Reading “KERESIJO WEKE” and other Designations of Tripods on Mycenaean Tablets

Ioannis K. Kenanidis

1 Primary Education Directorate of Kavala, Kavala, Greece

Correspondence: Ioannis K. Kenanidis, Primary Education Directorate of Kavala, Ethnikis Antistaseos 20, 65110 Kavala, Greece.

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Abstract

This work examines the designations for tripods on the tablets PY Ta 641-1952 and PY Ta 709+712, which have been puzzling and misinterpreted since their discovery until now. These tablets are examined in connection to each other, using a detailed etymological analysis, the common sense of accountants, and close observation of the sketches on the tablets. It is explained why the term “keresijo” has nothing to do with Crete and why “ai-ke-u” or “ai2-ke-u” as traditionally read on the tablets mentioned is not a personal name. The result is a translation given for the texts related to vessels and especially tripod cauldrons on these tablets.

Keywords: Linear B tablets, Mycenaean Greek, Crete, Cretan, etymology, Proto-Indo-European, Pylos, tripod cauldrons

1. Introduction

1.1 The Tablets of Tripods

Pylos tablet Ta 641-1952 is probably the most famous tablet of Linear B. In one of his lectures, professor John Chadwick said that “Greeks should be grateful to this tiny piece of charred clay, because it proved that the Linear B (LB) language is Greek”. Proof for the correctness of a decipherment is usually offered by bilingual documents; for LB there is no bilingual document, but this tablet is rich in “ideograms” which can confirm that the reading of the syllabograms is correct. The term “ideograms” can be misleading: those signs do not convey any abstract ideas, they are only sketches of the things counted and recorded on the accounting documents (clay tablets). So, the term “sketches” will be preferred in this work.

Personally speaking, this tablet, PY Ta 641-1952, is the one that introduced me to Linear B since I found a photograph of this tablet (identical to fig. 2) in the official school book of history when I was a 12-year-old pupil.

Another picture of the tablet is presented in fig. 1 (which clearly shows M. Ventris’ knowledge about it and the state of research at that time, 1952, which essentially remains at the same level until now) and, together with the other relevant tablet, in fig. 3 (a high resolution color photo, that can be seen by following the link given).

The caption in the history book said that “after the syllabic signs for a tripod, “ti-ri-po-de”, there is a drawing of a tripod, and so on”.

At that time I thought that everything about Linear B is known and that all discovered tablets are deciphered, although the caption said that their (the tablets’) reading is difficult. At least this tablet ought to be perfectly read; I could not imagine, as a child, that there are serious problems with the reading even of this famous tablet which so much helped the specialists to decipher it.

It will be clearly shown below that the direction of the research has been wrong in thinking that the tablets speak of provenance or people who had to do with the tripods; instead, the tablets are concerned with the condition and usability of the tripods.

1.2 A detailed examination of previous readings and interpretations of the texts related to tripods

The PY 641-1952 tablet, according to the traditional system of transliteration, is transcribed as:

- 1st line: “tiripode ai3keu keresijo weke CAULDRON 2 tiripo eme pode owowe CAULDRON 1 tiripo keresijo weke apu kekaumen(o) kerea2”;
There are some problems with the translations M. Ventris gave to the various vessels:

- “dipa” cannot be a “goblet”, because goblet is “1. A drinking glass with a base and stem. 2. A bowl-shaped drinking vessel; especially the Eucharistic cup” (WordWeb dictionary), while the “ideograms” make it clear that “dipa” is not a drinking vessel, but one used for storage of liquid. It is convenient to translate simply “vessel”. So here I agree with (Chantraine, 1968) sub voce (s.v.) “δέπας”, including the opinion that the word is probably a loan-word from Luwian, and I suggest that it was some popular false connection to Greek root dap- “to spend, consume” and “dais” (mealtimes) that made the meaning change.
to “wine drinking vessel”.

● “qeto” is supposed to be the vessel called pithos in Classic Greek, an opinion shared by (Chantraine, 1968: s.v. “πίθος”), but after observing the sketch (“ideogram”) for the “qeto” and the shape of the early “kuathos”, I am convinced that “qeto” was the early form of “kuathos” and not “pithos”. The classical “kuathos” was a vessel with one long handle, used for serving wine, but the earlier the era, the more similar to the sketch on the tablet was the “kuathos”: shorter and broader than the classic “kuathos”, it had two handles, and sometimes a spout for pouring. “Pithos” was the largest vessel used by the ancient Greeks for storing (olive oil and other goods), analogous to a modern barrel, and it was never similar to the sketch of “qeto” on the tablet, which shows it even smaller than the “dipa” (the size of the vessel is inferred by the size and position of the “ears”, i.e. its handles drawn in the sketch; the “pithos” has the smallest handles in proportion to its body, while “qeto” has bigger handles than the “dipa”).

Figure 3. High resolution photograph of tablets PY Ta 641-1952 (above) and PY Ta 709+712 (below). From https://resgerendae.files.wordpress.com/2013/04/106_3357.jpg

“Cauldron” is a good translation for “tripod-”. It was used for boiling. Having three legs ensured that it stood steady even if a leg would be a little shorter or longer than the others, and in between the three legs of the tripod a fire would burn for boiling water or cooking the food in it.

The main problems in reading this tablet, however, are not the names of the vessels, but the words “aᵣkeu”, “keresijo” and “weke”.

According to M. Ventris, “keresijo weke” (in the fig. 1 we see English y for j) is *Krēsijowergēs (Κρησιjοϝεργής), meaning *“of Cretan workmanship”, and “aᵣkeu” is “of aikeu type”, that is “an unknown designation of the tripods”.

