Notes on some Pre-Greek words in relation to Euskaro-Caucasian (North Caucasian + Basque)

A “Pre-Greek” substratum underlying the Indo-European Greek language has been suspected for a long time. There is no reason to suppose that there was only one “Pre-Greek” language; the region where Greek was and is spoken may have been multilingual, with languages of diverse origins. In the following study a limited number of etyma are examined that seem to bear witness to a widespread Euskaro-Caucasian language (or language family) associated with the spread of agriculture out of Anatolia. Greek words like ἀκαρί ‘mite’, μαστός ‘breast, teat’, β/μύσταξ ‘upper lip, mustache’, ξύλον ‘wood, timber’, and ψῡχή ‘breath’ are basic and not likely to be cultural loans, and could reflect genuine relics of a Euskaro-Caucasian Pre-Greek language. The examples discussed here are probably part of a much larger subset that a thorough study of Furnée’s and Beekes’ total list of “Pre-Greek” words might yield.

Keywords: Basque language; North Caucasian languages; Euskaro-Caucasian hypothesis; Pre-Greek language; linguistic substrates.

A “Pre-Greek” substratum underlying the Indo-European Greek language has been suspected for a long time. Recently Beekes (2010: xiv) reiterated his rejection of the ‘Pelasgian’ theory (of an earlier Indo-European substratum underlying Greek) and preferred Furnée’s (1972) “elaboration of Kuiper’s 1956 study on Greek substrate words, which opened a new chapter in the research of the field.” Beekes resumed that “Furnée’s book met with fierce criticism and was largely neglected. In my view, this was a major mistake in Greek scholarship.” In his 2010 dictionary Beekes devotes ample attention to Pre-Greek, but the “comparison with Basque or Caucasian languages has not been considered in this dictionary, as this is not my [Beekes’] competence; it is likely that there are such connections, but this must be left to other scholars” (Beekes 2010: xv).

One of the current writers had an early exposure to this topic in Nikolaev’s (1985) “North Caucasian loanwords in Hittite and Ancient Greek” (in Russian). According to a current Moscow colleague, “Ancient Greek dialects possess a number of North Caucasian loanwords, see Николаев, 1985 (some [of] Nikolaev’s connections are highly questionable, but some seem probative)” (Kassian 2010: 404).

It seems that there is no reason to suppose that there was only one “Pre-Greek” language, and that the region where Greek was and is spoken may have been multilingual, with languages of diverse origins. Georgiev (1937, 1941) proposed a Pre-Greek language that was Indo-European of a satam type, with Lautverschiebung, and close to Thracian. At present Mihaylova (e.g. 2017) holds firmly with Georgiev’s model. Another hypothesis is that of Eric Pratt Hamp (1983, 1985, 1989a, 1989b), also proposing an IE Pre-Greek language with Lautverschiebung and Lex Grassmann, but of a centum type (e.g., πύργος ‘tower’). Besides the possible IE sources and the Euskaro-Caucasian language proposed here, some of the Pre-Greek words have other, non-IE origins: Semitic or Hurrian are primary candidates.1 The time span is so

1 Thanks to notes from V. Blažek (p.c. 09-06-2020).
long that it is probable that there were many influences on the formation of the Greek language, which will never be fully disentangled.

In the following study a limited number of etyma are examined that seem to bear witness to a widespread Euskarao-Caucasian language (or language family) associated with the spread of agriculture out of Anatolia (Ehret 2015: 90; BCR 453–460; Bengtson 2017b). Some of the examples coincide, more or less, with Nikolaev’s, as indicated. In general, these examples have been selected so that (a) the Greek words are endorsed as ‘Pre-Greek’ (or probably non-Indo-European) by Beekes, (b) there are putative North Caucasian cognates (updated to conform with NCED), published almost a decade later than Nikolaev 1985), and/or (c) there exist putative Basque cognates (most of them as cited in BCR).

As a preface to this study a disclaimer should be issued, that the following list of putative substratal words is preliminary, and it is not expected that all of the examples will eventually prove to be substrate words. All readers are invited to put forth alternative explanations, if these can be found.  

\textbf{άκαρι} ‘mite’ / \textbf{κόρις} ‘bug, bedbug, Cimex lectularius’: “I would rather think that \textit{κόρις} is cognate [with \textit{άκαρι}], as a substrate word, with prothetic vowel and \textit{α} / \textit{o} interchange” (Beekes 49: 754).  

\begin{itemize}
    \item \textbf{Basque} *\textit{kara}-/*\textit{karkar}-: (G) \textit{karrakaldo} ‘beetle’, \textit{karkaraldo}, \textit{kakalarlo}, (BN) \textit{karkamalo}, (B, G, AN) \textit{kakalarlo}, (G, AN) \textit{kakalardo}, etc.; obviously many expressive changes have occurred.
\end{itemize}

\textit{§} Contrary to the note about \textit{άκαρι} being substrate and cognate with \textit{κόρις}, Beekes’ lemma on the latter word claims \textit{κόρις} is “identical with Ru. \textit{kor} [f.] ‘moth’, and traditionally analyzed as an old verbal noun from *\textit{s}ker- ‘shave, split, cut’ seen in ... \textit{κεί}ω etc.” From a Sino-Caucasian perspective, cf. also Burushaski *\textit{karhú} ‘louse’, Tibeto-Burman *\textit{k(h)r}[-\textit{ā]}-\textit{η} ‘mosquito’ (SCG 119–20).

\textbf{ἀλωή} ‘threshing floor, garden’ (Iliad), ‘halo’ (around sun and moon) ...; also ‘disk’ of the sun or moon, or of a shield; \textbf{άλωα }, \textbf{άλωο} ‘to thresh, crush’ (Iliad); etymology unknown (Beekes 78).  

\begin{itemize}
    \item \textbf{North Caucasian}: Tindi =\textit{elí} ‘to thresh’; Bezhta =\textit{ol}; Batsbi \textit{arl}, Chechen \textit{ār}, ‘to thresh’, \textit{ēra} ‘threshing-floor; grain lying upon it’, Ingush \textit{ard} ‘to thresh’; Archi \textit{iƛ} (\textit{a}:\textit{as}) ‘to thresh’, \textit{iƛ} = \textit{i}:\textit{t} ‘threshing; grain prepared for threshing’; (with many derivatives) Archi \textit{lorom} = \textit{horom} ‘threshing board’;4 \textit{Avar} \textit{loli} ‘threshing board’, Andi \textit{loli} ‘threshing; threshing-floor’, Tindi \textit{rali} ‘grain ready for threshing’, Karata \textit{lale} ‘threshing’; Tsezi \textit{re-ta} -y ‘threshing’, Hinukh \textit{re-ta}, id., etc. < PEC *\textit{VrELV}
\end{itemize}

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2 “I think the ancestors of the Basque people were the first European farmers, bringing agriculture from Asia Minor. The first wave went along the north Mediterranean coast and I would seek its traces in Greece and Italy, plus adjacent islands. The northermost part of this wave was perhaps the Alpine region, where the tribal languages Rhaetic and Camunic were located, probably related with Etruscan. Till the present time there are traces of Basque-like toponyms and dialect words in Sardinia (V. Blažek, p.c. 09/12–13/2015; also quoted in BCR 453–54, footnote 4).

3 Cf. the disclaimer stated by Witzel in his study of a Central Asian substrate: “Naturally, not all words given below will turn out to be substrate words; any initial listing like the present one will be fraught with overcounting in favor of non-IE origins, and also with unintended errors.” (Witzel 2015: 149).

4 It may be more accurate (phonetically) to transcribe these Archi words as \textit{ik’l}, \textit{kvorom}, since the lateral affricates in that language have velarized onsets, i.e. more like \textit{[k’]l}, \textit{[k’]v}, \textit{[g’]}, and in some East Caucasian subgroups of eastern Dagestan (Lak, Dargwa, Khinalug, and most of Lezgian) the lateral affricates have become pure velars, \textit{[k]}, \textit{[k’]}, \textit{[g]}, etc.; e.g. Lezgi \textit{rugun} ‘threshing board’ < *\textit{tr}:\textit{oma} (NCED 52–55).
Notes on some Pre-Greek words in relation to Euskaro-Caucasian (North Caucasian + Basque)

‘to thresh’ (NCED 1031).  Basque *{

larain} ‘threshing floor’: (B, G, AN, L, Bzt, Z) lar-

rain ‘threshing floor’, (AN) larrin, (G) larran, (B) laren, larrin, (A) larrin, (R) laren, 

(with expressive palatal) larron, llarin id. (FHV 165, 195; A&T XIX 315, 316; EDB 262; 

OEH; BCR Q.18). § East Caucasian has numerous derivatives, only some of which are 

cited here. Archi *lorom = Horom ‘threshing board’ (which resembles Basque *larain 

‘threshing floor’) is said to be a derivative by metathesis < *λ:îroma < Proto-Lezgian 

*mîk̑ra-* (see NCED 1031–33). The PEC structure *={

rV} is the result of a common 

transposition < Proto-Euskaro-Caucasian *rVLV ~ *LVrV. From a Sino-Caucasian 

perspective cf. Burushaski *daltî-n- ‘to thresh’ < *rVLV-n- (SCG 182).

ánθρωπος ‘man’ (IIiad); Mycenean a-to-ro-qo /antʰrōkos/. “As no IE explanation has 

been found, the word is probably of substrate origin” (Beekes 106). 5  Basque: *{

andere} ‘lady; young lady; woman; wife’, (AN, G, BN, Z) ‘doll’, (Z) ‘queen bee; concubine’; var. 

(Z) andre (modern āndé ‘dame, demoiselle’), (G, AN, L, BN, Z) andre, (AN-Larraun) 

anrre ‘lady, young lady’, (A, B) andra, (B) anra, (B-arc) andera ‘lady; woman; doll’, (B) an-

drako, andreko ‘little woman; doll’; Aquitanian ANDERE (female name), ANDERE- 

(element in female names); ANDERE, ANDERENI, ANDEREKSO (male names); ANDOS-, ANDOSS-

(element in personal names: ‘lord’?) (A&T III 865–67; OEH ANDERE, ANDRAKO; EDB 93). 

§ Hugo Schuchardt, as reported by A&T, believed the original meaning was ‘young 

woman’ (‘mujer joven’). Etymologists frequently mention Celtic parallels, such as 

Middle Irish ainder, aindir ‘young woman’, Scottish Gaelic ainnir ‘virgin’, Welsh anner 

‘heifer’, enderig ‘bull, ox’ < Old Welsh enderic ‘steer’, Breton ouner, onner ‘heifer’, etc. 

Michelena, agreeing with Tovar, remarks that the Celtic word (reconstructed as 

*andera) is not Indo-European but taken from the Iberian languages, that is, that 

Basque andere does not represent a Celtic loan, but rather the opposite (OEH).6 Venn-

emann (1998) has compared Greek ánθρωπος with Basque andere, also bringing in 

other Greek words and names with the components ánθρ, ánθρψ-, and ánθρ- (see 

further below about ἀλαμάνδρα). Vennemann also cites possible substratal relics in 

Romance and Germanic: Old French andre ‘woman’, French argot andrimelle ‘woman 

or girl’, Occitan andra, landra ‘woman, prostitute’, Bolognese landra ‘slut’, etc. (some 

forms appear to come from la andra, incorporating the article).7 As to a possible alter-

nation between Greek ánθρψ- and ánθρψ-, Beekes (p. xxiii) mentions that Furnée “found 

that the stops show variation between voiced, voiceless and aspirated, so that there 

presumably was no phonemic distinction between voice and aspiration in the [Pre-

Greek] language.” Western Basque andrako, andreko ‘little woman; doll’, with the di-

minutive suffix -ko, is a rather close formal match to Mycenean a-to-ro-qo /antʰrōkos/ (see 

below about suffixes).


«earthling, earthman, earthwoman»).”

6 “pero seguramente tiene más razón Pokorny al suponer que esta palabra en celta no es indoeuropea sino 
tomada de las lenguas ibéricas, es decir, que el vascuence aquí no representa un préstamo celta, sino más bien lo 

contrario” (quoting Tovar).

7 Vennemann cites loans from Romance to Germanic in which the semantic link becomes ever more attenu-

ated, e.g. Middle High German landern, lendern ‘to walk about idle’, etc.; see Modern German schlendern ‘to stroll, 

wander, amble, saunter, meander’ – seems to be related (in Pfeifer 1997: 1211–1212 a not very convincing solution). 

Sch- in German often marks a negative connotation. Landern, lendern, etc., may be related to German Land ‘country, 
countryside, land, ground’, which only has cognates in Germanic, Celtic, Slavic, and has been connected with a 

δοκός ‘bearing beam’; δόκανα ‘name of two upright beams constructed with a crossbeam’ “Benveniste [1929] thinks that δοκός and δόκανα are PreGreek” (Beekes 345). 

**Basque** *tako, *tak-et: (B, G, AN) taket ‘stake, post’, (B, AN) taketa ‘stake, stick, rod’, (B) tako ‘circular piece of wood’, (B-Markina) ‘piece’, (c) ‘wedge, block, chock, stopper’ (OEH; BCR Q.55). 

**North Caucasian:** Adyge tâqa ‘stump, block’, Kabardian dâqa id.; Chechen duq’u ‘log, beam’; Dargwa duk’i ‘log, beam’; Tabasaran duq’an ‘pole, small beam’, etc. < PNC *duw(t)âV ‘log, stump’ (NCED 408). § Nikolaev 67, no. 10. Cf. also Bulgarian tok ‘a long board that is dragged on the ground to smoothen it; a four-meter long board on which a man steps and it is dragged by oxen on the plowed fields to crush the ground, thick board’. BER 8, 99 links it to tokl, which needs to be separated from Slavic takv ‘current, flow, stream’ (acc. to Bernard 1982: 276); this would be another Balkan manifestation of the Euskaro-Caucasian substratum (see also калиа, kalûbî) ~ Bulgarian kolîba, below). From a Sino-Caucasian perspective, cf. Burushaski *

*δάκο* ‘stick, post’ (SCG 44). The Basque word is probably the source of Spanish *taco.*

ζέφυρος ‘west wind’; personified in the Iliad; Mycenean ze-που-ρο: Beekes wavers between a derivation from IE *h3iebh-* ‘futuere’ and “... Pre-Greek, with PG *a turning up as e after the palatal *d/?’ (Beekes 499). 

