

STUDIES IN MYCENAEAN
AND
CLASSICAL GREEK

PRESENTED TO
JOHN CHADWICK

EDITED
BY

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COMMENTS ON MYCENAEAN LITERACY *

*Documents*², pp. 109-110, 406, offers a clear and succinct discussion of the arguments to be considered when taking up the question of Mycenaean literacy. I use it as a point of departure in order to acknowledge the fundamental and continuing contribution made by John Chadwick to the field of Mycenaean studies. *Documents*² favors the view of restricted literacy which Dow advances on the following grounds¹:

1. the complete absence of styluses, pens and inkpots from the Mycenaean archaeological record;
2. the complete absence of public, monumental inscriptions;
3. the limited number of inscribed stirrup jars [a class of inscriptions cited as evidence for more extensive literacy] and the small percentage they comprise of the vast numbers of Mycenaean-Minoan stirrup jars which circulated throughout the LH III Aegean;
4. the necessity to use written inventories as a precaution against theft, whereas information from other potential areas for the use of writing (poetry, liturgies, laws) can be preserved orally;
5. the impossibility of demonstrating conclusively that any inscriptions, e.g., those from the buildings outside the citadel at Mycenae, belong to an extra-palatial sphere of interest or control;
6. the sudden and absolute loss of writing following the LH III B - early III C destructions of major palatial centers;

The topic of this paper is the result of several probing questions by John Chadwick during the discussion of my contribution to the 8th International Colloquium on Mycenaean Studies held in Ohrid, Yugoslavia in September, 1985. I thank the Department of Classics at Dartmouth College for inviting me to address this topic in a lecture to students and faculty in February, 1986.

¹ To be supplemented in small details by S. Dow, *CAH*³ II, 1, pp. 582-608. In the following discussion, I refer by numbers or letters in brackets to individual points of the *Documents*² treatment, which I have restated in the text.

7. the consistency of graphic styles, orthography, phraseology, tablet forms, and textual formats at Knossos, Pylos and Mycenae, all suggesting that writing may have been controlled by specialists «trained in a rigidly conservative scribal school».

These arguments are qualified by points in favor of broader literacy and by John Chadwick's own supplementary comments:

a) the suitability of Linear A and Linear B characters to writing in ink on impermanent materials rather than to incision into moist clay;

b) evidence from Minoan sealings of correspondence on such materials between important regional centers (Hagia Triada, Zakro, Gournia);

c) the demonstration by palaeographical analysis that numerous writers (ca. 75) were responsible for the Knossos tablets, which suggests that all palatial officials were «capable of setting stylus to clay when required»;

d) the insight that «Linear B is not intrinsically unsuited to a literary use (at least by comparison with contemporary scripts)».

How are we to work with these observations? First we must recognize certain factors that severely limit our ability to reach definite conclusions about the exact nature of Mycenaean literacy and in fact place the entire question outside the domain of the Mycenologist, narrowly defined, and inside the province of the comparative historian, the student of oral literature and oral societies, and even the general theorist. The fullest extension of literacy is rightly taken to be «high» literacy [4]: formal literature (poetic, religious, historical), liturgies (ceremonial and prescriptive texts), laws (preservation of traditional precedents, public codification). Given the strong likelihood that texts of these classes would (*and could* [d]) have been written on perishable material [a], the existence of which has now been established convincingly for the Minoan period [b]², but actual remains of which we can never

² I. Pini, «Neue Beobachtungen zu den tönernen Siegelabdrücken von Zakro», *AA* 98, 1983, pp. 559-572. J. Weingarten, *The Zakro Master and His Place in Prehistory*, Göteborg 1983, pp. 38-44, note 20. I. A. Papapostolou, *Tà Σφραγίσματα τῶν Χανίων*, Athens 1977, pp. 13-14, 18-19.

expect to recover, the use of the Linear B script for documents of «high» literacy and for important official purposes, such as diplomatic correspondence, treaties, etc., must remain a matter of conjecture based on broader, comparative evidence³.

