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Θέμις in the Mycenaean Lexicon and the Etymology of the Place-Name **ti-mi-to a-ko*

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Data de recepción: 4/7/1999

Abstract

Reassessing work by Spanish scholars Martín S. Ruipérez and Mercedes Aguirre de Castro, this paper examines words in the Linear B texts that have been connected with the later Greek word *themis*. New readings of several key texts and a fuller understanding of the still much-debated tablet KN V(2) 280 argue against interpreting any words as connected with *themis*. This is consistent with the general absence of references to legal procedures in the Mycenaean records and the conspicuous absence in the Linear B inscriptions of any derivatives of the word for the notion of 'justice' δίκη, which occurs so prominently in historical Greek literature and even as a formative element in historical personal names.

The paper further explores the significance of these conclusions for the interpretation of the toponym **ti-mi-to a-ko*, a prominent provincial capital in the Pylos tablets which has been identified archaeologically as the site of Nichoria. Using the results of three separate surveys and archaeobotanical studies of the region and the work of José L. Melena and José Fortes Fortes with botanical terms from the Mycenaean and historical periods, I propose that the interpretation 'agkos of the terebinth trees' would fit both the topography of the environs of Nichoria and the attested high exploitation of products from the *terebinth* trees in late palatial Crete and Messenia. Stephanus of Byzantium cites the toponym *Tremithous* in Cyprus, and there are other examples of such phytonymic toponyms.

Key words: Linear B, etymology, linguistics, legal terms, place-names, plant names, archaeobotany, Bronze Age Messenia.

Resumen

Estudiando de nuevo los trabajos de los investigadores españoles Martín S. Ruipérez y Mercedes Aguirre de Castro, este artículo examina los términos que en los textos en lineal B se han puesto en relación con la palabra *themis* del griego alfabético. Nuevas lecturas de varios textos clave y una comprensión más exacta de la tablilla KN V(2) 280, objeto todavía de una viva discusión, sirven de argumento contra la interpretación de cualquier palabra como emparentada con *themis*. Esto concuerda con la ausencia general de referencias a procedimientos legales en los registros micénicos y con la llamativa ausencia en las inscripciones en lineal B de cualquier derivado de la palabra que designa la noción de 'justicia': δίκη, que aparece de forma tan destacada en la literatura del griego histórico e incluso como elemento formador de antropónimos de época histórica.

El artículo investiga también el alcance de estas conclusiones para la interpretación del topónimo **ti-mi-to a-ko*, una capital de provincia importante en las tablillas de Pilo, que ha sido identificada arqueológicamente con el yacimiento de Nijoria. Utilizando los resultados de tres

prospecciones separadas y de estudios arqueobotánicos en la región y los trabajos de José Melena y de José Fortes Fortes con términos botánicos de los períodos micénico e histórico, propongo que la interpretación ‘*agkos* de los árboles terebinto’ se adecuaría con la topografía de los alrededores de Nijoria así como con la intensa explotación de productos de los árboles *terebinto* atestiguada en el último período palacial de Creta y de Mesenia. Esteban de Bizancio menciona el topónimo *Tremithous* en Chipre, y hay más ejemplos de tales topónimos fitonímicos.

Palabras clave: lineal B, etimología, lingüística, términos legales, topónimos, nombres de plantas, arqueobotánica, edad del bronce de Mesenia.

There is scant evidence in the Linear B inscriptions for the sphere of law¹. We can get some sense of the paucity of information about legal matters by surveying the recent lists and semantic classification of Mycenaean non-onomastic word-units by Antonín Bartoněk. Of some 244 lexical units pertaining to man and his socio-economic environment, none relates to law or the administration of justice². The sizable body of Mycenaean onomastic material—between seventy and eighty percent of the word-units in Linear B are anthroponyms or toponyms—does not contribute any pertinent data. Roots relating to basic concepts such as ‘law’ or ‘justice’ are absent from anthroponyms in the Mycenaean period³. This stands in marked contrast with the popularity of personal names formed from such roots as δίκη and

1. The subject of this paper should be of interest to students of later Greek culture, and my research was prompted by a discussion about Mycenaean evidence for terms relating to the Greek concepts of law and justice, and particularly to *themis*, with Eva Cantarella during her visit to the University of Texas at Austin in March, 1997. It is appropriate that the results of my work appear in the Spanish journal of classical philology *Faventia* since much of the pertinent scholarly discussion was itself initiated and fostered by the eminent Spanish Mycenologists Martín S. Ruipérez and José L. Melena, and tracking of the course of scholarship on particular lexical items during and after the Mycenaean period is facilitated now enormously by the lexicographical work of Francisco Aura Jorro and the team of the *Diccionario Griego-Español* in Madrid under the general direction of Francisco R. Adrados. I thank José L. Melena for discussing with me electronically my interpretation of the toponym and toponymic adjectives proposed here and Cynthia Shelmerdine for helping with references to Haldane. I thank Maurizio Del Freo for bringing to my attention the article by Mercedes Aguirre de Castro (below note 10) which anticipated the identification proposed here, without the particular supporting arguments. I dedicate this paper to Martín S. Ruipérez in humble acknowledgment of his pioneering work in early Greek linguistics. Shortcomings in the paper are wholly mine. I use the following special abbreviated references: *CoMIK*: J. CHADWICK et al. (eds.), *Corpus of Mycenaean Inscriptions from Knossos*, vols. 1-4, Cambridge and Rome, 1986-1998; *KT 5*: J.T. KILLEN and J.-P. OLIVIER (eds.), *The Knossos Tablets, Suplementos a MINOS* 11, Salamanca, 1989.
2. A. BARTONEK, «The Lexical Stock of Mycenaean Greek», in J.-P. OLIVIER (ed.), *Mykenaiika, BCH Suppl.* 25, Paris, 1992: 31. Although it is difficult to document the non-existence of evidence, we can cite the absence of any entry pertaining to law or the administration or administrators of justice in the subject indices of primary reference works such as M. VENTRIS and J. CHADWICK, *Documents in Mycenaean Greek*, Cambridge, 1973.
3. On the absence of anthroponyms derived from the term δίκη or θέμις in the Mycenaean onomasticon, cf. O. LANDAU, *Mykenisch-Griechische Personennamen*, Göteborg, 1958, and G. NEUMANN, «Wertvorstellungen und Ideologie in den Personennamen der mykenischen Griechen», *Anzeiger der phil.-hist. Klasse der Österreichischen Akademie der Wissenschaften*, 131, 1994: 127-166.

