



## **A Decipherment of the Eteocretan Inscription from Psychro (Crete)**

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### **Authors' contributions**

*This work was carried out in collaboration between both authors. Author IKK conducted the research, implemented the study and wrote, in Greek, the first draft for the manuscript of this article. Author ECP managed the arrangement for the presentation of the study, processed the literature documentation and prepared the submitted manuscript, after translating the first draft into English. Both authors read and approved the final manuscript.*

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### **ABSTRACT**

This study presents a decipherment of the Eteocretan inscription from Psychro (Crete), which was discovered in 1958 and dated to about 300 BC. The inscription was attributed to an unknown Eteocretan language, while the attempts to read the text so far included languages like Hittite, Semitic, even Slavic, without remarkable results. The attempt of the herein decipherment is based on the following concepts evidenced in earlier publications: The inscriptions that are conventionally called Eteocretan convey more than one language. These languages could not have remained totally unaltered through the centuries. Eventually, they had to be written in the Greek alphabet, because of the predominant cultural context. Of course, the Greek alphabet could not precisely render the non-Greek Eteocretan languages, so the scribes improvised their own ways to approximate the sounds of their native language, and this is one more factor that makes it harder for modern researchers to determine the language of the Eteocretan inscriptions. This is the only Eteocretan inscription that was preserved practically intact, but as all attempts of interpreting were

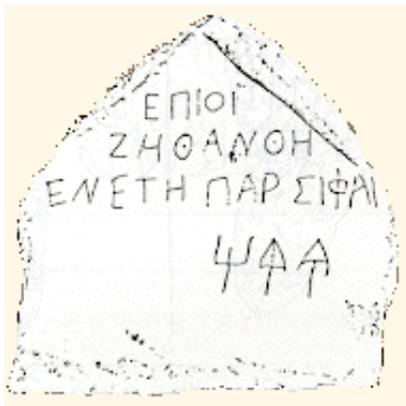
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fruitless, some researchers have declared it a fake. It would be pointless to return to interpretations of the inscription as conveying languages stated in previous attempts, and since it has been shown in a previous publication that the inscription cannot be fake, the present interpretation follows the latest linguistic evidence about the Sumerian origins of the Aegean scripts and, especially, the confirmation of a Cretan Protolinear script's existence.

*Keywords: Psychro; Eteocretan languages; Cretan Protolinear script; decipherment.*

## 1. INTRODUCTION

In 1958, Marinatos [1] reported the existence of an inscription from Psychro (Crete) that belonged to the private collection of Dr. S. Giamalakis (Fig. 1). It was engraved on a piece of stone, the shape of which showed that it was made to fit into an architectural construction, namely into an empty triangle formed over a door of a very small structure. Based essentially on Kritzas [2], Brown [3] attempted to prove that the inscription is a modern fake, his main argument being that it contains what appear to be Minoan syllabic signs (those three at the bottom of the inscription), that is signs of a script supposed to have been extinct 900 years before the inscription that was dated to 300 BC; another one of Kritzas' arguments is that the inscription is on baked clay and not stone – something that has nothing to do with the language of the inscription anyway. Kenanidis & Papakitsos [4] have presented all arguments proving that the inscription is genuine. Those who discarded the inscription as a fake have relieved themselves of the obligation to interpret it, however, as we hold that the inscription is genuine, we must interpret it here in accordance to all our previous research.



**Fig. 1. The Psychro inscription [3]**

First by Marinatos [1] and later on by Brown [5] and Duhoux [6], the inscription was attributed to

an Eteocretan language. Numerous attempts have been made to interpret the text. The proposed languages included Hittite [7] and Semitic [8,9], even Slavic [10]! The shortcomings of each one of the previous attempts were reasonably exposed by Brown [11], although the latter implies that there was only one non-Greek language spoken in Crete (contrary to the linguistic evidence which makes it clear that more than one non-Greek languages were spoken in Crete [12,13,14]). Thus, to all those readers interested in the Eteocretan languages of ancient Crete, a novel approach of decipherment is presented herein, for the first time based on the Cretan Protolinear script theory [12] that suggests the affinity of the Psychro inscription to the Sumerian dialect of Crete. It will be demonstrated that the application of the Sumerian language for this decipherment provides a coherent and meaningful interpretation of the text on this inscription.

## 2. DECIPHERMENT GUIDELINES

Knowing that the conventionally called Eteocretan inscriptions convey more than one language, we had to determine which language is conveyed by the Psychro inscription. One factor that makes this difficult is that the inscription language is for the most part rendered in a script foreign to the language conveyed, so the phonemes are not expected to be rendered with precision [4]. Another difficulty is that even when the language is determined, we still have to understand the specific features of that language for the given date and place. These difficulties have been overcome by following the latest linguistic evidence about the affinity of the Aegean scripts to Sumerian [15,16,17,18] and especially by confirming the existence of a Cretan Protolinear script [12,19,20,21,22,23, 24].