**North Caucasian:** Andi sibrû ‘autumn’, Akhwakh còro ‘autumn’ / cibero ‘winter’,? Tindi cibar ‘winter’, Karata cibero id.; Tsezi sebi ‘autumn’, Hunzib siber id.; Lezgi zul ‘autumn’, Tabasaran ěul, Tsakhur cuwul / ciwil id., Udi žōsol ‘spring (season); Khinalug cuwa-ž ‘autumn’; Batsbi st’abo ‘autumn’, (with metathesis) Chechen bǔstę ‘spring’; Abkhaz a-ʒan ‘winter’, Abaza ʒna ‘autumn’ (< *ʒa-na) < PNC *cøjwulâV ‘autumn, winter (rainy season)’ (NCED 327). § Nikolaev (68, no. 13) compared Greek and NC, as the former a loan from the latter. It is hard not to think of other words like Russian ceepep /sever/ ‘north’, etc., and in fact Nikolaev mentions PIE *kêwero- (his transcription) ‘winter, north’ as a loan from PNC to PIE. A similar view was taken by S.A. Starostin (1988, no. 5.10), citing Latin caurus ‘north wind’; Lithuanian šiaurė ‘north’, šiaurys ‘north wind’; Slavic sêvero ‘north’; Old High German skûr ‘Ungewitter’ [English shower, etc.]. but not Greek ζέφυρος. Derksen (2008: 448–449) links Slavic sêverb ‘North’ to an IE *kh₁u-er-o-, and to Latin caurus ‘north-western wind’ (< *kh₁u-er-o-). Discussion in Bezljaj (III, 231); Snoj (2003: 652) sees an unexpected root, linked to PIE *(s)k’chlHy-ero-. Martirosyan (2021) adds PIE *kh₁u-er- > Arm. sir ‘cold wind’ (with an unclear etymology) and links it to the Slavic and Latin word (see above). Derivation from IE *h3iebh-* ‘futuere’ (cited by Beekes) seems semantically unconvincing. Since all the words cited here are European, they could alternatively be interpreted as independent substratal loans from various Euskaro-Caucasian dialects.

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8 ‘Thick and short piece of wood or other material, and generally cylindrical or rectangular, for various uses; plug (small, short and elongated piece, usually made of plastic, wood or metal, which is inserted into a hole); cue (for billiards),’ etc.

9 The “relation [of Akhwakh còro ‘autumn’] to cibero ‘winter’ is not quite clear: perhaps old interdialectal loans, which gave rise to an etymological doublet?” (NCED).

10 Transcribed as žōsol in NCED (the palačka, or ‘baton’ /l/ is not a vowel but is a conventional symbol among Russian Caucasologists that denotes pharyngealization of the preceding consonant or vowel); Klimov & Xalilov (2003: 280) transcribe the Udi word as žōsol ‘necia’.

11 De Vaan (2008: 100) regards Latin caurus and the Balto-Slavic words as IE cognates (< *kh₁u-er-o-), but excludes the Germanic words (and Armenian c’vêt ‘cold’).

12 Kroonen (2013: 451), however, derives the Germanic words from PIE *skeh₁- ‘shade, shadow’ (Greek οξις, etc.) and separates them from the Latin, Baltic and Slavic words.
Notes on some Pre-Greek words in relation to Euskaro-Caucasian (North Caucasian + Basque)

ικτίν ~ ικτίνος ‘kite’ (bird of prey) (Beekes 585–86) | Basque *szęie ‘vulture, eagle’: (B, G, BN, Z) saí ‘vulture’, (B-Gernika) zai id.; (B-Orozko) šáj ‘eagle’ (EHHA, map 130); also ‘eagle’ per Voltaire (northern Basque, ca. 1620) (OEH); saie is used to denote ‘ostrich’ in Uriarte’s Bible, Lev. 11:16 (1859, Gipuzkoan dialect) (BCR B.13). | North Caucasian: Tsezi ce(y) ‘eagle, vulture’, Hinukh coy ‘eagle’, Bezhta cuha id.; Chamali s’uy ‘eagle’, Tindi c’ii, Karata c’iiy, Avar c’um ~ c’um id.; Andi c’un ‘eagle, vulture’, Botlikh c’iti, Godoberi c’iti id.; Khinvali c’im ‘small bird, sparrow’ < PEC *çwâmʔV ‘eagle’ (NCED 370). § Beekes also cites Armenian c’in ‘kite’; Old Indic śyenā– ‘eagle, falcon’, Avestan saēna– ‘name of a big bird of prey’ are “rather deviant” (unclear what this means), and regards the Greek word as of IE origin (< *tkHi-in-). Witzel (2015: 167, no. 293) however cites *caina (> saēna-, śyenā-) among examples of a Central Asian substrate in Old Iranian. Nikolaev (68, no. 14) cited Greek ικτίν as a loan from PEC, along with Hittite ḫaštapi- ‘oracular bird’ (p. 61, no. 6); Armenian c’in ‘kite’ is regarded as an independent loan from North Caucasian. Bouda (1948) compared Basque sai, sae and Avar c’un. On the phonetics between Basque *szęie and PEC *çwâmʔV, the loss of a nasal before a laryngeal is recurrent in Basque (and convergently in some NC languages), e.g. Basque *(e=)kè ‘smoke’ = PNC *kwînvH ‘smoke’ (Avar k’uy, Bagwali k’uy, etc.: NCED 738; BCR F.2); Basque *sqihi ‘wedge, skewer, spit’ = PNC *cûnHV ‘arrow, bow’ (Bagwali c’i ‘arrow’: NCED 358; BCR Q.42).13 The phonetic link between Greek ικτίν and PEC *çwâmʔV (for Greek -v cf. Andi c’un, etc.) is not as clear; the initial i- could correspond to Basque fossilized class prefixes, as in Basque *e=tamaha / *e=nihula ‘swallow, swift’ (bird) (BCR B.21) or *i=tain ‘tick’ (BCR B.41); see below under Morphology: Fossilized class (gender) markers. The Greek cluster -κτ- may be a rare example of Pre-Greek *-kt- = the PNC/PEC tense affricate *ç, though more examples would strengthen the case. (Cf., perhaps, Greek ɪκτίς, -ιςός ‘marten’ [Beekes 2010: 586 “no etymology”] if it is related to PNC *çErʔV ‘marten, weasel’ > Adyghe caza ‘marten’, etc. [NCED 360]).

καλιά ‘wooden dwelling, hut, barn, granary, bird’s nest’. “Etymological connection with ... καλύτστω ['to cover'], etc. is extremely doubtful” (Beekes 624); (probable derivatives) καλύβη ‘hut, cabin’; ‘bridal bower’; ‘sleeping tent’; καλυβός ‘farmstead’ (Hesychius); variant καλυβος: “The variant καλυβος ... shows that the word is Pre-Greek” (Beekes 628). | Basque *o=keh: (B, G) okel ‘stable, corral’, (B) ukulu id., (B) okolo, okolu, oko(i)llu ‘corner’, (G) okulu ‘yard’, (BN-Amikuse, Z) okholi id., (G) okulu, okollu, ikulu ‘hall’ (FHV 83; EDB 307; OEH; BCR: Q.5). The oldest attestation is [oquelua] = /okelua/ ‘rincón [corner, nook]’ (with definite article -a) in Landucci’s (1958) dictionary.


13 Trombetti (1925: 142, no. 289) cites Basque sahi ‘avvoltoio’, with internal -h-. We have not been able to confirm this form in any other source.

14 This EC word is not to be confused with another that is quite similar, phonetically and semantically: Lak, Dargwa qala, Avar qala, Lezgi qele ‘fort, citadel, fortress, tower’, etc., from Turkic: cf. Azeri gala ‘fortress, lock’, Kumyk gala id., Old Turkish qala ‘fortified part of town’ (Džidalaev 1990: 94). Klimov & Xalilov (2003) clearly show the difference, with two separate lemmas, between: комната ['room, chamber'] (p. 114): Dargwa qali, Tabasaran, Agul, Rutul čal ‘room’, also ‘house’ in all languages cited (no note about any borrowing) and крепость ['fort, castle'] (p. 116): Avar, Andi, Karata (and several other NC languages) qala; (with glottals) Lezgi qele, Tsakhur (and 4 other Lezgian langs. + Khinalug) q’ala, etc. Note the oppositions such as Dargwa qala ‘fort’ vs. qali ‘room, house’; Ta-
The proposed derivation of Basque *okelu from Latin *locellum is highly questionable semantically; the specialized meanings of the Romance words derived from *locellum ‘Sarg, Grab’ are quite distant from the Basque meanings (‘stable, corral, hall, yard’) and are instead associated with burial (e.g., Spanish lucillo ‘burial urn’: see Dicc; REW 5095); none of the Basque glosses have anything to do with burial. Basque *o=ketu matches PEC *qâdû very well, phonetically and semantically: Basque *k = PNC *q and Basque *e = PNC *a are regular.\textsuperscript{15} Basque *o= is the fossilized class prefix (with an allo- morph *u=) seen also in, e.g., Basque *o=hol ‘board, plank’ (Q.62) ~ Rutul χiil ‘wooden trough’, etc. < PEC *χulV (NCED 1078). Basque *u=pel ‘barrel, cask’ (Q.29) ~ Tsezi pelu ‘pipe, reed pipe’, etc. < PEC *HpeîV ‘pipe; vein’ (NCED 601); and others (BCR 67–68).

See also Bulgarian koliba ‘hut, cabin, shack’, etc., which is considered a very early loan from Greek, with many cognates in Balkan languages and perhaps beyond (BER 2, 555–556). The word is considered as stemming from an autochthonous Balkan population: see BER 2, 556, Skok 2, 124. (See also δοκός ~ Bulg. tok, above).

κόμη ‘hair’ of the head, also of the mane of a horse (Iliad), metaphoric: ‘foliage’, also of growth in general ... ‘tail of a comet’ ... “ETYM Not explained with certainty” (Beekes 743–44). \textbf{1 North Caucasian:} Andi q:åw ‘haidro’, Avar, Tindi q:åma ‘cock’s comb’, (with suffix) Bagwalal q:am-ça ‘mane’; Dargwa q:åma ‘haidro; fringe, forelock’; Archi q:am ‘forelock, mane’; Abkhaz a-ç=ö ‘hair’, Abaza qwa ‘hair, feather, wool’, etc. < PNC *q(w)åmä[w] ‘plait, mane; hair’ (NCED 931). \textbf{1? Basque *kíma} ‘mane (of horse); bristles (of swine)’: (G, AN) kíma, (L, BN) khíma, (AN, B) kíme, (BN) khína, (AN, BN, Z) kh(h)íma, (Z) gíma, etc. (OEH KíMA; FHV 296; A&T XVIII 1001; EDB 251). § Nikolaev (69–70, no. 23) compared Greek and NC. The Basque forms are rather difficult and question- able: (a) differences of the first vowel (PNC /ä/: Basque /i/; /u/ in some Basque forms may be due to secondary assimilation before /m/); (b) the possibility of borrowing or influence from older Spanish coma ‘mane’ (now obsolete in favor of crin) < Latin coma < Greek; (c) the similar word (G) zíma, (B, G) txíma /číma/, (G) txúma, txúme, etc. ‘greña / hair of a person or animal that is long and badly combed, tousled, or tangled’ (OEH TíMA), which is often discussed in connection with *kíma and may be cross-contaminated with it (FHV 296). But zíma and txíma, at least, cannot be derived from Latin coma.

μάδρυα ~ ᾠμάδρυα ~ βάδρυα ~ ἀδρυα (< *pádriva /wádrua/) ‘plums, sloes’: Beekes (890) explains: “ἀμάδρυα did not originally mean ‘belonging to a tree’, as tree names in [άμα-] meant ‘blossoming at the same time as’. Rather, initial /h-/ was added by folk etymology to *ά-μάδρυα, a form with (non-IE) prothetic vowel. This form (ά)μάδρυα must be a Pre-Greek etymon. If βάδρυα is reliable, we also have variation μ/β, to which ι may be added in order to explain ... ἀδρυα” (Beekes 22–23, 191, 890). \textbf{1 Basque *ma=dari / *u=dari:} (A, AN, B, L, BN, Z) madari ‘pear’, (G, AN, L, BN) udare, (L, BN) udari ‘pear’; in some dialects ‘fruit’ (in general); other variants: udara, udere, urdare, ur- dere (OEH); in place names / family names Madariaga, Maltzaga ‘(place of) wild pear trees’ (FHV 528; A&T XX 651; EDB 354; OEH). § K. Bouda and J. Hubschmid men-

\begin{itemize}
  \item basaran, Agul qala, Rutul q’ala ‘fort’ vs. Tabasaran, Agul, Rutul χαλ ‘room, house’, etc., showing clearly that the etyma are distinct.
  \item The correlations between Basque *l, *t and PNC *l, *t (where *t in each family seems to have been a ‘dark’ or velar lateral) are not yet entirely clear (BCR 189–193). Possibly a secondary contrast *l */t developed independently in each family.
\end{itemize}
tioned connections of Basque *madari with Greek μαδώνα, ἀμάδώνα, and Latin malva 'mallow' (!) (as reported by A&T XX 651). The semantic difference 'plum' ~ 'pear' is unremarkable; cf. the North Caucasian etymology including Chamali k:uk:ul 'apricot', Andi k'urk'ul 'plum, damson', Lak k:urk'ul 'a sort of pear', etc. (NCED 728).

μάλκη 'numbness from cold' in hands and feet, plur. 'chilblain'; μαλκίω ~ μαλάκιω 'to become numb with cold, freeze'; “A convincing explanation is still lacking ... The variant spelling μαλάκιω may indicate that the word is Pre-Greek” (Beekes 898–99). 1 Basque *mal-gor 'numb (from cold)': (BN) malgor, (Z) málgor 'entumecido' / 'engourdi par le froid'; (Sal) malgor-tu ‘to get moldy, go numb, dry up (a tree) completely’, malgor 'hollow tree' (A&T XX: 662; OEH); if the Basque word is a compound *mal-gor in which *mal- meant 'cold' (= PEC *mēhēlē 'cold': see below) + *gor ~ *gogor 'hard, cruel; deaf' (cognate with PEC *gawērV 'stone': NCED 467; BCR R.28).16 1 North Caucasian: Tabasaran merçu-ul 'cold' (adj.), Lezgi meq'i, Rutul miq'di, Tsakhr miq'ana id.; Chachen mil-la ‘from cold, with cold’, Batsbi mil-dar ‘to get cold’; Avar mar't 'hoarfrost', etc. < PEC *mēhēlē 'cold' (NCED 808). § The Basque development *mal-gor is parallel to Basque (BN, L, Z) molkho 'cluster' < *mardo 'cluster' + *ko [diminutive/expressive suffix], in which *mardo = PEC *mår[l]ko 'handful, armful' (NCED 798; BCR L.9), i.e., the original resonant+lateral affricate cluster like *-l/l- or *-r/l- resolves as Basque /l/ when stem-final before a suffix or compounded morpheme. As to the loan correspondence of Greek /kl/ in μαλκή to PEC *λ to PEC *mēhēlē, it is parallel to the loan correspondence postulated by Starostin (1988, nos. 1.6, 1.7, 2.2), e.g. PIE *peku- 'livestock' < PEC *bhāḷāvī 'small cattle' (NCED 293; BCR N.20).

