Abstract. Linguistic correspondences between the Kartvelian languages and Pre-Greek are demonstrated at the phonological, morphological and lexical levels, which have a systematic character. Three types of lexical correspondences are discussed: A. Pre-Greek formatives made from Kartvelian stems and affixes show close semantic affinity with their Kartvelian counterparts; B. Kartvelian stems and affixes make up words that are formally identical with the Pre-Greek formatives, but the semantic correspondence is somewhat remote; and C. Kartvelian stems partly preserved their meaning in Pre-Greek but are subject to semantic transformation, generating terms that have no analogy in Kartvelian.

The specialists of ancient studies have been taking particular interest in linguistic and cultural origins of the Pre-Greek population for many years now. Paul Kretschmer’s well-known book1 highlighting linguistics features that might have been typical of the Pre-Greek linguistic substrate, gave rise to disputes over ancient languages of the Aegean that continue till present. The discovery of more dead languages and the deciphering of ancient scripts have encouraged diverse hypotheses: Caucasian, Indo-European with its so-called Pelasgian or Hittite-Luvian versions, Semitic, etc. From the 1950s, first Paul Kretschmer returned to his non-Indo-

1 Kretschmer 1896.
European, Caucasian hypothesis, while the works of Fritz Schachermeyr and his quite numerous followers promoted the opinion that the dominant language of the Aegean in the first half of the 2nd millennium BC was a non-Indo-European and non-Semitic language preserved in yet undeciphered linear A texts and several hundreds of substrate lexical formatives and word-forming elements attested in Greek. Though many researchers attempted to identify features that must have been typical of Pre-Greek, it was not possible until the 1970s to establish criteria sufficient to define Pre-Greek as a language system. In his dissertation, published as a book in 1972, Edzard John Furnée proposed the first systemic account of typically Pre-Greek vowel and consonant properties that sets this language apart from Indo-European or Semitic languages. Based on this, he discussed over 4400 lexical formatives including up to 1000 etymons and assigned them to the Pre-Greek linguistic world. Despite a number of critical reviews, we can see that Furnée’s publication has become a main reference book for researchers of Pre-Greek. After this publication Furnée continued his work in the direction of Pre-Greek correspondences with other languages, which led him to south Caucasian, that is, Kartvelian languages. In 1979, he published his book in 1982 another and in 1986 very important monography. Having already acquired a deep insight into Kartvelian linguistics, in fact, Furnée came to the same conclusion as I in my research of the same period, published as a book in 1985. Specifically, the Pre-Greek linguistic world is related to the Caucasian not only through the so-called earliest Mediterranean substrate, which must have developed in the entire Mediterranean area as a result of migrations from Neolithic south-eastern Anatolia to the west, north and east, but rather to the migration of Kartvelian tribes from the second half of the 3rd millennium BC in two directions: Anatolia and the northern Black Sea area. The first stream exported typically Kartvelian, or in Furnée’s terms, Pelasgian elements to the Aegean, while the second disseminated what Furnée calls Paleo-Kartvelian elements in Western Europe including the Aegean via the areas settled by late-Indo-European and especially

2 Furnée 1972.
3 Furnée 1979.
4 Furnée 1982.
5 Furnée 1986.
Germanic tribes. In his book published in 1986, Furnée attests that his position fully complies with the evidence provided in my book. Regrettably, his death prevented his further investigation of Pre-Greek-Kartvelian relations. In my four-volume work, published in 2007-2008, I tried to consolidate Furnée’s and my findings and by analyzing linear A texts, the Lemnos stele inscription and the Pelasgian linguistic evidence to discuss all presently available material from linguistic as well as historical and archeological point of view. Another remarkable contribution to Pre-Greek studies was the two-volume *Etymological Dictionary of Greek* by a well-known Indo-Europeanist Robert Beekes, published in 2010. Mainly following the principles set forth in Furnée’s 1972 publication, Beekes highlights the ratio of Pre-Greek in the lexical stock of Greek. According to his *Etymological Dictionary*, which, in my opinion, is the best of its kind, 30-35% of the formatives included in the dictionary are of Pre-Greek origin. The dictionary is introduced by Beekes’ extensive research: *Pre-Greek Loanwords in Greek*, discussing typical features of Pre-Greek at the phonological and morphological levels. Beekes notes: “Furnée’s book met with fierce criticism and was largely neglected. In my view, this was a major mistake in Greek scholarship.” Beekes offers several principal theses:

A. According to formatives preserved in Greek, Pre-Greek is a non-Indo-European language.

B. Pre-Greek is either one language or a unity of several closely related dialects.

C. Obviously under the influence of Furnée’s works, the author hypothesizes on the relationship of Pre-Greek with the Basque and Caucasian languages, though adds that these parallels are beyond his competence and therefore are not dealt with in his *Etymological Dictionary of Greek*. He calls Hellenologists whose research interests include Basque and Caucasian languages to continue studies in this direction.