However, already in “Documents” (Ventris & Chadwick, 1953) there is another tentative interpretation too: *Aigēus Krēsijowekhei (Αἰγήύς Κρήσιος ῥέχει), meaning *Aigēus (a personal name, well known in classical Greek as Αἰγεύς) the Cretan brings”. Both these interpretations, especially the second one, were always very
dubious, and it is now explained why they must be simply unacceptable. There is no other indication on any other LB tablet of a person who brought an object; and there is no other “we-ke” except in the phrase “keresijo weke”; even if on the PY Ta 641 it were *Aigēus Krēsijos, a Cretan (supposing Krēsijos=a Cretan man), then on the same tablet PY Ta 641 and on PY Ta 709+712 “keresijo” is mentioned another three times without a connection to anything that might have been a man’s name. So, by common sense, the interpretation “Aigēus Krēsijos” is totally impossible. Even if we look closer to the supposed verb “wekhei” (“weg hej” in traditional transcription of Indo-European), that would be necessarily from the PIE root “weg’h” (Note 1), a well-known root meaning “a vehicle; to carry with a vehicle” (the very word “vehicle” comes from this root); but while there are known Greek words from this root (όγος / “wok’hos” = a vehicle, chariot; οξε-οήθα / “wok’hesthaj” = to be carried in a vehicle, to ride), a verb form *“wekhei” has never been attested in any form of the Greek language; that **“wekhei” would anyway mean “he carries with a vehicle”, and even this meaning would be absurd in the context of the tablet: *“two cauldrons are carried with a vehicle by Aigēus the Cretan”(!).

A newer interpretation was given by R. Roberts, to which R.V. Janke agrees with enthusiasm: “Aigeus is working on two tripods of the Cretan style” (Janke, 2014, p. 19; fig. 7). This means that “weke” is read as “werg’ej”, supposed to mean “his is working”, but there is no such verb in the whole Greek language; the verb from the root “werg’” in the meaning “he is working” is found many times in LB as “woze” (read “worzej”, from *worg’jej), see DMic. (Diccionario Micénico) and Documents (Ventris & Chadwick, 1953), therefore the verb was “worzej” and not *werg’ej in Mycenaean Greek.

Furthermore, this tablet is a list of things; it cannot contain any verbs, because it is not a report of who is doing what, simply records objects and in how good condition they are preserved.

Even if we suppose that “weke” makes sense in this sentence as “(Aigeus) is working (on two tripods)”, then what is the sense in the other three sentences where “weke” occurs? Who “is working on tripods of the Cretan style” in the other three sentences? How would R. Roberts or R. V. Janke parse and interpret all of those 4 sentences on those two tablets?

Moreover, the phrase “tiripode akeu keresijo weke” cannot be taken as “Aigeus is working on two tripods of the Cretan style”, because if that were intended, the text, by means of the words’ order, would join the cauldrons (“tiripode”) to “keresijo” and “Aigeus” to “weke”, e.g. **tiripode keresijo akeu weke” or **akeu weke tiripode keresijo”; or even **akeu tiripode keresijo weke”, but it would never be “tiripode akeu keresijo weke”, as the tablet really says.

The conclusion is that there is no way to make sense of the text if we ever take “akeu” as a name or “keresijo” as “Cretan”.

Note also that beyond “keresijo weke”, there is no LB tablet that mentions the provenance of a commodity or artefact at all.

It is obvious in the whole tablet that the scribe tried her (Note 2) best to give a very detailed description of the objects: how many handles they have, what is their relative size, a tripod has a handle on one of its legs, another tripod is a little burnt at its legs; in other words the scribe wanted to give a detailed description of the form and the condition of objects kept in (her) storeroom. It is obvious that (she) had to safeguard the objects and give a clear account at any time a superior would ask e.g. “why is that tripod damaged?”; “where did you find this “dipas”?”, “the jar we lost, is it maybe here?”; “have you kept all the jars you received in good condition?” and so on. This tablet is what we call today a “Certificate of (Delivery and) Acceptance”, that is a document recording objects that somebody receives, and is entrusted with, from another person. In such a document it is important to describe the objects in detail so they can be identified later without ambiguity, and also it is important to record in how good or bad condition the objects are. However, to record if the tripods are of Cretan workmanship is quite irrelevant, unless if this can be recognized in their appearance. But could a tripod be recognized by its appearance as “Cretan”?

Of all that I can understand or imagine, there was no characteristic of the tripods, or of the “ideograms” used for them on the tablets, that could make them recognizable as “Cretan ones”. After all, what can make us believe that the word “keresijo” meant “Cretan”? There is not even a slight indication that Crete was known by that name (“Krētā”) at the time that the tablets were written. Wikipedia has spread a wrong idea that the name “Krētā” is very old and even existed in Mycenaean Greek, by saying that the word “ke-re-te” (*Krētes) is attested on PY An 128 tablet, but this is bluntly wrong: the tablet is presented in fig. 4 (from Ruighj, 1962), so you can see it is not “ke-re-te”, but a man’s personal name “ke-re-te-u”, probably Krēthēws (Ventris & Chadwick 1953), a name well documented as classical “Cretheus”/Κρηθής, with a very common ending –ης [-ews, classical –eς] anyway, and it has nothing to do with the classical word “Krētes” which is in plural, while the personal name on the tablet
is clearly in singular, being the subject of the verbs “ekhej” and “ōnato” (έχει, ώνατο, meaning “he holds, he has been benefited (i.e. received)” (Note 3).

**Figure 4. Text from tablet PY An 128.**

Palaeolexicon too (http://www.palaeolexicon.com/ShowWord.aspx?Id=17101) records “ke-re-te-u” as a personal name, and no word **“ke-re-te”**.

That whole tablet reads “‘Krēthēws ekhej ōnato parō molobrōn poimenej WHEAT MEASURES: 2”, which, transferred into classical Greek, is “Κρηθεύς ἔχει ὤνατο παρὰ μολοβρῶν ποιμένι” (“Krēthēws [man’s personal name] holds, has received, 2 measures of wheat from the herdsman of the pigs”). Ōnato (ōnato) is simple past tense of the verb ονίναται (“he is benefited, he earns, enjoys”), and μολοβρῶν (classical molobrōn, with “b” from older velar “g”) is definitely not a personal name, but a description of profession together with ποιμένι (classical “poimeni”). The (alphabetic Greek) word μολοβρός, and similar derivatives like μολόβριον, μολοβρίτης, clearly mean a kind of pig, which has constantly its snout on the ground greedily searching and devouring all plants and creeping creatures, so μολοβρόν ποιμήν =the herdsman of (that type of) pigs (Chanutaine, 1968, p. 709).

