NEΩTERΟΣ

STUDIES IN BRONZE AGE AEGEAN ART AND ARCHAEOLOGY IN HONOR OF PROFESSOR JOHN G. YOUNGER ON THE OCCASION OF HIS RETIREMENT

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PROBLEMS IN MINOAN AND MYCENAEAN WRITING STYLE AND PRACTICE: THE STRANGE CASE OF *33 ra3 ON PYLOS TABLET Aa 61

Introduction

I first started to get to know the scholarly work of John Younger on February 27, 1981. I was then beginning my second semester in the Classics Department at Fordham University where I taught six classes per year in areas having nothing to do with Linear B or Aegean prehistory. In the autumn of 1980, I was fortunate enough to fall in with serious and kindly scholars like Malcolm Wiener, Ellen Davis, Günter Kopcke, Holly Pittman, Jim Wright and Phil Betancourt at the New York Aegean Bronze Age Colloquium. As fall turned to winter, they pointed me in the direction of Temple University and its 6th Temple University Aegean Symposium organized with a generous inclusive spirit, especially aimed at younger scholars, by Phil Betancourt.

I had never taken a formal course in art history or archaeology either as an undergraduate or graduate student (except during my two years 1976-77 and 1979-80 as a fellow at the American School of Classical Studies at Athens) and was drawn to Linear B studies partly by my mathematics background, partly by the appealing personality of my mentor Emmett L. Bennett, Jr., partly by my love for the ancient Greek language cultivated in me by two Jesuit mentors at Boston College, Carl Thayer, S.J. and David Gill, S.J., and partly by my desire to get to know human beings in the past as intimately as I could. Gill had studied with Sterling Dow at Harvard University at a time when Dow was interested in what then was called Minoan writing.1 Gill incorporated some of what Dow had inspired him to learn about Aegean prehistory into a few weeks of classes early in the ancient Greek history course I took from him in 1971.

All the papers presented ten years later on February 27, 1981 in Philadelphia struck me in the same way that reaching an unknown world and beholding what the exotic people there are doing must strike any explorer of new worlds. The TUAS participants discussed (1) stylistic features of objects from the Shaft Graves in the papers of John H. Betts (amethyst discoid seal CMS 1,5), Karen Pollinger Foster (faience objects) and Barbara Kling (gold diadems); (2) standardization and by implication variation in a specific feature of sword manufacture (Judith Weinstein on hafting technique and technology); and (3) “different stylistic directions” in Günter Kopcke’s hallmark emphasis, Cato-like, on the “aesthetic indigence which appears to be … a mark of elevated late Helladic civilization” (p. 328). These topics in various ways all touched upon the concerns I had in identifying scribal hands and stylistic classes and in judging variations

1 S. DOW, “Minoan Writing,” AJA 58 (1954) 77-129. For an account of Dow’s role in getting American scholars to accept the decipherment of Linear B, see S. TRACEY, “The Acceptance of the Greek Solution for Linear B,” Hesperia 87 (2018) 1-16. Tracey exaggerates both the initial resistance to the decipherment among American scholars and the importance of Dow’s 1954 survey and his support of the decipherment, but both in a good cause.

I thank José Melena for his characteristic generosity in discussing details of my questions about linguistic matters. My sincere thanks to Adamantia Vasilogamvrou and Vassilis Petrakis for confirming the existence of sign *33 ra3 at Hagios Vasileios. My thanks to Cassandra Donnelly and Teegan Simonds for their help with checking readings of the Pylos tablets, which led to the explorations in this paper. Garrett Bruner walks on water where it comes to all matters having to do with archiving the important materials of early scholars in PASP. He and his predecessors Sue Trombley, Christy Costlow Moilanen and Sarah Buchanan are responsible for the fact that these materials are preserved, readily retrievable, and now known to the world. Garrett also made the high-quality images in the text figures. Kevin Pluta and Zoé Thomas helped with RTI matters. Lastly I thank Brent Davis and Robert Laffineur for their patient and attentive editing. All flaws herein are mine.
in the aesthetic standards and methods of producing clay tablets and texts on tablets of what we now may call tablet-writers – even on one and the same tablet.\(^2\)

John Younger’s paper on identifying different artists responsible for metal objects from the Shaft Graves spoke loudest to me, especially in his methods for identifying a Mycenaean in the aesthetic standards and methods of producing clay tablets and texts on tablets of what we now may call tablet-writers – even on one and the same tablet.\(^2\)

John Younger’s paper on identifying different artists responsible for metal objects from the Shaft Graves spoke loudest to me, especially in his methods for identifying a Mycenaean and two other master craftsmen pupils (pp. 355-356).\(^3\) It raised many questions in my mind and made me wonder more about stylistic attributions than I ever had before. I do not think I ever told him that. I am happy to do so now.

As is well known, Younger has also contributed to our understanding of the development and working of the linear scripts first of Minoan Crete and later the Mycenaean Aegean.\(^4\) In this paper I take up problems that have to do with: (1) palaeographical analysis connected with scribal attribution; (2) reading and interpreting Linear B texts; and (3) how scripts represent spoken words. These all have ramifications for Linear A and Cretan Hieroglyphic. I here pay attention to details as John Younger always has.

Factors Affecting How Signs Represent Sounds in the Linear B Syllabary

Within the Linear B syllabary among the signs (called phonograms or syllabograms) that represent sounds (standing for open syllables or pure vowels), there are about twenty-two signs (about fourteen with reasonably soundly assigned phonetic values) that do not have to be there. In other words, following what we know to be the spelling conventions for representing spoken words by means of Linear B signs, words – even loan words – in the Greek language at its stage of development in 1400-1200 B.C. all could have been represented without the use of these sensu stricto ‘superfluous’, ‘supernumerary’ or ‘additional’ signs. In its reduced or ‘pure’ core, i.e., if the superfluous signs were removed from the signary, the syllabary could represent spoken Greek of the period with reasonable efficiency in much the same way as the later historical Cypriote Syllabic script represented Greek in the historical period and did so for six or so centuries after the introduction of the Greek alphabet to Cyprus.\(^5\) The best explanation is provided in José L. Melena’s definitive summing up of the structure and working of Mycenaean writing as a conventional system for communicating the languages – including loan words from many sources and non-Greek place names and personal names – spoken in the regional palatial territories on Crete and the Greek mainland in LH/LM IIIA and B as visible speech.\(^6\)


\(^6\) J.L.MELENA, “Mycenaean Writing,” in Y. DUHOUX and A. MORPURGO DAVIES (eds), A
In addition to the basic Mycenaean syllabary... there is a supernumerary set of syllabograms, whose sporadic use was probably prompted by the personal preferences of certain writers to represent phonic sequences that would have been perfectly spelled with the basic signary. This ‘purist’ set currently includes fourteen signs but this figure will probably be increased by new transliterations of still ‘undeciphered’ signs.

