BCILL 49 : *Problems in Decipherment*, 121-187.

CYPRO-MINOAN SCRIPTS: PROBLEMS OF HISTORICAL CONTEXT

Thomas G. PALAIMA
Program in Aegean Scripts and Prehistory
University of Texas at Austin

"Every branch of knowledge is entertaining and the longest life is too short for the pursuit of it."

Lady Mary Wortley Montagu 1689-1762

Abstract: This paper presents a critical historical survey of problems in research on Cypriote Bronze Age writing (Cypro-Minoan = CM) and draws the following conclusions: (1) the current classification of the epigraphical data into 4 general subdivisions of writing (archaic CM, CM 1, CM 2 and CM 3) is invalid, being based on faulty palaeographical assumptions, unwarranted geographical clustering, and *contaminatio* of inscriptions of distinct typological classes; (2) the palaeographical connection between archaic CM and Minoan Linear A is far closer than has heretofore been acknowledged; (3) the creation of Cypro-Minoan under the strong influence of Cretan linear writing is understandable in terms of the historical development of Cypriote contacts with the Aegean and in terms of the relative simplicity and adaptability of Linear A in comparison with contemporary Near Eastern cuneiform scripts; (4) Cypro-Minoan retains a remarkable independence and integrity throughout its 500 year history, despite the Near Eastern milieu in which it existed; (5) *all* past and current schemes of decipherment of Cypro-Minoan are improbable; (6) there is a pressing need for a critical corpus raisonné which will present the epigraphical material (8 clay tablets, 83 clay balls, 6 clay cylinders, and numerous inscribed artefacts such as cylinder seals, gold rings, ivory objects, and especially pottery) with due attention to typological classes, dates and circumstances of discovery, and palaeographical analysis; (7) the number of signs now attested in formal Cypro-Minoan inscriptions (ca. 2500) compares unfavorably with the number known from the undeciphered Minoan Linear A documents (over 7000) and the number available in Mycenaean Linear B at the time of its decipherment (ca. 30,000); (8) but properly analyzed, Cypro-Minoan has advantages as a script for decipherment: diversity and length of texts, discernible word-divisions, well-studied archaeological and historical contexts, and the reasonable prospect of continuing significant discoveries.

This paper will not offer a full analysis of the particular problems associated with each of the partial decipherments which have been advanced for the Bronze Age writing of the island of Cyprus, Cypro-Minoan.[1] Nothing would be gained thereby. None of the proposed decipherments is systematic or comprehensive. None establishes anywhere near an acceptable percentage of confirmable values for the signs that are so far attested on texts of the various subsystems of Cypro-Minoan. None produces, and, to be fair, most do not claim to produce, more than limited results applicable to isolated lexical items on a few specific texts. In short, none is capable of proof; and some are not even deserving of the expenditure of mental energy that skeptical criticism would entail. Most of these schemes of decipherment receive clear and remarkably impartial summaries in HILLER 1985, 79-93; and the weaknesses, linguistic and historical, of several of the more prominent tentative decipherments are severely, albeit justly, critiqued in KNAPP and MARCHANT 1982. I shall offer much later in this paper a critique of one specific recent study: FAUCOUNAU 1988. This will illustrate directly some of the weaknesses of the current approaches to decipherment.

The most recently proposed decipherment deals with the small group of tablets now classified as CM 2. It is a good example of the "universality principle" of decipherment, whereby scholars, during the course of research, decide that it is just as easy, while deciphering one script and language, to decipher others as well. In this case the Phaistos Disk[2] and a limited cross-section of Cypro-Minoan are simultaneously "deciphered." Fortunately CHADWICK 1989, has written a restrained and gentlemanly review, the subtext of which should serve as an adequate warning, to scholars and those librarians who have a choice, not to waste precious book-purchasing funds (ca. $32.50 US) on a volume which should not have progressed past the the stage of manuscript review. Chadwick sounds his clearest warning simply by quoting and analyzing the preposterous results yielded in the first sentence of the proposed translation of the Phaistos Disk. It remains to express dismay that, through a reputable publisher, such a work is spreading the contagion of pseudo-decipherment to unsuspecting prehistorians and linguists and to libraries with standing series orders the world over.

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[1] I would like to thank Dr. Vassos Karageorghis, Dr. Ino Nicolaou, and the staff of the archaeological museums in Nicosia and Larnaca for making it possible for Ms. Nicolle Hirschfeld and me to examine many Cypro-Minoan documents during the week of March 13, 1989. They have also graciously supported this year the work of Ms. Hirschfeld on pottery incised with Cypro-Minoan marks. Dr. Alison South also kindly permitted us to examine the inscribed material from Kalavassos-Ayios Dhimitrios and provided us with a copy of the publication of this material listed in the bibliography as E. MASSON forthcoming. The library of the Cyprus Museum in Nicosia permitted me to read the rare and impressive early study of Cypro-Minoan: MARKIDES 1916. I thank also Dr. Stuart Swiny and the staff of the Cyprus American Archaeological Research Institute for providing fine facilities with which to conduct research. In this paper I shall use the word "figure" to refer to my own text figures. I shall use the abbreviated form "fig." to refer to figures in other published works. For full clarity, this paper should be read with reference to the provisional Cypro-Minoan sign charts in MASSON 1974, 12-15, and HILLER 1985, 62-65.

[2] For sober information about the Phaistos Disk, see OLIVIER 1975.

Convenient discussions of earlier theories of Cypro-Minoan decipherment can be found in J. KARAGEORGHIS 1961, 43-51, and O. MASSON 1956a, 201-204. E. MASSON 1985a and 1987a, furnish good overviews incorporating work with more recently discovered material. HEUBECK 1979, 54-60, offers the most succinct summary overview of the Cypro-Minoan epigraphical data now available. Readers may consult these studies and HEUBECK 1979, 60-64, to learn about the attempts to identify Hittite, Luwian, Hurrian, Hurrianoid, Greek, Semito-Cypriote, and an unknown language group,[3] along with some Semitic personal names and phrases, in Cypro-Minoan texts.

However, the judgment expressed by Olivier Masson, the first great researcher in Cypro-Minoan during the generation following Ventris's brilliant and conclusive decipherment of the Mycenaean Linear B script as Greek, still holds true. We may elaborate upon it and apply it as follows: without the discovery of a bilingual–perhaps even bilinguals, since different languages may be represented by certain of the Cypro-Minoan subsystems–or many more texts in each subsystem, the complex circumstances surrounding Cypro-Minoan are such that one is reduced to mere suppositions. In fact, the unknowns connected with Cypro-Minoan are still far greater than those which were associated with Linear B before its decipherment (O. MASSON 1956a, 201; 1956b, 246). The published material is extremely limited in terms of the numbers of formal texts (8 clay tablets, 2 very fragmentary, 1 complete; 83 completely published and at least partially legible clay balls;[4] 6 clay cylinders, 4 very fragmentary)[5] and the total number of

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3 On the clay cylinders from Kalavassos-Ayios Dhimitrios, E. Masson claims to be able to read vocabulary items which are paralleled in Ugaritic and on other Cypro-Minoan texts from Enkomi (tablet and clay ball) and Ras Shamra (tablet): a term for a divine title or determinative, which is then followed by an emphatic or adverbial termination and a toponym, the whole structure again being based on an earlier unprovable hypothesis about the formulaic structure of the Enkomi tablet (E. MASSON 1986, 187-188 and n. 18, 200). For a valid criticism of such piecemeal readings of the three times fuller Minoan Linear A material as a step toward decipherment, see OLIVIER 1985, 383. Even if such readings prove to be correct, one must always be careful about loan words and foreign anthroponyms and toponyms, which can be misleading for the identification of the language represented by the script.

4 E. MASSON 1972, 102, 110, mentions that there are about 80 such inscribed balls total. In addition, there were, in 1972, some 4 uninscribed balls, all irregular, perhaps discards deemed unsuitable for inscription. E. MASSON 1973, 92, cites 82 clay balls from Enkomi and 1 from Hala Sultan Tekké. We now, too, have 2 inscribed clay balls from Kition: KARAGEORGHIS 1976a, 238-239, fig. 8; KARAGEORGHIS 1985, 114, n. 4995 (plate CXVIII); and 1 additional clay ball from Hala Sultan Tekké. General reference to the find contexts of the Enkomi balls can be found in Karageorghis's yearly reports on Cypriote archaeology in *BCH* 84 (1960) 283; 86 (1962) 395; 88 (1964) 355; 94 (1970) 249. The full publication of the 83 legibly inscribed clay balls is found in E. MASSON 1971a (25 from Enkomi, 1 from Hala Sultan Tekké); E. MASSON1971c (53 from Enkomi plus 2 [nos. 33 and 44] damaged so as to be illegible); DIKAIOS 1971 (from Enkomi; 1 partially legible: no. 1140 = plate 316/83; 1 damaged and illegible: no. 1302 = plate 319/88; 1 blank: no. 1548 = plate 132/60); ÖBRINK 1979, 46, 88-89, N 6035; E. MASSON 1985a, 281-282 (2 from Kition: II/4215 and II/4995).

5 See HILLER 1985, 66-74; E. MASSON 1971a; E. MASSON 1983, 131-135; E. MASSON 1987a, 189-190 and fig. 1. KARAGEORGHIS 1981, 83, figs. 53-55, provides color

occurrences of the signs represented. For example, the earliest and only so-called archaic Cypro-Minoan tablet, Enkomi 1885, contains 23 total signs. The fullest CM 1 text, a clay cylinder from Enkomi (Enkomi 19.10), contains ca. 179 inscribed signs, from which one can deduce about 36 different characters in a standard signary. The 5 CM 1 clay cylinders from Kalavassos-Ayios Dhimitrios have on them ca. 112, 5, 10, 10 and 27 signs respectively. The other major source for the formal CM 1 signary is the peculiarly Cypriote inscribed clay balls. 83 legible inscriptions of this kind are now known. These normally have 3-5 signs (8 signs maximum on, e.g., boules 1 and 7 in E. MASSON 1971a, 10-18, and boule 41 in E. MASSON 1971c, 495). All together these balls contain ca. 359 signs; cautiously restoring fragmentary of damaged texts yields ca. 370 signs. This gives an average of ca. 4.5 signs per ball; and indeed the majority of balls (ca. 55%) closely brackets this average (out of 83 legible balls, 22 [26.5%] contain 5 signs and 24 [29%] contain 4 signs). From the whole set one can deduce ca. 70 different standard signs. From the 26 examples published in E. MASSON 1971a, fig. 27a, ca. 46 characters have been identified; from the 53 legible balls in E. MASSON 1971c, 58 characters and 5 possible alternates. The full CM 1 signary of ca. 85 signs has been established by supplementing these formal inscriptions with single marks or groups of signs on all sorts of other objects (E. MASSON 1974, 12). In addition, two tablets from Ugarit, RS 19.01 and RS 19.02, are classified as CM 1 (mistakenly termed CM 3 in both HILLER 1985, 72, and KNAPP and MARCHANT 1982, 22) and contain 8 and 24 preserved signs respectively. The four fragments of tablets now classified CM 2 have about 1310 legible signs total, from which a signary of 59 standard characters has been deduced. The CM 3 tablet fragments (RS 17.06 and RS 20.25) have ca. 60 and 159 non-numerical, non-punctuational signs on their recto and verso surfaces. From these signs a repertory of ca. 44 standard characters has been identified.

It is clear from such statistics that signs are frequently repeated in CM 1, 2 and 3. It is also clear that the the standard sign repertories which have been established for each sub-system are based on extremely limited and imbalanced groups of formal written texts: archaic = 23 signs; CM 1 = 713 signs (745 signs with RS 19.01 and 19.02); CM 2 = 1310 signs; CM 3 = 219 signs. Thus all the signs on formal inscriptions in all the supposed sub-systems of Cypro-Minoan add up to slightly less than 2300. Signs on all the other objects listed in the next paragraph, except pottery, total ca. 150. An additional 50 signs might be found in sequences of two or more characters on pottery. Thus we are dealing with a total repertory of some 2500 signs found in actual sign-sequences, i.e., about one third the total number of signs attested in the still undeciphered Linear A script, and less than 10% of the number of signs (ca. 30,000) attested on Linear B documents at the time of its decipherment. We might even contrast the lexical and syntactical variety furnished by the 2,000 Linear B texts available at the time of the decipherment and the 318 tablets and bars now thoroughly published in Linear A

photographs of the archaic Enkomi tablet, the large clay cylinder from Enkomi, and CM 2 tablet fragment Enkomi 1953 no. 1687.

with the meager 97 clay Cypro-Minoan documents now published.[6] Moreover, this formal Cypro-Minoan material is spread thin geographically and chronologically: from ca. 1500 to 1150 B.C. and from a variety of sites (Enkomi, Hala Sultan Tekké, Kition, Kalavassos-Ayios Dhimitrios, Ras Shamra: see figures 1-3).

Nonetheless the Cypro-Minoan picture is not completely bleak. Cypro-Minoan, as a script for decipherment, has certain partial advantages, even over Linear A. These are:

(a) the broad range of applications of the script. Besides the formal inscriptions mentioned above, sign-sequences are found on a wide variety of objects such as: inscribed and painted marked pottery,[7] a carved ivory plaque of the Egyptian god Bes, an ivory bar, an ivory pipe, a perforated clay weight (?),[8] metal weights,[9] cylinder seals, gold rings, bronze and silver bowls, a jeweler's anvil, gypsum pithos lids,[10] a bronze votive liver (?) and other votive objects including a terracotta animal figurine from Famagousta, large and small copper ingots, various bronze tools, support rings for bronze tripods, and even lead sling bullets.[11]

(b) the relative fullness of a few of the formal texts now attributed to each of Cypro-Minoan classes 1, 2 and 3;[12]

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6 For statistics about Linear A and B currently and at the time of the decipherment, see OLIVIER 1985, 382-384. In Linear A we also have rather full inscriptions on pottery and objects like libation tables and gold pins. The case of Cretan hieroglyphic, for which we have data preserving approximately 1500 signs, is discussed by OLIVIER in this volume.

7 In particular see the extensive painted inscription on a fragment of a clay offering roaster: E. MASSON 1979, 210-213, pl. XX.

8 BAURAIN 1980, 566-567, 580, and esp. 570, casts doubt on the identification of this singular inscribed object from so early a period (LC I A = 1575-1525 B.C.) as a weight, proposing as possible alternative identifications a talisman or label. See Baurain, 1984, 155, fig. 22 for a drawing. However, the object does resemble the perforated clay weights from many Cypriote Late Bronze Age sites.

9 E. MASSON forthcoming, 40.

10 E. MASSON forthcoming, 40.

11 O. MASSON 1957 a; O. MASSON 1957b, especially figs. 2-30, for a photographic survey of such material; O. MASSON 1968, plates I and II, for the bronze bowls; E. MASSON 1987a, 194-195, fig. 4, 201, fig. 8, for inscriptions on the gold rings from Kalavassos–Ayios Dhimitrios and the jeweler's anvil from Enkomi; KARAGEORGHIS 1976a, 232-234, for the Kition ivory finds, and fig. 3 for an illustration of the carved plaque with inscriptions on the upper part of its attachment tenons; E. MASSON 1985a, plates A and B, for the plaque (II/4252), the bar (II/4250), and the pipe (II/4267); ÅSTRÖM and NICOLAOU 1980, nos. 5 and 7 for the two lead sling bullets from Hala Sultan Tekké inscribed in Cypro-Minoan; E. MASSON 1973, 94-96 with references, for votive objects, tripod rings and other bronze objects. KARAGEORGHIS 1976b, 82, color plates V and X, illustrate a gold finger ring and the bronze votive liver with incised Cypro-Minoan marks. See also CAUBET and COURTOIS 1986, 74-75, fig. 6, pl. XIX, 3.

12 For example, as we have mentioned, in CM 1 the best preserved clay cylinders from Enkomi and Kalavassos-Ayios Dhimitrios have some 179 and 116 non-numerical, non-punctuational signs respectively. The longest CM 2 text from Enkomi is the fragmented, but joined tablet Enkomi 1193 (1952) + Enkomi 20.01 (1969) which preserves over 225 signs on the 26 lines

(c) the use of obvious word-separators on full texts of all classes, except the archaic Enkomi tablet, which enables one to work with well-defined sign-groups.[13] Thus E. MASSON 1976, 67-70, 82-85, is able to identify 78 and 110 lexical units on the fullest CM 2 tablets fragments (CM 53.5 and CM 20.01).

I shall content myself with applying to the conclusions of the widely differing proposals for the decipherment of Cypro-Minoan the opinion which Emmett L. Bennett, Jr. once expressed in regard to the many proposed decipherments of Minoan Linear A. Even though he at first believed that "no more than one decipherment could be true," further thought convinced him that "they probably all are right–each in its own of those simultaneous universes, to which the science fiction writers have introduced us, and with which we have communication only through a fourth dimension" (BENNETT 1968, 117). The same applies to the results of "readings" of parts of Cypro-Minoan texts, based on incomplete series of assignments of values to signs and on interdependent arguments derived from hypothetical readings and assumptions about the contents of undeciphered texts and about the possible differences in languages behind the subsystems of Cypro-Minoan. E. MASSON 1986, 200, stresses that her own "lectures sporadiques n'annoncent pas un déchiffrement."[14] One should add the further caution that, since every link in the elaborate supporting structures of hypotheses for such readings or decipherments is a critical stress point, each such system is in constant danger of collapse and only stands by virtue of the generally arbitrary principles used by the scholars who devise these linguistic universes. Thus the metaphor "houses of cards" has been aptly applied to such decipherment schemes. Appropriately enough, I shall use some contemporary science fiction in discussing the other sorts of problems which I think have complicated, or are impeding progress in, the study of Cypro-Minoan scripts.