What surprises one most about the available evidence is the lack of any clear manifestation of Linear B script in areas of «low» literacy. I am thinking here primarily of demonstrably personal uses of writing like those which characterize the extensive literacy made possible by the later Greek alphabet from the very period of its adoption onward: the simple, proud or whimsical declarations scratched on the Hymmetos sherds, the individual rock-cut inscriptions from the archaic acropolis of Thera, the plain poetic ingenuity of the graffito on Nestor's cup from Pithekoussai, the unprofessional hand of the graffito (public ceremonial in context) on the Dipylon oinochoe, and numerous graffiti messages by equally numerous hands from market places, civic centers, sanctuaries and private houses throughout the extent of the later post-colonial Greek world⁴. The Mycenaean period so far offers *no readily intelligible graffiti*, a remarkable fact in itself⁵. The economic and administrative concerns of the Mycenaean palatial centers and their surrounding industrial and commercial buildings clearly monopolized extant Linear B writing. All inscribed remains come from within the narrow orbits of such centers. This includes, with three possible exceptions (KR Z 1, MA Z 1, EL Z 1), the approximately 144 inscribed (dipinti) stirrup jars (isj's) and stirrup jar fragments. This class of inscriptions then should not be used as evidence of extensive literacy [3]. During a period when stirrup

³ See, for example, the interesting discussion by C. Thomas, «Mycenaean Law in Its Oral Context», *SMEA* 25, 1984, pp. 247-253.

⁴ L. H. Jeffery, *The Local Scripts of Archaic Greece*, Oxford 1961, pp. 69, 76 (cat. 3a-c, pl. 1); 323 (cat. 1a, 6, pl. 61); 235-236, 239 (cat. 1, pl. 47); 68-69, 76 (cat. 1, pl. 1); and *passim* for graffiti. Cf. M. Guarducci, *Epigrafia Greca* I, Rome 1967, pp. 350-355, 226-227, 135-136, *passim* for graffiti. A clear view of the range of purposes in a concentrated collection of *early* graffiti is provided by M. K. Langdon, *A Sanctuary of Zeus on Mount Hymettos*, Princeton 1976, pp. 9-50, and esp. p. 49 for an assessment of the breadth of literacy indicated by this material. A good cross-section of «personal» inscriptions is found in M. Lang, *Graffiti and Dipinti*, The Athenian Agora 21, Princeton 1976.

⁵ The only inscriptions incised on pottery are single signs. PY Za 1392 (base of coarse pot): *ti* (PTT I, p. 287). KH Z 16 (false spout of stirrup jar): *wa* (E. Hallager, M. Vlasakis, «KH inscriptions 1976», *AAA* 9, 1976, pp. 215-218).

jars were transported and even locally imitated in considerable numbers throughout the greater Aegean world⁶, the inscribed subset, with their patently economic and administrative inscriptions (MN, Cretan PN, MN^{gen.} or adj. qualifier), circulated nearly exclusively among major sites on Crete and the mainland, where, one assumes, literate functionaries could read their inscriptions and put the jars and their contents to proper use. In view of the increasing evidence for strict control by the palatial centers of industrial and economic activity within their separate districts, especially in the III B period⁷, it has become more difficult to assign a «private» character to the «houses» at Mycenae and consequently to the inscribed stirrup jars found in them.

From the surviving evidence we can identify only nine possible exceptions to this pattern of strictly economic and administrative use of writing. Nine inscribed (dipinti) vases and vase fragments (cups, skyphoi, bowl, indeterminate) may not have so direct an economic function as the *isj*'s⁸:

TI Z 52 (skyphos base)]ri
TI Z 28 (fragment of a deep cup)	a[
MY Z 712 (piece of a cup)	pi-ra-ki
MY Z 207 (indeterminate)	pi[
MY Z 716 (indeterminate)]de
KN Z 1715 (piece of a cup)	[.]-*89-a
KH Z 23 (cup fragment, rim)]ti-da-[
KH Z 24 (cup fragment, rim)]ka-ka[
KH Z 25 (bowl, body fragment)	je

The only sufficiently preserved word-unit seems to be a MN (with tablet parallel): *Philāgis?* (Z 712) [cf. (?): [.]-*89-a (Z 1715)]. That these inscriptions, like those on the stirrup jars, are made by vase painters (of whatever competence at drawing the script) moves the use of writing here into a professional realm.

⁶ H. W. Haskell, «The Coarse-Ware Stirrup Jars of Crete and the Cyclades», Diss. (Univ. of North Carolina, 1981) offers the most comprehensive treatment.

