

## INDICATIONS OF LITERACY IN BRONZE AGE THERA

### *Introduction*

‘As the wide distribution of wall-paintings in the buildings of Akrotiri indicates, art in Thera was accessible to a broad, undoubtedly prosperous section of society.’<sup>1</sup>

This sentence establishes the context for the question addressed in this article: how accessible was the art of writing to the people of this society?

Owens has recently referred to examples of writing from Thera,<sup>2</sup> and to the find of tablets which have the unusual fortune of having been preserved unfired.<sup>3</sup> Before this, four examples of Linear A on vases from Thera (THE Zb 1-4) had been published in the corpus of Godart and Olivier.<sup>4</sup> For a more general treatment of the dissemination of Linear A in the Cyclades, see Palaima’s article «Linear A in the Cyclades: The Trade and Travel of a Script».<sup>5</sup> In the case of Thera, Palaima describes the two stone slabs which Marinatos considered to be slate writing tablets,<sup>6</sup> as ‘very misleading’, the only comparandum being a stone tablet of dubious authenticity handed in at Palaikastro along with a bronze engraver (stylus?).<sup>7</sup> In the case of inscriptions incised on pots, he cites two. For the first, which consists of four signs (AB 08-27-31-06) on the shoulder of a jug (PLATE IA),<sup>8</sup> he has reservations about the name of A-RE-SA-NA proposed by Marinatos, and he notes the existence in the palace at Knossos of earlier (late MM III period) Melian vases of the same type as the jug, with incised signs.<sup>9</sup> He makes no comment on the second inscription, which consists of three (?) signs on a rim fragment from a pithos (PLATE IB).<sup>10</sup> Palaima comes to the interesting conclusion that ‘The Cycladic finds of Linear A point to an active use of the script definitely for commercial reasons and perhaps for administrative

<sup>1</sup> Doumas 1983, p. 29.

<sup>2</sup> Owens 1997 and Owens-Bennet 1999.

<sup>3</sup> The first, oral, presentation of the tablets was made by Ch. Boulotis at the two-day conference held to celebrate 30 years of excavation at Akrotiri in the Greek Archaeological Society, Athens, from 19-20 December 1997. There are also comments in Boulotis 1998. For the first photographs, see *PAE* 1993, Pl. 113.

<sup>4</sup> *GORILA* 4, pp. 101-105.

<sup>5</sup> Palaima 1982.

<sup>6</sup> *Thera* II, 47, Pl. 37,2 and *Thera* V, 22, Pl. 36a (Palaima 1982, p. 16).

<sup>7</sup> Palaima 1982, p. 20 note 15.

<sup>8</sup> *Thera* IV, 43-45. pl. 109a, b, *AAA* 4, 1971, p. 72, fig. 22, *GORILA* 4, 102 (THE Zb 2).

<sup>9</sup> Palaima 1982, p. 18.

<sup>10</sup> See Evans 1921, pp. 637-638, note 2, *GORILA* 4, p. 101 (THE Zb 1) and XXXIV-V.

purposes...it is very possible that the mainland Greeks acquired the knowledge and need for writing throughout the Greek islands.’<sup>11</sup>

The earliest article on the question of the diffusion of knowledge of writing in the Minoan period is possibly that by Dow, who linked literacy with numeracy and noted the different stages typical of its evolution.<sup>12</sup> Evans himself, discussing the likelihood that Linear A was disseminated through religious texts, adds the comment: ‘But the occurrence of so many vessels belonging to ordinary household stores with graffito inscriptions certainly points to there having been already before the close of MM III, a considerable diffusion of knowledge of writing amongst men in a comparatively humble way of life, as well as amongst professional scribes. The incised gypsum slab from the Kassela suggests a picture of a stone-cutter practising the art of epigraphy in his leisure moments. Nothing perhaps gives a more vivid idea of the general acquaintance with the art of writing than the fact that in the little palace of Hagia Triada several graffito inscriptions were found scratched on the painted stucco faces of the walls.’<sup>13</sup> The most recent contribution to the debate is possibly that by Driessen and Schoep: ‘Literacy in the Aegean lands appears to have been rather limited because it was first of all a craft literacy. An administrator wrote in the framework of his functions and responsibilities. This, however, also implies that a single tablet shows an administrator at work. Weingarten’s remark then, that the presence of a single tablet fragment does only prove some degree of literacy and not an active bureaucracy is not justified therefore.’<sup>14</sup>

The following various views seem to emerge from the above: that the diffusion of Linear A is to be sought in the functioning of a priesthood, though its parallel use for commercial purposes within the framework of the bureaucratic system that encouraged its development, should not be precluded; that the positing of bureaucratic activity on the basis of a single tablet has been called into question; that alongside a professional class, it is not impossible that writing was occasionally practised by others, for instance by manufacturers of inscribed artefacts. I shall not discuss the use of writing in connection with metrology,<sup>15</sup> but would like to place emphasis on the second dimension of the question: we are seeking to identify not only the persons who knew how to write, but also those who would understand the result of the writing. Ordinary people presumably did not come into contact with the typical ‘document’ of a tablet, but what was the significance for the occupant of a house of an inscribed vase in his storeroom? Thus, at one extreme, the question is the scribe —was he always a professional or not? At the other, it is the person who read, or at least perceived the role of the inscription. Even if we agree that the tablets remained hidden away in archives or

<sup>11</sup> Palaima 1982, p. 18.