μαστός ~ (Doric) μασθός ~ μασθός ~ (Ionic, Epic) μαζός ‘teat, breast, woman’s breast; (metaphorically) hill, knoll’. “If the form is Pre-Greek, μαζός [mazdos] and μαστός differ in voice only (and aspiration in Hell. μασθός). Since voice and aspiration are not distinctive in Pre-Greek, all forms may go back to the same Pre-Greek word” (Beekes 912). 1 Basque *mosu, *mus-k:o: (G) musu ‘nose, snout, face, lip, kiss, point, tip’, musu-zulo ‘nostril’, (B) mosu ‘kiss (on face); lip’; (with suffix) (G) musu-ko ‘muzzle’; ‘face, facial, pertaining to the lower half of the face’; (BN) mos-ko ‘beak’, (Z) mis-ko id., (Z-Eskiula) miskıua ‘(the) nipple’, (Z-arc) mus-ko ‘sting’, (B-Oñate) mus-ki ‘snot, mucus’, (B, G) mus-kil id., (Sal) titi-mus-k ‘nipple’, (AN-Jaurrieta) /titamüsku/ id. (AT XXI 936; EHHA; BCR A.17). 1 North Caucasian: Chechen, Ingush muc’ar ‘snout, muzzle, trunk’; Avar möc’:tu ‘teat, nipple; tip’; Akhwakh mič’o ‘teat, nipple’, Chamali mis’, Tindi, Godoberi mic’i id.; Inkhokwari muc’i ‘rib’; Lak mazu ‘nipple (of animal)’; Dargwa: Chiragh muc’e ‘sting’; Lezgi murz ‘blade; edge, verge; narrow side of an object’, Tabasaran murz ‘edge, verge, verge < PEC *mhrču ‘point, edge, protruding part’ (NCED 811). § Nikolaev (70, no. 29) proposed Greek μαστός as a loan from North Caucasian. For the correspondence of Greek στ = PNC *c /c/ = Basque *s see also, below, Greek σταφ = PEC *cib = Basque *šap-. On the semantic side the Greek sense of ‘teat, nipple’ is matched in Avar and Andian idioms, and some local Basque dialects (Eskiula müsko [with a common diminutive suffix -ko]; in Salazar, Jaurrieta, compounded with titi or tita, a widespread so-called ‘nursery word’). The original meaning may have been ‘point, tip, edge’ (attested in NC and Basque), with multiple specializations (see below). As to a supposed Romance origin of Basque musu, typical is Trask’s (1997: 261, 16 For the semantic relationship of ‘deaf’ and ‘hard’ (~ PEC ‘stone’), cf. English hard of hearing, stone deaf; Spanish duro de oído, sordo de piedra, etc.
statement (based on those of earlier scholars) that “late Latin MÜS ‘muzzle’ and its diminutives are widely represented in western Romance ... and it is difficult or impossible to trace the histories of the Basque words [musu, etc.] with confidence” (AT XXI 947). In fact “Proto-Romance” *mūsūs ‘snout’ (REW 5784) is only hypothetical; Meyer-Lübke considers the word, with wide attestation in the whole Mediterranean area, as “stemming from northern France” and being an “Urschöpfung,” which is not an etymological explanation; and Trask’s reference to “western Romance” is key: the lack of reflexes in Rumanian may indicate a Vasconic substratum word attested only in the West. But see also Bulgarian mucinya ‘snout’, thought to have been loaned, via Modern Greek μουσώνα ‘mask, snout from an animal or human mouth, jaw, pig’s snout’ < Venetian musona id. (Leschber 2011: 78); further, Bulgarian mucinya > Aromanian mutună ‘mask’ (BER 4, 359). Pellegrini (1999) considers the root *musu, on which the Italian word muso ‘snout’ is based, to be an extremely old root, citing various Itali an forms, always with the voiced -s-, and also makes references to non-European terms by pointing out that words that come from the root *musu- (and *busu-) were formed in many languages, not just Indo-European, meaning ‘mouth, lip, kiss, face’, etc. PEC *mhorču offers a potential cognate that is a phonetic match, and has reflexes with meanings precisely matching those of Basque, specifically:

Basque (G) musu ‘snout, nose’, etc., musu-ko ‘muzzle’ ~ Chechen, Ingush muc’-ar ‘snout, muzzle, trunk’
Basque (Sal) titi-musu-ko ‘nipple’, (Z) mūs-ko id. ~ Avar mōc’:u ‘teat, nipple’, etc.; Lak mazu ‘nipple (of animal)’; Pre-Greek μαστός ~ μασθός ~ μαστός ~ μακός ‘teat, breast’
Basque (G) musu ‘point, tip’, etc. ~ Avar mōc’:u ‘tip’, etc.; Tabasaran mūr ‘edge, verge’
Basque (Z-arc) musu-ko ‘sting’ ~ Dargwa (Chiraghi) μουσ ‘sting’

To sum up, cognition of Basque *mosu with PEC *mhorču seems preferable to a derivation from a hypothetical Latin *mūsu, which has no Indo-European antecedents.

μέσπιλον ‘medlar, medlar tree, Mespilus germanica’; also ‘hawthorn, Crataegus (orientals, oxyacanth)a’; “A foreign word of unknown origin. Probably Pre-Greek on account of the suffix -λ- ... Borrowed as Lat. mespilum” (Beekes 935–36). | Basque *mahāc ‘grape(s)’ (BN, L) mahats ‘grape(s)’, (Z) /mahič/, (G-Bergara, Leintza) magats, (B, AN-Larraun) maats, (B-Illarruri, Zeanuri) /márc/, (B, G, AN, Bzt, Sal, R) matts, (B-Aulestia) matz id., etc. (FHV 113; A&T XX 651; EDB 278; OEH; BCR P.17). | North Caucasian: Chechen ham’h ‘medlar’, Ingush hamis-k id.; Avar ḥeč ‘apple’, Andi inči, Akhwakh, Karata ḥeč id.; Tsezin heneš ‘apple’; Lak huwč; Dargwa śinc id.; Tabasaran wič ‘apple’, Archi ḥiś id.; Khinalug mič id.; Abkhaz a-hāč ‘medlar’, Adyge ḥāpca id., etc. < PNC *tǎmčō ‘apple; medlar’ (NCED 237). | The Basque-NC comparison would require metathesis such as *[maθač’] > Basque *mahāc. Cf. the metathesis in Adyge ḥāpca ‘medlar’ < *banca < *bVmc:u (according to NCED); *banca is remarkably similar to Michelena’s *banats ‘grapes’ (FHV 113). If, as Beekes suggests, -λ- is the suffix of the Pre-Greek word, it leaves μεσπιλ- as the root, also requiring metathesis according to the PNC form; the /p/ is evocative of the /p/ in Adyge ḥāpca ‘medlar’, but these are at best just convergent developments. From a Sino-Caucasian perspective cf. Burushaski *[miʃil] ‘pomegranate’, with a suffix similar to the Pre-Greek suffix -λ- (SCG 267). DIA-konoff & Starostin (1986: 24) suggest a Hurrian cognate, χινσ-ur ‘apple’ (cf. Dargwa śinc), borrowed in Armenian as χίνσոր. The semantic change of Basque ‘grape’ ~ NC ‘medlar, apple’ ~ Burushaski ‘pomegranate’ should not be surprising: cf. Romanian poamă ‘fruit, apple’, Moldovan poamă ‘grape’ ~ French pomme ‘apple, potato’, etc.
(Buck 5.71); and other ‘fruit’ etymologies (e.g. Greek μάδαρα ‘plum, sloe’ ~ Basque *madari ‘pear’, above). Nevertheless, this comparison remains difficult, if not implausible: the origin of the -τ- in Greek is not well explained. Even if the Basque and NC terms are indeed related, the Greek form is far removed phonetically, and the etymology requires many assumptions.

μικρός ~ σμικρός ~ μικκός ~ μικός ‘small, short, little’: “The group of words has a familiar and colloquial aspect, as is shown by the variants μικός and geminated μικκός. The initial interchange in μικρός and (older) σμικρός is unexplained and (also) points to Pre-Greek origin” (Beekes 951–52).  

| Basque *miko: (BN, L) miko ‘a little, a little bit, a pinch’, (AN-Irun, Bzt) miki id., (BN-Garazi, Sal) mikit ‘a tiny bit’. This word is traditionally derived from Spanish miga ‘crumb’, etc. < Lat. mica; and/or Greek μικρός, but these do not quite work phonetically (A&T XXI 926; OEH; REW 5559).  

| North Caucasian: Chamali mik’u-b ‘small’, mač ‘child’, Karata mik’i-s: ‘small’, mak’e ‘child’, Godoberi miki-si ‘small’, mak’i ‘child’; Dargwa Chiragh nik’a-ze ‘small’; Budukh mik’e ‘few; a little, small’, etc. < PEC *mikwV ‘small, young one’ (NCED 821). § Note also Romanian mic ‘small’ (see nemic ‘nothing’ < Latin nēmīca: REW 5885), normally etymologically linked to a totally hypothetical Latin *miccus or Latin mīca ‘Krümchen’ (REW 5559), which also mentions Basque mika and Romanian mic ‘klein’; the Romanian and South Italian forms could be based on Greek mik(k)ós – no further etymological explanation is given.

μυλλον [n.] ‘lip’ (Beekes 980).  

| North Caucasian: Dargwic *muhuli ‘mouth’ (Akusha muhlī, Chiragh mūle, Kadar, Mekeg, Uraghi, Kharbuk muhli, Gapshima muhli, Kubachi mūle, Tsudakhar muhuli ‘mouth’);18 (with metathesis) Avar humer ‘face’, Akhwakh hama-ṭal ‘face’ (< *hwVmV-ğlī) < PEC *mVhwVlī / *hwVmVlī (NCED 499). § Frisk compares a Germanic group with a single consonant: OHG müla [f.], MHG múl [n.] ‘mouth, jaws’... It does not seem that μυλός is connected, nor that the gemination is expressive. Perhaps an onomatopoeia” (Beekes 980). (Onomatopoeia - how?) Kroonen (2013: 374) notes that (possibly apart from μύλλον) the Germanic word is restricted to Germanic and could go back to quasi-PIE *muH-lo-, if Bavarian mäuen ‘to chew, rumigate’ is related.20

μύσταξ ~ βύσταξ ‘upper lip, mustache’. “Both the variation μ-/β- and the variant μύτακες point to Pre-Greek origin” (Beekes 249, 986).  

| Basque *bisa-i ‘beard’: common Basque bizar (definite form bizarra), (Z) bizar, (AN) bizer, pizer, pizar, (B) bizar, bixer /biser/, bixer id. (EHHA; BCR A.24). With the frequent fossilized plural ending *-r (BCR 76–78), and analogous in form to Agul muž-ur ‘beard’ (see below). With expressive palatal: (Z) bizar /bišar/ ‘goatee’.  

| North Caucasian: Khwarski bish-ăn-de ‘beard’, Hunzib bilažba id. (< *bīza-l-ba), Bezhta bīza-l-ba ‘mustache’; Tindi miža-tu ‘beard’, Akhwakh miže-t-ču, Chamali mīza-t’w, Bagwali miža-t” id.; Tabasaran muž-ri, Agul muž-ur

17 De Vaan (2008: 378) prefers to separate mica from (o)μικρός, citing Nyman’s connection with “micāre ‘to quiver, dart, flash’, viz. as the ‘glittering’ particle.”

18 In NCED Dargwa is considered a single language with diverse dialects, but there seems to be a growing consensus that Dargwa is instead a small linguistic group, like Tsezian or Nakh; see Dargwic in Glottolog: https://glottolog.org/resource/languoid/id/darg1242. /ɣ/ denotes a pharyngealized vowel; /ʰ/ is a voiceless emphatic laryngeal [pharyngeal] fricative.

19 NCED cites *hwVmVlī as the proto-form, but *mVhwVlī is implicit in the Dargwic forms, with no indication in NCED which would be original.

20 By “rumigate” ruminate must be intended.
beard’; Khinalug mič-äš ‘beard’, etc. < PEC *bılžV ‘beard’ (NCED 303). 21  § Nikolaev (71, no. 31) proposed that Greek μύσταξ ~ βύσταξ was a loan from PEC *bılčV (later reconstructed as *bılžV in NCED). In some NC languages there are regular changes of the type *bılžV > *bınś- > *miń- > *muń-, etc. (cf. the Greek variants μύσταξ ~ βύσταξ). This etymology, via Greek, is the source of European words such as English mustache. In Baztanese Basque there is a strange blend, mustratx ‘mustache’ (apparently Basque *muštu-r ‘snout’ [BCR A.19] + French moustache).

vě́ktťaŋ ‘nectar, drink of the gods’; vě́ktťaŋov a plant name = ἕλένιον [Dioscorides Medicus], also name of a medicine and several eyesalves [Galenus]; “In contrast with ἀμβρόσια, which is of related meaning ... vě́ktťaŋ does not have an ascertained etymology. ... [Furnée 1972]: 320 compares vůčáŋov, an eye-salve. If this is correct, the word may be Pre-Greek. He also points to other Pre-Greek words in -αο (op.cit. 13479)” (Beekes 2010: 1004–05). 1 Basque *negar- / *niga-ɾ ‘tears, weeping’ ~ *nega-l ‘herpes, scurf’: (B, G, AN, L, Sal) negar ‘tears, weeping’, (Sal, B-dial.) near, (BN, L, Bzt, Azk) niger, (Bzt) niger, (Z) nigar, (R) nekar [nešar] id.; (B-Ubidea) negar ‘rennet’; (AN-dial., L) negar ‘sap, resin (of plants)’ 22 (A&T XXI 958; OEH NÉGAR; BCR A.78). Cf. also (BN, L, Bzt) negal ‘skin rash, scurf, herpes’, (AN, BN, L, Z) negel, (L) nagel id., with a different suffix, *-l, common in Basque body-part words, and the sense ‘herpes, rash’ is similar to ‘pus’ in the Nakh languages. 1 North Caucasian: Dargwic (Akusha, Chiragh) nerk ‘tear’, (Urakhi) nirk, (Kaitag) nerk ~ nerk’, (Tsdakhar) nerk, (Kubachi) mēʁʷ“ id.; Lezgi nasʷ, Agul nevʷ, Archi nabq, Udi nev; Lak maq`; Avar māsɐ, Akhwakha maq`; Bezhta maq’; Khwarshi muq’u id.; Chechen notq’u ‘pus’, Ingush nod, Batsbi notq’ ‘pus’, natq’-ayrî ‘tears’, etc. < PEC [direct stem] *něwʁuŋ ‘tear; pus’ / [oblique stem] *nivwирует (NCED 848). § Phonetics: The languages compared here involve a segment NEK- or NIK- + a suffix -(A)R: (Pre-)Greek vě́ktťaŋ, vůčáŋ-, Basque *negar- / *niga-ɾ, Pre-Proto-Dargwic *nevʷ-r. The internal /r/ in Dargwic *nerʷ is thought to come from a former plural suffix, thus *nerʷ < *nevʷ-r, parallel in formation to Basque *negar-. “The medial -r- in PD is obviously secondary, probably having penetrated there from an original plural form in *-r, being later substituted in PD by the *-bi-plural” (NCED). As to the puzzling -k- in (Pre-)Greek vě́ktťaŋ (lacking in the possible variant vůčáŋov) there could be a clue from the Proto-Nakh form *nətqû ‘pus’, which NCED explains as “an original plural form (*nətqû < *nə(w)q-tu < *něwʁ-dV),” if a similar formation could be projected back to Euskaro-Caucasian. The vowel alternation NEK- or NIK- also occurs in all three language areas studied: (Pre-)Greek vě́ktťaŋ / vůčáŋ-, Basque *negar- / *niga-ɾ, and PEC *něwʁuŋ / *nivwирует. See below, under Morphology: Ablaut for a brief discussion of Euskaro-Caucasian ablaut. Semantics: The underlying concept is ‘secretion, exudation (of human and animal bodies, and of plants)’, a typologically common semantic realm: 23 in (Pre-)Greek, ‘nectar; medicine; eye-salve’; in Basque, ‘tear(s); rennet; sap, resin’; in

21 Due to multiple possibilities of vowel reconstruction based on the attested vowels, the NCED authors allow for the alternative first vowels *-o- or *-a- as possibilities (~ PEC *bölžV, *bılžV). External comparison with Basque *bisa-r ‘beard’ supports the PEC form *bılžV, with *-i-.