Also, an alphabetic form “κρήσιος” (krēsijos) has scarcely been attested in the Greek language, and that only in highly elaborate poetic language (to fit the prosody) and as part of three (geographical or mythological) names; totally unrelated to the name of Crete is an entry by Hesychius: “κρησίαι: καλλίονες, Hsch.” (a rare dialectic variant of κρείσσονες, defined by Hesychius himself as “more beautiful girls/ladies”), and equally unrelated is “κρῆς” (a rare, late Doric form for classic kreas “meat”) (Liddell & Scott, 1940).

The etymology of “Crete” is obscure; the island of Crete was internationally known as “kaptara” and similarly, which, according to Kenanidis (1992; 2011), came from the Sumerian autonym {cwep[to(r)}, also recorded as the Egyptian name “K-F-Tj-W”, which, according to O. Dickinson (1994, p. 241–244) “strongly suggests a similar Minoan name for the island”. All those variants of the ancient name are too remote to Krētē (attested for the first time in Homer’s Odyssey, 8th century BC) to make us believe that the word Krēsijos (hence Krēsijoweg’ēs / Κρησιωέγγης), one only word (Note 4), but then it would be odd that it was always written as two separate words: “keresijo weke”, separated by a word-dividing line, all the four times that it was written, by the same hand, on two tablets (hand PY 2, on tablets PY Ta 641, PY Ta 709+712); and we cannot assume that the scribe habitually divided long words, because the same scribe wrote words of more than 6 signs without word division (“po-ro-e-ke-ti-ri-ja”, “o-pi-ke-wi-ri-je-u”), see Ruijgh (1962) and figures 3, 5, 6.

To the two occurrences of “keresijo weke” on the tablet PY Ta 641, we should add the two occurrences on the tablet PY Ta 709+712 as recorded in the transliteration of (Ruijgh 1962) and (Chadwick 1955) presented here in fig. 5 and 6.

2. Method

2.1 The Role of Transliteration, Mycenaean Phonology and “ə” (“schwa”)

The traditional transliteration of Linear B (henceforth LB) is really praiseworthy because it reflects a sensible understanding of Mycenaean phonology, that understanding contained, however, some misconceptions which have not been cleared, but rather increased, since the time of LB decipherment.

Clues to understand Mycenaean phonology better are the pronunciation of Greek in later stages and even in Modern Greek dialects; the knowledge of other ancient Indo-European (IE) languages; and, last but not least, the knowledge of the Proto-Linear (PL) script and the dialects of the Sumerian language.
Proto-Indo-European (PIE) studies have gone progressively on a wrong way because of the trend to see “laryngeal” sounds everywhere and so ignore the fact that PIE had also some central vowels: a short “a” and a long “a” as well, not only front (“e”) and back (“o”) vowels. The “Schwa Indogermanicum” is nothing else but the PIE short “a”, which was “closer” than the PIE long “a”, in other words, the PIE short “a” was a real /ə/ (a mid-central unrounded
vowel). As ancient Greek was the most conservative recorded language descending from PIE, the original Greek short “a” was /a/ as in PIE; although that was later modified, we can be sure that the “a” in the Mycenaean diphthong “ai” was exactly /ə/, for the following reasons:

- it descended from the PIE (and original Greek) short “a”, that is /ə/;
- it was rendered by the Sumerian signs for /s/, which was the closest available means to write /s/, and marginally, in some Sumerian dialects and sociolects, /s/ was pronounced instead of /s/;
- Mycenaean “a” in “ai” (that is /jə/) was not the same as “a” alone (without a –j or –w coda), since different syllabograms were used for “a” and different ones for “ai”; this means that the –j (probably also the –w) kept the “a” higher (closer vowel) than the mere “a”. This is why the Mycenaean “ai” was rendered with the signs for Sumerian /s/ (e.g. LB 43). In some cases, however, the same sign stands for both “a” and “aj”, e.g. LB sign “ja” is also used for “jaj” too, either because the scribe had forgotten the rare sign for “j” or, more likely, because in “jaj” the “a” was not made higher; this proximity, but not identity of the two vowels shows that they were similar, differing only in height (/ä / versus /ə/).
- Mycenaean “a” was not a back vowel, as we shall see in this work that long Mycenaean “a” was near to long “e” (a tendency generalized later in the Ionian or “eastern Greek” dialects: Appendix B).

So, Mycenaean “a” in “ai” (in fact /jə/) was /ə/, while the independent short “a” was quite opener and long “a” was also fronted. The important for the present study is “a” in Mycenaean “ai” /jə/ because that is crucial in reading the tripods’ tablets.

The Sumerian language has been already mentioned; it would be absurd if the whole Sumerian civilization (including language and the art of writing) had been always confined to southern Mesopotamia without affecting the writing systems of Cyprus and the Aegean which are clearly related to each other, when we know of the adventurous character of the Sumerian nation, the fact that Sumerians are known as the first inventors of writing, the necessity for ancient nations to travel, trade and colonize to distant lands, and the main writing material being the same unbaked clay for Mesopotamian Sumerians and the Minoan writing systems.

It has been explained in detail (Kenanidis, 1992; 2011) that the whole Minoan (including Cypro-Minoan) civilization was due to Sumerians who settled especially on Crete since the beginning of the 3rd millennium BC; and the writing system used by those Sumerian settlers evolved from pictography to Proto-Linear (PL).

For those familiar with LB, Linear A (LA), Cretan Hieroglyphic (CH) and the Cypro-Minoan (Linear Cypriot, LC) script, it is easy to understand what Proto-Linear was: the syllabic script that all other Aegean and Cypriot syllabic scripts originated from; rather, it is more accurate to say that LB and LA were only applications of PL for writing languages other than Sumerian, while PL itself was devised and used for Sumerian by Sumerians.

Although the Linear B tablets were written in pure Greek (Achaean) language, the study of Cretan Proto-Linear (CP, conveying the Cretan Sumerian dialect) will prove to be indispensable for the complete understanding of Linear B and for solving problems with the reading of the LB tablets; it is exactly because of hitherto ignoring or not applying the knowledge of Proto-Linear that research has remained essentially stagnant since the time of the first decipherment of LB (1952), because it is only the study of Proto-Linear that sheds light on the exact phonetic use of LB signs and on the hitherto unknown phonetic value of about 1/10 of the LB syllabograms inventory.