This additional syllabary shows a complex structure which depends on the script history and its relation to the evolution of Greek consonantism: we could hypothesize that, when Linear B was borrowed from Linear A, a scarcely represented pattern based on triphonemic sequences of the CRV type (where R stands for the resonants /w/ and /y/) was adopted and partly developed in the later history of the Linear B script, without reaching the status of a complete series.

We should note here two points that Melena makes: (1) the use of these ‘extra’ signs in our extant texts is ‘sporadic’ and (2) the choice of when they are used is somehow dependent on the personal preferences of the literate individuals who wrote our extant texts. The first point is a matter of observation, the second of conjecture or hypothesis. In what follows I am trying to figure out what all this means in terms of scribal practice. When would a Mycenaean tablet-writer think to use one of these ‘optional’ signs? How often and why? What would prompt him to do so in one instance and not in another? The adjective ‘sporadic’ is a good one. It is metaphorical. It comes from the sowing of seeds and suggests a pattern of randomness dependent upon the wind, the force and manner of strewing, and variations in the soil upon which the seeds are sown to determine which seeds end up where. The randomness overall within our corpus has to do with the fact that some scribes use these signs rarely or not at all. A tablet-writer may use these signs inconsistently. This leads to some part of what we call variant spellings within our texts. We will see below one case of two different spellings of the same word used on the same tablet! Our best evidence for the values of these signs is found when we have attestations of alternative spellings of the very same words. In the instances most pertinent to the strange case we are setting about discussing, two examples of conspicuous alternative spellings will suffice.

The first is the non-Indo-European loan word used exclusively in texts of the Mycenaean palatial period and of the Greek historical period for ‘olive oil’:

\[ e-ra-wo = /elaiwon/ \] Pyllos Scribal Hand 44 with typical Mycenaean non-explicit representation of the /i/ sound in an i-diphthong here in a non-Proto-Indo-European-derived loan word;

\[ e-ra3-wo = /elaiwon/ \] Hand 2 (and a scribe of general Class ii) with explicit representation of the /i/ sound of the i-diphthong by means of a sign (sign *33) that per sé represents the /i/ sound in the diphthong and was invented to do so. Here ra3 = /lai/.

The second is the compound name for the Further Province of Messenia. Its meaning in its component parts is something like ‘the land beyond goat stone’, where ‘stone’ refers to the kinds of solid stone masses that lie beneath top soil or are mined in stone quarries or jut up as stone hills like the Areopagus in Athens or run extensively through the space of a geographical territory in mountain ridges and massifs. In later Greek the component elements are: πέρα + αἴξ, αἰγός + λάος (genitive λάος) + -ιᾱ = beyond + goat + stone + a suffix used in many other toponyms to designate a literal territory. For our purposes the following variation is noteworthy.8

7 By ‘perfectly’, Melena means ‘satisfactorily’, not ‘with absolute phonetic precision’.
8 There is a third spelling pe-ra-a-ko-ra-i-ja that seems to be a spelling that marks the boundary between the prefix and the main body of the word. It uses sign *08 a /α/ instead of *43 a3 /αι/.
pe-ra-ko-ra-i-ja = /Per-aigoslahiv,a/ with typical Mycenaean non-explicit representation of the /i/ sound in an i-diphthong here in a compound formation by a tablet-writer identified as Class iii Stylus 49;

pe-ra-ko-ra-i-ja = /Per-aigoslahiv,a/ Hand 1 on a summarizing document PY Ng 332 and a labeling document Wa 114 with explicit representation of the /i/ sound of the i-diphthong by means of sign *33 that, as already mentioned, was called into being to convey that very value.

The supplementary sign (*33) is clearly used here by one scribe and not another in writing the name of the Further Province of the Pylos palatial territory in order to represent /ra/ and explicitly the diphthong /ai/ of the second syllable. Sign *33 can also represent /lai/ (as we have seen with e-ra3-wo) since the Linear B system does not make a distinction and uses one sign to represent combinations of one or the other of the liquid consonants r/l and a vowel. The point to be understood is that sign *33 removes any ambiguity of the vowel-element of the syllable being an i-diphthong. Unlike the standard sign *60 conventionally referred to as ra, but as we have just learned standing for either /ra/ or /la/ or /rai/ or /lai/, sign *33 only represents the diphthong /ai/, whereas the vowel-element of sign *60 can stand for /a/ or /ai/.

Sign *33 comes into play with reasonable frequency in the Linear B texts, but until recently only in the Pylos corpus.9 It is used by prominent tablet-writers like Hands 1 and 2 (the trend-setters of stylistic Class i tablet-writers at Pylos) and Hand 21 (the trend-setter for Class ii tablet-writers) and other minor Hands like Hands 4 and 31,10 as Melena astutely explains, “for the morphological marking of the nominative plural of a-stems”.11 Why these scribes felt it necessary to do so is something of a puzzle. No intolerable ambiguity would have been caused by using the normal sign ra (*60).

