

გია კვაშილავა

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## A კლასის ხაზოვანი წარწერების საერთოქართველურ ენაზე გაშიფრვის შესახებ

ამ ნაშრომის მიზანია წარმოადგინოს გაშიფრვის შედეგები ბრინჯაოს ხანის A კლასის ხაზოვანი (LA) წარწერებისა, რომლებიც გავრცელებული იყო ეგეოსისზღვისპირეთის მთელ ტერიტორიაზე, აგრეთვე აღმოაჩინეს პალესტინაში, ბულგარეთსა და საქართველოში.

LA წარწერების ტექსტები ძირითადად სასოფლო-სამეურნეო ანგარიშებია, რომლებშიც დასტურდება ტოპონიმები, ანთროპონიმები, სასოფლო-სამეურნეო პროდუქცია (მაგ., მარცვლეული), შინაური ცხოველები, ნატურალური რიცხვები, წილადები და სხვა.

ზოგიერთი გაშიფრული საერთოქართველური LA სიტყვა შემდეგია:

1. რიცხვებზე არითმეტიკული მოქმედებების აღმნიშვნელი სიტყვები: ku-ro – „შეკვრა“, „შეკრება“, „შეგროვება“, „დამატება“; po-to-ku-ro – „ფართო შეკრება“, „საბოლოო ჯამი“; sa-ra2 – „სრული“, „მთლიანად“, „სრულად“, „სულ“; ki-ro – „ნაკლებობა“, „კლება“, „გამოკლება“; ki-ri-si – „კილისა“, „ნაკლისა“, „დანაკლისი“ და ki-ri-ta2 – „ნაკლითა“.

2. ჭურჭლის აღმნიშვნელი სახელები: ka-ti (აგრეთვე დასტურდება B კლასის ხაზოვანში = LB-ში) – „კუტოა“, „კოტო“, „კუტალი“; ka-di (წინარებერძული κάδιος, κάδι) – „კოდი“; ka-sa, ka-si (შუმერული ka-a-su, ხეთური ka-az-zi) – „კასრი“, „კოში“, „სადვინე ჭურჭელი“; di-di-ka-se – „დიდი კასრი“, „ქვევრი“; pi-ta-ka-se – „პატარა კასრი, ჭურჭელი“; pa-ta-qa – „ძალიან პატარა ჭურჭელი“ და qa-pa2 (ხეთური kap-pí, ურარტული ka-pi, წინარებერძული κάβιος) – „კოპე“, „კოფა“, „კოფიო“, „საწყაო“.

3. მცენარის სახელწოდება mi-ta (აგრეთვე დასტურდება LB-ში, წინარებერძული μίνθα, μίνθη, μίνθιος, καλαμίνθη, καλαμίνθα, καλάμινθος) – „პიტნა“.

4. ტოპონიმები / ანთროპონიმები: ma-ka-ri-te – „კუნძული მაკრისი“, ანუ „ევბეა“ (პელასგ მაკრიელთა, ანუ მაკრონთა ტომის დასახლება, რომელიც დამოწმებულია ძველ ბერძნულ ტექსტებში, LB-ში დასტურდება ma-ki-ro-ne – \*Μάκιρωνες); pa-i-to (აგრეთვე დასტურდება LB-ში) – „ფესტოსი“; ku-ku-da-ra (აგრეთვე დასტურდება LB-ში ku-ka-da-ro – \*Κυλχάδαρος; ko-ki-da – Κολχίδα; ko-ki-de-jo – \*Κολχίδειος; ko-ki-jo – Κόλχιος) – „კოლხიდეელი“; a-ja (აგრეთვე დასტურდება LB-ში ai-wa, ai-wa-ja) – „აია“ და ku-ta- (აგრეთვე დასტურდება LB-ში ku-ta-i-jo – Κύταιος; ku-ta-si-jo – \*Κυταίσιος; ku-ta-to; ku-ta-i-to; ku-to VIR 1) – „კუტა-“ / „ქუთა-“; ra-\*swi-ti (აგრეთვე დასტურდება LB-ში ra-su-to / \*la-su-to) – „ლასითი“, კუნძული კრეტის რეგიონი.

ზემოთ ჩამოთვლილი ძირეული მორფემები ასახავენ რეგულარულ ფონოლოგიურ და სემანტიკურ კავშირებს ქართველურ მასალებთან. ძირეული მორფემები CVC- სტრუქტურისაა, სუფიქსალური მორფემა – -VC/-V სტრუქტურისა. ეს ფონემატური სტრუქტურები საერთოქართველურ მორფემათა ძირითადი კანონიკური ფორმებია.

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## On Decipherment of the Inscriptions of Linear A in the Common Kartvelian Language

### Introduction

The object of this paper is deciphering Bronze Age Linear A (LA) inscriptions that are spread all over the Aegean area, also found on the territory of Palestine, Bulgaria, and Georgia. The texts of LA inscriptions are mostly agricultural accounts with toponyms, anthroponyms, agricultural produce (e.g., cereals), pot, vessel, domestic animals, and signs denoting natural numbers and fractions, etc.

