

# The Linear-A Syllabary in the Context of Cretan Protolinear Theory

**Evangelos C. Papakitsos**

*University of West Attica, Egaleo, Greece*

(Presented by Academy Member Valerian Asatiani)

Three syllabaries had been developed during the 2<sup>nd</sup> millennium BCE in Minoan Crete, namely Linear-A, Linear-B and Cretan Hieroglyphics. Each syllabary is composed of signs that mostly render syllabic phonetic values, having the pattern consonant-vowel or simply vowel, therefore called syllabograms. There has been a suggestion that these syllabaries evolved from a common ancestor, called the Cretan Protolinear script. In all three syllabaries, there are more or less signs that are considered of unknown phonetic value, although, according to the Cretan Protolinear Theory, every sign/syllabogram conveys a known phonetic value. In this paper, there is a comparison of phonetic values regarding Linear-A, between those that are assigned or not to the syllabograms by the conventional approach and those of the Cretan Protolinear Theory. © 2021 Bull. Georg. Natl. Acad. Sci.

Aegean scripts, Linear-A, Cretan Protolinear, syllabary, signary archaeolinguistics

Linear-A is a syllabary evident during the 2<sup>nd</sup> millennium BCE in Minoan Crete, belonging to the family of the Aegean scripts that also include Linear-B and Cretan Hieroglyphics. It conveys a still unknown language or at least there is no unanimously accepted proposal about the underlying language. The candidate language(s) include a Semitic/Akkadian dialect, the Luwian language, the Lucian language, some other language(s) of the Anatolian family (extended to Etruscan as well), the Pelasgic (/Proto-Ionic), considered as a language closely related to Proto-Greek but not identical, a Proto-Aeolic dialect and other undisclosed contemporary languages [1, 2].

The Linear-A syllabary (henceforth LAS) is conventionally considered to be a direct descendant of Cretan Hieroglyphics [3], although it has been demonstrated that the latter is merely a ritual and ornamental version of the former's origins [4].

LAS is found on seals, clay tablets and roundels, in 1427 inscriptions on these artifacts, mainly of administrative nature [5], which have been discovered mainly in Crete but also in other areas of the Aegean islands and coasts, and even beyond [1]. Among other symbols, the syllabograms of LAS are counted to 75 signs [6], although, according to the approach, this number may rise to 100 [7]. There are standard editions of

LAS corpus that include the so called GORILA [8], the edition by Raison & Pope [9] and the most comprehensive and updated one by Younger [10] that is available online.

LAS consists of syllabograms, i.e., signs that most of them convey syllabic phonetic values of the pattern consonant-vowel (CV) or simply vowel (e.g., DA, PA, TE, E, etc.). It has been conventionally claimed that these phonetic values are based on the acrophonic principle [11], from many languages as well, yet there are arguments against this notion (see [1]). Contrary to the previous hypothesis, the Cretan Protoliner Theory suggests that these phonetic values are based on the rebus principle [12].

### The Cretan Protoliner Theory

According to the Cretan Protoliner Theory (henceforth CPT), all the Aegean syllabaries (LAS, Cretan Hieroglyphics and Linear-B) evolved from a common ancestor script, which is the Cretan Protoliner syllabary (henceforth CPS). This common ancestor had been initially proposed by Willetts [13] and suspected later on by Tsikritsis [14]. CPS had been originally reconstructed by Kenanidis [15], who also issued the revised and augmented version after a decade of study [16]. This final version of CPS consists of 120 syllabograms, including 116 of them positively identified with the rest 4 remaining uncertain [16, 17]. As a main feature of CPS, each syllabogram depicts a culturally important and/or common object, whose phonetic value corresponds to the entire name of the depicted object (according to the rebus principle), in the Eteocretan language that was spoken by this predominant ethnicity of Minoan Crete. The depiction followed an abstract/simplified manner that may facilitated a fast writing and easy recognition by any Eteocretan [18].