its derivatives in the historical period⁴. In team-teaching with Hittitologist Sara Kimball at the University of Texas at Austin a course mainly focused on the textual evidence for Hittite and Mycenaean societies, I cite single entries in the Linear B land-tenure documents from Pylos as the limited evidence for the kind of disputes that would have needed some form of ‘legal’ arbitration and resolution among competing claimants. In the principal entry in what we consider the final recension PY Ep 704.7-8, the ‘priestess’ *Eritha* is recorded as ‘holding’ and ‘claiming to hold’ *e-to-ni-jo* land ‘for the deity’ (*te-o* interpreted as a dative). This is then disputed by the *damos* in the clause which immediately follows in this entry: “but the *damos* says that she has an *o-na-to* plot of the land category known as *ko-to-na-o ke-ke-me-na-o* (partitive gen. plur.)”. In the presumably preliminary single-entry document corresponding to this entry Eb 297, a plural group of ‘land-holders’, the *ko-to-no-o-ko*, are recorded in the place of the *damos* as the parties disputing the claim of the priestess. This is a desperate attempt on my part to find something in the Mycenaean texts to compare even unfavorably with the detailed documentation of the great Hittite codes and compilations of law, law cases and legal precedents⁵. Nonetheless we have recorded on Pylos tablets Eb 297 and Ep 704 a serious set of contrasting claims about the status of a landholding, and certainly the obligations and benefits attached thereto. But we are nowhere in our extant documents given further information as to the mechanisms by which such a dispute would have been settled.

The argument of this paper casts doubt or further doubt on the one term relating to law (*θέμις*) that has been thought to occur in the Mycenaean texts as an independent lexical item and in derivative and compound formations as the name of an official and as a place-name and toponymic adjective. We shall start with the toponymic forms.

Among the 240 place-names attested in the Linear B tablets from Mycenaean Pylos, the two most prominent toponyms that can be linked with virtual, if not absolute, certainty to actual Late Bronze Age settlements identified by intensive survey and excavation are *pu-ro* and **ti-mi-to a-ko. pu-ro*, which occurs on more than fifty tablets, indisputably refers to the palatial center excavated at the site of Ano Englianos which produced our Linear B tablets. It is clearly to be understood as the Bronze Age site of the toponym Pylos, the location of which has a peripatetic history later

4. F. BECHTEL, *Die historischen Personennamen des Griechischen bis zur Kaiserzeit*, Halle, 1917: 135-137, catalogues ca. 90 distinctive personal names, plus some sobriquets.
5. Cf., for example, C.F. JUSTUS, «The Case of the Missing *dusdumi* and *lalami*», *Minos*, 29-30, 1994-95: 213-238, for the Hittite case of Ukkura, «decurion» in charge of transport of royal goods between Hattusa and Babylon, and his son Great-Stormgod, over missing goods, such as mule-yokes. A cuneiform tablet in Hattusa preserves the oaths of the principal parties involved (the accused, accusers and other witnesses) and reference to administrative recording devices (*dusdumi* and *lalami*) that could have had evidentiary value. The lengthy record of effectively «depositions» has as its introduction the formal accusation made to the Queen and her official response setting the investigation in motion and authorizing the taking of sworn statements from the «Queen’s elite chariot fighters, her grooms, Mr. Great-Stormgod and Mr. Ukkura...under oath in the temple of Lelwani».

in the historical period⁶. **ti-mi-to a-ko*, to which reference is also made in the tablets by its related alternative adjectival forms *ti-mi-ti-ja* and *te-mi-ti-ja/-jo*, has been convincingly associated by Cynthia W. Shelmerdine with the archaeological site of Nichoria⁷. The location of Nichoria, its topographical situation and the regional resources which it would have controlled at the end of the Bronze Age are all consistent with the economic and military contexts in which the place-name **ti-mi-to a-ko* appears in the Linear B archives. The site represents one of the 16 major districts into which Bronze Age Messenia is administratively divided, and it occurs on ten tablets that relate to: bronze working, six standard items of regional taxation, bronze recycling for weaponry production, coastal defensive arrangements, gold, landholdings, livestock, male personnel, and rather intensive levels of flax production⁸. Nichoria matches the tablet information in that it sits on a ridge with a view of the sea and would thus be an appropriate ‘coastal-watcher station’. It is also situated on the ‘further’ side of the posited boundary between the Nearer and Further Provinces of Bronze Age Messenia. This system of regional districts and their second-order centers can be reconstructed from the canonical order of the sixteen major toponyms in the tablets. **ti-mi-to a-ko* would fit Nichoria, and vice versa, as being the first of the major centers in the Further Province. Finally the archaeological site overlooks a fertile valley to the east watered by five rivers. This would make it most suitable for flax growing and processing. The most recent full discussion of settlements and resources and regional administrative organization in late Bronze Age Messenia further supports these identifications⁹.