1. The paper presents an overview of the data on the ancient population of the Pelasgia or Peloponnese, Asia Minor, Aegean islands before the migrations of Indo-European tribes into Europe began (Kvashilava 2011, 228–233). It is supposed that indigenous inhabitants of this area were of non-Indo-European and non-Semitic origin but were South Caucasian / Kartvelian – Pelasgian-Colchian tribes – Macrians or Macrones among others (Kvashilava 2011, 233–236).

2. The Common Kartvelian (CK) language formed an influential substratum for the language of Proto-Greek tribes after their invasion of the Peloponnese. The toponyms of “unknown etymology” (J. Chadwick, R. Beekes, and others) are now proved to be CK.

































3. The correctness of my decipherment of LA inscriptions in the CK is verified by the analysis of linguistic material (of special importance are pot, vessel, toponyms, ethnonyms, anthroponyms and theonyms), the study of graphical qualities of LA and of the signs of related Linear B (LB) script, the previous phonetic reading of LB script by M. Ventris and J. Chadwick (Ventris and Chadwick 1973, 23, 388).

The texts of LA inscriptions are mostly agricultural accounts with anthroponyms, agricultural produce (e.g., cereals, etc.), pot, vessel, domestic animals, and signs denoting natural numbers and fractions, etc (Kvashilava 2011, 242–244, 253–259; Kvashilava 2017b, 857–858, 863).

The analysis of the data shows that LA inscriptions record the ancient CK language. The following should be emphasized (Kvashilava 2017a, 65–66):

a. The visual features of the LA syllabic signs are graphically simplified versions of the Cretan hieroglyphic script and the Phaistos Disk script signs (Kvashilava 2011, 239).

b. The vast bulk of LA syllabic signs are graphically and phonetically identical to the graphic and phonetic properties of the syllabic signs of Mycenaean Greek LB (Ventris and Chadwick 1973, 23; Godart and Olivier 1985, V, XXII, XXVIII–LII) and the Greek Cypriot syllabic script (Ventris and Chadwick 1973, 388). The problem of the language of LA inscriptions has long remained unsolved, and it was declared to be impossible to read because the language and its culture no longer existed.

LA signs	LB signs	LA signs	LB signs
001 	 da	008 	 za
002 	 ro	010 	 u
003 	 pa	011 	 po
004 	 te	013 	 me
005 	 to	015 	 qa
006 	 na	017 	 za
007 	 di	020 	 zo
008 	 a	021 	 qi

LA signs	LB signs	LA signs	LB signs
023	mu	027	ti
024	ne	038	e
028	ru	039	pi
027	re	040	wi
028	i	041	ci
029	pu <sub>2</sub> /phu/, /bu/?	044	ke
030	ni	045	de
031	oa	046	je

LA signs	LB signs	LA signs	LB signs
048	nwa	069	ta
050	pu	080	ra
051	du	081	o
053	ri	085	ju
054	wa	086	ta <sub>2</sub> /taj/
055	nu	087	ki
056	pa <sub>3</sub> /paj/	089	tu
057	ja	070	ko
058	su	073	mi

LA signs	LB signs	LA signs	LB signs
074	ze	021	sheep
076	ra <sub>2</sub> /raj/	022	goat
077	ka	023	ox
078	qe	030	fig
080	ma	031	flax
081	ku	054	cloth
085	au	065	flour
087	tve	085	pig
164	swi	120	barley

LA signs		LB signs		LA signs		LB signs		
122			olive	402		cup		
123			spice	404		cup		
131a			wine	405		bucket		
191			helmet	406		bucket		
302		302+67 (618)	oil	407		basin		
303		125	cyperus	410		201		tripod cauldron
380 100		100	man	412		206		hydria
382		102	woman	415		202		jar
077			vessel	416				pithos

Numeral systems	1	10	100	1 000	10 000
LA		— ● ○	○		
Mycenaean LB		—	○		
Cypriote syllabic		—			
Cretan hieroglyphic	)	● ○			

LA Signs	Value			
	Kvashilava	Facchetti	Was	Bennett
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$
	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$
	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	
	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{8}$
	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	
	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	
	Kvashilava	Facchetti	Was	Bennett

The meanings of the LA inscriptions remained unidentified, and the LA tablets were declared to be written in an unknown dead language.

c. The method of comparative and inner reconstruction (Gamkrelidze and Machavariani 1965) made it possible to identify the forms and meanings of LA syllabic sequences as belonging to the ancient CK Language.

## **1. The Ancient Inhabitants and Languages of Southern Europe, Asia Minor and South Caucasus**

In the Bronze Age, many regions of the Asia Minor, the whole of the Pelasgia or Peloponnese, the Crete, Aegean islands, the Apennine Peninsula were inhabited by Pelasgians. The Pelasgians were various tribes including the Macrians or Macrones.