It is exactly the following three facts that made others regard the inscription as fake or unreadable, which opened our way to read it:

- 1) We were facilitated by the fact that this inscription is well preserved, with not even one letter missing or unreadable.
- 2) The three Minoan syllabograms on the inscription clearly point to the fact that the whole inscription is in the language of those who originally created the Minoan civilization along with the Cretan Protoliner script.
- 3) It was impossible for others to explain how the Minoan script survived until 300 BC, while that very fact confirms the existence of the Cretan Protoliner script:

As explained in previous works, the Cretan Protoliner script was created by the Minoans, who were Sumerian settlers [12,20,21,22]; the Cretan Protoliner script in the form of Linear A and Linear B was used by all the different nations that inhabited Crete and the Aegean. However, in the hands of non-Minoans (i.e. Hands of non-Sumerians) the Cretan Protoliner script was distorted as time passed, and eventually forgotten, because the script was difficult for non-Minoans (=non-Sumerians). On the other hand, in the hands of Minoan Sumerians the Cretan Protoliner script could not be significantly distorted or forgotten, no matter how many generations would pass. This is because the Cretan Protoliner script (henceforth in this work referred to simply as "Protoliner") was phonetic and pictographic at the same time: every phonetic (syllabic) sign was a sketch of a readily recognizable object in the Minoan Sumerian culture. So, for those who had Minoan Sumerian as their first language, every syllabic sign had the native name of the thing that the sign depicted, and they always knew what the signs depicted. They could not alter the shape of the signs lest they would be no more recognizable and if a sign was not recognizable it could not have a native (Minoan Sumerian) name, so it could not have a phonetic value. This is why the Protoliner script could not be altered in Minoan hands; while for non-Minoans there was no connection between depicted object and phonetic use of the Protoliner signs.

Therefore, the Protoliner script survived unaltered as long as the Minoan nation existed. And we know that the Minoan Sumerian language, as other non-Greek languages spoken in Crete, was spoken not only until 300 BC but also much later [21], because those populations were relatively isolated geographically and socially. The Sumerian language in Mesopotamia remained in use as a classical and hieratic

language until about the year 100 AD [25]. It was easy for a language to be kept for many centuries among different languages when there was no obligatory schooling and no mass media. An example is the many languages mentioned in the Bible, Acts 2, all spoken during the 1<sup>st</sup> century AD, including Elamite, a language no less old than Sumerian, and languages "of Mesopotamian people" among which were Sumerian and Akkadian – all those languages, when the eastern part of the Roman empire was rapidly Hellenised and the empire's official language was Latin. We shall also briefly mention what is detailed in [21], that even after the pre-Greek languages were forgotten, they left some impressive phonological traits in some dialects of Crete and other islands: the most outstanding being a retroflex "l"; also, a strong tendency to eliminate consonant clusters, and the emphatic pronunciation of some stop consonants, to mention only a few traits that have been left from Sumerian.

Apart from linguistic evidence, there is an abundance of cultural instances that show the influence and lingering of the Minoan Civilization even through the Classical times. The comparison of the Bronze Age Aegean (culturally Minoan) wall paintings to the Etruscan ones reveals a remarkable resemblance [26]. Those who have an idea of the Minoan religious symbols and ideas will be impressed by the coins of Tenedos island (Fig. 2) minted in the 5<sup>th</sup> and 4<sup>th</sup> centuries BC. Such coins are presented here because they most loudly prove that the Minoan Sumerian culture and religious ideas were totally alive in some Greek city states inhabited by Greeks of Minoan ancestry at least until the 4<sup>th</sup> century BC, while those symbols are a mystery for modern archaeologists as they were for the other ancient Greeks as well, who could only make up some totally fanciful and frivolous interpretations [27,28,29]. To be serious with the interpretation, on the right of Fig. 2, the coin's verso depicts a double axe which is the most renowned religious symbol of the Minoans. The double axe symbolised the power and the duality of God An, the supreme deity of both the Minoans [12] and the Mesopotamian Sumerians [30]. The double axe symbol was also used as a very common syllabic (phonetic) sign in the Aegean scripts [12,20,21,23] and it is present, although not so common in the Sumerian (pre-Cuneiform) pictography [17,22]. On the coin's recto, the double-face head (manly face left, woman's face right) clearly symbolised the same duality of the deity (masculine-feminine, yin-yang

as we would say in modern terms). Although this representation can be interpreted as Zeus and Hera (or another mythological couple) as many scholars speculate [29], yet such a dual head representation has never been seen elsewhere in the entire Antiquity: it was a non Greek symbol that surprised the Greeks, but it was quite ordinary for the Minoans who saw a dual deity everywhere and represented the duality of the deity by all their religious symbols. Since such important Minoan Sumerian cultural elements were kept alive in a Greek city state during the 5<sup>th</sup> and 4<sup>th</sup> century BC, we cannot find any justification for considering strange a Minoan inscription in Crete of the year 300 BC.