<sup>12</sup> Dow 1954. But see the critique in *Docs.*, pp. 117f. Also Dow 1973.

<sup>13</sup> Evans 1921, p. 636.

<sup>14</sup> Driessen - Schoep 1995, pp. 659-660.

<sup>15</sup> See Michailidou, «Script and Metrology», *passim*.



A. Jug Inv. no. 1372 with THE Zb 2



B. Sherd from Potamos with THE Zb 1



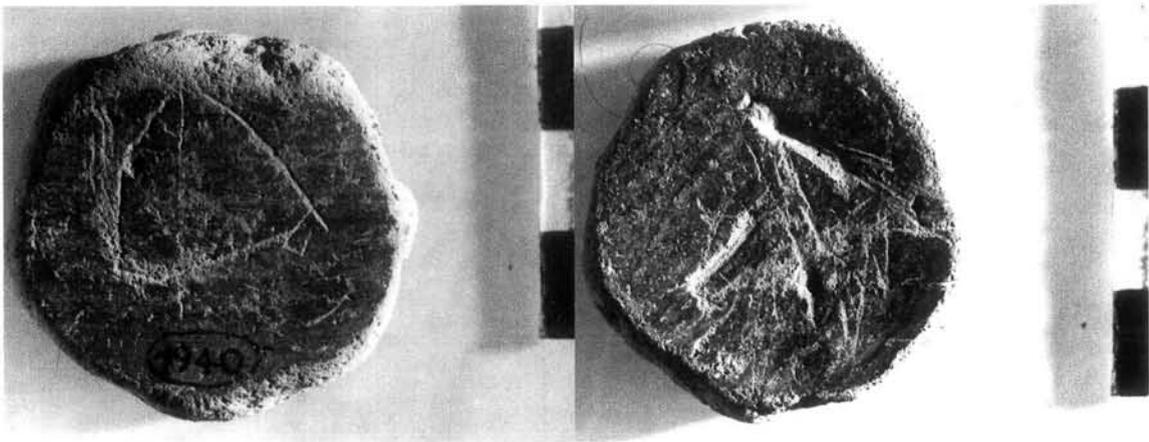
A. Amphora Inv. no. 1264 with THE Zb 3



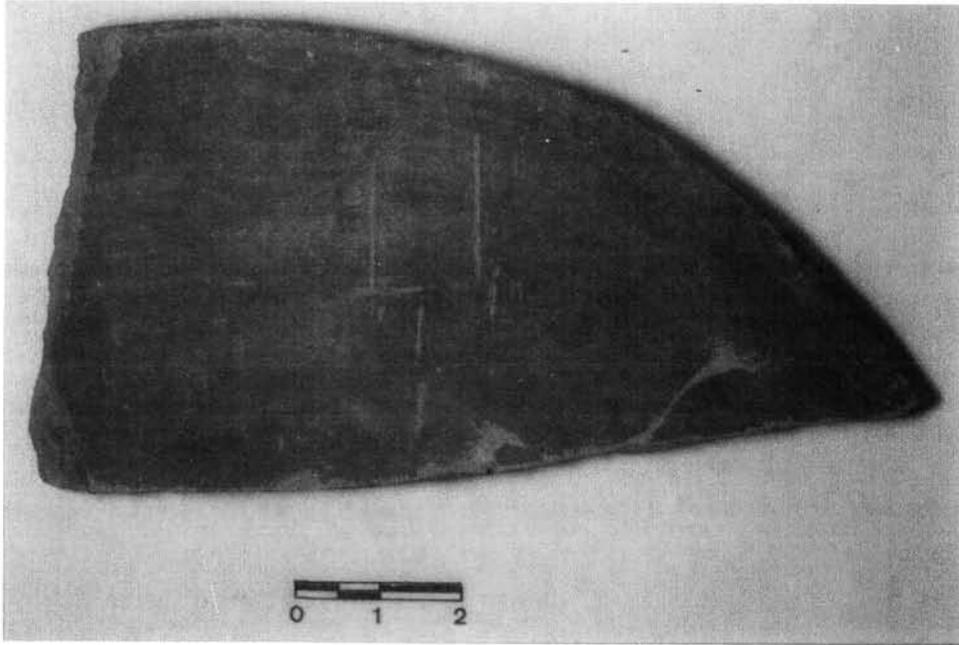
B. Jug Inv. no. 1110



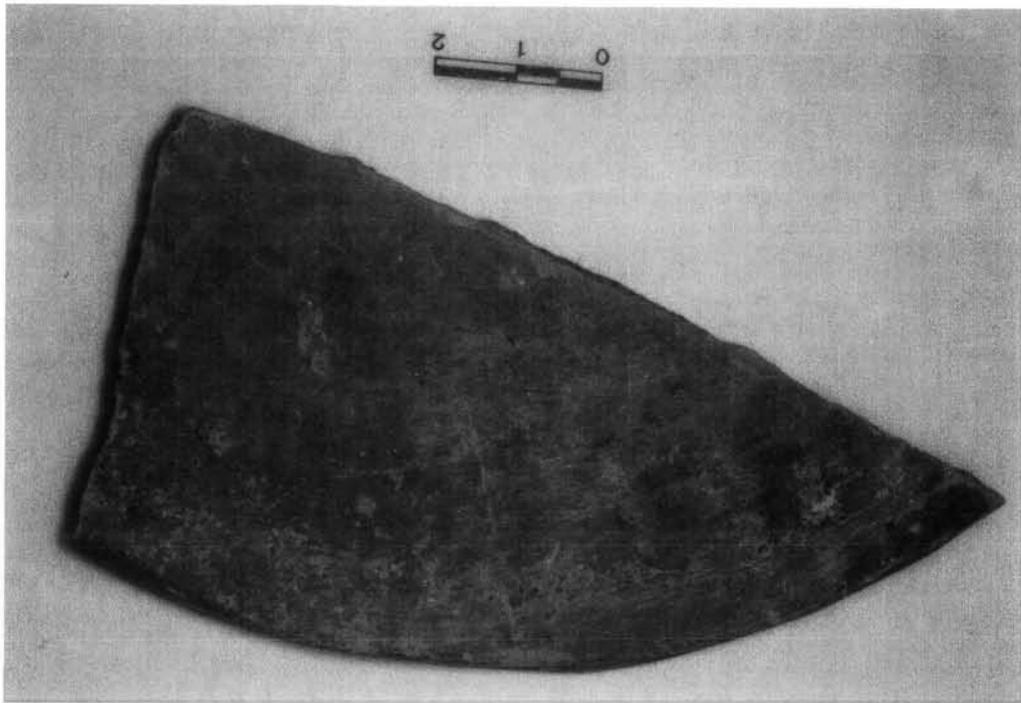
A. Sherd Inv. no. 2839 with THE Zb 5



B. Sherd Inv. no. 1940



A-B. Sherd Inv. no. 136 with THE Zb 4



ordinary ‘deposits’, who understood the inscriptions on vases and ritual vessels? To whom were they addressed?<sup>16</sup>

*The archaeological evidence from Thera*

Before the discovery of the tablets in area Δ 18a at Akrotiri on Thera in 1993,<sup>17</sup> the only examples of Linear A signs known from Thera were those incised on whole pots or sherds, which were published along with other potmarks in the excavation reports.<sup>18</sup> The distinction between them is said to reside in the fact that ‘les marques de potier sont des éléments d’écriture sématographique et non lexicographique’,<sup>19</sup> but both (whether script signs or simple marks) belong either to the manufacturing stage, in which case they were made before the vase was fired, or to the use stage, in which case they were made after firing. (There are many possible explanations for each stage.) In principle, there is undoubtedly some difference to account for the smaller proportion and relatively restricted diffusion of script signs on vases in comparison with ordinary potter’s marks.