⁷ J. C. Wright, «Changes in Form and Function of the Palace at Pylos», *Pylos Comes Alive*, pp. 26-29. C. W. Shelmerdine addresses the archaeological aspects of this phenomenon in her contribution to this volume.

⁸ For descriptions, find-spots, photographs, and drawings, see A. Sacconi, *CIV* and E. Hallager, *AAA* 16, 1985, pp. 58-73.

Nonetheless the cups themselves probably were used personally, produced and used locally, whether or not the owners (= the individuals who commissioned the vases and their inscriptions?) could read their own names⁹. Again, given the find-contexts of these inscriptions invariably within close proximity of the major Mycenaean centers, one is tempted to place the owners among the literate palace functionaries; but this would be nothing more than pure speculation. Statistically the palatial monopoly of the surviving evidence for writing entirely for economic and administrative concerns is clear:

SITE	TABLETS	LABELS	INSCRIBED SEALINGS
KN	3310	35	24
PY	1070	19	23
MY	65	0	8
TH	43	0	55
Painted isj's: 144		Other inscribed vases: 9	

Only 9 of 4806 inscriptions (0.19 %) may not belong to this sphere of interest.

To me it is perfectly astounding that no Mycenaean ever had the impulse to scratch a full inscription on the surface of a sherd. So far as we know, no Mycenaean ever inscribed a religious or decorative artefact, either formally through artistic commission or informally by his or her own hand. Did the script *per se* pose an obstacle to broader uses of this kind? Are we at the mercy of somehow skewed data? Or are we witnessing the same kind of narrow cultural attitude toward writing that is still apparent in the total absence of public (propagandistic) inscriptions [2]?¹⁰.

⁹ For a palaeographical analysis of the painters of the isj's, see J. T. Killen in H. W. Catling *et alii*, «The Linear B Inscribed Stirrup Jars and West Crete», *ABSA* 75, 1980, pp. 88-92. I do not mean to suggest that «professional» scribes drew the signs, only competent —and occasionally incompetent— «professional» painters, who might have been literate or mere copyists. The two cups tested by OES analysis in *ABSA* 75, 1980, p. 87, seem to have been made locally: MY Z 712 (no. 47) and KN Z 1715 (no. 72).

¹⁰ This coincides with a total absence of (propagandistic) political iconography in Minoan-Mycenaean wall painting. E. Davis, «The Political Use of Art in the Aegean: The Missing Ruler», Paper at the Annual Meeting of the Archaeological Institute of America, Washington, D.C., Dec. 27-30, 1985.

From the point of view of scholars familiar with the Greek alphabet and its successors, the Linear B writing system may seem complicated, cumbersome, and ill-suited to expressing a language that one is used to understanding readily in Greek alphabetic characters. This attitude was a factor in early resistance to the Ventris decipherment and survives in a recent similar appraisal of the Classical Cypriote syllabary by its chief students, Mitford and Masson¹¹. It is a fact that syllabaries are more complicated than alphabets. Nonetheless, they are the second most developed form of written communication; and, in comparison with the contemporary cuneiform scripts (except for the special 30-character local Ugaritic syllabary), the Linear B writing system is fairly streamlined [d]¹². At least it is sufficiently manageable for some 60-100 writers at Knossos, 33-45 at Pylos, 14 at Mycenae, 4 (in 43 tablets) at Thebes, in a randomly preserved cross-section of texts from a very limited period of time, to have mastered its principles and to have used it adeptly as a functional tool in their daily, not to say mundane, work [c]¹³. Moreover, palaeographical studies of the Knossos and Pylos material concur that training in the art of writing must have been, again in contrast to Near Eastern scripts, a practical matter, decentralized and the concern of administrative department and bureau managers (at Pylos perhaps of administrative personnel supervisors), rather than of professional scribes, of whom we find

¹¹ T. B. Mitford, O. Masson, *CAH* III, 1, p. 74. This is not to ignore the difficulties inherent in such syllabic scripts and the considerable ability needed to learn, use and interpret them. See E. A. Havelock, «Prologue to Greek Literacy», in C. G. Boulter *et alii*, *Lectures in Memory of Louise Taft Semple*, 2nd Series, University of Oklahoma 1973, pp. 336-337. It is to argue against the view that these difficulties and the consequent restriction of the number of persons who could master the art of writing in and of themselves prevented the Mycenaeans from applying writing to a broader range of uses. [By way of parallel, since writing this note, I have read the article by M. A. Powell, «Three Problems in the History of Cuneiform Writing: Origins, Direction of Script, Literacy», *Visible Language* 15, 1981, pp. 419-440, which argues, *inter alia*, that even the far greater complexity of the cuneiform script vis-a-vis the Greek alphabet had «no demonstrable effect on the level of functional literacy.»]