It was accepted that the Pelasgian language was of a non-Indo-European and non-Semitic origin.

Some authors (P. Kretschmer, F. Schachermeyr, E. Schwyzer, A. Meillet, G. Thomson, and others) considered it to be the language connected to South Caucasian (Kartvelian) tribes and creating a special group – the so-called Asia-Minor or Aegean-Asia-Minor language group (Kvashilava 2011, 228, 229; Kvashilava 2017a, 66ff.).

Traces of these earlier languages of the indigenous population of the Aegean, Asia Minor and Caucasian regions appear in the form of a substratum to the whole structure and lexicon of the dialects brought by the new settlers (Gamkrelidze and Ivanov 1995, I, 782).

LA is the substratum language of clay tablets and other inscriptions that have been found in many parts of Crete and Aegean islands (Chadwick 1976, 4). The substratum is obviously linked to early Minoan culture and possibly to the inscriptions written in LA and other very early writing systems of the eastern Mediterranean world (Gamkrelidze and Ivanov 1995, I, 796).

A number of Greek words of unknown etymology have unambiguous parallels with Kartvelian in the light of recent research, which is supported by linguistic contacts at an ancient period between Greek and Kartvelian dialects (Gamkrelidze and Ivanov 1995, I, 799).

## **2. About Kartvelian Languages and CK Ancestor Language**

Linguistic research made by G. Deeters, Th. Gamkrelidze and G. Machavariani (Gamkrelidze and Machavariani 1965, 3 ff.; Gamkrelidze 1966, 69) showed that the languages spoken in Georgia – and now also on the territory of Turkey – are affiliated languages: Georgian, Svan, Mingrelian and Laz are of the common origin; they are called the South Caucasian / Kartvelian languages. The term was introduced by H. Schuchardt.

The pioneers of Kartvelology G. Rosen, M. Brosset, A. Tsagareli, N. Marr, and others studied separate Kartvelian languages with the comparative method and showed regular phonemic correspondences between them. Basing on these phonemic correspondences it is declared that Kartvelian languages developed from the common language – the CK (Gamkrelidze and Machavariani 1965, 4; Gamkrelidze 2008, 30).

Nominal and verbal archetypes of CK can be reconstructed only if regular phonemic correspondences are attested between root and affixal morphemes (Gamkrelidze 2008, 26).

The detailed research was carried out and its results were published by Th. Gamkrelidze and G. Machavariani (Gamkrelidze and Machavariani 1965; Gamkrelidze 2008, 24–57, 85–88). The comparative method and the method of internal reconstruction applied to the material of Svan, Georgian, Mingrelian and Laz resulted in the presentation of the typology of the morphophonemic system of the CK language, and diachronic transformations of its patterns in the affiliated Kartvelian languages. Regular phonemic correspondences in the phonological and morphophonological patterns of these languages were presented in detail by the authors.

The alternative variant of the scheme of the diachronic development of Kartvelian languages earlier suggested by G. Deeters (comp. Fähnrich 2007, 5) was presented by Th. Gamkrelidze and G. Machavariani (Gamkrelidze and Machavariani 1965, 16; Gamkrelidze 2008, 87). In consequence of linguistic changes the CK ancestor language developed into two branches (see Fig. 1): Svan and Common Colchian-Georgian unity which was later divided into two independent language systems

that were presented by Colchian and Georgian dialects; still later Mingrelian and Laz were generated from the Colchian branch.

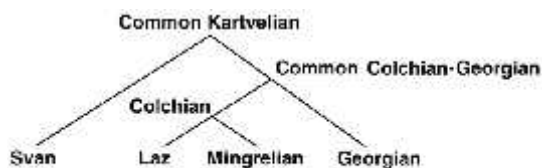


Fig.1. The Scheme of the Origin of Kartvelian Languages

Old Cretan syllabic inscriptions of LA are deciphered by me as the patterns of the CK language.

### 3. Examples of Deciphering Linear A Inscriptions

Linguistic material is one of the most important arguments for the verification of any decipherment. I am happy to say that in the case of the LA, the well-studied linguistic material wholly supports my reading (see: Kvashilava 2011–2020, <https://tsu-ge.academia.edu/GiaKvashilava>).

The following sequences that were reconstructed for the CK language by linguists (Vogt 1961; Schmidt 1962; Gamkrelidze 1966; Gamkrelidze and Machavariani 1965; Klimov 1998; Fähnrich 2007, and others) are given in the texts of the LA.