<sup>20</sup> I shall not go into the question of the influence exercised by writing on the ‘marking’ of pots, and vice versa, but will confine myself to noting, with the methodological restrictions of Sacconi in mind, that at Akrotiri, some Linear A signs have been recognised amongst the potter’s marks (meaning in general any marks made before the vase was fired). This is the case of A 318 (PLATE IIB) on the shoulder of a jug, or AB 08 (PLATE IIA) on the shoulder of an amphora (though probably been part of an inscription if followed by another sign, the AB 24<sup>21</sup>). To the regular known inscriptions executed on pots before firing—the jug with the Aresana inscription (PLATE IA) found in area Δ4 of building complex Delta and the pithos sherd with three (?) signs (PLATE IB) from the site of Potamos—may be added another inscription, consisting of four signs, on a large pithos with rope pattern found in the House of the Ladies and possibly an import.<sup>22</sup>

To the secure examples of Linear A from Thera may be added a text incised after firing, but not marking a vase: the sherd inv. no. 2839 was a genuine *ostrakon*, which was found stored along with the earlier finds without any indication of its provenance (PLATE IIIA). This is the only true *ostrakon* known

<sup>16</sup> For the difference between archive and deposit, see by way of example: Shelmerdine 1997. For the contribution of lengthy inscriptions on storage vessels to the problem of literacy, cf. Palaima 1987, p. 507.

<sup>17</sup> The tablets were identified by the excavator N. Sgouritsa. See *PAE* 1993 and Boulotis 1998.

<sup>18</sup> *Thera* IV, pls. 109-111. Also *GORILA* 4, pp. 101-105.

<sup>19</sup> Sacconi 1987, p. 367.

<sup>20</sup> For the dissemination of potter’s marks in the east Mediterranean basin, see Sacconi 1987.

<sup>21</sup> *GORILA* 4, p. 103, THE Zb 3. Isolated Linear A marks will be discussed in the study of the Potter’s Marks.