¹² The best theoretical discussion of the development and relative complexity of writing systems is I. J. Gelb, *A Study of Writing*², Chicago 1963. For cuneiform and Aegean scripts, see pp. 89-122.

¹³ J.-P. Olivier, «Administrations at Knossos and Pylos: What Differences», *Pylos Comes Alive*, p. 14. L. Godart, A. Sacconi, *TTH*, p. 103. A. Sacconi, *CIM*, pp. 89-109, 145-146.

not a trace in the sizeable list of Mycenaean terms for trades, occupations and officials [7].

The Linear B script itself has a manageable core of 59 open syllabic signs, including 5 pure vowels, by which any *Greek* word can be written. The series of doublets (7), complex signs (6), the isolated diphthong (*85 = au) and the so far untransliterated signs (16) are graphic luxuries, in no way necessary for writing any Mycenaean *Greek* text, employed with relative rarity, and clearly used primarily either as space-saving options (e.g., *ra*₃ instead of *ra-a* in *pe-ra*₃-*ko-ra-i-ja*) or as exact equivalents of unusual phonetic values in Minoan personal and place names (e.g., *da*-*22-*to*, *56-*ko-we*, *ia*-*22-*de-so* on isj's)¹⁴. The size of the functional core of the Linear B syllabary (59 signs), its orthographical principles, and its choice of options for distinguishing between consonantal values make it no more difficult, *mutatis mutandis*, to learn, use, and read than the later Classical Cypriote syllabary (55-56 signs)¹⁵. This script of comparable complexity competed successfully against the Greek alphabet for at least five centuries, and its broad applications indicate an extensive literacy: pottery inscriptions, votive inscriptions, epitaphs, graffiti of Cypriote mercenaries in Egypt, verse inscriptions, a royal inscription in marble, the famous Idalion text (terms of a civil contract settlement), and lastly over 100 pottery inscriptions from the Nymphaeum near Idalion (225-218 B.C.) showing a plurality of handwriting styles that attests to a widespread familiarity with the script among numerous local potters in the final stages of its use.

One might object that another element of the Linear B writing system, the larger repertory of ideograms (ca. 172) used in Linear B tablets (but lacking in the Cypriote script), would have posed a formidable obstacle to acquiring a working knowledge of the script. However, the ideograms are a feature of the record-keeping

¹⁴ Approximately 210 of 331 occurrences of the untransliterated signs, listed in *IGLB*, occur on Knossos tablets. The rarity of occurrence of the doublet, complex and untransliterated signs is clearly seen in the statistical analysis of M. Setatos, «Comparaison des tablettes mycéniennes sur la base d'une statistique phonétique», *Minos* 10, 1970, pp. 103-106. A convenient chart of Linear B syllabograms, analyzed into the above categories, is furnished by J. T. Hooker, *Linear B. An Introduction*, Bristol 1980, p. 38.

¹⁵ For the structure of the Cypriote syllabary and the following examples of its use, see *CAH* III, 3, 71-82, and *ICS passim*.

applications of the script, never used syntactically, but as a clear and ready means of reference (for the tablet writers themselves¹⁶) to subjects and quantities dealt with in the texts. The obvious *ad hoc* coinings of some ideograms (*127 *ka-po*, *128 *ka-na-ko*, *135 *me-ri*, *156 *tu-ro*₂), the detailed, naturalistic (and therefore *perhaps more recently invented*) forms of others (note especially forms with explanatory phonetic adjuncts: *202^{VAS} + *DI*, *210^{VAS} + *KA*, *162(TUN) + *KI*, + *QE*, + *RI*), and the significant number of ideograms without any demonstrable Linear A antecedents, all indicate how this specialized repertory must have grown over time to accommodate the administrative concerns of the Mycenaean palatial centers and their functionaries. The use of ideograms is so particular that they need only have been learned by specialized tablets writers and then perhaps only selectively. Functionaries in a specific bureau might be taught at first only general ideograms, such as *VIR*, *MUL*, livestock, basic commodities, and those primary and adapted ideograms (e.g., *130 (*OLE*), *159 (*TELA*) and their adjuncted or ligatured variations) relating to the interests of the bureau. New ideograms, if and when they were encountered, could be understood fairly easily by means of the accompanying non-ideographic portions of texts, their very appearance, or a brief explanation from a colleague or superior. The ideograms hardly present an insurmountable challenge and need have been learned only minimally for broader applications of writing (see below on Linear A and note the absence of ideograms on *isj*'s).