22 OEH gives references to this meaning in dialectal records by Prince Louis Lucien Bonaparte (1813–1891), and the 19th-century unpublished dictionary by Maurice Harriet, who wrote “Maltatsaren nigarra, sève, larmes, pleurs de la vigne.” The 20th-century Basque writer Andima Ibiñagabeitia used the compound arbola-negar = ‘resina’.

23 For semantic typology, cf. Lak pie’ ‘dew; sweat’; Avar pie’: ‘resin’; Karata bić’i; Dargwa penc ‘resin’; Chechen mutta ‘juice, sap’ (Rus. kok); Ubykh həz ‘water’, etc. < PNC *pinciA ‘resin, juice’ (NCED 871); a putative Basque cognate is *pista ‘fresh rheum; sleep sand (secretion from eyes)’ (BCR A.79). See also Basque *ī-serdi ‘sweat; sap (of trees)’ (BCR A.89), putatively cognate with PEC *čałızV ‘blood; life’ (NCED 376).
Notes on some Pre-Greek words in relation to Euskaro-Caucasian (North Caucasian + Basque)

East Caucasian, ‘tear(s); pus’. The actual substance of ἱεκταξ is not discussed by Beekes, but Roscher (1883) deemed both ambrosia and nectar to be forms of honey. The modern English sense of ‘the saccharine secretion of a plant, which attracts the insects or birds that pollinate the flower’ is quite recent, ca. 1545–55 CE (Flexner 2001: 1284).

ἔξολον ~ (Attic) σύλον ~ σύλινος ‘wood, timber, firewood, tree, beam, stick; wooden block put around the neck, gargoyles; bench, table’; also as a measure of length. “It seems to correspond with Lith. šūlas ‘post, pole, stave’ < IE *ksulo-, Ru. šilo [n.] ‘garden-pole’, SCR. šūlį [m.] ‘block’ < IE *kseulo- (?)”. Germanic words like OHG sül [f.] ‘style, pole’, Go. sauls ‘pillar’ have a similar appearance. The relation between the Slav., Balt., and Gm. words has been amply discussed, but hardly explained. Was the word taken from a non-IE substrate language?” (Beekes 1037–38). | North Caucasian: Lezgi, Tabasaran č’ul ‘ceiling beam’, Agul č’il ‘thin log’, Tsakhur č’il ‘planking poles’; Avar č’ala ‘log, beam’; Lak č’ula ‘beam, girder, log’, etc. < PEC *čʰwihí (~ *čʰwihú) (NCED 388). § S.A. Starostin (1988, no. 4.11) proposed PIE *kseul- ‘beam, post, piece of wood’ as a loan from PEC *čʰwihí ‘beam’ (reconstructed then as *čʰwik’tu, six years before NCED was published). Pfeifer (1997: 1179) regards German Säule ‘pillar, pile’ as of “Herkunft ungewiss,” while Kroonen (2013: 491) deems its ancestor, Proto-Germanic *stiλi, “an i-stem of unknown origin” with an ablaut variant *saλi > Gothic sals ‘pillar’.

ὀξυχνή ~ ὀχυχνή ‘pear tree, Πirus communis; pear’. “[Furnée 1972] thinks the word is Pre-Greek, also on account of the by-form ὀχυχνή” (Beekes 1045). | Basque *ok-(arhan) ‘plum, sloe’ (BCR P.16): (B, G-Etxarri-Aranaz, AN-Arakil) ok-aran ‘plum’, (AN-Olza) ok-arín, (AN-Ilzarbe) uk-arain id., (B) txarri-ok-arán ‘sloe’ (txar- /čait/ ‘bad, wild’; cf. Tabasaran č’uru ‘bad, wild [of plants]’, etc.: BCR R.5; NCED 555). A compound with *ar=han ‘plum’ (BCR P.15). *ok-arhan may originally have designated the cultivar plum (cf. Karata aχε, Lak aq ‘garden’, etc.) as opposed to wild plums and sloes (AT XXI 975; OEH). (B) txarri-ok-arán ‘sloe’ reflects the fact that the meaning of *ok- was forgotten before the element /čait/ ‘bad, wild’ was added. | North Caucasian: Andi ọχì ‘sweet cherry’, Akhwakh aqi ‘grape’, Tindi aqi, Chamali aχ id, Karata aχε ‘garden’; Khwarshi, Inkhokwari oh ‘grape’; Dargwa Chiragh aq ‘fruit(s)’, Akusha, Uraki anq ‘garden’; Lak aq ‘garden’; etc. < PEC *ʔeqV ‘grape; fruit; orchard, vineyard’ (NCED 206); “...excessive -n- in [Proto-Dargwic *tanq] (all other languages reveal absolutely no trace of any medial resonant); it may have penetrated from an oblique base like *ʔaq-nV- (or, more probably be a result of contamination with another root: PEC *HesqeqV ‘meadow, plot’ q.v.)” (NCED). § Nikolaev (71, no. 32) proposed the borrowing of Greek ὀξυχνή / ὀχυχνή from PEC *tʰeq(N)qV. If, as NCED suggests, there was a PEC “oblique base like *ʔaq-nV-,” it could explain the Greek -ν- in ὀξυχνή. Compare also Latin acinus ‘grape or other berry’, a close phonetic match to the hypothetical PEC *ʔaq-nV-, just mentioned. Latin “acinus” is generally regarded a loanword from an unknown Mediterranean language; since the seeds of grapes are rather bitter, I see no reason to reject a derivation from the

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24 There is another very similar NC root: cf. Avar 驸ya c’id ‘wood, firewood’, Andi c’ul ‘stick’, Akhwakh 驸yl, Karata c’ule id., Tindi c’uli (‘shepherd’s staff’, Chamali c’uli ‘whip’, etc.; Hunzib c’ulu ‘arrow’, Bezhta c’ulu-c’a id., Tesei c’eru-c’a ‘bow’, etc. < PEC *čwulav (NCED 374). It is also tempting to think about Basque *suλ ‘wood, timber, lumber’; common Basque zur, in parts of Bizkaia and Navarre zul, Roncalese zur (with a nasal vowel), etc. (BCR Q.51), compared in BCR with PEC *sufelθ ‘twig, rod, sheaf’ (Andi zala ‘branch, rod’, Avar zul ‘broom, besom’, Chamali zala ‘rod’, etc.; NCED 1103). However, for phonetic reasons, it seems best to keep these forms separate from Greek ἔξολον, etc. PNC/PEC *ęż- and *ęż- correspond to Basque initial *s- (BCR 151–52), while PNC *ęż- and *ęż- correspond to Basque initial *će- (BCR 149–50).
root *ak- ‘sharp’” (de Vaan 2008: 23). The vowels (o or e) are a little difficult. The change of PNC *e > Andian *o is regular, but this “*o was preserved only in Andi, and merged with *a in all other languages” (NCED 74, 108), thus Andi ɣiχi but a- in the other Andian languages. As to Basque *o-, the best match for PNC *e- = Basque *o- seems to be PEC *ʔendū ‘forehead’ (NCED 205), Andi honno ‘forehead’ = Basque *ondo, ‘side; bottom; proximity, closeness’, Bizkaian ad-ondo ‘forehead (of cattle)’ (BCR I.4). But there are also alternative solutions of Pre-Greek ɣγγη. Blažek (2014: 45) mentions a different North Caucasian word that is semantically exact with the Greek word: Avar gêni ‘pear’, Andi and Karata hihi, etc. ‘pear’; (Tsezian): Bezhta and Gunzib hi ‘pear’; (“hi ‘pear’ + *ʔe ‘apple’ >) Tsezi heneš ‘apple’, Khwarshi hiyoš ‘apple’; (Proto-Nakh: *wam-taka) > Chechen kampaka ‘peach’, Ingush kattraka ‘apricot’, all reconstructed as Proto-East Caucasian *ʔōnɔʔV ‘pear’ (NCED 475). PEC *ʔōnɔʔV has, in turn, been compared with Basque *-han in *ar-han ‘plum’ (BCR P.15), as cited above. Blažek also cites some Semitic words meaning ‘fresh, unripe dates’: Akkadian ʔuinhnum, uinhnum(n), uhe(n)nnum ‘fresh / unripened date(s)’ > Jewish Aramaic ʔâhân ‘nicht voll gereifte Dattel’ (> Arabic ʔâhân ‘bunch of green dates’), Syriac ʔâhân ‘an unripe fruit, especially fig’.

όχις ‘spine, backbone, back; (mountain) ridge’. “However, since ὕοχις-/ὕοχις- cannot be derived from an IE form (the ablaut in the above reconstructions being impossible), it may instead be Pre-Greek” (Beekes 1277–78). Basque *erēka or *e-erēka ‘gully, ravine’: (c) erēka ‘gullyly, ravine, riverbed, arroyo, creek, brook, stream’ (FHV 155; AT XI 571; EDB 177; BCR D.8); toponym Erēka (Bizkaia 1093 CE); sporadically written herēka or errēka (OEH). Romance forms like Gascon rèc, arrèc ‘brook, stream’ are probably from Vasconic; “Geographische Verbreitung und Bedeutung legen iberischen Ursprung nahe” (REW 7299). North Caucasian: Tindi rek’ra ‘gorge, ravine’, Karata rık’e id., Godoberi rek:i-n ‘valley’; Bezhta riŋ’e-ro ‘mountain slope’, Hinukh ruqe-s ‘plain’; Chechen duq’ ‘mountain ridge’; West Caucasian: Ubykh q’wa ‘cavern’, Adyge q’oʔ-s ‘mountain’, Kabardian q’oʔ-s ‘cavern’ < PNC *rīqwa ‘mountain, rock; cave’ (NCED 953). Nikolaev (71, no. 34) proposed Greek όχις was a loan from PNC *rVŋ’q’V (later revised to *rīqwa in NCED). Note the vowels in Pre-Greek όχις vs. PNC *rīqwa – metathesis of vowels? The semantic glosses are diverse, from ‘ridge’ (Pre-Greek and Nakh) to ‘slope, plain, valley’ (NC), ‘ravine, gorge, gully’ (Tindi, Karata, Basque), and ‘cavern’ (Ubykh).

σαλαμάνδρα [f.] ‘salamander, kind of newt’; “Given its non-Indo-European structure, σαλαμάνδρα may be Pre-Greek. Cf. also on σάβαqa [‘lizard’], which is probably Pre-Greek, as well” (Beekes 1303); σαλαμίνη [f.] ‘spider’ (Byzantine); “The suffix -νη is clearly Pre-Greek, but further connections are unknown” (Beekes 1303). σαβαqa [f.] ‘lizard’ ... also σαβγος [m.] ‘lizard’. “Without etymology, like many other words for ‘lizard’. ... As the animal was not a part of the PIE world, the word must be of local, i.e. of Pre-Greek origin” (Beekes 1313). Basque: *suge (or *suhe?) ‘snake’: (c) suge [suyexe], (G) suqa [suqa], suba [suβa], (AN, B-Lekeitio, Ubidea, BN-Aldude, G-Iziar) sube [suβe], AN (Zugarramurdi) /suɣε/ ‘snake’, /suɣε/ ‘the snake’, (Z) süge [šyxe] id. (EHHA, 25) (B) ad- seems to be a reduced form of *a=dai ‘horn’ (BCR A.4). The problem of disentangling Basque *ondo, ‘joint’ (A.77) from *ondo, ‘side, beside’ (I.4; and from *fiundo ‘sand’, etc. [D.18], and from reflexes of Latin fundum) is discussed in BCR (240–41).

