

ОБЩЕЕ И СРАВНИТЕЛЬНО-ИСТОРИЧЕСКОЕ ЯЗЫКОЗНАНИЕ | GENERAL AND COMPARATIVE  
HISTORICAL LINGUISTICS

## Лабиялизация в эгейских и нахско-дагестанских языках

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Данная статья состоит из трех частей: 1. Субстрат греческого языка; 2. Синхронные исследования лексики нахско-дагестанских языков; 3. Диахрония. Общеизвестно, что языки одной и той же группы или даже одной семьи подвергаются фиксированному процессу звуковых изменений. Греческая письменная форма субстратных слов законсервировала свой оригинальный звук; или, в любом случае, он показывает свою заключительную стадию развития, вызванную совместной артикуляцией и монофтонгированием. Нет никаких оснований утверждать «плохую вокальную систему» для этих языков. Однако есть серьезные основания считать, что слова догреческого субстрата, сохраняющиеся в современном греческом языке, и некоторые исконные слова нахско-дагестанской подгруппы иберийско-кавказских языков могут иметь общую историю или восходить к одной и той же форме. Например, лакский язык демонстрирует ту же ситуацию, что и до-греческий, как пишет И. Церцвадзе в статье «К вопросу о гласных е и о в лакском языке».

**Ключевые слова:** Эгейский падеж, Нахско-Дагестанский падеж, диахрония, догреческие слова, лабиализация.

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## *Labialization in Aegean and Nakh-Dagestani Languages*

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This article consists of three parts: 1. the Substratum of the Greek language; 2. Synchronous studies of the vocabulary of the Nakh-Dagestani languages; 3. Diachrony. It is well known that languages of the same group or even of the same family undergo a fixed process of sound changes. The Greek written form of substratum words has preserved its original sound; or, in any case, it shows its final stage of development, caused by joint articulation and monophthonging. There is no reason to claim a "bad vocal system" for these languages. However, there are serious reasons to believe that the words of the pre-Greek substratum preserved in modern

Greek, and some native words of the Nakh-Dagestan subgroup of the Iberian-Caucasian languages may have a common history or go back to the same form. For example, the Lak language shows the same situation as pre-Greek, as I. Tsertsvadze writes in the article " On the question of vowels e and o in Lak.

**Keywords:** The Aegean case, The Nakh-Dagestanian case, Diachrony, Pre-Greeks words, Labialization.

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### The Aegean case.

As previously mentioned, R. S. P. Beekes (based on Furnée observations) devoted several pages on Pre-Greek language and its phonological feature. It is remarkable how labialization deeply affected that language, a set of phonologic features unusual for an Indo-European language.

Any dictionary transliterates υ as [y], so θύμον [thymon] ‘thyme, a kind of aromatic herb’.

As Beekes stated in “Pre-Greek loanwords in Greek”, there are three different set of consonants: *plain*, *palatalized* and *labialized*. Last one is the core of this script.

“Further, the signs *two*, *twe*, *dwo*, *dwe*, *nwa*, *swa*, *swi*, point to labialization as a distinctive feature, i.e. *t<sup>w</sup>o*, *t<sup>w</sup>e*, *d<sup>w</sup>o*, *d<sup>w</sup>e*, *n<sup>w</sup>a*, *s<sup>w</sup>a*, *s<sup>w</sup>i*. Note that palatal and labial forms of graphemes are found both with resonants and stops, which is a phenomenon alien to Indo-European languages”.

Phonological analyses will continue with some examples, how labialization works on Pre-Greek language:

“We can now use this insight in explaining the surfacing Greek forms. Thus, δάφνη δαυχν(α)- can now be explained from a Pre-Greek form \**dak<sup>w</sup>n*-. In the former form, the labiovelar yields a labial stop φ. In the latter, it is rendered by -υχ-, with anticipation of the labial feature, while the labiovelar turns up as a velar, possibly by dissimilation from *uk<sup>w</sup>*.”.

The interpretation is further confirmed by the parallel development of labialized consonants. Thus, I suppose that *ar<sup>w</sup>* resulted in -α(υ)ρ-. In this way, we may understand καλαῦροϋ beside κολόροβον from a preform *kalar<sup>w</sup>-op*-. Another form which shows the remarkable interchange α/αυ is ἀρασχάδες / ἀροσχάς;. Here one might assume a pre-form \**ar<sup>w</sup>ask-at*-. Note that the labial element would at the same time explain the *o* as a variant of *a* in both cases.”.