The same tablet-writer (Hand 4) who uses what has come to be identified as ras (*33) to convey the sound /ai/ in a nominative plural of an a-stem ethnonym on Pylos tablet Aa 61 (ze-peu-ra3) uses plain ra (*60) to do so in nominative plural of another a-stem ethnonym on tablet Aa 63 (ki-ma-ra). And the “master scribe” Hand 1 uses ras (*33) to convey the sound /ai/ in a nominative plural of an a-stem noun on Pylos tablet Aa 506 (ka-te-ra3)12 and on several o-ka tablets (o-ka-ra3: An 519.4, An 654.18, An 657.4) but uses plain ra (*60) to do so in the nominative plural of the very same a-stem noun on tablet An 657.13 (o-ka-ra3) where nine lines earlier he spelled the same word o-ka-ra3. In all cases the paired ideograms/logograms13

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9 It is now found on two inscribed sealings from Hagios Vasileios to write e-ra3-wo.

10 For the scribal attributions and descriptions of the writing output and roles of the tablet-writers in the archival system at Pylos, T.G. PALAIMA, The Scribes of Pylos (1988) is still sound.

11 MELENA (supra n. 6) 60. Note here that my descriptions of who is a major Hand differ from Melena’s.

12 See also ka-te-ra3 by Pylos Hand 21 on Ab 562.

13 The non-syllabic signs that are used to identify physical objects, animate or inanimate, on these texts were at the outset of Mycenaean called ‘ideograms’, i.e., graphic symbols that convey the ‘idea’ of a particular item non-phonetically. There is no doubt that in the historical instance of writing or reading a text on a tablet, the tablet-writer and his readers would have had a specific word in mind. But it is my belief that these mainly ‘picture symbols’ were used because they transcend language in some elemental way. Take, for example, even the non-pictorial object sign N, which is used syllabographically and ideographically/logographically in Cretan Hieroglyphic, Linear A and Linear B (See CHIC, charts of ‘syllabograms’ and ‘logograms’ on pp. 17 and 19 and signs 024 and *155). When we read it now, the word that comes to mind is ‘figs’ in our native languages. When readers who knew ‘Minoan’ read it written in the object-sign slot on a Cretan Hieroglyphic, Linear A or Linear B administrative documents, they no doubt recognized it as the acrophonic abbreviation for the non-Greek word nikaio = ‘figs’ and therefore thought of that word. But when a native Greek-speaker read it in Linear B, he no doubt thought of the loan work sukan used in Greek (related forms in Mycenaean Greek) as the standard word for a ‘fig’. If such signs are ‘logographic’, it is in a way different from a one-to-one correspondence between a symbol or group of symbols and a specific unchanging word. So I continue to use ‘ideogram’. For more on this entire question, see: V. PETRAKIS, “Figures of Speech? Observations on the Non-Phonographic Component in the Linear B Writing System,” in NOSCH and LANDENIUS ENGENREN eds (supra n. 4) 159, and R.J.E. THOMPSON, “In Defence of Ideograms,” in P. CARLIER, C. DE LAMBERTERIE,
and numbers that directly follow the syllabically spelled words indicate clearly that the nouns are in the plural. The spelling with *ra* does, therefore, seem to be what Melena calls it: a “purist” choice and a “personal preference of certain writers to represent phonetic sequences that would have been perfectly spelled with the basic signary”. We should note that this explains the sporadic use of these signs. But it does not explain the why, what, when, where and by whom in each instance nor the origins of these signs as a set of superfluous signs.

The poster child for this phenomenon is Pylos tablet Ta 709 where Hand 2 erases an original -ra (*60) and replaces it with -ra (*33) in writing pi-je-ra in an entry of three vase forms called /phîelai/. Using sign ra (*60) and spelling the word as pi-je-ra would have been unproblematical and unambiguous. The immediately juxtaposed ideogram and number ‘3’ would have made it clear that a plural number of vase forms was meant. In fact, the adjective that modifies /phîelai/ (spelled with *ra*) is spelled to-qi-de-ja = /torkiđeja/ because there is no sign je that represents specifically /ai/.

Linear B in the /a/-series also has a sign (*43) for /ai/14 and a sign (*25) for /ha/. These seem to be new signs in Linear B, i.e., so far they do not have Linear A antecedents. *ra* does not have a matching sign in Linear A either. Given the relative brevity of Linear A documents, the relative fewness of longer documents and the absence of complicated syntax except on libation tables and inscribed metal objects, we must always entertain the possibility that the ‘gap’ in Linear A for a sign with a value related to that of *ra* might be a matter of preservation and excavation. Linear A has now approximately 1,500 inscriptions and 8,000 attested signs. Linear B has 6,000 inscriptions and ca. 70,000 signs.15

If the ‘gap’ is real, one factor here just might be some peculiarity in how the i-diphthongs are heard in the linguistic environs of the Cretan palatial centers during the period when Linear A was in use. The original Cretan place name that came down into historical Greek spelled with an i-diphthong as Φαίστος is consistently spelled in Linear B tablets from Knossos with the pure-vowel phonogram (AB *28) for /i/ written out: pa-i-to. It is never spelled in a way that would be permissible and normal in Linear B writing: *pa-to. But at least one other Cretan place name shows alternative spellings with and without the phonogram for /i/: ku-ta-i-to (2 times, once from the Room of the Chariot Tablets) vs. ku-ta-to (securely more than 65 times in livestock texts from the Room of the Chariot Tablets and elsewhere).16 Melena identifies nine personal names on the Knossos tablets that also have explicit representation of /i/ in an /ai/ diphthong. All these names have no clear Greek roots as their basis. For two (ka-da-i-so and qa-ra-i-so) there are names potentially derived from them later on the Greek mainland at Pylos and Mycenae respectively. It is plausible to interpret them as based on variant mainland spellings of the Cretan names without explicit representation of the *e* in the diphthong by means of sign *28. These mainland forms ka-da-si-jo and qa-ra-si-jo (but qa-ra-si-jo is not attested) make use of the highly productive -os suffix. As with the variation in spelling of the other Cretan place names and derivative personal names, it is not unreasonable to imagine that what we might conventionally call a native Minoan-speaking tablet-writer, or a tablet-writer of Minoan ethnicity, would be inclined to represent /ai/ diphthongs and would use a sign like ra for purposes other than sentimentality. Think of the controversial Reform der deutschen Rechtschreibung von 1996 and the lingering survival among some writers of German of the symbol eszett B that was long used to represent the unvoiced /s/ sound, mainly at the end of words, and equivalent mostly to English /ss/ as in our word ‘miss’.18