The standard interpretation of the toponym **ti-mi-to a-ko* itself was proposed by Martín S. Ruipérez in 1957 and the identification of the first element of the compound *ti-mi-to* as attested also in the adjectival forms *ti-mi-ti-ja* and *te-mi-ti-ja/-jo* has prevailed in scholarly interpretation¹⁰. The toponym is viewed as a compound. The

6. For all Linear B lexical items, cf. F. AURA JORRO, *Diccionario Micénico*, vols. 1-2, Madrid, 1985 and 1993. For the archaeological backdrop concerning Pylos, cf. C.W. BLEGEN and M. RAWSON, *The Palace of Nestor at Pylos in Western Messenia*, vol. 1, parts 1-2, Princeton, 1966. For the identification of the palatial center at Ano Englianos with Pylos, cf. BLEGEN and RAWSON, op. cit.: 419-420, and J. CHADWICK, «ΕΣΤΙ ΠΥΛΟΣ ΠΡΟ ΠΥΛΟΙΟ», *Minos*, 14, 1975: 39-59, with references to the later Greek geographical tradition.
7. C.W. SHELMEKDINE, «Nichoria in Context: A Major Town in the Pylos Kingdom», *AJA*, 85, 1981: 319-324. Earlier discussions in J. CHADWICK, «The Mycenaean Documents», in W.A. McDONALD and G.R. RAPP, JR., *The Minnesota Messenia Expedition*, Minneapolis, 1972: 110-116, and «The Geography of the Further Province of Pylos», *AJA*, 77, 1973: 276-278. For the full Bronze Age archaeological backdrop concerning Nichoria, cf. W.A. McDONALD and N.C. WILKIE (eds.), *Excavations at Nichoria in Southwest Greece*, vol. 2, Mineapolis, 1992.
8. The texts and their contents are conveniently surveyed in SHELMEKDINE, op. cit., 1981: 321, n. 5. The suitability of the site and its environs for flax production are critical to the argument, (*ibid.*: 324-325).
9. J. BENNET, «The Linear B Archives and the Kingdom of Nestor», in J. DAVIS (ed.), *Sandy Pylos: An Archaeological History from Nestor to Navarino*, Austin, 1998: 111-133, esp. 113, 117-119, 124, 127.
10. M.S. RUIPÉREZ, «Notes on Mycenaean Land-Division and Livestock-Grazing», *Minos* 5, 1957: 183. The Ruipérez etymology has only been brought into question in P. Chantraine, *DELG*, 428, in regard to its later extension in the Homeric texts, where Ruipérez would see it as contrasting

first element is interpreted as the genitive of later Greek θέμις, here with an original and literal meaning of ‘boundary furrow or stone’, ‘frontier’ or ‘border’¹¹. The second element most likely is the term ἄγκος in the sense of ‘mountain glen’, ‘valle’, ‘barranco’, ‘zona de árboles’ (*DGE*, s.v. 1 and 2), although other alternatives such as ἄγος = τέμενος in the sense of ‘holy ground’ were proposed in early scholarly discussions¹². Thus in the recent definitive publication of the excavation of the site of Nichoria, we read that the name **ti-mi-to a-ko* «is appropriate for this site at the juncture of mountains and valley; the most widely accepted interpretation is Θέμιτος ἄγκος, ‘the mountain glen of the frontier’»¹³. While this is not an instance of θέμις in its later meaning of ‘law as established by custom’, it would attest that the word was in use in the Mycenaean period.

There are several reasons why we might wish now to consider alternatives to the standard interpretation. First and foremost, the interpretation of the first element as derived from θέμις is problematical in terms of what we know about Mycenaean dialect. One of the features used by the late Ernst Risch to differentiate between what he called *special* and *normal* Mycenaean «dialects» is the alternation in spellings of given words with either *i* or *e*, mostly in the environment of a labial consonant¹⁴. The main evidence adduced by Risch and later scholars for this particular feature includes the variants *ti-mi-ti-ja* vs. *te-mi-ti-ja* (cf. **ti-mi-to a-ko*) and the theonym *a-ti-mi-te* vs. *a-te-mi-to*; as well as the universal Mycenaean treatment of vocabulary items for loan words that varies from the later universal treatment, e.g., *di-pa* vs. Homeric δέπας and *ku-te-so* vs. later Greek κύτισος (Theophrastus, Pliny)¹⁵.

with ἄγογή in the sense of «polished stones set down as seats for elders»: M.S. RUIPÉREZ, «Historia de θέμις en Homero», *Emerita*, 28/1, 1960: 99-123. A key element in this interpretation which Chantraine regards as «plus ingénieuse que convaincante», is the stage in Mycenaean whereby the word which originally means λίθος κατορυχίς comes to mean ‘boundary stone’ and then ‘boundary’, but can also develop in Homeric texts into a meaning of «ξεστὸς λίθος del ἱερός κύκλος de la βουλή» (RUIPÉREZ, op. cit., 1960: 121). VENTRIS and CHADWICK (op. cit., 1973: 584) interpret *te-mi-ti-ja* as *Themistia?* and view the connection with θέμις as made less likely by the alternative spelling *ti-mi-ti-ja*. I thank M. Del Frio for alerting me to the fact that M.A. DE CASTRO, «Micénico TE-MI: nuevas consideraciones», *Cuadernos de Filología Clásica*, 18, 1983-84: 283-293, esp. 391, alone had earlier proposed and argued for the alternative interpretation suggested in this paper. Readers of De Castro’s article will see that its emphasis is on examining the overall dossier and suggesting the alternative without the supporting evidence offered here from new readings of pertinent texts and from the archaeobotanical and archaeological record.