This observation will be at the centre of the theme.

Beekes’ first assertion, it narrow vowels number:

“Originally, I thought that Pre-Greek only had three vowels: *a*, *i*, *u*. The Greek words concerned often have ε and ο, but this would not be surprising, as the three vowels have a wide phonetic range, and the phoneme [a] may have sounded like [e] or [o] in many environments. The main reason for me to assume this simple three vowel system was the fact that the system of suffixes has *a*, *i*, *u*, but not *e*, *o*.”.

Then, a re-thinking how it could be:

“Recently, I have become more inclined to assume a system with the usual five vowels, because there seems to be a distinction between the two variations α / ε and α / ο, on the one hand, and a stable, not interchanging α, on the other. This would point to a system with *a*, *e* and *o*. On the other hand, it is difficult to explain why the suffixes do not show the same variation that we find in the root vowels. It is essential that the palatalized and labialized consonants coloured an adjacent α to ε and ο, respectively. On the effects of palatalized consonants see Beekes 2008: 46-55. Furnée 340 has a rule

$\alpha > o$  before  $o, \omega, v$  (e.g.  $\kappa\alpha\lambda\upsilon\beta\acute{o}\varsigma$   $\kappa\omicron\lambda\upsilon\beta\acute{o}\varsigma$ ); this can now be understood as the  $o$ -like realization of /a/ before high rounded vowels in the following syllable

So,  $e$  and  $o$  originally were variants of the phoneme /a/.”

“There are several instances where a diphthong varies with a single vowel. [...] Most frequent is  $\alpha/ \alpha\iota$ , but this is due to the effect of a following palatalized consonant. We further find  $\alpha/ \alpha\nu, \varepsilon/ \varepsilon\nu$ , and  $o\nu/ v$  and  $o\iota/ v$ .

“Relatively frequent in Pre-Greek words are sequences of a more closed vowel followed by a more open one, sequences that are not found in Indo-European. They would be rising diphthongs if they formed one syllable, but in fact we may have to do with two syllables”.

The conclusion is very short:

“I assume two diphthongs,  $ai$  and  $au$ . If there were no  $e$  and  $o$ , we do not expect other diphthongs.”.

To resume this part of the script, the letter  $v$  might be represent a labial sound, either with vowel or consonant.

### The Nakh-Dagestian case.

It is well known that Nakh-Daghestanian languages have few vowels and a – variably – number of co-articulated consonants, that’s include palatalized ( $C^j$ ), labialized ( $C^w$ ) and glottalized ( $C^s$ ).

The number may vary between languages, and even more, between dialects of the same language.

It is relevant that Nakh (Chechen-Ingush) group has a rich vowels inventory, meanwhile Eastern languages (Daghestanian) are less abundant of. A deep analysis reveals how this process works; at the end, after careful considerations, co-articulation is the key factor of vowels number.

Some articles on Nakh-Daghestanian phyla are quoted here.

Система гласных и регрессивно-дистанционная их ассимиляция в Чеченском и Ингушском языках / Vowel system and its regressive-distant assimilation in Chechen and Ingush” by D. S. Imnaishvili:

1. In Chechen and Ingush the structure of the simple words and derivative stems can be monosyllable and two syllables. The syllable in its turn may be open or closed : 1) CVC; CVCC; 2) CV; 3)  $CV_1CV_2(C)$ ,  $CV_1CCV_2C$ . Monosyllable words and stems may turn into two-syllable words by adding some affixes.

2. The distribution of vowels and combinatory phonetic changes in Chechen and Ingush are conditioned by the above mentioned system.

In Chechen and Ingush the system of  $V_1$  vowel phonemes is different from the system of  $V_2$  vowel phonemes: the former is complex system, the latter is simple. The system is reflected in dialects.

