie, form</td>
<td>*sar-</td>
<td>sarem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*k(ε)r(H)ieh2</td>
<td>band</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*deh-</td>
<td>to bind</td>
<td>dā-/dyāti</td>
<td>dā-</td>
<td>*ti-</td>
<td>δεω</td>
</tr>
<tr>
<td>*dh1-ti-</td>
<td>bond</td>
<td>-diti-</td>
<td></td>
<td>*lay</td>
<td>δείσις</td>
</tr>
</tbody>
</table>

6. Lexical isoglosses between Armenian, Greek and European dialects

6.1. Armenian and Greek: innovations.


6.1.2. *h2(ə)lh1-: Arm. acu ‘garden-bed’, Gr. ἄγυια, pl. ἄγυιαι f. ‘street, road’; probably a shared innovation based on PIE *h2e/gvault-:

- Arm. acem ‘to bring, lead’, Skt. ájati, Gr. ἀγω ‘lead’, etc.

6.1.3. *h3k'æn on ‘eye’: Arm. aın gen. akan ‘eye’, Gr. ὀξύς, ὀξὺς ‘eye’ (Hesychius); derived from PIE *h3k'æn ‘eye’: Skt. áksi-, Gr. ὀξεῖ, Arm. ać'k', etc.

6.1.4. *antɛr / *an(n)ɛr ‘cave’: Arm. ayr, i-stem ‘cave’, Gr. ἀντρόν n. ‘cave’. The development of *-nt- is problematic, however. Perhaps one can assume a substrate origin with a nasal vacillation, *an(n)ɛr vs. *antɛr, somehow comparable to another substrate term, Arm. kamurj ‘bridge’ vs. Gr. γέφυρα ‘bridge’. The by-form *an(n)ɛr could easily develop into ayr (cf. *h2nɛr > ayr ‘man’).

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88 On Gr. ἄγυια, Arm. acu and various explanations of -u, see Clackson 1994: 117, 225; Martirosyan 2010: 17–18; Beekes 2010, 1: 17 (not mentioning the Armenian word).

89 For these Armenian and Indo-Iranian words, see HAB 3: 275–276; Mayrhofer KEWA 2, 1963: 626, 669; EW Aia 2, 1996: 370–371; Dočkalová / Blažek 2011: 323, 327.


6.1.5. *hωσ-τ(e)-h2 ‘harvest, summer’: Arm. *ar-a- ‘harvest, harvest time’, seen in ar-a-c’ ‘harvest time, harvest of grape/fruit’, the sixth month (17th August to 15th September); Gr. ῥήματος ἀραρίσκω f., Lac. ῥήματος ‘end of the summer, beginning of autumn; harvest, fruit’; cf. also CS jesen, Russ. osen f. ‘autumn’, Goth. asans f. ‘harvest, summer’, OHG aran, Germ. Ernte ‘harvest’, etc. Arm. *ar-a- derives from PArm. *o(h)ár-a- < neuter plural or collective *hωσ-τ(e)-h2 ‘harvest, summer’ (or *hωσ-τ(e) > fem. *hωσ-τ(e)-h2). Note the remarkable contrast with the preceding month name, kάλ-o-κ’ ‘mowing time’, deriving from k’elem ‘to pluck, weed, mow, harvest’ < *(s)kl-elo-, which is a Graeco-Armenian agreement too, cf. Gr. σκάλλω ‘to stir up, hoe’ from σκάλ-νω (see §6.1.30).

For the typology of such a contrast between the fifth (reaping/mowing) and the sixth (harvest — grape/fruit) months, compare e.g. the contrast between the fifth month (July-August) as “reaping/mowing time” (“урожайная пора”) vs. the sixth month (August-September) as “beginning of the pressing of grape-juice” (“начало выжимания виноградного сока”) in the Khwarezmian calendar.102 (HM)

6.1.6. *h2er- ‘to fix, put together’: Arm. ainem, 1sg.aor ar-ar-i, 3sg.aor. ar-ar ‘to make; to create’; Gr. ἄραρισκω, aor. ἰχραρον ‘to fit, equip’, etc. The agreement is unobjectionable both formally and semantically, but it may be an archaism.103

6.1.7. *Hēh2m-(ὁ)ρ, gen. *Hhjm-(ε)ν-: Arm. awr, gen. awur, instr. awur-b ‘day; time, age’; Gr. ἡμαρ, Arc. ἡμαρ, -ατος n. ‘day’, ἡμέρα, Dor. ἡμέρα ‘id.’. Arm. aw(u)r may be explained as follows: *aλάμόρ > PArm. *amur > *aμu > *aw > Arm. awr, gen. awur.104

6.1.8. *h3b’el-: Arm. awel ‘broom’, later denominative awelμ ‘to sweep, broom’; Gr. ὀφέλλον ‘to sweep, broom’, ὀφέλμα, ὀφέλτρον ‘broom’; Arm. *awel- ‘increase’ in awelμ ‘more’, aṙ-awelum ‘to increase’, y-awelum ‘to add to’; Gr. ὀφέλλω ‘to increase, enlarge, augment, advance’ (cf. Myc. no-pe-re-a2 /nopheleha/ ‘useless’ < *h3b’el-es-h2: *νωφελης). There is no cognate to this root in other Indo-European languages.105

Jahukyan (1970: 213–9) admits the possibility that Arm. awel- ‘to increase’ has been borrowed from Urartian abili-d(u) ‘to join, increase’. Arutjunjan (1983: 339) notes that in this case the comparison between Arm. y-awelum and Gr. ὀφέλλω would be impossible. However, the etymological connection between these Armenian and Greek words is unobjectionable, and the apparent contradiction can easily be removed if we assume the opposite direction of borrowing, namely from Armenian into Urartian.106 Compare the cases of arcui ‘eagle’ and burgn ‘tower’ (§§4.2.1–2 and 6.1.10).

The remarkable agreement between Armenian and Greek in both meanings, ‘sweep’ and ‘increase’, makes this one of the most important isoglosses.

6.1.9. *b’h2-ti-: Arm. bay, i-stem ‘speech, word, verb’, Gr. φάςις, φάτις f. ‘declaration, enunciation, rumour’; a zero-grade ti-derivative of PIE *b’h2- ‘to speak’: Arm. bam ‘to speak, say’ vs. φημί ‘to say’.

6.1.10. *b’urg- ‘tower’: Arm. burgn, gen. burgan ‘tower; pyramid’; Gr. πύργος m. (also φύρκος) ‘tower’. Notwithstanding the formal problems, which might suggest a substrate in-

102 See Martirosyan prepar. 1.
104 The appurtenance of Ofr. amm ‘time, season’ (from *Hhjm-n-?) and Arm. aṙanak ‘time’ is uncertain. For a discussion, see Clackson 1994: 96–97; Martirosyan 2010: 46, 156.
termediation, this cultural term seems to be based on \*bʰ\textit{erė}g\textit{h}, \*bʰ\textit{r̥g}h\textit{-u}, \*bʰ\textit{r̥g}h\textit{-}(e/o)nt-: Arm. \textit{barj\textit{r}}, gen. \textit{barju}, -\textit{berj} 'high', \textit{bārnam} 'to lift, raise' < \*\textit{barj-nam}; Hitt. \textit{parku} 'high', Skt. \textit{bṛhant} 'large, wide, abundant, lofty, high, strong, dense, loud', etc. Urart. \textit{burgana} 'fortress' (if the meaning is reliable) may be an Armenian loanword. For another cultural term of a similar structure, cf. \textit{durgn}, gen. \textit{dr\textit{g}an} 'potter’s wheel' vs. \textit{dārnam} 'to turn; to return' < \*\textit{darj-nam} (see §6.5.2).

6.1.11. \*\textit{dʰ}n\textit{h₁ro}-: Arm. \textit{dalar}, o-stem 'green, fresh'; \textit{dalar-i, dalaro-o-y, -o-j} 'greenery, grass, herb'; Gr. \textit{dalaro}č 'blooming, fresh'. The root is visible in Gr. \textit{dāllw} 'to bloom, flourish, grow', \textit{dāllos} n. 'sprout', \textit{dāllo}c m. 'green twig, esp. of the olive, sprout', Mr. \textit{duine}, \textit{duille} 'leaf, foliage', OEngl. \textit{dīle} 'dill', Alb. \textit{dal} 'to sprout', etc., as well as Arm. \textit{del}, o-stem 'herb; medicine; poison'. Notwithstanding the problems concerning the reconstruction of the root (\*\textit{dʰ}n\textit{h₁-} or \*\textit{dʰ}e\textit{h₁}l-) and the suffix (\*\textit{ero-} or \*\textit{ro-}),\textsuperscript{107} I see no solid reason for separating Arm. \textit{dalar} (o-stem) from Gr. \textit{dalaro}č.

It is also worth considering whether Arm. \textit{del} 'herb' and Gr. \textit{dāllw} m. 'green twig, sprout' derive from an old n-stem: nom. \*\textit{dʰl(H)-n}-, gen. \*\textit{dʰl-nós}.


6.1.13. \*\textit{pr(ε)Hk₁t-}*/\textit{pr(ο)kt-}: Arm. \textit{erastan-k}, a-stem 'buttocks', Gr. \textit{πρωκτός} m. 'anus'. Clackson (1994: 166–167) takes this as an Armenian-Greek-Aryan correspondence, cf. Skt. \textit{prṣṭh-} n. 'back, mountain-ridge, top', \textit{prṣṭi-} f. 'rib', cf. YAv. \textit{parṣṭa-} m. 'back, spine, support in the back', \textit{parṣti} 'back'. However, the Indo-Iranian words appear to be derived from \*\textit{pr-sth₂-o-} and are thus unrelated.\textsuperscript{108} Even if they are related (which would create an isogloss between Armenian, Greek and Indo-Iranian), Armenian and Greek are certainly closer to each other since they agree in both vocalism and semantics.