11. Cf. RUIPÉREZ, op. cit., 1957: 183 and n. 3, with a comparison to Latin *limes*.
12. Cf. AURA JORRO, op. cit., 1993, s.v. For example, L.R. PALMER, *The Interpretation of Mycenaean Greek Texts*, Oxford, 1963: 278 and 458, interprets *ti-mi-to-a-ke-e/i* as Θέμιτος ἄγει, which agrees with RUIPÉREZ only in the first half of the compound.
13. W.A. McDONALD, O.T.P.K. DICKINSON, R.J. HOWELL, «Summary», in McDONALD and WILKIE, op. cit., 1992: 767.
14. E. RISCH, «Les différences dialectales dans le mycénien», in L.R. PALMER and J. CHADWICK (eds.), *Proceedings of the Cambridge Colloquium on Mycenaean Studies*, Cambridge, 1966: 150-157.
15. There are also some etymologically problematical terms like *qe-to* which some have connected with πίθος. Cf. AURA JORRO, op. cit., 1993: s.v. The variant treatment in *ku-te-so* obviously does not occur in a labial environment.

Yet the *opinio communis* on this particular alternation in spelling has always connected it with the fact that the words wherein it occurs are words of no convincing Greek etymology and «in a number of cases demonstrably foreign borrowings»¹⁶. This view is also supported by the evidence of non-Greek proper names in the Mycenaean onomasticon like *e-pa-sa-na-ti* vs. *i-pa-sa-na-ti* and *qa-me-si-jo* vs. *qa-mi-si-jo* where the textual contexts may support the names referring to one and the same individuals, i.e., they are true variant treatments of the same anthroponym and not different anthroponyms that happen to be spelled the same in Linear B¹⁷. Similar linguistic variation has been used recently by José Fortes Fortes to establish the non-Greek sources of a number of plant names in the historical Greek lexicon, particularly the non-Greek origin of the name of a plant central to the discussion in this paper: τέρμινθος, τρέμινθος, τερέβινθος¹⁸. Thus it is *a priori* more probable that the first element of the compound toponym which fluctuates as *te-mi-t-* vs. *ti-mi-t-* is of non-Greek etymology. This would rule out its derivation from θέμις.

Second, among the key comparanda used by Ruipérez in his discussion of the Mycenaean evidence that *te-mi-t-* / *ti-mi-t-* represented forms of the Greek term θέμις is line .1 of tablet KN As 821. The accepted reading in 1957 was *e-qe-ta-e*, *e-ne-ka*, *ti-mi-to* together with a parallel entry *e-ne-ka*, ‘*o-pa*’ twice recurring on this fragmentary tablet. However, in 1968 C. Sourvinou proposed that the correct reading in line .1 of the tablet now known as Am(2) 821 + *frr.* is *e-mi-to*, to be interpreted as genitive plural ἐμμίσθων ‘asalariados’, and this reading and line of interpretation have prevailed in *KT 5* and *CoMIK I* and the scholarly literature¹⁹. The implications of this reading are aptly expressed by Sourvinou: «En conséquence toutes les théories qui ont été bâties sur *ti-mi-to* s’écroulent»²⁰. These theories include those which viewed the word as connected with ‘Gesetz’ or ‘justice’.

16. Cf. R.J.E. THOMPSON, «Dialects in Mycenaean and Mycenaean Among the Dialects», *Minos*, 31-32, 1996-97 [1998]: 315. Cf. also T.G. PALAIMA, «Special vs. Normal Mycenaean: Hand 24 and Writing in the Service of the King?», in J. BENNET and J. DRIESSEN (eds.), *A-NO-QO-TA. Festschrift for J.T. Killen*, *Minos*, forthcoming.
17. Cf. on both points the opinion of D.A. HESTER, «The *i/e* Alternation in Mycenaean Greek», *Minos*, 6, 1958: 33: «The contention that most of the certain examples of Mycenaean *e* = Greek *t* are in proper names or words not of Greek origin seems correct as far as roots are concerned.» For the contexts and likely identity of *e-pa-sa-na-ti* / *i-pa-sa-na-ti* and *qa-me-si-jo* / *qa-mi-si-jo*, cf. PY En 74.13 and PY Eo 247.4 and KN As 1516.5 and KN Sc 135. The two Pylos E- series texts are respectively «final» and «preliminary» records. The KN tablets come from area J2 and the *Room of the Chariot Tablets (RCT)* respectively. The *RCT* material is demonstrably our earliest collection of Linear B documents and sits apart from tablets found in other locations in the Palace of Minos. Cf. J. DRIESSEN, *The Scribes of the Room of the Chariot Tablets at Knossos, Suplementos a MINOS* 13, Salamanca, forthcoming. Yet it has been argued from the military aspects of the tablet contents that *qa-me-si-jo* and *qa-mi-si-jo* might refer to the same individual. Cf. J. DRIESSEN, «Quelques remarques sur la “Grande Tablette” (As 1516) de Cnossos», *Minos*, 19, 1985: 177.
18. J. FORTES FORTES, «Anatolische und griechische Pflanzennamen. Methodologie ihrer etymologischen Erforschung», *Faventia*, 21/1, 1999: 24-25.
19. C. SOURVINOU, «A Propos de la Tablette KN As 821», *Minos*, 9, 1968: 184-186. Cf. J.L. MELENA, *Studies on Some Mycenaean Inscriptions from Knossos Dealing with Textiles*, Salamanca, 1975: 48.
20. SOURVINOU, op. cit., 1968: 184.