3. Comparatively old system of  $V_1$  and  $V_2$  are found in the Makazhga subdialect of Cheberlo dialect (the Chechen language). Here the system of  $V_1$  is simple, and the system of  $V_2$  is complex. E.g.: the system of  $V_1$  – **a, a:, je, je:, i, i:, wo, wo:, u, u:**; the system of  $V_2$  – **a, e, i, o, u.,**

Besides the above mentioned vowels of  $V_1$  system in the dialect of Chechen some other vowels are also found; they must have appeared later, as result of the influence of  $V_2$  system (see below, point 4). These vowels are in the plainmen’s speech – **ü, ü:, (u, u:); ü (i<sup>w</sup>), ü: (i<sup>w</sup>) ← i, i:; ö, ö: (← wo, wo:); ö (je<sup>w</sup>), ö: (je<sup>w</sup>) ← je, je:; e (ε) ← a, e (ε) ← a:, o ← a; o: (oa) ← a:.. In the mountaineer’s speech, in Khildikharo subdialect – **vi, vi:←u, u:** (cf. the Shar subdialect : **uj, u:j;** Veden and Itumkal: **wi, wi:), vje, vje:←wo, wo:** (cf.: Veden and Itumkal **we, we:), jo, jo: (←je, je:);** in Khildikharo, Shar, Veden and Itumkal: **e ← a, e:← a:, o ← a, o: ← a:.**  $V_2$  system: in contrast to**

Makazha, in Khildikhar the vowels **i, e, o, u** are shortened in Auslaut and in Shar **e** of the  $V_2$  system (sometimes **o** as well) turns into **a**. In the plainsmen's speech of Chechen  $V_2$  system is simpler (**a, u, i**) – complication of the first syllable and simplification of the following one is a general tendency in Chechen-Ingush languages.

4. Complication of  $V_1$  is caused by **i, e, u, o** of the  $V_2$  system. Besides, some vowels of  $V_2$  system has undergone further changes.

**e** of  $V_2$  can cause palatalization, **o** can cause labialization; **i** of  $V_2$  can cause: a) the palatalization of **a, a:, u, u:** (and **wo** in the plainsmen's dialects); b) the narrowing and palatalization of **o** (in Khildikhar and Shar) and **wo:**. **u** can cause : a) the labialization of **a, a:, je, je:** (plainsmen's dialects, Khildikhar and Myst) and **i, i:** (plainsmen's speech, Myst ...); b) the narrowing of **je, je:** (in Shar) and the narrowing and palatalization of **je, je:** (Akk. dialect). **i** and **u** may inflict the narrowing of mid-vowels of their own row (**je, je:→i:**; **wo, wo:→u, u:**). In Vedeno, Itumkal and P. Uslar's materials there are no examples of the labialization of front vowels: **i, i:, je, je:**.

In the Makazha subdialect **a** can be turned into **e** or **o** (only in certain cases).

5. The  $V_1$  system represented in the Makazha subdialect is the historical modification of a simpler system consisting of **a:, a, u** and **i**. The latter must have been typical for all the Chechen-Ingush languages.

**e** and **o** of the  $V_2$  system must also be considered as secondary vowels.”.

Then, a step into Lezghian group with

лабиализованные звуки и фонемы в Табасаранском и Агульском языках / Labialized sounds and phonemes in Tabasaran and Agul”, by A. A. Magometov

Both bilabialization and dentolabialization are characteristics for Tabasaran and Agul (It must be noted here that if labialization is very common in all Daghestanian languages, dentolabialization is generally rare).

Bilabialization in Tabasaran has much been changed (and is gradually vanishing): in the southern dialect it has been still preserved while in the northern one it is already lost:

Southern dialect  $jek^{w'}$ , cf.: northern dialect (Khanag subdialect)  $jak$  «axe»

Southern dialect  $x^{w'}ar$ , cf.: northern dialect (Khanag subdialect)  $xar$  «mare».

Table 1

**In Tabasaran bilabialized are the back sounds and pharyngeals**

$g^{w'}$	$k^{w'}$	$k^{w'}$ :	$k^{w'}$ '
$\gamma^{w'}$	$x^{w'}$		
	$q^{w'}$	$q^{w'}$ :	$q^{w'}$ '

In Agul bilabialization has been preserved in every subdialect, though with some differences in each of them.

