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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', μ αστός 'breast, teat', β/μ ύσταξ 'upper lip, mustache', ξύλον 'wood, timber', and ψ $\bar{\nu}$ χή '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., π ύργος '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 Euskaro-Caucasian language (or language family) associated with the spread of agriculture out of Anatolia (Ehret 2015: 90; BCR 453–460; Bengtson 2017b).² 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.³

ἀκαρί 'mite' / κόρις 'bug, bedbug, Cimex lectularius': "I would rather think that κόρις is cognate [with ἀκαρί], as a substrate word, with prothetic vowel and α/ο interchange" (Beekes 49: 754). | North Caucasian: Avar k':ará 'mosquito', Andi k':ara, Tindi kُ:ara, Bagwali č':ara id., Karata k':ara 'gadfly', Chamali c':ara id., Akhwakh k':ara 'ant, bug', etc.; Bezhta kälä 'mosquito', Hunzib kelo id.; Chechen gora 'gadfly', Ingush gor id. < PEC * (karā ~ *kārō) (NCED 719). | Basque *kara-/*karkar-: (G) karrakaldo 'beetle', karkarraldo, karkaraldo, kakalarro, (BN) karkamalo, (B, G, AN) kakalardo, (B) kakarraldo, karkaraldo, (G, AN) kakalerdo, etc.; obviously many expressive changes have occurred. § Contrary to the note about ἀκαρί being substrate and cognate with κόρις, Beekes' lemma on the latter word claims κόρις is "identical with Ru. kor' [f.] 'moth', and traditionally analyzed as an old verbal noun from *(s)ker- 'shave, split, cut' seen in ... κείρω etc." From a Sino-Caucasian perspective, cf. also Burushaski *kharú 'louse', Tibeto-Burman *k(h)r[ā]-η 'mosquito' (SCG 119–20).

ἀλωή 'threshing floor, garden' (Iliad), 'halo' (around sun and moon) ...; also 'disk' of the sun or moon, or of a shield; ἀλοάω, ἀλοιάω 'to thresh, crush' (Iliad); etymology unknown (Beekes 78). | **North Caucasian:** Tindi =elĩ- 'to thresh'; Bezhta =ol-; Batsbi arl-, Chechen ār-, 'to thresh', ēra 'threshing-floor; grain lying upon it', Ingush ard- 'to thresh'; Archi iλ (ač:as) 'to thresh', iλ = itt 'threshing; grain prepared for threshing'; (with many derivatives) Archi λorom = ttorom 'threshing board'; Avar lol 'threshing board', Andi loli 'threshing; threshing-floor', Tindi rali 'grain ready for threshing', Karata lale 'threshing'; Tsezi reta-y 'threshing', Hinukh reta, id., etc. < PEC *=VrŁV

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 northernmost 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 Basquelike 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 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 *ik*⁴, *k*⁴*orom*, since the lateral affricates in that language have velarized onsets, i.e. more like [k⁴], [k⁴], [g¹], and in some East Caucasian subgroups of eastern Dagestan (Lak, Dargwa, Khinalug, and most of Lezgian) the lateral affricates have become pure velars, [k], [k²], [g], etc.; e.g. Lezgi *rugun* 'threshing board' < **riX:oma* (NCED 52–55).

'to thresh' (NCED 1031). | **Basque** *larain 'threshing floor': (B, G, AN, L, Bzt, Z) larrain 'threshing floor', (AN) larrein, (G) larran, (B) larren, larrin, (A) larrin, (R) larren, (with expressive palatal) llarren, llarne 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 λ orom = tlorom 'threshing board' (which resembles Basque *larain 'threshing floor') is said to be a derivative by metathesis < \star λ :troma < Proto-Lezgian *tto-tra (see NCED 1031–33). The PEC structure *=trtto thresh' < trtto thresh' < *tttttto from a Sino-Caucasian perspective cf. Burushaski *ttaltá-tto thresh' < *tttttto thresh' < *tttttto (SCG 182).

ἄνθοωπος 'man' (Iliad); Mycenean a-to-ro-qo /anthrōkwos/. "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) andére (modern ãndé 'dame, demoiselle'), (G, AN, L, BN, Z) andre, (AN-Larraun) anre 'lady, young lady', (A, B) andra, (B) anra, (B-arc) andera 'lady; woman; doll', (B) andrako, andreko 'little woman; doll'; Aquitanian ANDERE (female name), ANDERE- (element in female names); ANDERE, ANDERENI, ANDEREXSO (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 ounner, 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 Vennemann (1998) has compared Greek ἄνθοωπος with Basque andere, also bringing in other Greek words and names with the components $\alpha \nu \delta \rho \alpha$, $\alpha \nu \delta \rho \rho$, and $\alpha \nu \theta \rho$ (see further below about σαλαμάνδοα). 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 alternation between Greek $\alpha\nu\delta\varrho$ - and $\alpha\nu\theta\varrho$ -, 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 diminutive suffix -ko, is a rather close formal match to Mycenean a-to-ro-qo /anthrōkwos/ (see below about suffixes).

⁵ But cf. Garnier (2008): "... an inherited PIE compound * $n_0 d^h$ -r-e- $h_3 k^w$ - \acute{o} - («directed downward», whence «earthling, earthwan, earthwoman»)."

⁶ "pero seguramente tiene más razón Pokorny al suponer que esta palabra en céltico no es indoeuropea sino tomada de las lenguas ibéricas, es decir, que el vascuence aquí no representa un préstamo céltico, sino más bien lo contrario" (quoting Tovar).

⁷ Vennemann cites loans from Romance to Germanic in which the semantic link becomes ever more attenuated, 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 hypothetical IE **lendh*- 'free land, heather, steppe', Pfeifer 1997: 762–763.

δοκός 'bearing beam'; δόκανα 'name of two upright beams constructed with a crossbeam' "Benveniste [1929] thinks that δοκός and δόκανα are PreGreek" (Beekes 345). I 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). I North Caucasian: Adyge $t\bar{a}q$:a 'stump, block', Kabardian $d\bar{a}q$:a id.; Chechen $duq'\bar{u}$ 'log, beam'; Dargwa duk'i 'log, beam'; Tabasaran duq'an 'pole, small beam', etc. < PNC * $dw\bar{i}q(w)\bar{V}$ '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 tok^1 , 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 $καλ\bar{\iota}α$, $καλ\dot{\iota}βη$ ~ Bulgarian koliba, below). From a Sino-Caucasian perspective, cf. Burushaski *dako 'stick, post' (SCG 44). The Basque word is probably the source of Spanish taco.8

ζέφυρος 'west wind'; personified in the Iliad; Mycenean ze-pu2-ro; Beekes wavers between a derivation from IE ${}^*h_3ieb^h$ - 'futuere' and "... Pre-Greek, with PG *a turning up as ε after the palatal *dy?" (Beekes 499). | North Caucasian: Andi sibiru 'autumn', Akhwakh c:ōro 'autumn' / c:ibero 'winter', 9 Tindi c:ibar 'winter', Karata c:ibero id.; Tsezi sebi 'autumn', Hunzib sɨbər id.; Lezgi zul 'autumn', Tabasaran čul, Tsakhur cuwul / cɨwɨl id., Udi ž^rovul 'spring (season)';¹⁰ Khinalug cuwa-ž 'autumn'; Batsbi st'abo 'autumn', (with metathesis) Chechen bsästē 'spring'; Abkhaz á-3ən 'winter', Abaza 3na 'autumn' (<*5ə-nə) < PNC *cōjwīlhV '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 cepep /séver/ 'north', etc., and in fact Nikolaev mentions PIE *kēiwero- (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'; 11 Lithuanian šiáurė 'north', šiaurỹs 'north wind'; Slavic *sěverь 'north'; Old High German skūr 'Ungewitter' [English shower, etc.], 12 but not Greek ζέφυρος. Derksen (2008: 448–449) links Slavic severb 'North' to an IE *keh1uer-o-, and to Latin caurus 'northwestern wind' ($<*kh_1uer-o-$). Discussion in Bezlaj (III, 231); Snoj (2003: 652) sees an unexpected root, linked to PIE *(s)k'éHu-ero-. Martirosyan (2021) adds PIE *keh₁uer-> 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.

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 *c:ōro* 'autumn'] to *c:ibero* 'winter' is not quite clear: perhaps old interdialectal loans, which gave rise to an etymological doublet?" (NCED).

¹⁰ Transcribed as *žloвul* in NCED (the *paločka*, or 'baton' /I/ 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 *žžoвul* 'весна'.

¹² Kroonen (2013: 451), however, derives the Germanic words from PIE *ske h_1 - 'shade, shadow' (Greek σκιά, etc.) and separates them from the Latin, Baltic and Slavic words.