I have to confess to thinking at one time that I had a distinct advantage over other speakers at the symposium held in Madison, Wisconsin in April, 1988, from which this volume arose, because I was among the *aliis* to whom *E L Bennett salutem dat* [now *dedit*] in a MEMORANDUM of 10 September 1987 and because the section pertaining to my proposed involvement in that event read as follows:

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of the left column of face A alone. For the join see MICHAELIDOU-NICOLAOU 1980, 13-16, figs. 1-4. The fullest CM 3 text from Ras Shamra RS 20.25 bears ca. 159 such signs on its two faces.

[13] Although even here an unnoticed problem exists, because two forms of "word-dividers" are used with one another on, for example, the CM 1 clay cylinder from Enkomi and the CM 3 text RS 20.25, often occurring next to each other. This phenomenon has not been explained. In fact, the "word-dividers" are not even listed as signs in the standard signaries or noted in what pass as "transcriptions" of this material, e.g., E. MASSON 1974, 35-37; E. MASSON 1983, 138. For something approximating a proper epigraphical transcription of RS 20.25, produced entirely for secondary reasons–in order to compare the "readings" of the three principal "decipherers"–see HILLER 1985, 79-82. Even here the peculiarity of the double "word-dividers" is not noted.

[14] Cf. Ventris's similar disclaimer about his early 'Etruscan reading' of Linear B: BENNETT, this volume. Masson expresses proper caution about the procedure of sign-matching in order to arrive at values for the characters of an unknown script like Cypro-Minoan (E. MASSON 1972, 111).

However particularly I wish Thomas Palaima to participate, for other reasons and for his present interest in the Cypriote and Cypro-Minoan scripts. The first was deciphered rather quickly about a century ago, the second, in some degree and some fashion probably related to the Linear A script, is currently the subject of investigation.

The advantages I then thought I saw in my topic were these:

(1) Cypro-Minoan presents us with a complicated picture of its development and applications, so that there were many problems suitable to the theme of the Burdick-Vary symposium to discuss;

(2) Cypro-Minoan functions "in some degree and some fashion" as a bridge between the Minoan-Mycenaean scripts and the later Classical Cypriote syllabary, i.e., between termini which have been deciphered, or, in the case of Linear A, can at least be studied in relation to a closely related deciphered writing system;[15]

(3) at an advanced stage of its development Cypro-Minoan also is generally thought to provide a link, in terms of certain of its purely formal elements, to the Near Eastern cuneiform systems of writing;

(4) Emmett Bennett, in these sentences, had provided me with an explanatory introduction and, I then thought, a gently humorous point of departure. For, if I wanted to be a strict constructionist, that is, a pedant, I could have faulted him for referring, however obliquely, to a single Cypro-Minoan script.

It is certainly nothing but an acquired *vitium magistri* if I now claim to see none of these points as an advantage and if I now wonder whether his use of a singular verb form with an understood Cypro-Minoan script may not have been intentional and wise. In any event, I am forced to use a different and then unforeseen opening to the following discussion of problems associated with the decipherment of Cypro-Minoan, but one which will no less honor the distinguished honoree of that occasion.

Among many other things in Mycenaean studies–I have in mind here the procedures and principles of palaeographical analysis, the careful study of joins, the standard conventions for editing and transcribing Linear B texts, and even the theoretical vocabulary for categories of signs and their functio–the monthly bibliographical newsletter, which has long united, in its special way, researchers in Aegean scripts and prehistory, was Emmett Bennett's doing.[16] First it was simply called a *Mycenaean Bibliography* and then, when it had grown garrulous, it was named *Nestor* and published at the Institute for Research in the Humanities

[15] Progress in understanding Linear A has been made chiefly by analyzing its overall structure, sign repertory, and applications in comparison to Linear B. See particularly PACKARD 1976; DUHOUX 1978; PALAIMA 1988b; HEUBECK 1983 with references.

[16] See the section entitled Bibliography of Emmett L. Bennett, Jr. in *Studies Bennett*, adding BENNETT 1963.

of the University of Wisconsin–Madison from 1959 to 1978. It continues, still in the American Midwest at the University of Indiana; and, from time to time, some of us try to inject into it a small portion of the spirit, the gentle whimsy, which had filled its pages during Emmett's tenure as editor. So it was that a note appeared, substantially as follows, in *Nestor* 15:2 (February 1988) 2184 under the heading, as requested by its submitter, which was seen much more regularly in the pages of *Nestor* during the first two decades of its existence: *...qu'il est permis de rire entre mycénologues*:

A graduate student, Frederick Schwink, in my Mycenaean Script seminar today provided me with startling evidence of the use of Linear B in ways previously unattested and at a date much later than the material known at present. As often happens with significant new information, the evidence was published as a minor part of a full article on LH III C Troy in an out-of-the-way, but well-established journal: S. Sucharitkul, "The Shattered Horse," *Amazing* 58:1 (May 1984) 26-49, a copy of which I enclose. The author even provides a new theory on the development of the Mycenaean Linear B script. Here are the pertinent passages:

–p. 34 (describing fresco remains from the palace area of LH III B Troy) "There were scrawls in strident red paint, in the Mycenaean characters: 𐀓 𐀲 𐀵 *Ta-na-to—Thanatos*. There were names too, all written in the script that the Akhaian nations borrowed from somewhere east, in the lands of barbarous tongues."

–p. 41 (describing a sword discovered in an altar area at Troy) "...I recognized the sword, with the syllabic signs 𐀀𐀸𐀵 *—E-ko-to—*etched into the bronze blade."

What is particularly startling about these discoveries is the use of Linear B on a wall painting and as a mark of ownership (or manufacturer's mark?) on the bronze sword. We only have one remotely possible instance of a painted fresco sign in a linear script, from Knossos (cf. my article in *Kadmos* 20 [1981] 79-82), and so far no hint of full Linear B used on anything other than clay records and painted vase inscriptions. The signs are few and simple in form, thus preventing us from drawing any firm conclusions about palaeographical affiliations. Of course, this assumes that the author's drawings and transcriptions are accurate, which the sword inscription gives us cause to doubt. One would think more likely that the author has failed to note a fourth and final sign on the sword blade, perhaps worn away through at least ten years of use. I would suggest restoring *e-ko-to*[*-ro* cons. stem liquid gen. sing. "of Hektor", thus denoting the owner of the sword. Since, however, the sword may be

Achaean, of the sort MacDonald (*BSA* 79 [1984] 68, citing Sandars) describes as 12th century *sui generis*, a more speculative restoration, and the one I prefer as being more "Homeric," would be *e-ko-to*[*-re* cons. stem liquid dat. sing. "for Hektor," i.e., a sword marked out by an Achaean warrior, perhaps the *a-ki-re-u* attested on our Linear B tablets, as intended to have Hektor as corporeal recipient. This would be a form of Mycenaean slang: "Take this, Hektor!" and a rare discovery indeed.

I am much less confident about the author's proposal that Linear B derived from literally barbarous eastern scripts. We may see some eastern influence in Cypro-Minoan, but by and large the Minoan-Mycenaean scripts seem to be, to use Sandars again, *sui generis*. I would welcome further thoughts on this subject.

Sincerely,

Thomas G. Palaima

UT Austin

This is the entire text of my archaeological and palaeographical spoof inspired by a genuine short story in a first-rate journal of science fiction. The story intrigued me since it contained accurately drawn, or at least recognizably standardized, Linear B characters and equally accurate transcriptions and translations. A complete novel by the same author, using a different *nom de plume*, has now appeared. The author has incorporated additional Linear B characters, words, and phrases into his fuller story of events in post-destruction Troy, undoubtedly as a curiosity for his readers, but also to lend an air of exotic authenticity to his fiction. The Linear B appears almost as a recurrent leitmotif along with a bit of Egyptian hieroglyphic and Homeric Greek. Again carefully drawn conventionalized signs are used for all the Linear B; and the phonetic transcriptions make up a mini-onomasticon/lexicon of mythologically important names (Orestes and Astyanax, Achilles and Patroclus) and vocabulary (*wa-na-ka, e-re-ta*) (SOMTOW, 1986, 89, 104, 231, 243, 255, 273, 308-09, 315). Of course, in my version, sent camera-ready to Indiana, I used, as I have here, Jean-Pierre Olivier's Macintosh Linear B font "Mycenae" to print the characters.

What concerns us here in discussing Cypro-Minoan is an ironic twist on the Horatian motto about critical observations: *ridentem dicere verum*. I had been warned by one of the co-editors to this volume that some scholar or other was bound to mistake my innocuous bit of fun for an announcement of, and a serious commentary on, genuine epigraphical discoveries at Troy. I dismissed this prophecy then, little thinking that John Bennet was capable of playing Mycenological Cassandra. But within days of my receiving the February 1988 *Nestor*, I also received a letter (dated March 9, 1988) from one of the leading researchers intent upon the decipherment of Cypro-Minoan, J. Faucounau.

Monsieur Faucounau somehow had missed the French heading to *Nestor*'s humor section and took both the original Linear B texts and my fuller "scholarly" discussion at face value. Having at times been gullible or unobservant myself, I can hardly find fault with such a harmless oversight. What disturbed me, however, was the further speculation about the relationships of Aegean, Cypriote and Near Eastern scripts, one to another, prompted by this misunderstanding. Monsieur Faucounau and I have subsequently been in correspondence, and he has kindly granted me permission to quote from his initial letter. The question he raised in regard to Somtow's "discoveries" was intriguing: "Is it possible to find Linear B (or [a] similar) script in LH III Troy?" Faucounau's answer was positive, based on the idea that "'Lukki' Cilician kings *knew about* [the] *Cypro-Minoan script*"; and, since they are linked to western Anatolia, "there is a good possibility [of] find[ing] a kind of Cypro-Minoan script (not Linear B stricto sensu) in this area." This script may have been transmitted "from Cret[e] to the Cyclades and/or Miletus, then to Cilicia and Cyprus (and eventually to Troy). The alternative is the [at] present unproven theory of a direct transmission from Cret[e] to Cyprus and/or Ugarit or Byblos." The hypothesizing concluded with a postscript declaring that the signs from the engraved sword, i.e., 𐠎𐠖, looked like Cypro-Minoan, rather than Linear B characters.

Thus did a fictitious account of Troy and a further bit of playful fiction circulated *entre mycénologues* reemphasize to me an Achilles heel of Cypro-Minoan studies, namely a carelessness about the necessary epigraphical and palaeographical features of Cypro-Minoan inscriptions coupled with a neglect of archaeological data associated with the Cypro-Minoan texts.[17] Since these inscriptions form a sizable body of chronologically, contextually and typologically diverse texts, some of which might not even be formal inscriptions *per se*, a systematic and thorough epigraphical and palaeographical analysis of the entire corpus constitutes the essential first step for any attempt at decipherment. Texts found in secure stratigraphical contexts must also be securely dated, and scholars must pay attention to those dates. Otherwise one can construct rather wild hypotheses about the historical path taken by writing to and from the island of Cyprus and about the historical development of writing on the island itself. Further troubles arise when such historical speculation is then used to validate the results of a given "decipherment."

In the present instance, Jean-Pierre Olivier should be as astonished as I am that anyone seriously interested in deciphering the Cypro-Minoan script would be inattentive of palaeographical details to such an extent as to mistake characters of the perfectly regular Linear B font "Mycenae" for those belonging to the Cypro-

[17] I am speaking here, of course, of the studies of Cypro-Minoan *per se*. Many of the individual publications of excavations and excavated materials are near models of precise information about the contexts of inscribed objects, e.g., ÅSTRÖM and NICOLAOU 1980; DIKAIOS 1963, 1967, 1969a, 1971; KARAGEORGHIS 1985. Yet this carefully assembled information is often not assimilated into epigraphical discussions , e.g., E. MASSON 1985b. A clear example of contextual data put to good use is furnished by E. MASSON 1971a, 28-29.

Minoan repertories. This is a particularly serious fault in attacking Cypro-Minoan because, as we shall see, two major problems rest primarily on epigraphical-palaeographical-typological considerations: (1) the possible division of Cypro-Minoan into separate subsystems with discrete signaries; and (2) the affiliation of Cypro-Minoan and its possible independent subsystems with other Aegean or Near Eastern scripts.[18] The first problem, which has two parts, obviously affects our approach to decipherment: to what degree should the already limited Cypro-Minoan data be (a) pooled together as a relatively homogeneous system capable of a single decipherment or (b) separated into smaller bodies of data in self-sufficient systems representing either the same language(s) in different ways or different languages altogether? The second problem affects what we might call the next stage of current attempts at decipherment: how do the individual signs of the Cypro-Minoan signary(-ies) match up with those of deciphered scripts, which are then used to suggest tentative values for the Cypro-Minoan characters? Both these problems are also tied up with the historical and archaeological contexts of the inscriptions, which will be one major focus of this paper.

Maurice Pope may also acknowledge in my tale of humor in *Nestor* and its rather disturbing consequences one more illustration of the words he wrote in Oxford or Paris just about ten years ago (May 15, 1978): "...there are many to whom the prospect of decipherment is like a lamp to a moth or the name of a race-horse to an addicted gambler." (RAISON and POPE 1978, 45) This is, I think, another of the major problems besetting current work in Cypro-Minoan studies. I stress the word "current," because full-scale research on Cypro-Minoan got off to a fairly good start in the 1930's-50's, continuing into the 60's and early 70's, although some obstacles were inadvertently laid even then by virtue of the chronological sequence in which, and the contemporary scholarly ideas by which, Cypro-Minoan texts were discovered, published and studied. Now many of the preconditions necessary for decipherment are being overlooked, or at least given less than full consideration and attention, because of the eagerness of the few scholars seriously working in this area to attain a decipherment. Here ironically it is the fullness of the few formal texts in CM 1, 2 and 3 that has inspired a kind of cart-before-the-horse impulse to "read" and "decipher" instead of properly analyzing the entire repertory of inscriptions and incised material. I would go so far as to say that it is virtually impossible, given the present state of publication of the Cypro-Minoan material, for any scholar–perhaps even those primarily concerned with the decipherment of the script–to obtain a critical view of this epigraphical material sufficient for evaluating independently–no, even proposing–what the general scholarly community would consider a valid decipherment. Lady Mary's remark is apt in this instance. The study of Cypro-Minoan texts and the problems associated with them is fascinating and entertaining. But the current state of scholarship is such that too large a share of one's life is required just to get a grasp of the almost inaccessible data and to

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18 BAURAIN 1980, 569-570, raises this question most recently in regard to the two earliest Cypro-Minoan inscriptions: the clay "weight" and archaic tablet from Enkomi.

understand the contexts in which they are to be interpreted. I write from experience.

Perhaps it is the relative ease, noted by Emmett Bennett, with which the descendant of some form of Cypro-Minoan, the Cypriote syllabary, was deciphered in 1871, that is seductive, even if one acknowledges that this feat was accomplished with the help of a Phoenician-Greek Cypriote Syllabic bilingual from Idalion (O. MASSON 1983, 48-51, 246-248, §220). Perhaps it is the degree of similarity Cypro-Minoan displays to the Mycenaean-Minoan scripts and to the later Cypriote syllabary (in terms of both the size of the proposed Cypro-Minoan signaries and the forms of their characters) which has seduced researchers into transferring values, too arbitrarily and with little agreement among themselves (HILLER 1985, 62-65), from known to unknown systems and afterwards proceeding with identification and interpretation. Perhaps it is the number and variety of Cypro-Minoan texts and their relatively well-known, albeit complicated, cultural-historical environments that suggest that we ought to know what they say. As another problem of historical context, I shall review how we have reached our present impasse in the study of Cypro-Minoan. These are the peculiar problems of decipherment confronting researchers of Cypro-Minoan.

Let us begin by asking two questions. What elements are necessary to make decipherment of an unknown script possible? How then should a decipherer present his or her results in order to convince a generally skeptical scholarly audience? The skeleton of an answer to the first question can be found in E.J.W. Barber's *Archaeological Decipherment: A Handbook* (Princeton 1974), and needs only minimal fleshing out by means of examples which can be drawn easily from a work such as M. Pope's *The Story of Archaeological Decipherment* (New York 1975) or from the other contributions to this volume. One needs a large enough corpus of texts to establish a reasonably complete set of characters used by the script. The texts must offer enough syntactical and grammatical variety to make analysis of the underlying linguistic structure of the language possible (this is lacking in Etruscan). If these two conditions are fulfilled, one must then either have the benefit of a bilingual text to suggest possible meanings for words and test-values for a first group of signs (e.g., the Cypriote syllabary and Egyptian hieroglyphs) or be able to do this by some other means such as isolating formulaic expressions with historical parallels (the titles of kings in Old Persian cuneiform) or by identifying common vocabulary items (as in Ugaritic cuneiform). This then will lead, in the case of a known language, to a chain reaction of value assignments based on the careful preliminary structural analysis that was undertaken, one would hope, without preconceptions.

If a decipherment were attained by these procedures, the decipherer ideally would then demonstrate to a critical audience that she or he:

(1) had made use of a carefully established corpus of texts;

(2) had determined the essential characters used by the script;

(3) had identified as many structural clues as possible to the nature of the language represented by the script;

(4) had, in the case of scripts like Linear A or Cypro-Minoan which do not offer bilingual texts, intelligently selected the first test-values;

(5) had then been able to assign values to all essential and sufficiently represented characters of the script; and

(6) could support the historical likelihood of the script representing the language attained by the decipherment.

Such a convincing demonstration has not been offered by those who claim to read, in greater or lesser part, texts written in Cypro-Minoan. The currently proposed decipherments or "readings" fail to convince on one, several or all of points 1, 3, 4, 5 and 6. Even point 2 is troublesome. Moreover, none of the "decipherments" is anything but partial even within the uncertain and often not altogether clear subsets of Cypro-Minoan writing devised by its students. The wide variation in these approaches and solutions does not inspire confidence. Rather it underscores, and stems from, the problems I have already isolated.