Judging from the phonetic values of CPS signs, the Eteocretan language had been a conservative dialect of Archaic Sumerian [19], as spoken by a

rather moderate number of male settlers, who had arrived at Crete between the 28<sup>th</sup>-26<sup>th</sup> centuries BCE [20, 21], which is also the estimated beginning time of the creation of Cretan Hieroglyphics and LAS [6]. The descendants of those settlers, who (i.e., the settlers) got married to local women, gradually formed the social elite that became the ethnicity of Eteocretans, later on [21]. This discovery is not evident in the language of LAS's texts, but it is in Cretan Hieroglyphics, where it provides meaningful interpretations [22, 23]. The Eteocretan Sumerian had been the model language for creating CPS, by assigning the words for the abstractly depicted objects as the phonetic values of the signs, but it is not necessarily the language rendered by LAS.

The pictographic affinity of the Aegean scripts to Sumerian has been either suspected [12, 24] or noticed [5, 25-28]. Especially Davis [25] presents a table with 32 LAS signs that have equivalents in Proto-Cuneiform Sumerian, without though commenting further on this similarity. In this respect, the reconstruction of CPS by Kenanidis [16] contains 23 LAS signs (19% of the total CPS signs) that have a direct pictorial, phonetic and/or semantic equivalent in Sumerian Cuneiform, Proto-Cuneiform or Pre-Cuneiform scripts (Table 1). This similarity is too large for being merely a coincidence (see also: [29]). Therefore in Table 1, regarding LAS, it is presented: the sign (1<sup>st</sup> column), the rendered syllable (2<sup>nd</sup> column) and the abstractly depicted object (3<sup>rd</sup> column); while regarding the Sumerian scripts, it is presented: the equivalent sign (4<sup>th</sup> column), the denoted word (5<sup>th</sup> column) and the corresponding meaning (6<sup>th</sup> column). The sources of icons in Table 1 are:

- regarding LAS, [10, 30] and [https://en.wikipedia.org/wiki/Linear\\_A](https://en.wikipedia.org/wiki/Linear_A);
- regarding the Sumerian scripts [16, 25, 31-33].

**Table 1. Signs of LAS with direct equivalents in Sumerian scripts**

LAS			Sumerian scripts		
Sign	Syllable	Object	Sign	Word	Meaning
	A	double axe		An	The celestial deity
	CA	sheep (token)		gan	sheep
	DA	branch		ġešdal	(cross) beam
	NA	column		nar	column
	PA	twig		pa	twig
	TA	harp		tab	musical instrument
	WA	house		wa	house
	E	mansion		eš3	shrine
	RE	boomerang		rœ	boomerang
	TE	spike/ear		*tje	spike/ear
	ZE	saw		šœm	saw
	PI	knife		ŋir, pir	blade
	TI	arrow		til	arrow
	CO	cow		gud, gob	cattle
	LO	gazelle		lu-lim	stag
	NO	palm		ŋo, šu	hand
	PU	fruit tree		pu2	fruit orchard
	TU	vas(e)		tug, dug	vas(e)
	ZU	hart (inner)		šəq, šuq	bowels
	DƏ	torch		ədə	fire
	JƏ	city		*jər(ə)	(city) state
	NƏ	bed		na2	bed
	PƏ	canals		par, pa5, pa6	canals

## The Phonetic Values of LAS According to CPS

Obviously, it is of paramount importance for the decipherment of LAS scripts to have the correct phonetic values determined for its signs. Some recent attempts of decipherment proceed either to determine these phonetic values without considering the affinity of Aegean scripts (LAS and Linear-B), with the assistance of languages like the Finno-Ugric and by not using contemporary to LAS scripts [34] or by making use of the standard edition with its deficiencies [35].

The assigning of phonetic values to LAS signs is predominantly based on their pictorial similarity to those common with Linear-B script, which regards from 62 [36] to 82 [14] practically homomorph syllabograms. This practice is conventionally considered valid [37] and statistically verified to a large extent [38]. Nevertheless, it is conventionally recognized that some signs common in both scripts (LAS and Linear-B) may not have exactly the same phonetic value. Indeed, even in Linear-B, there are at least 25 signs that are considered either of unknown phonetic value [39] or of different than the CPS's ones [40]. There is also another range of differences that include the following alterations or conceptions (according to CPT):

Most of the L-set of syllabograms (i.e., LA, LE, LI, LO) in LAS became (or considered to have become) the equivalent R-set respectively (i.e., RA, RE, RI, RO) in Linear-B [41].