Naturally, when discussing Caucasian languages, we should bear in mind that they divide into three language groups: Abkhazian-Adygean, Nakh-Dagestani and Kartvelian. If in the early 20th century they were seen as kindred languages of the same, Iberian-Caucasian family,

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7 Gordeziani 2007-2008.
8 Beekes 2010, XIV; see also Beekes 2014.
following the 1950s, more and more researchers identified them as three separate families. The reason was that no systemic sound correspondence had been revealed by then. The languages were considered so different from one another that the Kartvelian group was assigned to the earlier Nostratic, while others to Dene-Caucasian macro family. Moreover, if parallels were found between any of the dead tongues and a group of Caucasian languages, some researchers would rule out the latter’s genetic affinity with other Caucasian language groups. A good example is Etruscan. Following V. Thomsen, some researchers have been paying attention to the evidence of Nakho-Dagestani elements in Etruscan. This compelled a supporter of this hypothesis, Robertson, to conclude that Etruscan could not be at the same time related to Kartvelian languages, as argued by a number of scholars. Recently, new insights have been proposed into the Caucasian studies that have introduced some remarkable changes. A fundamental work\textsuperscript{9} by our untimely departed colleague, Mikheil Kurdiani, was published in 2007, which resuscitates the Basque-Kartvelian and Iberian-Caucasian theories exactly based on the systemic sound correspondence principle. The viability of theories on Kartvelian and East-Caucasian, Nakho-Dagestani genetic parallels was propounded by Merab Chukhua\textsuperscript{10} likewise on the basis of systemic sound correspondence.

Evidently, criteria for establishing genetic relationships among languages will be substantially revised in the 21\textsuperscript{st} century. Nowadays, the hypothesis of the single proto language or two original languages is becoming more and more popular. After the humankind started to speak around 100000-150000 years ago, the formation of presently known language families was preceded by the evolution of large macro systems. Some researchers believe that the application of the systemic sound correspondence principle may enable us to reconstruct the contours of not only the common proto language for these macro systems but even of the first natural human language. To this extent, the following question may crop up: today, when it is not clear where the initial stage of language family formation ends, what criteria shall be applied to trace parallels between a scantily attested dead language of the Mediterranean and

\textsuperscript{9} Kurdiani 2007.
\textsuperscript{10} Chukhua 2008.
languages well known to us? I believe that in this case a comparative analysis may lead to a more or less convincing conclusions on genetic relations only if the surviving evidence of the dead language in question, however scanty, allows us to describe it as a system. In case of Pre-Greek, the above-mentioned works attest to such a possibility at the phonological, morphological and lexical levels. It can be argued that at each level Pre-Greek shows complete (systemic) correspondence with the Kartvelian linguistic world. I will try to give a concise overview of this correspondence:

A. The so-called characteristic sounds and sound groups found in the stem. Beekes distinguishes between 25 such groups.\(^{11}\) They show obvious correspondence with their Kartvelian counterpart.\(^{12}\)

B. One of the most important criteria for Pre-Greek is the types of sound alternation or variation in vowels (a/o, a/e, e/i, o/u, i/u, o/i), as well as consonants (media/tenuis/aspirata, b/p/ph/m, b,p,(ph)/v, m/v, assibilation of dentals, development of n, m, s, l, r, etc.).\(^{13}\)

In this regard too there is a complete systemic correspondence with Kartvelian, though we should not rule out the earlier Mediterranean provenance of these sound alternation patterns in both Pre-Greek and Kartvelian.\(^{14}\) At the morphological level, Pre-Greek is characterized by:

1. Rich Suffixation. Beekes distinguished between 135 suffixal elements, the absolute majority of which contain one consonant, which in case of stops, is represented by a prenasalized variant. The consonant is preceded by a, i or y vowels and much rarely by e or o. All suffixes revealed by Beekes show full correspondence with the likewise rich Kartvelian suffixal system in terms of sound composition as well as function, where Pre-Greek suffixal functions can be identified.\(^{15}\)

2. Prefixes. The evidence of prefixes was pointed out already by P. Kretschmer in one of his last works.\(^{16}\) If in case of Pre-Greek suffixes some parallels can be drawn not only with Kartvelian but also with other

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\(^{11}\) Beekes 2010, XX-XXII.


\(^{13}\) Furnée 1972; Beekes 2010, XXIII-XXXII.