This is why the tablets and words on them will here be transcribed not only in the traditional system used for LB, but also in the system used for transliterating the Proto-Linear, which uses “c” for emphatic palatals and “q” for non-emphatic but aspirated velars (”k” and “g” reserved for non-emphatic palatal aspirate and emphatic non-aspirate velar respectively, these two not attested in Cretan PL). In contrast to (Kenanidis, 2011), where “ı” (the dotless i) is used for a Sumerian vowel “similar to Turkic /ıu/”, that vowel was in fact /s/ in most dialects and /ə/ in others (Kenanidis & Papakitsos, 2018), so “s” will be used for transliterating the Proto-Linear too, although “a” had not exactly the same use when writing the Mycenaean (Achaean) Greek language.

To distinguish between systems of transliteration, the traditional transliteration of Linear B will be in quotation marks (“”), while curly brackets {} are used for the Linear B signs treated as signs of the Cretan Proto-Linear (CP).

2.2 Texts about Tripods on the two “KERESIJO WEKE” Tablets

According to the mentioned system for transliterating the Proto-Linear script (Kenanidis & Papakitsos, 2018), the lines about cauldrons on those two tablets read:

- PY Ta 709+712: {tilipo celesijo wece niceu CAULDRON 1 tilipo celesijo wece epicewilijeu CAULDRON 1}
2.3 Reading the Crucial Term “keresijo weke”

The whole context of these two tablets shows that the scribe was concerned to describe how suitable for use the cauldrons were: this is anyway the most important concern for any document recording things received and entrusted for a storehouse. This makes the words “keresijo weke” very easy to recognize as the Greek words «χρήσιος ϝεικής» (khrēsios = of usage, weikēs = proper, suitable, so “khrēsios weikēs” = suitable for use).

These two words, “keresijo weke” are the key for understanding the whole of the texts referring to tripods on the two tablets discussed, after it has been explained that “keresijo weke” = suitable for use; it is surprising that ϝεικής (weikēs) cannot be found in Alphabetic Greek unless with the “privative” prefix “a-” in ἀ-ἐκής, ἀ-εῖς. (Attic ἀ-ἰς); this prefix “a-” was added to any word in Greek (and in Sanskrit exactly in the same way) to form a word with the opposite meaning, so the meanings of ϝεικής (weikēs /wejceːs/) are perfectly known as exactly the opposite of ἀ-ἐκής, and as ἀ-εῖς existed (and was a common word with a well-known range of meaning), ϝεικής existed before. It was formed by the PIE root w(e)jk΄ meaning “to be matching; suitable; proper; just; agreeable; fair; resembling; seeming true or natural; expected”; today the root is known mostly for the meaning of “resemblance” (as in the derivative “eikōn” hence English “icon”), however the original meaning of the root was “well matching”; the root has given a great many words in Greek. “Khrēsijos” is the genitive of “khrēsis” (χρῆσις, “use, usage”) a well-known word; the genitive goes before the modified word as always in Mycenaean and as usually in old Greek prose.

2.4 The Exact Meaning of the Term “apu kekaumen(o)”

As to {apu kekaumen(o), corresponding to classic ἀποκεκαυμένος (apokekaumenos), the dictionary (http://perseus.uchicago.edu/cgi-bin/philo logic/getobject.pl?c.7:4:137.LSJ) gives “burn off”, which means, in all cases, to cauterize or burn the extremities of things, but not the whole things (Appendix A).

That is why I translate “burnt around”. The legs of a cauldron were made of bronze; they could not really be burnt, unless on the surface, and that “burning” was simply the discoloring that fire causes on metals (not so much by soot, rather by intense heating). Such “burning” on the cauldron’s bronze legs, although it makes the legs look already used and somewhat ugly, does not make the cauldron less usable. That is why the tablet describes the cauldron as “burnt” at the legs, but still «χρήσιος ϝεικής» (“khrēsios weikēς”), suitable for use.

The fact that the “apu” (classical “apo”) is written as a separate word, and not as a component in **“apukekaumen(o)” indicates that it was pronounced and understood as a separate word (a usage common in the earlier stages of Greek, Sanskrit and other IE languages), and so the original meaning of “apo” (“away”, i.e., on the edges, on the outer, on the surface only) is better preserved than when used as a preposition component of a bigger word.

2.5 Etymological Analysis of {əceu} and {niceu}; the Hitherto Misinterpreted Sign “ni”

The most elusive question about these cauldron texts, however, is about the words {nīceu} and əceu. What I transcribe as {ni} is LB sign 34/35, and as {s} the LB sign 43. In (Kenanidis, 1992; 2011) it has been explained that the sign 34 (together with 35, which is simply a variant of the sign 34) comes from two old Proto-Linear signs, one depicting the moon and another depicting a bead of a precious bright gem; both “moon” and “gem” were respectively.

The word *34-ke eye said and **34-ke-re-te are obviously “nike’teres” (nominative) and “nike’tersi” (dative) of a word meaning “the victorious deities”, in classical form νικητήρες and νικητήρον respectively. The word *34-ke-ja (a personal name) is probably an early form of classical “nikaios” (νικαῖος, “victorious”) (Appendix B).
The other words with *34 in the middle of words must have had a “i” before the “ni”; the (name proper?) “po-*34-wi-do” can be read “porniwiidos”, possibly related to classical “pornē” (πορνή, not in the later sense “prostitute”, but in a more original sense: “seller”, derived from the verb “περνέω / πέρνημι “I sell”); another plausible etymology is in relation to «πρότος», (“πρόνος”, a yew bush or tree, proverbial for its endurance and longevity); it may even be possible to connect it to Sankrit parṇā “feather”; otherwise, it would have to be a derivative from the root pher-/phor- (φέρω) “to carry”.