<sup>22</sup> *PAE* 1993, p. 185, *Ergon* 1993, p. 90, fig. 89. We must wait for a clay analysis to ascertain its place of origin.

to date from the Bronze Age in the Aegean, and is of great interest as an example of a brief record being made on the inside surface of a small potsherd. The view has been advanced that it may not have been a 'rough copy' made by an official scribe.<sup>23</sup> The crucial question that arises is whether there are any other examples of *in situ* recording that do not consist of tablets (which are usually associated with the organisation of archives), or signs or inscriptions executed before the vase was fired (which are directly associated with the manufacturing process of the surface on which they are written, that is, the vase itself). I have selected the cases of marking *after the vase was fired*, because in these cases the signs were executed during the use of the vase and on one view, may be associated with processes of exchange, trade, or a second use of the pot.<sup>24</sup>

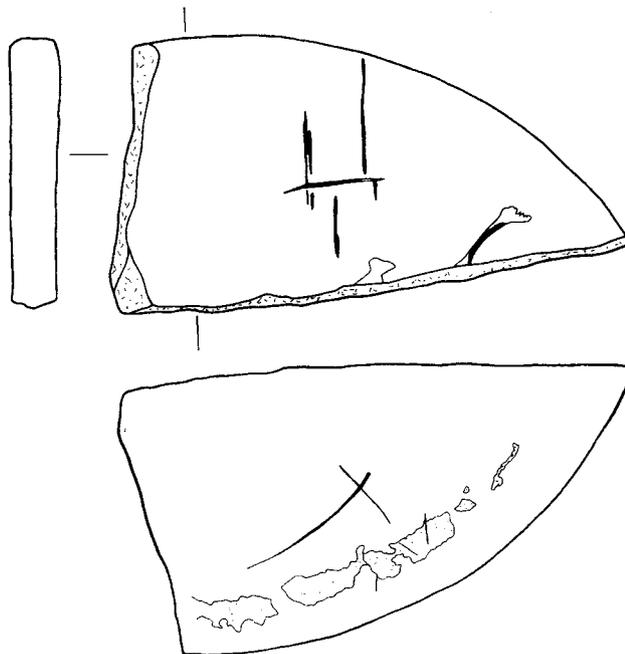


Figure 1: *Sherd Inv. no. 136 with THE Zb 4*  
(1:2 drawing by Olga Apergi)

I begin with the already published as THE Zb 4 inscription AB 08 - 27 (?)<sup>25</sup>, noting additionally that this inscription (?) was executed after the firing of the clay. On the back of the same sherd is a cross roughly scratched on the surface that may be a simple X or a sign, such as AB 02. This sherd, inv. no. 136 (PLATE IV, FIG. 1) measures 0.105 x 0.055 m., is 0.01 m. thick, and weighs 67.4 gr. The incisions were visible in the red shiny surfaces of both sides. The sherd apparently comes from the lid of a vase or a flat plate, and I believe that both the

<sup>23</sup> Michailidou 1992-93, THE Zb 5. Cf. Boulotis 1998, p. 407.

<sup>24</sup> The view of Hirschfeld 1988, p. 31, with the general comment that 'In either case, however, the signs may be associated with a wide range of meanings: identification of contents, origin, destination, owner or distributor, for example.'

<sup>25</sup> *GORILA* 5, p. 161 and 4, pp. 104-5, XXXIV-V, *Thera* II, p. 14, pl. 38. See also Michailidou 1992-93, p. 19.

colour and the smooth surfaces were ideal for scratching the signs of a makeshit inscription. The excavation inventory reveals that it was discovered in sector Arvanitis 3, in the House of the Fine Vases. The sign of the cross or X is also found on other vases from Akrotiri, incised before firing and therefore being a normal potter's mark (in the sense of a sign made for whatever reason during the manufacture of the vase). On this particular sherd it may be a verification sign, it may have the value *RO* of the Linear B sign 02, or it may be the Linear A fraction 702 (B).<sup>26</sup> What is of interest, of course, is whether the sign was incised after the vase had already broken, and whether it is connected with the sign AB 08 on the other (main?) side. AB 08 is one of the most common Linear A signs and is frequently found at the beginning of a word (though also in other positions).<sup>27</sup> It also occurs on other vases at Akrotiri, though inscribed before firing (as in THE Zb 3, on the oval-mouthed amphora in PLATE IIA, and at the beginning of the inscription THE Zb 2, on the shoulder of the jug in PLATE IA).

There are at least two further examples of writing incised after the vase was fired, which are not included in the Linear A corpus, but are published here.

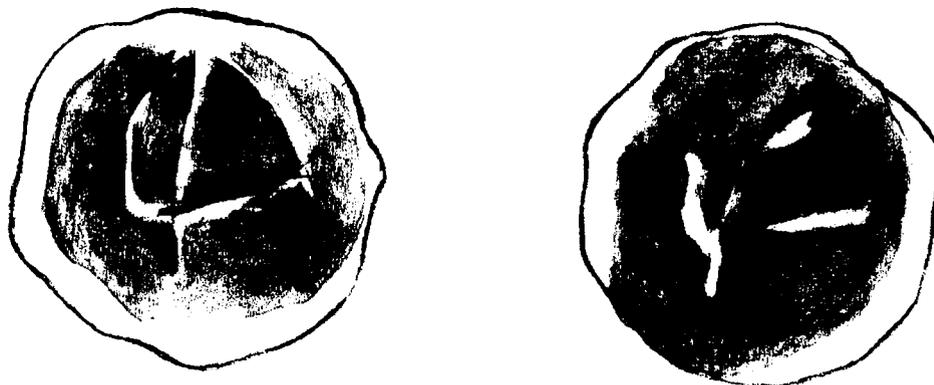


Figure 2: *Sherd Inv. no. 1940*  
(1:1 drawing by Andreas Kontonis)