Taking into consideration the data of different subdialects, we may state that bilabialized sounds are found among front and back sounds and pharyngeals as well:

Table 2

**Bilabialized sounds are found among front and back sounds and pharyngeals as well:**

		$t^{w'}$ :	$t^{w'}$ '	
$z^{w'}$	$s^{w'}$		$\widehat{ts}^{w'}$	$[\widehat{dz}^{w'}]$

$\text{ʒ}^w$	$\widehat{\text{tʃ}}^w$		$\widehat{\text{tʃ}}^{w'}$	$\widehat{\text{dʒ}}^w$
$\text{g}^w$	$\text{k}^w$	$\text{k}^w$ :	$\text{k}^{w'}$	
$\text{ɣ}^w$	$\text{x}^w$	$\text{x}^w$ :		
	$\text{q}^w$	$\text{q}^w$ :	$\text{q}^{w'}$	

There are some restrictions for bilabialization: a) correlation by labialization does not concern labial consonants, b) labialized sounds are not found before labial vowels and in the auslaut after the vowel «u» (N. Trubetskoy)

$$V^w + C^w \rightarrow V^w + C$$

$$C^w + V^w \rightarrow C + V^w$$

( $C^w$  – labialized consonant,  $V^w$  – labial vowel,  $C$  – not labialized consonant,  $V$  – not labial vowel).

In Tabasaran and Agul the complex «not labial vowel + labialized consonant» may give the complex «labial vowel + not labialized consonant» and viceversa (the same is said in special literature about other languages having labialization):

$$V + C^w \rightarrow V^w + C$$

$$C^w + V \rightarrow C + V^w$$

Dentolabialization is found in all the subdialects of the Tabasaran language and in Agul – only in the speech of two villages (Arsug and Burshag) of the Koshan dialect. Dentolabialization consonants are phonemes, they are found among hissing sounds:

$$\widehat{\text{dʒ}}^w \text{ʃ}^w \text{ʃ}^w : \widehat{\text{dʒ}}^w \widehat{\text{tʃ}}^w \widehat{\text{tʃ}}^{w'} : \widehat{\text{tʃ}}^{w'}$$

(adding the third row to them;- N. Trubetskoy)

Hissing sounds in Tabasaran are never bilabialized.

Whistling sounds correspond to the dentolabialized hissing sounds. On the basis of velarization labialized hissing sounds may become the basis for the corresponding back sounds,

$$\text{ʃ}^w : \text{ʃ}(\text{ʃ}^w) : \text{x}^j (\text{x}^{wj})$$

$$\widehat{\text{tʃ}}^w : \widehat{\text{tʃ}}(\widehat{\text{tʃ}}^w) : \text{k} (\text{k}^w)$$

$$\widehat{\text{tʃ}}^{w'} : \widehat{\text{tʃ}}(\widehat{\text{tʃ}}^{w'}) : \text{k}' (\text{k}^{w'})$$

$$\widehat{\text{dʒ}}^w : \text{ʒ}(\text{ʒ}^w) : \text{g} (\text{g}^w)$$

Such feature are quite evident in synchronic analyses of Lezghian; as explained in the following article:

О некоторых общих моментах изменения лабиализованных согласных в Лезгинском и других Дагестанских языках / Some common peculiarities in the changes of the labialized consonants in Lezghian languages and other Daghestanian languages, by A. G. Gjulmagomedov

The labialized consonants  $\text{g}^w$ ,  $\text{ʒ}^w$ ,  $\text{k}^{w\cdot}$ ,  $\text{k}^w$ ,  $\text{k}^{w'}$ ,  $\text{q}^{w\cdot}$ ,  $\text{s}^w$ ,  $\text{t}^{w\cdot}$ ,  $\text{t}^w$ ,  $\text{t}^{w'}$ ,  $\text{x}^w$ ,  $\text{q}^w$ ,  $\text{x}^{wj}$ ,  $\widehat{\text{ts}}^w$ ,  $\widehat{\text{ts}}^w$ ,  $\widehat{\text{ts}}^{w'}$ ,  $\widehat{\text{tʃ}}^{w\cdot}$ ,  $\text{ʃ}^w$ , which are met in modern Lezghian may be qualified as being «primary» and «secondary» sounds. The «primary» labialized consonants are called such sounds which occur in initial forms of the nouns, and, as rule, do not undergone any modifications with the change of the latter. The «secondary» labialized consonants are such sounds which appear in the bases of imperative mood (inclusive, exclusive), the absolute and preterites of verbs with **-un**, **-ün** in the Masdar form. Both the

«primary» and the «secondary» labialized consonants are common almost to all Daghestanian languages and occur before **a** and **e**.

