

Prometheus or Amirani. An updated study on the Pre-Greek substrate and its origins

Giampaolo Tardivo,
Italy

Philippos Kitselis,
Italy

In the late 80s and early 90s, Colin Renfrew presented his Anatolian hypothesis. According to him, the agrarian revolution begun in Anatolia, and from there, it spread out in Europe. He supposed that these farmers were carriers of the Proto-Indo-European language, but his theory had weak support from Indo-European linguists. Some questions then arise: What language(s) was introduced in the Aegean islands and mainland Greece by these early farmers? Can we figure out the affiliations of the Minoan language? A different agrarian hypothesis will be shown in these pages, unrelated to the Indo-European and Semitic language families. It instead is featuring a new language family that encompasses the Aegean, Anatolia, Caucasus and the Near East.

Key words: learning, behavior, motivation, conditioned response, trial and error, insight.

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The Aegean and Anatolia from an anthropological point of view

Nine thousand (9,000) years ago farming spread to Europe through Greece and the Balkans. Today there is clear genetic evidence that those farmers arrived to Greece from Anatolia, nowadays Turkey, and the Levant through the sea (Paschou et al 2014; Fernández et al 2014; Hofmanová et al 2016). At that time Greece had a small¹, scattered Mesolithic population found only in the coastal zone of the south and west (Van Andel and Runnels 1995). The demographic impact of an agrarian population arriving at Greece was considerable. Those farmers were not just waves of migrating men, but whole families (Goldberg et al. 2017) that could continue to breed and speak their mother tongue in the new lands. Yet language is very dynamic and does not necessarily depend on numbers. Newcomers carried out more advanced technology and a new way of life. The indigenous hunter gatherer societies were not the only ones to define the shape of things to come anymore².

¹ According to Colledge et al (2004), in the Late Pleistocene and Early Holocene Anatolia, hunter-gatherers were too, largely absent or present in only small numbers.

² It should be noted that the relationship between hunter-gatherers and farming communities on the mainland is controversial (see Halstead 1996, Tringham 2000) therefore it will not be analysed here.

This was the beginning of a long and complex process of colonization of new territories, together with the displacement, acculturation, and/or assimilation of indigenous Mesolithic hunter gatherers (Colledge et al 2004). However, genes and languages are not always correlated (Campbell 2015). There is a very long timespan between the migration of Anatolian farmers to Greece and the earliest attested languages of Anatolia. We have no clue what happened during those ~5000 years of unattested documentation and we have no sample of an indigenous pre-Indo-European western Anatolian language yet. Nevertheless, there are good reasons to seek an answer for the linguistic prehistory of Greece on the other side of the Aegean.

The Aegean and Anatolia from an archaeological point of view

In this occasion, archaeology and genetics come to the same conclusion. Colledge et al (2004) made a study on the archaeobotanical remains recovered from 40 aceramic Neolithic sites in the Near East and south-east Europe. They noted a similarity between the southern Levantine, Cypriot, and Aegean sites. They concluded that there is a possibility of two dispersal routes: The first route was the maritime-based colonization of Cyprus, central Anatolia, Crete, and mainland Greece from a Levantine core region; the second route was a land route from central/western Anatolia, reaching Thrace and south-east Europe. Pinhasi et al (2004, 2005) provides both archaeological and anthropological evidence for the dispersal of farmers to Greece. Apart from coming to the same conclusions as above, their following observation took our attention:

Pinhasi and Pluciennik, in their analysis of craniometric affinities between populations, point to the homogeneity between Çatal höyük and early Neolithic Greek and south-eastern European groups. This homogeneity contrasts with the pronounced heterogeneity found among other Pre-Pottery Neolithic groups in the Near East. On the basis of these results, they hypothesize that a founder population from central Anatolia (represented by specimens from Çatal höyük) spread into south-east and central Europe.

One cannot ignore the similarities between central Anatolia and Crete. Mellaart (1962) and Dietrich (1967) were among the first to compare the material from Çatal höyük with what we know of Cretan religion and practices. Renfrew (1998) regards the presence of bread-wheat (*Triticum aestivum*) in stratum X at Knossos of crucial relevance, since this is absent from other early Neolithic sites but present in early levels at Çatal höyük and Can Hasan III in central Anatolia. Çilingiroğlu and Çakırlar (2013) conclude:

Strong interactions with extra-local communities, such as via obsidian exchange, resulted in the cultural relatedness of these societies with those of the contemporary Aegean and Inner-West Anatolia. The similarity of the settlement patterns, subsistence, architectural techniques and material culture in this entire region is a clear manifestation of the close interactions among early farmer-herders. Land routes, river valleys and maritime routes across Anatolia, Aegean and Eastern Mediterranean were heavily used by prehistoric communities. The long-term circulation of Melian obsidian, the colonisation of the islands of Crete, Gökçeada (Imbros), Cyprus and the simultaneous appearance of impressed pottery around 6100–6000 calBC are clear signs of the continuous and intensive use of maritime routes across the Eastern Mediterranean and the Aegean. Considering the current state of the archaeological record, Aegean Turkey as a geographical unit is encircled by a dual interaction zone comprising the inner Anatolian and west Aegean cultural spheres. As such, Aegean Turkey also played a key role in the mutual exchange of cultural features between inner Anatolia and Greece.