The word “au-to-*34-tá-ra”, listed with objects used for bath, was *αὐτόννιταρα (autonnitra), here the non-palatalized and doubled –ni- is wholesomely justified by the first element being the more original *awtō instead of classical “auto”; but also the second component “nitra” was treated similarly to a separate word by not palatalizing the ni- (as if starting a word which in fact was the second part of the compound); “nitra” was a technical word of foreign origin, referring to a chemical substance used as a detergent; so, “autonnitra” (neuter gender, plural of *“autonnitron”) were some kind of objects containing the detergent in them, a formation analogous to classical “aut-andros” = (a ship) together with the people (andr-) in it.

Therefore, it has been a blunder for so long time to relate LB *43 ({ə}, used for Mycenaean “ai”) with LB *34/35 {ni}; these two have been considered related only because of the two hapax words {əceu} and {niceu}, but apart from these two words there is no case of a *34/35 interchangeable with *43 (“ai” / “ə”). And there is no reason to believe that the word “*34-ke-u” means the same as “*43-ke-u”; both were written by the same scribe, and the scribe meant them as two different words: “*43-ke-u” meant “very well”, while “*34-ke-u” meant “far from; definitely not”. How could it be possible for Linear B, a script that barely approximates the Greek phonology, to use two different signs for the same syllable “ai”, for which not even one sign would be necessary, if “ai” were written as “a-i”!? The fact that it was the same scribe who wrote “*43keu” and “*34keu” makes it even more impossible to think that *43 and *34 had the same phonetic value: of two different scribes, each of them might have preferred a different sign for the same syllable, but one and the same scribe could not have used two signs of totally different pictorial origin for the same “ai”.

A similar case of different words which are suspected to be the same are the names “a2-nu-me-no” and “a3-nu-me-no”, and quite rightfully Melena (Melena, 2014, p. 225) doubted about it when he wrote:

“… a2-nu-me-no PY Jn 389.12 (Hand 2) man’s name in –μνος, if a variant of a3-nu-me-no PyAn 261.2 (Hand 43).”

The two words, “a2-nu-me-no” and “a3-nu-me-no” are clearly two different words, from different roots. This is clearly understood when we know that Mycenaean “a” in “ai” was a closer vowel than a non-diphthong “a”: so, “a2-nu-me-no” is surely not “Αυτόννιτας”, but it can be well interpreted in other ways, e.g. Homeric “ἀρνύμενος” (a h- can have been lost in Homer; Homer even uses “amaksa” without the h-, which is found in classical “hamaksa”). Ἀρνύμενος (“winning”) makes perfect sense as a personal name, but if this word was with “h-” in Mycenaean Greek it is a unique case of a PIE laryngeal surviving and documented in Greek, unless classical Greek “hámaksa” shows another surviving PIE laryngeal. It is still no proof that “a” was an “e” that became “a” due to the laryngeal; it could still have been *ha- in PIE, that is the PIE “ha-”, given that /o/ was the PIE short “a” (Note 5).

The –“eu” in the words {əceu}, {niceu}, and even {opicewilijeu}, and even {opicewilijeu} is not a meaningless coincidence: it was not shown below that it was the most usual adverbial ending in Mycenaean Greek (unlike classical Greek that mostly used -ος for adverbs).

As noted in Bichlmeier (2014, p. 55), “o-pi-ke-wi-ri-je-u cannot be an adjective, since the suffix -eu- only forms substantives” This is a rule which might have had an exception, however {əceu} cannot be an adjective nor a substantive, because if it were a declinable word it would appear in the dual number as *{əcewe}; in the phrase {tiliopode aceu celesijo wece}, {tiliopode} i.e. “tripode” is in dual number nominative, so {aceu} would have to be in dual number nominative too; it cannot even be in genitive as {celesijo} = “khrēsijos”, nor in any other inflected form known in Greek grammar. Therefore it has to be an indeclinable form, as also {niceu} and {opicewilijeu}; however, indeclinable forms are often “fossilized” inflected forms that were forgotten as inflected forms and retained a meaning as indeclinable adverbs or particles; a typical example is the so-called «δοτικοφανῆ επιρήματα» (adverbs in the external form of singular number dative case nouns, especially of 1st declension feminine ones, e.g.: ἵδια, ἥδρωμαι, δημοσία, σπουδή, κοινή, σχολή, πεζῆς, φάσει, βία, τῆδε, ταύτη). Now, what old inflected form could have remained in these words ending in –eu? The answer is given by one of the oldest Indo-European languages: Sanskrit, where the suffix –āu (from *-ēw / -ōw, since Sanskrit ā normally comes from older –ā or –ō) forms the locative case of all nouns and adjectives with stems in -i/au; (then it is reasonable that nouns/adjectives with stems in –i (e.g., “Hari”) may have formed originally the locative in *-ēw, while those with
stems in -u (e.g., “Viṣṇu”) formed the locative in *-ðw, although this is not important for the scope of this article, as ē could alternate with ŏ due to IE Ablaut). This means that in Greek too there was a singular number locative case in –ōw (perhaps alternating with *-ðw), which was lost even in pre-Mycenaean times, but left, as a linguistic fossil, a suffix –ēw that formed adverbs; this suffix survived even in alphabetic Greek as –o-ōw (−ōw), forming adverbs like αγχιο (“ankan slow”), απανταιο (“ankan close to”), απανταιο (“everywhere”); there are some pairs of adverbs like ἀγχιο – αγχο (“ankan - ankhous, having a first in – and another form in –oú), which means they were originally nouns with nominative in –i and locative in –ou, from older –*η – (*-ēw). –*ēw turned to –ou for dissimilation to εύ (w) “good” and to the nouns with nominative in –ευ (ews), while –ou was also influenced from the 2nd declension genitive suffix.