There is a whole consonantal set of syllabograms (i.e., 18 signs) that convey vowel /ə/ schwa [40].

There is a whole Θ-set (the Greek *theta*), a B-set [42] and a G(/Ĝ)-set [16] of syllabograms.

Considering the above and according to CPS, the signs of LAS that convey 91 recorded syllables can be classified in three categories:

Those syllabograms of LAS that render the same phonetic value as in CPS.

Table 2. Syllabograms common both in LAS and CPS

<b>Designation</b>	08	77	01/180	57	80	06	03	16	31	59	54
<b>Sign</b>											
<b>Syllable</b>	A	CA	DA	JA	MA	NA	PA	QA	SA	TA	WA
<b>Designation</b>	17	38	44	45/327	46	13	24	78	09	04	703
<b>Sign</b>											
<b>Syllable</b>	ZA	E	CE	DE	JE	ME	NE	QE	SE	TE	WE
<b>Designation</b>	74	67	07	73	39	21	40	61	70	324	05
<b>Sign</b>											
<b>Syllable</b>	ZE	CI	DI	MI	PI	QI	WI	O	CO	SO	TO
<b>Designation</b>	20	10	81	51	23	55	26	58	69	118	342
<b>Sign</b>											
<b>Syllable</b>	ZO	U	CU	DU	MU	NU	RU	SU	TU	DWO	NWA

Table 3. Syllabograms of different phonetic value in LAS and CPS

No.	Sign	Syllable		No.	Sign	Syllable		No.	Sign	Syllable	
		LAS	CPS			LAS	CPS			LAS	CPS
28		I	NO	60		RA	LA	56		PA <sub>3</sub>	BO
30		NI	GI	27		RE	LE	50		PU	BU
41		SI	CØ	53		RI	LI	76		RA <sub>2</sub>	LJA
37		TI	QO	02		RO	LO	66		TA <sub>2</sub>	ØA
65		JU	ØI	85		AU	JAW	87/305		TWE	CWE

Table 4. Syllabograms of CPS with unknown phonetic value in LAS

<b>No.</b>	321	164	11	310	314	122	34	307	304	131	301
<b>Sign</b>											
<b>Syllable</b>	BA	GA	BE	RE	ØE	I	NI	RI	TI	PO	RO
<b>No.</b>	100/102	49	22	“53”	29	47	79	362	120	333	352
<b>Sign</b>											
<b>Syllable</b>	WO	HU	JU	LU	PU	QU	ZU	Ø	BØ	DØ	GØ
<b>No.</b>	347	188	86	344	82	306	320	123	303/316	346	
<b>Sign</b>											
<b>Syllable</b>	HØ	JØ	MØ	NØ	PØ	QØ	WØ	ZØ	ØØ	DILI	

Those syllabograms of conventional LAS that render a different phonetic value than in CPS.

Those syllabograms of LAS that are conventionally considered of unknown phonetic value, although they convey one in CPS.

The 1<sup>st</sup> category contains 44 syllabograms, presented in Table 2, by their formal numeric

designation, corresponding sign and rendered syllable (phonetic value). The sources of icons are those of Table 1.

The 2<sup>nd</sup> category contains 15 syllabograms, presented in Table 3, by their formal numeric designation (“No.”), corresponding sign, rendered syllable according to conventional LAS and

rendered syllable according to CPS. The sources of icons are those of Table 1.

The 3<sup>rd</sup> category contains 32 syllabograms of conventionally unknown phonetic value, presented in Table 4, by their formal numeric designation (“No.”), corresponding sign and rendered syllable according to CPS. The sources of icons are those of Table 1.