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15. See supra n. 8.
17. There is also a contrast in spelling the masculine derivative personal name with -os suffix: ku-ta-i-si-jo (1x) vs. ku-ta-si-jo (2x).
18. MELENA (supra n. 6) 94.
18. The reform led to court cases, Solomonic differentiations of when reformed spelling was mandatory and when not, reformed reforms and over twenty years now of debate. See http://www.uni-protokolle.de/Lexikon/Reform_der_deutschen_Rechtschreibung_von_1996.html.
Significantly, especially in the Pylos corpus, Linear B has another sign (*76) = ra₂ that originally represented a palatalized liquid /ɾ/ or /l/ and can come to stand for the depalatalization of a palatalized liquid most often by gemination of the liquid. It seems to derive from a Linear A sign (AB *76). Linear A seems to have had a series of post-palatalized and post-labialized consonants. Thus at Pylos in the several series that deal with women workers and children associated with them and their ration, we find variation between (1) a full spelling of at least the original pronunciation (perhaps fossilized) of feminine mainly agentive occupational terms a-ke-ri-ja, me-re-ri-ja, o-ri-ja, pe-ki-ri-ja, where ja in -ri-ja in all instances is designating the nominative plural feminine of the adjectival suffix -ος -α -ον with explicit representation of the intervocalic palatal glide /ɾ/; and (2) in the cluster /tr/ so frequently used in Greek feminine agent nouns, the /t/ serves as an impediment to palatalization. So original spellings in a-ke-ri-ja would seem to be representing -τρι-αι/- /trai/ conventionally to represent /-trιαi'/. Melena traces the development of this sign (*76) to represent double consonants coming from yodized consonants (see as a prime example the frequent personal name qa-ra₂) and eventually coming to represent other consonant combinations that result in double consonants, e.g., perhaps an /sl/ cluster before an a-vowel in the notoriously difficult to interpret personal name e-ke-ra₂-wo.

Melena’s explanation is persuasive: *ja₂, *jja > /rr'a, ll'a/ > /rra, lla/ and here, in the Pylos texts, a-ke-ri-ja represents accurately /akṣētr'αι/ with a palatal glide and an anticipatory diphthong vowel after /t/. And here a-ke-ri-ra₂ would seem to be representing conventionally the same pronunciation: /akṣētr'αι/. Hand 1 at Pylos in fact uses both forms. On Aa 815 for /akṣētr'αι/ (traditionally translated as ‘finishers’ although that is not necessarily the happiest translation for an agent-type noun derived from the Greek verb δοκέω) women located we think at Pylos, Hand 1 uses the -t-ia-ra₂ spelling; on Aa 717 for /akṣētr'αι/ women located at the site of ro-u-uHand 1 uses the -t-ri-ja spelling. Hand 1 might be induced to change his spelling by differences in pronunciation from his oral source of information. When he uses the spelling a-ke-ri-ra₂, he might be hearing and writing something close to a palatalized /t/ but with an evanescent /i/ between /t/ and /j/: /akṣētr'αι/. Or he could hear and be trying to represent something closer to /akṣētr'αι/ where the /t/ is a strong /t/, but be affected by the common spelling with ti, so that he does not write what would, again sensu stricto, be required if ra₂ were a fully geminated resonant: *a-ke-la-ra₂. There is a good parallel here. The term wanaks is represented as wa-na-ka in Linear B. Because of that spelling, the compound adjectival form is spelled wa-na-ka-te-ro instead of the ‘correct’ spelling wa-na-ke-te-ro. We find both wa-na-ka-te and wa-na-ke-te for the dative singular also.

The problem here is that it is unclear how Mycenaean tablet-writers would have handled something coming close to a cluster such as */trtr/*. But it would seem that leaving the necessary anticipatory diphthong vowel -i after /t/ intact as a kind of ‘traditional spelling’ would be the way to go. Melena points out that in post-Homeric Greek the outcome from the agent suffix *-y-yl₂ is -τρια but that Aeolic dialect shows a poetic variant -τρια with double liquids that might somehow derive from speaking and perceptions of what is spoken that lie behind the *ti-ra₂ spelling and its actual pronunciation. García Ramón speculates along the same lines positing a development as follows: ***/CR'ylV/ dà luogo a /CR'ylV o /CIR'V/ (con depalatalizzazione dopo /i/), p.es., nei nomi d’agente femminili in -ι-ρa₂ (/i-’r’/ [opp. /-tr’/] o /-lma/), alternanti con -t-ri-ja (/t-ri-’a/). È possibile che alla grafia -τ-ρa₂ corrisponda la stessa realtà fonetica soggiacente a leb. lit. -τρια, ep. Δότρια (Hes.).** What is clear, however, is that a-ke-ri-ra₂ does not, sensu stricto, represent an ending -τρια pure and simple.

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19 PALAIMA and SIKKENGÁ (supra n. 5) 604-605.
20 MELENA (supra n. 6) 63-66 and p. 63 for e-ke-ra₂-wo and variant spellings like }ε-ke-ri-ja-wo.
21 In personal e-mails, Melena (07-14-2019 and 07-23-19) explains two points: (1) that in Mycenaean spelling practice, consonants in coda are not represented; and (2) in the cluster /tr/ so frequently used in Greek feminine agent nouns, the /t/ serves as an impediment to palatalization. So original spellings in -t-ri-ja are frequent. But the spelling in -t-ri-ra₂, which is common to Hands 1, 2 and 23, uses ra₂ to represent /-tr’ai/ not /-tr’ai/.
22 MELENA (supra n. 6) 65.
23 J.L. GARCÍA RAMÓN, “Il greco miceneo”, in DEL FREO and PERNA (supra n. 15) vol. 1, 214. I believe here that -t-ri-ja (/l-’r’/) should read (/l-’r’/ai/) in order to represent the glide and eliminate the
Thoughts and second thoughts about the sign identified now as *33 ra₂ on Pylos tablet Aa 61