There's so much to say about the archaeological data, that it could monopolize this paper which intended to focus on linguistics. A point has been made and it gives good indications; now it's time to deal with the data we have on language and see if that points us to the same direction.

(Pre-)Greek and its legacy

It is well-known what emerged from Ventris and Chadwick Linear B decipherment, and it is not the case here to repeat once more their results. An early form of (pre-classical) Greek was identified. After this result, some tablets with similar symbols (Linear A) are still waiting for their decipherment. Despite several attempts to crack down the Linear A mystery, no one reached a general consensus.

The island of Crete bears the name of «cradle of Europe», and no doubt, there are good reasons to say so. Marvellous buildings, beautiful frescoes, advanced technology and many more items put the Cretan civilization of the bronze age period, in the podium. A clear demarcation needs to be done about Crete – and Greece in general – and all its written record. During excavations on the island and continental Greece, tablets with animal, plants and tools pictures were found, the so-called Cretan hieroglyphics; some others are, with more stylized images, of syllabic reading, alias Linear A. On top of that, very few abrupt inscriptions in the Greek alphabet (*scriptio continua*) are also found (Praisos, Dreros, etc); and they are known as the Eteocretan inscriptions. All this material, in the best-case scenario, belongs to the early settlers of Crete. It is conceivable that, early settlers and newcomers were in symbiosis for centuries, and then, assimilation occurred. A question may arise: did they disappear without trace over the time? Let see what is happening after very long time of doom and darkness within Greek language.

Greek language is classified – no doubt – as part of the Indo-European family. However, part of its lexicon and morphology shows a degree of individuality, uncommon to it. Some academics analysed the Greek language from phonological ground, and then came to the conclusion of a substrate, simply because there are words that violate those rules. Due to its geographical position, the Aegean sea is very favourable to trade and commerce with the Near Eastern and North African coast line; that means a cross-linguistic interchange begun very early in history. The Near East got populated by Afro-Asiatic (or Semitic-Hamitic) people and it is now clear that some Semitic words – time to time – entered the Greek language (loanwords); in this way, two elements (Indo-European and Afro-Asiatic) are easily identified.

Pre-Greek: Indo-European or non-Indo-European?

Aside those identifiable loanwords, Greek has a fair amount of vocabulary belonging to a language (or languages) spoken in the Helladic area before Greek. Paul Kretschmer (1896) was an excellent pioneer in this field, who spotted a striking similarity between Greek and Anatolian place names. After the decipherment of Hittite and Linear B, Indo-European hypotheses were becoming rampant among linguists; remarkably Georgiev (1966) and Palmer (1958). Unfortunately, such an experiment never achieved its goal. The Pelasgian myth had done so much harm and was no longer taken into consideration. Hester (1964) gave, a well-deserved, final blow to the “Pelasgian” school of thought. At the same period, several attempts with Afro-Asiatic languages (Gordon 1957; 1966) gave no better results.

It was time for a new beginning in the field of pre-Greek studies. Furnée (1972) made an effort to recollect all Greek lexical items and so did R. A. Brown (1985), who wrote an interesting book on the subject. The material was later reassessed by Beekes who released several volumes (2003; 2007; 2014) with an extensive analysis. He convincingly demonstrated that the substrate we're dealing with is not Indo-European. Even Renfrew (1998: 241) acknowledged that³:

The Greek language is unusual among the languages of Europe in the high proportion of its vocabulary which includes words which are not only not Greek words, but apparently not part of an Indo-European vocabulary either.

³ It should be noted that Renfrew considers those pre-Greek words to be loans from Minoan, not an earlier language spoken in the mainland.