6.1.14. \*\textit{pr(e)i}\textit{sg}\textit{s}\textit{u}-: Arm. \textit{erec}, u-stem (adj.) 'elder; presbyter'; Gr. \textit{πρέσβυς} m. 'old man; the elder; ambassador; president'; perhaps also Lat. \textit{príscus} 'ancient'.\textsuperscript{109}

6.1.15. \*\textit{dʰeuḥ₂-ro-}: Arm. \textit{erkar} 'long' (in both temporal and spatial aspects), Gr. \*\textit{δὐρός}: \textit{δύρος}, Dor. \textit{δύρος} 'lasting long'; with a different vocalism: Lat. \textit{dūrō} 'to endure, last out, survive', Skt. \textit{dūrā-} 'far', etc.; \*\textit{dʰeuḥ₂-n-}: Arm. \textit{erkayn} 'long', Gr. \textit{δῆν} 'long, far' < \*\textit{δṝvān}.\textsuperscript{110}

6.1.16. \*\textit{uʃ-s-u-}: Arm. \textit{z-genum}, 3sg.aor. \textit{zg-e-c‘a-w} 'to put on clothes', Gr. \*\textit{ἐννυμι} 'to clothe; to put on, clothe oneself'; cf. Hitt. \textit{uʃ-s-} 'to be dressed', Skt. \textit{vāste} 'to be clothed, wear', etc. (see §3.5 on \textit{nu}-verbs).

6.1.17. \*\textit{pter-} 'feather, wing, blade': Arm. \textit{tɨr} (widespread in the dialects: Hamšen, Axalc’xa, Łarabal, Ararat, Žula, Sebastia, etc.) 'leaf; leaf of dough or paper; petal', \*\textit{tɨl} (dial.) 'id.‘; \textit{tɨɛr}, abl. \textit{i tɨ́rɛ́} 'side' (from earlier 'wing, feather');\textsuperscript{111} \textit{tɛŕt}, i-stem 'leaf of a flower, plant or paper; plate' (Philo, Paterica, etc., and dialects); Gr. \textit{πτέρων} n. 'feather; bird’s wing; wings of a bat and of insects; any winged creature, such as the Sphinx; anything resembling wings or feathers, such as oars and parasols; side-walls of Egyptian temples; drawbridge', \textit{πτέρνε} f. 'wing of a


\textsuperscript{108} Mayrhofer EWAia 2, 1996: 165–166; Beekes 2010, 2: 1244. For a discussion of the Armenian word and literature, see Martirosyan 2010: 258.


\textsuperscript{111} For the semantic development, cf. the meanings 'side-walls of Egyptian temples' and 'drawbridge' of Gr. \textit{πτέρων} 'wing'. Note also Arm. \textit{kuṁ} 'back, arm' and 'side'; Engl. \textit{wing} 'wing' and 'side, flank'.

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bird; winged creature; bird; blade'; the other cognates represent *pet-r-: Skt. pātra- n. ‘wing, feather, leaf’, OHG fēdara ‘feather’, Hitt. pattrar, obl. pattan- ‘wing, feather’, etc.; derives from *pet(H)- ‘to fly’: Skt. pātati ‘to fly, rush, fall’, Gr. πέτ-ο-μαι, πτε-έ-δαι ‘to fly’, etc.

Arm. t’er and Gr. πτερ- correspond to each other both semantically (pace Beekes 2010, 2: 1248) and formally. Notwithstanding the formal problems, here may also belong Gr. πτερίνον n. ‘soft feathers, down; wing (properly of insects); the wing-like membrane on a kind of serpent’,112 Arm. t’el ‘leaf, leaf of dough’ and ‘wing of a bat’ (the latter meaning is seen in mašk-a-t’el ‘bat’, with mašk ‘skin as the first member) and redupl. t’it’eln / t’it’erin ‘butterfly’.

6.1.18. *tūmb- ‘mound’. Arm. t’umb ‘mound; fence, wall around a house’, Gr. τύμβος m. ‘mound, burial mound, grave’ (see §4.1.14 on *d’tmib-: Arm. damban ‘tomb, grave’).


6.1.20. *g’h₂-eno-: Arm. kalın, o-stem ‘acorn’, Gr. βάλανος f. ‘acorn’; with a different suffix: Lat. glāns, glandis f. ‘acorn’, Scr. zělēd ‘acorn’, Lith. gilia, etc.116 It is tempting to identify Arm. dial. Larabā tōken ‘hazelnut’ (< *tu-kalin < *tu-kalín) with Gr. διφός βάλανος ‘chestnut’ (cf. Lat. iūglāns ‘walnut’) from *diygos- *g’h₂-eno- ‘divine acorn’ (Martirosyan 2010: 348–349).

6.1.21. *g’hēnisk- ‘woman’: PArm. *kan-ay- (seen in pl. kanay-k’s vs. sg. kin), Gr. γυναι-κ, voc. γυναι, nom. γυνη f. ‘wife, woman’. This is a remarkable agreement, though its nature is debated.117

6.1.22. *per-(i)on- ‘piercing implement’: Arm. heriwn, ins. hereamb ‘awl’, Gr. περ-όνη f. ‘pin or tongue of a brooch or buckle’ from IE *per- ‘to pierce’: Gr. πείρω ‘to perforate, pierce, pervade’, etc.118 The suffixes are different in the two languages.119

6.1.23. *mar-mar-: Arm. dial. *mar-m(ar)-il ‘to shimmer, flicker, glimmer, extinguish gradually (said of e.g. a candle)’, Gr. μαρμαίρω ‘to flash, sparkle, gleam’ (said of any darting, quivering light), which is analyzed as a reduplicated intensive *mar-mar- (seen in pl. mar-mar-ik’s vs. sg. kin) for the other Armenian and Greek forms, see HAB 3: 248–249, 262, 263, 365 and Beekes 2010, 2: 906–907. (HM)

6.1.24. *mehtsr(h)₂ ‘stepmother’: Arm. mawru, a-stem ‘stepmother’ (dial.: Hamšen mér ‘stepmother’, Muš muri ‘step’, Šaxat muri mér ‘stepmother’, Muš / Bulanan xor’tumuru < *xor’t-u-mōrı; Gr. μητροία ‘stepmother’; further: OEngl. mōdrige (u-stem) ‘mother’s sister’. This is an innovation shared by Armenian and Greek (and, more distinctly, Germanic). It is based on PIE *meh₂ter- f. ‘mother’.120

6.1.25. *me̞g’sr-i ‘near’, lit. ‘in the hand’: Arm. merj ‘near’, merjenam < *merji-anam ‘to approach, touch’; Gr. μέχρι ‘as far as; up to, about, nearly; until; as long as, whilst’.

112 For various views and references, see Beekes 2010, 2: 1249.
113 For a thorough discussion of all these Armenian words, see Martirosyan 2010: 286–294, 450–451.
114 Alternative: an old u-stem with nom. *-on(s).
116 Clackson (1994: 135–136) is positive about this isogloss.
120 For a discussion and literature, see HAB 3: 246b; Szemerényi 1977: 60; Beekes 1976: 55–58; Clackson 1994: 145–147; Martirosyan 2010: 453–454; Beekes 2010, 2: 949. For the element *u-, cf. Gr. μητροία m. ‘male relative of the mother, maternal uncle, grandfather’ from *meh₂str-ōu- ‘relative of the mother’, perhaps also Arm. mi-a-mawr, gen.pl. -u-c ‘the only (offspring) of one mother’.

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6.1.26. *mēd-es(-e)h₂ ‘mind, counsel’: Arm. mit, a-stem, mostly in pl. mit-k‘, gen. mt-ac ‘mind, intelligence’, Gr. μηδεα ‘counsels, plans, arts’ (pl. of the unattested *μηδος, -εος, s-stem neuter), μηδομαι ‘to be minded, intend; to take care, keep watch’, cf. μηδω ‘to protect, rule over’, μηδομαι ‘to provide for, be mindful of; to plan, contrive, devise’, Lat. meder ‘to heal, cure’, Umbrian mers ‘law, justice’ < *medos, etc. from PIE *med-. The Armenian and Greek forms agree in both vocalism and semantics.

6.1.27. *h₂en-horðhi- ‘testicled, uncastrated, male (ram or buck)’; Arm. y-orj, i-stem ‘male sheep, ram’; Gr. ἐν-ὀρχις ‘provided with testicles, uncastrated’, cf. ἐν-ὀρχος, ἐν-ὀρχ-ης meaning also ‘buck’; note also Arm. xol-orj(n) ‘orchis’ vs. Gr. ὀρχις m. ‘testicles’, ‘the plant orchid (because of the shape of the root)’.(HM)

6.1.28. *h₂eləgθi-in(i)- ‘hedgehog’: Arm. ozni ‘hedgehog’, Gr. ἐξίνος m. ‘hedgehog, seaturchin’; cf. OHG ige ‘id.’, Phryg. ἐζις ‘hedgehog’, Lith. ežys, Russ. ëž ‘id.’, etc.; note also Oss. wyzyn/uzun ‘hedgehog’.