As far as historical context is concerned, a major complicating factor is that the island of Cyprus, particularly in the late Bronze Age (1600-1050 B.C.), had a spread of many settlements which were exposed, in varying degrees, to external cultural influences (figure 1). It is therefore a mistake to view the island, from a later Helleno-centric, or at least Aegeanist, perspective, as solidly part of the Greek-speaking sphere of the eastern Mediterranean (figure 2). A more realistic perspective reveals just how precariously the island lay on the extreme limit of that sphere, even in the historical period (figure 3). The process of Hellenization was a long time in being fully completed. No doubt part of the explanation is to be found in the political and cultural history of the island during the archaic and classical periods, when a strong and continuous Phoenician trade presence and first Assyrian domination (ca. 709-669 B.C.) followed by Egyptian (570/60-545 B.C.) and then Persian (ca. 545 B.C. onwards) control affected much that is distinctive in Cypriote culture, although in some ways it also heightened a distinctive sense of Greekness among elements of the population (V. KARAGEORGHIS 1982, 57-60, 64-68).[19]

In the late fourth century B.C. in the district of Amathous, the Classical Cypriote syllabary was still being employed for inscriptions in the indigenous language of the island, eteo-Cypriote (O. MASSON 1953 and 1957c). Four eteo-Cypriote texts from this site run 4 to 6 lines (O. MASSON 1983, 203-206, §192-195) while one digraphic-bilingual text in Cypriote Syllabic-Greek alphabetic offers further testimony about the mixed population of the area (O. MASSON

[19] MEIGGS 1972, 477-486, presents a condensed account of Greek and non-Greek foreign influence on Cyprus in the sixth and fifth centuries B.C. See also the essay by POUILLOUX 1976.

1983, 206-209, §196).[20] Eteo-Cypriote mercenaries of the fourth century B.C. carved at least one of their full names in Cypriote Syllabic along with Greek graffiti in the sanctuary of Seti I at Abydos in Egypt (O. MASSON 1983, 356-57, 362, §388). Phoenician texts also were not uncommon as late as the fourth century, including reasonably lengthy (7-10 lines) digraphic-bilinguals (e.g., O. MASSON 1983, 226-228 and 246-248, §216 and §220).[21] More to the point is the fact that in this late period even the Hellenic population of the island persisted in standing apart in one crucial regard from the rest of the greater Greek world. A syllabary was still being used, alongside the Greek alphabet, to write Greek on Cyprus until well into the third century B.C. (MITFORD and MASSON 1982, 80-82; MITFORD 1980; J. KARAGEORGHIS 1961, 58-60). This is odd, in a characteristically Cypriote way, from *both* an Aegean *and* a Levantine perspective.

For the Late Bronze Age we must imagine a similar, if not greater, diversity within the population of the island of Cyprus which was subject to the same sorts of external influences as in historical times. A. B. Knapp, in a study of "Alashiyan" names mentioned in Late Bronze Age Akkadian, Ugaritic, Hittite and Egyptian documents, demonstrated a decided Semitic bias: perhaps as many as 24 of 33 names are Semitic, with the remainder being Hurrian or Anatolian (KNAPP 1983, 40). Although we must keep in mind the distortion associated with the provenience and perspective of such evidence,[22] it does suggest, when taken together with other archaeological evidence for Near Eastern and Egyptian influence (for example, finds of imported Canaanite pottery, the prevalent use of Near Eastern seal types and practices, the vital involvement of Cyprus in the well-documented Near Eastern-Aegean-Egyptian-Anatolian trade in tin, copper, spices, oil, ivory, lapis lazuli, cloth, vessels and various luxury items during the period 1700-1200 B.C.) that the island had considerable ethnic and cultural diversity and that any Aegean affinities discernible in the Bronze Age archaeological record must have been hard won (BAURAIN 1984, 135-164; CATLING 1975, 192-209; GEORGIOU 1979; KNAPP 1985, 241-243, 245-250, n. 112; PORTUGALI and KNAPP 1985, esp. 44-45, 60-67; KNAPP 1986, 42-44; PORADA 1986, 289; PALAIMA forthcoming).[23] It is thought that Cypriotes

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[20] There is now, too, a recently rediscovered yellowish limestone tablet inscription in eteo-Cypriote, probably from Amathous. See O. MASSON 1988.

[21] See MASSON and SZNYCER 1972, for a full study of the earliest Phoenician inscription in Cyprus (9th century) and other assorted minor Phoenician texts. For the history of Phoenician presence in Cyprus from the 9th century B.C. onward, see GJERSTAD 1979, esp. 249-254.

[22] For example, SCHAEFFER-FORRER 1978a, 97-104, argues that several 13th century Ugaritic documents list princely persons and their households (some 100 individuals, mostly Hurrite) installed in Alasia (Cyprus) during a time of political crisis. Tablet RS 11.857 preserves a record of 28 households. Of the 16 names of proprietors listed, only 3 are Semitic, while 13 are Hurrian.

[23] BAURAIN 1984, 27-103, documents the changes in the island of Cyprus, during the transition to LC I A (ca. 1620-1520 B.C.), brought about by increased Hittite influence in northern Syria and the intensified maritime activities suggested by discoveries at Minet-el-Beida (Ras Shamra). He goes so far as to speak of a "Syro-Palestinian infiltration" seeking

were installed at Minet-el-Beida by the 16th century B.C., and Cypriote objects and artifacts begin to be spread significantly throughout Syro-Palestine and Egypt in MC III-LC I and after. Although the conclusions to be drawn from the evidence are debatable in detail, one cannot deny a reverse flow of goods and people, if initially only craftsmen and traders, into the various natural geographical zones of Cyprus during this same time (E. MASSON 1976a, esp. 162-164 and n. 136).

Various sites on the island of Cyprus show definite signs of Aegean influence in this period. Because of recent excavation and study of excavated material, Minoan contact in Cyprus, quite reasonable on general grounds, has been confirmed for the beginning of the Late Bronze Age (1600-1450 B.C.) at the sites of Ayia Irini, Toumba tou Skourou, Kouklia, Limassol, and Enkomi (counter-clockwise NW to NE in figure 1: see appendix on Aegean objects in Cyprus in PORTUGALI and KNAPP 1985, 71-73). Clear evidence of Cypriote trade contacts with the Aegean world is provided by the coastal *emporion* of Kommos in southern Crete, where imported Cypriote pottery is found in Middle Minoan to Late Minoan I levels and greatly increases in LM III A:1-2 (WATROUS 1985) when the site and island were undoubtedly under Mycenaean control. Some of the imports from Cyprus and the Levant bear marks in the Cypro-Minoan tradition (BENNET forthcoming). BAURAIN 1984, 146-147, soberly discusses the likelihood that ox-hide copper ingots from the LM I period on the island of Keos and at Zakro and Hagia Triada on Crete are Cypriote in origin, thus attesting to the important trade item which led first to Cretan and then to Mycenaean interest in the island of Cyprus. This first period of Minoan contact is followed by periods of increasing Mycenaean contact with or influence on the island in 1450-1400 and then 1400-1200 (PORTUGALI and KNAPP 73-78; PACCI 1986).

We can see Aegean influence, too, by looking at how Cypro-Minoan writing fits into historical developments in the greater Eastern Mediterranean world. The current picture is represented schematically in figure 4, adopting for convenient reference the standard division of Cypro-Minoan, first suggested by O. Masson and later refined primarily by E. Masson, into three distinct branches (CM 1, 2 and 3) and an archaic predecessor of CM 1 (HILLER 1985, 66-79; O. MASSON 1956, 199-201; E. MASSON 1974, 11-17; 1973, 99). Later in this paper I shall offer serious epigraphical and palaeographical reasons for calling these arbitrary divisions into question.

We have the sequence of linear writing systems evolving on the island of Crete in the Middle Bronze Age and even spreading into the Cyclades by MM III-LM I or the 17th and 16th centuries B.C. (OLIVIER 1986; PALAIMA 1982). There is no trace of Linear B until much later; but I have recently argued, on palaeographical, historical, and, for want of a better term, systemic grounds, that its creation be placed in LH II-III A:1, when we have the first clear indications of

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Cypriote copper, an infiltration which stimulated native cultural developments on the island. BAURAIN 1984, 101-103.

the development of mainland palatial society and the beginnings of a marked outburst in Mycenaean trade and contact with the Near East and Anatolia (PALAIMA 1988b, 331-341 and n. 106). On Cyprus, however, the first traces of formal writing date conservatively to the end of the 16th century (BAURAIN 1980, 565-569, 580), i.e., to a period before the Mycenaean expansion[24] (CATLING 1973; PACCI 1986; PORTUGALI and KNAPP 1985, 60-64) and perhaps even before the Mycenaean acquisition of writing.

Nonetheless the affinities of the first full manifestation of formal writing on Cyprus are definitely with the Aegean scripts. This is the so-called archaic Cypro-Minoan tablet from Enkomi (figure 5 = Enkomi 1885) found in filling between floor levels, about mid-way through LC I B, so 1525-1475 B.C. (DIKAIOS 1963, 45-48; 1971, 882). The general similarities to Minoan linear writing are obvious, especially the flat-edged and flat-faced shape of the tablet, its conjectural restored size (ca. 11 cm. H x 7.5 cm. L x 3 cm. TH) and the linear forms of characters, most of which have suitable parallels in the now clearly established repertory of Linear A signs (figure 6). Reading right to left on the first line: AB nos. 57, 02, 54, —, — , 01, 41, 60 or, using Linear B values purely for the sake of reference, *ja, ro, wa*, —, —, *da, si, ra*; and left to right on the second line: AB nos. 77, 37 or 70, 37 or 70, 55, 04, 09, 37, again with Linear B values for reference only, *ka, ti* or *ko, ti* or *ko, nu, te, se, ti*; in the third line matchups are harder, but at least the fourth and sixth signs reading right to left have clear matches in AB nos. 01 or 10[25] (Linear B *da* or *u*) and 30 (Linear B *ni*) respectively. We might liken the second-last sign, again reading right to left, to Linear A AB 79 in the form in which it is attested in LM I B at Zakro on tablet ZA 4a.5, without being accused of drawing strained parallels. Differences from attested Minoan writing, specifically Linear A, have been stressed (GODART and SACCONI 1979) and even accepted in general historical syntheses (BAURAIN 1980, 568; 1984, 153-156; HOOKER 1985), but I do not find any of them compelling enough to dissociate the archaic Enkomi text from the Aegean tradition of writing or from Linear A in particular. These supposed differences are:

(1) the boldness of the ductus, i.e., of the way the characters are inscribed, in contrast to the usually exceedingly fine track of Minoan-Mycenaean styluses. RESPONSE: All this means is that the assumed Cypriote inscriber had a different

[24] NICOLAOU 1973, esp. 51-52 and 59, argues that Mycenaean presence in Cyprus begins in LH II-III A:1, i.e., early enough to have inspired the new Cypro-Minoan script and the new language which it represented. Yet Baurain's careful discussion of the dates of the Enkomi clay weight (?) and archaic tablet proves that they must precede the date of Mycenaean influence. The dates given for the clay weight (?) in GODART and SACCONI 1979, 128, is wildly incorrect. That Cypro-Minoan was used for a language newly introduced to Cyprus is, of course, an unnecessary assumption. An overview of Mycenaean presence in Cyprus, broken down by period, is provided by PACCI 1986. A reasonable number of habitation sites and cemeteries (c) have LH II B material: Enkomi, Hala Sultan Tekké, Pyla (c), Limassol (c), Skales (c). Ayia Irini and Enkomi have some LH II A.

[25] Particularly in the form attested on KN Zb 40.2 or HT 122a.1.

form of stylus,[26] and the relative size of the signs [.8-1.2 cm.] corresponds to those found in most Minoan-Mycenaean documents[27] as opposed to the smaller size of signs on later formal Cypro-Minoan texts from Enkomi.

(2) the supposedly intentional firing of this piece, again in contrast with the accidentally baked Linear A and Linear B texts. RESPONSE: I do not know how anyone who has studied clay tablet documents from the Aegean and the Near East can demonstrate conclusively whether a well-baked tablet has reached that state intentionally or not. Some of the tablets from the throne room at Mycenaean Pylos were baked unintentionally in the destruction of the Palace of Nestor with an intensity that has preserved them in the manner of kiln-fired sherds (PALAIMA 1988a, 137-139). Certainly, in the case of Enkomi 1885, its discovery in filling makes it impossible to determine whether it was preserved elsewhere by intentional or accidental firing. One may cite the case of the largest Enkomi CM 2 tablet, the two fragments of which appear to have been fired at different temperatures (MICHAELIDOU-NICOLAOU 1980, 11) and therefore no doubt accidentally, as a cautionary reminder against such assumptions.[28] In any event, the intentional preservation of a text has to do with the eventual application of an established script to a document that was important enough to preserve for a longer period of time. It has nothing to do with the original creation or adaptation of the script itself.

(3) the low percentage of sign matchups. RESPONSE: I find the number of probable parallels demonstrated above convincingly high for so brief a text; and we should rather stress the complete absence of *contemporary* Near Eastern archetypes for the forms of these signs.[29] There are 23 signs on the text, 21 on its recto, 2 on its *lat. dex.* Few of the signs can be considered probable duplicates: at most six (definitely the two on the *lat. dex.* and the first two signs

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[26] Bone styluses are known from Late Bronze Age levels at Enkomi, Palaepaphos, Kition and Maroni. For references, see KNAPP 1985, 248 and n. 157. For reasons to doubt whether the Enkomi styluses were used, or used exclusively, for inscribing tablets, see PALAIMA 1987, 510 and n. 28. KARAGEORGHIS 1976, 239, fig. 8, indicates how the styluses may have been able to produce the inscriptions on clay balls.

[27] This point is well made in E. MASSON 1970, 66, and can now be confirmed by examination of the full corpus of Linear A clay documents (*GORILA* 1-3, 5) and Linear B palaeographical studies (OLIVIER 1967; PALAIMA 1988a).

[28] Note that SCHAEFFER-FORRER 1978a, 93-94, insists that the Enkomi tablets were handed over by the scribes to be baked "en vue de les rendre solides et durables." This circularity of reasoning is disproved for two of these very pieces by Michaelidou-Nicolaou's observations on the firing temperatures of the two joining pieces of a single tablet. Even the better fired of the two joining fragments seems not to have been baked intentionally (MICHAELIDOU-NICOLAOU 1980, 11): "Le meilleur degré de cuisson de ce fragment [no. 1193] n'est pas intentionnel, mais accidentel, car il porte des traces de rubéfaction irrégulière caractéristique des vestiges de terres argileuses découvertes dans les niveaux archéologiques d'incendie."

[29] The number of convincing parallels to Linear A certainly exceeds 3 out of 20 signs, *pace* HOOKER 1985, 178, where, however, he astutely reinforces Masson's observation about the singularity of the archaic Cypro-Minoan repertory of signs among Levantine and Anatolian scripts. BAURAIN 1980, 569-570, who would like to see a Syro-Levantine intermediary in the transmission of script to Cyprus, still must admit that there are no tablets in Ugaritic script attested at Ugarit prior to ca. 1365 B.C.

at the right of line .1; perhaps the second and third signs from the left on line .2). For 17 of the 20 potentially distinctive signs, one can propose parallel signs in Linear A, using little imagination and with a degree of probability which would convince all but the most perversely skeptical or biased scholars. I have already suggested another parallel to a specific variant of a Minoan sign form (AB 79). This would raise the number to 18. This is truly a high percentage (90%).

It is worth stressing, too, that one can, in most cases, find rather exact matches in the detailed palaeographical charts of Linear A sign variations now provided in *GORILA 5*, XXVIII-LII and in its three accompanying microfiches. It is absolutely wrong procedure to compare the Cypro-Minoan signs written by a specific hand on Enkomi 1885 to standardized Minoan characters. The significant range of variation among the forms of separate characters in the standard Minoan signary from site to site, period to period, material to material, and even scribal hand to scribal hand, makes clear that we have to keep in mind the possibility that Cypro-Minoan was patterned after a regional style of Linear A sometime in the LM I A or MM III period, a comparatively poorly documented phase in the development of the Minoan script. I advise any skeptical reader to look at the variations of Linear A signs AB 28, 37, 38, 39, 45, 54 and 65 in *GORILA 5*, XXXIII-XXXVIII. Some of the variants are so different from the standardized or archetypal forms that, if they did not occur on texts known to be Linear A, cautious scholars would undoubtedly doubt that even they were Linear A characters.

We also know nothing about the historical circumstances in which this isolated tablet Enkomi 1885 was produced. Was its inscriber expert, i.e., was he a professional scribe? If so, was he as inexperienced and relatively unaccomplished at writing as some of the minor hands in the Linear B administrations at Knossos and Pylos, or was he a master of a script which had been employed in Cyprus for some time? For what reason was the text produced? One that required special attention or one which might lead the writer to be less careful about sign shapes and overall tablet appearance? We find a wide range of variation in such characteristics in the Linear A and Linear B tablets. Only 5 of 23 signs (2 of 20 distinctive signs) on Enkomi 1885 are without reasonably demonstrable sign parallels in Linear A. Might these be supplemental signs such as those which were added, either immediately or over time, in the transition from Linear A to Linear B and even in the development of the Greek alphabet from Semitic predecessors?[30] Or might they be simply distorted or embellished versions of Linear A characters which are still less well attested, or were then not fully understood by the Cypriote borrowers of Linear A or by those who subsequently used and further transformed the new script? We know of Cypro-Minoan on the LC I A clay weight (?) from

[30] The Mycenaean supplementals and their relationship to Cypro-Minoan and later Cypriote Syllabic are treated in PALAIMA forthcoming. For a recent theory and discussion of older views about Greek alphabetic supplementals, see POWELL 1987.