More traces are found in many adverbs with a locative sense, formed, even in alphabetic Greek, with a suffix –χ- (−kh–), such as πάγχο, ἀγχία, αγχοθ, απανταιο, ἀλλαγχ, πανταιο (the latter two being “δοτικοφανει ἐπηθηματα”, “dative-apparent adverbs”, see above; even the ending, usually –eι, of “dative-apparent adverbs” can easily be explained by an older locative ending –ēw; when locative case was lost in Greek, its function merged into the dative). It is the same suffix –χ- in some nouns expressing an abstract concept, as αισχοθ (aiskhos, “shame”) from root “aid”, and ἐργχ (iskhus) from root “wis” – (“manly strength”, usually thought to be *wih-, h being a PIE laryngeal, see Note 5). Actually, that suffix –χ- (−kh–) had a demonstrative function, so it was convenient for words indicating placement or direction, but also could be used with a psychological demonstrative (i.e. expressive) sense: aiskhos (“see, it’s a shame”), iskhus (“see, he is so strong”).

Back to our tablets, the words {œ[eu], {niceu}, {opicwililjoeu} carry that adverbial (from older locative) suffix –ēw, while {œ[eu] and {niceu} also carry the adverbial suffix –kh- (−χ–); one might even argue that {œ[eu] is the same as alphabetic αγχοθ (ankhous), but this is proven impossible because there are some words starting with “aki…” on LB tablets and in some of them, at least in the word “a-ki-a,-ri-ja-de”, «αγχι-» (ankh-) is written with LB “a” and not “ai” ("ai") which is what we have in {œ[eu} (Note 6).

A better conjecture for {œ[eu] (“a-ke-u”) was *ajshkʰw, from the root aid- “ugliness, shame”, formed like “aiskhos” (shame, ugliness), with the adverbial suffixes –kh- and –ēw which have been explained above. As in ancient times the root aid- formed the most usual terms to denote ugliness, *ajshkʰw would mean “in an ugly manner”, i.e. “not proudly or presentibly” (but still the two tripods are “khrēsijos wejkhe[ŋ]”, suitable for use). Although this seems grammatically correct and makes some sense, could two tripod cauldrons be “not proudly or presentibly” usable in a palace? The root aid- has a strong sense of ugliness and shame, so if those two tripods were consciously shameful to use, they would not be suitable to use in the palace (although they could be sold or recycled). And then, in all these descriptions of vessels, the imperfect tripods (and all noteworthy vessels, even much cheaper than tripods) are described one by one and their imperfection, if any, is specified in full detail. It would be too odd if two tripods were shamefully usable but their imperfections were not described for each individual tripod. On the other hand, it was natural for two tripods to be mentioned together, if they were in a very good condition, in contrast to the rest ones. So, the scribe started with the two “a[ke]u keresijo weke” tripods which were in best condition, and then went on to describe the other tripods which had some small defects although they were usable. It is clear that “a[ke]u” meant “very well”, but the origin of the word must be also clarified: it was the adjective “ainós” (αινός, stunning) and not the noun “ainós” (αινός, narration). It is easy to be misled, because dictionaries give certain definitions and no certain etymology for these two words: it is surely misleading to define “ainós” as “dreadful” (including Liddell & Scott, 1940): the original meaning was not “dreadful”, and if we take a close look to all occurrences of the word, it never meant “dreadful” or “horrible”: it only meant “majestic in appearance; impressive; stunning”, and the derived adverb “ainóos” (αινός) meant only “most assuredly”, but never “horribly”; such meanings as “horribl(y)” or “dreadful(ly)” were only based on context of other words with a dreadful meaning, which were only augmented by the use of αινός and αινός. A good example is when the elders of Troy speak of Helen (Iliad III, 158) “αινός ὄδυνησε θης εἰς ὁπα ζηκγ” “τιν” (τυνος) is nothing more than an assertion: “indeed, she looks like the immortal goddesses”, although indeed the word is emphatic and carries a connotation of impressiveness, and the idea that “it is really so, because we see it”. There is no word derived from “ainós” (αινός) with an assertive function; although it can be used in a sense of “praise”, especially in later, Christian literature, the original sense of αινός is “narration; proverb; a word inherited from the old people; word of wisdom; a word that is worth listening to”. What we have here on the tablet is the Mycenaean form of αινός (word of assertion) and not a form of αινός (word of wisdom). Only, αινός is formed with the adverbial ending -ως, common in alphabetic Greek, while “ajshkʰw” /əjɲkʰɛw/ was the same word formed by the old demonstrative suffix –kh- with the older adverbial ending –ēw (previously explained). The same suffixes will be seen in {niceu}, which is the most difficult word to explain on these tablets.
Many different thoughts were quickly rejected as irrelevant, when trying to explain {niceu} by the root niq- “to winnow, disperse into the air”; from nikē “victory”; from neikos “hatred”; from the root “nek” (“dead”); the only thought with some resemblance to truth, was to explain it as from “nig” (“to wash hands or feet”), a root well known in alphabetic Greek of all times, from Homer until today, in the form “nīb”-, and as the verb **vič̄̄do**. By that conjecture, {niceu} might be read as *“nikkhēw* from *“nig-khēw*; and the phrase {celesijo weke niceu} would be interpreted as “proper for use only as a basin for washing hands”. This interpretation is clever, but quite subjective. It is not supported by any similar usage in the whole Greek language. In fact, a cauldron too old to be repaired was not proper to use as a hand-washing basin, especially in a palace. It was sooty and all over covered with the greenish patina of bronze, so it was too “aiskhros” (ugly) to be publicly used in the palace. Washing hands before meals was a public and ceremonial activity, as we see in Homer, and it would be shameful to use a rusty useless tripod for that. Also, the shape of a tripod cauldron was not fit to use as a washing basin, which should have a flat bottom, to be placed on a table. A tripod cauldron could not stand on its rounded bottom, unless on three “skēleha”, legs. Besides, consider that fire was always holy with ancient Greeks and other nations; to use the cauldron for holding dirty water of washing, would be a desecrating act. In the world’s literature there is no known instance of a cooking vessel that came to be used under hands being washed, even by poor people – let alone in a palace.

The only plausible explanation of {niceu} on the tablet, is to read it as “niskhēw”: it is simply the well-known “private” (“τερητικὸ”) prefix n- and the suffixes –kh,i, the latter in the adverbialized obsolete locative case form –ēw, which is also in ainkhēw (mentioned previously), and the same fossilized suffix –ēw will be seen in {opicewilijeu}.