But what about the “Luwian stratum” in the Greek place names? The pre-Greek place names might have Luwian equivalents, but the Indo-European origin of those names is questionable. It is more likely that they belong to a non-Indo-European stratum that was common in Greece and Anatolia. For instance, the mountain name Πάρνασσός has a Luwian equivalent Parnassa, which is believed to be derived from the Luwian root parna ‘house’, a word that lacks secure cognates outside Anatolia. Comparable material is found nearby in the Mediterranean region like the Egyptian pr “house” and Hurrian pur(u)li “house”. Yakubovič (2008: 12) has given the most convincing answer to the Luwian substrate hypothesis:

In order to argue that this layer of toponyms has a Luvian or Anatolian origin, one has to demonstrate a preponderance of Luvian or Anatolian morphemes within this layer. The consonantism of the Greek -(ι)νθο suffix appears to be more archaic than that of its Anatolian counterpart -(a)nda, since /th/ could be easily reinterpreted as /t/~d/ in the Anatolian languages that lacked phonological aspiration, whereas the opposite change in Greek would be unmotivated. The presence of the (voiceless) aspirate series in the Pre-Greek substrate is independently confirmed through the devoicing of the etymological voiced aspirates in Greek.

*With regard to the Greek suffix -(α)σσο-, de Hoz (2004: 46-47) reminds us of the existence of its allophone -(η)ττο- in Attica (for examples, see already Kretschmer 1896: 405). The dialectal variation between -σσ- and -ττ- in the inherited stratum of the Greek lexicon normally points to the etymological clusters *-kj- or *-tj-, which later developed into the affricate /ts/ or something similar. Neither the substrate suffix *-ntho- nor the substrate suffix *-tso- would have convincing comparanda in the Indo-Hittite language family.*

Chadwick (1969:89) expressed his Luwian scepticism on the same grounds. Beekes (2014:3) issues a caution regarding the labelling of certain non-Greek words in Greek as Luwian. An example is Greek τολύπη “clew, ball of wool for spinning” and the clearly related Luwian/Hittite taluppa/i “lump, clod”. Both the Greek and Anatolian words lack Indo-European etymology and should be seen as non-Indo-European words that entered the Greek and Luwian/Hittite vocabulary. Furthermore, the number of confirmed Luwian loanwords in Greek is close to zero and the lexical material typically identified as pre-Greek reminds us nothing of an Indo-European language. There is of course a small number of probable Indo-European loanwords in Greek⁴, borrowed most probably from neighbouring languages and not from a substrate or superstrate (Hester 1964: 384). Attempts to identify concrete Indo-European pre-Greek languages appear doomed to failure⁵.

The linguistic landscape of the Aegean, Anatolia and Caucasus through time

The situation in the neighbouring areas, such as Anatolia and the Near East, was no less complicated. Even there, some languages were classified as non-Indo-European and non-Afro-Asiatic; a third phylum of languages must be considered.

Let's start with central Anatolian region and the lands west of it. All languages spoken there, such as Luwian, Hittite, Carian, Lycian, Palaic and Lydian, were all of Indo-European origin, except one: Hattic⁶. Not much is known about this language, it is poorly attested with no secure translations. It is certain that Hattic partially influenced the Hittite language, especially in the religious field. Palaic, another poorly attested Indo-European language on the north, shows traces of Hattic or related substrate. In the eastern areas (including Hatay, Adana, Tarsus and Mersin), two languages were of the third phylum: Hurrian and Urartian. Even those languages are not fully

⁴ Those are a minority, unrelated to what we typically call pre-Greek.

⁵ Those are often based on imprecise sound laws or false etymologies.

⁶ Also, the possibly related Kaskian language.

understood. The picture, as a whole, cannot exclude the island of Cyprus with the Enkomi inscriptions⁷.

To stitch altogether at this point, a lot of obstacles are on our path. Two ways are possible: Was there a single linguistic family spread out over the time, or were there different groups of different origins? To conclude this chapter, some scholars put the origins of the Aegean civilization further north, to the Balkan Mountains; unfortunately, with no results. In the last decade, an Anatolian origin of the Minoan civilization is considered to be more likely. Their common heritage is largely considered and in spite of the lack of linguistic material to work it out, recent excavations in the Anatolia plateau reveals the existence of urban life (~10.000 years old) and a social structure of a highly developed civilization. Based on artefacts and material culture, Anatolia is supposed to be very fertile back in the Neolithic age, further, for some reason, such as overpopulation or natural environmental changes, people moved on to more secure areas. Anatolia is an important place, it stretches from the Iranian mountains to the sea of Marmara, and from the Caucasus mountain to the fertile crescent, between the Black sea and the Mediterranean Sea. It is conceivable that, back in the remote past, a more homogeneous population settled in Anatolia, and then, spread by migrating.