Enkomi, not to mention the evidence of signs marked on LC I pottery; so we can posit at least a half-century of development within the Cypro-Minoan script by the time of Enkomi 1885. Such a span of time would be enough to produce peculiar palaeographical variants. Given all the unknown variables surrounding this text, the high percentage (90%) of sign matchups with Linear A actually speaks most forcefully in favor of seeing a clear link between the Minoan linear script and the origin of writing on Cyprus. It may even permit us to speak in terms of a more direct transmission of writing to Cyprus from Crete than one has heretofore assumed.

Still one has never spoken for Cyprus of a wholesale borrowing of script, with but minor alterations, in the manner of Mycenaean Linear B from Minoan Linear A. In the latter case, the homogeneity of mainland palatial culture, the strong impact of Minoan culture upon it, and the narrow range of desired applications of the new script are factors and motives radically different from those which we think are at work in Cyprus. A closer analogy perhaps would be the development of the Greek alphabet, wherein writing was adapted by a large number of independent, although culturally related, communities, apparently for very practical motives. The adaptation of the alphabet was achieved in a period of Phoenician-Greek interaction marked by an outburst of Greek trade activity and even colonization. It was effected, so far as we know, on the individual level rather than through any direct or coordinated initiative of ruling elites or developing political or economic administrations. In the case of the alphabet, one sees clear traces of experimentation and regional variation. Perhaps the same forces and factors were at work in early Late Bronze Age Cyprus. In this case, 50-75 years would doubtless produce significant innovations or variations in sign shapes in comparison with the signary of the mother-script, which itself was still developing.

(4) the intentional ruling into lines, although apparently after the text itself was inscribed.[31] RESPONSE: Most Minoan texts lack ruling; but some are ruled into sections, and some few even continuously. However, none has the long continuous sequence of presumably phonetic signs inscribed on Enkomi tablet 1885; and it takes no extraordinarily bold leap of imagination to assert that Minoan texts with complicated phonetic and syntactical units would have shown similar ruling.[32] Moreover, ruling is primarily an independent formatting development even in the Linear B texts. The fact that Linear B texts are consistently ruled, while Linear A texts are usually not, is no argument against the clearly established derivation of Linear B from Linear A. Nor should such an argument be seriously considered for archaic Cypro-Minoan.[33]

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[31] See R. Janko, 1987, 315 and n. 22, for a discussion of this feature and its relationship to a CM 3 text from Ras Shamra.

[32] PALAIMA 1988b, 313-317, thoroughly reviews the evidence for ruling in Linear A.

[33] SCHAEFFER-FORRER 1978a, 94-96, uses arguments about the shape and formatting of Enkomi 53.5 and 20.01 to argue for a Near Eastern-Ugaritic origin of the CM II tablets. He mistakenly asserts that, in contrast to the Enkomi tablets, all Mycenaean tablets are uniformly turned left-to-right along the long axis in order to inscribe the verso. E. MASSON 1978, 51,

(5) the sinistroverse writing of line 1, suggested by the reverse orientation of several of the signs (E. MASSON 1970, 67), and I think proved by what Janko cleverly observes to be an *incipit* reference of two signs on the *lat. dex.* opposite the extreme righthand edge of line 1, where the two signs are repeated at the start of the text (JANKO 1987, 316-317). RESPONSE: Minoan-Mycenaean clay texts are uniformly left-to-right, but again the borrower of a script need not be a slavish adherent to such a principle–Enkomi 1885 in fact seems to be boustrophedon–and many of the later Cyprō-Minoan texts appear to run consistently left-to-right, as does the earliest Cypriote Syllabic inscription, the late 11th century inscribed spit from tomb 49 at Paphos Skales, in defiance of later common Cypriote Syllabic practice (V. KARAGEORGHIS 1980, 131-136, figs. 12, 12c; E. MASSON 1987b, 376-377, with references). One would not, therefore, argue that Cypriote Syllabic is not related to Cypro-Minoan!

and (6) the absence of indications that this is an accounting document. RESPONSE: This again has to do with the applications of the new script and should not be used as an argument against the affiliation of Cypro-Minoan with Minoan Linear A. Moreover, the preservation of only three lines of text makes this irrelevant argument dangerous in its own terms, since one *could* have to do with a document of account with a full explanatory, narrative heading, for which practice there are sound Mycenaean and even Minoan parallels.[34]

We can then safely conclude that the genesis of formal script on Cyprus is somehow connected with the Aegean linear systems of writing. Yet what does this mean in terms of prospects for decipherment? How is the archaic system of formal script, of which Enkomi 1885 is our single, isolated example, connected with the Aegean tradition? Directly or through intermediaries? If intermediaries, are these Aegean, Anatolian or Near Eastern? How does this affect the complicated history of Cypro-Minoan writing in later periods both on Cyprus itself and the chief area where an offshoot is documented: Ras Shamra-

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also views the turning of the Enkomi tablets along the horizontal axis as a Near Eastern feature. To the contrary, Linear B tablets can be turned along the short, horizontal axis, like the Enkomi tablets, and even along transverse axes from lower left to upper right and vice versa. See *Nestor* 1 (July 1962) 201, and PALAIMA 1988a, 104-107 (for variation within two closely related hands). Here one must stress also that it is no proper argument to say that the rectangular shape of the CM 2 documents is more Near Eastern because the majority of Linear A-Linear B documents do not have this shape. In fact, the Minoan-Mycenaean data are imbalanced by the typological variety of tablet shapes: labels, sealings and leaf-shaped texts serving specific functions. The longer lists, of which there are many whole series, are done on rectangular texts of this very type. Ugaritic influence on formatting at this stage is not at all unlikely: especially the un-Mycenaean system of placing entries in rectangularly ruled casements. This, however, does not prove that CM 2 is a special Ugaritic or Near Eastern offshoot of the CM script, which was already implanted in Cyprus for at least two centuries. The fact that I am using computer typesetting and formatting for this paper, a technique unknown to the Greeks and Romans, does not mean that I am no longer using the Greco-Roman alphabet!

[34] See the long and purely lexical introductions on full accounting tablets from Pylos in *PTT* I: Jn 829.1-.3; Tn 316 v.1-.2; Un 267.1-.4; Un 718.1-.2; and An 519, 607, 654, 656, 657, 661. In Linear A, the long lexical entry on ZA Zb 3 (*GORILA* 4, 112-113) would certainly be misleading if the single ideogram and numerical entry were broken away.

Ugarit in northern Syria? Here we must turn to one problem of context: the context in which Cypro-Minoan has been studied.

Readers interested in a detailed summary of the history of early Cypro-Minoan scholarship may consult O. MASSON 1983, 30-38. Our purpose here is to analyze, within this history, the complications that have arisen for a clear understanding of the epigraphical data as a prerequisite for decipherment. During the last quarter of the 19th century, scholars in general linked the later Cypriote syllabic script, which was then the only form of Cypriote script well attested on the island, with Near Eastern writing systems. For example, because of its syllabic structure, it was connected with Old Persian syllabic cuneiform. However, by the first years of the 20th century, epigraphical and archaeological finds from the Bronze Age were to shift the focus of scholars interested in tracing the development of writing on Cyprus westward to the Aegean.

Already in 1900 on the basis of materials excavated on behalf of the British Museum, Sir Arthur Evans was to advance the idea that "the Mycenaean factor in the unwritten history of Cyprus assumes a new importance. The impress of this Aegean element is so strong that we find ourselves in [the] presence not of sporadic influences or isolated importations of objects, but of a distinct period in the insular civilisation to which the name Cypro-Mycenaean must henceforward be given." (EVANS 1900, 199) Evans was basing his opinion primarily on extensive finds of Mycenaean and Mycenaean-influenced objects and material remains from these excavations. But as the first great student of Aegean scripts, he also was struck, and convinced, by the resemblances he deduced among: (a) 15 distinct characters incised into three inscribed clay balls from Enkomi[35] (figure 7) and a gold ring from Hala Sultan Tekké (figure 8);[36] (b) those found on what he considered roughly contemporaneous tablets in the Cretan linear script which he had just discovered at Knossos; and (c) those of the later Classical Cypriote syllabary, already deciphered as Greek (EVANS 1900, 215-217). In his full treatment of Cretan hieroglyphic and Linear A published nine years later, he was to call the Bronze Age script of Cyprus Cypro-Minoan, in accordance with his own belief, developed during this interval, in the dominant influence of Cretan culture in the Aegean; and he was to compare this still limited corpus of inscribed Cypro-Minoan finds to the now more fully understood Cretan scripts, including linear script Class B. The results were hardly unequivocal, but Evans's chart of parallel sign forms led him to some extremely optimistic conclusions (EVANS 1909, 68-77, figs. 37-39): (1) 10 of the 15 known Cypro-Minoan characters were definitely paralleled ("an absolute conformity") in either Linear A or Linear B, while the remaining 5 could be matched with Cretan hieroglyphic prototypes; (2)

35 Four had been discovered in 1896, but only three were published and even those with incomplete and less than fully accurate drawings: an early, but typical example of the difficulty of gaining access, through normal scholarly publications, to Cypro-Minoan texts (E. MASSON 1971a, 11-13).

36 At first wrongly attributed by Evans to Enkomi, later to Maroni, attributions which misled Persson and others, including me in surveying this material historically, until corrected by O. MASSON 1957a, 20 n. 2.

two-thirds of the signs of the later Classical Cypriote syllabary were also derived from Linear A and Linear B, although a detailed comparison was postponed until the projected publication of the Linear B corpus; (3) the matches solely with Linear B and the archaeological indications of the influence of mainland culture in late Bronze Age Cyprus suggested that the mainland representatives of Minoan culture might have brought with them to Cyprus the model of a linear script which was already adapted to the Greek language; (4) yet tradition seemed to indicate that the Hellenization of the island was not this early, i.e., that the Cypriote syllabary and, by implication, the Cypro-Minoan script were "originally devised for a non-Hellenic language." As a consequence of this last point, Evans listed six perceived parallels between the Classical Cypriote script and non-Greek forms in the Lycian and Carian alphabets.

So already at this early stage in the study of the Cypro-Minoan scripts certain procedures were established: (1) the comparison, often extremely subjective, of sign forms first to determine the degree of relationship between scripts[37] and then, by introducing the Classical Cypriote syllabary, i.e., the final result of the development of writing on Cyprus, to suggest values for the signs of the Cypro-Minoan script; (2) the selective, if not arbitrary, pooling of different classes of epigraphical data, in this case the Hala Sultan Tekké gold ring (still something of an oddity, although O. MASSON 1957a, 20-22, has marshalled convincing evidence that the object itself is a genuine late Bronze Age artefact) and clay balls, in order to establish a sign repertory; and (3) the consideration of varying historical factors in explaining the advent, development, and applications of writing on Cyprus. It is interesting to observe that, in his earlier study, Evans took note of a copper ingot from Enkomi with an incised sign, which he identified as equivalent to later Cypriote syllabic *si* (EVANS 1900, 215, fig. 12). Yet this sign is nowhere discussed in his fuller treatment, perhaps because the form of the sign could not be easily paralleled in either of the Cretan linear scripts, or perhaps because Evans did not consider such an isolated mark writing *per se*, especially in comparison to the fuller sequences to which he had grown accustomed through his continuing research with Cretan writing, extending from hieroglyphic seals (similar to the Hala Sultan Tekké gold ring in sign layout) to full clay tablets (similar to the clay balls in execution). Evans himself makes no comment. We only note the omission here because the second possible explanation bears upon a question that became particularly crucial with the next major advance in Cypro-Minoan scholarship: how does one determine whether marks on an object

[37] EVANS 1909, 77-100, applied the same technique to Minoan and respectively Phoenician writing and signs on Iberic sherds. We now know, for example, that sign no. 15 from the Hala Sultan Tekké gold ring was matched with a Linear A fractional sign (a near impossibility), and that sign no. 1 is rather an Egyptian *ankh*, as Evans himself half-thought (EVANS 1909, 70 n. 3; 71 fig. 39). It is interesting to note that CASSON 1937, 86, excluded sign no. 15 and included sign no. 1 in his list, exactly opposite to O. MASSON 1957a, 22. EVANS 1935, 782-784, interpreted what we now know to be Cypro-Minoan signs on the silver bowl from Ugarit RS 389 (E. MASSON 1974, 19-20, fig. 5) as Linear B. BRICE 1961, 24, no. V 16 and plate XXXI, included the text in a catalogue of Linear A. We can thus see how precarious this procedure is, especially if one is influenced by preconceived opinion.

constitute a true inscription? Moreover the classification of the *ankh* symbol on the Hala Sultan Tekké gold ring as Cypro-Minoan was no doubt motivated by Evans's desire to expand the meager Cypro-Minoan sign repertory[38] and supported by his familiarity with Cretan hieroglyphs.

The 1930's were a decade of renewed interest in Cypro-Minoan, with some advances and some continuation of old problems. Among the advances one must consider the publication of Cypriote style signs painted on the bases of Mycenaean pots from Cyprus and Ras Shamra (SCHAEFFER 1936) and the compilation of a fuller Cypro-Minoan signary derived from a careful analysis of different categories of inscribed objects: incised or painted signs on vases of well-differentiated types; signs incised on clay balls and one on a vase before firing; signs on copper ingots and a bronze plaque in a private collection; signs on cylinder seals and the Hala Sultan Tekké ring (CASSON 1937).[39] Here careful attention was paid to the kinds of wares, the precise methods of making the signs, the find places and circumstances, and the exact number of attestations of individual signs. CASSON 1937, 108-109, also discussed and listed signs painted on Mycenaean wares imported, as he thought, from Cyprus into Palestine.

A first indication of real problems with Cypro-Minoan studies is furnished by Persson's studies of the clay ball inscriptions from Enkomi (PERSSON 1930 and 1932). Although, in his second publication, Persson produces as a positive result more accurate transcriptions of all four Enkomi clay balls plus a fifth from Hala Sultan Tekké, he also produces negative results by rushing into partial readings of the texts under study. He employs familiar tactics:

(1) the historical procedure: his views of the Mycenaeanization of Cyprus which allowed (2) Greek Cypriote syllabic values to be extended back to Cypro-Minoan and then even to Minoan-Mycenaean scripts;

(3) the arbitrary selection of epigraphical data: he interprets a pseudo-inscription on a sherd from Asine–the absence of tablets from the mainland was explained away by declaring that the Mycenaeans used ephemeral materials (wood, leather, palm leaves, papyrus)–by means of Classical Cypriote sign parallels (PERSSON 1930, 10-13, 17); and his other inscriptions chosen for "reading" are a potpourri, from the Knossian clay cups with painted Linear A inscriptions to some of the lexical units which Sundwall identified as occurring repeatedly on Linear A tablets (PERSSON 1930, 18-25);

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38 DANIEL 1941, 249-250, gives a succinct account of the limited Cypro-Minoan material and sign repertories of the early researchers.

39 Casson relied on what Daniel calls the "almost unobtainable" publication MARKIDES 1916, which presented and analyzed Cypro-Minoan inscribed pottery from Arpera, Enkomi, and Markides's own excavations at Katydhata. MARKIDES 1916, 19-20, proposed adding 17 new signs from this material to Evans's list of 15 Cypro-Minoan characters. EVANS 1935, 758-763 and fig. 744, also provided a slightly updated list of signs from Cypro-Minoan inscriptions, including two more clay balls and a sherd.

(4) adducing text parallels: his "reading" of Mycenaean inscribed stirrup jars from Thebes by the same method, but with the support of supposed parallels for the type of text obtained, in this case on jars found in Syria-Palestine (PERSSON 1932, 272);[40]

(5) attributing a specific purpose to the inscribed objects which is in keeping with the texts obtained: his assertion that the clay balls functioned as weights (PERSSON 1932, 270-273);

and (6) even the acrophonic principle, whereby a sign is given the value of the first phoneme or syllable of the word for the object which the sign resembles in the fancy of the scholar and in the language that the scholar wants the script under study to represent (PERSSON 1930, 31-32).

We should note that PERSSON 1930, 32, includes the standard disclaimer that he has not achieved a full decipherment through his hodgepodge of readings. All of these problematic approaches to understanding Cypro-Minoan texts will recur, in one form or another, in the later attempts to read Cypro-Minoan to which I made oblique reference at the outset of this paper.

The real foundation for Cypro-Minoan scholarship of the last half-century was laid by J.F. Daniel (DANIEL 1941) who produced a truly analytical "corpus" which incorporated the abundant evidence of marked pottery, exploiting the full material from excavations at Kourion-Bamboula, and which classified signs according to the type of ware (Cypriote, Mycenaean, imported wheel-made red burnished) or object (cylinder seals, clay balls, copper ingot) and manner of marking (inscribed before or after firing, painted before or after firing). Daniel's study greatly expanded the repertory of Cypro-Minoan signs, and it forms the basis for what, until the present day, is considered the principal system of Cypro-Minoan writing: CM 1. Yet we should note that Daniel himself did not create a single unified sign repertory out of this heterogeneous material, preferring to let the categories stand separately. He did, however, grapple with the problem of how to define the formal Cypro-Minoan script. The first requirement was that a sign occur on an object "of indubitably Cypriote manufacture" (DANIEL 1941, 252). Signs of this type were grouped as Class I. Signs on other non-Cypriote objects would be included as Cypro-Minoan only if they corresponded to signs in Class I. He also enunciated (DANIEL 1941, 253) the following conditions for including a given sign within a single formal signary: (a) if it occurred in multi-sign inscriptions; (b) if it was identical to signs in multi-sign inscriptions (then still very few and brief: the clay balls, cylinder seals and

[40] It points out the hazards of proposing "readings" of an undeciphered script on the basis of such procedures to recall that PERSSON 1932, 272, "read" 'Kadmos ruler Thebes' on some of the Theban inscribed stirrup vases. He adduced parallels for this kind of text from the stamped handles of Palestinian vessels. We now know that the fullest stirrup jar inscriptions give normally two personal names and a Cretan toponym: Thebes and Kadmos nowhere appear in this class of inscriptions. It is typical of the lax methods behind such "readings" that PERSSON 1930, 28, neither informs us on which of the inscribed stirrup jars he reads these words nor provides us with a drawing of the inscriptions.

the gold ring); (c) if it was identical to signs used in Linear A, Linear B, or the Classical Cypriote script–this, according to Daniel, raised the likelihood of its having a phonetic value in Cypro-Minoan; (d) if the sign appeared with considerable frequency, thus increasing "the probability that it was in general currency." He used much greater restraint in deducing sign parallels among these various scripts, himself commenting negatively on the degree to which previous scholars had allowed for inversions and perversions of forms in tracing parallels (DANIEL 1941, 254-264).