More precisely, it is the extended form of the “private” (“τερητικὸ”) prefix n- which is very common in Sanskrit as “nis-”. By the way, the compound suffix –kh,i (of which we have here the obsolete locative form –khēw) is also common in Sanskrit as “hi”, which is both used on its own as a particle meaning “surely, of course; knowing that, because” (used like Greek “gar”), and also joint with “na” in “nahi” (meaning “of course not” etc.). In classical Greek the same -χ is in οὐχί and ναιχί; we have previously seen also ἄγχι and πάγχυ (influenced by πάνο) and a suffixed mere -χί with a demonstrative function.

The form “niskhēw” on the tablet is an adverbialized locative corresponding to an adverbialized nominative form *niskhi which does not seem to be documented on LB tablets, but it is quite well documented in alphabetical Greek in the form “nosphi” (νόσφι). Now we know the etymology of νόσφι, which is unknown in (Chantraine, 1968, p. 757); it comes from an original form *niskhi, that evolved (through a slight raising of /ə/ into /i/) to a vernacular form *niskhi, which in Mycenaean Greek became *niskhi (*nischʰi; with an obsolete inflection form documented here as “niskhēw”), while in Homeric texts it reached a form “nosphi” (influenced by the locative plural suffix –phi, and also influenced by the phonetic change of (“labio”)velars to labials, which was regular in some era between Mycenaean and Homeric Greek; The rounding of /ə/ to “o”, although not regular, was not difficult, especially under influence from words with a negative meaning starting with no-.

Another word importantly showing that suffix *-khi with an extended parallel form *-khēw is the old adverb, later preposition and conjunction “mesphi / mespha”: both forms “mesphi” and “mespha”, as also an usuffixed form “mes” have been attested, and unfortunately these have not been connected to “nosphi” in (Chantraine, 1968, p. 689). The form “mespha” is due to an obsolete */meskʰe:w/ (if not */maskʰe:w/) after influence by many prepositions (and even adverbs) ending in –a.

So, with {niceu} being “niskhēw”, a form of the classical “nosphi” meaning “far from; separately; without; missing”, the phrase {celesijo weke niceu} is to be read “khrēsijos wejkēs niskhēw” = “for use suitable not any more” = not anymore suitable for use (which indirectly implies that the tripod cauldron had been repaired repeatedly in the past but it would be meaningless to try and repair it any further).

2.6 Etymological Analysis of “opikewirijeu” / {opicewilijeu}

The other difficult word on these texts is {opicewilijeu}; -eu is the same fossilized locative case suffix we saw before (Note 7).

The component opi- is the well-known Mycenaean form of classical epi-. Considering that opi- is classical epi-, {opicewilijeu} / “opikewirijeu” is instantly reminiscent of the words episkeuā (“repair”) and episkeuaaz- (to repair), which are very ancient words, and exist until today in Greek. Some inscriptions in the Cypriot Greek syllabary
contain a word “katesekewuase” (kat-e-skeuw-ase, κατεσκευώσε “he constructed”), with a different preposition but the same root σκευ (skew). Episkeuē (“repair”) makes the best sense in this context: “a tripod cauldron that will be proper to use when it is repaired”.

The only remaining question about {opicewilijeu} is its exact grammatical form; it seems to be “opiskewirjēw” or “opiskewirjēw”, but then what is after the root skew- and before the suffix –ēw? To the best of my understanding, this form on the tablet can be explained only by a small scribal error: the scribe wrote “opikewirijeu” instead of the correct “opikewitrijeu”; it was much easier to make the mistake than to write the word correctly, for the following reasons:

- the word was very long;
- the omitted sign “ti” was similar in shape to “wi”: both “wi” and “ti” resemble a Λ with some additional little lines inside it;
- the omitted “ti” has the same vowel as the previous and the following sign: -“wi(ti)ri”-;
- the “ti” was only for the “t”, not for a whole syllable; the syllable was rendered by the sign “ri”, so the scribe felt that every syllable was written, thus nothing was felt to be missing;
- “ri” sounds very similar to “tri”, so, by writing “ri”, the scribe thought that s/he wrote “tri”.

In the corrected form “opiskewitrijēw”, the suffix root –tr- is well-known in Greek and in PIE for two functions: for marking “nomina agentis” (nominative -tēr /-tōr for the male and –tri[j]a for the female) and for “nomina instrumenti” (usually neuter: -tron); these two functions, (“nomina agentis” and “nomina instrumenti”) are originally one: they come from one and the same concept, “the doer”, person or thing doing something. So, “opiskewitrijēw” used the “doer” suffix -tr- and the adverbialized old locative ending “-ēw”. The -i- (turning to j or ij) before “-ēw” is explained by the most ancient adverbial suffix –i, which is e.g. in ομηθί, ασθορί etc, and in many cases it is expanded into –ti (αμαχητί, ακονιτί, ασκαρδαμυκτί, μεγαλωστί) for indicating manner, and in other cases it is expanded into –t (αμαχή, ακονί, νόσφη, μέσφη, and see νίσχη/niskhi, αίγχη/ainkhi above) for a demonstrative, often locative, function. As explained previously, the adverbs in –i were for some time considered adjectives in nominative, of which the corresponding locative ending is “-ēw”; so, the form “opiskewitrijēw” shows that there was in use also an adverb *opiskewiri meaning “by repair”, and that *opiskewiri was the more common form, but as the scribe had in mind other adverbs ending in “-ēw” (ainkhēw, niskhēwi(trj)ia for the female) and for “nomina –ēw”; so, the form “opiskewitrijēw” meaning “by means of the repairer”). Of course, *opiskewirē and *opiskewitria meant “a repairer”, so the word is indeed a synonym of akestria, only that the akestria mended by using thread and needles, while the *opiskewirē and *opiskewitria repaired by other means.

3. Results

In table 1 we can see that not all sketches of tripods are the same; the photographs (above) are more reliable than the modern copies (below), still the modern copies are useful to show the size of each sketch in relation to the space of each line; so we can see that the shape and size of the sketches are connected to the quality and usability of the tripod cauldrons.