In somehow, it is possible to imagine a survival in the most inaccessible area, such as Caucasus mountain. It is well known that the Caucasus mountain was during millennia, a natural refuge for people. That explains why several linguistic families are found on both sides of the mountain chain. Those 'families' are unrelated each other, furthermore, we need to distinguish between Caucasian languages and languages of the Caucasus. Among indigenous Caucasian languages, 2 or 3 families are recognized:

1. Kartvelian, consisting of only 4 languages: Georgian, Mingrelian and Laz-Svan. This language family is unrelated to any other family worldwide.
2. North-West or Western Caucasian; divided in 2 main branches, Adyghe and Abkhaz-Abaza.
3. Nakh-Daghestanian or North-Eastern, split up in VeiNakh (Chechen-Ingush), Avar-Andi, Tsezi, Lak-Dargwa and Lezghian groups.

Some Caucasologists disagree with this assumption, then, the North-West and North-East should be grouped together, some others would explain their common lexicon as loanwords or areal diffusion.

In contrast to Caucasian languages, the "languages of Caucasus" may refer to the languages spoken by people who settled in the area from time to time, but they are not indigenous; they belong to various language families such as:

1. Indo-European (Russian, Armenian, Ossetian, Pontic Greek).
2. Altaic (Azeri Turk, Nogai).
3. Mongolian (Kalmyk).
4. Afro-Asiatic (Assyrian Neo-Aramaic).

Such a complexity is due to historical reasons. Mountains always offer – despite the difficult environment – a secure protection from new waves of populations. This picture might explain its colourful variety. To resume all contents, from geographical position, Anatolia appears to be in the middle, close to Aegean sea and Caucasus mountain, making it a good point of dispersal.

The Pre-Greek lexicon

There are more than one Greek etymological dictionaries, notably Chantraine, Frisk and the last one is Beekes "Etymological dictionary of Greek". Beekes dictionary is more complete, because

⁷ Petit (1995; 1997) suspects a Hurrian language or similar being spoken in pre-Greek Cyprus.

it includes Hesychios (and other authors) glosses. Part of the dictionary is devoted to Pre- Greek words but only in synchronic manner. In Beekes' pages, comparison is ignored on purpose, because as he says:

[The comparison] with Basque or Caucasian languages has not been considered as this is not my competence; I think it possible that there are such connections, but that must be left to others.

Even L. R. Palmer (1963) in his analyses of the Mycenaean texts wrote:

The existence in the syllabary of a system of opposition plain: palatalized: labialized to the neglect of the opposition voiceless: voiced: aspirate, which are essential to Greek, strongly suggests that the ancestral form of the syllabary was created for a non-Indo-European language. Such phonemic systems are found inter alia among Caucasian languages.

After that, no major reference to Caucasian languages comparison has been made. Some Pre-Greek words are actually of Afro-Asiatic origin (loans), and their use it goes back to 'Minoan time'. According to Beekes, Pre-Greek words shows variation in spelling, then, two options are possible:

1. Time and/or geographical reason.
2. A writing system unaware of the real pronunciation.

The second option is more credible. The creation of writing system is strictly connected with a specific language, any other language has to 'adapt' graphic symbols to the nearest sound in the system. A typical case is the Arabic graphic system for Persian, where some changes have been applied. Unfortunately, the Greek alphabet not only dropped three symbols: Ϻ (sampi), Ϙ (qoppa) ϙ (digamma); further, any other symbol was never added to. In this way, correct reading becomes difficult. Needless to say, Beekes' synchronic analyses are available online; and it is not the case here to copy and paste few pages on the subject.

The Pre-Greek affiliations

Pre-Greek language is linked – in somehow – with more Eastern languages, some of them still spoken in Northern Caucasus. This kind of research initiated by Tardivo is ex-novo, there are no previous major studies, except a shallow attempt to compare Georgian with Greek, a complete failure in the matter. All North Caucasian languages lack of written sources, at least, from the ancient times. Only Caucasian Albanian has left some words from the medieval era, but there are no attestations earlier than 18th century CE. It might sound very unusual to see a connection between the Aegean sea and Caucasus mountain, but many Pre-Greek words have an exact counterpart in North Caucasian languages; even their phonological features are working in the same way. Furthermore, it is possible to trace the same word in Hattic and/or Hurro-Urartian languages. Previous attempts to connect Hattic with Western Caucasian languages were deeply criticized outside Russia and the same happened for the comparison between Hurro-Urartian and Nakh-Daghestanian languages. At the end, a deal with Greek substrata never took place. There are two options in the field, in the worst scenario, those words could be interpreted as loanwords; a survival over time. Some Pre-Greek, Hurro-Urartian and/or Hattic words are still in use within Greek⁸. It is well known that, substrata elements cover up different parts of the lexicon, from trees to place names, from theonyms to everyday life.