A final argument against viewing the complexity of the script as a major deterrent to its wider use can be found in the structurally parallel Linear A script, which has a slightly larger repertory of apparently phonetic signs and a full series of ideograms, both simple and modified¹⁷. Nonetheless, it was not only used broadly throughout and even beyond Crete (Keos, Melos, Kythera, Thera) at major palatial centers (Knossos, Phaistos, Mallia, Zakro), villas (Arkhanes, Tyliossos, Hagia Triada),

¹⁶ It is a mistake to overvalue the ideographic component of the texts (Thomas, *supra* n. 3, p. 249). An understanding solely of the ideograms in Linear A and B would not provide contemporary officials or modern-day scholars with any real understanding of the mechanics or details of economic administration represented by either deposit or archival documents.

¹⁷ Best seen in J. Raison, M. Pope, *Index transnuméré du linéaire A*, BCILL 11, Louvain 1977, pp. 48-61.

and other settlements and centers (Khania, Gournia, Palaikastro); but it was inscribed for non-administrative, non-economic purposes on religious or decorative artefacts. In fact, adopting very strict criteria, at least 40 (belonging to Linear A series Za, Zc, Ze, Zf, Zg) of a total of 1423 inscriptions (318 tablets, 1019 sealings, 86 «other documents») fall into this category (2.8 %). The gold pins, miniature double axes, and stone libation vessels are the best examples and illustrate clearly the non-ideographic character of such inscriptions¹⁸. One should note, however, that, judging from the skill of execution of writing on these objects, they seem to have been commissioned pieces, i.e., the inscriptions were executed as part of the artistic creation of the objects and need not have been comprehensible to the broad population, which may have included the dedicators or possessors of the objects. But these inscriptions, too, spread across the island and, when combined with other uses of writing broader than the Mycenaean, e.g., the often rather lengthy and syntactically full inscriptions on storage pithoi and pithoid jars from various LM I Minoan sites (Zakro [Zb 3, 34], Hagia Triada [Zb 158, 159, 161], Tylissos [Zb 4] and Phaistos [Zb 4, 5]), give us a hint of the fuller «literacy» that the Linear B script itself in no way prevented.

I think to some degree we are at the mercy of skewed data. Chronological documentation for the Cypriote syllabary ranges from the 11th century to the late 3rd century B.C. and comes from a wide variety of contexts. Evidence for the Minoan script, positively determined, runs from MM II through LM I B, from equally varied contexts¹⁹. Yet, if the redating of the Knossos tablets were to prove correct, the Linear B data would be confined to LH III B, perhaps to its latter half. This hardly allows us to decide among the different proposals for date, location and purpose of the origin of the script²⁰, nor to judge how the script

¹⁸ GORILA IV presents texts of these series. I consider the inscriptions on transport and storage vases (Zb) potentially economic. Contrast Y. Duhoux, «Mycénien et écriture grecque», *Linear B*, p. 37, n. 85.

¹⁹ F. Vandenabeele, «La chronologie des documents en linéaire A», *BCH* 109, 1985, pp. 3-20.

²⁰ Godart, «Le linéaire A et son environnement», *SMEA* 20, 1979, pp. 34-36: *LH I Mycenae*; J.-P. Olivier, «L'origine de l'écriture linéaire B», *SMEA* 20, 1979, pp. 43-52: *MM III / LM I Knossos*; A. Heubeck, «L'origine della lineare B», *SMEA* 23, 1982, pp. 202-203: *LM II Knossos, subsequent transformation on Greek mainland*;

evolved as it was transmitted site to site. I can give two categorical *opinions*:

1. Need for the script *at the latest* coincided with the development of full-scale palatial economy and political hierarchy on the Greek mainland, i.e., by ca. 1400 B.C., so that it is hardly «a very recent acquisition»²¹ —200 years in antiquity being as long as 200 years now— by the time of the destructions that preserved the mainland texts. We cannot argue that the Mycenaeans did not have the opportunity to apply writing more broadly.