We understand that the Psychro inscription (Fig. 1) spoke about something related to building and dedicating a small shrine, because of the stone's triangular shape that was obviously made to fit into a triangle formed over a door of a small structure (the Greek name for such an architectural triangle was "anakouphistikon trigōnon"; it was a common feature in architecture since the early Bronze Age). For the inscription text, at first sight the readers may notice that all consonants are voiceless ("Z" too was for a voiceless consonant as will be shown below): this is immediately explained when we know that the Minoan, like all other Sumerian dialects, did not use voiced consonants. It is widely known [31, 32] that Sumerian "k p t" in the Cuneiform were only aspirated, while "g b d" were ejective or emphatic, all of them voiceless (phonological rule 5.0.6 on p. 34: [33]). It can be also noticed that all words in the inscription end with vowels: it is one of the best known characteristics of Sumerian that all consonants had to be followed by vowels, otherwise the consonants were silenced; but also, all these vowels at the end of the words in the inscription are long vowels. This is easily explained by the

use of epenthetic vowels: since short vowels were used as epenthetic (that is, to enable final consonants to be pronounced), the vowels at the end of words were usually long, just to show that they were not epenthetic; and for one more reason: since the final consonants were not pronounced, it would be normal for the previous vowels to be lengthened (a phenomenon called "antectasis" or "compensatory lengthening").

As seen in Fig. 1, the inscription text in Greek letters reads

ΕΠΙΟΙ  
ΖΗΘΑΝΘΗ  
ΕΝΕΤΗ ΠΑΡ ΣΙΦΑΙ

and then three Minoan syllabograms follow. The reader may notice a small space between ΠΑΡ and ΣΙΦΑΙ, which at first sight seems to contradict the fact that no consonant could be pronounced without a following vowel in Sumerian. In fact, that space took the place of a vowel for which there was no Greek letter available, and also the same space separated a prefix ("ΠΑΡ") from the rest of the word ("ΣΙΦΑΙ"). On the whole, we can observe that the scribe of this inscription used the most accurate means available to convey the Minoan Sumerian sounds by the Greek alphabet of that time. It has already been mentioned that Sumerian "k p t" were aspirated and "g b d" were emphatic or ejective, all voiceless; this already explains why Sumerian "b" was rendered by Greek Π and "d" by "T" (phonological rule 5.0.6 on p. 34: [33]). The same observation also explains why the Sumerian "t" (aspirated) was conveyed by Greek "Θ", and "p" by "Φ". This use of Greek X, Θ, Φ in foreign words was consistent in both Classic and Hellenistic times: Akkadian and other Semitic words are rendered with Greek "X", "Φ", "Θ" in place of the original "k", "p", "t"



Fig. 2. The Silver Drachma of Tenedos (5<sup>th</sup> century BC) [27]

respectively. For example, Akkadian *tarmuš* (= lupine) became Greek ΘΕΡΜΟΣ in Classic or Archaic times. In the Septuagint text (Hellenistic times, very near to this inscription), all Semitic “k”, “p”, “t” in proper names are rendered by Greek “X”, “Φ”, “Θ” respectively. The final “t” in the end of Sumerian words (where it could not be pronounced) left its trace as /j/ (this can be seen passim on Cretan Hieroglyphic inscriptions; see rule 5.0.33 on p. 37: [33]). Minoan Sumerian /j/ was rendered by Greek Ι (it was the only way to render “j”; the same can be seen countless times in the Septuagint text when Hebrew etc. names are rendered in the Greek alphabet). The Sumerian “š” (that is /ʃ/) on the inscription is conveyed by the Greek “Z”, exactly corresponding to the Mycenaean Greek “Z” that is rendered as the Sumerian “š” in Linear B (see signs \*20 and \*17 on p. 337: [12]). ‘Θ’ was used for the Sumerian “z” that was pronounced /θ/ (see all syllabograms with “z” in [21] and phonological rule 33 on page 21 ibidem). And then, the combination ΝΘ rendered the pre-nasalized Sumerian “t” (phonological rule 5.0.15 on p. 35: [33]).

Since we have understood how the scribe applied the Greek alphabet for his own Minoan Sumerian language, we can proceed to read and interpret the inscription. In reading and interpreting the whole text of the inscription, in the next section, we shall show, for convenience, the long vowels by reduplication, e.g., ee means a long “e”. Also for convenience, we shall use the letter ə for a Sumerian near close back vowel, pronounced approximately as /ɤ/, and ~ for nasalization. Word forms found in Cuneiform are rendered here in the conventional way and in quotation marks so that the reader keeps in mind that Cuneiform does not accurately render the pronunciation; when we need to be more accurate, we use also œ and y (pronounced as the œ and y of the International Phonetic Alphabet [IPA]): these were the rounded front vowels of Sumerian), and “c” to mean a palatal emphatic non aspirate consonant. “θ” is used as in the IPA.