The difference of phonetic values between conventional LAS and CPS, as presented in Tables 3 & 4, will be explained below, considering that, according to CPT, the phonetic value of every syllabogram is the Eteocretan word for the depicted object by the respective sign. For commenting the signs of Table 3, their respective CPS syllable will be used in vertical order, designated by their conventional LAS numbering:

Sign \*28 depicts a palm, called NO [1].

Sign \*30 depicts a wild tree, called GI [1].

Sign \*41 depicts the symbol of greatness, called CΘ [40].

Sign \*37 depicts a mountain peak, called QO [18].

Sign \*65 depicts a grinding machine for the meaning of “flour”, called ΘI [42].

Sign \*60 depicts a pouring vessel with a spout, called LA [41].

Sign \*27 depicts a sprout or new shoot of plants, called LE [41].

Sign \*53 depicts a man, called LI [41].

Sign \*02 depicts the head of a gazelle, called LO [41].

Sign \*85 depicts the head of a hog, called JAW/JOW [43].

Sign \*56 depicts a ladder, called BO [42].

Sign \*50 depicts the buttocks and upper thighs, along with the standard dress of men in Minoan Crete, called BU [42].

Sign \*76 depicts a pair of wings, called LJA [43].

Sign \*66 depicts a leaf, mainly of ivy, called ΘA [42].

Sign \*87/305 depicts a bow, called CWE [43].

Accordingly for commenting the signs of Table 4, their CPS syllables will be used in horizontal order, also designated by their conventional LAS numbering:

Sign \*321 depicts a rattle, called BA [42].

Sign \*164 depicts a box, called GA [44].

Sign \*11 depicts a sickle, called BE [42].

Sign \*310 depicts a boomerang, called RE [41].

Sign \*314 depicts the plant of a spicy herb, especially the rock samphire, called ΘE [42].

Sign \*122 it is believed herein that depicts any kind of low plants, called I, judging from its pictorial similarity to the equivalent sign of Cretan Hieroglyphics [18], although in conventional LAS it appears as the logogram for olives [10].

Sign \*34 depicts the moon, called NI [39].

Sign \*307 depicts any large flying insect, called RI [41].

Sign \*304 depicts an arrow, called TI [1].

Sign \*131 depicts a vine/vineyard, called PO [23].

Sign \*301 depicts a throne, called RO [41].

Sign \*100/102 depicts a nanny, called WO [45].

Sign \*49 depicts a panoply, called HU [39].

Sign \*22 depicts the head of a goat, called JU [39].

Sign “53” is confused with \*53 (Table 3) and depicts a ploughshare, called LU [41].

Sign \*29 depicts all fruit-bearing trees, called PU [1].

Sign \*47 depicts an ingot of any valuable metal (mostly silver), called QU [39].

Sign \*79 depicts the hart (or the interior of the body), called ZU [39].

Sign \*362 it is believed herein that depicts a forearm, called Θ [40], compared to \*28 (Table 3) that depicts a palm, and in analogy to the pair \*20 (Table 2) - \*304 (table 4) that depict a spear and an arrow respectively.

Sign \*120 depicts a plant of wheat, called BΘ [40].

Sign \*333 depicts a torch (/fire), called DΘ [40].

Sign \*352 it is believed herein that depicts a young man/lad, called GΘ [17].

Sign \*347 depicts a fruit (probably an apricot), called HΘ [40].

Sign \*188 depicts the delineation of a city, called JΘ [40].

Sign \*86 depicts a ship, called MΘ [40].

Sign \*344 depicts a luxurious bed, called NΘ [40].

Sign \*82 depicts a canal of irrigation, called PΘ [40].

Sign \*306 depicts the head of a fox, called QΘ [40].

Sign \*320 depicts a phallus, called WΘ [40].

Sign \*123 depicts a small perfume bottle, called ZΘ [40].

Sign \*303/316 depicts a plant of cumin, called ΘΘ [40].

Sign \*346 is an uncertain syllabogram that probably depicts a ladle, called DILI (or DELE/DILE), also meaning “unique” [17].