\(^{16}\) Kretschmer 1953.
languages, prefixes present a clearer picture. It can be argued that sa-, se-, si, la-, le-, na-, ne-, ni- revealed by Furnée and me and evidently traceable in Linear A texts as well, find parallels only with Kartvelian languages. I will cite a few examples below, when discussing lexical correspondences. We should set apart the so-called prothetic vowels, which can also be called deictic prefixes: a-, i-, u-, and rarely e, o. I argue that since these vowels must have been characteristic of a number of the so-called substrate languages of Anatolia and Mesopotamia, their evidence in Kartvelian and Pre-Greek can be considered as the heritage of the earliest linguistic relations in the Neolithic and Chalcolithic periods.

Naturally, lexical correspondences invite special interest. They almost reach many hundreds and include verbal as well as nominal stems, mythical and place names. What deserves particular attention is that the so-called Kartvelian word-forming or lexical elements attested in Pre-Greek appear as organic parts of the natural flow of language rather than borrowings. This increases the likelihood that Pre-Greek could have been a Kartvelized Aegean language. In support of this statement, I will discuss several types of lexical correspondences:

A. Pre-Greek formatives made up from hypothetical Kartvelian stems and affixes show close semantic affinity with their Kartvelian counterparts: φάρος/φάρος ‘cloth, linen, garment, cloak, costume’. In my opinion, the stem attested in this formative makes up σίφαρος ‘topsail, topgallant sail’, ‘curtain in theatre’ with the Pre-Greek σι- prefix and ναφρόν ‘linen thread’ with the Pre-Greek να- prefix. It directly corresponds to the common Kartvelian *par- ‘cover, hide’ and multiple derivatives including those containing si-/sa- and na- prefixes: sa-par-i, na-par-i.19

χημαρός ‘hole, cleft, slit’. This Pre-Greek formative consists of the χηρ-<χαρ- stem and the Pre-Greek word building suffix -αμ. It directly corresponds to semantically similar Georgian xram-i (‘canyon, deep rocky ravine’) deriving from the *xar-/*xr Georgian-Zan stem and the Kartvelian word building suffix -am.20

18 761 lexical formatives and about 100 place names are presented in Gordeziani 2007-2008, II, 81-355.
To the same type would belong parallels such as θιβρός ‘warm, hot’, ‘tender, affectionate’ and its Kartvelian semantic counterpart tbil-i/tpl-i, also λιβρός ‘wet’, ‘grim’, ‘dripping’ and Kartvelian lbil-i deriving from *lab-/lb- and meaning ‘soaking’, ‘wetting’ and ‘soft’.21

B. Hypothetical Kartvelian stems and affixes make up words that are formally identical with Pre-Greek formatives, but the semantic correspondence is somewhat remote.

ἵμερος ‘attraction, desire, lust’. Beekes questions its Indo-European origin. One of the hypothetical versions of its archetype is *sismer(o). Furnée reconstructs the Pre-Greek word to the Georgian-Zan formative deriving from the *zm- common Kartvelian stem (‘dream’, ‘hallucination’), the si- prefix and -ar suffix.22

νάκολον. This gloss attested by Hesychius is defined as τό ἀκάθαρτον ‘unclean, untidy, impure’. In support of my idea regarding the evidence of the n+voc prefix in Pre-Greek, Furnée decomposes this formative into the να- prefix and κολ- stem and associates it with the formative nakel deriving from the common Kartvelian *kol- stem and the na- prefix.23

νηδύς ‘stomach, belly, paunch’, ‘mother’s stomach’. It must be related to Etruscan netsvis ‘hapurspex’ (‘haruspicy’). Hence, the stem netsv- must have the meaning of ‘animal entrails’. I find obvious its correspondence with nezv-i ‘sow/ewe/nanny goat’ deriving from the common Kartvelian stem *zu- ‘sow/ewe/nanny goat’, ‘giving birth’, and the prefix ne-.24

C. The hypothetical Kartvelian stem partly preserves its meaning in Pre-Greek but is subject to semantic transformation, generating terms that have no analogy in Kartvelian. This type of correspondence best of all reveals the intensive functioning of Kartvelian elements in Pre-Greek. I will consider them more closely.

δαιδάλλω ‘work cunningly’, ‘embellish’. This stem can be found in the name of the mythical craftsman, inventor and engineer Δαίδαλος. According to Beekes,25 the name derives from a reduplicated Pre-Greek stem dal-’dal-. It appears as da-da-re-jo-de in Mycenaean and has verbal

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23 Furnée 1986, 221.
and nominal variants in the Homeric epics, which suggests its early origin. Furnée and I relate this stem to the common Kartvelian *tal–/tl– stems, whose derivatives not only mean ‘cutting, carving’, but also have the sense of ‘fine, elegant’ (tlili, natali).26