The chronological span for the script was also of crucial importance for the different theories about its origin and impact. The stratified Kourion material made a rough estimate possible. The earliest pieces were datable to the late 16th and 15th centuries B.C. (LC I A:2-LC I B), but these marks were singletons (e.g., DANIEL 1941, 274, nos. 12, 21) and so simple in shape that they could not bear the burden of proof for the origin of formal script, especially since some of the marks catalogued by Daniel, even applying his four criteria listed above, were manifestly pure pot marks (DANIEL 1941, 253).

Daniel also paid careful attention to the kinds of epigraphical and palaeographical details which are of highest importance for understanding the evolution of any script. He attributed the differences between the signs of the Aegean linear scripts and the Cypro-Minoan inscriptions to differences in materials and techniques (DANIEL 1941, 253), factors taken into account too rarely nowadays: "The Minoan tablets were incised with a sharp tool in wet clay, a facile medium which led to a fluent and often florid style. The Cypro-Minoan inscriptions fall into two main technical groups. The Enkomi balls resemble the Minoan tablets in that they were inscribed in damp clay, but differ from them in being impressed with a dull tool rather than incised with a sharp one. This technique led to a graphic style which favored short strokes and the elimination of curved lines. Most of the other Cypro-Minoan inscriptions were deeply incised with a knife, or similar tool, in relatively hard materials, chiefly pottery. These, even more than the clay balls, call for a bold style and the avoidance of curves."[41] Thus Daniel explained the greater "linearization" of incised Cypro-Minoan sign-forms, in contrast to their Aegean counterparts, as a product of tools and materials rather than as the result of the influence of the techniques of Near Eastern writing.

Daniel's collection of signs, produced before the discovery of any lengthy, formal Cypro-Minoan inscriptions, nonetheless is the basis for the Cypro-Minoan signary, specifically that which is now known as CM 1. Some criticism was made of his system for excluding signs on non-Cypriote objects, since the number of attestations for signs of this kind was generally quite low (BUCHHOLZ 1954,

41 I. Nicolaou in ÅSTRÖM and NICOLAOU 1980, 32, makes a keen observation about the difference in sign forms when incised by means of a needle-like pointed instrument on the lead sling bullets and when drawn in moist clay by the normal Cypro-Minoan stylus. E. MASSON 1985b, 149, observes that the mode of incision may have affected the sign forms on the gold rings from Kalavassos.

144). Nonetheless, in treating newer material, his procedures for incorporating signs into the Cypro-Minoan signary have been loosely followed, while his principle of constructing and maintaining separate categories on the basis of types of inscriptions has been largely abandonned. That is, one tends to call "Cypro-Minoan" any sign with a Daniel pedigree, whether of his Class I or not. Of course, the discovery of formal texts has deemphasized the importance of the very kinds of inscriptions which had been used to establish the sign repertory in the first place. Since the time of Daniel, the pot-marks especially have tended to become a separate issue (e.g., BENSON and MASSON 1960; O. MASSON 1957b and 1966; ÅSTRÖM 1966 and 1969; MITFORD 1971; VERMEULE and WOLSKY 1976; DÖHL 1978 and 1979; PALAIMA-BETANCOURT-MEYER 1984; E. MASSON 1984 and 1988; GALLIS 1988; CATLING 1988; BENNET forthcoming). Also Daniel's epigraphical observations have been ignored to some extent, particularly in devising at least one of the other branches of Cypro-Minoan script, CM 2.

All this raises several problems. It is now impossible to distinguish the types of inscriptional attestations for signs in the published Cypro-Minoan signaries. One simply assumes that for CM 1 most of the signs come from the more formal types of texts of this class, e.g., on cylinder seals, clay balls, clay cylinders, metal vases, and in sequences of multiple signs on pots (see below), but there has been no separation of signs into classes nor has there been an obvious weeding out of CM 1 signs which are attested exclusively as pot marks or were included originally on the basis of one of Daniel's lesser criteria: mere frequency of occurrence or resemblance to signs in Linear A, Linear B, or Cypriote Syllabic.[42] Thus the corpus of Cypro-Minoan pot marks has expanded greatly since 1941 (see articles cited at the end of the preceding paragraph), in both the number of marked sherds or vases and their geographical spread, with little understanding of how this marking system relates to what one would consider writing *per se*. Moreover, there has not yet been any clear study of the development of CM 1 through time. In addition CM 1, CM 2 and CM 3 have been distinguished largely and admittedly through rather superficial judgments about the appearance of texts in the various categories and through historical-linguistic speculation (E. MASSON 1976, 139-140), ignoring for the most part the practical factors involved in determining sign forms which Daniel stressed. This has caused some clear instances of confusion in the wider literature among scholars attempting to make use or sense of Cypro-Minoan.

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[42] The standard CM 1 signary is based on formal inscriptions, but also incorporates characters from pottery and other kinds of objects, without designating them as special (E. MASSON 1974, 12). A particular complication is that many signs of the standard signary are derived from inscriptions on clay balls which have been published in separate groups and according to different schemes of sign numeration (E. MASSON 1971a and 1971c). Thus it is impossible to check the source for characters in the standard general CM 1 signary (still that of E. MASSON 1974) without undertaking a painstaking process of elimination, inscription by inscription.

In fact, Daniel's "Prolegomena" has never been followed by a full analytical corpus, despite, or perhaps because of, the number of later separate and detailed publications of a much larger amount of significant Cypro-Minoan material, chiefly by the two foremost students of the script and its inscriptions, first Olivier Masson and, during the last 20 years, Emilia Masson. Their publications can be likened to individual, somewhat disconnected chapters in the story of Cypro-Minoan. The coherent book to follow Daniel's forward has yet to be written.

Our critical narrative history of Cypro-Minoan scholarship ends at this point, having touched upon some fundamental obstacles in approaching a decipherment, the last and most crucial being the absence of a corpus which would make all the essential data available to students of this script: not only the inscriptions themselves, but their types, dates, find-contexts, sign repertories, and palaeographical development, all in the manner of *GORILA*. Absence of a corpus has contributed I believe to the number of partial readings of Cypro-Minoan text material.[43] It is satisfying to some minds to work on narrow, esoteric problems and to suggest solutions which, while they cannot be corroborated, certainly cannot be absolutely disproved. Persson's work on the actual language of the select few Cypro-Minoan texts available to him offers one extreme example of what I would consider, quite frankly, meaningless speculation. Given the much larger body of Cypro-Minoan inscriptions now known, the scattered publications of inscriptions unfortunately offer an appealing opportunity to proceed in this way. The number of possible solutions increases, if one focuses solely on the CM 3 tablets from Ras Shamra or the clay cylinders from Enkomi and Kalavassos-Ayios Dhimitrios or the CM 2 tablets from Enkomi (see CHADWICK 1989) or selections from any of these groups. The Ras Shamra texts are ambrosia for certain would-be decipherers. The site is almost a literal Babel of scripts and languages: elements of the mixed population spoke or at least used Sumerian, Ugaritic, Canaanite, Babylonian, Hurrite, Egyptian, Hittite, and we may suppose Cypriote and conjecture Mycenaean Greek. The attested writing includes various forms of cuneiform, Hittite hieroglyphic, Egyptian hieroglyphic, Ugaritic alphabetic cuneiform, and Cypro-Minoan (SCHAEFFER 1956). Even the Cypro-Minoan might be of two sorts (see below). On the other hand, difficulties increase if one tries to confront all the Cypro-Minoan texts together, to limit the number of arbitrary value assignments by reducing sign parallels to those few which are most probable (cf. CHADWICK 1979, 139), to hold in check one's unprovable assumptions about the nature and purpose of the inscriptions at hand or about the language that may lie behind them.

For the sake of illustration, I shall now analyze one recent approach to the decipherment of Cypro-Minoan: FAUCOUNAU 1988. I have chosen it almost at random and without any malicious intent, since it was brought to my attention only recently when I received a group of offprints from the editor of the volume in which it appeared. Since then I have been in correspondence with its author,

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[43] Similar problems are created by the absence of a corpus for Cretan hieroglyphic. See OLIVIER, this volume.

who has sent to me a slightly corrected version of the text and several letters attempting the sort of historical justification of his decipherments which I have mentioned as the last in six stages of an ideal decipherment. Monsieur Faucounau's article is typical in concentrating on a few brief texts, to most of which we have already referred: the gold ring, two clay balls and a hematite cylinder seal from Hala Sultan Tekké; two of the clay cylinders from Kalavassos-Ayios Dhimitrios; and a reprise of the clay cylinder from Enkomi. Its flaws are also typical.

It behooves me here again to follow the model of the distinguished honoree of the symposium which inspired this volume. I apologize to Monsieur Faucounau for the following honest criticism of his work, and I assure him that I do not intend any of it as an *ad hominem* argument. I only undertake it because of his admirable willingness to discuss his ideas with me and because, in an assessment of the state of scholarship in a given field, one must be frank. Students of prehistoric scripts and languages are few. The conclusions and theories advanced by such students are often used by other specialists (archaeologists, prehistorians, art historians) who have varying levels of competence in and understanding of the data and methods by which conclusions and interpretations were reached.[44] One, therefore, has an obligation to be cautious and exacting in presenting information about prehistoric inscriptions. Otherwise, what I have referred to elsewhere as a microbic contamination of scholarship can occur. My own honest opinion is that in Cypro-Minoan studies we are faced with a potential epidemic, as this brief discussion will demonstrate.

Any reader, however uninformed, should be suspicious of Faucounau's opening reference to the decipherments of Cypro-Minoan writing systems as *faits accomplis*: CM 2 is declared to be a Hurrian syllabary, while the other branches are called Cypro-Semitic and are said to express an unknown language which is "une sorte de 'créole sémitique'." (FAUCOUNAU 1988, 239) Having one of the languages be a creole is a convenient tactic, because it broadens the range of possibilities for "readings" of these texts. We are then told, without being offered any further information, explanation, or references, that the three-sign inscription on the ring from Hala Sultan Tekké (figure 8) is in the Hurrian syllabary (CM 2) because the left-most sign on its surface (= right-most in the drawing of its impression in figure 8) is a "figure-eight." To understand this flat declaration of fact, one must search for oneself and eventually resort to E. Masson's accurate drawing of an inscription now classified as CM 2: Enkomi 53.5 (figure 10), where on lines 15 and 21 appears a sign (E. Masson no. 76), apparently unmatched in the other sub-systems of Cypro-Minoan, in the form of two square lozenges joined aslant one to the other at their respective lower right and upper left corners (see also E. MASSON 1987a, 193, fig. 3, 1B). Even

[44] I cite as an example the use made of a now generally discredited decipherment of Linear A as Semitic in BASS 1967, 77, 167; see especially p. 77 for Bass's confession of being totally unable to judge the decipherment in its own terms. It is interesting that Monsieur Faucounau has mentioned in a letter that the author of this discredited decipherment of Linear A is the only scholar to accept his Cypro-Minoan decipherment.

granting that these signs on the Enkomi tablet and the Hala Sultan Tekké ring are related–a not entirely improbable assumption, given the linear nature of CM 2 inscriptions–we would still have to ask whether, given the fact that the left-most sign on the ring impression (figure 8) is paralleled in CM 1 and the central sign in both CM 1 and 3 (see HILLER 1985, 62-65 for parallel sign lists), we are not dealing with an inscription of the CM 1 class, in which the right-most sign (in impression, figure 8)–rarely attested, if at all, in CM 2–is simply so far undocumented.

But even here we should not follow Faucounau in not exploring other alternatives. A reading of O. Masson's careful treatment of the gold ring (O. MASSON 1957a, 20-22, 27) provides us with specific parallels for all the signs on it. The left-most sign (in impression) is paralleled (oriented sinistroverse) on a cylinder seal from Ayia Paraskevi (O. MASSON 1957a, 17, no. 11) and (with the same sinistroverse orientation) as part of a dipinti inscription on a Mycenaean bowl from an LC II B context in Kourion Tomb 6 (= DANIEL 1941, 276-277, no. 76). The right-most sign (in impression), i.e., the "figure-eight" sign, is likened not only to the later curvilinear Cypriote Syllabic sign *le*, which suggests to Faucounau his value for this sign in Cypro-Minoan, but also to an angular sign in one case painted on Mycenaean ware and another time incised after firing on an LC II plain ware jug handle from tomb 5 at Kourion (= DANIEL 1941, 276, no. 50). Since the gold ring was discovered in a highly Mycenaeanized tomb context, the parallels to CM 1 dipinti marks on Mycenaean pottery should be given considerable attention. At least the unsubstantiated assumption that this ring inscription with its curvilinear "figure-eight" sign is CM 2 should be dismissed. The central sign is perfectly paralleled on a cylinder from Kourion (O. MASSON 1957a, 10-11, no. 4) and in all three Cypro-Minoan sub-systems.

The "reading" of the text is again flatly declared by Faucounau to be sinistroverse, without further explanation. One can only guess at the reasons. Perhaps the ring is considered to be a seal,[45] in which case the reversed impression (figure 8) read dextroverse (and therefore the ring inscription itself read sinistroverse) is the true reading? But if the direction of the right-most sign on the ring is normal (HILLER 1985, 62, E. Masson sign no.12), this would suggest that the text is to be read dextroverse on the ring itself. As mentioned above, the sign is found oriented sinistroverse on an actual cylinder seal where the inscription seems to have been part of the original, albeit crudely executed, design. This could be taken to imply that the reversed seal impression gives the proper orientation of the sign, i.e., dextroverse as on the surface of the Hala Sultan Tekké gold seal ring. The question of reading such inscriptions on seals at least deserves fuller study. Faucounau's Hittite-Luwian reading of the text of the ring and the very sequence in which he proposes the characters are to be read are both revealed to be pure assumptions–and not even easily defensible assumptions. My first moral is that even so restricted and isolated a three-character inscription does not permit a scholar to set up his own private universe of interpretation. It

[45] This is the opinion of O. MASSON 1957a, 22.

certainly does not give him the right to ignore the careful work of earlier scholars at presenting and editing the texts.

Faucounau's treatment of the clay ball and the hematite cylinder seal are equally flawed. The "readings" here depend on two optional identifications of signs to which he assigns the values *ke* and *ma* on the basis of presumed stemmata of formal evolution from Linear A and Linear B through Cypro-Minoan and into Cypriote Syllabic. Faucounau's chart is here reproduced as figure 11. It is sufficient to stress a point that is clear to anyone who has dealt firsthand with inscriptions, namely that palaeography depends on an intimate familiarity with the exact shapes of characters and their possible variations as they occur on the texts themselves. We made the point above, in discussing Enkomi tablet 1885, that the links with Linear A become startlingly clear when we compare the actual forms of signs found on Linear A documents with those found on the archaic Enkomi tablet. Those who argued for little resemblance had cavalierly compared the character forms on Enkomi 1885 to conventionalized Linear A characters. Using such a method, I would be hard-pressed to demonstrate that my own English handwriting made use of Roman alphabetic characters, so different is my developed hand from the standardized "pattern-book" written characters one learns in one's youth. Faucounau makes this same mistake. In the stemmata in figure 11, he begins with forms of the Linear A and Linear B characters that are so artificial and innacurate that the proposed succeeding development of the signs is immediately deprived of any value. In fact the hallmark of Linear B *ke* as opposed to *de* is that, in its upper portion, the outward slanting arms are dominant and the inverted triangle rests upon and between them, exactly opposite to Faucounau's drawing of *ke*.

Finally, I shall close this mini-review, by noting that, in examining Faucounau's study, we are entering a world without proper epigraphical transcriptions or drawings of texts (compare his fig. 3 and "transcription" of Kalavassos clay cylinder IV [FAUCOUNAU 1988, 247-248] with E. MASSON 1983, 132 IV, plate XVIII.7). The drawing of Kalavassos IV is inaccurate by even tolerant standards. Perhaps the reason for such fundamental epigraphical carelessness is betrayed by the way in which Faucounau dismisses the evidence for identification of the third character in the first line as something of little consequence. There is never a thought for any bit of evidence which does not conform or contribute to a preconceived system of decipherment. For some scholars obsessed with decipherment, it is unimportant to take pains to establish a true and accurate text. Thus, we find ourselves, in reading the work of such scholars, in one of those simultaneous universes where what E. Masson reads correctly as a fissure in the clay at the beginning of line 2 of cylinder IV, Faucounau can reinterpret as a determinative sign for a proper name. He does this by proposing a parallel on the Enkomi clay cylinder, but the "parallel" mark occurs neither in a comparable form nor in the same position relative to the lexical unit interpreted as a proper name. That is, Faucounau's new reading is based on a parallel which is no parallel at all!