Some of the deciphered Common Kartvelian (CK) LA words are the following:

3.1. Of special interest are the LA sequences of signs  $\text{3}+$  and  $\text{V}+$  seen here. The LA script signs  $\text{3}$ ,  $+$ , and  $\text{V}$  are considered to be identical to the corresponding signs of LB. I consider these signs to be identical to the corresponding LB syllables deciphered by M. Ventris:  $\text{3}$  [ku],  $+$  [ro], and  $\text{V}$  [ki] (Ventris and Chadwick 1973, 23). The LA sequences of signs  $\text{3}+$  and  $\text{V}+$  are thus read as [ku-ro] and [ki-ro].

Below are the words denoting arithmetic operations in LA inscriptions:  $\text{3}+$  [ku-ro / \*ku-roj],  $\text{V}+$  [ki-ro / \*ki-loj],  $\text{V2}\Psi$  [ki-ri-si / \*ki-li-si],  $\text{V2}\Phi$  [ki-ri-ta2 / \*ki-li-taj], and  $\text{Y}\text{2}$  [sa-ra2 / \*sa-raj]. Semantic interpretation of ku-ro / \*ku-roj, ki-ro / \*ki-loj, ki-ri-si / \*ki-li-si, ki-ri-ta2 / \*ki-li-taj, and sa-ra2 / \*sa-raj forms are presented as CK archetypes:

\*k'ur-oj – “to bind, gather, collect, add”;

\*k'ir-oj / \*k'il-oj – “fault, defect; to subtract, lessen, diminish, cut off”;

\*k'ir-is-i / \*k'il-is-i – “deficiency”;

\*k'ir-it<sup>h</sup>-aj / \*k'il-it<sup>h</sup>-aj – “less”;

\*sar- / \*swar<sup>-1</sup> / \*sur- / \*sr- – “complete, completely, all” (comp. Kvashilava 2019a, 13, 18).

The reconstructed root morpheme \*k'ur-, \*k'ir- / \*k'il-, and \*sar- / \*swar- are of CVS- structure. These phonemic structures are canonical forms of CK morphemes (comp. Gamkrelidze and Machavariani 1965, 304, 318, 368).

These sequences display regular phonological and semantic relations to Kartvelian materials.

Concerning the word ku-ro, J. Chadwick (Chadwick 1970, 154 ff.) writes: “The meaning of one Linear A word is certain: ku-ro is the word which introduces totals, and must mean something like ‘total’ or ‘so much’. If we could find such a word in a known language, the problem of LA might be solved”.

<sup>1</sup> According to T. Gamkrelidze and G. Machavariani (Gamkrelidze and G. Machavariani 1965, 98, 306, 368; Gamkrelidze 1966, 80), the non-syllabic \*w variant of the labial /\*w/, being an independent unit, merges with the simple consonant C, which results in the most frequent and natural cluster C+w. According to morphonologic structure, this is functionally equal to the single consonant phoneme.

The reading of the LA sign-sequence  $\uparrow\text{F}\text{B}\text{+}$  is given below. The LA signs  $\uparrow$ ,  $\text{F}$ ,  $\text{B}$  and  $\text{+}$  are read as the syllables po, to, ku and ro, which, as expected, coincides with phonological values of the corresponding signs of LB (Kvashilava 2017b, 858).

So, the LA sign-sequence  $\uparrow\text{F}\text{B}\text{+}$  is thus read as po-to-ku-ro / \*po-to-ku-roj. Semantic interpretation of the sequence po-to-ku-ro / \*po-to-ku-roj is presented as CK archetypes:

\*p<sup>hot</sup>-oj – “widely (adj.), general”;

\*k<sup>ur</sup>-oj – “to bind, gather, collect, add”;

\*p<sup>hot</sup>-o-k<sup>ur</sup>-oj – “the general, whole sum, grand total” (Kvashilava 2017b, 858).

The reconstructed root morphemes \*p<sup>hot</sup>-, and \*k<sup>ur</sup>- are of CVS- structure; suffixal morpheme \*-o / \*-oj is of -V/-VS structure. These phonemic structures are canonical forms of CK morphemes (comp. Gamkrelidze and Machavariani 1965, 304, 318, 368).

These sequences display regular phonological and semantic connections to Kartvelian materials.

3.2. Below the readings of vessel names – sign-sequences  $\oplus\text{A}$ ,  $\otimes\text{F}$ ,  $\oplus\text{Y}$ ,  $\oplus\text{B}$ , and  $\oplus\text{+}$  of the LA inscription are given.

The following signs  $\oplus$ ,  $\text{A}$ ,  $\text{F}$ ,  $\text{Y}$ ,  $\text{B}$ , and  $\text{+}$  are read by me as being identical to M. Ventris’s reading of the corresponding signs of LB:  $\oplus$  [ka],  $\text{A}$  [ti],  $\text{F}$  [di],  $\text{Y}$  [sa],  $\text{B}$  [se], and  $\text{+}$  [si].