26 The Proto-Nakh form is a compound of *han + *pama, the second part of which comes from PNC *pirmgaA, a word which means ‘apricot’, ‘peach’, ‘plum’, ‘fruit’ (in general) in individual NC languages (NCED 873).
map 114); (in compounds): *šuge-lindil(a): (L–18th c.) sugalindila,27 (B) sugelindia, ‘lizard’, (G) sugalinda, (B) sugalindara, (B, G) sugelindara, (B) sugelandara, (L) sugekandela, (L–Ainhoe) subekandela, (L, R) sugekandera, etc. (see *lindila ‘lizard’, BCR B.25); *šuhalendil(a): northern Basque suhendil ‘lagartija / lezard des muraillles’ (Pouvreau, 17th c.);28 (L–Muggerre) /suhájndola/, (BN–Armendaritze) /suyándoíl/, /suyándóil/, /suyándola/ ‘lizard’; *šuhangil(a): (BN–Gamarte) /suángila/, (BN–Ezterenzbui) /suángigil/, (BN–Baigorri) /su(e)ángigil/ ‘lizard’, etc. (EHHA, map 119); also Sugaar: a mythical serpent in Basque folklore (FHV 59; EDB 342). | North Caucasian: Lezgi šarat’ul ‘lizard’, Kryz šurut ‘scorpion’; Ingush šulq’a ‘lizard’, Chechen šat’q’am ‘a kind of lizard (medwinda)’ (<*šult-i³V); Dargwic (Akusha) šuršt’anim ‘lizard’, (Kharbuk) šill’t’a id.; Avar (Antsukh dialect) šût ‘lizard’ < PEC *šIVV⁴V ‘lizard’ (NCED 987). § Since it is well known that words for small creeping creatures (e.g., reptiles, amphibians, arthropods) are fraught with many kinds of expressive and irregular phonetic changes (Bengtson 2017a: 283) it is quite difficult to unravel the origins of the etyma involved; so this lemma can be regarded as more exploratory than definitive. A quick look at the EHHA maps 115 and 119 shows that words for ‘salamander’ and ‘lizard’ are extremely varied from one region or even community to another. Michelena proposed that some of the numerous variants of Basque ‘lizard’ stem from suge ‘snake + andere / andra ‘lady’ (see above under ānθwopa) and there likely was influence of other words (sagu ‘mouse’, lindo ‘clean, without stain’, kandela ‘candle’, and süsker [a Zuberoan word for ‘lizard’]) that would explain the appearance of some variants.29 In BCR (no. B.25) it is postulated instead that there was Basque *lindila (an element in some ‘lizard’ words), cognate with PEC *λωιτλωιF ‘lizard’ (NCED 763, attested in only three Daghestanian languages, Chamali ≥tol, Lezgi ≥til, Rutul xutxul); the vowels match very well, as do the initial laterals, but in inlaut the Basque cluster *-nd- is matched with the strange PEC cluster *-tλω-, which, as far as we know, does not occur in any other PEC or PNC reconstruction; as expected, there must have been some expressive sound changes on both sides. This *lindila later contaminated with *andra ‘lady’ and the Romance word kandela-ra ‘candle’ (apparently from the slim shapes of lizards and candles). Or perhaps *andra is also original, since it occurs in other Basque animal names.30 Regarding αλαμάνδρα, besides Basque *andra possibly corresponding to the -άνδρα part, some Basque lizard names have components that resemble -μάνδρα: (Bzt–Aniz, Lekaroz) subemandil, (L–Azkaine) sumandil, (L–Senpere) subemandil, (R) sugemandila ‘lizard’ (OEH SUGANDILA; EHHA map 119); and possibly the αλα-component is related to PEC *šIVV⁴V ‘lizard’, if *-V is a suffix.31

27 The form sugalindila is documented by the 18th century Lapurdian writer Haraneder, who recorded several archaic forms (OEH SUGANDILA).

28 Sylvain Pouvreau (d. 1675) was a priest of French descent who in the course of his studies and jobs learned Latin, Hebrew, Spanish, and Basque, the last of these well enough to write several translations of religious tracts as well as an unpublished Basque-French dictionary (ca. 1650–1660), parts of which are preserved in the Bibliothèque Nationale de Paris. This dictionary is respected and widely quoted by Vasconists (Trask 1997: 48, 50–51).

29 “De *suge + ander/-a. Es probable que haya habido influencia de otras palabras (sagu, lindo, kandela/-ra, süsker…) que explicaría el aspecto de algunas variantes” (OEH SUGANDILA).

30 (BN, L) satandere ‘weasel, marten’ (carnivora: mustelidae) (<*šag-t-andra, ostensibly ‘mouse-lady’, but originally this -andra, before phonetic distortion, may have been related to Proto-Andian *handa-, as in Tindi handa-reº:u ‘weasel’, etc.; cf. Basque *ergu-nedi ‘weasel’, also possibly containing a distorted morph -*nedi related to Tindi handa-, Tsezi madu- (in madu-Hi ‘weasel’), etc. (BCR B.10; NCED 239).

31 Cf. Bezhta dibi-t’o ‘drum’, qas’q-a-t’o ‘throat’; Khinalug k’un’k’a-t’á ‘weasel, marten’; Basque neska-to ‘little girl’, (Bzt) eltxe-tó ‘small pot’, elixa-tó ‘small chapel’, etc. (BCR 55).
Pre-Greek σαλά- ~ Lezgi šara-t’u-l ‘lizard’; Ingush šul-q’a id. < PEC *šIV-tV
Pre-Greek -μάνδρα ~ Basque -mandill(a) (in dialect words for ‘lizard’)

As to σαλαμίνθη ‘spider’, connections between names of reptiles, amphibians and arthropods is not uncommon: e.g., Basque (R) arreuli ‘salamander’, (Z) ‘scorpion’ (BCR B.26); Basque (G) arrubi ‘salamander, scorpion’ (BCR B.27), and Lezgi šarat’ul ‘lizard’, Kryz šurul ‘scorpion’ (mentioned above). Another twist to these etymologies is the ancient belief that salamanders were associated with fire and immune to fire, so much so that several ancient dignitaries (the emperor of India, Pope Alexander III, Prester John) wore garments made of salamander skins, believing that they protected them from fire (Ashcroft 2000: 112–13). The species *Salamandra salamandra, known as Feuersalamander in German (along with numerous dialectal designations) is widespread in Europe, south of the Baltic and North Seas and west of the Bosporus. It may be notable that this association may have crept into some of the Basque designations of ‘lizard’, such as (L-Azkaine) sumandil, in which su- in the folk mind could be associated as much with Basque *šu ‘fire’ (BCR F.I.: cf. PNC oblique stem *ciuy- ‘fire’) as with *šuge ‘snake’. In a Sino-Caucasian context Basque *šuge ‘snake’ may be linked with Yeniseian *c[i]k ‘snake’, fish’ (BCR Z.13). On the other hand, Pre-Greek σαύρα [f.], σαύρος [m.] ‘lizard’, if not related to Lezgi šara-t’ul, etc., could have a Semitic origin: cf. Akkadian šurātā, šurāru(m), (Āṣpaē) šurīrā ‘lizard(s)’ (CDA 341) < Semitic *šaYu ‘lizard’.32

σιρός ~ σιρός ~ σειρός ‘pit or vessel for keeping corn, silo’. “Technical word without etymology. The variation between σιρ-, σιρ-, σειρ- is hard to explain from an IE point of view” (Beekes 1335). / σύριγξ, σύριγγος ‘quill, flute, syrinx [shepherd’s pipe]’ (Il[iad]); also of pipe-like objects, e.g. ‘windpipe, blood-vessel, fistula’ (medic., etc.), ‘spear case’ ... ‘hole in the nave of a wheel’ ..., ‘subterranean passage’ ... Arm[enian] sring ‘flute, pipe’ was probably taken from the same source. Borrowed as Skt. suruṇgā [f.] ‘subterranean passage’ (Beekes 1423–24). / σωλήν ‘pipe, channel’; ‘grooved tile’, etc. < hypothetical *σωλος or *σωλον; “Etymology unclear; ... [Furnée] suggests that the word is Pre-Greek (giving other such words in -ην)” (Beekes 1439).33 / Basque *sullio ‘hole, cave; (anatomical) tube’: (BN, L) zulho, zilho ‘hole, burrow’, (B, G, AN) zulo, (B-Orozko) zulu, (AN-Goizuetza) zolo, (B-Aulestia) sulo, (B, Sal, L-Ainhoa) zilo, zillo, (Z) zilo, xilo, (R) xillo/šiko/ id., (AN, BN, Z) zilo-ka ‘cave’, (AN-Lezak, Bzt) ur-zilo ‘cistern’ (‘water-hole’), etc.; generally, southwestern zulo / northeastern zil(h)o; (G) zilo “Silo, lugar subterráneo donde se guarda el trigo” [Larramendi, 18th c.]; (B-Vergara, Salinas) silo “Silo para conservar hierba fresca” (OEH silo); in anatomical compounds: (G) ipurt-zulo ‘anus’, eztar-zulo ‘pharynx’, musu-zulo ‘nostril’, (Z) südür-xilo ‘nostril’, (B) sama-zulo ‘gullet’, etc. (FHV 77, 320; EDB 227, 342, 380; BCR I.12). / North Caucasian: Avar (Antsukh dialect) šulu ‘pipe’, Chamali na-šul ‘tubular bone’, Andi tom-šil, Karata hani-šel id., Tindi han-šal ‘arm (from hand to elbow)’;34 Tzeeši šihu ‘horn’, Be-

32 Thanks to suggestions from V. Blažek (p.c. 11/04/2020). He is currently preparing a proposal that Greek σαύρα / σαύρος were borrowed not directly from Akkadian but more likely from a Semitic language of an Amorite type, thanks to trade contacts between the Levant and Crete.
33 The comparison with σωλήν is suggested by Giampaolo Tardivo (p.c. 11/22/2020). For σαύρα Tardivo suggests a Semitic origin: Hebrew sir ‘pot, vessel’, Arabic zir ‘a large jar’. But “Hebrew sir cannot correspond to Arabic zir which does correspond to [Egyptian] (Pyramid texts) zwr ‘drinking vessel’ ... likely one more [Egyptian] loan in Arabic (I’ve just published a paper on these loans [Militarev 2020]) (A. Yu. Militarev, p.c. 12/03/2020).
34 The four Andian compounds come from *honi-š:IV ‘marrow-pipe’ (thus, ‘tubular bone’) or *tomV-š:IV ? ‘sinew-tube’ (thus, ‘forearm’).
zhta šelo, Hunzib, Inkhokwari šelu, Khwarshi šeru id.; Lezgi sulu-r ‘throat’,35 Kryz síl ‘top (of boot)’, (with metathesis) Rutul lis ‘gullet’, etc. < PEC *šwòtV ‘hollow tube’ (NCED 978). § At least from the few examples here, nothing decisive can be said about the development of liquids. Pre-Greek also has a high-front vowel (i ~ i ~ e) while some NC languages (Tsezi šilu ‘horn’, etc.) and Basque dialects (Z zilo, xilo) have developed i-vowels, alongside back-rounded vowels. Semantically, the meanings denoting tubular body parts are attested in NC (Chamali na-s:ul ‘tubular bone’; Tsezi šilu ‘horn’, etc.); Basque (Geztar-zulo ‘pharynx’, musu-zulo ‘nostril’, abo-zulo ‘mouth(-hole)’, etc.) and in Pre-Greek (σύριγξ ‘windpipe, blood-vessel, fistula’). Specializations as ‘subterranean passage / cave’ and ‘pit or vessel for keeping corn, silo’ are attested in Basque and Pre-Greek. σωλήν ‘pipe, channel’ is very close to the semantics of Avar (dialect) šulu ‘pipe’. By one route or another, this etymon is the likely ultimate source of English silo, and related European words. Skeat (1882: 562) derives it from Spanish silo < Latin sirum < Greek σιρός, and this is still a commonly cited source. ThoughREW (7955) derives Spanish silo, Provençal sil and Galician siro from Greek σιρός ‘under-irdische Getreidekammer’, the Real Academia (Dicc) declares the Spanish word as “de origen incógnito.” The web resource Online Etymology Dictionary has, in our opinion, a more reasonable theory, that “the Spanish word is from a pre-Roman Iberian language word represented by Basque zilo, zulo ‘dugout, cave or shelter for keeping grain’.” The entry quotes Barnhart & Steinmetz (1988): “The change from r to l in Spanish is abnormal and Greek siros was a rare foreign term peculiar to regions of Asia Minor and not likely to emerge in Castilian Spain.”36 For the German word Silo the origin is unclear, according to Pfeifer (1997: 1292).

σταφυλή ‘bunch of grapes’; ‘grape’ [Iliaid]; (metaphorically) ‘swollen uvula, uvula inflammation’. “The similarity with ἀσταφίς ‘dried grapes’ is probably not accidental, but the exact relation of the words is unknown. The group of words is Pre-Greek ... ἀσταφίς ~ ὀσταφίς ~ σταφίς ... ‘dried grapes, raisins’ [is a] typical substrate word, with prothetic vowel and variation α/ο/” (Beekes 155, 1391–92). I Basque *šapa-* ‘blackberry-bramble, thicket’: (BN) sapar ‘thicket, bramble’, (BN-Amikuse, L-Bardos) saphar ‘hedge, fence’, (BN) saparr-ondo ‘thicket, bramble’, with expressive palatal /č/: (R) txapar ‘kermes oak’ (Quercus coccifera), ‘scrub, brush, undergrowth’, (Sal) txarparro ‘scrub of evergreen oak or holm oak’ (FHV 54, 296; EDB 258; BCR C.19). I North Caucasian: Avar c’ibi-l ‘grape’, Avar (Chadakolob) c’ibi-l ‘grape’; Rutul c’ib ‘juniper’, Tsakhur c’ib ‘juniper’, Lezgi c’p-az ‘blackberry’ < PEC *čibV ‘a kind of berry’ [better: ‘berry, plant with berries’] (NCED 367; a sparsely attested [Avar, Lezgian] isogloss.) § The comparison by Nikolaev (72, no. 37) was actually with Proto-Nakh-Daghestanian *[č’i]mibhV ‘вишнёвый’, ‘grapes, grapevine’ > Avar c’ibi-l ‘grape’ and Proto-Lezgian *t’umbul. By the time the NCED was published, nine years after the 1985 article, these words had been resolved into two different etymologies, the one cited above and PNC *ti:mhV ‘kernel, stone (of fruit, nut); marrow’ (NCED 1004). The types of berries denoted in the above etymologies are diverse (juniper, blackberry, grape), so the oldest meaning may have been ‘plant with (some kind of) berries’. Such plants tend to be low-lying bushes with a tangle of spiny branches (blackberry, juniper), thus the se-

35 Lezgi sular ‘ров:о / throat’ is not discussed in NCED, but is cited in Klimov & Xalilov (2003: 71–72). Lezgi sular fits this etymology phonetically (consistent with Proto-Lezgian *søl- ~ *søl-) and semantically: “the meanings ‘gullet, throat’ and ‘top of boot’ are sometimes interchangeable (cf., e.g. Lezg. q:ւ:x meaning both)” (NCED 979).

36 https://www.etymonline.com/
mantic connection with Basque ‘bramble, thicket’. Avar ‘grape’ seems to be a secondary semantic development < ‘berry’. For the correspondence of Greek οὖς = PNC *γει = Basque *si see also II: μανός = PEC *mynos/ = Basque *mos/; Basque *a = PNC *a is uncommon, but also occurs, e.g. in Basque *sathui ‘quick, nimble, flexible’, etc. = PNC *silV / *siV ‘light (of weight)’ (BCR R.42). Basque *tapo-r is the source of Spanish chaparro ‘scrub oak’ (Dicc) > American English chaparral and chaps (leather leggings). Other Romance developments include Aragonese chaparro ‘scrub pine’; cf. Latin sappinus ‘fir’, of unclear (Celtic?) origin > French, Provençal sapin, Old Italian zappino, etc. (Hubschmid 1960: 40–41; REW 7592). Basque *şapa-r should of course be kept separate from some other superficially similar Basque words for ‘bramble’: *lapa-r, *lahar, and *gapo-r (see BCR C.15, C.17, C.18), each of which has a distinct NC cognate; but clearly these have all become contaminated in the popular mind.