2. There *are* clear differences between the Linear B palaeographical styles of Crete and the mainland [7]²²; and despite Vermeule's early and Heubeck's more recent remarks about regional variations and concomitant lack of centralized control in Linear A palaeography, we cannot be sure, until we have had time to assess Louis Godart's palaeographical analysis in *GORILA V*, that these variations are any more significant, so far as reflecting economic and political structure, than the discernible variations between classes at Pylos, bureaus at Knossos, and even idiosyncratically between sites on the Greek mainland, which do not reflect any lack of homogeneity in the basic ways these separate centers went about their record-keeping business²³. Certainly all other elements listed in *Documents*² [7] are just as applicable to Linear A writing.

T. G. Palaima, «Linear A in the Cyclades: The Trade and Travel of a Script», *TUAS* 7, 1982, p. 18: *possibility of LM I B Cyclades as go-between in transmission*. See Duhoux, *supra* n. 18, pp. 31-34, for older or more speculative theories.

²¹ Thomas, *supra* n. 3, p. 249.

²² Contrast the tables in *Scribes*, and *Scribes Pylos*. For the few exceptional similarities between mainland and Cretan writing styles that prove the rule, see T. G. Palaima, «Evidence for the Influence of the Knossian Graphic Tradition at Pylos», *Concilium Eirene XVI*, Prague 1983, pp. 80-84, Plates I-II.

²³ E. Vermeule, *Greece in the Bronze Age*, Chicago 1964, p. 240; A. Heubeck, *supra* n. 20, p. 200. Recall that L. Godart, «La scrittura lineare A», *PdP* 31, 1976, pp. 36-37, detected an administrative *koine* in the Linear A period, perhaps now even more fully attested in the uses of sealings as economic controlling mechanisms at Linear A sites. T. G. Palaima, «Preliminary Comparative Textual Evidence for Palatial Control of Economic Activity on Minoan and Mycenaean Crete», *Proceedings of the 4th Int. Symp. of the Swedish Archaeological Institute in Athens*, 10-16 June 1984 [forthcoming]. [In this regard, see J. Weingarten's recent study of *noduli* which hypothesizes a widespread use of this distinctive class of sealings in LM I B: «Some Unusual Minoan Clay Nodules», *Kadmos* 25, 1986, pp. 1-21.] For the Linear B period, I am not referring by homogeneity to the organizational structure of the record-keeping administrations of the principal centers, but to features of the process of record-keeping *per se*, e.g., tablet forms, textual formats, the types of tablets used to record information of various kinds, etc.

Our data are also skewed by the narrow focus of Mycenaean excavations. We know from textual evidence of important regional religious sites in the districts around Pylos and Knossos. These were the recipients of significant quantities of offerings from the palatial centers²⁴. Few of these potential sources of inscribed dedicatory artefacts have been excavated. We also have a full knowledge of major provincial centers and lesser settlement from the Pylos records, yet only one major non-palatial site in Messenia has so far been excavated (Nichoria). Here the excavated areas were unevenly preserved and offered no traces of burning destructions in LH III A/B needed to preserve Linear B tablets²⁵. As a result, we lack direct evidence concerning the outreach of «administrative literacy» into secondary centers and communities of varying ranks within the Mycenaean regional economic and political system²⁶.

Given all the above provisos, the current state of our evidence suggests that a narrow cultural attitude toward writing may have been the major factor in the apparent restriction of Mycenaean

²⁴ E.g., districts like *pa-ki-ja-na*, shrines like *po-si-da-i-jo*, in the Pylos E- and Tn tablets. L. Baumbach, «Greek Religion in the Bronze Age», *SMEA* 20, 1979, pp. 145, 149-150, 158-160. [The general archaeological data are summarized in B. Rutkowski, *Cult Places in the Aegean World*, Warsaw 1972, pp. 260-299. A clear idea of the limited nature of the textual and archaeological data for the Mycenaean period can be formed from J. C. Van Leuven, «Problems and Methods in Prehellenic Naology», *Sanctuaries and Cults in the Aegean Bronze Age*, ed. R. Hägg and N. Marinatos, Stockholm 1981, figs. 5, 8; catalogue pp. 21-24; and S. Hiller, «Mykenische Heiligtümer: das Zeugnis der Linear B-Texte», *Sanctuaries and Cults*, pp. 107-115.] See also J. T. Killen, «Piety Begins at Home: Place-Names on Knossos Records of Religious Offerings», *Tractata Mycenaea*, pp. 163 ff. for an analysis of religious sites around Knossos.