Third, Ruipérez also based his argument on what he considered a separate word-unit *ti-mi-to-ḡo[-ro]* inscribed on Pylos tablet Aq 218 *verso* after the tablet surface had dried considerably²¹. Following a restoration proposed by Meriggi, Ruipérez interpreted *ti-mi-to-ḡo[-ro]* as θεμιστοπόλος «‘judge’ in its classical continuation»²². Again the reading of the text has improved and this sequence of phonetic signs is now seen to be part of a longer «string» *di-we-si-po-ro-ti-mi-to-ḡo* that probably recurs in whole or part on the *verso* of PY Xa 412 (where *ḡo* is definitely the final sign of the word-unit—or here «string» of phonetic signs) and on the lower portion of the palimpsestic front of the large tablet PY Tn 316, where it is also incised lightly into the surface of the tablet as a kind of «test» graffito. Ruipérez and Melena now hypothesize that this «string» of signs represents a Mycenaean «abc’s», equivalent to the *iroha* sequence of Japanese *katakana* syllabic script, and may well be a mnemonic/pedagogic tool devoid of meaning²³. The contexts and the method of inscribing the three «strings» make this interpretation probable. Given the comparanda, there is no reason to restore *ro* at the end of the «string» on Aq 218 (in fact *re* is now conjectured) and the division of the string of syllabograms to yield a word-unit *ti-mi-to-ḡo* or *ti-mi-to* is considered speculative. On Aq 218 and Xa 412 the signs are spaced in such a way as to make any division dubious.

Fourth, Ruipérez argued from Knossos tablet V 280 that the word θέμις occurred in the phrases *o-u-te-mi* (KN V 280.11, .12, .13, .14) and *o-u-ki-te-mi* (KN V 280.5) and so was already well-attested in the evolved sense of ‘justice’ in the 15th century B.C.E. This interpretation, however, was based on highly speculative assumptions that the text was somehow «calendrical» and that a standard term like *to-pe-za* ‘table’ could somehow be viewed as the name of a ‘festival’. It is now seen to be unlikely from the contents of the tablet²⁴. The phrases occur with the items *to-pe-za* ‘table’ and *a-pe-ti-ra₂*, an adjective that seems to be derived from ἀμφι- and ἔδω, describing ‘a table at which one may eat from two sides’²⁵. The find-context of the tablet, the so-called *Room of the Chariot Tablets* at Knossos, also makes it probable that *te-mi* is here to be interpreted as τέρις, a ‘support element’ (cf. Hesychius τέρις· πούς and the Mycenaean technical term applied to

21. In the definitive corpus volume of the Pylos tablets under direction of J.L. Melena, the final sign is now read as a tentative *re*.

22. RUIPÉREZ, op. cit., 1957: 176. Notice that interpretation both of *ti-mi-to* and of *ti-mi-to-ḡo[-ro]* as derived from θέμις required *i*-treatment of normal historical Greek *e*.

23. M.S. RUIPÉREZ and J.L. MELENA, *Los griegos micénicos*, Madrid, 1990: 110, and *Oi Μυκηναίοι Έλληνες*, trans. MELINA PANAGIOTIDOU, Athens, 1996: 111-112. Up-to-date readings are now given in E.L. BENNETT, JR., «A Selection of the Pylos Tablet Texts», in J.-P. OLIVIER (ed.), *Mykenaiika, BCH Suppl* 25, Paris, 1992: 110-111:

— Tn 316 *recto* graffiti in lower right: *si-po-ro ti-mi-to*

— Xa 412 *verso*: text inscribed: *di-we-si-po-ro ti-[mi]-to-ḡo* [.

The division of the texts to yield separate word-units is problematical.

24. VENTRIS and CHADWICK, op. cit., 1973: 584 s. *te-mi*¹: «formerly taken as *themis*, but explanation of this tablet as a calendar unlikely». Cf. the appendix to this paper.

25. Cf. C.J. RUIGH, *Études sur la grammaire et le vocabulaire du grec mycénien*, Amsterdam, 1967: 116, n. 84. This kind of table is familiar from frescoes, e.g., those from the central megaron at Pylos, which depict paired banqueters seated facing each other across a table.

chariot wheels *te-mi-dwe*) for tables. The tables are here recorded in an inventory tablet non-ideographically and in single entries, just as they are in nine separate entries on tablets in the famous Pylos Ta series of furniture, tripods and other ceremonial equipment: Ta 642, 713 and 715. We should note also that check marks were added at the right opposite the entries in lines .5 and .11-.14, as if the textual inventory of tables had later been audited against the physical objects.

We conclude then that there are no comparanda in the Linear B tablets for the use of the word Θέμις and that the *e/i* alternation in the toponym and toponymic adjective suggests that the element *te-mi-t-/ti-mi-t-* derives from a non-Greek word. Thus our results are negative, insofar as tracing the development of central Greek cultural concepts, in that it is probable that the term Θέμις is not attested at all in Linear B.

If the toponym **ti-mi-to a-ko* and its derivatives are not related to the Greek word Θέμις, what is their etymology? We have argued that the first element probably comes from a non-Greek root, and we should prefer, if possible, to find a term that makes sense of the toponym. While not without complications, I propose that the root *te-mi-t-/ti-mi-t-* be connected with the loan word τέρμινθος, τρέμινθος, τρεβίνθος which refers to the tree *pistacia terebinthus*. The adjectival forms of the toponym may be interpreted as *τερμινθήᾱ/τιρμινθήᾱ*. These occur once on each of five different tablets, twice with *e*-treatment (PY On 300.10 and Ac 1278) and three times with *i*-treatment (PY Aq 64.6, Jo 438.24 and Vn 493.2). Only tablet Aq 64 is assignable to a known scribal hand, H 21²⁶. The compound toponym occurs on PY Cn 600 seven times with its elements separated by a word-divider (*ti-mi-to* , *a-ke-e*) and on Jn 829, Ma 123, and Na 361 without any spacing or word-divider to suggest division (*ti-mi-to-a-ke-e*)²⁷. Cn 600 is by scribal hand H 21, while the other tablets are by closely related scribal hands H 1 and H 2. It may be read as *τιρμίνθων ἀγκέθει* 'the hillside *vel sim.* of *pistacia terebinthus* trees'.