ἰκτίν ~ ἰκτίνος 'kite' (bird of prey) (Beekes 585–86) | Basque *śaie 'vulture, eagle': (Β, G, BN, Z) sai 'vulture', (B-Gernika) zai id.; (B-Orozko) /śái/ 'eagle' (EHHA, map 130); also 'eagle' per Voltoire (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'ũy 'eagle', Tindi c:ũ, Karata c':ũyi, Avar c':um ~ c':un id.; Andi c':un 'eagle, vulture', Botlikh c':ũ?i, Godoberi c:ũ?i id.; Khinalug c'im-ir 'small bird, sparrow' < PEC *cwäm?V 'eagle' (NCED 370). § Beekes also cites Armenian c'in 'kite'; Old Indic śyená- '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 (<*tkiH-in-). Witzel (2015: 167, no. 293) however cites *ćaina (> saēna-, śyená-) among examples of a Central Asian substrate in Old Iranian. Nikolaev (68, no. 14) cited Greek ἀκτίν as a loan from PEC, along with Hittite haštapi- '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':um. On the phonetics between Basque *śaie and PEC *cwäm?V, the loss of a nasal before a laryngeal is recurrent in Basque (and convergently in some NC languages), e.g. Basque * $(e=)k\bar{e}$ 'smoke' = PNC * $kw \neq n\hbar V$ 'smoke' (Avar k':uy, Bagwali k': $\tilde{u}y$, etc.: NCED 738; BCR F.2); Basque *sihi 'wedge, skewer, spit' = PNC *cānHV 'arrow, bow' (Bagwali c'i 'arrow': NCED 358; BCR Q.42). 13 The phonetic link between Greek ἰκτίν and PEC *cwäm?V (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=tanha / *e=nhala '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 *c, though more examples would strengthen the case. (Cf., perhaps, Greek ἴκτις, -ιδος 'marten' [Beekes 2010: 586 "no etymology"] if it is related to PNC *cĔrcV 'marten, weasel' > Adyghe coza 'marten', etc. [NCED 360]).

καλία 'wooden dwelling, hut, barn, granary, bird's nest'. "Etymological connection with ... καλύπτω ['to cover'], etc. is extremely doubtful" (Beekes 624); (probable derivatives) καλύβη 'hut, cabin'; 'bridal bower'; 'sleeping tent'; κόλυβος 'farmstead' (Hesychius); variant κολυβός: "The variant κολυβός ... shows that the word is Pre-Greek" (Beekes 628). | Basque *o=ketu: (B, G) okellu 'stable, corral', (B) ukullu id., (B) okolo, okolu, oko(i)llu 'corner', (G) okolu 'yard', (BN-Amikuse, Z) okholü id., (G) okullu, okollu, ikullu '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. | North Caucasian: Dargwic (Akusha, Urakhi) qali 'house, room', Akusha qal-č 'roof'; Tabasaran, Agul, Rutul χal 'house', Archi χal 'nest', χali 'family' (< "*household'), Kryz, Budukh χal 'roof'; Avar hor 'mow, hayloft, shed', etc. < PEC *qŏlV' 'house, hut' (NCED 889). 14 § Nikolaev (69, no. 16) proposed Greek καλιά as a loan from PEC *qŏlV'.

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 q:ala, Lezgi qele 'fort, citadel, fortress, tower', etc., from Turkic: cf. Azeri gala 'fortress, lock', Kumyk qala id., Old Turkish qala 'fortified part of town' (Džidalaev 1990: 94). Klimov & Xalilov (2003) clearly show the difference, with two separate lemmae, between: комната ['room, chamber'] (p. 114): Dargwa qali, Tabasaran, Agul, Rutul χal '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 q'ele, 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 * $q\breve{o}l\breve{V}$ very well, phonetically and semantically: Basque *k=ketu matches PEC *o=ketu are regular. 15 Basque *o=ketu basque *o=ketu (with an allomorph *o=ketu seen also in, e.g., Basque *o=ketu 'board, plank' (Q.62) ~ Rutul *o=ketu 'wooden trough', etc. < PEC *o=ketu (NCED 1078), Basque *o=ketu 'barrel, cask' (Q.29) ~ Tsezi *o=ketu 'pipe, reed pipe', etc. < PEC *o=ketu 'pipe; vein' (NCED 601); and others (BCR 67–68). See also Bulgarian *o=ketu 'but, 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 *o=ketu but are shaped from an autochthonous Balkan population: see BER 2, 556, Skok 2, 124. (See also *o=ketu but are shaped from an autochthonous Balkan population: see BER 2, 556, Skok 2, 124. (See also *o=ketu but are shaped from an autochthonous Balkan population: see BER 2, 556, Skok 2, 124. (See also *o=ketu but are shaped from an autochthonous Balkan population: see BER 2, 556, Skok 2, 124. (See also *o=ketu but are shaped from Shaped from Balkan population: see BER 2, 556, Skok 2, 124. (See also *o=ketu but are shaped from Basque from Bas

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). | **North Caucasian:** Andi *q':āw* 'hairdo', Avar, Tindi *q':ama* 'cock's comb', (with suffix) Bagwalal q':am-ča 'mane'; Dargwa q'ama 'hairdo; fringe, forelock'; Archi *q'am* 'forelock, mane'; Abkhaz a- $\chi^w \delta$ 'hair', Abaza $qw \delta$ 'hair, feather, wool', etc. < PNC $\dot{q}(w)$ ăm? \dot{b} 'plait, mane; hair' (NCED 931). \mid ? **Basque *kima** 'mane (of horse); bristles (of swine)': (G, AN) kima, (L, BN) khima, (AN, B) kime, (BN) khinba, (AN, BN, Z) k(h)uma, (Z) gima, etc. (OEH KIMA; FHV 296; A&T XVIII 1001; EDB 251). § Nikolaev (69–70, no. 23) compared Greek and NC. The Basque forms are rather difficult and questionable: (a) differences of the first vowel (PNC /ă/: 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) zima, (B, G) txima /čima/, (G) txuma, txume, etc. 'greña / hair of a person or animal that is long and badly combed, tousled, or tangled' (OEH TXIMA), which is often discussed in connection with *kima and may be crosscontaminated with it (FHV 296). But zima and txima, at least, cannot be derived from Latin coma.

μάδουα ~ άμάδουα ~ βάδουα ~ ἄδουα (< *ϝάδουα /wádrua/) 'plums, sloes': Beekes (890) explains: "άμάδουα 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 *ἀ-μάδουα, a form with (non-IE) prothetic vowel. This form (ἀ)μάδουα must be a Pre-Greek etymon. If βάδουα is reliable, we also have variation μ/β, to which F may be added in order to explain ... ἄδουα" (Beekes 22–23, 191, 890). I **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, urdere (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-

basaran, Agul q:ala, Rutul q'ala 'fort' vs. Tabasaran, Agul, Rutul χa l 'room, house', etc., showing clearly that the etyma are distinct.

¹⁵ 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.

tioned connections of Basque *madari* with Greek $\mu \acute{\alpha} \delta \varrho \upsilon \alpha$, $\acute{\alpha} \mu \acute{\alpha} \delta \varrho \upsilon \alpha$, 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 ~ μαλακίω 'to become numb with cold, freeze'; "A convincing explanation is still lacking ... The variant spelling μαλακίω may indicate that the word is Pre-Greek" (Beekes 898–99). Ι Basque *mal-gor' 'numb (from cold)': (BN) malgor, (Z) malgor '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 *mħēl Xe 'cold': see below) + *gor ~ *gogor 'hard, cruel; deaf' (cognate with PEC **GwērV* 'stone': NCED 467; BCR R.28).¹⁶ | **North Caucasian:** Tabasaran merč'-uli 'cold' (adj.), Lezgi meq'i, Rutul miq'di, Tsakhur mik'ana id.; Chechen mil-la 'from cold, with cold', Batsbi mil-dar 'to get cold'; Avar mart' 'hoarfrost', etc. < PEC *mħēlậe 'cold' (NCED 808). § The Basque development *mal-gor is parallel to Basque (BN, L, Z) molkho 'cluster' < *mardo 'cluster' + *-ko [diminutive/expressive original resonant+lateral affricate cluster like *-l\lambda'- or *-r\lambda- resolves as Basque /l/ when stem-final before a suffix or compounded morpheme. As to the loan correspondence of Greek /k/ in μάλκη to PEC * Λ in *mħēl Λ e, it is parallel to the loan correspondence postulated by Starostin (1988, nos. 1.6, 1.7, 2.2), e.g. PIE *peku- 'livestock' < PEC *bhā¾wĭ 'small cattle' (NCED 293; BCR N.20).

μαστός ~ (Doric) μασδός ~ 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. μ ασθός). Since voice and aspiration are not distinctive in PreGreek, all forms may go back to the same Pre-Greek word" (Beekes 912). | Basque *mośu, *muś-ko: (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) müs-ko id., (Z-Eskiula) müskúa '(the) nipple', (Z-arc) mus-ko 'sting', (B-Oñate) mus-ki 'snot, mucus', (B, G) mus-kil id., (Sal) titi-mus-ko 'nipple', (AN-Jaurrieta) /titamúšku/ id. (AT XXI 936; EHHA; BCR A.17). | North Caucasian: Chechen, Ingush muc'ar 'snout, muzzle, trunk'; Avar móc':u 'teat, nipple; tip'; Akhwakh mic':o 'teat, nipple', Chamali mis', Tindi, Godoberi mic:i id.; Inkhokwari mucu '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' < PEC *mħŏrçū 'point, edge, protruding part' (NCED 811). § Nikolaev (70, no. 29) proposed Greek μαστός as a loan from North Caucasian. For the correspondence of Greek $\sigma\tau$ = PNC *c/c// = Basque *s see also, below, Greek σταφ- = PEC *cib- = Basque *sap-. 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.