ψυχή ‘aspiration, breath, life, vitality, soul (of the deceased), spirit’; ψυχω ‘to breathe, blow’ [‘I breathe, blow’]. ‘I do not find these suggestions [of IE etymologies] convincing. There is hardly any evidence for an IE root *bhes- ‘to blow’ … Therefore, the word is more probably of Pre-Greek origin’ (Beekes 1672). Basque *bi=si (noun) ‘life; lifetime’, (adj.) ‘alive’: Common Basque bizi ‘alive, living, lively; life’, (B-Markina) bizi /biśi/ (A&T VII 147; EDB 145; BCR A.87). North Caucasian: Chechen, Ingush, Batsbi sa ‘soul’; oblique base *sī- (Chechen sī-na-, Ingush sī-no, Batsbi pl. sī-y-); III-class; Lak sī ‘breath, vapor’ (III-class); Karata săh-ān- ‘to get tired’; West Caucasian: PWC *pa-sīV > Uybhk p=šā-χʷə- ‘to breathe’; Adjye, Kabardian p=sə-r ‘to get tired’. Abkhaz a-pə-rə ‘to die’, Abaza ps-raid < PNC *siHwV ‘breath; to breathe’; with III-class prefix *b=siHwV (NCED 961). Nikolaev (72, no. 40) cites Greek ψυχή as a loan from North Caucasian, in which ψ /ps/ corresponds to /pś/, /ps/ in the West Caucasian forms, and χ /kh/ to the PNC laryngeal *h (Lak /h/). The Basque word is analyzed in BCR as the root *si = PNC *siHwV preceded by the fossilized class prefix *b= (≈ PNC *b=/*w= III-class [inanimate] singular: note that the Nakh and Lak parallels cited above belong to the III-class). NCED suggests deriving PWC *pa-sīV from an earlier *pə-sətawV, which is exactly parallel in form with Basque *bi-si, and also provides a plausible antecedent to Greek ψυχή /psukhē/ ‘aspiration’. ‘The semantic developments ‘to breathe’ > ‘get tired’ … > ‘die’ are quite usual’ (NCED 961; cf. Russian duša ‘mind, soul, spirit’ : dušit’ ‘to smother’; Greek ἐκψυχω ‘to breathe one’s last; expire, lose consciousness, die’. It is tempting to suggest Latin spirō ‘I breathe, blow; am alive, am inspired’, spíritus ‘breath, breathing; breeze, air, spirit’, ex-spirāre ‘to breathe out, die’, etc., from Proto-Italic *spīris/- (i.e., *spīr- or *spīs-, according to de Vaan 2008: 581), if there was a metathesis of *spīr- > *spīr-. De Vaan only opines “Possibly an onomatopoeic formation imitating the sound of breathing. There are no direct [IE] cognates.” Diakonoff & Starostin (1986: 36) thought there were cognates of PNC *siHwV in Hurrian-Urartian: Hurrian śēy-irī ‘alive’, śēy-ori ‘fate’ or ‘life’, Urartian šu/oχ-ori / šeχ-eri ‘alive’.

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37 Other developments have penetrated world current events. The Mexican Spanish word chapa ‘persona de baja estatura’ (Dicc) < Basque (B) txapar ‘persona de pequeña estatura’ (OEH) is widely known as the nickname of drug trafficker Joaquín “El Chapo” Guzmán (now imprisoned in Colorado, USA).

38 In his older dictionary Walde (1910: 731) cites Old Church Slavic pišta, piskati ‘pfeifen, flöten’, Sanskrit pickharā ‘Pfeife, Flöte’, and reflexes of Proto-Germanic *fisan- ‘to blow; to fart’. In the etymological lemma for the latter word in Kroonen (2013: 142) Latin spir- is also cross-referenced, along with Welsh ffin ‘breath’ (< *spīn-n-eu-). Kroonen speculates that “the PIE form of the verb may have been *psēi-s-e-,” with the first /s/ dropped in Germanic due to dissimilation. Again, PIE *psēi- is close to the form of PNC *(b)=siHwV. and Basque *bi=si.
Phonology

Some sound correspondences have already been remarked upon. In the examples μαστός and σταφυλή we see the equation Pre-Greek st-, -st = PNC *ç/c’/ = Basque *ś. In example III we have Pre-Greek -st- = PNC *-ʒ- = Basque *-s-. Both represent changes of the type TS > ST (or, less likely, ST > TS) which are reminiscent of shifts within North Caucasian (Nakh languages) and between North Caucasian and Basque. For the former, the authors of NCED remark that

Most difficult to explain are cases of [Proto-Nakh] reflecting PEC hissing (and hissing-hushing …) affricates and fricatives as a *st (*sṭ) cluster (both in initial and non-initial positions) … probably as a result of distant palatalization) after or before a *j … or following the resonant *l (NCED 47, 51).

Basque /st/, /śt/ realizations coincide with Nakh /st/ or /st’/ in only a few cases: Basque (B) beaztun ‘gall, bile’ (vs. [L-arc] behazuñ, etc. < *beha-sun A.88) ~ Chechen stim ‘gall’ (PNC *cwâymē ‘gall, anger’: NCED 329)
Basque (R) aizto ‘knife’ (Q.11) ~ Chechen sto ‘chisel’, Ingush osta, Batsbi st’o id. (PNC *HâyšV ‘chisel’: NCED 542)
Basque *nštun ‘heavy’ (R.29) ~ Chechen, Ingush =arst- ‘to fatten, become fat’, Batsbi =arst’- id. (PNC *=HrVyšĒ ‘thick, dense, fat’: NCED 608)

This suggests that the conditions producing Basque /st/ clusters were at least slightly different from those underlying Nakh /st/ clusters. In putative Basque-NC cognates there seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*s, *ç, *ʒ):

Basque *e=stari ‘throat’ (A.32) ~ PNC *gwěři / *riswě ‘neck’ (Agul s:ir ‘gullet’: NCED 953)
Basque *hestu-n ‘ring, link’ (Q.37) ~ PEC *HvéV (Khwarshi ocu ‘ring, hoop; buckle’: NCED 612)
Basque *lista / *lišto- ‘hornet, wasp’ (B.31) ~ PEC *lāmēV (Akhwakh ḳac’:u ‘ant; bug, bedbug’: NCED 766)
Basque *pista ‘rheum, eye secretion’ (A.79) ~ PNC *pınčwĀ ‘resin, juice’ (Lak pic ‘dew, sweat’: NCED 871)
Basque *esti ‘honey, sweet’ (if < *emsti: P.21) ~ PEC *mīžV ‘sweet’ / *hwomīžũ ‘honey’ (Archi ic’: ‘sweet’ / ime ‘honey’: NCED 824)

With only two Pre-Greek examples, it is insufficient to demonstrate a firm correlation between its /st/ reflexes and Euskaro-Caucasian. However, it may be a tantalizing hint that more examples could be found with a concerted search.

Morphology

Fossilized class (gender) markers: Beekes and others have remarked on the variations of initials in cases such as μάδρυα ~ ἁμάδρυα ~ βάδρυα ~ ἄδρυα ‘plums, sloes’; we saw a similar alternation in Basque *ma=dari / *u=dari ‘pear’. There is a similar situation in ἀκαρί ‘mite’ / κόρις ‘bedbug’, about which Beekes remarked on the prothetic vowel as one of the signs of a Pre-Greek substrate word: “Pre-Greek had a prothetic vowel, e.g. ἁσκάλαφος [‘name of an unknown bird, perhaps an owl’] beside κάλαφος. In most cases, the vowel is α-. The numbers

39 Number designations after Basque forms (A.88, etc.) correspond to etymology numbers in BCR, where more complete information on each comparison may be found.
words with initial vowels. The fact that many, but by no means all, Basque-North Caucasian parallels involve Basque “stage III articles,” a solution that Trask repeatedly rejected. This hypothesis is supported regarding Basque nouns, that some of the initial vowels reflected fossilized class prefixes, or very few word-initial consonants. Why is this so?” (Trask 1996: 115–16).

This brings to mind the list of seven “puzzles” that R.L. Trask thought Basque-Caucasian comparisons should help to solve. First on the list was a statement that “Pre-Basque clearly had an extraordinarily large proportion of lexical items beginning with a vowel, and … only a few word-initial consonants.” Some examples cited by Iversen & Kroonen (2017: 517), in their study of a postulated pre-Indo-European substrate traced to this substratum “exhibit the same alternation consisting of forms with and without word-initial a.- In all likelihood, this was a productive derivational element—that is, a prefix—in the language from which these words were borrowed.” Some examples cited by Iversen & Kroonen (with putative Basque and NC cognates) include:

* Basque *a=co ‘old woman’ (BCR J.7) ~ Lak cu- ‘female’, etc. < PNC *ćwodings ‘woman, female’ (NCED 374)
* Basque *a=kec ‘boar’ (BCR N.23) ~ Lak qača ‘bull-calf’, etc. < PEC *gačhV (NCED 453)
* Basque *a=kε ‘smoke’ (BCR F.2) ~ Avar k’uy ‘smoke’, etc. < PNC *kwihVh (NCED 738)
* Basque *i=ču ‘fire’ (BCR F.1) ~ Lak c’u ‘fire’, etc. < PNC *cąyñ / *ćiuy- ‘fire’ (NCED 354)
* Basque *h=ol ‘board, plank’ (BCR Q.62) ~ Rutul χil ‘wooden trough’, etc. < PEC *χuV / *χuV (NCED 1078)
* Basque *u=ri[š]a ‘female (animal); woman’ (BCR N.15) ~ Akhwakh reša ‘heifer’, etc. < PEC *r=ǐšwe ‘heifer; female child’ (NCED 671)

Many more examples are cited in BCR (pp. 58–71). It is further proposed that Basque *e= and *i= are historically the same prefix, likewise with *o= / *u=, that is, mid and high vowel allomorphs, as also seen in the hypothesized prefix *be= / *bi= (see below).

Iversen & Kroonen (2017: 517), in their study of a postulated pre-Indo-European substrate that they term as the “Early European Neolithic language” point out that many relic words traced to this substratum “exhibit the same alternation consisting of forms with and without word-initial a.- In all likelihood, this was a productive derivational element—that is, a prefix—in the language from which these words were borrowed.” Some examples cited by Iversen & Kroonen (with putative Basque and NC cognates) include:

* Latin merula ‘blackbird’ (< *mesl-): Old High German amsala id. (< *a-msl-): cf. (without a prefix) Basque *mosolo ‘(small) owl; buho, mochuelo’: mozolo, mozoilo, mosolo, (expressive) mozolo, motzolo id.; NC: Archi mus:al ‘wild turkey’, Chamali (dial.) mus:iya id.40
* Old English læwerce ‘lark’ (< *laiwar-): Gaulish alauda id. (< *a-laud-): cf. Basque *e-tanha (~ *e=tihala) ‘swallow, swift’; Dargwic laha ~ lawha ~ lahwa ~ lax’a ~ nax’a ‘pigeon’41

40 The NC words reconstruct to PEC *ŋmuesto ‘wild turkey’ (NCED 225); Spanish mochuelo ‘a kind of small owl’ looks like a loan from a Basque or Vasconic expressive variant of *mosolo. On semantic changes, as can be seen from other bird etymologies, meanings can historically vary quite widely: A. Hittite ḫaraš, ĥaranas ‘eagle’; Greek ὅφις ‘bird’ (general), ὅφας ‘bird, cock, hen’; Armenian orur, orur ‘seagull, harrier’, etc.; B. Dargwa hunuc ‘eagle’ (poetic); Avar hine: ‘bird’ (in general); Chechen ḥoza ‘sparrow’, etc. (NCED 525); compared with Basque *hunuc’hone ‘owl’ (BCR B.23); C. Chechen šorshal ‘blackbird, thrush’; Bezhta šašu ‘swallow’; Khinalug čańč ‘pigeon’ (NCED 987); compared with Basque *soso / *soho ‘blackbird, thrush’ (BCR B.18).
41 BCR B.21; NCED 750. The bird species swallow and swift are superficially similar, less so the pigeon (dove). (See the notes to ‘blackbird’, just above.)
Old English sece ‘sedge’ (< *sak-) : Russian osoka id. (< *a-sak-) : cf. Basque *i-šac ‘broom (plant)’; Chechen šac ‘sedge’.

Latin rāpa ‘turnip’, Old High German ruoba (< *rāp-), Proto-Slavic *rěpā ‘turnip’ (BER 6, 387) : Welsh erfin < *a-rbθ- id. : cf. Basque arbi (< *a=r(V)bi) ‘turnip’.

It can be noted that several of Iversen & Kroonen’s Early European Neolithic words have Basque and/or North Caucasian comparanda, giving weight to the hypothesis that “Early European Neolithic language” was related to Basque and North Caucasian. More weight is for ‘smoke’, cited above as *e=kē / *kē ‘smoke’, is attested as standard (EB) ke, and variants of this in most of western and northern Basque (kē, kēe, kēi, ki, kē, etc.), but in large parts of High Navarre (AN) and sporadically in Low Navarre (BN) there is a prefix e- or i- (ēke, ekē, ikē, etc.).

Similarly:

Basque *geheti / *i=keta / *o=ketila: (L-arc) geheli ‘fresh beef’, (B) geeli ‘(fresh) beef, fresh meat’, (B, R, Bzt) geli ‘lean meat’ / (BN) ikhel ‘fattened ox’, (AN) ilkela id., (B, Z) okela ‘meat’, (L) okhela, okheli ‘meat; piece of meat, cheese, morsel’, etc.; cf. Dargwa qʷal, Lak ml ‘cow’, etc. < PEC *qwewtV / *qwētV ‘large female domestic animal (cow, mare)’ (BCR P.12; NCED 917)

Basque *purdi / *e=purdi: (Bzt, BN-Aldude) purdi ‘buttocks, arse’, (AN) epurdi, (L) iphurdi, (Z) iphurdi, (A, G, Sal, B-Markina, Oñate) ipurdi, (B-arc) ipurdi, (B) eperdi, id.; cf. Archi part’i ‘one of the large intestines’, etc. < PEC *phVrtoV ‘some inner organ’ (BCR A.45; NCED 871)

Basque *gai / *e=kai: (B-arc) gei ‘thing’, (B, Z, R) gei ‘material, subject’, (G, AN, BN, L) gai, (BN-Garazi) kai, (BN-arc, L-arc) ekhai, ekai, (BN) ekhei, (Z) ekhēi id.; cf. Avar qʰayi ‘thing(s), possession(s)’, etc. < PEC *qwāyē ‘thing(s), possession(s), household’ (BCR L.13; NCED 930)

These variants seem to reflect a time, long before Basque was a written language, when fossilized class prefixes (stage III articles) were in free variation, and eventually each dialect generalized, in different ways, either the prefixed or unprefixed form, or sometimes both. In other words it can be called the reorganization of allomorphs.