Regarding the linguistic aspects of this proposal, we should note that the toponym is everywhere represented with *i*-treatment (*ti-mi-to-*) and that where an identifiable scribal hand (H 21) writes both the noun and adjectival forms, he consistently uses the *i*-treatment. In fourteen occurrences on eight tablets by three major scribal hands (H 1, H 2, and H 21) and two unidentifiable hands of the same palaeographical class as Hands 1 and 2 (Jo 438 and Vn 493) *i*-treatment prevails. *e*-treatment occurs but twice and on tablets that deal with regionally distributed groups of men (Ac 1278 from the Northeast Workshop) and assessments(?) of oxhides from regional officials in the two major provinces of Messenia (On 300). Whether judging from frequency of occurrence or the importance and prominence of the texts and their scribes, *i*-treatment would seem to be standard. This would cast further doubt on an etymological connection with Greek θέμις.

26. For identification and discussion of the Pylos scribal hands, cf. T.G. PALAIMA, *The Scribes of Pylos*, Rome, 1988.

27. The tablet surface between the two elements of the compound on PY An 661.10 is damaged and may contain a word-divider. Here the form is *-a-ke-i*.

If the word does represent a version of the loan word amply attested in later Greek as τέρμινθος, the *i*-treatment may derive in one of two ways. The simplest explanation would be to view it as comparable to Mycenaean *ku-te-so* vs. later Greek κύτισος, i.e., an alternation that is not dependent on a labial environment and where one or the other of the competing vowel-treatments may become standard in historical Greek. We are probably dealing here with the results of the confrontation of speakers of different languages each with a distinct vocalic system, e.g., Minoan *a, i* and *u* vs. Greek *a, e, i, o* and *u*, so that an original non-Greek word spoken by non-Greek-speakers with an *i*-vowel was then opened and pronounced as *e* by Greek-speakers. This would explain, for example, original *Artemis* as being transformed into *Artemis*. The consonant /r/ in Greek also has a bearing on vocalic aperture, cf. ἕρος vs. ἄρος, the preservation of long *a* after *ρ* in Attic, and so forth. So a word like non-Greek /*tirm^binthos*/ might be heard by Greek speakers as *terminthos* or *terbinthos*. Fluctuations between /m/ and /b/ in attested Greek *terminthos*, *treminthos*, and *terebinthos* might be linked to the peculiar non-Greek phoneme /*m^b*/ that is represented by phonogram *22 in Linear B²⁸. An alternative and more complex interpretation of sound changes within Greek is hinted at by the variant forms listed by José Fortes Fortes (above n. 18) τέρμινθος, τρέμινθος which exhibit metathesis in ερ vs. ρε. Liquid metathesis is well-attested in Linear B, e.g., *to-no* vs. *to-ro-no-wo-ko* (θόρονος vs. θρόνο-). It occurs in the very Mycenaean term *ki-ta-no* (= κίριτανος vs. the later Greek κριτανος; cf. Hesych. κριτανος: τέρμινθος) which José L. Melena has identified as the ‘nut of the *pistacia terebinthus*’ tree from which is made a resin used in perfumed oil manufacture, a major industry in the Mycenaean palatial period²⁹. Thus one could imagine that a metathesized form like τρέμιν(θ)ος in prehistoric Greek would have led to the *i*-treatment of *e* in the environment of a labial. This would produce **τρίμιν(ν)θος* which, itself subject to liquid metathesis, would yield the desired *τίρμινθος* represented in Linear B as *ti-mi-to*. We should stress that what looks like a lengthy, if not somewhat sophisticated, string of sound changes is in fact the product of attested instability/fluctuation in the pronunciation of the vowel + liquid or liquid + vowel and the attested fluctuation in words of non-Greek origin in the articulation of the vowel, in this case in a particular environment.

Lastly, it is possible that some may wish to find fault with this reconstruction because of the adjectival form of the toponym in *-ti-ja*. Again it is known that Mycenaean generally assimilates **t*, **th*, **nt* and **nth* before *i* as in adjectival derivatives in *-ios*, e.g., *ko-ru-si-jo* (from κρορῦθ- ‘helmet’), *za-ku-si-jo* (ethnic of Ζάκυνθος), *ko-ri-si-jo* (ethnic of Κόρινθος), *a-ta-ra-si-jo* (from τάλαντον) and

28. On the Minoan phonemes represented by Linear B signs *22 and *56, cf. J.L. Melena, «On the Untransliterated Syllabograms *56 and *22», in P.H. ILIEVSKI and L. CREPAJAC (eds.), *Tractata Mycenaea*, Skopje, 1987: 203-232; and also T.G. PALAIMA and E. SIKKINGA, «Linear A > Linear B», in P.P. BETANCOURT et al. (eds.), *Meletemata*, Liège and Austin, 1999: 602-603.