### 3. RESULTS

Applying all the mainstream knowledge of Sumerian language together with the specific characteristics of the Minoan Sumerian dialect as summarized in the list of phonological rules cited in [33], the text of the inscription (Fig. 1) is read, word by word, as follows ([21], page 200):

- i. ΕΠΙΟΙ = ebi oj = \*ébi or = shrine this (=this shrine)
- ii. ΖΗΘΑΝΘΗ = ʒeeθa~tee = \*šée(š)-θat-ee = Šéeθat (a proper name, marked by –ee as subject of an active verb)
- iii. ΕΝΕΤΗ = énedee = \*é-ne-dee = he built
- iv. ΠΑΡ ΣΙΦΑΙ = báarəsiipəə = \*báarə-siip-əə = it will not ever collapse
- v. cə-ti-lə = cətiləə = \*cə-til-əə = may I live.

All words of the text from [i] to [iv] are written in the Greek alphabet of that time (about 300 BC) while “cə-ti-lə” [v] is a word of three Minoan syllabic signs. This reading of the inscription is consistent with the characteristic Sumerian phonotactics that did not allow any consonant unless followed by a vowel. –j in the end of “oj” [i] was allowed as a *semivowel* being a trace left by an –r. Again to the gap instead of a vowel after P in ΠΑΡ ΣΙΦΑΙ, although this seems to break the rule of “no consonant clusters”, still the rule was kept as normally: there was a short “ə” after the “r”, but there was no Greek letter available to represent that sound, which was anyway short, epenthetic, and hardly noticed by foreigners. Even today people think that they hear consonant clusters in Japanese, but in fact they do not notice some “u” and even “i” which are short and voiceless. For example, Greeks who hear Japanese “ichi” (“one”), pronounce it as “ich”. Especially after consonants that can be pronounced with continuation (fricatives and liquids), an epenthetic vowel is often misinterpreted as a continuation of the previous consonant. For all these reasons and because “ΠΑΡ” was only a prefix in the word “ΠΑΡ ΣΙΦΑΙ”, the scribe preferred to leave a short “gap” between “ΠΑΡ” and “ΣΙΦΑΙ”. It was different with the long “əə”: that was conveyed by the Greek diphthong “AI”, which, in the Koine Greek language of those years was pronounced probably /æ:/, but it is really probable that in the Cretan Greek vernacular the “AI” was /ə:/, a long mid central vowel. What is certain, is that Linear B used the Minoan syllabograms with “ə” to represent the Mycenaean Greek diphthong “AI”. This inscription shows that the pronunciation of Greek “AI” in Crete was not much changed since the Mycenaean times. It may still be argued that “t” was nasalized (written “ΝΘ”) while “p” (written simply “Φ”) was not nasalized, and this appears to be an inconsistency, but in fact it is not: the rule was to nasalise the aspirate consonants, only when they were preceded by short vowels, as was the “A” in “ΖΗΘΑΝΘΗ”; while the “I” before the “Φ” in “ΠΑΡ ΣΙΦΑΙ” was a long “i”, so

the “Φ” ought not to be nasalised (concerning the phonological rule 5.0.15 on page 35 in [33]).

We have transliterated and translated the words of the inscription (numbered [i] to [v] above), but a commentary will also be added now to each word so that it can be clearly identified with a documented word form of Cuneiform (Mesopotamian) Sumerian.

[i.a]: ébi in the Sumerian Cuneiform is “ub”, i.e. “œby” from older “ebi” (phonetic rule 5.0.4 on p. 34: [33]). This “ub”, meaning a kind of shrine, is found composite with “lil<sub>2</sub>” (wind, air, uninhabited land) in “wr. ub-lil<sub>2</sub>-la<sub>2</sub> =outdoor shrine”. In one case, the sign UB is interchanged with “ib” and “ib-bi” (i.e. ebi): “wr. ub; ib; ib-bi = corner, recess; Akk. *tubqu*”, which confirms that the Cuneiform sign UB was pronounced œby from older ebi.

[i.b]: “or” not followed by a vowel becomes “oj” (phonetic rule 5.0.33 on p. 37: [33]). In Sumerian Cuneiform this word is “ur<sub>5</sub>”, a very common demonstrative pronoun for non-person words (Sumerian used two grammatical genders: one for persons and one for things).