1. Amongst the large number of 'rounded sherds' found in quantities all over the excavation site,<sup>28</sup> there is one bearing a script sign incised after firing, in second use. The sherd in question is inv. no. 1940 (PLATE IIIB, FIG. 2), which is 0.035 m. in diameter, 0.008 m. thick, and 13.6 gr. in weight. It comes from the wall of an open vase painted red on both the interior and exterior. A Linear A sign, probably AB 41, can be recognised on the red surface of one side. The other side has a horizontal and a vertical line (or vice versa, depending on how the

<sup>26</sup> In Egyptian hieroglyphics 'ro' is the phonetic value of a sign indicating a fractional quantity. It occurs as a unit of measure in a prescription for a medicine for a gynaecological complaint: 'You shall make for her: rootstock of *Cyperus esculentus*, 5 ro, valerian (?), 5 ro, cow milk, 1 half-litre jar, cooked, cooled and made into one substance; and drunk for four mornings' (Parkinson 1991, p. 79).

<sup>27</sup> See *GORILA* 5, pp. 160-164.

<sup>28</sup> These are frequently described—and sometimes used—as lids of vases, or stoppers. There is a pressing need to investigate their distribution and archaeological context. I am of the opinion that some of them were possibly used as 'counters' and belonged to the category of 'documents primaires simples' that Poursat (1994, p. 248) seeks to identify. For non-literate way of accounting see Tzachili's views (forthcoming).

sherd is viewed<sup>29</sup>), which could be the numeral 10 + 1 or a rough rendering of AB 01? The small cavity in the drawing could be fortuitous. The sherd was found in room Δ 15 of building complex Delta.

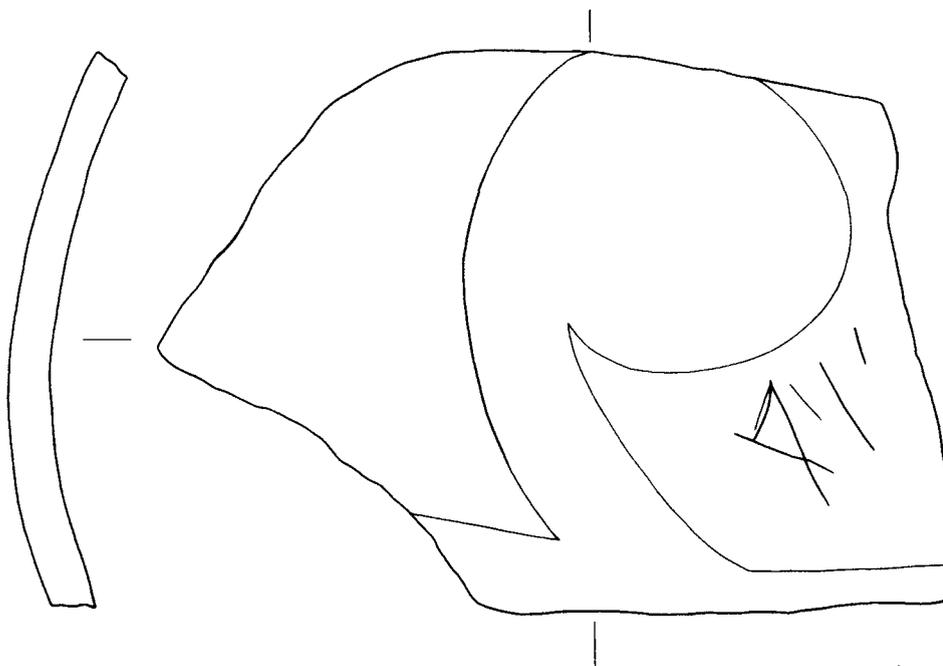


Figure 3: *Sherd Inv. no. 1262*  
(1:2 drawing by Olga Apergi)