²⁵ G. Rapp, Jr., S. E. Aschenbrenner, *Excavations at Nichoria in Southwest Greece I*, Minneapolis 1978, pp. 85-89, 113-139.

²⁶ The work of V. Aravantinos with the recently discovered Thebes sealings («The Use of Sealings in the Administration of Mycenaean Palaces», *Pylos Comes Alive*, pp. 43-48; «The Mycenaean Inscribed Sealings from Thebes: Preliminary Notes», *Tractata Mycenaea*, pp. 13-27, suggests that fairly remote sites might employ sealings *with inscriptions* in their transactions with a major palatial center (notice the allative entries for *Thebes*: *te-qa-de* [Wu 51, 65, 95], and nominative entries for *Euboean* sites: *ka-ru-to* [Wu 55], *a-ma-ru-to* [Wu 58]). The changes that have occurred in theories about archaic Greek literacy as a result of continuing excavation warn us against drawing conclusions about Mycenaean literacy *e silentio*. See A. Johnston, «The Extent and Use of Literacy: The Archaeological Evidence», in R. Hägg, *The Greek Renaissance of the Eighth Century B.C.: Tradition and Innovation*, Stockholm 1983, pp. 65-66, esp. figs. 5-6.

literacy²⁷. We need not worry about the absence of styluses, pens and inkpots [1]. They are absent, too, from the Linear A, Cypro-Minoan, and cuneiform archaeological records²⁸. Nor need we worry about the complexity of the script itself or about jealous control by a professional scribal class. We do need to worry about data we do not, and might never, possess. We do need to worry about related kinds of information-keeping, the «administrative literacy» represented by the use of seals and sealings in order to convey and record economic information²⁹. We do need to thank John Chadwick for his original and synthetic views on this subject.

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²⁷ Archaic Crete may offer a startling analogy of cultural bias in choice of materials and reasons for writing. Public inscriptions are well attested by fragments of archaic legal codes from eight communities (Axos, Dreros, Eleutherna, Eltynia, Gortyn, Knossos, Lyttos, Prinias), and other inscriptions of a relatively permanent type, including rock and stone graffiti, are in evidence. However, no vase graffiti, the most common form of inscription in most other regions, were known to Jeffery, *supra* n. 4, pp. 310-311. [There have come to light, *post* Jeffery, seven vase graffiti dated to the 7th to 5th centuries from Phaistos and from near Knossos and Khania. The earlier examples (*SEG* 26, 1976/77, § 1050; *SEG* 31, 1981, § 812) seem to be owners' marks, one written metrically. The later examples (*SEG* 16, 1959, § 526; *SEG* 23, 1968, § 579) include dedications on imported pottery. I intend to discuss the significance of these graffiti, in relation to the subject of this paper, in a future note.]

²⁸ From the many sites where cuneiform was used in its long history, «no object which can be certainly identified as a stylus has yet been recovered by excavation from the soil for the obvious reason that the reed, of which it is supposed to have been usually made, must in most cases long ago have perished». G. R. Driver, *Semitic Writing*³, ed. S. A. Hopkins, London 1976, pp. 19, 228. Of the 13 Cypro-Minoan «styluses» from Enkomi (LC II A - LC III C), none was found associated with tablets and some were found in areas connected with metal working. P. Dikaios, *Enkomi* 1-3, Mainz 1969-71, pp. 37, 49, 54, 55, 59, 64, 165, 182, 185, 187, 193, 206, 208, 456, 467, 813 and plates 128, 132, 135, 158, 162, 168, 169. The only Linear A «stylus» is a bronze engraver of uncertain provenience and authenticity. R. C. Bosanquet, R. M. Dawkins, *The Unpublished Objects from Palaikastro*, *ABSA* Suppl. 1, 1923, p. 146, fig. 129.

²⁹ T. G. Palaima, «Mycenaean Seals and Sealings in Their Economic and Administrative Contexts», *Tractata Mycenaea*, pp. 249-265.