284) statement (based on those of earlier scholars) that "late Latin MŪSU '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" *mūsus '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 mucùna 'snout', thought to have been loaned, via Modern Greek μουτσοῦνα 'mask, snout from an animal or human mouth, jaw, pig's snout' < Venetian musona id. (Leschber 2011: 78); further, Bulgarian mucùna > Aromanian muţună '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 Italian 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 *mħărcū 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-*mus*-ko 'nipple', (Z) *müs*-ko id. ~ Avar *móc':u* 'teat, nipple', etc.; Lak *mazu* 'nipple (of animal)'; Pre-Greek μαστός ~ μασδός ~ μασθός ~ μαζός 'teat, breast' Basque (G) *musu* 'point, tip', etc. ~ Avar *móc':u* 'tip', etc.; Tabasaran *murz* 'edge, verge' Basque (Z-arc) *mus*-ko 'sting' ~ Dargwa (Chiragh) *muc:e* 'sting'

To sum up, cognation of Basque * $mo\acute{s}u$ with PEC * $mh\breve{o}rc\bar{u}$ seems preferable to a derivation from a hypothetical Latin * $m\bar{u}su$, which has no Indo-European antecedents.

μέσπιλον 'medlar, medlar tree, Mespilus germanica'; also 'hawthorn, Crataegus (orientalis, oxyacantha)'; "A foreign word of unknown origin. Probably Pre-Greek on account of the suffix -ιλ- ... Borrowed as Lat. mespilum" (Beekes 935–36). | Basque *mahać 'grape(s)': (BN, L) mahats 'grape(s)', (Z) /mahać/, (G-Bergara, Leintza) magats, (B, AN-Larraun) maats, (B-Ibarruri, Zeanuri) /márac/, (B, G, AN, Bzt, Sal, R) mats, (B-Aulestia) matz id., etc. (FHV 113; A&T XX 651; EDB 278; OEH; BCR P.17). | North Caucasian: Chechen ħamc 'medlar', Ingush ħamis-k id.; Avar seč 'apple', Andi inči, Akhwakh, Karata seče id.; Tsezi heneš 'apple'; Lak hiwč; Dargwa sinc id.; Tabasaran wič 'apple', Archi *ạnš* id.; Khinalug *mɨč* id.; Abkhaz a-*báč* 'medlar', Adyge *nāpca* id., etc. < PNC *fämćō 'apple; medlar' (NCED 237). § The Basque-NC comparison would require metathesis such as [*masaćV] > Basque *mahać. Cf. the metathesis in Adyge nāpca 'medlar' < *banca < *bVmc:*W (according to NCED); *banca is remarkably similar to Michelena's *banats 'grapes' (FHV 113). If, as Beekes suggests, -ιλ- is the suffix of the Pre-Greek word, it leaves $\mu \dot{\epsilon} \sigma \pi$ - as the root, also requiring metathesis according to the PNC form; the p is evocative of the p in Adyge $n\bar{a}pca$ 'medlar', but these are at best just convergent developments. From a Sino-Caucasian perspective cf. Burushaski *[m]ićíl 'pomegranate', with a suffix similar to the Pre-Greek suffix -ιλ- (SCG 267). Diakonoff & Starostin (1986: 24) suggest a Hurrian cognate, χinʒ-urə 'apple' (cf. Dargwa Sinc), borrowed in Armenian as $\chi nzor$. The semantic change of Basque 'grape' ~ NC 'medlar, apple' ~ Burushaski 'pomegranate' should not be surprising: cf. Rumanian poamă 'fruit, apple', Moldovan poamă 'grape' ~ French pomme 'apple, potato', etc.

(Buck 5.71); and other 'fruit' etymologies (e.g. Greek μάδουα 'plum, sloe' ~ Basque *madari 'pear', above). Nevertheless, this comparison remains difficult, if not implausible: the origin of the $-\pi$ - 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.

μικοός ~ σμικοός ~ 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 μικοός and (older) σμικοός 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) mikitta 'a tiny bit'. This word is traditionally derived from Spanish miga 'crumb', etc. < Lat. mīca; and/or Greek μῖκοός, 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 mik'i-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 nimic 'nothing' < Latin nēmīca: REW 5885), normally etymologically linked to a totally hypothetical Latin *miccus or Latin mīca 'Krümchen' (REW 5559), 17 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.

μύλλον [n.] 'lip' (Beekes 980). | **North Caucasian:** Dargwic *muħuli 'mouth' (Akusha muħli, Chiragh mūle, Kadar, Mekeg, Urakhi, Kharbuk muħli, Gapshima muħli, Kubachi mūle, Tsudakhar muħuli 'mouth'); ¹⁸ (with metathesis) Avar humér 'face', Akhwakh hama-ʔal 'face' (< *ħVmV-qili) < PEC *mVhwVlǐ / *hwVmVlǐ (NCED 499). ¹⁹ **§** "Frisk compares a Germanic group with a single consonant: OHG mūla [f.], MHG mūl [n.] 'mouth, jaws' ... It does not seem that μῦθος 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 μύττακες point to Pre-Greek origin" (Beekes 249, 986). | **Basque *bisa-r** 'beard': common Basque *bizar* (definite form *bizarra*), (Z) *bízar*, (AN) *bizer*, *pizer*, *pizar*, (B) *bisar*, *bixar* /bišar/, *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) *bíxar* /bíšar/ 'goatee'. | **North Caucasian:** Khwarshi *biša*-n-de 'beard', Hunzib *bilažba* id. (< *biža-l-ba), Bezhta *biza*-l-ba 'mustache'; Tindi *miža*-tu 'beard', Akhwakh *miže*-t¹:u, Chamali *miza*-t'w, Bagwali *miža*-t'w id.; Tabasaran *mu*3-ri, Agul *muž*-ur

¹⁷ De Vaan (2008: 378) prefers to separate $m\bar{\iota}ca$ from (σ)μικρός, citing Nyman's connection with " $mic\bar{a}re$ '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. /u/ denotes a pharyngealized vowel; /h/ is a voiceless emphatic laryngeal [pharyngeal] fricative.

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

²⁰ By "rumigate" ruminate must be intended.

'beard'; Khinalug $mi\check{c}$:-äš 'beard', etc. < **PEC** * $bil\check{z}V$ 'beard' (NCED 303). ²¹ § Nikolaev (71, no. 31) proposed that Greek μύσταξ ~ βύσταξ was a loan from PEC * $bil\check{c}V$ (later reconstructed as * $bil\check{z}V$ in NCED). In some NC languages there are regular changes of the type * $bil\check{z}V > *bin\check{z} - *mi\check{z} - *mu\check{z} -$, etc. (cf. the Greek variants μύσταξ ~ βύσταξ). This etymon, via Greek, is the source of European words such as English mustache. In Baztanese Basque there is a strange blend, mustratx 'mustache' (apparently Basque * $mu\acute{z} + mu\acute{z} + mu\acute{z}$

νέκταο 'nectar, drink of the gods'; νεκτάοιον a plant name = έλένιον [Dioscorides Medicus], also name of a medicine and several eyesalves [Galenus]; "In contrast with άμβροσία, which is of related meaning ... νέκταο does not have an ascertained etymology. ... [Furnée 1972]: 320 compares **νικάριον**, an eye-salve. If this is correct, the word may be Pre-Greek. He also points to other Pre-Greek words in $-\alpha_0$ (op.cit. 13475)" (Beekes 2010: 1004–05). | **Basque** *nega-r' / *niga-r' 'tears, weeping' ~ *nega-l 'herpes, scurf: (B, G, AN, L, Sal) negar 'tears, weeping', (Sal, B-dial.) near, (BN, L, Bzt, Azk) nigar, (Bzt) niger, (Z) nîgar, (R) nexar [nešar] id.; (B-Ubidea) negar 'rennet'; (AN-dial., L) negar 'sap, resin (of plants)' 22 (A&T XXI 958; OEH NEGAR; 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. | North Caucasian: Dargwic (Akusha, Chiragh) neru 'tear', (Urakhi) niru, (Kaitag) neru ~ meru, (Tsudakhar) neru, (Kubachi) mēu id.; Lezgi паич, Agul new, Archi nabq, Udi new; Lak maq'; Avar másu, Akhwakh maq'a; Bezhta maq'o, Khwarshi muq'u id.; Chechen not'q'a 'pus', Ingush nod, Batsbi not'q' 'pus', nat'q'-ayrĭ 'tears', etc. < PEC [direct stem] * $n \bar{e} w \dot{q} u$ 'tear; pus' / [oblique stem] * $n \bar{t} w \dot{q} V$ - (NCED 848). § Phonetics: The languages compared here involve a segment NEK- or NIK- + a suffix -(A)R: (Pre-)Greek νέκταο, νικάο-, Basque *nega-r / *niga-r, Pre-Proto-Dargwic * nex^w -r. The internal /r/ in Dargwic * $nerw^w$ is thought to come from a former plural suffix, thus * $ners^w < *nes^w - r$, parallel in formation to Basque *nega - r. "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 -κτin (Pre-)Greek νέκταο (lacking in the possible variant νικάριον) there could be a clue from the Proto-Nakh form *naṭqu 'pus', which NCED explains as "an original plural form $(*națqu < *na(w)\dot{q}-tu < *nĕw\dot{q}-dV)$," 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 νέκταο / νικάο-, Basque *nega-r / *niga-r, and PEC *nĕwġŭ / *nǐwq̈V-. 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 *- \bar{o} - or *- \bar{a} - as possibilities (~ PEC * $b\bar{o}l\bar{\jmath}V$, * $b\bar{a}l\bar{\jmath}V$). External comparison with Basque *bisa- \dot{r} 'beard' supports the PEC form * $bil\bar{\jmath}V$, 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 "*Mahatsaren 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 *pic*' 'dew, sweat'; Avar *pic*': 'resin', Karata *bic*':i; Dargwa *penc*' 'resin'; Chechen *mutta* 'juice, sap' (Rus. coκ); Ubykh *bzə* 'water', etc. < PNC *pĭnçwĂ 'resin, juice' (NCED 871); a putative Basque cognate is *pista 'fresh rheum; sleep sand (secretion from eyes)' (BCR A.79). See also Basque *i=serdi 'sweat; sap (of trees)' (BCR A.89), putatively cognate with PEC *cāŁwV 'blood; life' (NCED 376).