Cylinder IV is interpreted by Faucounau as a foundation inscription, and the unmistakable numeral seven in its last line is rendered: "in the seventh year of the reign of Kukka-Zita." On what basis is one to opt for either this "kukk"y interpretation or that of E. Masson: "Il est fort probable que ce chiffre ne figure pas ici avec sa fonction réelle, à savoir numérique, mais plutôt comme un symbole, ayant la valeur rituelle bien connue de ce nombre" (E. MASSON 1983, 138)? Both alternatives are pure conjectures and do little to advance our real understanding of Cypro-Minoan. They can, however, do much to harm our reconstruction of Cypriote prehistory, by leading scholarship away from certainty and towards bald speculation masquerading as well-reasoned theory. All is possible in such a realm, even a consequent reinterpretation by FAUCOUNAU 1988, 250, of the Enkomi clay cylinder as a foundation inscription, not, as he originally thought, a proclamation. Moreover, a corrective insert in the personal offprint I received from the author now announces that the three-sign sequence on the second Hala Sultan Tekké inscribed clay ball (ÖBRINK 1979, 46 N 6035), for which no reference is provided, is no longer interpreted by him as a Cappadocian proper name written in the Hurrite CM 2 syllabary, but as a "lukki" proper name written in the Cypro-Semitic CM 1 syllabary. The principles of interpretation being used are so flexible and pay so little attention to the fundamental procedures of archaeological, palaeographical, epigraphical and linguistic research that one can change the meaning, language and script of whole texts as easily as one ignores archaeological contexts, parallels for sign identification, and the details of the physical texts being studied. The assumption that the Cypro-Minoan documents can be broken down into different sub-groups and different languages offers a wide field for epigraphical and linguistic speculation. The complicated cultural history of the island of Cyprus in the Late Bronze Age does little to limit the scope of speculation. What is true of Monsieur Faucounau is equally true of other theorists interested in Cypro-Minoan. Each can devise a not altogether implausible general historical framework which suits his speculations about the evolution of Bronze Age writing on Cyprus and the language(s) represented in the surviving inscriptions.

Existence of a corpus would certainly do much to clarify the conjectural division of the Cypro-Minoan script into subsystems and enable one to view the historical evolution of the script in thorough detail. One should mention here that O. MASSON 1957a, brought together all of the cylinder and signet seals bearing possible Cypro-Minoan signs;[46] and O. MASSON 1957b, assembled a bibliographically thorough index of all the Cypro-Minoan inscriptions then available, together with 29 photographic text figures of some of the more significant pieces, including the unproveniенced bronze plaque used by Casson in establishing his sign repertory (O. MASSON 1957b, fig. 30). These are still extremely important supplements to Daniel's work, even if admittedly no corpus

46 VERMEULE and WOLSKY 1976, 72-75, fig. 3, no. 13, add a Cypriote manufactured lapis lazuli cylinder from Toumba tou Skourou discovered in a securely dated LH III A 2 context. It is clearly incised with a common Cypro-Minoan sign.

(O. MASSON 1957b, 9), as are the long series of individual publications of Cypro-Minoan material by E. Masson listed in the bibliography.

With this background let us now consider some of the problems with current approaches to the decipherment of Cypro-Minoan to which we have already alluded. From the period of the Enkomi clay weight (?) (LC I A = 1575-1525 B.C.) and archaic Cypro-Minoan tablet (LC I B = 1525-1475 B.C.) onward, Cypro-Minoan writing is widespread on the island of Cyprus and eventually is securely attested on tablets at the N. Syrian commercial center of Ugarit. Cypro-Minoan pot-marks have an even wider circulation from Syro-Palestine (COURTOIS 1978, 278-281) to Crete (BENNET forthcoming), now even turning up, it appears, in Late Bronze Age Thessaly, as well as at well-studied Mycenaean sites like Tiryns (GALLIS 1988; OLIVIER 1988, nos. 12-14, figs. 1-2, with references; PALAIMA 1988b, 334 and n. 97). One vision of the traditional scheme of writing on Cyprus and its relation to historical developments on the island is given in figure 9, taken from KNAPP and MARCHANT 1982, 22, chart 1. It should not be accepted as an accurate outline of writing in Cyprus, although the errors which it contains should be attributed to the problems we have so far encountered in Cypro-Minoan scholarship, rather than to any carelessness on the part of its authors.

The traditional scheme posits a single, general, long-lived and widespread system called Cypro-Minoan 1, the characters of which, found on a great variety of materials, maintain fairly linear forms throughout four centuries of use or more. As we have already seen, this style of script is found inscribed on vases, both before and after firing, both domestic and imported, mainly of the 13th-12th centuries. There are some few possibly earlier (14th century) examples of veritable multi-character pottery inscriptions and still earlier isolated pot-marks which do not necessarily constitute formal script or even a reflection of formal script: DIKAIOS 1971, 889 and plate 315, catalogues a single possible LC I A (1575-1525 B.C.) Cypro-Minoan pot mark and seven possible LC I B (1525-1425 B.C.) examples (cf. E. MASSON 1973, 92; ÅSTRÖM 1966, 190-191). This style of script also occurs (figure 1) on clay balls (from Enkomi, Kition and Hala Sultan Tekké, all on the eastern coast of the island), on clay cylinders (from Enkomi, north on the eastern coast; and Kalavassos-Ayios Dhimitrios, in the center of the southeastern coast), cylinder seals (from Kourion in the southwest; Enkomi; Verghi, a bit inland and almost equidistant between Enkomi and Hala Sultan Tekké in the east; Hala Sultan Tekké in the southeast; Sinda, directly west and inland from Enkomi; Ayia Paraskevi, in the north center of the island directly west of Sinda, almost equidistant between the northeastern and northwestern shores; Toumba tou Skourou, in the northwest, and perhaps even Ayia Irini, on the extreme northwestern coast[47]), copper ingots, ivory objects (E. MASSON

[47] PECORELLA 1977, 22, no. 3:17, fig. 32: a cylinder seal with 4 linear signs incised in the field, from tomb 3 at Ayia Irini. VERMEULE and WOLSKY 1976, 72-75, fig. 3, no. 13: an inscribed Cypriote cylinder from an LH III A 2 context. PORADA 1976, 98-99, and E. MASSON 1976b, 130-131, discuss the hematite cylinder seal with five clear Cypro-Minoan signs from Tomb 2 at Hala Sultan Tekké (1400-1200 B.C.).

1985b), hemispheric bronze and silver bowls (one definitely from Enkomi, others likely to be from this site or from Kouklia[48] far in the southwest, one from Ras Shamra-Ugarit), even a jeweler's anvil.

The chronology of non-pottery finds is very difficult to establish, given the early date of acquisition or excavation of many of the inscribed objects, and the relative disinterest of recent researchers on Cypro-Minoan to investigate and report such information, when it is available. Yet contrary to the impression given by the placement of individual pieces on the chart in figure 9, most of the well-dated material comes from 13th to 12th century contexts. The earliest secure piece (figure 12), as we have already stated several times, now seems to be the inscribed clay weight (?) from Enkomi (BAURAIN 1980, 569).[49] The Kalopsidha vase has upon it four separate incised elements (figure 13); but, as is clear from a close reading of O. Massons's analysis (in ÅSTRÖM 1966, 136-137), only one of the elements is a sign in the Cypro-Minoan pot-mark signary, paralleled on tablet RS 17.06 from Ugarit. The other elements are two simple vertical bars, which were used to isolate the actual sign, and part of what appears to have been a simple "x" mark. The Kalopsidha vase, therefore, should not be used as an attestation of Cypro-Minoan script. Moreover, this piece, like so many others, does not have an entirely firm context: "The area where the handle was found was occupied from Middle Cypriote III to some time into Late Cypriote II, but there are some stray sherds from Late Cypriote III and the Iron Age...." Masson assigns it a tentative and general LC II date, i.e., anywhere in the 14th or 13th centuries B.C.

Otherwise several vases from tomb 11 at Katydhata (NW Cyprus) with multi-character inscriptions are also put forward as early (15th century) examples of formal script (HEUBECK 1979, 56; O. MASSON 1957b, 13, nos. 45 and 46, figs. 2 and 3). Here the true multi-character nature of the inscriptions is not in question, but the precise date of these vases is. Published early by Markides, they are plain white ware jugs "from tombs of the Late Bronze Period." (PERSSON 1937, 605). One should not place too much reliance on their general 15th century date, nor on the date of the clear six-character pithos inscription from Arpera (O. MASSON 1957b, 17, no. 174, fig. 7). The texts of these pottery inscriptions, taken from PERSSON's copy of the original Markides drawings, are given in figure 14. A final complicating factor is that E. MASSON 1974, 11-12 and fig. 1, uses the signs on the Enkomi clay weight (?), an Enkomi cylinder seal dated LC I (O. MASSON 1957a, 7-8, no. 1, fig. 1), and one of the Katydhata vases to form, along with characters on Enkomi 1885, her so-called archaic repertory of 30 signs. This is a *contaminatio* in terms of the types and materials of texts and even in terms of their dates, since the individual texts are assigned either firmly or

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48 E. MASSON 1973, 92. Unfortunately several of the inscribed bowls come from early excavations and are unprovenienced. One should not overlook, in this discussion, the importance of the inscribed Cypro-Minoan silver bowl from Ras Shamra: SCHAEFFER 1932, 22, plate XVI (1), and 23, fig. 15; SCHAEFFER 1956, 228 and n. 2.

49 Clear photograph in SCHAEFFER et al., 1968, 266, fig. 3.

debatably to the 16th-15th centuries and the vase inscription could even be later. This contaminated signary should be treated with extreme caution.

The Enkomi clay cylinder (figure 15), measuring 54 mm. across and 40 mm. in diameter and containing 179 signs on 27 lines of text, was dated in the preliminary excavation report as "en gros du XIVe avant notre ère," without any details being given about context pottery or firm stratigraphy except that the immediate substratum contained MC III and LC I pottery (SCHAEFFER et al., 1968, 267-268 and fig. 5). No subsequent publication has improved on this rough date. One wonders then whether it should not be brought down closer to the more recently discovered cache of five such clay cylinders from Kalavassos-Ayios Dhimitrios, seemingly to be dated firmly to LC II C or ca. 1275-1225 B.C. (SOUTH 1983, 98-100; 1984, 21, 23-25). It is important to note here an important palaeographical feature of these cylinders: the miniscule nature of writing on them, signs being about 3-4 mm. high, despite which they retain the style of producing characters with linear forms by drawing the stylus through the clay surfaces.

The signs incised on vases and metal objects also retain a consistent linear style throughout the history of Cypro-Minoan. See, for example, the six- and five-sign inscriptions on pithoi respectively from Arpera and Enkomi (O. MASSON 1957b, figs. 7 and 14) and the fragmentary four-character inscription (figure 16) incised near the base of a deep bowl of buff ware, probably while the clay was hardening and the vase was upside down awaiting attachment of the base (DIKAIOS 1967, 80-84). This last inscribed vase has the advantage of a secure archaeological context which fixes it at a period when Mycenaean III C 1:b pottery was in circulation at the site, i.e., ca. 1230-1190 B.C. Signs on the ca. 68 securely dated clay balls from the Cypriote, French and Swedish excavations at Enkomi, Kition, and Hala Sultan Tekké also have a linear style despite the fact that they come from the latest phases of use of Cypro-Minoan and apparently span a considerable period of time from ca. 1250-1075 B.C. (E. MASSON 1971a, 28, 38 nn. 119-121; DIKAIOS 1971, 881-891, plates 318-319; KARAGEORGHIS 1976a, 238-239, fig. 8; ÖBRINK 1979, 3, 43, 46, 89, fig. 286). The two recently discovered gold rings from Kalavassos–Ayios Dhimitrios bear identical four-sign Cypro-Minoan inscriptions in a linear style. These appear in an upper register above a lower register with presumably decorative, or symbolic, designs. This pair dates from the 14th century (E. MASSON 1987b, 188, 194, fig. 4.1-2; E. MASSON forthcoming). We should note, too, that the twelve-sign Cypro-Minoan inscription on the carved ivory plaque in the figure of the god Bes from Kition, dated 1190-1150 B.C., also has characters in a perfectly linear style The same applies to the ivory pipe and bar from the same area of the site: Temple 4 Room 38C between floors III and III A (KARAGEORGHIS 1976a, 232-233, fig. 3; 1985, 116-117, nos. 4252, 4267, 4250; E. MASSON 1985a, pls. A and B).

In the traditional scheme, the second system, Cypro-Minoan 2, is reserved for four tablet fragments discovered at Enkomi. Their find-spots are known, but of little help for precise dating. Enkomi fragments 53.5 and 20.01 are said to be dated securely to no later than the general period defined by Schaeffer as LC III =

Dikaios's LC II B/II C, i.e., the long period ca. 1350-1200 (SCHAEFFER-FORRER 1978, 88-93). Enkomi fragments 1687 and 1193 are placed stratigraphically by Dikaios in his levels IIIA and end of IIIB respectively. Enkomi 1687 was found among vase fragments strewn as a bedding course for a hearth. That the tablet was deposited there intentionally as part of a foundation ritual is mere conjecture. In fact, Enkomi 1193, much worn on its surface and discovered in a destruction level, was undoubtedly "out of its original context and transferred from an earlier level," probably Level III A (DIKAIOS 1971, 885-887). Since Enkomi 1193 has now been joined to Enkomi 20.01, it is fairly safe to say that all these texts probably date to Dikaios's LC III A 2, i.e., ca. 1220-1190 B.C.

Now we come to our palaeographical crux. It is claimed that, with these four tablets and these tablets alone, the Cypro-Minoan signary on the island of Cyprus becomes cuneiformized. The writing on these four tablets then is thought to constitute a separate class and to represent a different language. Having surveyed the full corpus of Cypro-Minoan inscriptions and having examined the Enkomi texts first via the excellent photographs now in the PASP collection[50] and then by autopsy in the Cyprus Museum in Nicosia, I now find this classification very questionable. A close inspection of Enkomi 1687 (figure 17), the best preserved text, reveals that the characters are not formed much differently than those on CM 1 clay balls or even the CM 1 clay cylinders. What is different about the appearence of the signs has to do with palaeographical factors. On the Enkomi clay cylinder (figure 15), as well as on the smaller cylinders from Kalavassos-Ayios Dhimitrios, the small signs (ca. 4 mm.) have been incised on a drier clay surface. I think that this was necessary since the special curved (slightly convex) surface of these documents required the clay to be of a more permanent, almost fixed consistency before they could be properly formed, handled and inscribed. Thus the multiple elements of the signs tend to have a slightly more drawn aspect. However, the same shorter jab strokes are frequent for multiple horizontal and vertical elements within single signs. This is only natural when drawing miniscule strokes (some less than 3 mm.) with the fairly blunt Cypro-Minoan stylus.[51] The tablet surfaces, and the surface of Enkomi 1687 in particular, were much moister when the signs were inscribed. Thus the blunt and rather wide-pointed stylus (the *punkt*-mark at the end of line 20 of Enkomi 1687 is nearly 3 mm. in diameter) sinks more deeply into the clay when strokes are being made. Many, if not most, of the multiple horizontal and vertical strokes within single signs are no more than 2 mm. in length. One would be hard-pressed even with the much finer Linear B stylus to produce anything but the appearance of having quickly touched the stylus point into the clay surface and then having withdrawn it with a slight pull in one or the other direction. That is all that is required to produce such miniscule signs.

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50 These were acquired through the kind assistance of the director, Olivier Picard, and the careful labors of photothecarian, M. Vitsilogiannis, of the École Française d'Athènes. Funding was provided by the Office of the Dean of the School of Liberal Arts at the University of Texas at Austin.

51 Illustrations of possible styluses in DIKAIOS 1969b, plate 158, 17 (807); plate 169, 1-3; KARAGEORGHIS 1976, 239, fig. 8.

Still there are several vertical strokes of some 4-5 mm. in length that are clearly *drawn* on the tablet surface.

I think that, with the characters on documents now classified CM 2, we are simply dealing with normal CM 1 of the smaller type seen on the clay cylinders.[52] On these four tablet fragments, the CM 1 signs are used in very small sizes in order to record very long texts efficiently and economically in terms of space and the number of documents required. The kind of casement formatting seen on Enkomi 53.5 (figure 18) does indicate that the Cypriote scribes were clever enough to borrow and develop formatting procedures suitable to their texts. Here the inspiration may indeed have come from cuneiform scribal practices.[53] There are good illustrations of such ruled columnar and casement formatting on Hittite-Luvian and Ugaritic cuneiform texts in WALKER 1987, 43, 45, figs. 23-24; and SCHAEFFER-FORRER 1978b, plate XLVI (RS 34.166). However, the characters of the script on these four Cypro-Minoan inscriptions are firmly within the Cypriote tradition, as they are when written even on media like cylinder seals where, if anywhere, the Near Eastern practice of inscribing very full cuneiform texts along with the scenes and designs on seals should have influenced the style of Cypro-Minoan characters. On the seals they remain immune to "cuneiformization," as do the signs on the CM 3 tablets discovered together with actual cuneiform documents at Ugarit. Because of the contexts of these CM 3 inscriptions, one would assume that the forms of signs on these tablets would come most directly under cuneiform influence. Yet they do not show any trace of Near Eastern influence (see below).

I believe that the signs on the texts now classed CM 2 likewise are not "cuneiformized." I therefore consider it a very dangerous procedure to study the four Enkomi tablets dated ca. 1200 B.C. as if they were a separate script and language. 39 of the 59 signs appearing on these 4 texts are clearly paralleled in documents now classed CM 1. Of the remaining 20 at least half could be considered, with little imagination, slightly altered variants of CM 1 signs. Given the differences in materials and methods of inscription and the greater chronological span for CM 1 as opposed to the intense chronological and geographical concentration of our four "CM 2" tablets, it is much safer procedure to consider their repertory of signs a local and temporal version of the standard CM 1 signary. I shall be bold enough to suggest that Daniel, with his habit of, and insistence on, paying careful attention to physical and epigraphical factors that

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52 There is no compelling reason to see "cuneiformization" in the Kalavassos-Ayios Dhimitrios characters simply because they are made with small, fine and careful strokes (*pace* E. MASSON 1986, 181; 1987, 189).