6.1.29. *syekur(-e)h₂: Arm. kesur, a-stem ‘husband’s mother’, Gr. ἐυρά ‘mother-in-law’. Other cognates continue *syeκru-h₂: Skt. śvāsr-, NPers. xusrū, Pashto xwāše, Lat. sorcrus, OHG swigar, OCS svekry, etc. Arm. kesur, a- and Gr. ἐυρά derive from QIE fem. in *-ur- which has been taken from the PIE form for ‘father-in-law’, *syekur-o-: Skt. śvásura-, YAv. xasura-, Gr. ἐυρός, Lat. socer, OLat. socerus, OHG swehur, CS svekr (‘svekur- was replaced by *svekr- analogically after swekry ‘mother-in-law’), Lith. šėšuras, etc.

6.1.30. *(s)kl-ne/o-: Arm. kal’em ‘to pluck, weed, mow, harvest’, Gr. σκάλλω ‘to stir up, hoe’ prob. from *σκάλλ-νω; further: Lith. skeliu, škētis ‘to split’, etc. Note Arm. k’al-o-c’ ‘mowing time’, the 5th month (18 July–16 August). See ar-a-c’ ‘harvest time, harvest of grape/fruit’, the sixth month (§6.1.5).

6.2. Armenian and Greek: isolated words.

These words have no Indo-European etymologies and may therefore be treated as words of substrate origin, that is to say, common borrowings from an unknown language (for a discussion of the substrate, see section 7).

6.2.1. *ant’(-r)- ‘coal’: Arm. ant’-el ‘hot coal, ember’ (Łazar P’arpec’i, Hexaemeron, etc.), dial. *ant’(-e)l-oc ‘metal rod for poking or stirring a fire, poker’, dial. *ant’(-a)r- ‘coal, ember’ in *ant’-r-oc’ and *ant’-ar-oc’ ‘poker’ (note also ant’ayr ‘spark’ in Bağırk’ hayac’ and NHB, probably from *ant’-ar-(-J-’V’); Gr. αὐθραξ m. ‘charcoal’.

6.2.2. *drep-an-els: Arm. artewan-un-k’, gen.pl. artewan-a(-n)c’ ‘eyelashes; eyebrow’ (Bible+), Gr. δρέπανη, δρέπανον ‘sickle’ (from δρέπω ‘to pluck, cut off’). According to this fascinating etymology suggested by de Lamberterie (1983; 1992: 239; 2013: 22), the human eyebrow (and/or eyelash, see below) is taken as sickle-shaped. The basic meaning of artewanunk’ is usually presented as ‘eyelid’ since it usually corresponds to Gr. βλέφαρον ‘eyelid’ in the Bible. NHB and HAB, however, describe the Armenian word as ‘eyelashes’, and so does de Lamberterie (1983: 21) in French, ‘cils’. Indeed, in some

123 HAB 1: 194; Martirosyan 2010: 85; Jahukyan 2010: 57a; Beekes 2010, 1: 105 (here the dialectal forms in -r- are not mentioned). For the dialectal forms, see NHB 2: 1060abc; Amatuni 1912: 4a; Ačaṙean 1913: 48b, 98–99 HayLezBrbBar 1, 2001: 9a. The nasalless by-form at’ar-oc’ may be due to folk-etymological association with at’ar ‘dry dung used as fuel’. For the suffix -oc’, see Olsen 1999: 533–537.
bibilcal passages ‘eyelash’ (or ‘eyebrow’) would make more sense than ‘eyelid’, e.g. Proverbs 6.25 ( mı yap’štak’ic’ is artewanamb’k nora “do not be captivated with her eyelashes/eyebrows”) or Jeremiah 9.18 ( ew artewanunk’ jer bxesc’en jur “and let your eyelashes drop water”). Note also that the derivatives of Gr. βλέφαρον display a semantic vacillation between ‘eyelid’ and ‘eyelash’. And finally, a few passages from original (non-translated) literary sources make the meaning ‘eyelash’ quite clear (e.g. maz artewanac ‘hair of eyelashes’).

In a remarkable passage from Movsēs Xorenac’i 2.42 we read: “a multitude of vineyards resembled the beautiful crescent of thick lashes (zarțewanac’ xit ew geleć’ik cir); on the northern side its curved form truly imitated the arching brows of charming maidens (gelawor kusic’ yōnic’)” (transl. Thomson 2006: 180). We can see that artewanunk’ cannot mean ‘eyelid’ here since it is compared to vineyards. Nor does it mean ‘eyebrow’ since the latter is present here by its main designation, yōnk’. There can be no doubt that Thomson’s translation as ‘eyelash’ is correct.

6.2.3. *sep*-s- or *seps- ‘to boil, cook’: Arm. ep’em ‘to cook, boil’; Gr. ἐψῳ ‘to boil, seethe (of meat and the like); to smelt, refine (of metals).’

6.2.4. *(a)γρ-eh₂: Arm. t’arp’ / t’arb (abl. i t’arb-ē) ‘large wicker fishing-basket, creel’, Gr. ταρπίτη f., ταρπός, τερπός m., ταρπόνι f. ‘large wicker basket’; probably a common borrowing from a lost source.

6.2.5. *śimy l(um)m- ‘hinge’: Arm. clxni, ea-stem (loc.sg. i clxnv-ew, gen.dat.pl. clxn-e-ac’), čxni, čxšan, dial. čxvan ‘door hinge’; Gr. γι(γ)γλύμος m. (dimin. γι(γ)γλύμον n.) ‘hinge, joint, pivot, gudgeon’. Mediterranean word (Martirosyan 2012). (HM)

6.2.6. *kalam- ‘aspen, plane’: Arm. kalamax(i) ‘white poplar, aspen’; Gr. καλαμίν-δαρ’ πλάτανος τονιες ‘plane’, obviously with *dar ‘tree’ (Hesychius); in neighbouring non-Indo-European languages: Salmast Turk. k’ilām-bīr ‘aspen’, T’avriz Turk. qalāmā ‘poplar’; in Dagh-estan languages: Lak kalaxi, Rutul kalax ‘aspen’. For the semantic relationship, cf. Arm. čandar ‘poplar’ and ‘plane’; op’i ‘poplar, aspen’ and Larabał ‘hop’i ‘plane’. The ending -ax in Armenian may be a suffix, possibly seen also in met-ex ‘the handle of an axe’ (if related with Gr. μελια ‘manna ash, ashen spear’) and taws-ax ‘box-tree’. The correspondence Arm. k vs. Gr. κ and in a few of the lexemes that follow points to a later stage of Mediterranean substrate vocabulary.


6.2.8. *karid- ‘crayfish’: Arm. karič, a-stem ‘scorpion’, dial. ‘crayfish’ < *karid-jā f.; Gr. κάρις, -ίδος, -ίδος (also κουρίς, κωρίς) f., generally a proper term for small crustaceans, including shrimp and prawn. For the (old feminine) suffix -iēh₂, note Arm. dial. *mormonj’ ‘ant’ < *mormon-jeh₂ (cf. morm ‘tarantula’ and Gr. Μορμών ‘bogey, bugbear’, see §6.4.8). Note also Arm. kor, gen. kor-i ‘scorpion’ (Dersim dial. gx-f), which is reminiscent of the Greek by-forms κούρις, κωρίς.

6.2.9. *gario- ‘drain’: Arm. kori ‘drain, channel’, Gr. γαργυρίων n. ‘subterranean channel’. (HM)

6.2.10. *g*(e)m/b’urieh₂ ‘bridge’: Arm. kamurj, a-stem ‘bridge’, Gr. γέφυρα f. (Boeot. βέφυρα, Cret. δέφυρα, Lac. δίφυρα) ‘bridge’; in non-Indo-European languages: Hatt. համուռ (wa) ‘beam’, Abkhaz *qʰa*(m)b’ala- ra ‘beam over the hearth, cross-beam’, etc. The Proto-Armenian theoretical by-form *kaburj- may have been reflected in Urart. qaburzn’i possibly meaning ‘bridge’ in a recently discovered inscription.

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Clackson (1994: 153–154) assumes that the word “is of later origin in Armenian, and it may even be a loan from Greek”. This is not plausible, however. This Armenian word, albeit attested late, is reliably old since it is found in a great number of non-contiguous dialects, such as Hamšen, T‘iflis, Ararat, Karin, Muş, Svedia and Łarabal. Besides, Arm. -z- can hardly be explained from Gr. -σχ-. In my opinion we are dealing with a Mediterranean word: *mosgüt-o- ‘young bovine’ (with Gr. μοσχος m.f. ‘calf, young bull, any young animal’) > Parm. *moz(o) + -i as in other animal designations, such as αγέ ‘goat’, mαρι ‘female bird’, μακ’i ‘ewe’ (Martirosyan 2010 s.vv.), or directly *mosgüt-i-o-i- (cf. Gr. μοσχίον ‘young calf’, μοσχίας ‘like a calf; three-year-old ram’, etc.) > Parm. *mosziyo/a129 > Arm. mozi ‘young bovine, calf’. For the semantic relationship between ‘young shoot’ and ‘young animal’, compare, e.g. ClArm. erinj ‘heifer’ > Ararat dial. erinj ‘a three-year-old sprout of grapes’.130

6.2.12. *notiyeh ‘wetness’: Arm. nay, gen. nay-i ‘humid, moist; wetness, moisture; (phonet.) liquid’ (Dionysius Thrax, Book of Chries, Grigor Magistros, Esaï Në‘ec’i, etc.), nayac’uc’anem ‘to wet, moisten, water, irrigate’ (Philo, Book of Chries), nayakan ‘humid, moist’ (John Chrysostom); Gr. νοτία, -ινή f. ‘wetness’.