East Caucasian, 'tear(s); pus'. The actual substance of $\nu \dot{\epsilon} \kappa \tau \alpha \rho$ 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).

ξύλον ~ (Attic) σύλον ~ σύλινος 'wood, timber, firewood, tree, beam, stick; wooden block put around the neck, gallows; bench, table'; also as a measure of length. "It seems to correspond with Lith. šùlas 'post, pole, stave' < IE *ksulo-, Ru. šúlo [n.] 'garden-pole', SCr. šûlj [m.] 'block' < IE *kseulo- (?). Germanic words like OHG sūl [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'álu 'log, beam'; Lak č'ula 'beam, girder, log', etc. < PEC *čħwǐtū (~ *čſwitū) (NCED 388).²⁴ § S.A. Starostin (1988, no. 4.11) proposed PIE *kseul- 'beam, post, piece of wood' as a loan from PEC *čħwitū 'beam' (reconstructed then as *čiwtu, 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 *sūli, "an i-stem of unknown origin" with an ablaut variant *sauli- > Gothic sauls 'pillar'.

οঁγχνη ~ οੱχνη 'pear tree, *Pirus communis*; pear'. "[Furnée 1972] thinks the word is Pre-Greek, also on account of the by-form ὄχνη" (Beekes 1045). | **Basque *ok**-(arhan) 'plum, sloe' (BCR P.16): (B, G-Etxarri-Aranaz, AN-Arakil) ok-aran 'plum', (AN-Olza) ok-arin, (AN-Ilzarbe) uk-arain id., (B) txarri-ok-aran 'sloe' (txar-/čai/ '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 aχe, Lak aq 'garden', etc.) as opposed to wild plums and sloes (AT XXI 975; OEH). (B) txarri-ok-aran 'sloe' reflects the fact that the meaning of *ok- was forgotten before the element /čar/ 'bad, wild' was added. | North Caucasian: Andi $o\chi i$ 'sweet cherry', Akhwakh aqi 'grape', Tindi axi, Chamali ax id., Karata axe 'garden'; Khwarshi, Inkhokwari oh 'grape'; Dargwa Chiragh aq 'fruit(s)', Akusha, Urakhi anq 'garden'; Lak aq 'garden'; etc. < PEC *?ĕqV 'grape; fruit; orchard, vineyard' (NCED 206); "...excessive -n- in [Proto-Dargwic *?anq] (all other languages reveal absolutely no trace of any medial resonant); it may have penetrated from an oblique base like *?aq-nV- (or, more probably be a result of contamination with another root: PEC *HēnqwV 'meadow, plot' q.v.)" (NCED). § Nikolaev (71, no. 32) proposed the borrowing of Greek ὄγχνη / ὄχνη from PEC *?ĕ(N)qV. If, as NCED suggests, there was a PEC "oblique base like *?aq-nV-," it could explain the Greek -v- in ὄγχνη. Compare also Latin acinus 'grape or other berry', a close phonetic match to the hypothetical PEC *?aq-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

²⁴ There is another very similar NC root: cf. Avar μΙyπ c'ul 'wood, firewood', Andi c'ul 'stick', Akhwakh č'uli, 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., Tsezi c'eru-c'a 'bow', etc. < PEC *cw̄th̄ V̄ (NCED 374). It is also tempting to think about Basque *sul 'wood, timber, lumber': common Basque zur, in parts of Bizkaia and Navarre zul, Roncalese zũr (with a nasal vowel), etc. (BCR Q.51), compared in BCR with PEC *ʒw[e]t̄ 'twig, rod, sheaf' (Andi žala 'branch, rod', Avar žul 'broom, besom', Chamali zala 'rod', etc.; NCED 1103). However, for phonetic reasons, it seems best to keep these forms separate from Greek ξύλον, etc. PNC/PEC *ʒ- and *ʒ- correspond to Basque initial *s- (BCR 151–52), while PNC *ĕ- and *¢- correspond to Basque initial *č- (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 $o\chi i$ but a- in the other Andian languages. As to Basque *o-, the best match for PNC *?e- = Basque *oseems to be PEC *?ĕndū 'forehead' (NCED 205), Andi honno 'forehead' = Basque *ondo2 'side; bottom; proximity, closeness', Bizkaian ad-ondo 'forehead (of cattle)' (BCR I.4).25 But there are also alternative solutions of Pre-Greek ὄγχνη. Blažek (2014: 45) mentions a different North Caucasian word that is semantically exact with the Greek word: Avar géni 'pear', Andi and Karata hĩhĩ, etc. 'pear'; (Tsezian): Bezhta and Gunzib hĩ 'pear'; (*hĩ 'pear' + *?ēš 'apple' >) Tsezi heneš 'apple', Khwarshi hīyoš 'apple'; (Proto-Nakh: *каттава) > Chechen ваттава 'peach', Ingush ватава 'apricot', 26 all reconstructed as Proto-East Caucasian *yōn2V 'pear' (NCED 475). PEC *yōn2V 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 uhuinnum, uhinnu(m), uhe(n)num 'fresh / unripened date(s)' > Jewish Aramaic ?ăhēnā 'nicht voll gereifte Dattel' (> Arabic ?ahān 'bunch of green dates'), Syriac hēnā 'an unripe fruit, especially fig'.

derived from an IE form (the ablaut in the above reconstructions being impossible), it may instead be Pre-Greek" (Beekes 1277–78). | **Basque** *ereka or *e=reka 'gully, ravine': (c) erreka 'gully, ravine, riverbed, arroyo, creek, brook, stream' (FHV 155; AT XI 571; EDB 177; BCR D.8); toponym Erreka (Bizkaia 1093 CE); sporadically written herreka or errheka (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:a 'gorge, ravine', Karata rik':e id., Godoberi rek:i-n 'valley'; Bezhta rüg'e-ro 'mountain slope', Hinukh ruge-s 'plain'; Chechen duq' 'mountain ridge'; West Caucasian: Ubykh q''wa 'cavern', Adyge q:wa-sha 'mountain', Kabardian $q:^w$ a-sha 'cavern' < **PNC** * $ri\dot{q}w\ddot{a}$ 'mountain, rock; cave' (NCED 953). § Nikolaev (71, no. 34) proposed Greek $\delta \alpha \chi \zeta$ was a loan from PNC *r V q' q' V(later revised to *rǐqwā in NCED). Note the vowels in Pre-Greek ῥάχις vs. PNC *rǐqwā – 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).

σαλαμάνδοα [f.] 'salamander, kind of newt'; "Given its non-Indo-European structure, σαλαμάνδοα may be Pre-Greek. Cf. also on σαύρα ['lizard'], which is probably Pre-Greek, as well" (Beekes 1303); **σαλαμίνθη** [f.] 'spider' (Byzantine); "The suffix -ινθη is clearly Pre-Greek, but further connections are unknown" (Beekes 1303). **σαύρα** [f.] 'lizard' ... also **σαῦρος** [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 [śuɣe], (G) suga [śuɣa], suba [śuβa], (AN, B-Lekeitio, Ubidea, BN-Aldude, G-Iziar) sube [śuβe], AN (Zugarramurdi) /śuɣe/ 'snake', /śúheá/ 'the snake', (Z) süge [śyɣe] id. (EHHA,

 $^{^{25}}$ (B) *ad*- seems to be a reduced form of **a*=*dar* 'horn' (BCR A.4). The problem of disentangling Basque **ondo*₁ 'joint' (A.77) from **ondo*₂ 'side, beside' (I.4; and from **honda-r* '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 *μαn + *paμα, the second part of which comes from PNC *pĭrqwA, a word which means 'apricot', 'peach', 'plum', 'fruit' (in general) in individual NC languages (NCED 873).

map 114); (in compounds): *suge-lind(il)a: (L-18th c.) sugalindila, 27 (B) sugelinda, 'lizard', (G) sugalinda, (B) sugalindara, (B, G) sugelindara, (B) sugelandara, (L) sugekandela, (L-Ainhoa) subekandela, (L, R) sugekandera, etc. (see *lindila 'lizard', BCR B.25); *suha/endil(a): northern Basque suhendil 'lagartija / lézard des murailles' (Pouvreau, 17th c.);28 (L-Mugerre) /śuhájndola/, (BN-Armendaritze) /śuyándojla/, /śuyeandójl/, /śuyándola/ 'lizard'; *śuhangil(a): (BN-Gamarte) /śuángila/, (BN-Ezterenzubi) /śuyáingil/, (BN-Baigorri) /śuβeáingil/ '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 (медяница)' (<*šult-ikV); Dargwic (Akusha) šuršut'an 'lizard', (Kharbuk) š:ilt'a id.; Avar (Antsukh dialect) š:ut' 'lizard' < PEC *šVlVtV '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 | andera 'lady' (see above under ἄνθρωπος) 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 *λwitλwitV 'lizard' (NCED 763, attested in only three Daghestanian languages, Chamali totol, Lezgi ftfil, 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 *- $t\lambda w$ -, 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 *andere 'lady' and the Romance word kandela/-ra 'candle' (apparently from the slim shapes of lizards and candles). Or perhaps *andere is also original, since it occurs in other Basque animal names.³⁰ Regarding σαλαμάνδοα, besides Basque *andere possibly corresponding to the $-\alpha v \delta Q \alpha$ part, some Basque lizard names have components that resemble -μάνδοα: (Bzt-Aniz, Lekaroz) subemandil, (L-Azkaine) sumandil, (L-Senpere) subemandil, (R) sugemandila 'lizard' (OEH SUGANDILA; EHHA map 119); and possibly the $\sigma\alpha\lambda\alpha$ - component is related to PEC * $\delta V V V V$ 'lizard', if *-V 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 + andere/-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) (< *śag-t-andere, ostensibly 'mouse-lady', but originally this -andere, before phonetic distortion, may have been related to Proto-Andian *handa-, as in Tindi handa-re-Λ̄:u 'weasel', etc.; cf. Basque *ergu-nedi 'weasel', also possibly containing a distorted morph *-nedi related to Tindi handa-, Tsezi madu- (in madu-tłi 'weasel'), etc. (BCR B.10; NCED 239).