[ii]: šée(š)-θat-ee is a Sumerian name of the most common type, consisting of: a term of kinship + honorific adjective. The most famous Sumerian names are of this type: “Gilgames”, in classical Sumerian being “bil<sub>2</sub>-ga-mes” = “ancestor heroic”; and “Dumu-zi” = “son righteous”. In šée(š)-θat-ee we have “brother righteous”. In Cuneiform: “šeš” = brother, and “zi(d)” = right, just, correct, proper. The “e” in Cuneiform typically stands for a long “e” although Cuneiform is not accurate or consistent, but in this word it is verified as a long “e” by the use of Greek “H” instead of “E”. Also “š” at the end of words is not reliable in Cuneiform, but here the alphabetical text is accurate enough. The word for “brother” was exactly šēš. Like most terms of kinship, it is formed by reduplicating one consonant [other examples of such formation are “mama” (mom), “baba” (dad), “lala” (grandma), “teta” (aunt), “papu” (grandpa), all these in Modern Greek, but also well known in many and diverse languages]. Although word-stress or tones were not shown in old scripts, based on [31] and our own research, we judge that the principal stress of Sumerian words was on their first component, in this case šē(š). In this inscription, šēš is simply šē, because of the most common phonetic rule of Sumerian language that silences every consonant when not followed by a vowel. The second component of šée(š)-θat-ee

is Cuneiform’s “zi(d)”, a very common and important word where “true” and “good” coincide, so it is translated “genuine”, “right”, “righteous”, “just”, “proper”, “faithful”, “dutiful”; or “holy” in connection to deities, because everything genuine of a deity is considered holy. This “zi(d)” was pronounced “θet” (phonetic rule 5.0.39 on p. 38: [33]) from an earlier “θat” (rule 5.0.3 on p. 34: [33]), which is what we have in this inscription. So, the name šée(š)-θat meant “a righteous brother”, implying a brother who is just to his siblings, just as a brother ought to be. This name šée(š)-θat here has the suffix -ee, which marked the subject of an active verb: both in form and meaning this is the best known suffix in Cuneiform Sumerian.

[iii]: é-ne-dee is the verb “dee”, in Cuneiform encountered as “du<sub>3</sub>” that is “dœœ”, which means “to build”. In PSD [34], the verb is listed with 7061 occurrences in Mesopotamian tablets and ownership or dedicatory inscriptions. It was one of the most common verbs found in Cuneiform, along with the verbs meaning “to give” and to “receive”, because giving, receiving and building are the most common activities recorded on Cuneiform documents of all kinds. Here the verb has the e- and -ne- prefixes; this e- is found as “i-” in Cuneiform (where the short e is usually represented as “i” [31]) and it is the most common prefix on Sumerian verbs. There was also a prefix “mu-”, but that meant some distant action, usually not witnessed by the speaker. The right prefix in this case was clearly e- (the “i-” of Cuneiform). The second prefix, -ne-, is usually found as a plain “-n-” in Cuneiform, where, together with the previous “i-”, it becomes “in-”. Exactly this verb form is one of the commonest verb forms encountered in Cuneiform, as “in-du<sub>3</sub>” (pronounced “énedœœ”) = “he built”. The verbal prefix -ne- (or “-n-”) was used before the verb stem to indicate the subject (when it was a “person”, not a “thing”) of the verb in the perfective tense. Essentially, it was a remnant of the pronoun “ane” (= he/she).

[iv.a]: báarə is a prefix found in Cuneiform as “bar-” at the beginning of verbs with a meaning of intense negation “it does not...; it will never...; it cannot...”. This prefix refers very often to the future, although there is no specific future tense in Sumerian: the imperfective tense can refer to the future too. Same is the use of the negative suffix -maz in Turkic languages: although not a specific marker of future tense, it usually refers to the future.

We have already mentioned that an epenthetic vowel “ə” was needed here for pronouncing the r-; such epenthetic or “weak” vowels are mostly not visible in the Cuneiform script, and in this case this “ə” was not represented by a letter in this alphabetic inscription.

[iv.b]: in *siip-əə*, the verbal stem is *-siip-*. This is also a very common verb in Sumerian, in Cuneiform recorded as “sig” = to bring down, throw down; pronounced “siiq” in Mesopotamia (rule 5.0.39 on p. 38: [33]). This phonetic rule was so general that older “p” and “b” appear usually as “g” in Cuneiform. In some cases, within Cuneiform the same word is attested both with “b” and “g”, e.g., “agrig” is also found as “abrig”. There are many literal and idiomatic expressions with this word (originally “siip”) in Sumerian Cuneiform, for example:

- The expression “wr. *igi sig<sub>10</sub>* = to see” is exactly analogous to the Modern Greek idiom “to drop an eye” (= to have a look).
- “wr. *inim sig<sub>10</sub>* = to express an idea or desire” was literally “to drop a word” (in a discussion).
- Also “wr. *sa<sub>2</sub> sig<sub>10</sub>* = to plot” is literally “to drop an idea / an opinion”.
- In PSD [34], “sig<sub>10</sub>” is well translated by English “to cast” (throw down), whereas some not so common metaphoric meanings originate from it, like the word “ki sig<sub>10</sub> = to flatten” (“ki” = earth, so “ki sig<sub>10</sub>” literally is “to bring down to the level of the earth”).
- In the exact words of PSD [34]: “wr. *sig<sub>9</sub>*; *sig<sub>10</sub>*; *si-ig* = to place; Akk. *šakānu* = let down, place, put something down”.
- In “wr. *šag<sub>4</sub>-sug<sub>4</sub>-ga*; *šag<sub>4</sub>-sug<sub>4</sub>*; *šag<sub>4</sub>-sig* = waste, empty (land), emptiness, hunger, famine”, “sug<sub>4</sub>” / “sig” has the passive meaning: “collapsing”, the expression literally meant “belly collapsing (sinking)”; (that late form “sug<sub>4</sub>” from older “sig” is another instance of rounding some front vowels, as in “dee” that became “dœœ” wr. “du<sub>3</sub>” in Cuneiform, see word [iii]. Phonetic rule 5.0.4. on p. 34 [33]).
- The verb “sig<sub>10</sub>” appears mostly in active sense (“to drop”), but sometimes also as passive (“to fall”), depending on the context.
- On p. 293 in the glossary of Behrens & Steible [35], “sè(g)” (= sig<sub>10</sub>) is translated as active (to bring down, put down, subdue), “temen-sig = to throw (i.e. lay