The Armenian word is usually derived from PIE *sneh- ‘to swim’: Skt. snáti ‘to bathe’, Gr. νεώ, νήχω ‘to swim’, Lat. nāre, natāre ‘to float, swim’, etc.131 The Armenian word may be derived from *n(e)h2-t-, cf. Avest. u-snáti- f. ‘Abwaschung’. However, semantically more attractive is the comparison of Arm. nay with Gr. νοτία, -ινή f. ‘wetness’ (cf. Schefterowitz 1904–05, 2: 24). According to Beekes (2010, 2: 1025), the latter should be separated from *(s)neh- ‘to swim’ because of the vocalism and may be Pre-Greek. Gr. νοτία f. ‘wetness’ and Arm. nay, i-stem ‘humid, wetness’ may have been borrowed from a (substrate) proto-form like *notiyeh > Parm. *notiyā > *nay(ya) > nay.

6.2.13. *(H)pur:- Arm. olorn, an-stem ‘pea, bean’, dial. húle(τ)ína (Goris, Łarabal húle(na); Gr. ὤλυρια p.l. ‘spelt; rice-wheat’ (cf. Akkad. ḫallūru, ḫīullūru, etc.).


6.2.15. *pʰortʰ-o- or *(t)ort-o- ‘sprout, young twig’: Arm. ort-, o-stem ‘vine’, Gr. πτόρθος m. ‘sprout, shoot, young twig’, πόρθος: πτόρθος, κλάδος, βλάστος (Hesychius).133

127 Attested in the 11th century commentary of Grigor Magistros on the Armenian translation of Dionysios Thrax (Adonc 1915: 240129, 24114):.
129 The pretonic *(e)- has not yielded -a- because the syllable was closed due to the geminate -zz- (see Kortlandt 2003: 40; Beekes 2003: 157).
130 For more detail and other examples, see Clackson 1994: 230129; Martirosyan 2010: 264–265, 785–787.
6.2.16. *kʰsan-t(ə)r- 'wool-carder, comb': Arm. santr / sandr, ins.sg. santr-o-ů (Lazar P'arpec'ī 3.61), abl.sg. i sandr-ě (Ephrem) 'comb; weaver's comb', dial. sander-k (Karín santr-ć-k) 'weaver's large comb'; Gr. ξαίω 'to card, comb wool', ξαντής m. 'wool-carder' ξαντρία (title of a play by Aeschylus). In view of the incompatibility of the Armenian initial s- with Greek *ks- in Indo-European terms, this comparison is considered to be uncertain. I assume that we are dealing with a substrate word: *kʰsan-t(ə)r- > Arm. sandr, pl. sander-k.

6.2.17. *siekʰ-u- 'melon, gourd': Arm. sex (gen. sexoř in Hexameron) 'melon', Gr. σίκχα, Ión. -υῇ f. 'bottle-gourd, round gourd; gourd used as a calabash', σέκουα id.' (Hesychius), σίκκος, σίκκος m., σίκα f. 'cucumber', σίκκος πέπων 'a kind of gourd or melon, not eaten till quite ripe'. The relationship with Russ. тьшка 'pumpkin' and Lat. cucumis 'cucumber' is unclear.

6.2.18. *κενο-/κεν(ω) μο-: Arm. sin, o-stem 'empty', Gr. ἄνειρος, especially 'fortunetelling dream, vision', άναρ· ὄναρ m. 'god of dreams, dream', Aeol. φέρενα 'god's share at the sacrifice', Alb. ádērrē (Geg.), endērrē (Tosc.) 'dream' from *andērrē < *Hnr-jolā. Probably derived from PIE *h₁nθ₁m (< *Hnr-jolā>) m. 'to breathe' > 'vital breath, energy' (de Lamberterie 2012a).

6.2.20. *srungʰ- 'snout, nostrils': Arm. ῥυγκ, mostly pl. ῥυγ-ün-k, instr. ῥυγ-am-b-k, ῥυγ-k, a-stem 'nostrils'; Gr. ρύγχος, ρύγχας n. 'snout (e.g. of a pig), muzzle, beak'.

6.2.21. *ps(ε)ud-els-: Arm. süt, o-stem 'false; falsehood, lie', Gr. ψεῦδος n. 'lie', also ψύδος.

6.2.22. *skárp-i-, gen. *(s)krp-i-ós: Arm. kárb, i-stem 'basilkis, asp'; Gr. ἁκρόπιος m. 'scorpion; a sea-fish', ἁκρόπις, -ίδος f. 'a sea-fish'. These words have been claimed to be derived from IE *(s)ker(-t)-, *kér-b/p'- 'to scratch, chop, carve', Gr. κείρω 'to cut (off), shave, mow off, ravage', OHG secran 'to cut', OEEngl. seoerfan 'to scratch', etc. However, scholars are now more inclined towards a substrate origin.

6.3. Armenian, Greek and Albanian.

6.3.1. *h₁nθ₁(m)jō- 'dream': Arm. anürj-k, i-stem, o-stem 'dream, day-dream, prophetic vision, vision'; Gr. ὄνειρος m. 'god of dreams, dream', Aeol. ὄναιρος m., Cret. ὄναιρον ὄναιρον, cf. ὄναρ n. 'dream', especially 'fortune-telling dream, vision', ἄναρ· ὄναρ (Hesychius); Alb. âdērrē (Geg.), endērrē (Tosc.) 'dream' from *andērrē < *Hnr-jolā. Probably derived from PIE *h₁nθ₁m ('to breathe') > 'vital breath, energy' (de Lamberterie 2012a).

6.3.2. *bʰe尔(o)-n- 'load': Arm. bein, gen. berin, ins. bein-b, vom.pl. berin-k 'burden, load; bag, sack; freight, cargo'; Gr. φέρνη f., Aeol. φερένα 'dowry', Dor. φερνά f. 'god’s share at the sacrifice', Alb. bærē 'burden, load; freight, load; foetus' < *bʰor-nēh₂; with a different meaning: Lith. bėrnas 'boy, (farmer’s) servant', Latv. bērns 'child, baby'; with o-grade: Goth. and Oic. barn n. 'child' < “what was borne”. This word is a verbal noun from PIE *bʰe-r- 'to bring, bear'.

The Greek meaning 'dowry' probably derives from *bʰe-r-, 'to bring, bear'.

The meaning of Dor. φερνά, 'god’s share at the sacrifice',

134 See Ačarean 1913: 954; HAB 4: 174–175; HayLezBrBar 5, 2008: 266.
138 In the Bible, bein corresponds to φορτίωn 'burden' (Job 7.20), βάσταγμα 'load' (Jeremiah 17.21), μάρσιππος 'bag' (Genesis 44.11, 13), γούμας 'freight, cargo' (Revelations 18.11), etc.

We can postulate *bʰer-(-e)n- ‘load’ (‘that is borne’), a verbal noun from PIE *bʰer- ‘to bring, bear’ (cf. Arm. berem, Gr. φέρω, etc.) shared by Armenian, Greek, Albanian, Baltic and Germanic. The Armenian is particularly close to the Greek (e-grade and semantics) and is semantically identical with the Albanian. They point to *bʰe/orado- ‘load, freight’, with a secondary transfer to the n-stems in Armenian (cf. eln ‘deer cow’, §6.7.3) or *bʰe/or-(-e)n-.


6.3.4. *skʰodor-o- or *skʰorodo- ‘garlic’: Arm. խստոր, i-stem and o-stem, խստոր ‘garlic’; Gr. σκόρ(ο)δον n. ‘garlic’, Alb. húrdhë, also hūdhër (Schriftsprache) f. ‘garlic’.

6.4. Armenian, Greek and Latin.


6.4.2. *el(ə)ito- vel sim. ‘olive, oil’: Arm. էվիտ, gen. էվ-ո, dial. *ետ ‘oil’; Gr. ἑλαιά, Att. ἑλᾶ, Ion. ἑλαίη f. ‘olive-tree; olive’, ἑλαίος m. ‘wild olive’, ἑλαίον n. ‘olive-oil; anointing-oil; any oily substance’; Lat. oleum n. ‘olive-oil; oil’.

6.4.3. *ptel- ‘elm’: Arm. թել ‘elm’; Gr. πτελέ-α, Ion. -η ‘elm, Ulmus glabra’; cf. also Lat. tilia ‘linden’.

6.4.4. *tʰuoi-kο- or *tʰ(i)kο- ‘fig’: Arm. տուզ, o-stem ‘fig’, dial. (Aslanbek and Ozim) ‘female genitals’; Gr. σῦκον, Boeotian τοκον n. ‘fig; pudenda muliebria, female genitals’; Lat. ficus, i and īs, f. ‘fig; fig-tree’.

6.4.5. *hul(e)oih-ro- n.pl. *h₂ ‘rope, thong, rein’: Arm. լար, o-, i- and a-stems ‘rope, rein, cable, cord, string; plumbline of stone-masons; snare; tendons of the neck; string of a musical instrument’; Gr. εὐληρά, Dor. αὐληρά, Hesychian ἀβληρά n.pl. ‘reins’; Lat. lūrum, -i, n. ‘thong, rawhide whip, rein’. We can reconstruct a Proto-Armenian paradigm *ulār-o-, pl. *ulār-a.

6.4.6. *glkt- ‘milk’: Arm. կաթ’ուն, gen. կաթ’ուն, instr. կաթ’ամ-b ‘milk’, Gr. γάλα, γαλακτός n. ‘milk’, Lat. lac, lactis n. ‘milk’. The *-l- has been preserved in the Armenian dialects of Agulis and Mehr, where we find kaxc’ pointing to *katc’ (the development n > Agulis ç has been blocked in position before ʃ). Kak’avaber has kaxc’ in the village of Varhavar vs. kāt’na in the other three villages of the region. The conditions responsible for the loss or preservation of the *-l- are not clear.¹⁴¹ Nevertheless, I do not think that this comparison should be abandoned.¹⁴² We are probably dealing with a cultural word of Mediterranean origin.