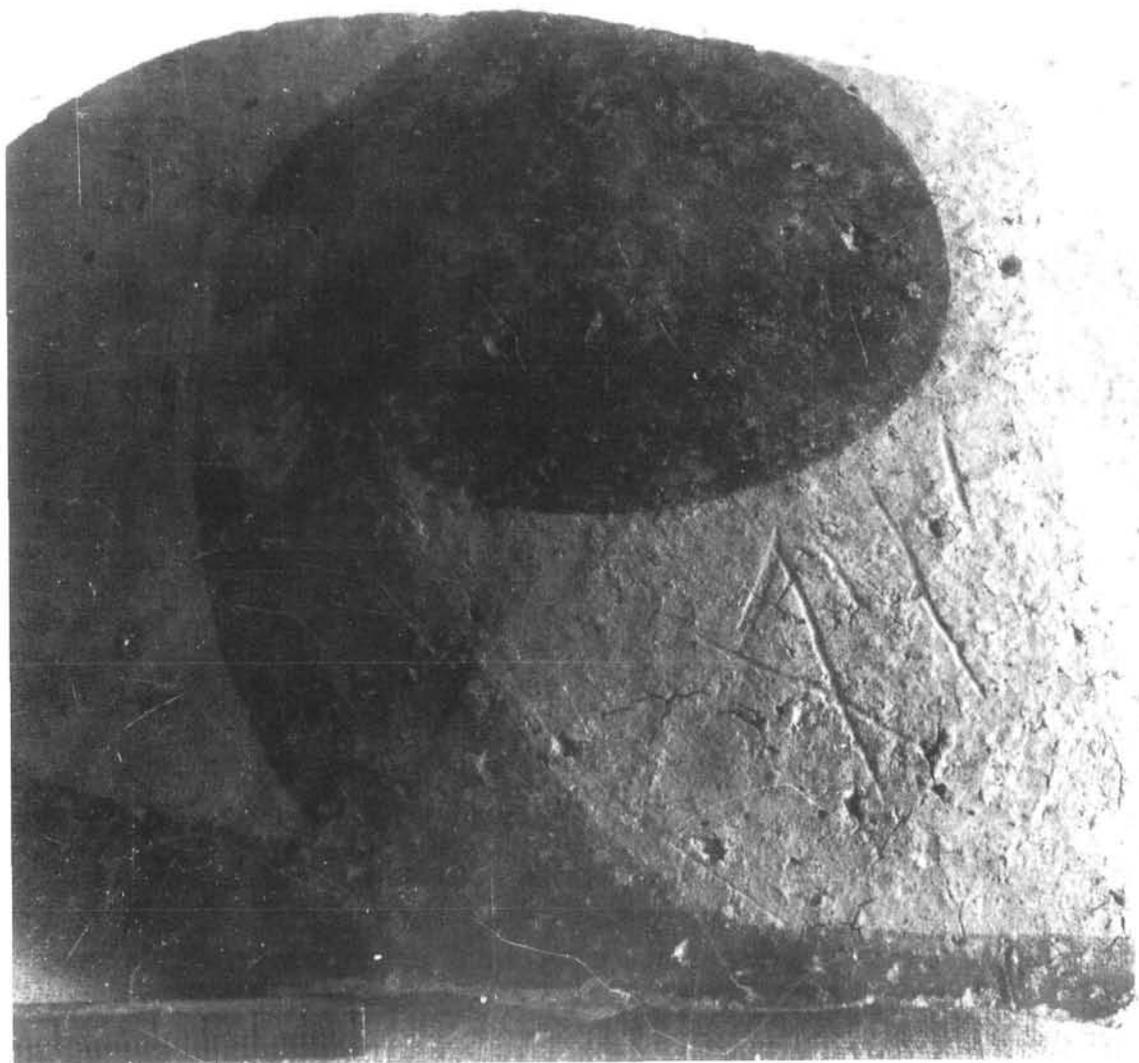
2. The other example (PLATE VA, FIG. 3) has been published in a photograph in an excavation report,<sup>30</sup> and is of particular interest in that it is an inscription (according to Olivier<sup>31</sup> two signs are enough to be described as an inscription) that was incised on the vase after firing. It is not an *ostrakon* like THE Zb 5. It is a large fragment of a closed vase and the two signs were scratched on the outer painted surface; of the same pot at least three large fragments from the decoration zone around the shoulder have been discovered (as an example cf. the integer vase of PLATE VIIB). The inscription was incised on a curved surface, on the buff background between two decorative motifs executed in a reddish brown colour (between two discs inside a circle). This vase, inv. no. 1262, has the shape of the oval-mouthed amphora, typical at Akrotiri, and its original height was probably about 40 cm. It was found in room Δ 3, beneath the paving of the first floor. A group of four bronze vessels and sherds from similar amphora(s) were found in the same area. The inscription consists of the signs A 318 - AB 08, or 41, or 27. There do not appear to have been more signs following the two.

Another incision after firing is also observed on a small sherd from a cup (PLATE VB), near the rim of which is a sign similar to AB 02 with an additional

<sup>29</sup> Cf. Bikaki 1984, pl. 27, VII-43.

<sup>30</sup> *Thera* IV, pl. 110, middle.