This search is working on both ways, there are common roots – or they are supposed to be – among all those languages. A relevant point is the written system for Hattic, Hurrian and Urartian; mainly cuneiform, and in some cases, the Phoenician alphabet that was in use for Hurrian. Some words show very long history, like δεύω 'make wet', which is seen also in Hattic with *tepuṇe*, *tewufuneṣ* (*tewuunif*) 'Opfer [?], Trankopfer / drinking offering', and then in Hurrian *teb-/ tew-* 'to

⁸ γέφυρα, ξίφος, τιτάν, πελώριος to name a few.

pour, to cast'. It is possible that a common root in **tew(u)-*, with basic concept of 'to pour liquid, make wet'. Furthermore, the same word is found in Akhwakh with =*et'w-* 'to drop, to drip, to flow', in Bezhta with =*ot'* 'to spill, to flow', and in Tindi with *t'ot'* 'to drip'. Almost all Daghestanian languages (except three) have class-marker, that is why =... appear in adjectives, verbs, etc. Nevertheless, it is clear that there is no opposition between voiced - voiceless, this aspect is manifest in Pre-Greek too, like in *κόρυθος ~ κόρυδος*, as well as with Nakh-Daghestanian languages:

Avar: *d, n, t'* Lezgian: *d, t* Archi: *d, n* Tabasaran: *d* Chechen: *d, Ø*
Andi, Tsez and Dargwa: *n* Lak: *n, t'*

A clear sample is 'winter':

Lezghian: *q'urd*
Agul and Tabasaran: *q'urd*
Archi: *q'ót:aq?*

All authors (Palmer, Brown, Beekes) agree on this aspect for Pre-Greek, then, if extended to the group as a whole, the result is unchanged.

Another very common case is α -. According to Beekes:

The definition is 'initial vowel that is present or absent in (nearly) identical forms'; we cannot say whether the vowel disappeared or was added under certain circumstances; still another possibility is that it represents a kind of laryngeal sound, that was sometimes heard as a vowel and sometimes not. The vowel is in most cases an α '.

It is the case of *ἀκορνοί ~ κόρνοψ* 'locust' within Pre-Greek. Once again, the same Rule is α - observed in diachronic system. A sample of that is: *ἄχυρον* 'chaff', Hurrian *ḫarw-/ ḫarb-* 'chaff' *ἀπέλλαι* 'assembly', Urartian *ṷeli* 'people, crowd' *ἀγάλλω* 'to exult in', Hurrian *ḫela* 'glory, glorify'

It is quite evident how apocope affected both, synchrony and diachrony, therefore it should not be ignored. Even with the North Caucasian languages comparison, this rule is unchanged. The theonym *ἀκακαλῖς*, according to R. A. Brown: *ἀκακαλῖς* of the oriental tamarisk (Dsk. 1, 89)'. *ἀκακαλλῖς* 'narcissus (Eumakh. ap. Ath. 15, 681e)'. *ἀκακαλῖς* 'juniper (Ps. - Dsk. 1, 75)'.
κακαλῖς = 'νάρκισσος (H., κ 292)'.
This word has no known etymology. The sequence -κ-_-κ- is a clear pointer of its non-Indo-European origin, as is also the fluctuation between -λῖς, -λλῖς and the prothesis and/or apharesis of initial α -. In mythology Akakallis is one of Pasiphæ's daughters, thus indicating the strong links between this word and Crete. In the Daghestanian area, almost all languages have a similar word for it, especially Tsez and Hinuq *gagali* 'flower'.

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Two facts are relevant:

1. Voiced ~ voiceless opposition is ignored in any form, both in *δεύω* and in *ἀκακαλῖς*.
2. In the case of *ἀκακαλῖς*, *ἄχυρον*, *ἀπέλλαι* and *ἀγάλλω*, vocalic apocope is applied in full.

As seen, the rules are unchanged and there is strong suspicion of a common heritage, a proto-language, or, in the worst scenario, close areal contacts. Despite that, some problems may arise when rules are becoming unbearable, like in *ἄχνη* 'straw'. Words with syllabic structure VC¹C²V, once apocope is applied to, a problem may arise. In this case, another option must be taken into consideration: Metathesis. In Linguistics, metathesis is seen as a mispronunciation or a misunderstanding of the correct spelling. Recent research, conducted by E. Hume (1998), Blevins & Garrett (1998; 2004), and some others on different languages, show how metathesis works; and it is not due to 'casual speech', it is a reassessment of syllabic structure instead. It is the case of *ἄχνη* 'straw', which has a perfect counterpart with Daghestanian languages, such as:

Avar: *náku* Andi: *niku* Akhwakh: *níxo* Khinalug: *nuk* Udi: *neq* 'chaff',
Bezhta: *нахо, наху* 'straw'

There are no rules violated here. Apocope of *ǎ-* is regarded in full, and the syllabic structure working in metathesis.