In North Caucasian traces of a similar trend are found sporadically, mainly in the East Caucasian branch. In one of the words for ‘snow’ Lezgian languages (Lezgi žiw, Tabasaran yif, Agul ibi) reflect PEC *ywV ‘snow’, which also appears to include an incorporated *y= (II-class) prefix analogous to *e= in the Basque word *e=thu-rouch ‘snow’, i.e. *ywV < *y(i)=λītwV; on the other hand the synonymous Nakh words (Chechen lō ~ lū, Ingush lu ~ loa, Batsbi lawi) stem from the unprefixed PEC form *AItw ‘snow’ (BCR G.17; NCED 684). Thus it is proposed that PEC *AItw V / *y(i)=AItw ‘snow’, with a regional reorganization of allomorphs, is parallel to the Basque cases like *kē / *e=kā ‘smoke’ cited above. Consider also:
PEC *AwilV / *y(i)=AwilV ‘elbow’;⁴⁶ Tsezı horu ‘elbow’, Hunzib hırı, Kwarashi hal; Agul q:ar-xil ‘elbow’⁴⁷ (< Proto-Lezgian *λwil) / (with prefix) Akhwakhelelo (etlelo) ‘elbow’ (NCED 770); compared with Basque *be=thaun / *be=thaun- ‘knee’ (BCR A.74).

Examples of prefixed and unprefixed nouns can also be found involving the fossilized prefix (article) *be= / *bi=:

Basque *hac ‘finger, paw’ / *be=hac ‘thumb, toe’: (BN, L) hatz ‘paw’, be-hatz ‘finger, thumb’; (B) atz ‘finger, inch’, be-atz ‘toe’, etc., with many more meanings depending on dialect (BCR A.68); cf. Avar kwač ‘paw’, Batsbi k’ač ‘foot, leg’ (a slighting expression), etc. < PEC *kwâčč (NCED 704)

Basque *herde, *hede-r / *bilde-i (< *bi=hede-r): (BN, L) herde ‘drool(ing), slobber, slaver’, (AN, Bzt, Sal) erde id.; (with *r- suffix and dissim.) *hede-r id. > (BN, L) helder, heldor, (L, BN-Baigorri, R-Uztárroz) elder, (Z) elder ‘drop of spittle that falls from the lips’; (G-Gabiria, Iziar) bider, (G-Zestoa) bilar ‘drool, saliva’ (BCR A.80); cf. Karata hanl’a ‘sweat’, Akhwakheḷa ‘sweat’, etc. < PEC *hâm appré (NCED 509)

The Basque prefix *m= / *ma= / *mo= is far less frequent than *be= / *bi=, and may have been a nasalized variant of the latter. Both Michelenia and Trask accepted the reality of the *m= prefix.⁴⁸ Besides Basque *ma=dari / *u=dari ‘pear’, discussed above, consider the following examples.

Basque *mo=kol(o) / *a=kal / (reduplicated) *kakol: (B) molok ‘shell (of egg, nut), husk (of maize)’, mokoš ‘husk (of maize)’ / (Bzt) akal ‘empty (of a chestnut shell)’ / (B) kakol ‘shell’ (BCR C.38); cf. Akhwakhe q’oli ‘crust, rind’, Tsezı q’ul ‘bark’, Bežhta q’eq’el-ba ‘birch bark’, etc. < PEC *qwilV ‘bark, crust’ (NCED 931)

Basque *ma=kac, *ma=keč / *a=kač / *o=koc : (G) makat ‘nick, scratch’, (G) makets ‘deformed or defective thing’; / (B, G) akats ‘cut, nick, notch, scratch; fault, defect’ / (B) okots ‘chin, snout’ / (with reduplication) (AN) kokots ‘chin, nape’, (BN) kokots, kokotz ‘chin’, (L) kokots, kokotz ‘chin’, (Z) kokots ‘chin’ (BCR A.15, L.1); cf. Lezgi q’ac ‘notch, nick’, Kwarashi q’ac’a ‘slice (of bread)’; Rutul, Tsakhur q’ac ‘chin’, Lak q’ac ‘bite, mouth’. etc. < PEC *qâčti / *qâčti (NCED 907)⁴⁹

Basque *ma=gal / *=egal: (R, Sal) magal ‘wing’ / (AN) egal ‘wing, fin’, (BN, L) legal, (Z) hégal id., (B) egal ‘loin, flank (of cow)’ (BCR A.63);⁵⁰ cf. Lak qa ‘wing’, Lezgi, Agul whirl ‘hand’, Archi ɣol id., Bežhta ɣaro ‘elbow’, etc. < PEC *qîlî ‘elbow, arm, wing’ (NCED 895)

Turning now to North Caucasian, there are many cases in which fused or lexicalized class prefixes are attested in some languages, often with a different class prefix, or no prefix, in other languages:

⁴⁶ NCED cites the reconstruction as *(Hi)AwilV ‘elbow’; *AwilV / *y(i)=AwilV is Bengtson’s reinterpretation.

⁴⁷ The Agul word is “a compound with some not quite clear first component (is it a distorted [Proto-Lezgian] *χ:il ‘hand’? or *χ:ln ‘arm’?)” (NCED).

⁴⁸ “No se puede poner en duda, por el contrario, la realidad de un prefijo nominal m(a)-…” (FHV 271). It was also mentioned by Trask, along with a long list of “expressive” Basque words with initial m- (Trask 1997: 257–58; EDB 273–78).

⁴⁹ Semantic changes (‘cut’ or ‘bite’ > ‘notch, nick’ or ‘mouth, chin’) are parallel in Basque and NC. Glosses in Lezgian languages are 1 ‘bit, slice’ (Tabasaran, Agul), 2 ‘notch, nick’ (Lezgi), 3 (‘biting part’ > chin) (Rutul, Tsakhur).

⁵⁰ It has been suggested that an original Basque *=egal ‘wing, fin, loin, flank’ (corresponding to PEC *qîlî ‘elbow, arm, wing’) later contaminated with the originally distinct *hega- ‘to fly’ (BCR V.43) to produce the blended form hegal in northern Basque.
Tsakhur *wu(=)xun ‘belly’, Rutul *u(=)xun id.; Avar *ma(=)xá ‘abomasum’ < *hV=xvwN (III-class prefix) / Lezgi *ru(=)fun ‘belly’ (IV-class prefix)\(^{51}\) / (unprefixed) Agul fun, Dar-gwa k-wow ‘belly’, etc. < PEC *kwin’ti (NCED 771)

Godobi *re(=)sil ‘leg’, Botlikh *re(=)sil ‘thigh’ (IV-class prefix) / (unprefixed) Tsakhur *qel ‘foot, leg’, Rutul *sil id., etc. < PEC *ceču (NCED 455)\(^{52}\)

Avar *mi(=)Hir ‘wing’\(^{53}\) / Andi *tiRu ‘feather, wing’, Tsezi *lel ‘wing’, etc. < PEC *lila ‘wing’ (NCED 762)

PNC *bêntV (< *b=hwemtV) > Hunzib *bot’i ‘worm’, Bezhta *bet’e-la id., Lezgi *büü’t-rük ‘larva’, Abkhaz *-mat ‘snake’, etc. (NCED 290) / PNC *fiwe(m)ti > Avar *hut ‘worm’, Bezhta *hat’o-la, Lak *yâti, etc. (NCED 535)

In the last set the opposition of Bezhta hat’o-la ‘worm, helminth’ vs. bet’e-la ‘worm’ is typologically parallel to the opposition of Basque (BN, L) *helder ‘drool, saliva’ vs. (G) *bilder id. (see above). In each case the second word, with initial b-, incorporates the former class prefix. According to NCED there is a color adjective *h新浪tV ‘red’ that is related to the two words for ‘worm’, and there is a familiar pattern here too: Agul *b(=)at’-ar ‘beautiful, handsome’, which incorporates the class prefix, vs. Kharwashi *ut’ey ‘red’, Dargwa *hunt’-ena id., etc. (NCED 541).\(^{54}\)

The morphological patterns described for Basque and North Caucasian, of bare noun stems alternating with (fused or lexicalized) CLASS PREFIX + NOUN stem (e.g., Basque *kē / *e=kē ‘smoke’; PEC *uiwV / *uiwAV < *y(i)=ΛiυwV ‘snow’) are consistent with the Pre-Greek hypothesized by Beekes and others, in which noun stems with no initial vowel alternate with those with prothetic vowels (e.g., Greek κόρις ‘bedbug’ / ἀκαρί ‘mite’), and with the postulated “Early European Neolithic language” which shows a similar pattern, e.g., Latin merula ‘blackbird’ < *mesl- / Old High German amsala id. < *a-msl- (Iversen & Kroonen 2017: 517).

**Ablaut:** Beekes (49: 754) mentions another Pre-Greek feature in the remark that “I would rather think that κόρις is cognate [with ἀκαρί], as a substrate word, with prothetic vowel and α/ο interchange.” Another example of α/ο alternation may be found in the apparent derivatives of καλία, as reported by Hesychius: καλύβη ‘cabin’ and κόλυβος ‘farmstead’. Beekes cites some other examples, e.g., κάβαξ ‘crafty, knavish’ and κόβακταρα ‘pieces of flattery, knavery’ (both from Hesychius); λυκόφος ‘name of a poisonous plant’ / λύκουφος id.

Ablaut, according to NCED, was a productive feature of Proto-North Caucasian, including an alternation of *(o) and *(a), as in PNC */=hōcV / */=hācV ‘full, to fill’ (NCED 525), reflected in Proto-Nakh */=uc- ‘to be filled, satiated’ / */=aç-(i)n ‘heavy’ (> Chechen =üz-na ‘full’ / =eza ‘heavy’). It has been proposed that there is a relic of this ablaut in the Basque adjective *(o) ‘whole, complete’ and the verb *(a)ša ‘to be filled, satiated’ (BCR R.65, V.66). It was also suggested that this *(a)/(o) ablaut could account for some cases in which Basque has *(a versus PNC *(o),

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\(^{51}\) Note that Lezgi retains the fossilized *ru= (orig. IV-class prefix) even though the language (like Agul and Udi) has lost class or gender as a grammatical category.

\(^{52}\) “However, there are two possible reconstructions: a) the one proposed above — in this case we must consider *r- in PA and PTs as a former class prefix (which raises some doubts); b) we can reconstruct *Gêlu (with *l) and a metathesized variant *lêGV > PA *riji, PC *riji- (with a rather frequent *-IV extension. At present it is hard to choose one of these solutions only” (NCED).

\(^{53}\) “The origin of the initial m(i)- is not clear (perhaps, analogy with names for body parts like mehéd "breast" etc.)” (NCED).

\(^{54}\) The semantic link of ‘red’ ~ ‘beautiful’ is common: cf. Czech krásný ‘beautiful’ ~ Russian krasnyj ‘red’; Latin pulcher ‘beautiful’ ~ Middle Irish erc ‘gay-colored, red’, etc. (Buck 16.81); for ‘red’ ~ ‘worm’ cf. Old Church Slavic črâvînù (črâvîro) ‘red’ < *čiro ‘worm’; French vermeil < Latin vermiculus ‘little worm’ (Buck 15.66).
or vice-versa. Basque *gari / *gal- ‘wheat’ = PEC *ɡalːί ‘wheat’ (BCR O.1), beside Basque *gošė ‘hunger, hungry’ = PNC *ɡašé ‘hunger’ (BCR R.30); if so, this could reflect reorganizations of allomorphs, i.e. that Basque selected one allomorph (with either *a or *o) and PNC (or individual NC languages) selected another.

Another possible trace of Euskaro-Caucasian ablaut is seen in the vowel alternation NEK- / NIK- in (Pre-)Greek νέκταο / νικάο-, Basque *nega-r / *niga-r, and PEC *nēwฏ / *nēwฏ-. Only in PEC is the variation explained as a morphologically significant ablaut alternation, in which /e/ is associated with direct stems and /i/ with oblique (NCED 81–82). It has been suggested (BCR 105–110) that there are traces of this and other North Caucasian ablaut alternations in Basque; in the case of Basque *nega-r / *niga-r ‘tears’ the allomorphs have apparently been redistributed as regional variants, generally, (south-)western /e/ vs. (north-) eastern /i/. Beekes (2010: xxx) calls attention to an apparent alternation of /e/ with /i/ in Pre-Greek words.

**Suffixes:** Beekes (xxxvii, xxxix) cites the suffixes -ιλα- and -υλα- as indicators of Pre-Greek words, and among the words cited above these suffixes figure in two words connected with fruits: μεσπιλον ‘medlar, medlar tree’ and σταφυλη ‘bunch of grapes, grape’. Greek σταφυλη (cf. ἀσταφίς ~ ὀσταφίς ~ σταφίς ‘dried grapes, raisins’) has a close formal match in Avar c’ibil ‘grape’, also with a lateral suffix. Other NC languages have a form with no suffix (e.g. Rutul c’ib [’juniper’] or a form with a different suffix (Lezgi c’p:az ‘blackberry’); Basque *sapa-r ‘thicket, bramble’ has been proposed as a cognate, with a common fossilized plural suffix *-r. In a Sino-Caucasian perspective Pre-Greek μεσπιλον may have a remote cognate in Burushaski *micil / *bicil ‘pomegranate’ (SGC 267), also with a suffix *-il (cf. Khinalug mič ‘apple’ and Abkhaz a-bič ‘medlar’ for convergent phonetic developments). Other Euskaro-Caucasian words for plants and trees with fruits or berries and a suffix *-al-/*-il-/*-ul- include:

Basque (AN) magauri, maguri, (AN-Erratzu) mauli ‘strawberry’, (Bzt) mauri id. < ? *mag-ulí;55 cf. NC: Akhwakh muq’a-li ‘blackberry’ < PEC *niwɡV (EHHA, map 572; BCR P.20; NCED 854)

Basque (B) zumel ‘cornel; kermes oak; holm oak’, (B-Gernika) zumel ‘Mediterranean buckthorn (Rhamnus alaternus)’; *sumal in the personal name Pero Gonçales de Çumalburu (1293 CE); NC: Budukh žumal ‘cornel’, Lezgi ğumal, Avar žuml / žuln (< *žum-al) ‘cornel’, etc. (OEH ZUMEL; BCR C.2; NCED 1107)

NC: Archi t’ummul ‘grape’, Rutul t’imil, Tsakhur t’umil id., Budukh t’omul ‘plum’ (< Proto-Lezgian *tum(:)-ul), beside suffixless Chechen t’un ‘marrow; kernel of fruit, nut’, Abkhaz a-t’amá ‘peach’, etc. < PNC *tümH Văn‘kernel, nut, fruit-stone; marrow’ (NCED 1004; SGC 205).56

NC: Batsbi kumel ‘raspberry’; Beztha gemalo ‘a kind of berry’; beside suffixless Chamali gʷ’əb ‘raspberry’, Karata gobé ‘strawberry’, etc. < PEC *gwəmpV ‘raspberry’ (NCED 443)

Other possible suffix parallels could be explored, e.g. -γξ, -γγος, identified as typical Pre-Greek suffixes by Beekes (xxxvii), in συρίγγος, συρίγγος ‘quill, flute, syrinx, windpipe’, etc., which is evocative of Basque -iniko ~ -ingo, e.g. in eastern Basque gorringo ‘egg yolk’ (gorri ‘red’); (R) baratxinko /baračinko/ ‘cuadrito de un huerto’ < *barace ‘garden, orchard’ = PEC *bār̥V ‘enclosure’ (BCR Q.8; NCED 1039). ἀνθοθωτος ‘man’ = Mycenean

55 Basque regional words for ‘strawberry’ are exceedingly diverse, many with initial ma- but probably of diverse origins (BCR P.18, P.19, P.20; EHHA map 572).