There are some common features found in the changes of this consonantal sounds in the Lezgian subdialects and other Daghestanian languages. Here are some of them:

1. The labialization feature (sign) of a root consonant disappears without any trace.
2. The labialization feature is transferred from a consonant into the neighbouring unrounded vowels **a**, **e**, **i** which results in the emergence of new vowels as **o**, **ö** or **u**, **ü**.
3. Observations over the regulations under which the labialized consonants change enable us to make some probable predictions as to the further fate of the non-labialized consonants – on the one hand, and in certain cases to re-interpret the vowels **o**, **ö**, **u**, **ü** – on the other hand”.

As external evidence, it worth to read what M. Kumakhov wrote “On the correlation of diphthongs and vowels in the Adyghe languages” quoted here:

“In the Adyghe languages the so-called long vowels **e**, **i**, **o**, **u** are of heterogeneous origin. They appeared as a result of phonetic process of contrary tendencies. In some cases the vowels **e**, **i**, **o**, **u** are got as result of reduction of diphthongs, in other cases – as result of phonetic changes of the vowels **ä**, **ə**, in the position before the sonants **j**, **w**. Though the vowels **e**, **i**, **o**, **u** show a strong tendency toward phonologization but they still remain to represent phonetic variants of either diphthongs or the vowels **ä**, **ə**. The process of the reduction of the diphthongs in the Adyghe languages differ as to their intensity. In the final position biphonemic diphthongs are the steadiest in the Adyghe languages. The same should be said of vowels in the position before sonants, where the Adyghe **ä**, **ə** seem to be less expose to changes than the long vowels. Phonetic change of the vowels **ä**, **ə** into the long ones before the sonants **j**, **w** is a new process of Kabardian origin”.

Back to Daghestan, Lak language show the same situation of Pre-Greek, as I. Tsertsvadze stated in his article “On the question of the vowels **e** and **o** in the Lak language”,

“As we stated by P. Uslar, in the Lak there are three main vowel phonemes: **a**, **i**, **u**.

The Lak language lacks the vowel of middle range **e** and **o**.

As a result of comparing Lak with the Avar language in which all the above-mentioned vowels are present (though not in all positions and dialects) it can be stated that the Lak language has lost the vowels **e** and **o**, having replaced them by their reflex **a** ( $e > a$ ,  $o > a$ ).

Table 3

**Thus in Lak the vowel *a* should be regarded as a reflex of three different vowels: *a*, *e*, *o*.**

Авар (Аварский)		Лак (лакский)		
<b>a</b>	<i>raḱ</i>	<b>a</b>	<i>daḱ</i>	heart/ сердце
<b>e</b>	<i>beter</i>	<b>a</b>	<i>baḱ</i>	head/ голова
<b>o</b>	<i>ros</i>	<b>a</b>	<i>las</i>	husband/ муж

Even A. Magometov’s article for Dargwa fit the case with “Peculiarities of the conjugation of verbs containing in their stems pharyngalized and labialized consonants in Dargwa.”; as follow

1. P. Uslar notes the existence of the following three suffixes of the infinitive in the Urakhi dialect of Dargwa: **-is**, **-as**, **-es**. According to P. Uslar verbs with the infinitive suffixes **-as**, **-es** «makes exceptions to the regular conjugation».

This exception is due to the influence of pharyngeal root consonants (and pharyngalized **h**: or **ʔ** as well) on vowels following the said consonants when a pharyngalized root consonant is followed

by the vowels **a** or **u**, the latter are changed : **i** → **ε**, **u** → **wε**. This fact, in its turn, results in the change of suffixes (or stem building elements) of the main conjugational forms:

Past tense, 3<sup>rd</sup> PLUR.-ur → wεr (1<sup>st</sup> conjunction)

-ib → -εb (2<sup>nd</sup> conjunction)

-un → wεn (3<sup>rd</sup> conjunction)

Present tense, absolutive :-u-li → wε-li

2. P. Uslar includes in the number of «exceptions to the regular conjugation» verbs forming their infinitive by means of the suffix -wis. Such are verbs containing labialized consonants (**w** is considered by P. Uslar a suffixal element, is in reality the reflex of a labialized consonant).