³¹ Cf. Bezhta *dibi-t'o* 'drum', *q'asq'a-t'o* 'throat'; Khinalug *k'unk'u-t'a* 'weasel, marten'; Basque *neska-to* 'little girl', (Bzt) *eltxe-to* 'small pot', *elixa-to* 'small chapel', etc. (BCR 55).

Pre-Greek $\sigma \alpha \lambda \alpha$ - ~ Lezgi $\check{s}ara$ -t'u-l 'lizard'; Ingush $\check{s}ul$ -q'a id. < PEC * $\check{s}VlV$ - $\mathop{t}V$ Pre-Greek - $\mathop{\mu} \alpha v \delta \varrho \alpha$ ~ Basque -mandil(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 *šurut*' '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 *śu 'fire' (BCR F.1: cf. PNC oblique stem *çŭy- 'fire') as with *śuge 'snake'. In a Sino-Caucasian context Basque *suge 'snake' may be linked with Yeniseian *c[ī]k 'snake, fish' (BCR Z.13). On the other hand, Pre-Greek σαύρα [f.], σαῦρος [m.] 'lizard', if not related to Lezgi šara-t'u-l, etc., could have a Semitic origin: cf. Akkadian surārû, surāru(m), (απαξ) surīrû 'lizard(s)' (CDA 341) < Semitic *sauru 'lizard'. 32

σιρός ~ σιρός ~ σειρός 'pit or vessel for keeping corn, silo'. "Technical word without etymology. The variation between $\sigma i\varrho$ -, $\sigma \bar{i}\varrho$ -, $\sigma \bar{i}\varrho$ - is hard to explain from an IE point of view" (Beekes 1335). / σῦριγξ, σῦριγγος '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. surungā [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** *sutho 'hole, cave; (anatomical) tube': (BN, L) zulho, zilho 'hole, burrow', (B, G, AN) zulo, (B-Orozko) zulu, (AN-Goizueta) zolo, (B-Aulestia) sulo, (B, Sal, L-Ainhoa) zilo, zillo, (Z) zílo, xílo, (R) xillo /šiλo/ id., (AN, BN, Z) zilo-ka 'cave', (AN-Lezaka, 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-xílo '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-s:ul 'tubular bone', Andi tom-š:il, Karata hani-š:el id., Tindi han-š:al 'arm (from hand to elbow)';34 Tsezi šilu 'horn', Be-

 $^{^{32}}$ Thanks to suggestions from V. Blažek (p.c. 11/04/2020). He is currently preparing a proposal that Greek σαύρα / σαῦρος 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 $\sigma\omega\lambda\eta\nu$ is suggested by Giampaolo Tardivo (p.c. 11/22/2020). For $\sigma\iota\phi$ ς Tardivo suggests a Semitic origin: Hebrew sir 'pot, vessel', Arabic zi:r 'a large jar'. But "Hebrew sir cannot correspond to Arabic zi:r 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:**VlV 'marrow-pipe' (thus, 'tubular bone') or *tomV-š:**VlV ? 'sinew-tube' (thus, 'forearm').

zhta šelo, Hunzib, Inkhokwari šelu, Khwarshi šeru id.; Lezgi sulu-r 'throat', 35 Kryz sɨl 'top (of boot)', (with metathesis) Rutul lis 'gullet', etc. < PEC *śwōłV '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 ($i \sim \bar{i} \sim ei$) while some NC languages (Tsezi šilu 'horn', etc.) and Basque dialects (Z zílo, xílo) 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 (G eztar-zulo 'pharynx', musu-zulo 'nostril', abo-zulo 'mouth(-hole)', etc.); and in Pre-Greek (σῦριγξ '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 (dial.) *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 sīrum < Greek σῖρός, and this is still a commonly cited source. Though REW (7955) derives Spanish silo, Provençal sil and Galician siro from Greek σῖρός 'unterirdische 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' [Iliad]; (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 /o-" (Beekes 155, 1391–92). | **Basque** * $\acute{s}apa-\dot{r}$ '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) txaparro 'scrub of evergreen oak or holm oak' (FHV 54, 296; EDB 258; BCR C.19). | North Caucasian: Avar c':ibí-l 'grape', Avar (Chadakolob) c'ibí-l 'grape'; Rutul c'ib 'juniper', Tsakhur *c'ib* 'juniper', Lezgi *c'p:*-az 'blackberry' < PEC **cibV* '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 *[c'c']VmbitV 'виноград'/ 'grapes, grapevine' > Avar c':ibí-l 'grape' and Proto-Lezgian *t'umbul. By the time the NCED was published, nine years after the 1985 article, these words had been resorted into two different etymologies, the one cited above and PNC *tumhV '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 *sulur* 'ropπo / throat' is not discussed in NCED, but is cited in Klimov & Xalilov (2003: 71–72). Lezgi *sulur* fits this etymology phonetically (consistent with Proto-Lezgian **sol*- ~ **s:ol*-) and semantically: "the meanings 'gullet, throat' and 'top of boot' are sometimes interchangeable (cf., e.g. Lezg. *q:uχ* 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 $\sigma\tau$ = PNC *c/c/= Basque *d see also II: $\mu\alpha\sigma\tau$ -= PEC *d mhŏrc-= Basque *d see also II: $\mu\alpha\sigma\tau$ -= PEC *d mhŏrc-= Basque *d seque *d seque

ψυχή 'aspiration, breath, life, vitality, soul (of the deceased), spirit'; ψύχω '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) bixi /biši/ (A&T VII 147; EDB 145; BCR A.87). | North Caucasian: Chechen, Ingush, Batsbi sa 'soul'; oblique base *si- (Chechen si-na-, Ingush si-no, Batsbi pl. siy-š).; III-class); Lak s:ih 'breath, vapor' (III-class); Karata s:uh-an- 'to get tired'; West Caucasian: PWC * $p \partial - \hat{s}^w V$ > Ubykh $p = \hat{s} \hat{a} - \chi^w \partial - \hat{s}$ 'to breathe'; Adyge, Kabardian $p = \hat{s} \partial - n$ 'to get tired'. Abkhaz a-ps-ra 'to die', Abaza ps-ra id. < PNC * \underline{s} *iHwV* 'breath; to breathe'; with III-class prefix *b=siHwV (NCED 961). **§** Nikolaev (72, no. 40) cites Greek ψūχή as a loan from North Caucasian, in which ψ /ps/ corresponds to /pś/, /ps/ in the West Caucasian forms, and χ /k^h/ to the PNC laryngeal *H (Lak /ħ/). The Basque word is analyzed in BCR as the root *=si (= PNC * $\underline{s}iHwV$) preceded by the fossilized class prefix *bi= (= 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 *pə-ś^wV from an earlier *pə-śəHwV, which is exactly parallel in form with Basque *bi=si, and also provides a plausible antecedent to Greek $\psi \bar{\nu} \chi \dot{\eta}$ /psūk^hé/. "The semantic developments 'to breathe' > 'get tired' ... > 'die' are quite usual." (NCED 961); cf. Russian dušá 'mind, soul, spirit' : dušít' 'to smother'; Greek' εκ·ψύχω 'to breathe one's last; expire, lose consciousness, die'. It is tempting to suggest Latin *spīrō* 'I breathe, blow; am alive, am inspired', *spīritus* 'breath, breathing; breeze, air; spirit', ex-spīrāre 'to breathe out, die', etc., from Proto-Italic *spīr/s- (i.e., *spīr- or *spīs-, according to de Vaan 2008: 581), if there was a metathesis of *psī- > *spī-. DeVaan only opines "Possibly an onomatopoeic formation imitating the sound of breathing. There are no direct [IE] cognates." 38 Diakonoff & Starostin (1986: 36) thought there were cognates of PNC * $\underline{s}iHwV$ in Hurrian-Urartian: Hurrian $\check{s}e_{\gamma}$ -iri 'alive', $\check{s}e\gamma$ -ori 'fate' or 'life', Urartian $\check{s}u/o\chi$ -ori / $\check{s}e\chi$ -eri 'alive'.