Notes on some Pre-Greek words in relation to Euskaro-Caucasian (North Caucasian + Basque)

*a-to-ro-qo /\text{ant\textsuperscript{1}}r\textsuperscript{k\textcircled{o}}\text{os}/ is close in formation to Western Basque *andrako, andreko ‘little woman; doll’, with the frequent diminutive suffix *-ko; cf. (EB) *otso-ko ‘wolf cub’ (*\text{o\textsuperscript{o}} ‘wolf’), (G) *musu-ko ‘muzzle’; in North Caucasian: Avar *yasi-k\text{\textsuperscript{o}} ‘little girl, doll’ (*y\text{a} ‘girl, daughter’), wac:a-ko ‘little brother’ (*wac:\ ‘brother’), etc. (BCR 56).

The comparison involving Pre-Greek *v\text{\textsuperscript{2}}k\text{\textsuperscript{3}}taq also calls attention to a putative suffix *-\text{\textsuperscript{4}}\text{\textsuperscript{5}}, which Beekes (again following Furnée) cites as a characteristic Pre-Greek element; note also -\text{\textsuperscript{6}}\text{\textsuperscript{7}}\text{\textsuperscript{8}}, -\text{\textsuperscript{9}}, -\text{\textsuperscript{10}}, -\text{\textsuperscript{11}}, etc. (Beekes 2010: xxxvi–xxxviii). The suffix *-\text{\textsuperscript{12}} is very common in Basque nouns, especially those with an underlying plural or collective meaning, e.g., *nega-\text{\textsuperscript{13}} / *niga-\text{\textsuperscript{13}} ‘tears’, *lega-\text{\textsuperscript{13}} ‘small stones, gravel’, *\text{\textsuperscript{13}}\text{\textsuperscript{14}}-\text{\textsuperscript{13}} ‘peas, beans’, *lance-\text{\textsuperscript{13}} ‘drizzle’, *moko-\text{\textsuperscript{13}} ‘buttocks’ etc.: see BCR 77–78.57 In East Caucasian there has been a similar development in which the well-known plural suffix *-\text{\textsuperscript{14}}, attested in all branches of North Caucasian, has been lexicalized, with bleaching of the plural meaning, in a significant number of words, e.g. Avar *bucu-\text{\textsuperscript{15}} ‘fortification, dike’, Tabasaran *marca-\text{\textsuperscript{16}} ‘hearth’ (historical plurals of PNC *b\text{\textsuperscript{17}}l\text{\textsuperscript{\textcircled{i}}}l\text{\textsuperscript{\textcircled{e}}} NCED 308). In several cases the historical plural form has replaced the original singular, e.g. Agul *ib-ur, Rutul *ub-ur, Budukh *ib-ir ‘ear’, historically ‘ears’ (plural of Proto-Lezgian *\text{\textsuperscript{18}}\text{\textsuperscript{19}}: < PEC *\text{\textsuperscript{18}}\text{\textsuperscript{19}}\text{\textsuperscript{20}}\text{\textsuperscript{21}} ‘to thresh’; NCED 326) has replaced the original singular, etc. Besides *v\text{\textsuperscript{2}}k\text{\textsuperscript{3}}taq, it would be important to discover other Pre-Greek words with these -\text{\textsuperscript{22}}- suffixes and Basque and/or North Caucasian cognates. It is tempting to consider, for example, *σ\text{\textsuperscript{23}}ν\text{\textsuperscript{24}}θ\text{\textsuperscript{25}}η ‘spark’, designated as (Pre-Greek?) by Beekes (2010: 1383), possibly connected with Basque (AN) pintar, (BN, L, Z) *p(h)indar, beside (L) pinta, (BN, L, Z) *p(h)inda ‘chispa, centella / étincelle, flammèche’ (‘spark, flash’) (A&T XV: 910; OEH PINDAR).

**Conclusions:** As mentioned at the beginning, the putative Pre-Greek examples discussed here were selected with three constraints: (a) Pre-Greek status, or questionable IE etymology, according to Beekes, and the presence of (b) putative North Caucasian cognates, and/or (c) putative Basque cognates. Comparing Pre-Greek specimens only with North Caucasian cognates (as with Nikolaev), or comparing Pre-Greek only with Basque might reveal larger numbers of etymologies. Altogether these would form a corpus of Euskaro-Caucasian etymologies from three branches: the still extant Basque and North Caucasian languages, and the extinct Pre-Greek language recoverable from numerous substratal loanwords. The material analyzed above is summarized below in table form.

<table>
<thead>
<tr>
<th>Greek</th>
<th>Basque parallel</th>
<th>North Caucasian parallel</th>
</tr>
</thead>
<tbody>
<tr>
<td>ἄκαρι ‘mite’</td>
<td>*kařa-/*karār- ‘beetle’</td>
<td>PEC *kārā ‘mosquito, gadfly’, etc.</td>
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<tr>
<td>κόρις ‘bug, bedbug’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ἀλωή ‘threshing floor, garden’</td>
<td>*lařain ‘threshing floor’</td>
<td>PEC *=\text{\textsuperscript{26}}\text{\textsuperscript{27}} ‘to thresh’</td>
</tr>
<tr>
<td>άνθρωπος ‘man’; Mycenaean a-to-ro-qo /\text{ant\textsuperscript{1}}r\textsuperscript{k\textcircled{o}}\text{os}/</td>
<td>*andere ‘lady; young lady; woman; wife’; (B) *andrako, andreko ‘little woman; doll’</td>
<td>PNC *dwiq(\text{\textsuperscript{w}})\text{\textsuperscript{V}} ‘log, stump’ Tabasaran *duq\text{\textsuperscript{\textcircled{a}}} ‘pole, small beam’</td>
</tr>
<tr>
<td>δόκος, δόκανα ‘beam’</td>
<td>*tako, *tak-\text{\textsuperscript{28}} ‘stake, post’, etc.</td>
<td>PNC *c\text{\textsuperscript{\textcircled{z}}}jw\text{\textsuperscript{\textcircled{l}}}l\text{\textsuperscript{\textcircled{h}}\text{\textsuperscript{V}}} ‘autumn, winter (rainy season)’</td>
</tr>
<tr>
<td>ζέφυρος ‘west wind’</td>
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</tbody>
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57 This suffix has traditionally been described as -ar, but the examples cited here show that vowels other than /a/ could precede the *-r, e.g. Basque *moko- ‘buttocks, backside’ = Hinukh moko-li ‘back’ < PNC *b\text{\textsuperscript{22}}ng\text{\textsuperscript{2}} ‘back’ (NCED 310; BCR A.44).
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<tr>
<td>ἰκτίν ~ ἰκτίνος 'kite'</td>
<td>*šaie 'vulture, eagle'</td>
<td>PEC *çwam密切关注' 'eagle, vulture'</td>
</tr>
<tr>
<td>καλιά 'wooden dwelling, hut'</td>
<td>*o=kelu 'stable, hall, corner', etc.</td>
<td>PEC *qäłVe 'house, hut'</td>
</tr>
<tr>
<td>κόμη 'hair, mane'</td>
<td>*kima 'mane (of horse); bristles (of swine)'</td>
<td>PNC *q(w)äm 'plait, mane; hair'</td>
</tr>
<tr>
<td>μαδρα ~ ἁμάδρα ~ βάδρα ~ ἄδρα 'plums, sloes'</td>
<td>*ma=dari ~ *u=dari 'pear'</td>
<td>–</td>
</tr>
<tr>
<td>μάλκη 'numbness from cold'</td>
<td>*mal-goi 'numb (from cold)'</td>
<td>PEC *m hostile 'cold'</td>
</tr>
<tr>
<td>μαστός ~ μασδός ~ μασθός 'teat, woman's breast'</td>
<td>*mahać 'grape(s)' PNC</td>
<td>*m ħə̆rū 'point, edge, protruding part'; Akhvakh mic':o 'teat, nipple'</td>
</tr>
<tr>
<td>μέσπ ~ ιλ 'medlar'</td>
<td>–</td>
<td>PEC *mVhwVl / *hvVmVl 'mouth, face'</td>
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<tr>
<td>μύλλον 'lip'</td>
<td>–</td>
<td>PEC *mVhwVl / *hvVmVl 'mouth, face'</td>
</tr>
<tr>
<td>μύσταξ ~ βύσταξ 'upper lip, mustache'</td>
<td>*nega-l 'herpes, rash, scurf'</td>
<td>PEC *neqô / *niqô /- 'tears; pus'</td>
</tr>
<tr>
<td>άγχη ~ άχη 'pear, pear tree'</td>
<td>*ok-(arhan) 'plum, sloe'</td>
<td>PEC *tęqV 'grape; fruit; orchard, vineyard'</td>
</tr>
<tr>
<td>άξιον ~ σύλον ~ σύλινος 'wood, timber'</td>
<td>–</td>
<td>PEC *tęqV 'grape; fruit; orchard, vineyard'</td>
</tr>
<tr>
<td>σιρός ~ σίρος ~ σειρός 'pit or vessel for keeping corn, silo'</td>
<td>*sulfo 'hole, cave; (anatomical) tube' (G) eztar-zulo 'pharynx'; (Z) südüür-xilo 'nourril', (B) sama-zulo 'gullet'</td>
<td>PEC *swôłV 'hollow tube' Chamali na-sul 'tubular bone'; Lezgi sutu-r 'throat'</td>
</tr>
<tr>
<td>σταφυλή 'bunch of grapes, grape'; σταφίς ~ σταφίς ~ σταφίς ~ raisins'</td>
<td>*šapa-r '(blackberry-)bramble, thicket'</td>
<td>PEC *šibV 'a kind of berry'; Avar c':iibil 'grape'</td>
</tr>
<tr>
<td>ψιχή 'aspiration, breath, life, vitality, soul, spirit'</td>
<td>*bi=si (noun) 'life; lifetime', (adj.) 'alive'</td>
<td>PEC *b(š)iHwV 'breath; to breathe'</td>
</tr>
</tbody>
</table>

It is important to emphasize that authentic Pre-Greek words, if they are of a more or less 'basic' nature, are not loans directly from North Caucasian (as framed by Nikolaev), but instead substratal remnants of a Euskaro-Caucasian language related to (Proto-)North Caucasian, but surely not identical with it. These substratal words should be separated from later
cultural loans. From among the Pre-Greek words discussed above, this caveat seems to apply especially to, e.g., ὀγχνη ~ ὃχνη ‘pear tree; pear’, for which there are several possible sources. Words for fruits and fruit trees are not among the most basic, and there was active trade in such items in the Mediterranean regions. (See also μάδρυα ~ βάδρυα ‘plums, sloes’; μέσπιλον ‘medlar’.)

On the other hand, words like ἀκαρί ‘mite’, μαστός ‘breast, teat’, μύλλον ‘lip’, β/μύσταξ ‘upper lip, mustache’, ἔξολον ‘wood, timber’, ράχις ‘spine, back, ridge’, and ψῡχή ‘breath’ are far more basic and much less likely to be counted among cultural loans. They could reflect genuine relics of a Euskaro-Caucasian Pre-Greek language. The two dozen examples discussed here are probably part of a much larger subset that a thorough study of Furnée’s and Beekes’ total list of “Pre-Greek” words might yield.

**Abbreviations: languages and dialects**

AN  Alto Navarro = High Navarrese (Basque dialect)
arc  Archaic or obsolete form
B  Bizkaian = Biscayan (Basque dialect)
Bzt  Baztanese (Basque dialect)
BN  Bas-navarrais = Low Navarrese (Basque dialect)
EB  Euskara Batua (standard Basque)
EC  East Caucasian (= Northeast Caucasian = Nakh-Daghestanian)
G  Gipuzkoan (Basque dialect)
L  Lapurdian = Labourdin (Basque dialect)
NC  North Caucasian
PEC  Proto-East Caucasian
PNC  Proto-North Caucasian
PWC  Proto-West Caucasian
R  Roncalese (Basque dialect)
Sal  Salazarese (Basque dialect)
WC  West Caucasian (= Northwest Caucasian = Abkhaz-Adyghe[an])
Z  Zuberoan = Souletin (Basque dialect)

**References**


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58 “The cultural words frequently discussed by Furnée have usually been recorded in relatively late sources (Hesychius, etc.) and so they could represent also relatively late loans from various cultural languages of the East Mediterranean. If there is witness from both North Caucasian and Northwest Semitic & Akkadian, the most probable donor-language was Hurrian, used not only in North Mesopotamia, but also in Syria, Asia Minor and Cyprus” (V. Blažek, p.c. 06/06/2020).


Джон Бентсон, Коринна Лешбер. О возможном эускаро-кавказском (баско-северокавказском) происхождении некоторых субстратных лексических элементов в греческом языке.

Широко распространено представление о том, что в греческом языке, относящемся к индоевропейской семье, содержится немало «догреческих» субстратных элементов; при этом нет оснований утверждать, что существовал всего один «догреческий» язык, поскольку область распространения греческого языка вполне могла быть многоязычной. В настоящем исследовании проведен анализ ряда лексических элементов, которые могут свидетельствовать о влиянии некоторого эускаро-кавказского языка (или языковой семьи), носители которого попали в Грецию вместе с распространением земледелия из Анатолии. Такие греческие слова, как ἀκάρι 'клещ', μαστός 'грудь, сосок', β/μύσταξ 'верхняя губа, усы', ἡλέος 'древесина, дрова', и ψῡχή 'дыхание' относятся скорее к разряду базисной лексики и скорее отражают эускаро-кавказский догреческий субстрат, чем более поздние культурные заимствования. Анализируемые случаи, скорее всего, представляют собой лишь часть более обширного лексического слоя, идентификация которого требует детального анализа списка «догреческих» слов, составленного Фюрне и Беекесом.

Ключевые слова: баскский язык; северокавказские языки; эускаро-кавказская гипотеза; догреческий язык; языковые субстраты.