The labialized root consonant becomes delabialized before the labial vowel **u**: Cw + u → Cu (Cw being a labialized consonant).

Thus, the exceptions to the regular conjugation of the Urakhi dialect notes by P. Uslar can be explained by the natural root of consonants: in one case by pharyngalized consonants (or pharyngeals: **h**:, **ʔ**), in the other – by labialized ones”.

Again, in Lak language with a scrutiny in morphology, as G. Burchuladze wrote in “Concerning the vowel Ablaut in Lak nouns”:

1. Examples of the inner vowel-flexion in Lak nouns were noted earlier (by P. Uslar, V. Topuria, L. Zhirkov). Latter researches yielded more examples and, what is important, the morphological function of the inner vowel-flexion has been ascertained. Namely:

The inner vowel-flexion in nouns serves to distinguish the nominative from the oblique case stem. Hence in most cases with the inner vowel-flexion a thematic vowel is not used. e.g:

bark’ «shield»– oblique case stem : burk’-a-

barts’ «wolf»– oblique case stem: burts’-i-

2. The indicated morphological function of the inner vowel-flexion is secondary, being the result of certain phonetic changes, namely:

(a) as result of the assimilation with the connective vowel **u** in the oblique case stem **a** → **u**,

e.g.:

ts’ats’ «dog-rose» – oblique case stem: ts’uts’-u → \*ts’ats’-u-

k’alaf’ «charcoal»– oblique case stem: k’ulf’-u ← \*k’alf’-u-

(b) as result of the assimilation with the original labialized consonant in the stem-vowel **a** →

**u**, e.g.:

nax<sup>w</sup> «chaff»– oblique case stem: nux<sup>w</sup>-a ← \*nax<sup>w</sup>-a-;

martf<sup>w</sup> «wind»– oblique case stem: murtf<sup>w</sup>-a ← \*martf<sup>w</sup>-a-.

If the original labialized consonant is immediately followed by an assimilated **u**, then C<sup>w</sup> → C as result of the dissimilation of the labialized consonant under the influence of the stem vowel **u** (←**a**), e.g:

q<sup>w</sup>ar «udder»– oblique case stem: qur-a ← \*q<sup>w</sup>ur-a ← \*q<sup>w</sup>ar-a-;

k<sup>w</sup>artf<sup>ʔ</sup> «laziness»– oblique case stem: kurtf<sup>ʔ</sup>-i ← \*k<sup>w</sup>urtf<sup>ʔ</sup>-i ← \*k<sup>w</sup>artf<sup>ʔ</sup>-i- .

(c) sometimes the original vowel may be manifested in the oblique stem while in the nominative the vowel is changed, e.g:

x<sup>w</sup>ulu «hay» – oblique case stem: x<sup>w</sup>al-a- (cf. x<sup>w</sup>ala «hay», dialectal form);

ts’u «fire, flame» – oblique case stem: ts’ar-a- (cf. Andi, Botlikh, Bagwalal, Karata, Tindi: ts’aj ← \*ts’ar; Akhvakh: tʃ<sup>ʔ</sup>ar-i ← \*ts’ar-i; Udi ar-ux ← \*ts’ar-ux “id.”).

After all these articles, it is clear that **wa** > labial vowel (**o**, **u**) within Nakh-Daghestanian languages.

Then, next chapter will be entirely dedicated to this Rule in Diachronic field.

### Diachrony.

It is well known that languages of the same group, or even more, same family abide fixed process of sound articulations.

Substantially, Greek written form of a substrata language, it actually hiding its original sound; or, in any case, it shows its final stage caused from co-articulation to monophthongization; at the end, there are no reasons to affirm “poor vocalic system” for those languages.

There are several instances where Nakh-Daghestanian co-articulated words ends up to secondary vowels in Pre-Greek, labial(s) in the case.