foundations”, but then (on p. 295: [35]) “si(g)” is translated as passive (to collapse, sink); Again, the Modern Greek idiom follows the Sumerian: the common Modern Greek expression for laying foundations is “ρίχνω θεμέλια”, literally “I drop foundations”.

- In the collection of proverbs by Gordon [36], we have a very interesting proverb: “bread (or food) fell down, the hand (that left the bread) did not know it; water was poured, the hand (that poured the water) did not know it; however, in the arid parts of the underworld these are food and drink; the souls are grateful to the one who offered those things: it will bring him/her happiness”. This is mentioned because in the Sumerian text the phrase “bread fell (on the ground)” is “ninda ì-sig”, where “sig” has clearly the meaning of “falling down” (or being dropped unintentionally or in secret by the hand). In [37] «sig» is mostly listed with a gloss “to be low”, but with a closer look to the word in its contexts we can find that its sense is more precisely “to fall down (to the ground)”.

It is explicit that this verb (*-siip-* in the inscription) corresponds to Cuneiform Sumerian “sig” (mostly passive: “to be brought down”) and “sig<sub>10</sub>” (mostly active: to bring down). Along with the affixes, *báarə-siip-əə* = “it will not ever fall”. The only thing that remains to be scrutinized is the *-əə* at the end of *báarə-siip-əə*. Some vowel had to be there anyway, to enable the pronunciation of the *p-*; but this was not the only function of that *-əə*. Falkenstein (on p. 1, §35.5: [31]) says that such vowels are forms of the “Konjugationspräfix *i-*” (same as in the word [iii] above) which is suffixed in the form of an “a” when the verb is in an optative or subjunctive mood (while in indicative it is normally prefixed as “*i-*”). We agree on the function of this suffix, it expresses indeed a verb’s mood similar to subjunctive, which could function to indicate the future; but we do not think it is the same “Konjugationspräfix *i-*”, because that is only a prefix and not also a suffix. The inscription examined here shows clearly a form (*-əə*) different than the prefix (*e-*). And the meaning of that suffix (*-əə*) is different to that of the prefix *e-* (meaning an action conceived as “close” to the speaker). We shall not proceed in this work to show the corresponding forms of this suffix in languages cognate to Sumerian, although we hold the opinion that Sumerian is demonstrably related to other languages and not an isolate [33].

[v]: Beneath the alphabetic text, there is a word written in Proto-linear syllabograms: cə-ti-lə = cətiləə = cə-til-əə = “may I live!”. This word is very well known in Cuneiform as “wr. ga-til<sub>3</sub> = vow, an offering”. PSD [34] gives 20 instances, 13 of them as “ga-til<sub>3</sub>” (or “ga-ti”), six as “ga-til<sub>3</sub>-la” and one as “ga-til<sub>3</sub>-le”. Although PSD [34] contains only 20 instances, this word was very common in Sumerian, since it is a form of the verb ti(l) “to live”, a verbal form that came to be used as a noun: an offering made by some person to his/her deity with saying “may I live!”, that is an offering for the benefit of a person’s own life. This (nominalised) word was used in proverbs too, for example: “niĝ<sub>2</sub> ga-til<sub>3</sub> nu ga-til<sub>3</sub> niĝ<sub>2</sub> ba-til nu ba-til”, which is interpreted, as far as we can understand: “the object of the offering is not an offering, the finished work is not finished”. In other words: the thing that you would offer (with saying “may I live”) is not offered, your work that would be done is not accomplished; meaning that if you do not offer the necessary “ga-til<sub>3</sub>” (offering to benefit your life) to your deity, then you cannot complete the job you wish. In Sollberger’s [32] glossary, “ga-til<sub>3</sub>-la” is also encountered as a personal name. Remember that, although used as a noun, “ga-til<sub>3</sub>-la” was properly a verb meaning “may I live!”. The verb stem is -til-. The ending -əə is the same as explained in /báarə-siip-əə above. The prefix cə- (“ga-” in Cuneiform) was one of the commonest affixes, expressing desire or wish, used for the first person (“I” or “we”) only. In Sumerian Cuneiform, a verb meaning “I want” was not used; instead of saying “I want to do that” they simply used the prefix “ga-” (in Cuneiform) / cə- (in Minoan Sumerian). So, in our inscription, the word cətiləə could be taken in these both senses:

- An offering (i.e. “this is an offering to God for the benefit of my life”) and
- “May I live” (i.e. “I say ‘may I live’ when I am offering this”).