Our strange case concerns Pylos tablet Aa 61. What we have discussed above is all relevant. In a minuscule mimeographed form in the PASP Kober archives, we are given in conventional sign forms the transcription of what was then known as Pylos tablet Aa 15 and is now known as PY Aa 61 seen here in Pl. Ia. Kober on April 8, 1948 wrote to Bennett, “It’s too bad we can’t see one another’s material. It would be extremely helpful. As it is, it’s a matter of stabbing in the dark.” Indeed. Sometime not long after November 22, 1948, Kober finally got to see the University of Cincinnati photographs of the Pylos tablets excavated in 1939. On a postcard of January 6, 1949, Kober is already talking about checking these photographs where Bennett had them at Yale University. And on Saturday December 4, 1948, written on a formal personal bifold card printed MISS ALICE E. KOCER 1050 EAST 43rd STREET BROOKLYN 10, NEW YORK, Kober announces her intention to travel to Yale University on Monday, December 6 to check her transcriptions against Pylos tablet photographs. On a small sheet of formerly two-hole ring-bound notebook-style ruled paper of common quality, Kober has drawn in three columns (Pl. Ib) in fountain pen rather calligraphically the 80 or 79 phonographic signs that then made up the composite Linear B syllabary at Knossos and Pylos. At the bottom of the third column is where our fun begins.

We can see at the very bottom of the third column of Pl. Ib what we now identify as signs AB 29 pu₂ (circled, I believe by Bennett, in red pencil) and B 33 ra₂, written in the full and elaborate style that is typical of Pylos ‘master scribe’ Hand 1 and all other versions of the sign by other tablet-writers at Pylos with the exception of the form on PY Aa 61 by Hand 4 (cf. Pl. IIa). As noted by Kober, the sign was then attested in Linear B only at Pylos. Linear B sign *33 is still unattested at other sites with reasonable numbers of Linear B clay tablets: Mycenae, Tiry, Khania, Knossos. As already mentioned (supra n. 9), it is now attested on two sealings from Hagios Vasileios in Laconia.

Melena suggests that the typical form of Linear B sign *33 with its stem-and-flower-like appearance can be traced back to Cretan Hieroglyphic sign 023 and that it is identical to the ideogram or logogram *I#4 found so far in Linear B only at Knossos and designated as CROCus = ‘saffron’, the plant whose flower has stigmas or strings or strands that are used as a food spice or powerful coloring agent and is widely believed medicinally to have mood and perception-altering properties.

There is much to recommend Melena’s suggestion of a Hieroglyphic antecedent (cf. forms in Pl. IIb). The typical Cretan Hieroglyphic sign when inscribed into clay (including upon the still moist surface of a clay pot #324) has below a wavy, even zigzag, or crooked stem (seen in #039.b, #046.a, #049.b, #061.a, #089.a, #113.d, #324) and at the top, fairly symmetrically placed, a ‘flower’ with three petal-like

hyphen.

25 In the letter Emmett L. Bennett, Jr. to Alice E. Kober (November 22, 1948), Bennett informs Kober of Carl Blegen’s agreement that the two of them share their Pylos and Knossos materials https://repositories.lib.utexas.edu/handle/2152/62534.
26 Alice E. Kober letter to Emmett L. Bennett, Jr. (December 4, 1948).
27 Our great thanks to Adamantia Vasilogamvrou and Vassilis Petrakis for permission to add a definitive citation of this important evidence to this paper after I had submitted it for publication.
28 MELENA (supra n. 6) 39-60 and 141.
29 For a fuller discussion focused on ‘saffron’ and how it is represented in images and script, see J. DAY, “Counting Threads. Saffron in Aegean Bronze Age Society and Writing,” OJAJ 304 (2011a) 369-391. More comprehensively, on artistic representations and the cultural uses and significance of saffron, see J. DAY, “Crocuses in Context: A Diachronic Survey of the Crocus Motif in the Aegean Bronze Age,” Hesperia (2011b) 337-379. For bibliography on scientifically proven medicinal qualities, see DAY (2011a) 370-371. For uses as a dye, as a medicine and as a sacred plant, see DAY (2011b) 364-370.
components\textsuperscript{30} (seen in #036.a, #043.a1, #046.a, #049.b, #061.a, #089.a, #113.d, #114.d, #324). The clearest parallel to Linear B *33 for inscribed signs is #089.a. The one ‘pictorially’ carved sign on a stone seal (#243.y), however, has embellishments to the three upper petals and small side ‘leaves’ along the stem (two on the left and three on the right). These side ‘leaves’ may be the prototypes for the three symmetrical horizontal strokes to the left and right of the vertical stem of the rather complex Linear B sign *33. At Knossos (Pl. IIIa), the forms of *144 (the ideogram for saffron) from Area C (= the early Room of the Chariot Tablets deposit) lack the small symmetrical strokes on either side of the lower stem (Pl. IIIa Np 268 and Np 278). The Np tablets from Area I3 by Hand 134 have such dashes or dots along the stem (Pl. IIIa Np 658). In both deposits of tablets the sign invariably has the double-curved elements at the upper left and right that would seem to suggest the stigmas or threads of the flower as can be seen in a scientific drawing and photograph (Pl. IIIb and c).\textsuperscript{31}