Pre-Greek: VC¹C²V

Daghestanian languages: C²VC¹V

The second system (C²VC¹V) is more archaic, and from this point of view, Pre-Greek might have elaborate a metathesis form. Words must be distinguished and classified by set, such phonological feature is very relevant, in order to allocate and correctly classify every single word. In Beekes' Pre-Greek description, vowels aspect shows a poor system, it is based only on three main vowels: a, i, u. This short-listed numbers are typical of North Caucasian languages.

However, one aspect is deeply neglected for this kind of languages: Consonants co-articulation. Even with a limited number of vowels, co-articulation increase their combination. As result, it also, is possible to trace it back their original syllabic set. The most relevant aspect are theonyms. It is true that, Greeks absorbed quite a few deities of Pre-Greek origin; some others were replaced or abandoned. The case of Akakallis is not isolated, another goddess bear a Pre-Greek name, 'Ρέα ('Ρῆ, 'Ρέη). She was Chrono's sister and spouse, and this is a strong indication of her name; because in some Daghestanian languages, season names are:

Andi: *rejba* Akhwakh: *riʔibo* Chamalal: *ré:bu*
Tindi: *re:b* 'springtime' Avar: *riʔ* 'summer'

Working with a lot of material, it is symptomatic that languages offered reciprocal solution; like in the Urartian pantheon, whose main goddess, *Waruba(i)ne*, she had an unexplained theonym. Her status of Haldi's wife may be part of the theonym. Two Daghestanian languages are very good candidate, Tsez and Hinukh *baru* 'wife'; much more the same as Pre-Greek ὄαρ (<* φοάρ) 'wife'. Based on this data, the Urartian theonym should be re-interpreted as 'the consort'.

Considering Daghestanian mythology, like *Kazh*, the good spirit in Avar mythology, the guardian of the hearth, family and well-being; it has the appearance of a white snake. People believe that it has the property to thrive plants. It is called *Kini* in Lak [language], *Kine* in Tsezi and Kune in Dargwa, but *Tufedriʔba* in Rutul, as patron of the hearth, it is invisible and celebrated on friday. According to legends, Laks has *Kini*, a snake with golden horns; a man is destined to happiness. According to Dargwa, *Kine* is represented by a tall woman with large breasts and long red hair; if she leaves the house, trouble occurs; then, it is difficult to keep it apart from Pre-Greek κινώπετον 'venomous beast (especially serpent)'.
'

To resume those three (or more) theonyms, it put in evidence how words from common roots are mutually intelligible, or they show traceable lexemes, whatever the direction it was.

Theoretically, languages of the same family must share different aspects, that is include grammar. It is very common among languages that an original lexeme could be preserved as grammatical element; like Pre-Greek μῦρός 'countless, immense, infinite' (> μυριάς '10.000'), Archi -mur, -wur PLUR.

It is not always the case, in spite of 100 words of Swadesh's list still are considered a basic in linguistics, any language can abandon or change any original word and replace it with a superstrata element. Access and settlement in a mountainous environment is difficult, but it does not mean – in any form – that it's impossible. Anatolia has no less than six strata of population:

1. Pre-Indo-European
2. Indo-European

3. Turkic
4. Semitic
5. Kartvelian
6. North Caucasian

Historically, even the Caucasian area was affected from invasions. For this reason, part of the original North Caucasian lexicon was lost. To restore the whole original family, is not an easy task. In this way, the Pre-Greek language also shows agreement with the eastern side, that is to say the supposed Hattic and Western Caucasian languages. It is the case of ἀχάινη ‘loaf’, much more the same as Hattic ḫana ‘meal, food’; then Chechen-Ingush ken ‘oats’, both them related to Hurrian gangaduḫḫi (<*gan-gad-uḫḫi) ‘a kind of food’. It is easy to presume that ‘oats’ was the main element, and from there, ‘bread’ or any other ‘meal’ was made out. The same process is seen with Western Caucasian languages, like ἀσπάλαθος ‘name of several types of thorn bush’, and παλίουρος ‘plant name, Christ’s thorn, Paliurus australis’; even synchronic analyses led to ἀσ- > Ø-, then the common root probably was *πάλV-; such form is found in:

Abaza: *pale*

Adyghe: *bala* ‘shrub’

The rules are unchanged, both synchronically and diachronically. Despite that, there is not a secure explanation for ἀ(C¹)- > Ø-. However, two interpretations are possible:

1. An apocope related to time (ancient vs. innovative) or space (vernacular).
2. Grammatical purpose. In this case it works like a- [Determinative/article] in Abkhaz.