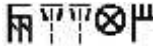

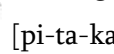
E. Peruzzi (Peruzzi 1956, 166) and G. Neumann (Neumann 1961, 175–177) connected the LB sequence  $\oplus\text{A}\text{F}$  [ka-ti VASE] – “hydria, a water vessel” to the LA sequence  $\oplus\text{A}$  [ka-ti / \*kwa-ti] (comp. Chadwick 1970, 117; Ventris and Chadwick 1973, 227; Chadwick and Baumbach 1963, 209). I connect the LA sign-sequence  $\oplus\text{A}$  [ka-ti / \*kwa-ti] to the Cypriot syllabic script  $\uparrow\text{F}\text{B}$  [ka-to-se] – “cup for water or wine”; the Egyptian  $\text{D}\text{C}\text{I}\text{U}$  [kt] – “cup, goblet; kettle”; the Pre-Greek κύαθος – “ladle for drawing wine”; κάθιδοι – “vessels (Arcadian)”; κηθίς – “ballot box, dicebox”; κοτύλη, κότυλος – “bowl, dish, small cup, goblet”; the Latin catillus – “bowl, dish” (Kvashilava 2017c, 109, 110).

R. Beekes (Beekes 2010, 684–685, 812) thinks that  $\oplus\text{A}$  [ka-ti] is of Pre-Greek origin. He connects the LB word  $\oplus\text{A}$  [ka-ti] to the Pre-Greek κώθων – “name of Laconian drinking utensils”, “drinking-bout”, which he connects to the Kartvelian k<sup>ut</sup>-oj – “a small iron flagon” and k<sup>ot</sup>-o – “clay pot” (comp. Fähnrich 2007, 260).













I connect the LA sign-sequence  $\otimes\text{F}$  [ka-di / \*kwa-di] to the Pre-Greek κάδος – “vessel for wine and other fluids, a liquid measure”; the Pre-Greek κάδη – μέγα ξύλινον βυτίον; the Egyptian  $\text{K}\text{F}\text{W}$  [kʒʔw] – “pot, vessel”; the Egyptian  $\text{QD}$  [qd] – “pot”. I connect the LA sign-sequence  $\oplus\text{+}$  [ka-si / \*kwa-si] and  $\oplus\text{Y}$  [ka-sa / \*kwa-sa] to the Sumerian  $\text{DUG}\text{ka-a-su}$  [DUGka-a-su] – “goblet, bowl”; the Hittite  $\text{DUG}\text{ka-az-zi}$  [DUGka-az-zi] – “a container for liquids” (comp. Kvashilava 2018a, 179, 180).




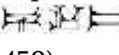

I interpret the LA sign-sequences  $\oplus\text{A}$  [ka-ti / \*kwa-ti],  $\otimes\text{F}$  [ka-di / \*kwa-di],  $\oplus\text{+}$  [ka-si / \*kwa-si],  $\oplus\text{B}$  [ka-se / \*kwa-se], and  $\oplus\text{Y}$  [ka-sa / \*kwa-sa] as CK archetypes \*k<sup>at</sup>- / \*k<sup>wat</sup>-, \*k<sup>ad</sup>- / \*k<sup>wad</sup>-, k<sup>as</sup>- / \*k<sup>was</sup>- – “vessel”. The reconstructed root-morphemes \*k<sup>at</sup>- / \*k<sup>wat</sup>- / \*k<sup>ad</sup>- / \*k<sup>wad</sup>- / k<sup>as</sup>- / \*k<sup>was</sup>- and the suffixal morpheme \*-i/\*-e/\*-a are respectively of CVC- and -V structural types, which represent canonical forms of CK morphemes (comp. Kvashilava 2017c, 111; Kvashilava 2018a, 180).


The study of Kartvelian data fully supports the decipherment and interpretation of the sign-sequences  $\oplus\text{A}$  [ka-ti] and  $\otimes\text{F}$  [ka-di] of CK (Kvashilava 2017c, 108–114; Kvashilava 2018a, 177–185).

Below the readings of vessel names – sign-sequences  [WINE di-di-ka-se],  [pi-ta-ka-se · TE · BARLEY], and  [pa-ta-qe VASE] of the LA inscription are given. Semantic interpretation of the sequences di-di-ka-se / \*di-di-ka-sej, pi-ta-ka-se / \*pi-ta-ka-sej, and pa-ta-qe / \*pa-ta-qej are presented as CK archetypes:

- did-i – “big”;
- p’it’-a- / p’at’-a- – “small”;
- k’as-e / \*k’was-ej – “barrel, cask”;
- did-i-k’as-e / \*did-i-k’was-ej – “a big barrel, cask”;
- p’it’-a-k’as-e / \*p’it’-a-k’was-ej – “a small barrel, cask”;
- p’at’-aq-e / \*p’at’-aq-ej (-aq – a diminutive suffix) – “a tiny vessel” (comp. Kvashilava 2017d, 24, 27).