53 For mistaken arguments about the supposedly non-Aegean shapes and rotation of the CM 2 tablets, see supra p. 139 n. 33. The physical description of the four CM 2 pieces and of the estimated sizes of the full tablets from which they come (E. MASSON 1976, 51) could actually be used to describe Mycenaean page-shaped tablets. In fact the flatness of the recto surface and the slight convexity of the verso is a hallmark of the Linear B page-shaped texts. Nonetheless KNAPP and MARCHANT 1982, 16, repeat that these fragments have a cuneiform "shape and ductus."

produce palaeographical variations, would have found favor with my sounding this note of caution.

Still one could point to the restricted number of characters (59) in the CM 2 repertory as an indication that it indeed constituted a distinct script system, in contrast to the 85-sign CM 1 system and the 44-sign CM 3 system. This, too, I think is dangerously misleading. We have seen (supra p. 124) that CM 1 is based on 713 signs of formal script (6 clay cylinders, 83 legible clay balls) supplemented by signs found on all the other kinds of objects surveyed at the outset. Thus CM 1's repertory has a much wider basis in terms of chronology, textual diversity, and sheer numbers of texts. We should recall the observation that only 46 signs were documented on the 26 clay balls in E. MASSON 1971a, while ca. 24 additional characters were supplied by the clay balls in E. MASSON 1971c. Thus does increasing merely the number of inscriptions increase the lexical and morphological diversity of their texts which in turn brings into play more of the characters of the writing system. Also the number of signs in the CM 1 repertory may be inflated by the inclusion of pot marks that should not be confused with characters of formal script. There may also be changes in the sign repertory because of development through time, since the formal CM 1 texts range at least from the mid-13th to the early 11th centuries B.C., and the Kalavassos-Ayios Dhimitrios rings seem to push formal CM 1 back into the 14th century. In Linear A, as we have mentioned (supra p. 138), the forms of individual signs show considerable variation corresponding to differences in the dates, media, scribes and find-spots of the texts. Only because of the larger number of documented occurrences, have we been able to identify quite different styles of actual characters as variants of the same sign in the official Linear A repertory.

Although on the CM 2 tablets we have some 1310 signs, there are, because of the joining of Enkomi 1193 and 20.01, only 3 separate and lengthy texts. These are obviously much different in nature and purpose than the clay balls and cylinders of CM 1. Enkomi 53.5 contains many repeated word units. E. MASSON 1976, 59, 67, 69, has demonstrated that each of the eleven legible casements on side a (figure 18) of this tablet ended with the same three lexical units in one of two sequences, and one can observe other repetitions on side b (figure 10). Such repetition, as well as the dating of these tablets to a restricted chronological period, certainly sets limits on the number of sign forms attested. One should note, as a cautionary parallel, that, despite the preservation of 28,500 signs on 1112 diverse tablets, five of the rarer characters of the standard Linear B signary (*18, *22, *47, *49, *87) are still not attested at Pylos.[54] These were undoubtedly peculiar to the Knossian-Cretan version of the syllabary and used mainly in Cretan anthroponyms and toponyms. Finally several of the signs in the CM 1 repertory appear to be slight variants of one another (HILLER 1985, 62-65: E. Masson nos. 12-14, 72-73, 81-84, 87-88). Yet another complication is E. Masson's recent hypothesis (E. MASSON 1985b, 151-154) that Cypro-Minoan employed small strokes ("épines") added to standard signs as diacritical marks. If

54 Statistics on numbers of signs in OLIVIER 1984, 13.

true, this would again greatly complicate the process of identifying the standard characters of the script. Thus the difference in the numbers of characters in these artificially devised repertories might be much less than it seems at first sight.

More remarkable and problematical still in this regard is the assignment of tablets from the site of Ras Shamra (Ugarit) on the Syrian coast to a third class of Cypro-Minoan script, CM 3. The main motive for this classification seems to have been geographical. Assigned to CM 3 are two of the four Cypro-Minoan tablets or tablet fragments from Ugarit, a cylinder seal from the site of Latakia 10 km. south of Ugarit, a pithos rim from Ugarit (COURTOIS 1978, 280-282, fig. 29.1 and .4; E. MASSON 1986, 180), and perhaps the silver bowl inscription from Ugarit, which we have already mentioned above (SCHAEFFER 1932, 23 fig. 15, pl. XVI). Yet the distinctions between this supposed system and CM 1 or 2 are not easy to discern. Consequently HILLER 1985, 72-74, and KNAPP and MARCHANT 1982, 22, mistakenly assign all four Ugaritic tablets to CM 3. Yet E. MASSON 1974, 23, and O. MASSON 1956, 247-250, especially 250, make clear that the inscriptions on the two smallest fragments (RS 19.01 and 19.02: figure 19) match up with the CM 1 signary.

The four signs of the inscription on the Latakia seal (figure 20), dated stylistically to ca. 1400 B.C., each can be matched with signs appearing on clay balls, or, in one case, a cylinder seal from Enkomi (BUCHANAN and MASSON 1968, 415). E. MASSON 1974, 24, stresses the slight singularity of the first character in assigning the seal inscription to CM 3. But a comparison of the particular sign (E. Masson no. 71) with similar signs in CM 1 (E. Masson nos. 69 and 70) makes this attribution suspect, especially given: (a) that Masson herself notes definite correspondences between the three other signs on the seal and those in CM 1 and 2; and (b) that all other inscribed cylinder seals are classified as CM 1 (or "archaic" if the assignment of the early Enkomi cylinder seal to this separate formative phase of script is justified on any other grounds than chronological). The unique aspect of the Latakia sign is the addition of vertical ticks to either side of the full central symbol. This may well be an embellishment or slight alteration of the standard CM 1 sign, rather than an entirely new character of a separate sign repertory. There are parallels for such embellishments in Linear A and B palaeography. In those systems, so far as we can tell, the embellished phonetic signs retain their identities and standard values.

The same case can be made for the silver bowl from Ugarit (figure 20a). The other metal bowl inscriptions from Enkomi are considered CM 1 (O. MASSON 1968). A numerical entry in the inscription on Enkomi bowl 16.63 (figure 21) in particular links up with RS 19.01 in CM 1 (PALAIMA forthcoming). On the bowl from Ugarit, the rightmost sign has a form very typical of CM 1 (E. Masson no. 102); the leftmost sign is a rigid linear variant of a CM 1 counterpart (E. Masson no. 91). One may therefore suggest that the central sign is a more elaborate, even calligraphic version of the simplified CM 1 sign E. Masson no. 2. In Minoan and Mycenaean palaeography, the shapes of signs inscribed on objects other than accounting documents, e.g., libation tables, painted inscribed stirrup

jars, metal pins and other metallic artifacts, tend to deviate from forms found on clay administrative documents and to be closer to what we imagine were the original archetypes of the signs. This might have to do with the experience or inexperience of the artisan-inscriber. It certainly is affected by his desire to produce a text which contributes to the aesthetic impression of the object being inscribed. Signs on such artifacts give us our best clues as to what the careful "pattern book" shapes of the much simplified signs on tablets would be (PALAIMA 1988b, 307-310 and n. 44). In any event, it does not seem to me to be sound procedure to separate the cylinder seal and the silver bowl from other items in their classes solely or primarily on the basis that they were discovered not on Cyprus, but in northern Syria. Palaeography does not support such a radical step, nor does the distribution of the great majority of similar objects at sites on the island of Cyprus. These two pieces are, after all, very portable items. It is a more economical hypothesis to group them with their CM 1 counterparts.

This leaves the two tablets RS 17.06 (figure 22) and 20.25 (figure 23). As mentioned above, the shapes of the mere 219 characters on these two texts are not significantly different from those attested in CM 1. Of the forty-four signs in the signary devised for CM 3 by E. MASSON 1974, 24-46, figs. 14 and 18, ten are potentially unattested in CM 1. One of these (no. 51) is paralleled in CM 2. One (no. 20) is a reversed version of a CM 1 sign (no. 19). One (no. 105) occurs but a single time on each of the CM 3 tablets. It could be a palaeographical variant of the more frequent sign no. 104, which has a CM 1 equivalent. Nos. 71 and 3 occur on the Latakia cylinder seal and the Ugaritic silver bowl, and each can be interpreted as a variant of a standard CM 1 sign. No. 40 has been equated with CM 1 no. 32. No. 22 (occurring twice on RS 20.25) and no. 100 (occurring twelve times on the two CM 3 texts) closely resemble CM 1 nos. 21 and 99, which have so far been assigned no CM 3 counterparts. They are therefore likely to be equivalent. No. 94 (occurring twice on RS 17.06) has no obvious CM 1 parallel, while no. 58 (occurring three times on RS 20.25) contrasts directly with the CM 3 version of its closest possible CM 1 counterpart (no. 57) on the verso of RS 20.25. Thus we can say with tolerable certainty that only these last two signs from the forty-four sign CM 3 repertory are not so far paralleled in formal Cypro-Minoan texts from Cyprus. Given the limited documentation for these systems, this is a remarkably high percentage of matchable signs.

What can be said about the tablets themselves? RS 17.06 was found in a library composed of a large number of texts in Akkadian syllabic cuneiform and in the special Ugaritic alphabetic cuneiform (SCHAEFFER 1956, 228-229). The date of the collection of tablets is 13th century B.C., either second quarter or second half (SCHAEFFER 1956, 229; O. MASSON 1956b, 246). On the basis of differences between the twenty-five distinctive signs detected on RS 17.06 and the fifty-seven distinctive signs then distinguishable on Enkomi 1687 (DIKAIOS 1953, 236, fig. 3), O. MASSON 1956b, 239-240, 245, proposed that RS 17.06 represented a new unedited syllabary, albeit one squarely in the Cypro-Minoan tradition. He correctly emphasized the Near Eastern aspect of the tablet itself: in the convexity

of both its recto and verso surfaces and in its small (40 mm. x 43 mm.), square shape, RS 17.06 resembles small Akkadian tablets from Ras Shamra.

E. MASSON 1974, 29-30, also places RS 20.25, discovered in another archives at Ugarit, physically in the Near Eastern tradition. Its shape and size (68 mm. x 58 mm. x 17 mm.) reminds her of oblong-formatted Ugaritic tablets. There are certain features of text formatting of RS 20.25 that are not attested in the formal CM 1 and CM 2 tablets: running the text over onto the edges, layout in simple linear "page" style, continuous ruling on RS 17.06, and the use of a special separator or terminator mark (a sinuous stroke surmounting a point) on RS 20.25. Again, however, we should recall the limited data with which we are working: a mere eight tablets or fragments of independent tablets total for all three systems. The fragment RS 19.02, which is associated with CM 1, has the same physical aspects and size as RS 20.25; its text also spills over onto the edges; its text has a linear "page" layout. Moreover, its excavator even thought the clay of the tablet exotic for Ugarit (E. MASSON 1974, 20). The archaic Enkomi tablet has rule lines, "page" layout, and two signs purposefully inscribed on its edge. The fact that the larger CM 2 tablets are divided into ruled left and right halves and even further into casements is undoubtedly a product of the peculiar texts they contain. Recall that each casement ended with the same three sign-groups in two different sequences. Even the special separator or terminator may be employed because of special textual requirements. E. MASSON 1974, 28, 38, has proposed that RS 17.06 is a letter, while RS 20.25 is a list of names in a set formula with patronymics. The CM 2 tablet Enkomi 53.5 on the other hand was considered most likely to be a hymn or medical text (E. MASSON 1978, 66-73). Such hypotheses, while still unprovable, are based on Masson's careful analyses of word and sign repetitions, on obvious differences in textual layout, and on analogies with Near Eastern texts. It is useful to remind ourselves again of formatting variations within the Linear A and B texts: some of smaller the Linear A tablets have a "page" layout, run-over of text onto their edges, and even ruling into lines or merely sections. It is very hazardous procedure to let the formatting of a mere eight tablets which were presumably inscribed with very different texts and for very different purposes be a main determining factor in distinguishing subsystems of an entire script.

My conclusions about the problems with the decipherment of Cypro-Minoan then are mainly cautionary. There is a good chance that the prevailing division of the script into four sub-systems (archaic, CM 1, CM 2 and CM 3) is invalid. Since we are dealing with so limited a corpus of formal and informal inscriptions, inscribed, as far as we can tell, for widely varying purposes over a span of some five centuries and distributed over a large number of sites on Cyprus and in N. Syria, we must be scrupulously cautious about the principles used to establish any sub-divisions. We have seen chronological clustering used to attribute a number of early texts to archaic Cypro-Minoan without considering the heterogeneity of the objects inscribed. We have seen general geographical location of find-spots used to group a cylinder seal, a metallic bowl and two tablets as CM 3. This meant divorcing the first two pieces from similar inscriptions in their respective classes

which are clearly CM 1. Yet two other tablets from the same site are divorced from this geographical grouping, despite the clear similarities which one has in size, shape, formatting and manner of inscription. Style of inscription (ductus) and textual formatting have been used in treating texts of, and assigning texts to, every sub-system, in this case without considering the real validity of such features as means of achieving classification. In some cases erroneous assumptions were made about the existence or non-existence of these same features in Aegean, as opposed to Near Eastern, documents. Differences in the very contents of the formal inscriptions have been noted, but only in proposing possible interpretations of the inscriptions. Instead we should consider how the varying contents of our texts influenced the physical types and formats of our inscriptions or produced the restricted repertories of signs that have now been devised.

In order to make progress with Cypro-Minoan I suggest that we must carefully reassess the current classification schemes by focusing on (1) the signs themselves; (2) the epigraphical features, including differences in the materials and purposes of the inscribed objects, that affected their forms; and (3) the evolution and development of individual signs and the entire sign repertory through time and at different locations. This means that we must analyze the evidence from each class of inscriptions separately and systematically: pottery (incised and painted), cylinder seals, clay balls, clay cylinders, clay tablets, gold rings, etc. We must lay the palaeographical data out chronologically and geographically and discuss any information about the find contexts or original sources of the inscriptions that may have a bearing on palaeographical details. We should try to do this without any contaminating preconceptions about the life of the Cypro-Minoan script–I use the singular here intentionally and with conviction–from the time of its introduction into Cyprus under clear Minoan influence in the 16th century B.C.

The most remarkable feature about Cypro-Minoan, which is often lost in efforts to cuneiformize it or to rend it from its obvious Aegean roots, is how singular and distinctive it remains despite the many pressures and influences to which it must have been subjected until it finally transformed itself, as early as the 11th century B.C., into another equally distinctive and tenaciously independent script, the Cypriote Syllabary, which likewise resisted the influence of foreign scripts (cuneiform and the Greek and Semitic alphabets) from the 8th to the 3rd centuries B.C. In another context (PALAIMA forthcoming) I declared that it is a mystery why the inhabitants of Cyprus adopted an Aegean script, despite strong Near Eastern ties. It now seems clear to me that one reason for this choice is the intimidating linguistic and structural complexity of the cuneiform scripts at the period when Cypro-Minoan was developed. These systems required one to acquire a knowledge of (a) Sumerian and Akkadian; (b) some 300 signs with multiple syllabic values; and (c) specialized ideographic and determinative signs and conventions (DRIVER 1976, 65-68, 235-236; WALKER 1987, 33-34). The advanced and streamlined Ugaritic system of 31 signs (and a word-divider) is not attested until the 14th century (WALKER 1987, 44-46). Thus at the time when Cypro-Minoan was first formed, the Aegean script, Minoan Linear A, was the

only script which provided a relatively easy and workable model. It has an open syllabary of some 90-110 signs. Each sign has a clearly established set of values. The orthographical conventions are relatively straightforward and seem to be determined by principles similar to fundamental properties specific to any given language (WOODARD 1989, has made a strong case for the "hierarchies of sonority and consonant strength"). Consequently the entire system can be applied efficiently to a new language (e.g., as was done with Mycenaean Greek) without requiring that one learn another language or languages in order to practice the art of writing. Such advantages would not have been forsaken lightly. Thus the Cypriote script preserved its independence: the Cypro-Minoan signs on 13th-12th century texts from Enkomi and Ugarit are not cuneiform or "cuneiformized" and they are not Mycenaean or "Mycenaeanized." They remain wholly Cypriote both in a decidedly Near Eastern environment and in a Cypriote community which experienced strong Mycenaeanization. The same is true for Cypro-Minoan pottery marks, whether they occur in Crete, mainland Greece, Cyprus or the Levant.

We need a unified and standardized corpus of Cypro-Minoan inscriptions that will allow us to see the whole script and its various classes of inscriptions–not sub-systems of the script itself–in a clear historical context. Until this is done, we shall continue to be plagued by piecemeal readings, guesses, and speculation. The groundwork has been laid by the careful work of dedicated scholars extending backward from E. Masson, O. Masson and V. Karageorghis to Dikaios and Ventris to Daniel and Casson to Schaeffer, to Markides and to Sir Arthur Evans. The 2500 signs now attested deserve to be drawn together and examined carefully as a whole. The fullness and variety of Cypro-Minoan inscriptions is encouraging. The lexical clues detected by E. Masson are encouraging. The continual new discoveries of inscribed materials in well-conducted excavations are encouraging. We must do for Cypro-Minoan what has been done for the other two Aegean linear scripts.