6.4.7. *mor- ‘blackberry’: Arm. մոր, gen. մոր-ի ‘blackberry (fruit of the bramble)’, մոր-(ենի) ‘bramble, blackberry (plant, shrub)’, dial. մոր-մենի ‘blackberry’, մոր(ո)-ի ( ‘tamarisk; blackberry, bramble’; Gr. μόρον n. ‘black mulberry; blackberry’, μορέα, -έα f. ‘mulberry-tree, Morus nigra’; Lat. mōrus, i. n. ‘fruit of the black mulberry’, mōrus, i. f. ‘black mulberry-tree’ (sometimes considered a Greek loanword).¹⁴³


¹⁴¹ For references and a discussion, see Martirosyan 2010: 345–346.


¹⁴³ The Celtic forms (Welsh me-r-wddyn ‘mulberry, blackberry’, OIr. smér ‘blackberry’, etc.) point to a different proto-form, namely *smér- (Matasović 2009: 347).
6.4.8. *mor-m*—‘she-monster, spinning demon/goddess’: MidArm. and dial. *mor-m* and *mor(i)* ‘spider, tarantula, phalangium’; Gr. Μορμόω, -ος -οῦς, Μορμόων, -ονος f. ‘she-monster, bogey’ (also used by nurses to frighten children), generally ‘bugbear’, Lat. formidō, inis f. ‘fear, terror; a thing which frightens, bogey’. (HM)

The Greek and Latin words are related, either etymologically or secondarily, with the word for ‘ant’, cf. Lat. formica f. ‘ant’, Gr. μυρμηξ, -ης, Dor. μυρμαξ, -αξ m. ‘ant; fabulous animal in India’ (by-forms: μύρμος, βύρμαξ, βορμαξ, δρμικαξ, etc. This connection or conflation becomes quite transparent in view of the following forms and meanings: μυρμηξ-ειος n. a species of μυρμήξ, the latter being ‘a kind of venomous spider, especially Lathropectus or malmignatte’, μυρμηξ-ιον n. ‘a species of spider’. Note also μυρμοξος and μυρμος ‘panic fear’ (glossed by φοβος in Hesychius), the former of which strikingly resembles Armenian dialect of Polis/Stambul *mor’moiz, Crimea and Nor Naxijewan *mirmis ‘Easter bogey’.

A similar kind of conflation is seen in some dialectal forms of mȓǰw, the Armenian word for ‘ant’: Łori m胸怀 and Šamaxi m胸怀. Since Gr. Μορμόω is feminine, one may identify it with Łori胸怀, which probably reflects fem. *mormon-jeх₂, Structurally, compare another insect-name of Mediterranean origin: karič, a-stem ‘scorpion’, dial. also ‘crayfish’ < *karid-jeх₂, cf. Gr. κάρις, -ιδος f. ‘Crustacea’ (§6.2.8). That ‘ant’ is associated with ‘bogey, ghost’ is not surprising. According to Armenian folk beliefs, the ant, sometimes called a ‘devil’, is an evil night animal. Like the snake, frog and other fauna, it causes the skin disease called mȓǰm-uk ‘little ant’, cf. Gr. μυρμηξ-ια ‘wart that spreads under the skin, also the irritation caused thereby, which was compared to the creeping of ants’ (from μυρμηξ, -ης ‘ant’) vs. μυρμηξ-ιον n. ‘a species of spider’.

It is remarkable that Armenian has both *mor- and *mor-m, whereas Greek and Latin only display forms going back to *mor-m-. The root *mor-* is probably related with European forms reflecting *morā-. OIr. mara, OHG mura ‘nightmare’, Germ. Mahr ‘nightmare’, Engl. (night)mare; OIr. mor-(r)igan ‘lamia’, lit. ‘Alpkönigin’; Bulg. morá ‘nightmare’, dial. ‘evil spirit’, SCr. mora ‘nightmare, incubus’, mora ‘a kind of night butterfly’, Czech dial. mora ‘night butterfly; a mythical evil creature’, Russ. dial. мора ‘a female mythical being which in the night, under the moonlight, spins the yarn that has been left unfinished by a woman’, Russ. kiki-mora ‘a kind of brownie who spins in the night’, etc.144 We may posit European substrate *mor-ǣ- ‘nightmare; a mythical creature; an insect that is associated with mythical beings (butterfly, spider, etc.)’ vs. Mediterranean substrate (probably a broken reduplication)145 *mor-m- ‘she-monster, bogey; spider, tarantula’.  

Armenian thus takes an intermediary position because it has both forms. We may tentatively assume a PArm. *mor(m) referring to Lady of the Beasts, an Athena/Artemis-like female mythical personage, a protector of weaving and spinning (cf. the semantics of Russian mora) and personified as a spider. Note also Armenian dialectal mamuk ‘spider’, literally ‘grandmother’. That this goddess is continued by a mythological figure of lower rank is not surprising. A very clear case is that of the Armenian goddesses Astlik and Anahit, attested as being of the state pantheon in Classical Armenian sources, and as female spirits or nymphs in a few later sources. In some folk tales, Anahit is represented as a wise queen who makes wonderful rugs, or the daughter of a dragon. Compare also Russian Mokoši, a female divinity who spins wool and whose name comes to denote ‘evil monster’.146


146 For more data on this and a thorough discussion, see Martirosyan prepar. 3.
6.4.9. *spʰongos / *pʰsongos ‘sponge, mushroom’: Arm. sunk/gn ‘(tree-)mushroom’, Gr. σπόγγος, σφόγγος m. ‘sponge; any spongy substance, e.g. tonsils’, Lat. fungus m. ‘fungus, mushroom’.

6.5. Armenian, Greek and Germanic and/or Celtic.

6.5.1. *bʰrehi-r (obl. *bʰrun-): Arm. albewr, albīwr, r-stem: gen. alber ‘fountain, spring’, Gr. φρέαρ, ἀρτός ‘an artificial well, spring’; cf. Goth. brunna, etc.

6.5.2. *dʰorgʰ-/dʰrogʰ:- Arm. durgn, gen. drgan ‘potter’s wheel’, Gr. τροχός m. ‘wheel; potter’s wheel’, Ofr. droch ‘wheel’. Notwithstanding the formal difficulties, this etymon may be derived from IE *dʰrogʰ>-to turn’: Arm. darj-, daṙnam ‘to turn; to return’ < *darj-nam, cf. Gr. τρέχω ‘to run, hurry’, etc. For another cultural term of a similar structure, cf. burgn, gen. brgan ‘tower; pyramid’ vs. bāñan ‘to lift, raise’ < *barj-nam (see §6.1.10).

6.5.3. *tṛso-/*tors-eh: Arm. t’ař ‘perch, roost for birds’ (MidArm.; ubiquitous in the dialects), ‘bar for drying grapes’ (Mid Arm.) < *tṛso: Gr. ταρός, Att. ταρρός m. ‘frame of wicker-work, crate, flat basket for drying cheeses on’, τράσια, ταροί, τεροί (-e- after τέρσομαι) f. ‘hurdle for drying figs; dried figs; drying-place for corn, cheese or bricks’; Germ. *torsē: OHG darra f. ‘appratus for drying fruits, etc.’, Swed. and Norw. tarre m. ‘frame for drying malts, etc.’.147 This implementation designation is usually derived from PIE *t(e)rs- (cf. Skt. tars- ‘to be thirsty, crave’, Gr. τέρσομαι ‘to become dry’, OHG derren ‘to make dry’, Hitt. tarš- ‘to make or become dry’, Arm. t’ařamin / t’aršamin ‘to wither’, etc.),148 although there are phonological difficulties in Greek (Bekes 2010, 2: 1453–1454). We may posit an innovation shared by Armenian, Greek, and Germanic.

6.5.4. *jork-o- ‘deer, roe, game’: Arm. ors, o-stem ‘hunt, game’; Gr. δόρκας, -άδος f. (Herodotus 7.69), ζόρκας (Herodotus 4.192), δορ(ε), δόρκος, ζόρξ, ιορκός, etc. ‘a kind of deer, roe, antelope, gazelle’; Corn. yorch ‘roe’, MWelsh iwrch ‘roe-deer (caprea mas)’ (HM).


The second member of the Indo-Iranian compound, viz. *čīhiya- , is not attested anywhere independently. However, the existence of Iranian *čīu- ‘shank’ can be proven by Arm. čiw ‘shank, leg’. This is attested in Classical Armenian only in the compounds men-a-čiw ‘having one hoof’ (translating Gr. μονώνυχος) and erk-a-čiw ‘having two hoofs’. Further, čiw is attested in Middle Armenian and in dialects, mostly meaning ‘leg’, ‘shin, shank’.150

As for the semantic development from ‘shin, shank’ to ‘pillar, post’, Lubotsky mentions a number of parallels: Engl. shank ‘shank’ and ‘shaft of a column’; Latv. stulps ‘shank’ and ‘post, pole’; OEngl. scīa ‘shin, leg’, scīnu ‘shin’, MHG schīe and OHG skena, skina ‘post’.151 The last set

149 Praust apud Lubotsky 2002: 323b.
151 Note also Arm. dial. Moks srung ‘the stem ends of wheat remaining attached to the soil after mowing (stubble)’ from srunk ‘shin, shank’; Oss. xæng / xænga ‘shin’ and ‘stalk’ (Martirosyan 2010: 585–586, 804).
of words is etymologically related to the etymon being discussed here. Note that Germanic *skinō ‘post’ is reminiscent of the n-stem in Armenian *siwn and Greek *kion ‘column, pillar’. It is remarkable that we have yet another lexicogrammatical correspondence with the same meaning and dialect distribution, namely *stlēnh ‘post, pillar’: Arm. *stl-a-, Gr. στήλη, OHG stollo (see §6.5.7).