The interpretation of the sequence  [qa-pa3] is proved to be a CK archetype – the word for a wine-vessel; this is the pattern displaying the regular phonological and semantic correspondence with the Kartvelian material (see Kvashilava 2018b). The stem qap- with the meaning of “vessel” is reconstructed for the languages of different families (Kvashilava 2018b, 458–459). The following sequence of signs , , and  is written above the vessel ideogram  VASE in the second line of the LA inscription on clay tablet HT 31 (HM 19). The last sign of the inscription denotes the natural number 10 (Kvashilava 2017b, 857). In this inscription the sequence  is deciphered as [qa] and [pa3] syllables, which coincides with the phonemic reading of  and  syllables of the LB inscription (comp. Ventris and Chadwick 1973, 385). According to M. Ventris and J. Chadwick (Ventris and Chadwick 1973, 81, 77, 527), the following phonetic units are attested in LB texts: the labiovelar q=[\*kw] and the diphthong a3=[\*aj]. The corresponding signs of LA script  [qa] and  [pa3] are consequently reproduced as [\*kwa] and [\*paj] syllables, and the sequence of the signs  [qa-pa3] is read as [\*kwa-paj] archetype. It has been stated in linguistic researches (Ventris and Chadwick 1973, 323; Gordon 1958, 247, and others) that  [qa-pa3] sequence is the name of the “vessel” (“pot” or “cup”).



I connect the LA sign-sequence  [qa-pa3] to the LB  [ku-pe-ra] – κύπελλα, “drinking cups”; the Pre-Greek κάβος – “measure of grain”; the Egyptian  [kby] – “jar for beer”; the Hittite  [DUGkap-pí] – “bowl”; the Urartian  [ka-pi] – “dry measure” (Kvashilava 2018b, 458–459).









 sequence of VASE qa-pa3 / [\*kwa-paj] is shown by me as corresponding to the CK archetype [\*k’wap’-aj] that is the word for the wine-vessel (Kvashilava 2018b, 456–457). The reconstruction of the given sequence as an archetype of the CK parent language is given below according to the linguistic material given by Th. Gamkrelidze and G. Machavariani (Gamkrelidze and Machavariani 1965; Gamkrelidze 1966).









As already mentioned, the above linguistic material supports the postulation of the transformations undergone by the CK root patterns in linguistically attested Georgian and its dialects, Mingrelian, Laz and Svan language forms. As the sample of the linguistic-comparative analysis, the Kartvelian stem k’op’- has been reconstructed in the sequence \*k’wap’-aj and its allophones on the CK level (Kvashilava 2018b, 457).


















3.3. The sequence of  and  signs is read as [mi-ta] (also attested in LB   [mi-ta PE], Pre-Greek μίνθα, μίνθη, μίνθος, καλαμίνθη, καλαμίνθα, καλάμινθος).   [mi-ta] is presented as CK archetype \*mit<sup>h</sup>-aj denoting the name of a plant which displays regular phonological and semantic correspondence with the Kartvelian material. mi-ta is semantically interpreted as CK archetype \*mit<sup>h</sup>-aj the meaning of which is grass-like, herbaceous plant for seasoning, Mingrelian  val-mint<sup>h</sup>-a, Laz mint<sup>h</sup>-a, Svan mint<sup>h</sup>w, mint<sup>h</sup>v, Georgian \*mint<sup>h</sup>-a – “mint”.



















This archetype phonologically as well as semantically regularly corresponds to the Kartvelian material. The archetype \*mit<sup>h</sup>-aj is structurally of CVC-VC type which is the main canonical form of the CK language. The study of Kartvelian language material confirms the reading of Linear A sequence   [mi-ta] in the CK language.

3.4. My reading of the LA sequence of signs     is given below. This is deciphered by me as ma-ka-ri-te / \*ma-ka-ri-tej. It is well known that \*m- is a Kartvelian prefix; -ak(a)r- corresponds to the Kartvelian root \*-ak<sup>r</sup>- / \*-agr-; \*-it<sup>h</sup> / \*-et<sup>h</sup> is the Kartvelian toponym-deriving suffix; the suffixal allomorph \*-ej I consider to be the nominative case ending (comp. Gamkrelidze and Machavariani 1964, 229 ff., 307). The word     [ma-ka-ri-te / \*ma-ka-ri-tej] apparently denotes the Pelasgian toponym – a. “island of Macris (Euboea) – the habitation of Macrians”; b. “a Colchian person” (Kvashilava 2011, 259–262).

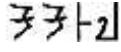
D. Packard (Packard 1974, 148) connected     [ma-ka-ri-te] to the LB     [ma-ki-ro-ne / \*Μάκιρωνες], which to my mind denotes the Pelasgian-Colchian tribal name – “Macrones”.

Below I present the reading and identification of the LA sign-sequence    . As is well known, the LA signs   and  are similar to the signs of the LB.