## Conclusion

According to CPT, the Aegean signaries of Minoan Crete (i.e., LAS, Cretan Hieroglyphics and Linear-B) evolved from a common ancestor script, which is CPS that its development had started between the 28<sup>th</sup>-26<sup>th</sup> centuries BCE. CPS contained 120 syllabograms that 106 rendered monosyllabic phonetic values of the pattern V (a single vowel) or

CV (a pair of consonant-vowel), 9 rendered more composite phonetic values (e.g., CWE, JAW, NWA, etc.) and 5 rendered disyllabic phonetic values. The main feature of CPS is that each syllabogram depicts a culturally important and/or common object, while the syllable (i.e., phonetic value) rendered by it is the Eteocretan word for the depicted object.

The present work has been focused on LAS, which conveys one or more contemporary languages, although without a generally accepted decipherment of LAS texts, yet. For facilitating this decipherment, CPS has been used herein to assign phonetic values to LAS signs. Consequently, it has been demonstrated that for 91 signs of LAS, 44 convey the same syllables as in Linear-B syllabary (and CPS), 15 convey a syllable different than the mainstream approach, while 32 that are considered of unknown phonetic value can be assigned one, which is consistent with CPT. The incorporation of CPS into a software tool, being recently developed [2], is hopefully expected to facilitate the learning, studying and perhaps eventually deciphering LAS texts.

The author would like to thank I.K. Kenanidis, whose overall linguistic research made the writing of this paper possible, being a pioneer in Cretan Protolinear Theory.

ენათმეცნიერება

## A-ხაზოვანი სილაბური დამწერლობა კრეტული პროტოხაზოვანი თეორიის კონტექსტში

ე. ს. პაპაკიტსოსი

დასავლეთ ატიკის უნივერსიტეტი, ეგალო, საბერძნეთი

(წარმოდგენილია აკადემიის წევრის ვ. ასათიანის მიერ)

ქრისტეშობამდე II ათასწლეულში, მინოსურ კრეტაზე შეიქმნა 3-მარცვლოვანი დამწერლობა/სილაბური, კერძოდ, A-ხაზოვანი, B-ხაზოვანი და კრეტული იეროგლიფიკა. თითოეული მარცვლოვანი დამწერლობა შედგება ისეთი ნიშნებისაგან, რომლებიც ძირითადად გადმოსცემენ მარცვლოვან ფონეტიკურ მნიშვნელობას, თანხმოვნისა და ხმოვნის ან უბრალოდ ხმოვნის ფორმებით, შესაბამისად, მათ სილაბოგრამები ეწოდებათ. ასეთი ვარაუდიც არსებობდა, რომ ეს მარცვლოვანი დამწერლობები ერთი საერთო საწყისიდან - კრეტული პროტოხაზოვანი დამწერლობიდან განვითარდა. სამივე მარცვლოვან დამწერლობაში არის უცნობი ფონეტიკური მნიშვნელობის ნიშნები, თუმცა კრეტული პროტო-ხაზოვანი თეორიის თანახმად, თითოეული ნიშანი/სილაბოგრამა უკვე ცნობილი ფონეტიკური მნიშვნელობისაა. წინამდებარე ნაშრომში წარმოდგენილია A-ხაზოვანი დამწერლობის ფონეტიკური მნიშვნელობების შედარება კრეტული პროტო-ხაზოვანი თეორიის მნიშვნელობებთან და მათთან, რომლებიც ტრადიციული მიდგომით მიეკუთვნება ან არ მიეკუთვნება სილაბოგრამებს.