29. J.L. MELENA, «La producción de plantas aromáticas en Cnoso», *Estudios Clásicos*, 78, 1976: 180-181. Melena also cites the metathesis in historical Greek κρικος vs. κίρκος.

ka-pa-si-ja (= Καρπασία from Κάρπαθος)³⁰. But, as in later Greek, there are notable exceptions including *me-ri-ti-jo* (from μελιτ-), *a₃-ku-pi-ti-jo* (from Αἴγυπτος), *mi-ra-ti-ja* (from Μίλατος) and *ka-pa-ti-ja* (= Καρπαθιά also from Κάρπαθος). In later Greek the non-assibilated forms are generally explained as resulting from assimilation with the basic noun forms in which no sound change has occurred, thus reintroducing the original dental stops. We should in the Mycenaean period reckon with conservatism in the pronunciation of proper names (*me-ri-ti-jo*, *a₃-ku-pi-ti-jo* and *ka-pa-ti-ja*)³¹ and even with the isolation of groups of speakers from palatial centers where standard dialect changes occurred more rapidly or idiosyncratic features were beginning to spread through lexical diffusion. It is worth noting that major Pylian scribes in several tablet series and in multiple instances evidence spelling with *-ti-* in the name of the important religious official known as the ‘key-bearer’ *Καρπαθιά*³² and the ethnic women workers designated as *Μιλάτιαι*. Likewise the well-known and relatively frequently used name of the provincial capital **ti-mi-to a-ko* should have exerted a conservative influence over the adjectival spellings that might well be absent in rendering adjectival versions of a more obscure local settlement or district (**ko-ri-to*) within Messenia or an extra-regional place-name (**za-ku-to*). In any case, the spellings *ti-mi-ti-ja* and *te-mi-ti-ja* are hardly unexpected or inexplicable within the Mycenaean lexicon.

The proposed interpretation would also yield a compelling meaning for the site. As mentioned above, perfumed oil manufacture was a major industry of the Mycenaean palatial territories as attested in the tablets and in the archaeological evidence for the trade of oil in stirrup jars, inscribed and uninscribed³³. A key substance used otherwise in the manufacturing process for perfumes was the resin extracted from the *pistacia terebinthus* tree³⁴. This resin is found in large quantities (more than 60 full Canaanite amphorae) on the Ulu Burun shipwreck dated near the end of the 14th century B.C.E.³⁵. Terebinth nuts or resin identified by

30. M. LEJEUNE, *Phonétique historique du mycénien et du grec ancien*, Paris, 1972: 62-65.
31. Homeric Ὀρτίλοχος vs. Ὀρσίλοχος are good examples of conservative vs. innovative forms of the same name (Il. 5.6542, 5.546, 5.547, 5.549) carried by different individuals. Cf. H. VON KAMPTZ, *Homerische Personennamen*, Göttingen, 1982: 212.
32. There is no reason to think that *ka-pa-si-ja* in PY Vn 851.12, a list of individuals who seem to be allotted *de-mi-ni-ja* ‘beds’, is the same as the important religious official known as the ‘key-bearer’.
33. Cf. C.W. SHELMEKDINE, *The Perfume Industry of Mycenaean Pylos*, Göteborg, 1985, and «The Perfumed-Oil Industry», in DAVIS, 1997: 101-108; and most recently P. VAN ALFEN, «The Linear B Inscribed Stirrup Jars as Links in an Administrative Chain», *Minos*, 31, 1996-97 [1998]: 251-274, with references.
34. Either through collection of sap exuded by cuts in the trunks of the live trees or from compression of the nuts. Cf. *McGraw-Hill Encyclopedia of Science and Technology*, New York, 1997, vol. 13: 618.
35. Cf. G. BASS, *National Geographic*, 172.6, Dec. 1987: 726-727; C. HALDANE, «Recovery and Analysis of Plant Remains from Some Mediterranean Shipwreck Sites», in J. RENFREW (ed.), *New Light on Ancient Farming*, Edinburgh, 1991: 214-222, esp. 218-220 and 222; J. MILLS and R. WHITE, «The Identity of the Resins from the Late Bronze Age Shipwreck at Ulu Burun (Kas)», *Archaeometry*, 31/1, 1989: 37-44. The terebinth fruits are also edible. On the date of the Ulu Burun wreck, cf. now M. WIENER, «The Absolute Chronology of LH IIIA2», in M.S. BALMUTH and R.H. TYKOT (eds.), *Sardinian and Aegean Chronology*, Exeter, 1998: 313-315.

Melena (above n. 28) as Mycenaean *ki-ta-no* occur with the ideogram for spice/aromatic AROM in significant quantities on KN Ga 1530, Ga 1532 and X 1385³⁶. In the first two tablets, we are dealing with contributions (*a-pu-do-si*) from a number of second-order communities in Crete that were obviously producing this commodity from the natural resources of their own territories. Tablet Ga(5) 1530 + 1531 gives totals delivered of AROM 58 and still owing AROM 31, quantities that seem to suggest sizable local sources of this plant product in the Mycenaean landscape.

This is confirmed by the archaeobotanical studies executed by the Minnesota Messenia Expedition, the Nichoria Excavation Project and the Pylos Regional Archaeological Project. All found ample evidence in their pollen samples for significant growth of *pistacia terebinthus* in the region of Messenia during the Mycenaean palatial period. In fact during the LH III period both olive and *pistacia terebinthus* reach very high levels in the pollen core record, seemingly indicating intentional and intensive cultivation and/or exploitation³⁷. The most recent report indicates that during the late Bronze Age as much as 10% of the total surface land might have been devoted to olive growth. The *pistacia terebinthus* grows in the so-called *maquis* or *macchia* community on steep hillsides, craggy gorges, and in low and dense scrubby forested areas³⁸. Such suitable environments are ample around the site of Bronze Age Nichoria, and the *macchia* community shows a definite upswing in the middle and late Bronze Ages due to deforestation and human settlement³⁹. If we then prefer the «concrete» to the «abstract» and interpret **ti-mi-to a-ko* as the ‘ἀγνος of the *terebinth* trees’, we have a reasonable toponymic reference to the terrain and botanical environment of the district of Nichoria and specifically to a plant, the natural product of which would have been exploited in support of a vital palatial industry in late Bronze Age Messenia. Such phytonymic toponyms are reasonably common in Greek-settled areas as documented