If this attractive explanation is accepted, then this is a shared innovation between Armenian, Greek, and, somewhat distantly, Germanic. Otherwise, it should be treated in the section on substrate.

6.5.6. *keudh- ‘to hide’: Arm. soyz-: suzanem, 3sg.aor. e-soyz ‘to plunge, sink; to hide, cover’ (probably from sigmatic aorist *keudh-s-);153 Gr. κευθω, aor. κεύσαι ‘to cover, hide; to be concealed, lie hidden’, κευθηνες ‘subterranean deities’; OEngl. hūdan ‘to hide’ from *hūd/jana-, Goth. hūz ‘treasure’ from *kudh- to-.154 Skt. kuhū- f. ‘new moon’ and others are hardly related.155

6.5.7. *stlēnh: PArm. *stalnā- > *stal-a- ‘post, pillar’ in ara-stal, a-stem ‘ceiling, roof’; Gr. στήλη ‘block or slab used as a memorial; monument, gravestone; post, pillar; boundary-post’; OHG stullo, MHG stolle ‘support, post’. Probably derived from IE *stel-: Gr. στέλλω ‘to put in order, equip, prepare’, OHG stellen ‘to array, establish, arrange’, OCS stblati ‘to spread’, etc.156 Note the semantic closeness to another agreement between Armenian, Greek and Germanic: Arm. *siwn, Gr. *kion, and OHG *skelina (see §6.5.5).

6.5.8. *dig/gh- ‘goat’: Arm. tik, a-stem ‘wineskin, a vessel made of an animal’s skin (for wine, oil, water, etc.)’ < ‘goat, skin of goat’, dial. Agulis tagghayg pointing to an older *tig; Gr. Laconian δίζα· αἴξ. Λάκωνες (Hesychius), unless a corruption for *aiζα; Germ. *tigō ‘goat, he-goat’: OHG ziga, Germ. Ziege, etc.). The vacillation *g/g-/ points to a non-Indo-European origin; a well-known root structure constraint does not permit two unaspirated voiced stops within a root. Compare Arm. *kacan ‘path’ vs. Scr. gāziti ‘to step, trample, wade’, Arm. karkut ‘hail’ vs. OCS gradō and Lat. grandō ‘hail’.

6.5.9. *p(o)HII- or *p(o)HII-: Arm. ul, o-stem (secondarily: u-stem) ‘kid’ (probably also amul ‘childless’, as well as al-oj ‘female kid’ from a zero-grade form, with an ending comparable to oroj ‘lamb’); Gr. πωλός m. f. ‘young horse, foal, filly’, secondarily also of other young animals, metaph. ‘young girl, youth’; Goth. fula, OHG folo ‘id.’; Alb. pēlē ‘mare’ < *pōl-.-157

6.6. Armenian, Greek and Balto-Slavic.


6.6.2 *h3(ο)rti ‘now, near’ (probably a locative formation from the root *h3er- ‘to fit together, join’, with the original meaning ‘fittingly, suitable, at hand’): Arm. ard(i) ‘now’, dial. ard-ak

152 Beekes 2010, 1: 707.
153 For literature and other examples of sigmatic aorist in Armenian, see Martirosyan 2010: 757 and s.vv.
immediately, on the spot'; Gr. ἀρτι ‘just now’, ἀρτιος ‘suitable; ready’; Lith. arti ‘near’ (referring to proximity of space rather than time).\(^{158}\)

6.6.3. *dʰ(u)H- ‘fish’: Arm. jukn, gen. jkan, pl. jkun-k’ ‘fish’; Gr. ἵχθυς, ἰχθυς m. ‘fish’; OPr. suckans, Lith. žuvës, Latv. zvus ‘fish’.

6.7. Armenian and Greek in a broader European context.


6.7.2. *yreh₂d- ‘branch; root’: MidArm. and dial. arag ‘superfluous branches cut off from the vine and used for kindling’, Gr. ἰάδικος m. ‘branch, twig’, Lat. rădīx f. ‘root; radish’, rāmus m. ‘branch, twig’ if from *wrađ-mo-, MWelsh gwreid < *yreh₂d-jo- ‘roots’, OIr. rōt, Goth. waurts ‘root’, Alb. rrënjë, -a (Tosk), rră(n)jë (Gheg) ‘root’. The appurtenance of Toch. B みたいです (from *yrdi-k-eh₂-) is uncertain.

6.7.3. *h₁el- (h₁)-jen - or *h₁el-no-: Arm. efn, nom.pl. etin-k’, gen.pl. etan-c’ ‘deer cow, hind’; Gr. ἐλλός ‘deer-calf, fawn’ < *h₁el-no-, ἐλαφός m. f. ‘deer; deer cow, hind’ < *h₁el-<y-b>o-; cf. also *h₁el-hen-i- ‘deer, hind’: OCS jelëv ‘deer’, albionii ‘doe’, SCR. lăne ‘doe’, Russ. lăn ‘fallow deer, doe’, olën ‘deer, stag-beetle’, dial. elën ‘deer, stag-beetle’, Lith. lėnës ‘deer’; further: Mlr. ailti f. ‘doe, hind’ < *h₁el-(H)n-t-H- or *h₁el-en-t-H-, etc.

If Arm. efn derives from *h₁el-no- (with Gr. ἐλλός ‘deer-calf, fawn’) rather than *h₁el-hen-(with Balto-Slavic), it parallels beîn, pl. berîn-k’, gen. beînn-c’ ‘burden, load’ from *bʰślor-neh₂: Gr. φεσσν f. ‘downrow’ (see §6.3.2).

6.7.4. *l(u)n-k- ‘lynx’: Arm. *lusän-n (pl. lusänunk’) ‘lynx’, dial. *lus(e)amn also meaning ‘hyena’ and ‘marten’; Gr. λύγξ, gen. λυγκος γ-γός) ‘lynx’; Lith. lūšis, dial. (Žem.) lūšis, lūšiš, OPr. lūsís, Russ. ряб; Mlr. lug; OHG luhs ‘id.’.


7. Armenian, Greek and the Mediterranean/European substrate

In recent years, the methodology of dealing with substrate words has been developed and applied by several scholars.\(^{159}\) It has been pointed out that an etymon is likely to be a loanword if it is characterized by some of the following features: (1) limited geographical distribution; (2) unusual phonology and word formation; and (3) specific semantics.\(^{160}\)

The Armenian words that are frequently considered to be of Mediterranean origin are: gini ‘wine’, eurluvt ‘oil’, t’uz ‘fig’, spung ‘sponge’, sring ‘pipe, fife’, sunk/g(n) ‘mushroom’.\(^{161}\) The

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\(^{161}\) In fact, gini ‘wine’ and spung ‘sponge’ should be excluded from the list since the Indo-European origin of the former is more probable, and the latter is likely to be a Greek loan.
actual number is much higher. In Martirosyan 2007 and 2010, I have applied the aforementioned methodology to a number of such words, mostly plant names, animal names and cultural words. In these cases, an etymon is attested in Armenian, Greek, Latin and/or another Indo-European language of south-east Europe (such as Albanian or Phrygian) or Anatolian, but the phonological or word-formative correspondences are irregular with respect to the Indo-European system, and they cannot be considered loanwords from one another.

Bearing in mind that Greek and Latin on the one hand and Armenian on the other are historically located on the opposite sides of the Black Sea, as well as that in some cases Mediterranean words have related forms in the Caucasus and Near East, I prefer not to confine myself strictly to the notion of so-called Balkan Indo-European. I conventionally use a term Mediterranean-Pontic Substrate. In some cases (e.g. Arm. pal ‘rock’ vs. Gr. πέλλα ‘rock’, OIr. ail ‘cliff’ < *pal-i-, MIr. all < *plso-, OIc. fell ‘mountain, rock’, OHG felisa ‘rock, cliff’ prob. from *palis-), an etymon is also present in other European branches, such as Celtic and Germanic, thus we are faced with the European Substrate in the terms of Beekes 2000. Whether the Mediterranean-Pontic and European substrata are identical or related is difficult to say with confidence.

There are words belonging to the same semantic categories (plant names, animal names, cultural words) that may be treated as innovations shared by Armenian and Greek etc. For instance, the morphological agreement between Arm. kalin, o-stem ‘acorn’ and Gr. βάλανος f. ‘acorn’ (vs. Lat. glāns, glandis f. ‘acorn, beech-nut’, Russ. зёлуд’, SCr. зêлуд ‘acorn’, Lith. gilė, dial. gylė ‘acorn’, etc.) may reflect a common innovation undergone jointly by Greek and Armenian (Clackson 1994: 135–136, 200/237). Such words do not belong with the substrate since they are of Indo-European origin and do not reflect any phonological or morphological deviation. Nevertheless, these innovations are relevant to our topic in that they may be ascribed to the same Mediterranean-Pontic area and period. In other words, after the Indo-European dispersal, Proto-Armenian, Proto-Greek and some other contiguous language-branches (e.g. Phrygian and Thracian) may have remained in contact somewhere in the Mediterranean and/or Pontic areas, probably in the 3rd and 2nd millennia BC and have shared both IE innovations and substrate words.