Last, but not least, the most interesting and conservative element that enduring from antiquity: geographical names. Those names have had the long-lasting words record. A clear sample is Αχέρων or Αχερούσιος, a well-known river name, because one of the five rivers of the Greek mythology. Hence, when its rule is applied to, ἀ- > *Ø- (like in ἀπέλλα, ἀγάλλω, etc.), its counterpart is found in Tsez with *keru*, *keru* ‘brook, ravine’.

Similar ideas

As already mentioned, the idea to look eastwards for the origins of Pre-Greek is not new. Aside from the Luwian and Semitic hypothesis only few have named alternative affinities of Pre-Greek. Specifically, Schrijver (2007, 2011) has mentioned the possible relation of the Minoan language to Hattic. Kroonen (2012) seems to align with this hypothesis, but focuses mainly on some pre- Indo-European agricultural terms in Germanic languages and Greek. He makes a very good point on the non-Indo-European loan *arwīt- ‘pea’ in Proto-Germanic, which he compares with the pre- Greek ἐρέβινθος and ὄροβος. To this we will cautiously⁹ add the Cappadocian Greek ἀβαρα, which may come from a central Anatolian source (Hattic?). Davis (2013: 39) notes that the type of verbal morphology found in the Minoan libation formula is especially well attested in indigenous North American languages and Hattic. McCall and Fleming (2012: 237) argues that the native population of Crete shows enough biological affinities to Turkey to bolster a theory of Hattic-like speaking Minoans. However, their speculation, as they say, was based on strategic reasoning rather than on inference from specific language evidence. Petit (1995; 1997) believes that the pre-Greek language of Cyprus has Hurrian affinities, a view that is compatible with the current hypothesis and makes sense in terms of geography, but that is in need of more material. We’re not aware of any other mention of Hurrian in relation to pre-Greek in the field of linguistics¹⁰. For N. Caucasian, there is a list of lemmata compared to Pre-Greek by Nikolaev (1985). We also cited Beekes (2014) and

⁹ The attestation of the Cappadocian word is recent (19th century) and does not allow safe conclusions about its origins. There are no known cognates in other languages of the near east.

¹⁰ Comparisons of Greek literature and it’s parallels in Hurrian mythology exist; see e.g. Güterbock (1948) and Campbell (2013).

Palmer (1963) who seem to have thought about it. Stephens (1978: 281) made a comment on the Minoan stops:

Furthermore, injective glottalized stops tend to be phonetically voiced and are always lax. Thus, the phonetic nature of such sounds would motivate their association with the lenis Greek stops, and this, of course, agrees with the use of special signs for /d/ and /b/ or /ph/. A labialized counterpart of a glottalized dental stop, to account for the d plus w signs, presents no typological difficulties, as labialization and glottalization frequently co-exist. Such phonemes occur in a number of North West Caucasian languages, such as Abkhaz, Ubykh, and Adyghe, and are also found in other areas of the world. In the Bzyb dialect of Abkhaz one even finds that the features of labialization and pharyngealization co-occur on uvulars.

Most of the above statements on North Caucasian do not qualify as an ideological alignment, but rather as observations.

Challenges

There's no reason to pretend that there are no challenges in this study. For North Caucasian languages, there is no written record prior to Russian occupation, and the Proto-North-Caucasian reconstruction is very poor. Furthermore, their relation to known ancient languages is disputed. Material for languages such as Hattic and Urartian is limited to few hundred words, leaving us with a very poor understanding of them. None of the ancient languages have anything close to a complete Swadesh list. The most complete is Hurrian, while Pre-Greek with its relatively large inventory, has only few words that qualify into a 200-item Swadesh. There is no Rosetta stone from Mycenaean Greece combining Linear A and B or any other known language. There are bilingual inscriptions (Eteocypriot - Greek) from Cyprus, but our understanding of the native Cypriot language is so poor that it is limited to a handful of words¹¹ whose meanings are not safely established. We're dealing with many unknown factors and a considerable time depth. Some similarities might be coincidental and conventional reconstruction methods are not easily applied under these conditions.

Exclusion

We have not explored connections west of Greece and east of Turkey. We are aware that there are studies dealing with possible connections, such as Kassian (2014) who compares Hurro-Urartian with Sumerian. There are other Basque, Sardinian and Etruscan Mediterranean hypothesis, but we prefer to focus on languages that have more than lexical comparison to offer.