³⁷ Other developments have penetrated world current events. The Mexican Spanish word *chapo* '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 *pištą, piskati* 'pfeifen, flöten', Sanskrit *pic-chorā* 'Pfeife, Flöte', and reflexes of Proto-Germanic **fīsan*- 'to blow; to fart'. In the etymological lemma for the latter word in Kroonen (2013: 142) Latin *spīr*- is also cross-referenced, along with Welsh *ffūn* 'breath' (< **spoi-n-eh*₂-). Kroonen speculates that "the PIE form of the verb may have been **pséi-s-e-*," with the first /s/ dropped in Germanic due to dissimilation. Again, PIE **pséi*- is close to the form of PNC *(*b*=)*sĭHwV*. and Basque **bi=si*.

Phonology

Some sound correspondences have already been remarked upon. In the examples $\mu\alpha\sigma\tau$ ός and $\sigma\tau\alpha\phi\nu\lambda\eta$ we see the equation Pre-Greek st-, -st- = PNC *c / c / c / = Basque *s . In example III we have Pre-Greek -st- = PNC * - *s - = 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 (*st) 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: 39

Basque (B) beaztun 'gall, bile' (vs. [L-arc] behazuñ, etc. < *beha-sun A.88) ~ Chechen stim 'gall' (PNC *cwäymĕ 'gall, anger': NCED 329)

Basque (R) *aizto* 'knife' (Q.11) ~ Chechen *sto* 'chisel', Ingush *osta*, Batsbi *st'o* id. (PNC *H xy3V 'chisel': NCED 542)

Basque * $a\acute{s}tun$ 'heavy' (R.29) ~ Chechen, Ingush =arst- 'to fatten, become fat', Batsbi =arst'- id. (PNC *= $Hr\breve{V}y\acute{s}\bar{E}$ '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 (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation between Basque /st/ or /śt/ and PNC/PEC tense sibilants (*substance of the seems to be a correlation of the s

Basque **e*=stari 'throat' (A.32) ~ PNC *<u>s</u>w<u>E</u>ri / *ri<u>s</u>w<u>E</u> 'neck' (Agul s:ür 'gullet': NCED 953) Basque **hestu-n* 'ring, link' (Q.37) ~ PEC **H*V̄<u>c</u>V (Khwarshi ocu 'ring, hoop; buckle': NCED 612)

Basque *listo- / *listo- 'hornet, wasp' (B.31) ~ PEC *λămcV (Akhwakh łac':u 'ant; bug, bed-bug': NCED 766)

Basque *pista 'rheum, eye secretion' (A.79) ~ PNC *pĭnçwĂ 'resin, juice' (Lak pic' 'dew, sweat': NCED 871)

Basque **esti* 'honey, sweet' (if < **emsti*: P.21) ~ PEC **mĭ*₃V 'sweet' / **hwmĭ*₃ū 'honey' (Archi *ic*': 'sweet' / *imc*' '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 $\mu \dot{\alpha} \delta \varrho \upsilon \alpha \sim \dot{\alpha} \mu \dot{\alpha} \delta \varrho \upsilon \alpha \sim \dot{\alpha} \dot{\alpha} \varrho \upsilon \alpha \sim \dot{\alpha} \dot{\alpha} \varrho \upsilon \alpha$ 'plums, sloes'; we saw a similar alternation in Basque *ma=dari / *u=dari 'pear'. There is a similar situation in $\dot{\alpha} \kappa \alpha \varrho i$ 'mite' / $\kappa \dot{\varrho} \varrho \iota \varsigma$ '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. $\dot{\alpha} \sigma \kappa \dot{\alpha} \lambda \alpha \varphi \sigma \varsigma$ ['name of an unknown bird, perhaps an owl'] beside $\kappa \dot{\alpha} \lambda \alpha \varphi \sigma \varsigma$. In most cases, the vowel is $\dot{\alpha}$ -. 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.

[according to Furnée 1972: 368ff.] are as follows: $\alpha \pm 90$, o 10, ϵ 5, ι 3, υ 0, η 6, $\alpha\iota$ 2. Note that, generally speaking, α may interchange with o, ϵ , and $\alpha\iota$. Indeed, we have cases where prothetic o interchanges with α , and the same holds for ϵ ..." (Beekes xxiii). Yet another example is $\dot{\alpha}\sigma\tau\alpha\phi\dot{\iota}\varsigma \sim \dot{\sigma}\tau\alpha\phi\dot{\iota}\varsigma \sim \sigma\tau\alpha\phi\dot{\iota}\varsigma$ 'dried grapes, raisins', beside $\sigma\tau\alpha\phi\upsilon\lambda\dot{\eta}$ 'bunch of grapes; grape'. With a possible prefix ι - we have $\dot{\iota}$ - $\kappa\tau\dot{\iota}\nu \circ \varsigma$ 'kite'.

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 very few word-initial consonants. Why is this so?" (Trask 1996: 115–16).

In fact, one of the current authors (e.g. Bengtson 1994) had already offered an explanation regarding Basque nouns, that some of the initial vowels reflected fossilized class prefixes, or "stage III articles," a solution that Trask repeatedly rejected. This hypothesis is supported by the fact that many, but by no means all, Basque-North Caucasian parallels involve Basque words with initial vowels.

Basque *a=ćo 'old woman' (BCR J.7) ~ Lak *c:u-* 'female', etc. < PNC *cwŏyV 'woman, female' (NCED 374)

Basque *a=kec 'boar' (BCR N.23) ~ Lak q:ača 'bull-calf', etc. < PEC *GočV (NCED 453)

Basque *e=kē / *kē 'smoke' (BCR F.2) ~ Avar k':uy 'smoke', etc. < PNC *kwěnhV (NCED 738)

Basque *i= $\acute{c}u$ / * $\acute{s}u$ 'fire' (BCR F.1) ~ Lak $\acute{c}'u$ 'fire', etc. < PNC * $\acute{c}\breve{a}y\breve{i}$ / * $\acute{c}\breve{u}y$ - 'fire' (NCED 354)

Basque *o=hol 'board, plank' (BCR Q.62) ~ Rutul χil 'wooden trough', etc. < PEC * χulV / * χutV (NCED 1078)

Basque **u=ri*[*ś*]*a* 'female (animal); woman' (BCR N.15) ~ Akhwakh *reša* 'heifer', etc. < PEC **r=išwĔ* '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': *mozolu, mozoilo, mosolo,* (expressive) *moxolo, motzollo* id.; NC: Archi *mus:al* 'wild turkey', Chamali (dial.) *mus:iya* id. ⁴⁰ Old English *lāwerce* 'lark' (< **laiwar*-) : Gaulish *alauda* id. (< **a-laud*-) : cf. Basque **e=tanha* (~ **e=nhala*) 'swallow, swift'; Dargwic *laha* ~ *lawha* ~ *lahwa* ~ *laxwa* ~ *naxwa* 'pigeon' ⁴¹

⁴⁰ The NC words reconstruct to PEC *?Vmswel?ē '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 haraš, haranaš 'eagle'; Greek ὄρνεον 'bird' (general), ὄρνις 'bird, cock, hen'; Armenian oror, urur 'seagull, harrier', etc.; **B.** Dargwa hunuc' 'eagle' (poetic); Avar hinč': 'bird' (in general); Chechen hōza 'sparrow', etc. (NCED 525); compared with Basque *hunc/*honc 'owl' (BCR B.23); **C.** Chechen šoršal 'blackbird, thrush'; Bezhta šašu 'swallow'; Khinalug čänč 'pigeon' (NCED 987); compared with Basque *soso / *šošo '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 *secge* 'sedge' (< **sak*-) : Russian *osóka* id. (< **a*-*sak*-) : cf. Basque **i*=*śać* 'broom (plant)'; Chechen *šač* 'sedge' ⁴²

Latin $r\bar{a}pa$ 'turnip', Old High German ruoba (< * $r\bar{a}p$ -), Proto-Slavic * $r\check{e}p\bar{a}$ 'turnip' (BER 6, 387) : Welsh $erfin < *a-rb^{(h)}$ - 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 supplied by the fact that a similar phenomenon – the presence or absence of these types of vocalic prefixes – can be observed synchronically within Basque. For example, the Basque word for 'smoke', cited above as $*e=k\bar{e} \mid *k\bar{e}$ 'smoke', is attested as standard (EB) ke, and variants of this in most of western and northern Basque ($k\acute{e}$, $k\acute{e}e$, $k\acute{e}\acute{e}$, $k\acute{e}i$, ki, khe, etc.), but in large parts of High Navarre (AN) and sporadically in Low Navarre (BN) there is a prefix e- or i- ($\acute{e}ke$, $ek\acute{e}$, $ik\acute{e}$, etc.). Similarly:

Basque *geHeti / *i=keta / *o=keti/a: (L-arc) geheli 'fresh beef', (B) geeli '(fresh) beef, fresh meat', (B, R, Bzt) geli 'lean meat' / (BN) ikhel 'fattened ox', (AN) ikela id., (B, Z) okela 'meat', (L) okhela, okheli 'meat; piece (of meat, cheese), morsel', etc.; cf. Dargwa q'al, Lak ul 'cow', etc. < PEC *qfnwětV / *qwěthV '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) iphürdi, (A, G, Sal, B-Markina, Oñate) ipurdi, (B-arc) ipirdi, (B) eperdi, id.; cf. Archi part'i 'one of the large intestines', etc. < PEC *pHVrţwV 'some inner organ' (BCR A.45; NCED 871)⁴⁴

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) *ekhéi* id.; cf. Avar *q*':*ayí* 'thing(s), possession(s)', etc. < PEC **q̄wăyē* '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 $\check{z}iw$, Tabasaran yif, Agul $ib\acute{x}$) reflect PEC * $y\check{i}w\lambda V$ 'snow', which also appears to include an incorporated *y= (II-class) prefix analogous to *e= in the Basque word *e=thu- \dot{r} 'snow', i.e. * $y\check{i}w\lambda V < *y(\check{i}) = \lambda\check{i}wV$; on the other hand the synonymous Nakh words (Chechen $l\bar{o} \sim l\bar{u}o$, Ingush $lo \sim loa$, Batsbi law) stem from the unprefixed PEC form * $\lambda\check{i}wV$ 'snow' (BCR G.17; NCED 684). Thus it is proposed that PEC * $\lambda\check{i}wV$ / * $y(\check{i})$ = $\lambda\check{i}wV$ 'snow', with a regional reorganization of allomorphs, is parallel to the Basque cases like * $k\bar{e}$ / *e= $k\bar{e}$ 'smoke' cited above. Consider also:

⁴² BCR C.26; NCED 983. The semantic differences may be based on 'plant used in making brooms': some types of sedge are suitable for this. Broom and sedge are both under the order *Poales*.