Those familiar with the Aegean scripts might ask: why is the sign “ti” shaped differently here than in Linear A, Linear B, and Cretan Hieroglyphics? The answer follows from the fact that the first concern of the Minoan scribes was that their signs had to be recognized as objects; in this case, the sign “ti” had to be recognized as an arrow (“ti” in Sumerian) – but without the need to draw it as abbreviated as in Linear B and Linear A where the limited space on the tablet and the required writing speed demanded a very abbreviated form. Also, the hard material (stone) and the purpose of the inscription did not allow

for a highly embellished form as the signs of Cretan Hieroglyphic usually are. Those scholars nowadays who might confuse this sign (ti) with “šo” (sign \*20 on p. 337: [12]) should notice that the two signs, “ti” (arrow) and “šo” (spear), were clearly distinguished from each other in those times, because “šo” had two tiny horizontal strokes (representing the bonds of the spearhead to the shaft) under the spearhead – on the other hand, “ti” could have only one small horizontal line, and, in contrast to the spear sign, the “ti” sign’s horizontal line was higher and long enough to reach the edges of the Λ shape thus forming a Δ shape. The syllabograms “cə” and “lə” are well known signs in Sumerian pictography and Cuneiform as well as in the Minoan and Cypro-Minoan scripts; these signs have been thoroughly examined in [20] and [21] where they are listed as “ci.” and “li.” respectively.

An overall observation; when we read the whole text of the inscription as:

ebi oj šeeθa~tee énedee báarəsiipəə cətiləə

we observe that the body of the text (apart from the closing ritual word “cətiləə”) is made up of two parts metrically corresponding and rhyming to each other:

- 1) ebi oj - šeeθa~tee  
(metrical form: ~ ~ - | - - -)
- 2) énedee - báarəsiipəə  
(metrical form: ~ ~ - | ~ ~ -).

The only metrical difference between the two phrases is made by the short “ə” of “báarəsiipəə”, which was anyway epenthetic and scarcely noticeable. This means that the text was consciously formed into a metrical couplet that was conceived as an epigrammatic poem. It was common in antiquity to give a metrical form to the texts of inscriptions. Even today the Cretans are known for their fondness to express themselves in metrical couplets.

#### 4. CONCLUSION

It has been demonstrated so far that the Psychro inscription can be meaningfully deciphered through the conservative Sumerian dialect of Crete, spoken by the the scribe’s ancestors who had invented the Cretan Proto-linear syllabary. This particular scribe used the Greek alphabet for the most part of this inscription, because it was the writing system known by all people in Crete and around the Aegean, and also because

the Greek alphabet was the only available writing system proper for writing on hard material, and the only system actually used for stone inscriptions. On the other hand, the Cretan Protoliner syllabary was used almost exclusively on unbaked clay tablets, and it was only suited for writing on soft material; still, the word “cətiləə”, being so important culturally and ritually as explained, had to be written in the Cretan Protoliner that was the national script, hailing from a most ancient tradition, for the person who wrote the inscription. It is something analogous to using some Greek phrases in the Orthodox Eucharist ceremony conducted in a non-Greek language. Although it is only this stone that we know of the whole structure built, the inscription was true when it said “this shrine will not ever collapse”: it is the shrine of the Minoan civilization.

### COMPETING INTERESTS

Authors have declared that no competing interests exist.