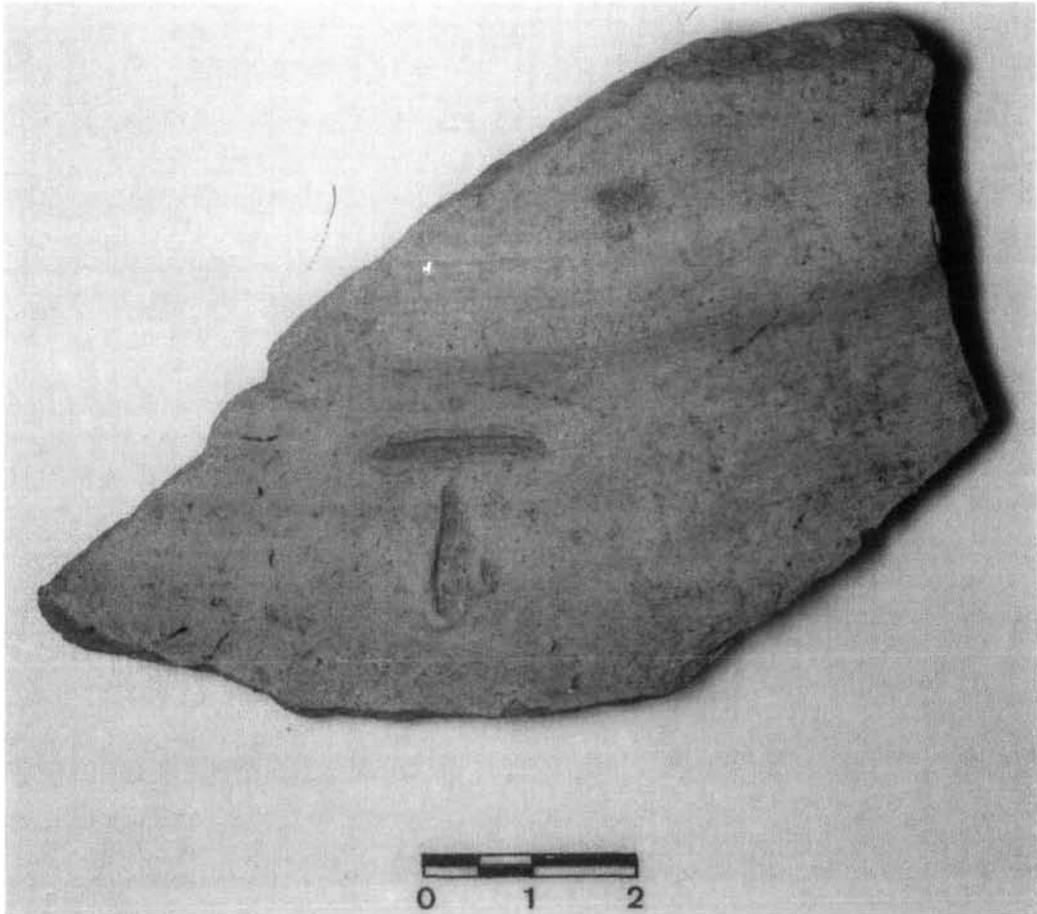
<sup>31</sup> Olivier 1988, p. 266.