⁴³ These patterns are shown quite clearly in the Basque dialect atlas (EHHA map 1026).

⁴⁴ For semantic typology cf. Old Indic $gud\acute{a}$ - 'intestine, bowels, anus' > Pali guda 'anus', Sindhi $gu\bar{\iota}$ 'anus, posterior', etc. (Turner 1962, lemma 4194).

⁴⁵ Perhaps also in Basque *lu- / *e=thu-: (Sal, Bzt, AN-Lezaka) lauso 'avalanche of snow' / (BN) elhauso id., compounds of Basque *lu- / *e=thu- 'snow' + *auśo 'fall (of snow, rain') (BCR G.11), the latter related to Basque *e=auśi 'to fall'; cf. PEC *=ŭśV 'to descend, fall, be scattered' (NCED 1011; BCR V.20).

PEC *AwilV / *y(i)=AwilV 'elbow':⁴⁶ Tsezi horu 'elbow', Hunzib hɔru, Khwarshi hal; Agul q:ar-xil 'elbow'⁴⁷ (< Proto-Lezgian *λwil) / (with prefix) Akhwakh eλelo (etlelo) 'elbow' (NCED 770); compared with Basque *be=thaun / *be=thaur- '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 *kwăčě (NCED 704)

Basque *ħerde, *ħelde-r / *bilde-r (< *bi=ħelde-r): (BN, L) herde 'drool(ing), slobber, slaver', (AN, Bzt, Sal) erde id.; (with *r- suffix and dissim.) *ħelde-r id. > (BN, L) helder, heldor, (L, BN-Baigorri, R-Uztárroz) elder, (Z) élder 'drop of spittle that falls from the lips'; (G-Gabiria, Iziar) bilder, (G-Zestoa) bildar 'drool, saliva' (BCR A.80); cf. Karata hanl'a 'sweat', Akhwakh ãtt'a id., etc. < PEC *ħăm¼ă (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 Michelena 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) mokol 'shell (of egg, nut), husk (of maize)', mokolo 'husk (of maize)' / (Bzt) akal 'empty (of a chestnut shell)' / (B) kakol 'shell' (BCR C.38); cf. Akhwakh q'oli 'crust, rind', Tsezi q'ⁿul 'bark', Bezhta q'eq'el-ba 'birch bark', etc. < PEC *qwătV 'bark, crust' (NCED 931)

Basque *ma=kac, *ma=keć / *a=kać / *o=koc : (G) makatz 'nick, scratch', (G) makets 'deformed or defective thing', / (B, G) akats 'cut, nick, notch, scratch; fault, defect' / (B) okotz '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', Khwarshi q'ac'a 'slice (of bread)'; Rutul, Tsakhur q'ac' 'chin'; Lak q'ac' 'bite, mouth'. etc. < PEC *qac' /*qac' (NCED 907)49

Basque *ma=gal / *e=gal: (R, Sal) magal 'wing' / (AN) egal 'wing, fin', (BN, L) hegal, (Z) hégal id., (B) egal 'loin, flank (of cow)' (BCR A.63);⁵⁰ cf. Lak qa 'wing', Lezgi, Agul ʁil 'hand', Archi xol id., Bezhta xaro 'elbow', etc. < PEC *q¥l?i '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) λ wilV 'elbow'; * λ wilV / *y(i)= λ wilV is Bengtson's reinterpretation.

⁴⁷ The Agul word is "a compound with some not quite clear first component (is it a distorted [Proto-Lezgian] $*\chi:il$ 'hand'? or *q:Iun '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 $^*e=gal$ 'wing, fin, loin, flank' (corresponding to PEC $^*(y=)q\ddot{\imath}l2i$ '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 $ma(=)x\acute{a}$ 'abomasum' < *bV=xwVn (III-class prefix) / Lezgi ru(=)fun 'belly' (IV-class prefix) 51 / (unprefixed) Agul fun, Dargwa $k^{(w)}ani$ 'belly', etc. < PEC * $\hbar w i n i$ (NCED 771)

Godoberi re(=) $\varkappa il$ 'leg', Botlikh re(=) $\varkappa il$ 'thigh' (IV-class prefix) / (unprefixed) Tsakhur q:el 'foot, leg', Rutul $\varkappa il$ id., etc. < PEC * $\sigma e tu$ (NCED 455)⁵²

Avar *mi*(=)†ír 'wing' ⁵³ / Andi †iru 'feather, wing', Tsezi *lel* 'wing', etc. < PEC *λila 'wing' (NCED 762)

PNC *bēmṭV (< *b=fiwemṭV) > Hunzib bət'i 'worm', Bezhta bet'e-la id., Lezgi büt'-rük 'larva', Abkhaz á-mat 'snake', etc. (NCED 290) / PNC *fiwe(m)ṭi > Avar ħut' 'worm', Bezhta hat'o-la, Lak yạt'i, 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 *fwVmtV '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. Khwarshi *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 $*k\bar{e}$ / $*e=k\bar{e}$ 'smoke'; PEC $*\lambda iwV$ / $*yiw\lambda V$ < $*y(i)=\lambda iwV$ '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/o interchange." Another example of α/o alternation may be found in the apparent derivatives of καλῖά, as reported by Hesychius: καλύβη 'hut, cabin' and κόλυβος 'farmstead'. Beekes cites some other examples, e.g. κάβαξ 'crafty, knavish' and κόβακτρα 'pieces of flattery, knavery' (both from Hesychius); λυκάψος 'name of a poisonous plant' / λύκ**ο**ψος id.

 $^{^{51}}$ 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 * $G\bar{e}lu$ (with *l) and a metathesized variant * $l\bar{e}GV > PA$ *riui-, PC *riui-, PC *riui- (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 črŭvĭnŭ (črъνънъ) 'red' < *čĭrvĭ 'worm'; French *vermeil* < Latin *vermiculus* 'little worm' (Buck 15.66).

or vice-versa. Basque *gari / *gal- 'wheat' = PEC * $\underline{c}\bar{o}l$?e 'wheat' (BCR O.1), beside Basque *gose 'hunger, hungry' = PNC * $gas\bar{e}$ '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 $v\acute{\epsilon}\kappa\tau\alpha\varrho$ / $vi\kappa\acute{\alpha}\varrho$ -, Basque * $nega-\dot{r}$ / * $niga-\dot{r}$, and PEC * $n\check{e}w\dot{q}\check{u}$ / * $n\check{i}w\dot{q}\check{V}$ -. 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 * $nega-\dot{r}$ / * $niga-\dot{r}$ '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 / ϵ / with /ı/ in Pre-Greek words.

Suffixes: Beekes (xxxvii, xxxix) cites the suffixes -ιλ- and -υλ- as indicators of Pre-Greek words, and among the words cited above these suffixes figure in two words connected with fruits: $\mathbf{μέσπιλον}$ 'medlar, medlar tree' and $\mathbf{σταφυλή}$ 'bunch of grapes, grape'. Greek $\mathbf{σταφυλή}$ (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 *śapa-r' 'thicket, bramble' has been proposed as a cognate, with a common fossilized plural suffix *-r'. In a Sino-Caucasian perspective Pre-Greek $\mathbf{μέσπιλον}$ may have a remote cognate in Burushaski *mićil / *bićil 'pomegranate' (SCG 267), also with a suffix *-il (cf. Khinalug mɨč 'apple' and Abkhaz a-báč '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) *maulí* 'strawberry', (Bzt) *mauri* id. <?**mag-uli*;⁵⁵ cf. NC: Akhwakh *muq*':*ali* 'blackberry' < PEC **niw*_GV (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 *ǯuməl* 'cornel', Lezgi *č:umal*, Avar *žulám* / *žulán* (< **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'ombul* 'plum' (< Proto-Lezgian *ṭum(:)-ul), beside suffixless Chechen *t'um* 'marrow; kernel of fruit, nut', Abkhaz a-t'amá 'peach', etc. < PNC *ṭŭmhV 'kernel, nut, fruit-stone; marrow' (NCED 1004; SCG 205).⁵⁶

NC: Batsbi *kumel* 'raspberry'; Bezhta *gemalo* 'a kind of berry'; beside suffixless Chamali g^wab 'raspberry', Karata *gobe* 'strawberry', etc. < PEC *gwampV 'raspberry' (NCED 443)