## REFERENCES

1. Kenanidis I.K., Papakitsos E.C. (2015) A Comparative Linguistic Study about the Sumerian Influence on the Creation of the Aegean Scripts, *Scholars Journal of Arts, Humanities and Social Sciences*, 3, 1E: 332.
2. Mavridaki A., Galiotou E., Papakitsos E.C. (2020) Designing a Software Application for the Multilingual Processing of the Linear A Script. In Proceedings of the 24th Pan-Hellenic Conference on Informatics (PCI 2020), Athens, Greece, November 20th-22nd, 2020. ACM International Conference Proceedings Series.
3. Manning M.B. (2019) Speculations on the Genesis of the Minoan Linear A Script. In Genesis of Linear A, available from [https://www.academia.edu/40085102/Genesis\\_of\\_Linear\\_A](https://www.academia.edu/40085102/Genesis_of_Linear_A)
4. Papakitsos E.C., Kenanidis I.K. (2016) Cretan Hieroglyphics: The Ornamental and Ritual Version of the Cretan Protoliner Script, *Anistoriton Journal*, Essays 15: 1.
5. Davis B. (2010) Introduction to the Aegean Pre-Alphabetic Scripts, *KUBABA*, 1: 38.

6. Olivier J.-P. (1986) Cretan Writing in the Second Millennium B.C. *World Archaeology*, **17**, 3, Early Writing Systems: 377.
7. Christidis A.-F. (2010) History of the Ancient Greek language (2<sup>nd</sup> reprint). Institute of Modern Greek Studies, Thessalonica (in Greek).
8. Godart L., Olivier J.-P. (1976–85) Recueil des inscriptions en Linéaire A, vols. 1–5. Etudes Crétoises 21.1–21.5, Paris.
9. Raison J., Pope M. (1994) Corpus transnuméri du linéaire A, 2nd Edition. Bibliothèque des Cahiers de l'Institut de Linguistique de Louvain 74, Louvain-le-Neuve.
10. Younger J.G. (2020) Linear A Texts in Phonetic Transcription. Available from <http://people.ku.edu/~jyounger/LinearA>.
11. Woudhuizen F.C. (2005) The Language(s) of Linear A: An Updated Review Article, *DO-SO-MO: Fascicula Mycenologica Polona*, **6**: 95.
12. Fischer S.R. (2004) A History of Writing. Reaktion Books, London.
13. Willetts R.F. (1977) The Civilization of Ancient Crete. University of California Press, Berkeley.
14. Tsikritsis M.D. (2006) The Phaistos Disc: A Guide to its Decipherment. Iraklion Offset, Heraklion, Greece (in Greek).
15. Kenanidis I. (1992) Eteokreeta Megalektora. National Library of Greece, Athens (in Greek).
16. Kenanidis I. (2013) Historical and Linguistic Studies: cwepeker.doc. Lazidou E.P., Kavala, Greece (in Greek).
17. Papakitsos E.C. (2019) Standardizing the Cretan Protolinear Syllabary, *Migration & Diffusion*, **2019**: 1.
18. Papakitsos E.C. (2018) Evidence of General Reading Ability Without Schooling in Bronze Age Crete, *Sumerianz Journal of Education, Linguistics and Literature*, **1**, 2: 56.
19. Kenanidis I.K., Papakitsos E.C. (2017) A Decipherment of the Eteocretan Inscription from Psychro (Crete), *Asian Research Journal of Arts & Social Sciences*, **4**, 3: 1.
20. Papakitsos E.C. (2019) An Application of Systems Science in Humanities: Investigating the Origins of the Minoan Civilization, *Sumerianz Journal of Social Science*, **2**, 4: 33.
21. Papakitsos E.C. (2020). Inquiring into the Origin of the Minoan Civilization via Information Systems Modelling in Humanities, *GPH - International Journal of Social Science & Humanities Research*, **3**, 5: 40.
22. Kenanidis I.K. (2016) A 17th c. BCE Minoan Votive Double Axe (Labrys); The Arkalochori Axe and its siblings, *Anistoriton Journal*, In Situ **15**, 1.
23. Kenanidis I.K., Papakitsos E.C. (2017b) An Interpretation of the Malia Stone Inscription in Terms of the Cretan Protolinear Script, *Terra Sebus; Acta Musei Sabesiensis*, **9**: 43.