### REFERENCES

1. Marinatos S. Γραμμάτων διδασκάλια. Minoica: Festschrift zum 80, p. 227. Berlin: Geburtstag von Johannes Sundwall; 1958. in German.
2. Kritzas CB. The “Bilingual” inscription from Psychro (Crete). A coup de grâce. In: Gigli R, editor, Μεγάλα Νήσοι: Studi dedicati a Giovanni Rizza per il suo ottantesimo compleanno (published in May 2006, I, pp. 255-261), Catania, Italy; 2004.
3. Brown R. The “Epioi” fake (a.k.a. the Psychro inscription). 2011. Accessed 6 October 2014. Available:<http://www.carolandray.plus.com/Eteocretan/Epioi.html>
4. Kenanidis IK, Papakitsos EC. The Eteocretan Inscription from Psychro (Crete) is Genuine. Anistoriton Journal. 2015;14(2):1-7.
5. Brown R. The Eteocretan Inscription from Psychro. Kadmos. Band XVII/Heft. 1978;1:43.
6. Duhoux Y. L' Étéocrétois: les textes - la langue. Amsterdam: JC Gieben; 1982. in French.
7. Davis S. The Decipherment of the Minoan Linear A and Pictographic Scripts. Johannesburg; 1967.
8. Gordon CH. Evidence for the Minoan Language. New Jersey; 1966.
9. Stieglitz RR. The Eteocretan inscription from Psychro. Kadmos. 1976;15.
10. Serafimov P. Translation of Eteocretan Epioi inscription. 2007. Accessed 6 October 2014. Available:[www.korenine.si/zborniki/zborniki07/serafimov\\_epioi07.pdf](http://www.korenine.si/zborniki/zborniki07/serafimov_epioi07.pdf)
11. Brown R. Some “Translations” of the Epioi fake. 2011. Accessed 6 October 2014. Available:<http://www.carolandray.plus.com/Eteocretan/PseudoTranslation.html>
12. Kenanidis IK, Papakitsos EC. A comparative linguistic study about the Sumerian influence on the creation of the Aegean scripts. Scholars Journal of Arts, Humanities and Social Sciences. 2015;3(1E):332-346.
13. Woudhuizen FC. The Language(s) of linear A: An updated review article. DO-SO-MO: Fascicula Mycenologica Polona. 2005;6:95-121.
14. Duhoux Y. Pre-Hellenic Language(s) of Crete. The Journal of Indo-European Studies. 1998;26(1&2).
15. Fischer SR. History of Writing. London: Reaktion Books. 2004;34-40.
16. Szalek BZ. Eteocretan, Linear A, Etruscan, Lemnian, Carian, Eteocypriot and related problems in the light of heuristics and cryptology. Szczecin, Poland; 2008.
17. Davis B. Cypro-Minoan in Philistia?, KUBABA. 2011;2:40-74.
18. Szalek BZ. Tartessian, Etruscan, Linear A, Sumerian and related problems in the light of heuristics and cryptology. Szczecin, Poland; 2015.
19. Willetts RF. The Civilization of Ancient Crete, p. 100. Oakland, California: University of California Press; 1977.
20. Kenanidis I. Eteokreetes Megaleetores. Athens: National Library of Greece; 1992. Greek.
21. Kenanidis I. Historical and Linguistic Studies: “cwepeker.doc”. Kavala: Lazidou; 2011. Greek.
22. Papakitsos EC, Kenanidis IK. Additional Palaeographic Evidence for the Relationship of the Aegean Scripts to the Sumerian Pictography. Scholars Journal of Arts, Humanities and Social Sciences. 2015; 3(3C):734-737.
23. Kenanidis IK. A 17th c. BC Minoan Votive Double Axe (Labrys): The Arkalochori Axe and its siblings. Anistoriton Journal. 2016; In Situ 15 (2016-2017).
24. Papakitsos EC, Kenanidis IK. Cretan hieroglyphics: The ornamental and ritual

- version of the Cretan Protolinear Script. Anistoriton Journal. 2016;Essays 15:2.
25. Campbell L, Mauricio JM. A glossary of historical linguistics, p. 196. Edinburgh: Edinburgh University Press; 2007.
26. Gerakis A, Katsalirou A. A comparison of Etruscan and Aegean wall painting. Anistoriton Journal. 2007;10(3).
27. Kyriakidis B, Konstas H, editors. Nobel, vol. 10: Tenedos, p. 3971. Athens: Giovanis 1974. Greek.
28. Touratsoglou I. The Aegean of coins. Athens: Ministry of Culture; 2001. Greek.
29. Klonizaki A, Lazongas E. Coins of Ancient Greece: Tenedos Drachma. Athens: 4π (National Geographic); 2012. in Greek.
30. Roux G. Ancient Iraq, 3rd Edition. London: Penguin; 1993.
31. Falkenstein A. Das Sumerische (Handbuch Der Orientalistik). Leiden: E.J. Brill; 1964. in German.
32. Sollberger E. The business and administrative correspondence under the kings of Ur (Texts from Cuneiform sources, vol. 1). New York, Locust Valley: J.J. Augustin; 1966.
33. Kenanidis I, Papakitsos EC. Yet another suggestion about the origins of the Sumerian language. International Journal of Linguistics. 2013;5(5):30-44.
34. The Pennsylvania Sumerian Dictionary (PSD), University of Pennsylvania. Available:[http://psd.museum.upenn.edu/ep\\_sd/index.html](http://psd.museum.upenn.edu/ep_sd/index.html) (The abbreviation "wr." therein means "written [as]")
35. Behrens H, Steible H. Glossar Zu Den Altsumerischen Bau- Und Weihinschriften (Freiburger altorientalische Studien, Band 6). Wiesbaden: Franz Steiner Verlag GmbH; 1983. German.
36. Gordon El. Sumerian Proverbs. Philadelphia: University of Pennsylvania, University Museum; 1959. Reprinted with a Chapter by Thorkild Jakobsen, New York: Greenwood Press; 1968.
37. The Electronic Text Corpus of Sumerian Literature (ETCSL), University of Oxford. Available: <http://etcsl.orinst.ox.ac.uk/>

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