Pylos tablet Aa 61 is part of the set of twelve tablets by tablet-writer Hand 4 that records the numbers of women and associated boys and girls (not necessarily sons and daughters) who are identified mainly by ethnics or occupational terms and are located in the Further Province of Pylos.\textsuperscript{32} As Kober (Pl. Ia) reads the text, the fifth sign on the tablet is uncertain. She notes the uncertainty with a question mark. Likewise in Bennett’s 1951 preliminary transcription of the Pylos tablets\textsuperscript{33} (Pl. IIId) the sign is drawn as it looks on the tablet (then identified as Aa 15), very unlike the canonical form of what later is assigned the number *33 but here was already slotted into the unnumbered syllabary (Pl. IIIe) in the middle of the third row of signs in the same relative position between later sign *32 and sign *34.\textsuperscript{34} The sign on Aa 61 (Pl. IVa-b) bears little resemblance to the full ‘florid’ versions of *33 elsewhere at Pylos. See, for example, *33 on Aa 506 (Pl. IVc-d) which proves Melena’s idea that *33 derives from the ‘flowery’ ideogram *144 CROCus (Pl. IIIa) of the Room of the Chariot Tablets. Even in Bennett’s 1955 publication of all the Linear B inscriptions found at Pylos during the 1939 and 1952-1954 excavation seasons,\textsuperscript{35} the sign on Aa 61 is clearly drawn to differentiate it from sign *33 (Pl. Va and Pl. Vb Aa 61 normalized; Pl. Ve sign *33 ras on Pl. 506); and its peculiar shape is not found in the table of different forms of the Linear B signs found at Knossos, Pylos and Mycenae (Pl. Vd).\textsuperscript{36} By 1973, however, The Pylos Tablets Transcribed gives the text of Aa 61 as:

\begin{verbatim}
pu-ro ze-pu-ra3 MUL 26 ko-wa 15 ko-wo 7 DA 1 TA 1
\end{verbatim}

without any discussion of the history of doubt about the identification of the sign.\textsuperscript{37} Ventris and Chadwick in 1956 already had the reading: ze-pu2-ra3, with no indication of doubt that the final syllable was

\textsuperscript{30} DAY 2011a (supra n. 29) 370 calls the flower ‘trifoliate’ and stresses that in form the ‘strands’ are important to differentiate the ideogram for saffron (*144) from the ideogram for olives (*122). This is in general true.

\textsuperscript{31} See DAY 2011a (supra n. 29) 375, fig. 4, for a photo of “an LM II sherd from Knossos with [a painted] crocus featuring prominent stigmas”. For the diachronic development of the artistic motif of the crocus, see DAY 2011b (supra n. 29) 352-353 table 1.

\textsuperscript{32} The two handiest discussions are the classic full study by J. CHADWICK, "The Women of Pylos," in J.-P. OLIVIER and T.G. PALAIMA (eds), Texts, Tablets and Scribes (1988) 43-95; and the recent extensive reexamination by B.A. OLSEN, Women in Mycenaean Greece (2014) 66-133. The evidence for location is derived primarily from the label Wa 114 and related tablets of the Ad series (CHADWICK [supra] 47, 75, 86-87; OLSEN [supra] 70-71 [table with ze-pu-ra3 missing], 80-81 [ze-pu2-ra3 once misspelled as “ze-pur2-ra3” sic] and 110) and the designation of an important Further Province site as pu-ro ra-u-ra-ti-jo vs. the capital of the Hither Province and whole territory: plain pu-ro. For a succinct and accurate up-to-date summary of the geography of Messenia with good maps, see M. DEL FREO, “La geografia dei regni micenei,” in DEL FREO and PERN A eds (supra n. 15) vol. 2, 634-643.

\textsuperscript{33} E.L. BENNETT, Jr. (ed.), The Pylos Tablets. A Preliminary Transcription (1951) 1.

\textsuperscript{34} Aa 14 (= Aa 506) shows ras. Aa 15 (= Aa 61) shows our controversial sign. Aa 16 (= Ab 564) shows ras drawn as if complete, but it is in fact fragmentary on the tablet.


\textsuperscript{36} BENNETT (supra n. 35) chart of phonetic signs on p. 201.

\textsuperscript{37} E.L. BENNETT, Jr. and J.-P. OLIVIER (eds), The Pylos Tablets Transcribed. Part 1: Texts and Notes (1973)
There are two problems here. One is that there is no other case at Pylos or Knossos where a hapax attested sign form within a particular tablet-writer’s repertory varies so much from the characteristic diagnostic shape of a standard sign so as to cast doubt on its identification in the early opinions of the two scholars who knew the palaeography of the signs best before the decipherment. Emmett L. Bennett, Jr. and Alice E. Kober both took infinite pains with small details of the shapes of the signs before much was known about the particular phonetic values of the signs. Their doubt, therefore, holds weight in being a pure witness to how unusual the sign on Aa 61 was and in some ways still remains.

The main reason that the sign in the text of tablet Aa 61 is read in Documents in Mycenaean Greek (1956 and 1973) and in Pylos Tablets Transcribed (1973) as ra₂ has little to do to do with how it is written. It is an inference from the fact that this clear ethnic name, when written in the genitive plural in the corresponding tablet in the Ad series (Ad 664), is written ze-pui-ra-o. Thus it was reasoned that the sign on Aa 61 has to have some related value. Since in form it is clearly not sign *76 ra₂ /va/ or *60 ra /ra/, the only remaining possibility in the repertory of Linear B signs is *33 ra₃.

Compare again the RTI snapshot of the sign on Aa 61 (Pl. IVa) with the characteristic form of *33 ra₃ on Aa 506 (Pls Vd and Vla). The best parallel I can find for the key elements of the sign on Aa 61 is the CROC ideogram on KN Fg 855 (Pl. VIIb-c). Imagine it with the ‘strands’ removed and the linear or dotted embellishments below the flower taken away. Then flip the sign to a mirror image (Pl. VId) so that the main vertical slants upward to the left, not to the right, and the upper straight lines are drawn on the right of the main vertical, not on the left. There are other cases in Linear B of signs being mirror-imaged or reversed in writing on clay, e.g., syllabogram *34 (Pl. VII). See especially the mirror imaging of sign *42 wo within the newly created sign *90 dico.⁴⁰

The second problem is just what is represented here when one reads the sign as ra₃ and the word here as ze-pu₂-ra₂. From the early stages of interpreting this word with the reading of its third sign as ra₂, there has been a considerable amount of wishful thinking. Ventris and Chadwick’s Glossary gives Dzephurai and compares Ζεφύρια old name for Halikarnassos, Strabo IV, 656. It also cites the genitive plural form on PY Ad 664 ze-pui-ra-o as Dzephurain. The problem is that with a place name in -τος we would expect that an ethnic derivative would be reduced to a nominative plural by palatalization and duplication of /r/. We, therefore, might expect to see here ra₂ instead of ra₃ in the spelling of the nominative plural. If the women in Aa 61 are conceived of as coming from a place *Dzephura vel sim., the

17. The fifth draft version of the ultimate transcription of the Pylos texts (completed 27 January 2003) by E.L. BENNETT, Jr., J.L. MELENA, J.-P. OLIVIER, T.G. PALAIMA and C.W. SHELMERDINE (eds), The Palace of Nestor at Pylos in Western Messenia, Vol. IV The Inscribed Documents presents an identical text to that of BENNETT and OLIVIER in 1973, again without comment.