24. Castleden R. (2002) Minoans: Life in Bronze Age Crete. Routledge, London/New York.
25. Davis B. (2011) Cypro-Minoan in Philistia?, *KUBABA*, **2**: 40.
26. Glamer H. (2002) Sumerische Schriftzeichen in der Linear A, *Kadmos*, **41**, s1: 121.
27. Melena J.L. (1987) On the Linear B Ideogrammatic Syllabogram ZE. In J.T. Killen, J.L. Melena, J.P. Olivier (Eds.), *Studies in Mycenaean and classical Greek presented to John Chadwick*, 389. Ediciones Universidad de Salamanca, Salamanca.
28. Szałek B.Z. (2015) Tartessian, Etruscan, Linear A, Sumerian and related problems in the light of heuristics and cryptology. Szczecin, Poland.
29. Papakitsos E.C., Kenanidis I.K. (2015) Additional Palaeographic Evidence for the Relationship of the Aegean Scripts to the Sumerian Pictography, *Scholars Journal of Arts, Humanities and Social Sciences*, **3**, 3C: 734.
30. Everson M., Younger J. (2010) Revised proposal for encoding the Linear A script in the SMP of the UCS (Action: JTC1/SC2/WG2 and UTC). International Organization for Standardization: Universal Multiple-Octet Coded Character Set.
31. Driver G. (1948) Semitic writing from pictograph to alphabet (Rev. ed. by S.A. Hopkins in 1976). Oxford University Press, Oxford.
32. Falkenstein A. (1936) Archaische Texte aus Uruk (ATU); Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk – Warka (volume II). Berlin.
33. Falkenstein A. (1964) Das Sumerische (Series: Handbuch Der Orientalistik). E.J. Brill, Leiden.
34. Revesz P.Z. (2019) Computational Linguistics and Ancient Inscriptions. University of Helsinki, October 3, 2019.
35. Kvashilava G. (2019) On Decipherment of the Inscriptions of Linear A in the Common Kartvelian Language: ku-ro and ki-ro. In ATINER's Conference Paper Proceedings Series, LNG2018-0153. Athens, 19 September 2019.
36. Christidis A.-F. (2005) History of the ancient Greek language, 81. Institute of Modern Greek Studies, Thessalonica (in Greek).
37. Meißner T., Steele P.M. (2015) Linear A and Linear B: Structural and Contextual Concerns. In Nosch M.-L., Engren H.L. (Eds.), Proceedings of the 14<sup>th</sup> International Colloquium on Mycenaean Studies "Aegean Scripts", Vol. I, 99. Copenhagen, 2-5 September 2015.
38. Georgopoulos J. (1996) Observations on the Phonetic Structure of the Minoan Linear A Script. Postgraduate thesis, University of Adelaide.
39. Kenanidis I.K., Papakitsos E.C. (2018) Seven Linear B Syllabograms of Conventionally Unknown Phonetic Value, *International Linguistics Research*, **1**, 2: 22.



40. Kenanidis I.K., Papakitsos E.C. (2018) Cretan Protoliner Script: The Sixth-Vowel Set of Syllabograms, *International Linguistics Research*, **1**, 1: 32.
41. Papakitsos E.C., Kenanidis I.K. (2018) The syllabograms of L & R sets in the Cretan Protoliner syllabary, *Migration & Diffusion*, **2018**: 1.
42. Papakitsos E.C. (2018) Cretan Protoliner Syllabary: Two consonantal sets of signs mostly absent from Linear B, *Migration & Diffusion*, **2018**: 1.
43. Kenanidis I.K., Papakitsos E.C. (2017) Linguistic and Cultural Aspects of Disyllabic Signs in the Cretan Protoliner Script, *Scholars Bulletin*, **3**, 10: 489.
44. Kenanidis I.K., Papakitsos E.C. (2018) Culturally Important Objects as Signs of Cretan Protoliner Script, *Humanities and Social Science Research*, **1**, 1: 21.
45. Kenanidis I., Papakitsos E.C. (2018) Cretan Protoliner Script: Some Syllabograms of Human Theme, *World Wide Journal of Multidisciplinary Research and Development*, **4**, 2: 370.

*Received March, 2021*