Other possible suffix parallels could be explored, e.g. $-i\gamma\xi$, $-i\gamma\gamma\sigma\zeta$, identified as typical Pre-Greek suffixes by Beekes (xxxvii), in $\sigma\tilde{\nu}\varrho_i\gamma\xi$, $\sigma\tilde{\nu}\varrho_i\gamma\gamma\sigma\zeta$ 'quill, flute, syrinx, windpipe', etc., which is evocative of Basque $-inko \sim -ingo$, e.g. in eastern Basque gorrinko, western Basque gorringo 'egg yolk' (gorri 'red'); (R) baratxinko /baračinko/ 'cuadrito de un huerto' < *barace 'garden, orchard' = PEC $*b\tilde{u}r\tilde{z}V$ 'enclosure' (BCR Q.8; NCED 1039). $\tilde{\alpha}\nu\theta\varrho\omega\pi\sigma\varsigma$ 'man' = Mycenean

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

⁵⁶ From a Sino-Caucasian perspective, cf. Bur *tumáy 'shell of nut, fruit stone', with the distinctive lateral-glide-retroflex /y/ sound (SCG 205; Bengtson & Blažek 2011: 29–30).

a-to-ro-qo /ant^hrōk^wos/ is close in formation to Western Basque *andrako*, *andreko* 'little woman; doll', with the frequent diminutive suffix *-ko*; cf. (EB) *otso-ko* 'wolf cub' (*oćo 'wolf'), (G) *musu-ko* 'muzzle'; in North Caucasian: Avar *yasi-k'o* 'little girl, doll' (*yas* 'girl, daughter'), *wac:a-ko* 'little brother' (*wac:* 'brother'), etc. (BCR 56).

The comparison involving Pre-Greek νέκταρ also calls attention to a putative suffix -αρ, which Beekes (again following Furnée) cites as a characteristic Pre-Greek element; note also $-\alpha \varrho(\alpha)$, $-\alpha \varrho(\sigma \varsigma)$, $-\varepsilon \varrho$, $-\eta \varrho$, $-\eta \varrho$, $-\eta \varrho$, etc. (Beekes 2010: xxxvi–xxxviii). The suffix *- \dot{r} is very common in Basque nouns, especially those with an underlying plural or collective meaning, e.g., *nega-r / *niga-r 'tears', *lega-r 'small stones, gravel', *itha-r 'peas, beans', *lance-r 'drizzle', *moko-r 'buttocks' etc.: see BCR 77–78.57 In East Caucasian there has been a similar development in which the well-known plural suffix *-r, 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 bucú-r 'fortification, dike', Tabasaran marca-r 'hearth' (historical plurals of PNC *bŏlcE: 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 *?lam: < PEC *?wăn?V 'ear': NCED 240); Khinalug cul-oz 'tooth' (< -or: PNC *cštftV 'tooth': NCED 326) has replaced the original singular, etc. Besides νέκταο, it would be important to discover other Pre-Greek words with these -q- suffixes and Basque and/or North Caucasian cognates. It is tempting to consider, for example, $\sigma\pi\nu\theta\dot{\eta}\varrho$ '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.

Greek	Basque parallel	North Caucasian parallel
ἀκα ρ ί 'mite' κό ρις 'bug, bedbug'	*kara-/*karkar- 'beetle'	PEC *kǎrā 'mosquito, gadfly', etc.
ἀλωή 'threshing floor, garden'	*larain 'threshing floor'	PEC *=VrŁV 'to thresh'
ἄνθοωπος 'man'; Mycenean <i>a-to-ro-qo</i> /ant ^h rōk ^w os/	*andere 'lady; young lady; woman; wife'; (B) andrako, andreko 'little woman; doll'	-
δοκός, δόκανα 'beam'	*tako, *tak-et 'stake, post', etc.	PNC * $dw\check{i}\dot{q}(w)\check{V}$ 'log, stump' Tabasaran $duq'an$ 'pole, small beam'
ζέφυ οος 'west wind'	-	PNC *cōjwīlhV 'autumn, winter (rainy season)'

⁵⁷ This suffix has traditionally been described as *-ar*, but the examples cited here show that vowels other than /a/ could precede the *- \dot{r} , e.g. Basque * $moko-\dot{r}$ 'buttocks, backside' = Hinukh moko-li 'back' < PNC * $b\check{o}n\dot{q}\bar{o}$ 'back' (NCED 310; BCR A.44).

Greek	Basque parallel	North Caucasian parallel
ἰκτίν ~ ἰκτῖνος 'kite'	*śaie 'vulture, eagle'	PEC *cwäm?Ŭ 'eagle, vulture'
καλīά 'wooden dwelling, hut'	*o=ketu 'stable, hall, corner', etc.	PEC *qělŬ 'house, hut'
κόμη 'hair, mane'	*kima 'mane (of horse); bristles (of swine)'	PNC * <u>q</u>(w)ăm?ō 'plait, mane; hair'
μάδουα ~ άμάδουα ~ βάδουα ~ ἄδουα 'plums, sloes'	*ma=dari ~ *u=dari 'pear'	-
μάλκη 'numbness from cold'	*mal-gor 'numb (from cold)'	PEC *mħēl¾e 'cold'
μαστός ~ μασδός ~ μασθός ~ μαζός 'teat, woman's breast'	*mośu 'nose, snout, face, lip, kiss, point, tip'; *muś-ko 'nipple' (Z) müskúa '(the) nipple'	PEC *mħərçū 'point, edge, protruding part'; Akhwakh mic':o 'teat, nipple'
μέσπ-ιλ-ον 'medlar'	*mahać 'grape(s)'	PNC *Sämćō 'apple; medlar'
μῖκοός ~ σμικοός ~ μικκός ~ μικός 'small, short, little'	*miko 'a little, a little bit'	PEC *mikwV 'small, young one'
μύλλον 'lip'	-	PEC *mVhwVlĭ / *hwVmVlĭ 'mouth, face'
μύσταξ ~ βύσταξ 'upper lip, mustache'	*bisa-r˙ 'beard'	PEC *bilźV 'beard'; Tindi <i>miža-</i> tu id.
νέκτα φ 'nectar, drink of the gods' νεκτά φιον 'medicine, eye-salve' νικά φιον 'eye-salve'	*nega-r'/*niga-r' 'tears, weeping' *nega-l' 'herpes, rash, scurf'	PEC *něwqu / *nĭwqV- 'tear(s); pus'
ξύλον ~ σύλον ~ σύλινος 'wood, timber'	-	PEC *čħwǐtū 'beam, log, pole'
ὄγχνη ~ ὄχνη 'pear, pear tree'	*ok-(arhan) 'plum, sloe'	PEC *?ĕqV 'grape; fruit; orchard, vineyard'
	*ar -han 'plum'	PEC *yōn?V 'pear'
φάχις 'spine, backbone, back; (mountain) ridge'	*e=reka 'gully, ravine'	PNC *rǐġwă 'mountain, rock; cave' Tindi rek:a 'gorge, ravine' Chechen duq' 'mountain ridge'
σαλαμάνδοα 'salamander'	*śuge-mandil 'lizard'	PEC * <u>š</u> VIVţV 'lizard'; Lezgi <i>šarat'ul</i> 'lizard'
σιφός ~ σῖφός ~ σειφός 'pit or vessel for keeping corn, silo' σῦφιγξ, σῦφιγγος 'quill, flute, syrinx; windpipe, blood vessel' σωλήν 'pipe, channel'; 'grooved tile'	*sułħo 'hole, cave; (anatomical) tube' (G) eztar-zulo 'pharynx'; (Z) südür-xilo 'nostril', (B) sama-zulo 'gullet'	PEC *śwōłV 'hollow tube' Chamali na-s:ul 'tubular bone'; Lezgi sulu-r 'throat'
σταφυλή 'bunch of grapes, 'grape'; ἀσταφίς ~ ἀσταφίς ~ σταφίς 'raisins'	*śapa-i '(blackberry-)bramble, thicket'	PEC *çibV 'a kind of berry'; Avar c':ibíl 'grape'
$ψ\bar{\nu}\chi\dot{\eta}$ 'aspiration, breath, life, vitality, soul, spirit'	*bi=si (noun) 'life; lifetime', (adj.) 'alive'	PNC *(b=) <u>s</u> ĭHwV 'breath; to breathe'

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., $\delta\gamma\chi\nu\eta\sim\delta\chi\nu\eta$ '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 $\mu\dot{\alpha}\delta\varrho\nu\alpha\sim\beta\dot{\alpha}\delta\varrho\nu\alpha$ 'plums, sloes'; $\mu\dot{\epsilon}\sigma\pi\nu\lambda\nu$ 'medlar'.)

On the other hand, words like ἀκαρί 'mite', μαστός 'breast, teat', μύλλον 'lip', β/μύσταξ 'upper lip, mustache', ξύλον 'wood, timber', ξάχις 'spine, back, ridge', and $ψ\bar{ν}χ$ ή '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

ΑN Alto Navarro = High Navarrese (Basque dialect) arc Archaic or obsolete form В Bizkaian = Biscayan (Basque dialect) Bzt Baztanese (Basque dialect) BN Bas-navarrais = Low Navarrese (Basque dialect) EΒ 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])

Zuberoan = Souletin (Basque dialect)

Z

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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).

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Джон Бенгтсон, Коринна Лешбер. О возможном эускаро-кавказском (баскско-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 ἀκαρί 'клещ', μαστός 'грудь, сосок', β/μ ύσταξ 'верхняя губа, усы', ξύλον 'древесина, дрова', и ψ $\bar{\nu}$ '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 общирного лексического слоя, идентификация которого требует детального анализа списка «догреческих» слов, составленного Фюрне и Беекесом.

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