The examination (presented above, in the section 2) of the texts about tripods on these two clay tablets results in the reading and translation provided in the table 1.
Table 1. The sketches and descriptions for each tripod cauldron

<table>
<thead>
<tr>
<th>PY Ta 641</th>
<th>PY Ta 709+712</th>
</tr>
</thead>
<tbody>
<tr>
<td>two tripod cauldrons very suitable for use</td>
<td>a tripod cauldron</td>
</tr>
<tr>
<td>a tripod cauldron with one leg having only one</td>
<td>a tripod cauldron</td>
</tr>
<tr>
<td>&quot;ear&quot;</td>
<td>proper for use, superficially burnt around the</td>
</tr>
<tr>
<td></td>
<td>legs</td>
</tr>
<tr>
<td>(Note 8)</td>
<td>(sketch missing due to chipped off edge of</td>
</tr>
<tr>
<td></td>
<td>tablet)</td>
</tr>
</tbody>
</table>

4. Discussion & Conclusion

After the reading and interpretation (section 3, table 1) we can notice that the scribe made the sketches according to the real shape and condition of the tripods, while psychologically connecting quality to size: the better the condition of the tripods, the bigger s/he made the sketch (table 1). The best condition tripod cauldrons (left column) were drawn with a big body, while in the second column from the left, the cauldron with only one “ear” (in this case “ear” meaning a lesser handle) on a leg was drawn with the legs shown big, especially the middle leg. In the 4th column from left, the worst preserved cauldron is drawn as smallest of all, with the brim slanting to the right and visibly sagging; while the better cauldrons (left two columns) show their “ears” (i.e. main handles) erect, the worse ones (right two columns) show their “ears” horizontal; and it is only the last (on the right) tripod cauldron that was drawn with a wavy brim, to indicate that the brim can be straightened by hammering (repair).

Comparing the two tablets, we also notice another typical process followed by the professional scribe; both tablets list other things together with the tripod cauldrons: the tablet on the left lists various kinds of containers, while the tablet on the right lists things useful for cooking and serving food, such as fire starter devices, grillers, ladles and bowls; but when the tripods recorded are in more or less good condition, they are mentioned first, before the other things, as seen on the “left” tablet; on the “right” tablet, where the tripods recorded are in a more or less bad condition, they are mentioned last, after all the other items.

So, once again the sketches helped to confirm the correct reading of the LB texts; this time being texts describing the tripods in terms of their usability.

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EvBoKHYlYD4YQfgzMAQ&url=http%3A%2F%2Frevistas.usal.es%2Findex.php%2F0544-3733%2Farticle%2Fdownload%2F2836%2F2875&usg=AFQjCNG08RRHADdGXllwJWRIVvQTEMK6rA&sig2=A86ZLqy_8KcvN1LCCxsfRg


Notes

Note 1. In the traditional transliteration of PIE, a ‘ mark on or after a k/g indicates that it is palatal.

Note 2. Judging at least from the handwritings and the tidiness of Linear B scribes, I consider that most if not all of them must have been women rather than men.

Note 3. See verb form in:

Note 4. A supposed compound from *“krēsijo-“* and *“-werg’ēs”* meaning “wrought” from the root *“werg”*.

Note 5. Even so, it is a harmful trend to “discover” laryngeals everywhere and explain everything by laryngeals in the old Indo-European languages. Most scholars nowadays think that every “a”, many “o”s and every word initial vowel in ancient IE languages are due to laryngeals; I suggest that more proof is needed to establish a laryngeal.
Note 6. This must be «Ἀγχιάλιδε» (Ankhi-halijan-de) a place name meaning “near the sea” with allative suffix -de; similar place names are used until today in Greece, e.g. Αγχιάλος.

Note 7. We cannot exclude a chance that some popular false etymology might have connected that suffix -eu to Mycenaean “eu” (Classical εὖ “good, well”), which could make sense in this context; accordingly also ainkhēw might have had a connotation of good appearance, and niskēw a connotation of “no good”. Such a popular false etymology might have applied to “opiskewitrijēw” as “good after a repair”.

Note 8. The scribe made a slight mistake here: s/he ought to write “ke-re-si-jo we-ke” but wrote only “ke-re-si-jo we-ke”; a similar slight mistake is in the second line of the same tablet, s/he wrote “di-pa me-ko-e qe-to-ro-we” instead of the correct “di-pa me-zo qe-to-ro-we”. I do not dare to say that s/he made those small mistakes because s/he did not know Greek grammar perfectly, (her)self being a Minoan Sumerian, according to the theory presented in Kenanidis (1992; 2011), Kenanidis & Papakitsos (2015) and Papakitsos & Kenanidis (2015). In fact the scribes spoke Greek really better than Minoan Sumerian, but it was easy to make such small mistakes, as “ke-re-si-jo we-ke” was a habitual expression (written four times by the same scribe on these two tablets), and then, when writing the first “me-zo-e” the scribe was thinking of the next words to write: “di-pa-e me-zo-e ti-ri-o-we-e”.

Appendix A

Similar modern use of the verb “apokaiō”

Even today there is a use of the verb «αποκαίω»:

(http://www.ethnos.gr/koinonia/artheta/kyprioi_dasokomantos_bazoun_foties_gia_na_sbisoun_tis_floges-129077/ retrieved in May 2016) for a technique of burning the trees around a fire so as to prevent it from spreading. It is an article from a Greek newspaper with a heading “Cypriot forest-commandos set fires in order to put out the flames”; their method is described by a traditional use of the verb “apokaiō”.

Appendix B

Proof about the nature of Mycenaean “a”

Even if *34 were not {ni}, “*34-ke-te-si” and “*34-ka-te-re” are necessarily different forms (cases) of the same noun, and note that one scribe uses “ka” where the other uses “ke” in the same word; this is the phenomenon generalized later in the Ionian dialect, where the long “a”, originally central /äː/, was made slightly more front and high (/æ:/) by the Ίωνες (Iōnes), and that /æ:/ was rendered with the Greek letter «η». So we know that even in the Mycenaean Greek language long “a” was fronted as /a:/, very near to /æ:/ This means that “a” was originally a central vowel, given that it could easily be fronted. It was not originally a front vowel, because the fronting Ionian dialects were clearly differentiated from all the other Greek dialects, which did not front the “a”.

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