According to the data, the LA sign-sequence     is read as pa-i-to / \*pa-j-toj<sup>2</sup> (Kvashilava 2019b, 84–85). The toponym and anthroponym     is read by M. Ventrìs as the Pre-Greek pa-i-to, reconstructed as \*p<sup>h</sup>a-i-<sup>s</sup>tos, which is attested in LB inscription as meaning “Phaistos” (Ventrìs and Chadwick 1973, 32, 146, 202, 567; Chadwick and Baumbach 1963, 252; Beekes 2010, 1547). The CK archetype \*p<sup>h</sup>asit<sup>h</sup>-oj (reconstructed by me) allows the LA phonemic reading \*pa-j-toj through the change: \*s<sub>1</sub> > j. Later j > Ø (zero), which results in \*p<sup>h</sup>ajt<sup>h</sup>- > \*p<sup>h</sup>aØt<sup>h</sup>- > \*p<sup>h</sup>at<sup>h</sup>- form of the root (Kvashilava 2019b, 91–92). According to the Kartvelian process, \*a > o, \*p<sup>h</sup>at<sup>h</sup>- changes to p<sup>h</sup>ot<sup>h</sup>-, the meaning of which is the toponym p<sup>h</sup>ot<sup>h</sup>-i – “Phasis” or “Poti” (see Vogt 1961, 9; Schmidt 1962, 27).







Below the reading of the LA sequence of signs     is given. The LA signs   and  are read as [ku], [da], and [ra] syllables (Kvashilava 2010, 320; Kvashilava 2011, 268; Kvashilava 2015, 8–11), which, as expected, coincides with the phonological values of the corresponding signs of LB. D. Packard (Packard 1974, 146) believed that the LA sequence     [ku-ku-da-ra / \*ku-ku-da-raj] was related to the LB words –    [ko-ki-da / \*ko-ki-das] and     [ko-ki-de-jo / \*ko-ki-de-jos], which were read by M. Ventrìs and J. Chadwick (Ventrìs and Chadwick 1973, 365 ff., 372) as \*Κολχίδας [\*Kolkhídas] and \*Κολχίδειος [\*Kolkhídeios] (Kvashilava 2015, 10, 11). These words were read by O. Landau (Landau 1958, 72), S. Hiller (Hiller 1991, 214), T. Gamkrelidze (Gamkrelidze 2014, 260), L. Gordeziani (Gordeziani 2012, 76–77), and others as “Colchis” (a personal name) and “Colchian”.


<sup>2</sup> In CK, the unstressed [j] in V-C position alternates freely with [i] (comp. Gamkrelidze and Machavariani 1965, 67 ff., 69).

Phonetic processes that explain phonic differences between the LA sequence  [ku-ku-da-ra / \*ku-ku-da-raj] and the Kartvelian form \*k'ulkhud-ar-aj / \*k'olkhod-ar-aj / \*k'olkhid-ar-aj reconstructed by me are given here (Kvashilava 2011, 268, 269).


The roots with the vowel [o] are few in Kartvelian; the manifestation of the phoneme /\*o/ must have been extremely rare (Gamkrelidze and Machavariani 1964, 146). Similarly rare is [o] in the inscriptions of the Phaistos Disk (see Kvashilava 2008, 257) and in LA. Instead of [o], these inscriptions use [u]. The syllables with sonant [l] (la, le, li, lo, lu) are not presented in LA and LB – [l] is either omitted or changed by [r] or Ø. I suppose that the reconstructed CK [\*o] of the second syllable is manifested as \*o > \*u > i in LA (comp. Gamkrelidze and Machavariani 1964, 332–333, 335, 338). The Kartvelian derivational suffix \*-ar denoting the place of origin remained unchanged (comp. Gamkrelidze and Machavariani 1964, 307, 763; Fähnrich 2007, 147). The suffixal allomorph \*-aj I consider to be the nominative case ending (comp. Gamkrelidze and Machavariani 1964, 307).



The word  [ku-ku-da-ra / \*ku-ku-da-raj] of the LA inscription is read by me as \*k'ulkhudaraj / \*k'olkhodaraj / \*k'olkhidaraj – “a Colchian person” (comp. LB  [ku-ka-da-ro] – \*Κυλχάδαρος [\*Kulkhádaros]) (comp. Kvashilava 2011, 268, 269; Kvashilava 2015, 10).















The sign-sequence  given in Linear A inscriptions is also of great interest. Consequently I read  as [a-ja], because the LA script signs  and  are identical to the corresponding LB syllabic signs:  [a] and  [ja] (see Kvashilava 2010, 305 ff.; Kvashilava 2015, 5–6).











The LA sign-sequence  is thus read as [a-ja] – “Aea”.

The semantic parallels to “Aea” are presented below (Kvashilava 2010, 307–310; Kvashilava 2015, 8, 11–14):

- a. A town in Thessaly, the ancient region of Greece, inhabited by Pelasgians; a town of Colchis;
- b. The old name of the country of Colchis;
- c. According to Greek sources Aea means “land”, “the earth”;
- d. Aea was the nymph of a spring loved by the Colchian river-god Phasis;
- e. The LB sign-sequence  [a3-wa / \*ai-was > aias]<sup>3</sup> read as “Aeas” – possibly a nickname of an ox (Chadwick and Baumbach 1963, 168; Ventris and Chadwick 1973, 104, 537).