38. The forms of signs rendered under *33 prove that the sign on Aa 61 was thought not to be *33, at least not securely enough to be listed as a variant.

39. For instances of this mirror-image reversal see tablet-writers of Cii and Hand 41 as listed by A.P. JUDSON, “Palaeography, Administration and Scribal Training: A Case Study,” in NOSCH and LANDENIUS ENEGREN eds (supra n. 4) 202 n. 47. For the mirror-image reversal of sign *34 at Knossos, Pylos and Thebes, see J.L. MELENA, “Filling Gaps in the Mycenaean Linear B Additional Syllabary: The Case of Syllabogram *34,” in A. MARTÍNEZ FERNÁNDEZ, B. ORTEGA VILLARO, H. VELASCO LÓPEZ, H. ZAMORA SALAMANCA (eds), ÁGALMA Ofrenda desde la Filología Clásica a Manuel García Tejeiro (2014) 208.

40. MELENA (supra n. 6) charts of signs on pp. 85 and 87.

41. M. VENTRIS and J. CHADWICK, Documents in Mycenaean Greek 2nd ed. (1973) 593. The passage is Strabo 14.2.16: Λακαρνασσός, το βασιλείον τῶν τῆς Καρίας δυναστῶν, Ζεφύρια καλομενήν πρότερον. On the identification with Halicarnassus, we should also note in historical times that a promontory with a harborine locale situated in southwestern Cyprus between Paphos and Palaipaphos is also called Ζεφύρια (Strabo 14.6.3).
expected Mycenaean formation would be a derivative in /-aio/-, /-aía/-, /-aion/. In historical times there is a cape in southern Italy (Strabo 6.1.7) called Ἑλεφόρος and Athenaeus refers to a promontory of the same name in Cyprus. The glossary of Del Freo and Perna (2016) by Piquéro reads the nominative and genitive plural names both with geminates /-rr/- as /Dephurrai/ and /Dephurahi/ positing the ancient name of Halicarnassos as /Dephyros/. Again the question is why the geminate? Melena in discussing the development of palatalized consonants that are represented by the z- series in Linear B, reconstructs ze-puze-rai as /dzepurrai/ with a geminate /r/ as does Piquéro. But when he refers to this Linear B word in discussing the value of πυξ he writes it with a simple /r/:

At Pylos the ethnic ze-puze-rai PY Ad 664 (Hand 23) gen. plur.; ze-puze-rai PY Aa 61 (Hand 4), nom. plur.; /dzepurrai/, ‘women from Halikarnassos’ (cf. Ζεφηρίας, ancient name of Halikarnassos); ze-puze-rai PY Ea 56 (Hand 43), MN, /dzepurios/. … All of them based on alph. Gr. ζηφερος, the (North)west wind'.

We should at least point out the confusion here. It is not inconsequential that there is so much fuzziness. To muddy the waters further, we should recall that Hand 4, who identifies a group of women as ze-puze-rai, identifies another group of women (Aa 63) as ki-ma-ra. Does this rise to the level of making us wonder whether the sign on Aa 61 is not an attempt by Hand 4 to render some modification of the consonant that has as its basic elements /r/ and /a/ in some other way than using the signs *76 ra2 or *33 ra2? We should keep in mind here what I view as Melena’s correct instinct about scribal personal preferences. The tablet-writer (Hand 23) of the corresponding Ad series spells the genitive plurals of ze-puze-rai (Hand 4 Aa 61), ki-ma-ra (Hand 4 Aa 63), and ku-te-rai (Hand 1 Aa 506) all with -ra-o (Ad 664, Ad 668 and Ad 679). Yet he has and uses frequently in the Ad series *76 ra2/ra2/ to indicate palatalization and possible gemination when writing out the feminine agentive noun forms in the Aa series.

This might be the point at which we refuse to apply Occam’s razor. I do not think it is of much use in general in dealing with how we pronounce and identify words and elements of words in Linear B, given we have no apparent standardized ‘schooling’ are likely to have been almost unimaginably complicated. Sometimes then what appear to be overly complicated explanations are nonetheless the right ones. Instead I think we might apply the reasoning of the late and much lamented Cornelis Ruijgh:

42 Cf. *te-qa *(allative te-qá-de) and te-qá-ja.
43 metá dé to Ἡράκλειον ἀκρα τῆς Λοκρίδος ἦ καλέται Ζεφήριον. See also Athenaeus 318d: ἔγραψε δὲ καὶ Ποσείδιππος εἰς τὴν ἐν τῷ Ζεφηρίῳ τιμωμένην ταύτῃν Ἀφροδίτην τόδε τὸ ἐπίγραμμα. Stephanus of Byzantium gives the lemma as Ζεφηρίον and continues: ἦ Ἀλκαρνασσός τῆς Καρίας ὑπὸ ἱσταμένον. Καὶ πόλις Κυθήριας, τὸ ἀθικόν Ζεφηρίωτης, ἐστὶ καὶ Κυθήριας ζωρισῦν, ἐστὶ καὶ Ἰταλίας Ζεφηρίων, ᾳφ’ ὁ Λοκροὶ Ἐπιζεφύριοι, ἐστὶ καὶ ἀκρα τῆς Αἰγύπτου, ᾳφ’ ἢ ἀκρα τῆς Λακωνίας, ᾳφ’ ἢ Ἀφροδίτη καὶ Ἀρσινόη Ζεφηρίωτις, ὡς Ἀλκάριχος, τὸ ὀνὸς Ζεφηρίωτης ὑπὸ τοῦ Σκύθου τῆς Ζεφηρίωτις, συγκομητή τοῦ ὦ, ὡς τὸ Θρονίτις, Ἀρκάδιος δὲ διὰ διήθεσις γράφει.
44 J. PIQUERO, “Glossario,” in DEL FREO and PERNA eds (supra n. 15) vol. 2, 781. But seemingly without an ancient source to attest to the site bearing this particular name.
It is still possible that the sign on Aa 61 is, as it were, misidentified or shoe-horned into the slot in the syllabary known as *33 ra₃. By that we mean that Hand 4 perhaps here is using his own ‘sign’ to distinguish something peculiar in this ethnic that describes a group of women from southwestern Anatolia (or Cilicia or southwestern Cyprus or even Egypt). More likely the sign is his simplified (non-floral) version of *33 ra₃ in a separate line of stylistic development.

**Conclusions**

There is nothing about Pylos tablet Aa 61 that speaks to any lack of straightforward command on the part of tablet-writer Hand 4 in entering the written information upon the tablet surface.

It takes considerable gymnastics to derive the sign under discussion from the elaborate canonical form of *33 ra₃ that is in widespread use at Pylos and now is attested at Hagios Vasileios (*supra* nn. 9 and 27).

There is also no compelling reason that a phonetic sign developing from a less ornate version of the Knossian CROC ideogram (as seen, for example, on KN Np 855) would have to maintain suggestions of its curvilinear ‘strands’ or the symmetrical mini-strokes along its stem.

There is also no compelling reason for positing a geminate /rr/ in zé-pu₂-ra₃. A straightforward /r/ in a straightforward ethnic in /-os/, /-ā/, /-on/ (i.e., not with /-ios/, /-iā/, /-ion/) seems the best explanation at this point, despite the ethnic adjective having the /-ios/, /-iā/, /-ion/ form in the historical period and many such ethnics (or toponymic adjectives) being attested in the Linear B tablets.

It would be nice to have attested instances of Ζέφυρος as a place name in early Greek from which an ethnic in /-os/, /-ā/, /-on/ could develop. We do not have them yet.

Rujigh bases his interpretation solely on the three Mycenaean forms (ki-ma-ra, ku-te-ra₃, and zé-pu₂-ra₃) which clearly in his opinion all must be nom. fem. pl. ethnics, two with the diphthong explicitly represented by *33 ra₃ and one with ambiguous representation, but clear from context using *60 ra. But we must admit that Rujigh’s interpretation is another instance really of assuming as probable, *i.e.*, able to be proved, what we have insufficient documentation to prove.

Thomas G. PALAIMA
LIST OF ILLUSTRATIONS

Pl. Ia  Kober fountain pen transcription pasted note card of Pylos Aa 61 (then Aa15). Courtesy of PASP archives, Department of Classics, University of Texas at Austin.

Pl. Ib  Kober list of Linear B signs known from Knossos and Pylos, inserted in a letter to Emmett L. Bennett., Jr., dated December 4, 1948. Courtesy of PASP archives, Department of Classics, University of Texas at Austin.

Pl. IIa  José L. Melena layout of the various shapes of ‘superfluous’ or ‘new’ Linear B signs with their values. After J.L. MELENA, “Mycenaean Writing,” in DUHOUX and MORPURGO DAVIES eds (supra n. 6) 87.

Pl. IIb  Variant forms of Cretan Hieroglyphic sign 023 taken from CHIC, 394.


Pl. IIIc  Photo of saffron flower with what are called strands or strings or stigmas.

Pl. IIIId  Transcriptions of texts in Linear B characters. After BENNETT (supra n. 33) 1. Aa 14 (= Aa 506), Aa 15 (=Aa 61), Aa 16 (= Ab 564).

Pl. IIIe  Signs used in sign groups at Pylos. After BENNETT (supra n. 33) 82.

Pl. IVa  RTI image of Aa 61 *33 ra 3 Hand 4. Courtesy of PASP archives, Department of Classics, University of Texas at Austin. Courtesy Department of Classics, University of Cincinnati.

Pl. IVb  RTI image of Aa 61 *33 ra 3 Hand 4 with specular enhancement. Courtesy of PASP archives, Department of Classics, University of Texas at Austin. Courtesy Department of Classics, University of Cincinnati.

Pl. IVc  RTI image of Aa 506 *33 ra 3 Hand 1 with diffuse multi-light. Courtesy of PASP archives, Department of Classics, University of Texas at Austin. Courtesy Department of Classics, University of Cincinnati.

Pl. IVd  RTI image of Aa 506 *33 ra 3 Hand 1 with normals visualization. Courtesy of PASP archives, Department of Classics, University of Texas at Austin. Courtesy Department of Classics, University of Cincinnati.

Pl. Va  Drawing of Aa 61. After BENNETT (supra n. 35) 9.

Pl. Vb  Classified order presentation of Aa 61. After BENNETT (supra n. 35) 113.

Pl. Vc  Classified order drawing of *33 ra 3 on Aa 506. After BENNETT (supra n. 35) 113.

Pl. Vd  Chart of phonograms as then attested at Knossos, Pylos and Mycenae. After BENNETT (supra n. 35) 201.

Pl. Vla  Closeup of pertinent phonograms in Pl. Vd.

Pl. Vlb  CROC ideogram on Knossos tablet Np 855 Area 13 Hand 134. For comparison with sign *33 ra 3 on Aa 61 Hand 4.

Pl. Vlc  Closeup of CROC ideogram on Knossos tablet Np 855.

Pl. Vld  CROC ideogram on KN Np 855 adapted to appear as it would be written mirror or reverse image.

Pl. VII  Reversal of sign *34 at Knossos, Pylos and Thebes. After MELENA (supra n. 39) 208.
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V
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