The consonantal correspondences between substrate words in Armenian and other languages are of two kinds:

1) archaic, matching the correspondences of the native Indo-European heritage:

*ř > Arm. -ř, and *g > Arm. k, e.g. Arm. anurǰ ‘dream’ vs. Gr. ὄνε/οιρός, Arm. kamurǰ ‘bridge’ vs. Gr. γέφυρα;

*k > Arm. s, e.g. Arm. siseṙn ‘chick pea’ vs. Lat. cicer ‘chick pea’, Arm. siwn ‘column, pillar’ vs. Gr. κιόν;

*ɡ > Arm. c, e.g. Arm. erbuc ‘breast of animals’ vs. Gr. φάρυγξ, gen. -νος, -νγος ‘throat, dewlap’;

*p > Arm. h- or zero, e.g. Arm. alawuni (‘alawun), ea-stem ‘pigeon, dove’ vs. Lat. palumbēs ‘wood-pigeon, ring-dove’ (*plh₂h-ōn, gen. *b-h-ōs); Arm. hec’, gen. hec‘-i ‘felloe’, if from *pel-k-s, cf. OHG felga, OEngl. felg(e) ‘felloe’, etc.; Arm. ort’, o-stem ‘vine’ vs. π(τ)όρθος ‘sprout’.

2) relatively young:

*k > Arm. k, e.g. Arm. kalamax(i) ‘white poplar, aspen’ vs. Hesychian καλαμάνδαρ ‘plane’; karič, a-stem ‘scorpion’, dial. ‘crayfish’ vs. Gr. κάρις, -ίδος, -ίδος ‘crayfish’;

*p- > Arm. p, e.g. Arm. pal ‘rock’ vs. OIr. ail ‘cliff’ < *pal-i-, MIr. all < *plso-, Gr. πέλλα ‘rock’;

The place of Armenian in the Indo-European language family

*s > Arm. s (unless these words have been borrowed from lost satam-forms in *k), e.g. Arm. *sayl, i-stem and o-stem ‘wagon; Ursa Major and Minor, Arcturus’ vs. Gr. σατινή f. ‘chariot’ and Hesychian σατιλλα: πλειάς το ἄστρον, the constellation being regarded as a car (considered to be of Phrygian or Thracian origin); Arm. *sring ‘pipe, fife’ vs. Gr. σύριγξ, -ιγγος f. ‘shepherd’s pipe, panpipe’, which is considered to be of Phrygian or Mediterranean origin.

This implies that we have to deal with at least two chronological layers, and that the Proto-Armenians must have remained in or close to the Mediterranean-Pontic areas for a long period of time.

In Table set B, the lexical correspondences of section 6 are grouped according to semantic fields. As in the Table set for sections 4 and 5, here also the correspondences that are likely to be innovations are marked by shading. The others probably have a substrate origin. Needless to say, all the lists in this paper are provisionary and are subject to corrections and additions.

If we collate the two sets of tables, we observe that both sets have a roughly equal number of lexical agreements in each semantic field, with a remarkable exception: in A, we find zero and five lexemes in the domains of flora and agriculture respectively, whereas B has 13 lexemes for each domain. Especially remarkable are sets of correspondences within a narrow semantic group, e.g. the three designations of plants of the legume family, all of Mediterranean origin: *oloṙn ‘pea, bean’, *ospn ‘lentil’, and *siser ‘chick pea’. Interestingly, all three Armenian words display an additional -n and belong to the an-declension class.

Another remarkable difference is that, in the domain of technical activities, set A has lexemes with more general meanings, such as ‘bond’, ‘grave’ and ‘threshold’, whereas B displays a number of specific technical terms such as ‘bridge’, ‘drying implement’, ‘hinge’, ‘pillar’, ‘potter’s wheel’ and ‘rein’.

These sketchy conclusions probably indicate that, after the separation of the Indo-Iranians, Proto-Armenian remained close to Proto-Greek and some other dialects and, approaching Mediterranean or Pontic regions, developed a high number of lexical agreements, both innovations and borrowings from neighbouring non-Indo-European languages, especially in the domains of agriculture and technology.

Table set B (sections 6–7)

Lexical isoglosses: Armenian, Greek, etc.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ant</em>-ro-</td>
<td>coal</td>
<td><em>ant</em>-ro-</td>
<td>ἄνθραξ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*hs(e)γl–</td>
<td>mist, fog</td>
<td>αλφ–</td>
<td>ἀχλάς</td>
<td>OPr. aglo</td>
<td></td>
</tr>
<tr>
<td>*an(þ)ér</td>
<td>cave</td>
<td>ayr</td>
<td>ἀντρον</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*hs(e)ri</td>
<td>now, (near)</td>
<td>ardi(þ)</td>
<td>ἄρτι</td>
<td>(Lith. arti)</td>
<td></td>
</tr>
<tr>
<td>*Hēh:mi–</td>
<td>day</td>
<td>aver, g. awur</td>
<td>ἡμάρ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A *dukh-ro–</td>
<td>long</td>
<td>erkar</td>
<td>ὅμπαρος</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B *dukh-n–</td>
<td>long</td>
<td>erkayn</td>
<td>ὅμπαν</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*tumbo–</td>
<td>mound</td>
<td>τυμβος</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*mar-mar–</td>
<td>to shimmer</td>
<td>*mar-mar–</td>
<td>μαρμαίρω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proto-form</td>
<td>Gloss</td>
<td>Armenian</td>
<td>Greek</td>
<td>Other 1</td>
<td>Other 2</td>
</tr>
<tr>
<td>------------</td>
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<td>----------</td>
<td>-------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><em>me-ܓ</em>sr-i</td>
<td>near</td>
<td>meri(i)</td>
<td>μέχρι</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*notiĝeh₂</td>
<td>wetness</td>
<td>nay, i-stem</td>
<td>νοτία</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ken(e)μo-</td>
<td>empty</td>
<td>sin, -o-</td>
<td>*κενός</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Human, age, kinship.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>pret(s)گ</em>u-</td>
<td>elder</td>
<td>erēc’, u-st.</td>
<td>πρέσβυς</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>g</em>neh₂jk-</td>
<td>wife, woman</td>
<td>*kanay-</td>
<td>γυναικεία</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*mehstruieh₂</td>
<td>stepmother</td>
<td>maenru, -a-</td>
<td>μητρικά</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*suekcur-eh₂</td>
<td>moth.-in-law</td>
<td>skesur, -a-</td>
<td>έκυρα</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Body, perceptions, mentality, belief.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>hσk</em>ک’ṣ’on</td>
<td>eye</td>
<td>akn</td>
<td>ὀξον</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*h₂n(e/ὄr)jós-</td>
<td>dream</td>
<td>anurĳ, i-/i-o-</td>
<td>ὄνειρος</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*d’(e)h₁s-</td>
<td>god</td>
<td>di-k’</td>
<td>δὲος</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*pr(e/o)Hkt-</td>
<td>butts</td>
<td>erastan-k’</td>
<td>πρωκτός</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*yes-hu-</td>
<td>put on cloth.</td>
<td>z-genum</td>
<td>ἐννομό</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*g(e)h₁-s-</td>
<td>laughter</td>
<td>kalr, g. calu</td>
<td>γέλως, γαλ-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*męd-es-h₂</td>
<td>mind</td>
<td>mit-k’, mi-a-</td>
<td>μηθεα</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*mor-m-</td>
<td>she-monster</td>
<td>mor-s</td>
<td>Μορμών(σ)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*srung’-</td>
<td>snout</td>
<td>ṅung(r)</td>
<td>ρύγχος</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ps(e)ud-os-</td>
<td>false, lie</td>
<td>sut, -o-</td>
<td>ψεύδος</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Movements, speech and other activities.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A *hšb’el-</td>
<td>to sweep</td>
<td>awel(-)</td>
<td>ὀφέλλον</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B *hšb’el-</td>
<td>to increase</td>
<td>awel-</td>
<td>ὀφέλλον</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*b’er-(e)n-</td>
<td>load</td>
<td>bèrn</td>
<td>φερνη</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*b’h₂-ti-</td>
<td>word,rumour</td>
<td>bay, i-st.</td>
<td>φάσις, φάτις</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*k(e)r(H)ieh₂</td>
<td>band</td>
<td>sari-k’, -ea-</td>
<td>και/αρία</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*keud’(-)*s-</td>
<td>to hide</td>
<td>soz</td>
<td>κευθώ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fauna.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>*h₂el-(h)n-</td>
<td>deer</td>
<td>eln</td>
<td>ἐλλός</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ptér-</td>
<td>feather, wing</td>
<td>t’er(t’)</td>
<td>πτερόν</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*lu(n)ङ-</td>
<td>lynx</td>
<td>lusa(m)n-</td>
<td>λύγξ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A *karid(-jā)</td>
<td>crayfish</td>
<td>karič, -a-</td>
<td>καρίς, -ίδος</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B *ko/or-i-</td>
<td>crayf., scorp.</td>
<td>kor, -i scorp.</td>
<td>κουρίς κωρίς</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### The place of Armenian in the Indo-European language family

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>*d̪gʷʰH₁-</td>
<td>fish</td>
<td>jukn</td>
<td>ἵχθυς</td>
<td>Lith. živis</td>
<td></td>
</tr>
<tr>
<td>*h₁e[l]g̡i-n-</td>
<td>hedgehog</td>
<td>õzni</td>
<td>ἱχίνος</td>
<td>(OHG igil)</td>
<td>(Oss. wyxun)</td>
</tr>
<tr>
<td>*jork-o-</td>
<td>deer, game</td>
<td>õrs, -o-</td>
<td>ἱορκός</td>
<td>Corn. yoreh</td>
<td></td>
</tr>
<tr>
<td>*sk(o)rp-i-</td>
<td>asp, scorpion</td>
<td>k‘arb, -stems</td>
<td>σκορπίος</td>
<td></td>
<td></td>
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</tbody>
</table>