36. Melena suggests (*per litteras*) that even if the original reading of *ti-mi-to* were maintained in KN Am(2) 821 + *fr*: it would make sense to have *e-qe-ta* responsible for the care of (*e-ne-ka*) *ti-mi-to* gen. plur. = *terebinth* trees: «If we remember that *ki-ta-no* seems to be a strategic product at Knossos, it is likely that the turpentine trees would be under the supervision of high functionaries». The work of extracting the resin from these trees is difficult and labor intensive. American soul singer James Brown was born to a father who was among the impoverished black laborers who worked the turpentine trees in the area around Barnwell, South Carolina. Thus the industry would not only have been important, but it would have required management of teams of laborers.
37. S. YAZVENKO, «From Pollen to Plants», in DAVIS, 1997: 14-20, esp. fig. 18; H.E. WRIGHT, JR., «Vegetation History», in McDONALD and RAPP, op. cit., 1972: 188-199, esp. 194-195; E. ZANGGER, M.E. TIMPSON, S.B. YAZVENKO, F. KUHNKE and J. KNAUSS, «The Pylos Regional Archaeological Project, Part II: Landscape Evolution and Site Preservation», *Hesperia*, 66:4, 1997: 549-641, esp. 577-593 and figs. 24 and 26.
38. Cf. J.M. SHAY and C.T. SHAY, «Modern Vegetation and Fossil Plant Remains», in McDONALD and WILKIE, op. cit., 1992: 44-45. Such a community is still preserved on the lower slopes of the Englianos ridge, ZANGGER et al., op. cit., 1997: 578.
39. G. RAPP, JR., S.E. ASCHENBRENNER and J.C. KRAFT, «The Holocene Environmental History of the Nichoria Region», in G. RAPP, JR., S.E. ASCHENBRENNER, *Excavations at Nichoria in Southwest Greece*, vol. 1, 1978: 13-25, esp. 16-20 and fig. 2-3.

even in Stephanus of Byzantium's entry on a place-name in Cyprus named after the terebinth trees⁴⁰.

Appendix on KN V(2) 280

The full text of KN V(2) 280 reads as follows:

- .1 wo-de-wi-jo
- .2-4 vacant
- .5 to-pe-za , o-u-ki-te-mi X
- .6-10 vacant
- .11 a-pe-ti-ra₂ / o-u-te-mi X
- .12 o-u-te-mi X
- .13 o-u-te-mi X
- .14 o-u-te-mi X
- .15 e-pi , i-ku-wo-i-pi

It can be translated as follows:

- .1 in the month of *wordēwios*
- .2-4
- .5 table , not any supporting *termis* X
- .6-10
- .11 table(s) for two / no supporting *termis* X
- .12 no supporting *termis* X
- .13 no supporting *termis* X
- .14 no supporting *termis* X
- .15 *e-pi , i-ku-wo-i-pi*⁴¹

This text is the kind of inventory represented, with a need for fuller detail, by the tablets of the PY Ta series, which share with it specification in the heading phrase of the time or occasion when the inspection of the individual items took place⁴². There then follows a record of the individual pieces examined. In the Pylos

40. For the occurrence of such phytonymic place-names in the Aegean, cf. DE CASTRO, op. cit., 1983-84: 391, citing Myc. *ku-pa-ri-so* = Κυπαρισσός. In historical times, cf. the citation and opinion in Stephanus of Byzantium 632.15-633.7: Τρεμίδους, κόμη Κύπρου...ἔμοι δὲ δοκεῖ ἀπὸ τῶν περὶ τὸν τόπον πεφικυῶν τερεβίνθων ἃς Κύπριοι τρεμίδους καλοῦσιν ὀνομάσθαι, ὥσπερ πλείστας ἄλλας ἀπὸ τῶν ἐν αὐταῖς πλεοναζόντων φυτῶν, ἐν μὲν τῇ Ἄττικῇ Ῥαμνοῦντα, ἐν δὲ τῇ Πελοποννήσῳ Κυπάρισσον καὶ Θρούον, καὶ Ἑλαίας. Maurizio del Freo (*per litteras electronicas*) would add to this list: Selinous and Marathon.

41. This phrase is problematical. Cf. AURA JORRO, op. cit., 1985: s.v. and now J. DRIESSEN forthcoming: 183.

42. For a complete study of the scribal process behind the Ta tablets, cf. T.G. PALAIMA, «Inside the Mind of a Mycenaean "Scribe": How Hand 2 Wrote the Pylos Ta Series», in F. AURA JORRO (ed.), Proceedings of the Conference *Jornadas Micénicas*, held at Universities of Alicante-Orihuela, Spain, February 17-19, 1999.

Ta series the tables, throne-chairs, footstools, vessels and other equipment under inventory are very elaborate and costly and require more detailed descriptions, but even then the scribe in charge tries to organize the material neatly and efficiently and to streamline the descriptive terminology required to identify individual pieces. This is most conspicuous on Ta 721. For the recording of separate pieces line by line, and even with omission of the numeral '1', as here in V 280.5 and .11-14, cf. the like treatment of *to-pe-za* and *to-no* on PY Ta 642, 707, 708, 713, 714, 715. The inventory in the Pylos Sh series of ten different sets of body armor, each listed on a separate leaf-shaped tablet with identical texts for six and four of them respectively is also comparable⁴³. The monotonously identical entries or tablets are confirmation that the scribe or administrator whom he accompanied had examined the original objects individually.

43. T.G. PALAIMA, «“Contiguities” in the Linear B Tablets from Pylos», in E. DE MIRO, L. GODART, A. SACCONI (eds.), *Atti e memorie del secondo congresso internazionale di micenologia*, Rome, 1996: 379-396.