The LA inscription  ...  ... is read by me as ... \*-ja ... -ja ja-wa-. It is a religious refrain that might be connected to the cult of the deity “Aea” (name of the earth goddess?) (Kvashilava 2010, 306–307; Kvashilava 2015, 6–7).

Below the reading of the LA sequences of signs , and  are given. The LA signs , , ,  and  are read as [ku], [ta], [ra], [\*swi] and [ti] syllables, which, as expected, coincides with the phonological values of the corresponding signs of LB. The LA sequence  [ku-ta] – “Cyta” was related to the LB words:  [ku-ta-i-jo] – Κύταιον;  [ku-ta-si-jo] – \*Κυτάσιος;  [ku-ta-to];  [ku-ta-i-to];  [ku-to MAN 1].  [ku-ta] – “Cyta” is a Cretan place name / an

<sup>3</sup> LB signs  [a3-wa-ja / ai-wa-ja > aiaia] were read by M. Ventris and J. Chadwick (Ventris and Chadwick 1973, 101, 104, 537; Chadwick and Baumbach 1963, 168) as “Aeaea”, a god’s slave, a feminine anthroponym; “Aeaea” – “an epithet of Circe and Medea” (Kvashilava 2015, 8). The following forms are attested in LB texts:  [ai-wa-ta],  [ai-wa-to] – “Aeetes”;  [i-wa-so] – “Jason”;  [me-de-i-jo] – “Medius / Medeios”;  [ko-wo HIDE] – “fleece”;  [ka-ra-i] – “Calais”;  [te-se-u] – “Theseus”;  [de-u-ka-ri-jo] – “Deucalion”;  [a-ka-to] – “Acastus” etc.

anthroponym. The LA sequence  $\lambda\text{ra}^*\text{swi-ti} / \text{*la-swi-ti}$  was related to the LB word  $\text{la-su-to} / \text{*la-su-to}$  – “Lasithi / Lasethi”. It is the regional unit on the island of Crete.

### Conclusion

The presented decipherment of LA sequences in CK is richly supported by linguistic material.

1. The words for the operations on numerals: (addition) ku-ro – “to bind, gather, collect, add”; po-to-ku-ro – “the general, whole sum, grand total”; sa-ra<sub>2</sub> – “complete, completely, all”; (subtraction) ki-ro – “fault, defect, subtract, lessen, diminish, cut off, decrease, reduce”; ki-ri-si – “deficiency”, and ki-ri-ta<sub>2</sub> – “less” are proved to be CK.

2. The names of vessels for liquid: ka-ti (also attested in LB, Cypriot syllabic script ka-to-se) – “jug”; ka-di (Pre-Greek κάδος, κάδη) – “jug”; ka-sa, ka-si (Sumerian ka-a-su, Hittite ka-az-zi) – “barrel”; di-di-ka-se – “a big barrel, cask”; pi-ta-ka-se – “a small barrel, cask”; pa-ta-qe – “a tiny vessel”, and qa-pa<sub>3</sub> (Hittite kap-pí, Urartian ka-pi, Pre-Greek κάβος) – “pot, vessel” are CK archetypes.

3. The name of a plant mi-ta (also attested in LB, Pre-Greek μίνθα, μίνθη, μίνθος, καλαμίνθη, καλαμίνθα, καλάμινθος) – “mint” is of CK.

4. The toponyms / anthroponyms: ma-ka-ri-te – “the island of Macris or Euboea” (the territory of the Macrean / Macrones tribe attested in ancient Greek texts, LB ma-ki-ro-ne – \*Μάκιρωνες); pa-i-to (mentioned in LB) – “Phaistos”; ku-ku-da-ra (also attested in LB ku-ka-da-ro – \*Κυλχάδαρος; ko-ki-da – Κολχίδα; ko-ki-de-jo – \*Κολχίδειος; ko-ki-jo – Κόλχιος) – “a Colchian person”; a-ja (also attested in LB ai-wa, ai-wa-ja) – “Aea”, and ku-ta- (also attested in LB ku-ta-i-jo – Κύταιον; ku-ta-si-jo – \*Κυτάσιος; ku-ta-to; ku-ta-i-to; ku-to VIR 1) – “Cyta” (Cretan place name / anthroponym); ra-\*swi-ti (mentioned in LB ra-su-to / \*la-su-to) – “Lasithi / Lasethi” (Cretan place name) are of CK origin.

All the above stems also display regular phonological and semantic relations to Kartvelian materials. Root morphemes are of CVC- structure, suffixal morpheme is of -VC/-V structure. These phonemic structures are canonical forms of CK morphemes.

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