Let start with κόλλαβος, κόλλου ‘a kind of bread or cake / хлеб; торт, пирожное’, κολλύρα, κολλούρα ‘cake / торт, пирожное’ and κόλλιξ, -ικος ‘round, coarse bread / круглый хлеб, крупный хлеб’. It is undeniable a common root in \*κόλλ- ~ \*κολλ-, all of them having ‘bread / хлеб’ as main theme. In Archi (Арчинский) appear χ<sup>w</sup>:álli ‘bread / хлеб’; and then, Tindi (Тиндинский) χ:oli and Chamalal (Чамалинский) χ:ol ‘толокно / porridge’; where’s labialization it already developed in labial vowel. Such word is also attested in ancient time, with Luwian hu-ul-li-ti-iš ‘a kind of bread / хлеб’, where \*hu-ul-li- reflect in full the Pre-Greek form (esp. κόλλιξ).

As seen in all these languages, it is possible to formulate Labialized consonant + vowel > Consonant + labial vowel.

Rule: -wa- > o, u

To resume this step:

Rule: -wa- > o, u

Table 4

#### To resume rule: -wa- > o, u

Archi	-wá-
Pre-Greek, Tindi, Chamalal’	-o-
Luwian	-u-

It is symptomatic that Lak language do the same in Oblique form:

q<sup>w</sup>ar «udder»– oblique case stem: qur-a←\*q<sup>w</sup>ur-a←\*q<sup>w</sup>ar-a-

Table 5

#### Other words equally proceed in this direction, like κοδομεύς

Chechen (Чеч.)	<i>xudar</i>	каша / porridge
Andi (Анди.)	<i>χuder</i>	крупa / groat
Rutul	<i>gudi</i>	Блюдо из муки и меда
Tsakhur (Цах.)	<i>q’awit, q’awut</i>	толокно, изделие из
Inkhokvarian (Инк.)	<i>k’wedo</i>	толокна / a kind of porridge
Hinuq (Гин.)	<i>gude</i>	(oatmeal)
Tabasaran (Таб.)	<i>gawit</i>	солод / malt
Lak (Лак.)	<i>k’ut</i>	
Pre-Greek	κοδομεύς	



- Notably Hinuq ‘изделие из толокна / oatmeal’.

Andi (Анди.)	<i>t<sup>2</sup>or, lora, t:ora, ʔora</i>	колос / spiga
Avar (Авар.)	<i>t<sup>2</sup>or</i>	
Akhwakh (Ахв.)	<i>t<sup>2</sup>ar</i>	
Godoberi (Год.)	<i>lala (&lt; * lara)</i>	
Karata (Кар.)	<i>t<sup>2</sup>ara</i>	
Lezgian (Лезг.)	<i>t<sup>w</sup>ar, t<sup>w</sup>ari</i>	зерно / grain
Khinalug (Хин.)	<i>t<sup>2</sup>ar</i>	просо / millet
Pre-Greek	τορύνη	
In Avar (Gidatlin) <i>t<sup>2</sup>ori</i> . In southern Akhwakh and Karata (Enkheli) <i>t<sup>2</sup>ara</i> ‘ib.’. According to Kibrik&Kodzasov, <i>t<sup>2</sup>a:r</i> in Khinalug.		

Andi (Анди.)	<i>χ<sup>w</sup>ami</i>	fish
Chamalal (Чам.)	<i>χ<sup>w</sup>am</i>	/?????/
Tindi (Тинди.)	<i>χ<sup>w</sup>ã</i>	/
Karata (Кар.)	<i>χ<sup>w</sup>ãj</i>	/&&&,,,
Lak (Лак.)	<i>ħawa</i>	
Pre-Greek	<i>χ<sup>w</sup>ami.κομαρίδες</i>	

κόλλαβος, κόλλου ‘a kind of bread or cake / хлеб; торт, пирожное’	Archi (Арчинский): <i>χ<sup>w</sup>:álli</i> ‘bread / хлеб’
κολλύρα, κολλούρα ‘cake / торт, пирожное’	
κόλλιξ, -κος ‘round, coarse bread / круглый хлеб, крупный хлеб’.	
κοδομεύς ‘one who roast barley / жарить - ячмень’	Inkhokvarian (Инх.): <i>k<sup>w</sup>edo</i> ‘толокно, изделие из толокна / a kind of porridge (oatmeal)’ Andi (Анди.): <i>χ<sup>w</sup>ami</i> ‘fish’

Back to Daghestan, Lak language show the same situation of Pre-Greek, as I. Tsertsvadze stated in his article “On the question of the vowels *e* and *o* in the Lak language”,

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