Conclusion

Both archaeology and genetics point to an agrarian migration to Greece, originating from central/western Anatolia and the fertile crescent. Several millennia later, we find Hattic spoken in central Anatolia, while Hurrian was spoken within a large part of the fertile crescent¹². Caucasus is nearby and is therefore a possible refuge of people akin to these early farming societies. Linguistic data seem to incline towards the conclusions made by geneticists and archaeologists. The aforementioned migrational model can explain why Pre-Greek words have counterparts in Hattic, Hurro-Urartian and North Caucasian languages. After the Indo-European and Afro-Asiatic linguistic families' reconstructions, a third big family might emerge from this research. The goal is to restore common roots between those languages. Thus, any finding must be within a framework of rules, the conventional Neogrammarian method that is universally accepted. Rules appear to be static and precise, any Pre-Greek word could have a counterpart with Hattic and/or Hurro-Urartian and/or

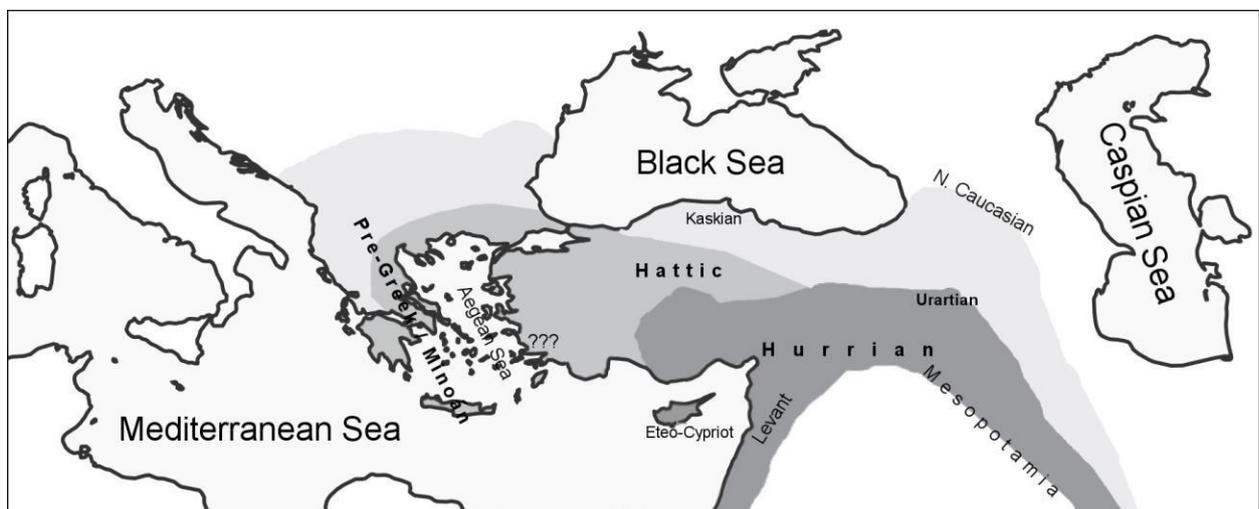
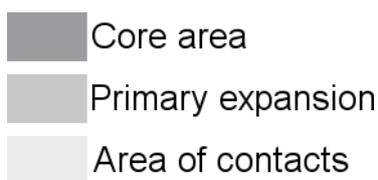
¹¹ Those are: ke-ra-ke-se-tu-lo-se "well born", -o-ko-o "patronymic suffix", pa-po-no "ethnonym/Paphian", e-ro-ko-ro "king", ma-to-ri "city", o-i-te "and, or", a-na "this".

¹² Frahm, E.E., 2010 has a very good summary of the different hypothesis on the Hurrian homeland.

North Caucasian languages; in all respect, $\acute{\alpha}$ - > * \emptyset - is seen in all occasions. There are more rules and lexical data, but they are not mentioned in this paper. This is a proposal for further investigation in Languages and Linguistics, from Bronze Age to present in the region between Asia and Europe.



Map showing the initial expansion of farming and some important sites related to this research.



The same map with languages related to this research and their geographical position.

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Прометей или Амирани. Обновленное исследование о до-греческом субстрате и его происхождении

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Джампаоло Тардиво,
Италия

Филиппос Китселис,
Италия

В конце 80-х и начале 90-х годов Колин Ренфрю представил свою анатолийскую гипотезу. По его словам, аграрная революция началась в Анатолии, а оттуда распространилась и на Европу. Он предполагал, что эти земледельцы были носителями протоиндоевропейского языка, но его теория имела слабую поддержку со стороны индоевропейских лингвистов. Затем возникают некоторые вопросы: Какой язык (языки) был введен на Эгейских островах и материковой Греции этими ранними фермерами? Возможно ли выяснить принадлежность минойского языка? В этой статье рассматривается аграрная гипотеза, не связанная с индоевропейскими и семитскими языковыми семьями, а представляющая новую языковую семью, которая охватывает Эгей, Анатолию, Кавказ и Ближний Восток

Ключевые слова: до-греческий, Минойский, субстратный, анатолийский, кавказский, ближневосточный, хаттский, хурритский, северокавказский, аграрная гипотеза субстрата.