ἀσάμινθος ‘bathing tub’. This word can be found in Mycenaean texts (a-sa-mi-to) as well as in the Homeric epics and belongs to the so-called paradigmatic, typical Pre-Greek terms. Furnée, as well as I, decomposes this formative into the α- prefix or prothetic vowel, the σαμ- stem, evidently meaning ‘washing clean, purification’ and the -ινθος suffix. The stem must correspond to the Karvelian *çim- stem, which, according to Chukhua,27 is related to the common Nakh *çam-. This Caucasian stem has the sense of ‘clean’. After adding on the prenasalized variant of the Kartvelian verbal suffix -d/-id, it results in the çmend-/çmind- stem and when preceded by the prefix sa- it means saçmendi ‘cleaner’. Evidently, ἀσάμινθος derives from the Pre-Greek stem meaning ‘clean’ through a similar word-formation process.28

λαβύρινθος. This well-known term too belongs to paradigmatic Pre-Greek formatives. In Mycenaean it appears as da-pu2-ri-to-jo, which complies with the l/d alternation characteristic of old Mediterranean languages. It is frequently associated with λάβρυς ‘double-edged axe’ and the name of this structure is interpreted as ‘the house/palace of the double axe’. However, this interpretation was rejected by Chantraine29 and Beekes,30 and most importantly, is not supported by the ancient tradition. First Greeks and then Romans used this term, organically related to Minoan Crete, to refer to a structure with sophisticated, dim and enigmatic architecture not only in Greece, but also in the entire Mediterranean including Egypt and Italy. The relationship of λαβύρινθος with formatives reflecting ruling/royal power or the double-axe symbol is not attested in any ancient source. Besides, as the term was generalized, it was the sense of hiddenness/coveredness and complexity that came to the fore. In my opinion, like the term ἀσάμινθος, it can be decomposed into the βυρ- stem meaning ‘hidden, covered’, λα- prefix and -ινθος suffix. The

27 Chukhua 2008.
29 Chantraine 1968.
30 Beekes 2010.
stem βυρ–/μυρ- with a similar sound structure and meaning is attested in several Pre-Greek formatives: βύροσα ‘skin’, from which derives βυρσόω ‘cover with leather’, also ἀμυρτόν, which According to Hesych., was used by the Cretans to refer to a mantle. This interpretation may lead us to reveal an important Kartvelian correspondence. The common Kartvelian *bur– stem has the following meaning: ‘cover, put a lid on, darken, coveredness, dimness, thickness’. With the help of the Svan prefix la- and its systemic Georgian equivalent sa- and Kartvelian suffixes –end/–ind, –int, –ent consisting of e/i vowel and a prenasalized dental, the stem could generate a formative meaning ‘a covered, hidden place’.31

θάλασσα. Following Albin Lesky’s well-known work,32 θάλασσα is universally believed to mean ‘salt water’. It corresponds to the Macedonian gloss δαλάγχα. Evidently, it is related to a Pre-Greek dialectic form. Consequently, θαλ–/δαλ- must mean saltiness, which acquires the meaning of ‘salty water’ >sea with the help of the suffix – (α) σσα/ – (α)γχα. I associate it with the Kartvelian stem *dala, from which derive the formatives delamo, do, ‘curds, buttermilk, rennet’ and which shows a systemic correspondence with the common Nakh stem *dur– <*dwor – ‘salty’, ‘saltiness’.33

᾽Ωκεανός. In the Homeric epics, it means the personified world stream, the river surrounding the world. In Homer, there are several features that distinguish sea from ocean: sea is a water space, more or less isolated and surrounded by lands. Sea-shores are mostly inhabited by real peoples. Contrary to this, Ocean is the world river lying beyond the sea and flowing around the earth. After having crossed it, we reach mythical peoples and lands. Thus, Ocean always returns back, into itself. The Homeric epithet ἀψόροος proves important for understanding the meaning of the stem attested in this formative. The Homeric epithet is normally translated as ‘in sich zurückfließend’, ‘returning into its elf’. Hence, we can assume that the meaning of Ocean is to some extent associated with constant circulation, flowing back into oneself. Evidently, we can also relate it to the gloss ὠγένιος ‘old, eternal’. Assuming these two stems are kindred, Ocean may imply both senses: retuning back and

32 Lesky 1947, 258ff.
oldness/eternity. Beekes reconstructs its hypothetical Pre-Greek archetype as *ukan.\(^{34}\) In my opinion, Ὄκεανός corresponds to the uḵun–uḵuan–stem, which is frequently used in old Georgian and is related to the early stage of the Georgian language. From this stem derive uḵunkceva ‘taking aback’, uḵuana, ukan ‘back’ on the one hand and terms associated with eternity – uḵuni, uḵuneti, uḵuniti uḵunisamde – eternal, for ever and ever.\(^{35}\)

As we can see, the modern stage of the Pre-Greek-Caucasian studies invites Georgian Hellinologists into the ocean of challenging issues. I do hope my colleagues and students will successfully accept and cope with this challenge.

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\(^{34}\) Beekes 2010, 1677.

\(^{35}\) Cf. Gordeziani 2009, 162-63.