#### Animal husbandry.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>*h₃(ê)g̡-</td>
<td>goat</td>
<td>ayce</td>
<td>αίξ</td>
<td>(Skt. eda-)</td>
<td>(Av. izaēna-)</td>
</tr>
<tr>
<td>*bⁿrgg/g₃-</td>
<td>dewlap</td>
<td>erbuc, -o-</td>
<td>φάρνγξ</td>
<td>Lat. frumen</td>
<td></td>
</tr>
<tr>
<td>*glgt-</td>
<td>milk</td>
<td>kat’n</td>
<td>γάλακτ-</td>
<td>Lat. lact-</td>
<td></td>
</tr>
<tr>
<td>*mosg₂/oio-</td>
<td>young bov.</td>
<td>mozi</td>
<td>μοσχ-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*h₁e[rhɔr]-</td>
<td>male anim.</td>
<td>ÿ-ɔrj</td>
<td>ἐν-ορχ-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*dɪg̡-</td>
<td>goat</td>
<td>tik, -a-</td>
<td>δίζα</td>
<td>OHG za</td>
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</tr>
</tbody>
</table>

#### Flora.

<table>
<thead>
<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>*h₁{o}ᵣ(h)u₂t₂</td>
<td>yew, vine</td>
<td>augi, -ca-</td>
<td>οῖν</td>
<td>Lat. ùva</td>
<td>OHG ùva</td>
</tr>
<tr>
<td>*yrengol-</td>
<td>branch, root</td>
<td>argat</td>
<td>ράδιξ</td>
<td>Lat. radix</td>
<td>Goth. waurts</td>
</tr>
<tr>
<td>*d₁h₁ro-</td>
<td>green, fresh</td>
<td>dalar, -o-</td>
<td>δαλερός</td>
<td>(MFr. duĩne)</td>
<td>(OEngl. dle)</td>
</tr>
<tr>
<td>B *d₂e₁(H)-n-</td>
<td>twig, herb</td>
<td>det, -o-</td>
<td>δαλλος</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ptel-</td>
<td>elm, Ulmus</td>
<td>t’ei</td>
<td>πτελέα</td>
<td>(Lat. tilia)</td>
<td></td>
</tr>
<tr>
<td>*h₁u(ò)ko-</td>
<td>fig, (vulva)</td>
<td>t’az, -o-</td>
<td>σύκον, τύκον</td>
<td>Lat. ficus</td>
<td></td>
</tr>
<tr>
<td>*g²h₁ɛn-</td>
<td>acorn</td>
<td>katin, -o-</td>
<td>βαλλανος</td>
<td>(Lat. gland-)</td>
<td>(SCr. źelëd)</td>
</tr>
<tr>
<td>*kalam-</td>
<td>aspen, plane</td>
<td>kalam-ax(ǐ)</td>
<td>καλαμιν-δαρ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*kasṭ(ani)-</td>
<td>chestnut</td>
<td>kas(ī)-k-</td>
<td>κάστανον</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*mor-</td>
<td>blackberry</td>
<td>mor(ĕ)</td>
<td>μόρον</td>
<td>(Lat mōrum)</td>
<td></td>
</tr>
<tr>
<td>*pɔrtvo-</td>
<td>sprout, twig</td>
<td>ort’, -o-</td>
<td>π(τ)όρθος</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*h₁or禧-</td>
<td>orchis</td>
<td>(xol)orj</td>
<td>ὀρχη</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*spongos</td>
<td>mushroom</td>
<td>sunk’/gn</td>
<td>σπόρφγγος</td>
<td>Lat. fungus</td>
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</tbody>
</table>

#### Agriculture.

<table>
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<tr>
<th>Proto-form</th>
<th>Gloss</th>
<th>Armenian</th>
<th>Greek</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A *h₁lehu-</td>
<td>flour</td>
<td>aleur</td>
<td>ἀλεύρον</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B *h₁e₁(u)h₁tr-</td>
<td>grinder</td>
<td>abarei</td>
<td>ἀλητρις</td>
<td>Iran*ârθra-</td>
<td></td>
</tr>
<tr>
<td>*h₂o-ř-(ê)h₂</td>
<td>harvest</td>
<td>*ar-a-</td>
<td>ὁπ-λῶρα</td>
<td>(Goth asans)</td>
<td>(CS jesen)</td>
</tr>
<tr>
<td>*drepan-eh₂</td>
<td>*sickle</td>
<td>artecean, -a-</td>
<td>δρεπάνη</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*gʰʁi(d')</td>
<td>barley</td>
<td>gari, -ea-</td>
<td>κριθ-η, κρι</td>
<td>Alb. drithe</td>
<td>OHG gersta</td>
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<tr>
<td>*el(e)ia-</td>
<td>olive, oil</td>
<td>ewt, iwt-o-</td>
<td>ἐλαιος</td>
<td>Lat. oleum</td>
<td></td>
</tr>
<tr>
<td>*skʰodo-ro-</td>
<td>garlic</td>
<td>xstor/xstor</td>
<td>σκόρ(ο)δον</td>
<td>Alb. húrdhë húdhër</td>
<td></td>
</tr>
</tbody>
</table>
Preliminary conclusions

We may preliminarily conclude that Armenian, Greek, (Phrygian) and Indo-Iranian were dialectally close to each other or even formed a dialectal group at the time of the Indo-European dispersal. Within this hypothetical dialect group, Proto-Armenian was situated between Proto-Greek (to the west) and Proto-Indo-Iranian (to the east). On the northern side it might have neighboured, notably, Proto-Germanic and Proto-Balto-Slavic.

After the Indo-European dispersal, Armenian developed isoglosses with Indo-Iranian on the one hand and Greek on the other. The Indo-Iranians then moved eastwards, while the Proto-Armenians and Proto-Greeks remained in a common geographical region for a long period and developed numerous shared innovations. At a later stage, together or independently, they borrowed a large number of words from the Mediterranean / Pontic substrate language(s), mostly cultural and agricultural words, as well as animal and plant designations.

On the other hand, Armenian shows a considerable number of lexical correspondences with European branches of the Indo-European language family, a large portion of which too should be explained in terms of substrate rather than Indo-European heritage.
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Грач МАРТИРОСЯН. Место армянского языка в индоевропейской семье и его связь с греческим и индоиранским.

Основной задачей статьи является каталогизация лексических этимологий, сближающих армянский язык с греческим и/или индоиранским. Предлагаемые списки включают в себя как общие инновации, так и изолированные ареальные термины. Обе группы этимологий (армяно-греческие и армяно-индоиранские) могут рассматриваться в рамках одной и той же пространственно-временной модели. В процессе расселения носителей индоевропейских языков протоармянский продолжал контактировать с как соседними индоевропейскими диалектами, так и с неиндоевропейскими языками. Слова субстратного происхождения выделяются ограниченной географической дистрибуцией, необычной фонологией или словообразованием, характерной семантикой. Материал, представленный в настоящей работе, не претендует на исчерпывающую полноту, позволяет, тем не менее, сделать предварительный вывод о диалектной близости армянского, греческого, (фригийского), и индоиранских языков. Внутри данной гипотетической диалектной группы ареал протоармянского языка занимал промежуточное положение между ареалом протоиндоиранцев на востоке и ареалом протогреков на западе. Впоследствии протоиндоиранцы сдвинулись далее на восток, тогда как протоармяне и протогреки продолжали оставаться в смежных географических ареалах на протяжении длительного прерыва, развив многочисленные общие инновации. С другой стороны, армянский язык содержит значительное число лексических соответствий индоевропейским языкам Европы, существенная часть которых также должна объясняться в терминах общего субстрата, а не индоевропейского наследия.

Ключевые слова: армянская историческая лингвистика, армянская этимология, индоевропейская сравнительная лингвистика, индоиранская лексикология, греческая лексикология, средиземноморский субстрат.

AUTHOR’S ADDITION TO P. 94:

4.1.17. *gʰw-o-y- (or *gʰw-heu-i-o-): Arm. kogi, gen. kogw-o-y, ins. kogw-o-oun ‘butter’, Skt. gávya-, gávyá- ‘consisting of cattle, coming from or belonging to a cow (as milk, curds, etc.)’, YAv. gáoiia- ‘coming from cattle, consisting of cattle’, Gr. adj. -βο(ϝ)ιος, e.g. ἐννεά-βοιος ‘worth nine beeves’. This isogloss33 is based on the PIE word for ‘cow’ (Arm. kow, Skt. gávya- ‘consisting of cattle, coming from or belonging to a cow (as milk, curds, etc.)’, YAv. gáoiia- ‘coming from cattle, consisting of cattle’, Gr. adj. -βο(ϝ)ιος, e.g. ἐννεά-βοιος ‘worth nine beeves’). Armenian and Indic are closer to each other since they show a semantic development to ‘a dairy product’. Now we also have a wonderful match in Toch. B, kewiye ‘pertaining to cow; butter’ < *kāwyā < *kāwyā < *gʰw-i-o-y-o-.33a Although this makes the isogloss less significant, I nevertheless included it in order to emphasize its semantic closeness to another agreement between Armenian and Indic: Arm. ser ‘cream’ and Skt. śáras n. ‘cream’ (see §5.2.16).

33 See already Meillet 1896: 152.
33a Pinault 1989: 53. I am indebted to James Clackson for this information. For the Tocharian word, see also Adams 1999: 198.