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Program in Aegean Scripts and Prehistory
University of Texas at Austin
Austin, Texas 78712-1181 USA

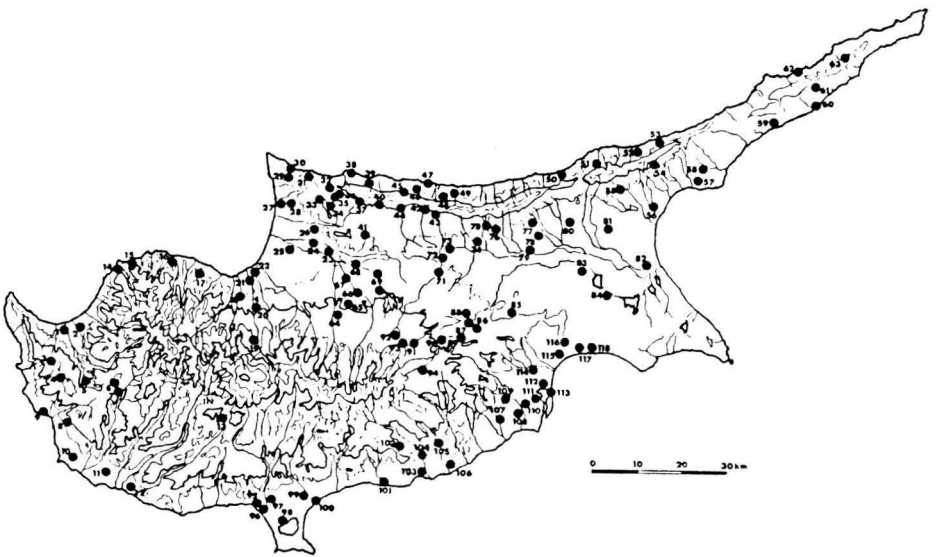

figure 1 Map of Cyprus with Late Cypriote Centers
(after BAURAIN 1984, 72, map 7)

Arpera	108
Athienou	85
Ayia Irini	28
Ayia Paraskevi	near 72
Enkomi	82
Hala Sultan Tekké	111
Kalavassos	104
Kalopsidha	84
Katydhata	20
Kouklia-Palaepaphos	12
Kourion	96
Larnaka (Kition)	113
Limassol	100
Maroni	106
Morphou-Toumba tou Skourou	25
Nicosia	72
Pakhyammos	15
Sinda	83
Verghi	115

12	Kouklia-Palaepaphos
15	Pakhyammos
20	Katydhata
25	Morphou-Toumba tou Skourou
28	Ayia Irini
72	Nicosia
near 72	Ayia Paraskevi
82	Enkomi
83	Sinda
84	Kalopsidha
85	Athienou
96	Kourion
100	Limassol
104	Kalavassos
106	Maroni
108	Arpera
111	Hala Sultan Tekké
113	Larnaka (Kition)
115	Verghi

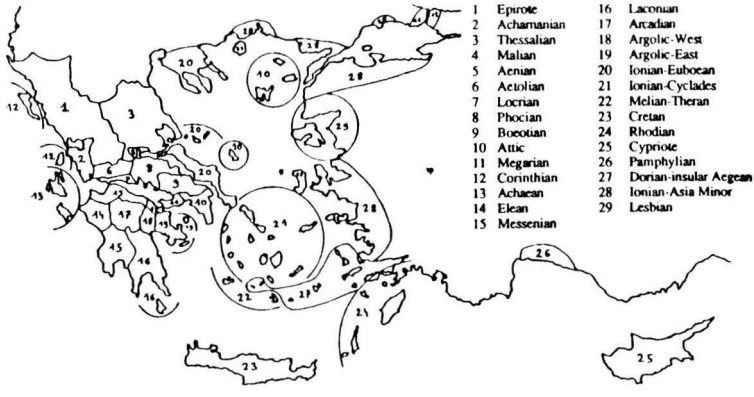

figure 2 Dialect Map of Greece in 5th Century B.C.
(after DUHOUX 1983, 8, fig. 1)

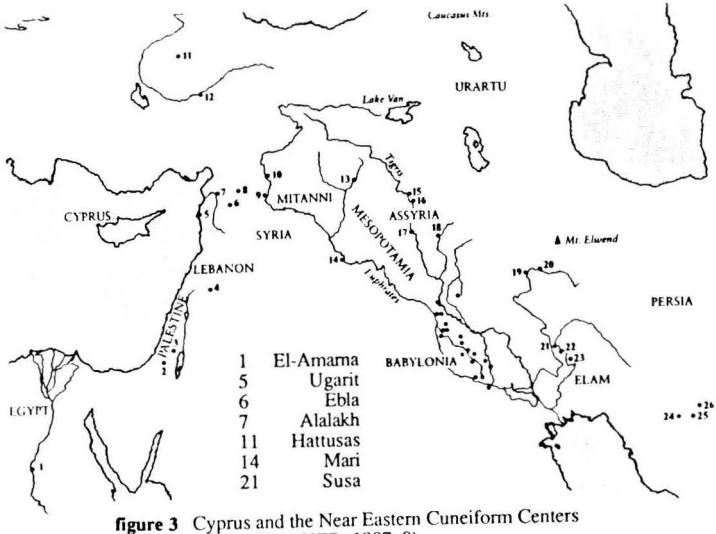

figure 3 Cyprus and the Near Eastern Cuneiform Centers
(after WALKER 1987, 8)

	Crete	Cyclades	mainland	Cyprus	Enkomi	Ugarit
19th c.	b. hieroglyphic/ proto-Linear A					
18th c.	b. Linear A					
17th c.		b. Linear A				
16th c.				——archaic CM/CM 1——		
15th c.	e. hier./ Linear A	e. Linear A	b. Linear B ?	——CM 1——		CM 1?
14th-13th c.	Linear B		Linear B	CM 1	CM 2	CM 3
11th?-3rd c.				Cypriote syllabary		

Figure 4. Schematic chart of chronology and relations among Aegean and Cypriote scripts. (b.=begin / e.=end)

figure 5 Enkomi no. 1885 archaic Cypro-Minoan
(after JANKO 1987, 317, fig. 1)

TABLEAU DES SIGNES STANDARDISÉS DU LINÉAIRE A

AB 01	AB 21	AB 31	AB 54	AB 76	AB 123
AB 02	AB 21^{f}	AB 34	AB 55	AB 77	AB 131a
AB 03	AB 21^{m}	AB 37	AB 56	AB 78	AB 131b
AB 04	AB 22	AB 38	AB 57	AB 79	A 131c
AB 05	AB 22^{f}	AB 39	AB 58	AB 80	AB 164
AB 06	AB 22^{m}	AB 40	AB 59	AB 81	AB 171
AB 07	AB 23	AB 41	AB 60	AB 82	AB 180
AB 08	AB 23^{m}	AB 44	AB 61	AB 85	AB 188
AB 09	AB 24	AB 45	AB 65	AB 86	AB 191
AB 10	AB 26	AB 46	AB 66	AB 87	A 301
AB 11	AB 27	AB 47	AB 67	A 100/102	A 302
AB 13	AB 28	AB 49	AB 69	AB 118	A 303
AB 16	A 28b	AB 50	AB 70	AB 120	A 304
AB 17	AB 29	AB 51	AB 73	A 120b	A 305
AB 20	AB 30	AB 53	AB 74	AB 122	A 306

figure 6 Linear A phonograms
(after *GORILA 5*, xxii)

figure 7 Clay Balls nos. 1, 2 and 4 from Enkomi
(after E. MASSON 1971a, 11-12, figs. 1, 2, 4)

figure 8 Gold Ring from Hala Sultan Tekké
(after O. MASSON 1957a, 21, fig. 15)

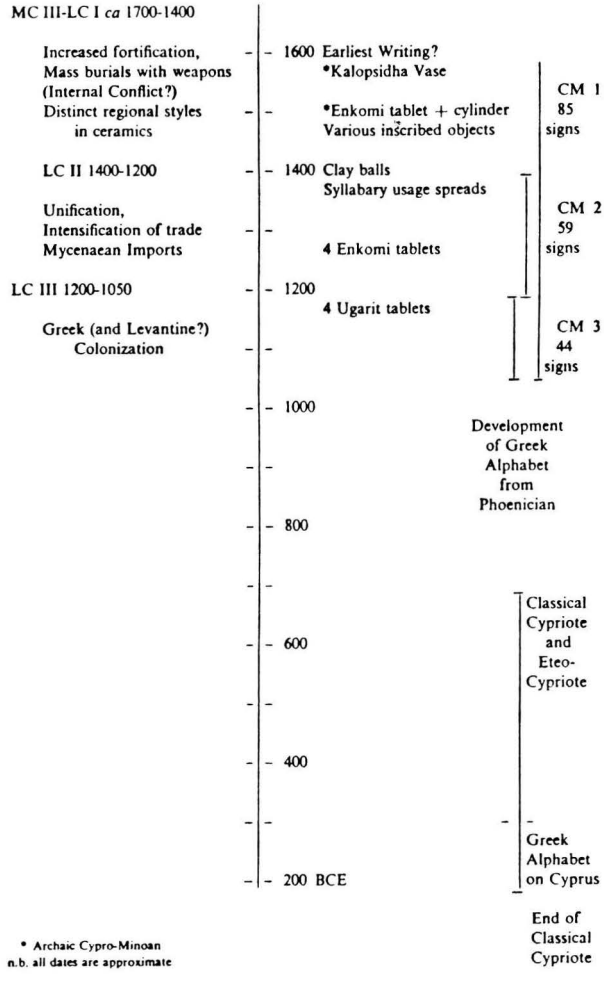

figure 9 Standard (Erroneous) Chronology of Cypro-Minoan Script (after KNAPP-MARCHANT 1982, 22, chart 1)

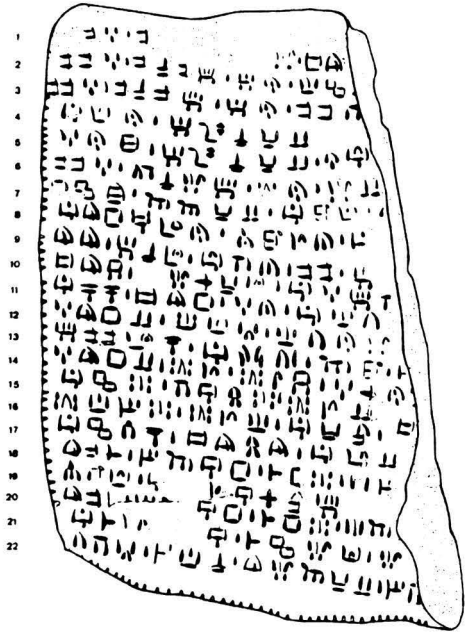

figure 10 Enkomi 53.5 side b: Cypro-Minoan 2 Tablet
(after HILLER 1985, 69-70, fig. 7)

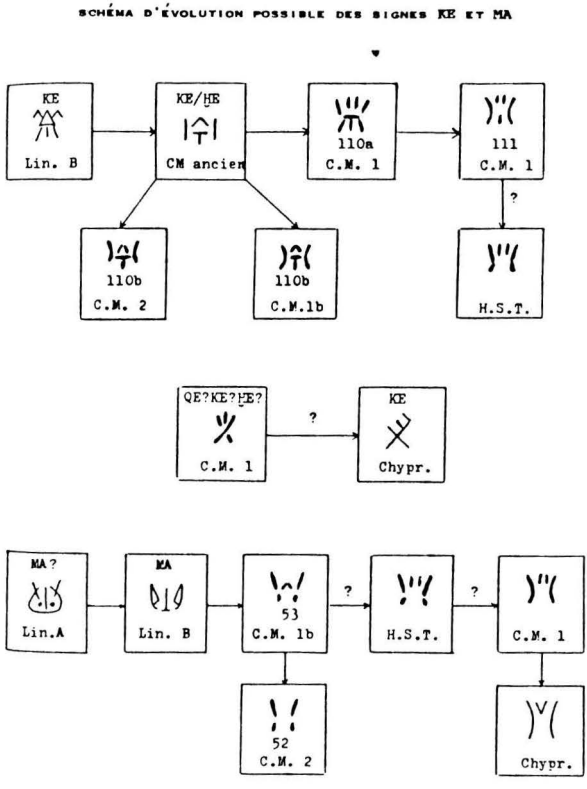

figure 11 Flawed Palaeographical Development Schemes
(after FAUCOUNAU 1988, 243, fig. 2)

figure 12 Inscribed Clay Weight from Enkomi LC I A (1575-1525 B.C.)
(after BAURAIN 1984, 155, fig. 22)

figure 13 Kalopsidha Vase Inscription
(after ÅSTRÖM 1966, plate 44 fig. 133)

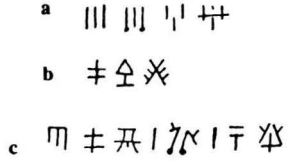

figure 14 Vase Inscriptions from Katydhata (a, b) and Arpera (c)
(after PERSSON 1937, 606, figs. 2b, 3, 9)

figure 15 Enkomi Inscribed Clay Cylinder
(after Hiller 1985, 67, fig. 4)

figure 16 Inscription on Deep Bowl from Enkomi ca. 1230-1190 B.C.
(after DIKAIOS 1967, plate VI a; 1971, plate 319, fig. 130)

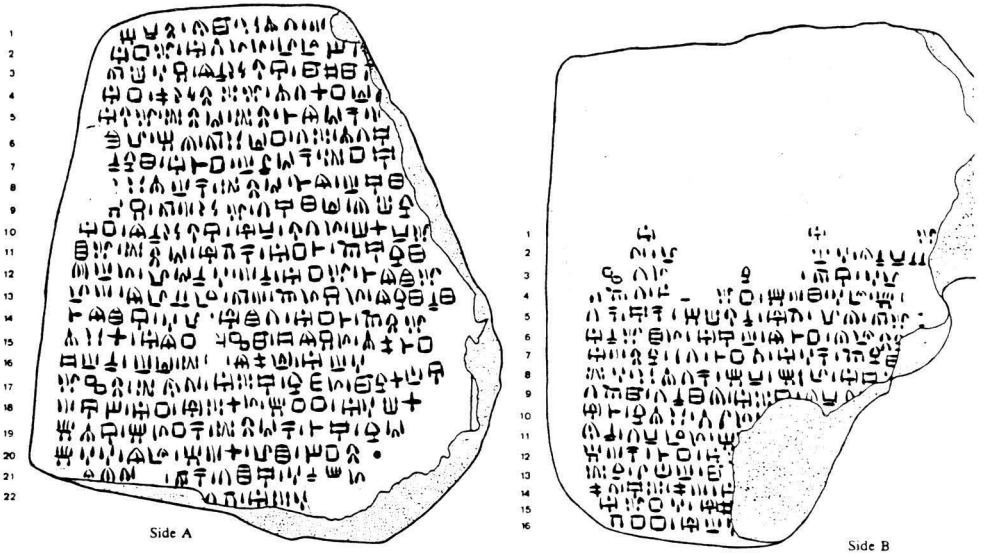

figure 17 Enkomi 1687: Cypro-Minoan 2 Tablet
(after DIKAIOS 1971, plate 318, figs. 3-4)

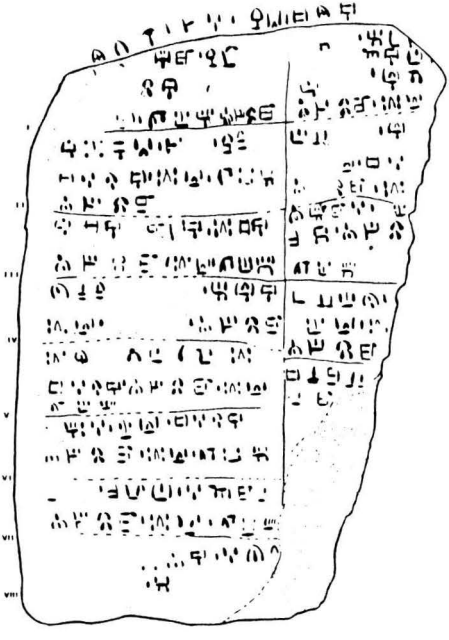

fig. 18 Enkomi 53.5 side a: Cypro-Minoan 2 Tablet
(after HILLER 1985, 69, fig. 7)

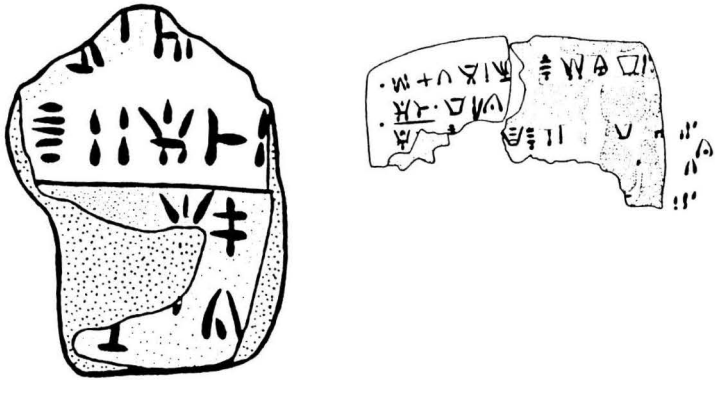

figure 19 RS 19.01 and 19.02: Cypro-Minoan 1 tablets from Ugarit
(after E. MASSON 1974, 21-23, figs. 7 and 9)

figure 20 Inscription on Cylinder Seal from Latakia (Newell Coll. 358)
(after E. MASSON 1974, 24, fig. 10)

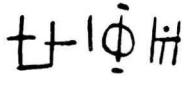

figure 20a Inscription on silver bowl from Ugarit
(after *Syria* 13 [1932] 23 fig. 15)

figure 21 Inscription on silver bowl from Enkomi 16.63
(drawing by Nicolle Hirschfeld)

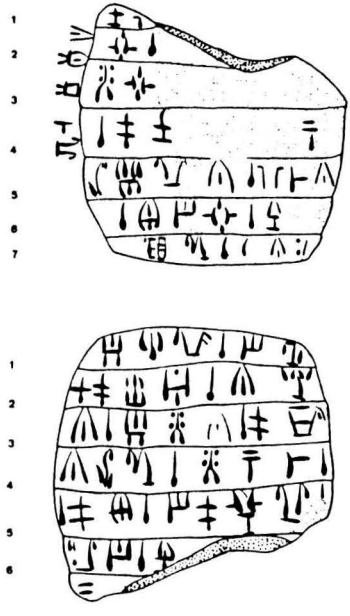

figure 22 RS 17.06: Cypro-Minoan 3 Tablet from Ugarit
(after HILLER 1985, 73, fig. 11)

figure 23 RS 20.25: Cypro-Minoan 3 Tablet from Ugarit
(after Hiller 1985, 74, fig. 12)