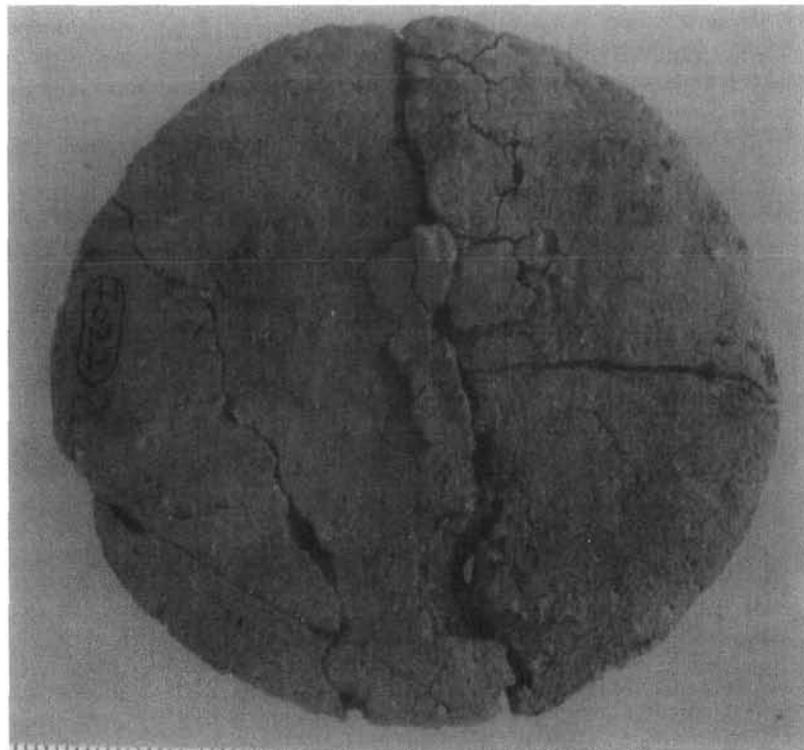
A. Sherd Inv. no. 1262



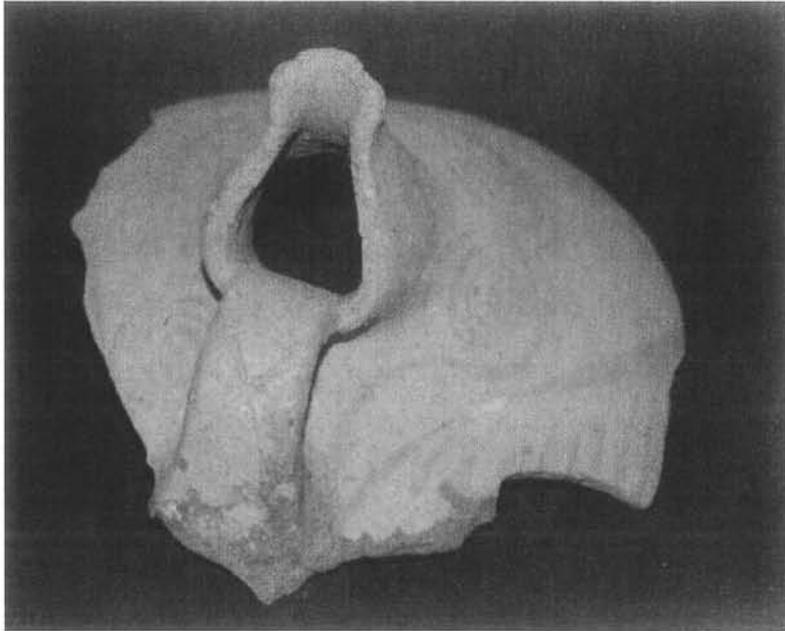
B. Sherd Inv. no. 3030



A. Sherd Inv. no. 1366



B. Clay Disc Inv. no. 7022 (1:1)



A. Fragment of a 'Melian' jug from Knossos  
with mark A 318 incised on the handle  
(Panagiotaki 1999, no. 342)



B. One of the oval-mouthed amphorae  
found in Akrotiri at Thera  
(compare with the above fragment)

oblique line linking the two arms of the cross. The sherd is inv. no. 3030, from Well 25 (in the —unexcavated— area of the entrance staircase of the House of the Ladies). The position of the sign near the rim, and its divergence from the script sign,<sup>32</sup> make it likely that this was a sign of ‘ownership’ of a much-used object. The discussion that follows will concentrate basically on the first specimens, inv. no. 1940, which gives the impression of being a ‘token’, and on the inscription on vase inv. no. 1262, which appears to refer to the vessel itself (or its contents).

1. **Inv. no. 1940** (PLATE IIIB). If the identification with AB 41 is correct, it is a sign that occurs in isolation in some of the Linear A tablets and in seal impressions —especially nodules<sup>33</sup>— and also on a stone balance weight from Knossos.<sup>34</sup> It is used as a transactional sign —or an ideogram— in parallel positions and contexts in tablets HT 30 and 130.<sup>35</sup> The sign on the Thera sherd is related in form with the corresponding sign in an inscription on a vase from Knossos (KN Zb 5) and on a sherd from Miletos (MIL Zb 1).<sup>36</sup> It is already known at Thera, being the first sign of the inscription THE Zb 1 on the rim of the pithos from the old finds at Potamos (PLATE IB), where it is followed by the sign AB 30, which is the ideogram for fig and has the phonetic value *NI* in Linear B. Theoretically it could also be the sign AB 69 or AB 120, if we restore a horizontal line in the place where it is worn: the latter would be a very rewarding restoration, since the sherd comes from Δ15, the Mill-House area, and AB 120 is the ideogram for barley.<sup>37</sup> The phonetic value of AB 41 in Linear B is *si*, and the sign-group *SI-TU* (on the phonetic values of Linear B) is found in a Linear A tablet from Zakros. Could it be the acrophonic of a word indicating grain in general (like the word *si-to* in the Linear B tablets)?<sup>38</sup> If the deep lines on the other side of the sherd do not form a numeral or AB 01, one could also think that they give another message and even that the 2-3 strokes were done in separate moments. Anyway, AB 41 as an ideogram is sometimes followed by fractional quantities (e.g. the quantity 5 J in HT 106), which implies that if a product, it is measured, not counted. Another view has been advanced that it is not a product, but a measure of capacity.<sup>39</sup> Its presence in so many nodules is certainly striking.

2. **Inv. No. 1262** (PLATE VA) The transliteration A 318-AB 08 is a *hapax* in the Linear A corpus. A 318 has been found at Akrotiri as a regular potter’s mark (in the sense that it is found alone and was incised before firing) on the shoulder

<sup>32</sup> Unless it is the reverse of AB 21, as in PH Wc 44, GORILA 5, p. XXXI.

<sup>33</sup> See GORILA 5, p. 207. For the large number of nodules with the sign AB 41, cf. GORILA 2, pp. 21-26.

<sup>34</sup> GORILA 4, p. 164. See also Michailidou, «Script and Metrology», pp. 57-58.

<sup>35</sup> Palaima 1994, p. 323.

<sup>36</sup> GORILA 5, p. XXXV and GORILA 4, p. 76; Niemeier 1996.

<sup>37</sup> For the view that AB 120 represents barley and A 303 grain, see Palmer 1995, p. 135 note 8, 139, 141.

<sup>38</sup> See MY Au 658, KN Am 819, where it is interpreted as grain, bread, or food in general (Palmer 1992, p. 481).

<sup>39</sup> Patria 1988, p. 21.

of a jug (PLATE IIB).<sup>40</sup> To date, the sign has been regarded as a monosyllabic word in tablet 45 from Hagia Triada (twice), as a transactional sign in tablet 126 from Hagia Triada, and as the first syllable of a two-syllable word (A318-306) in tablet 94 from Hagia Triada.<sup>41</sup> For AB 08 (?), see above. Palaeographically, it is close to AB 08 in the inscription KN Zb 20, incised on a vase before firing, and in the tablet PH 14b.<sup>42</sup>

The inscription cannot easily be made out, but was at a part of the vase (near one of the painted discs) that made it easy to find. It was scratched diagonally upwards—as though the vase had been placed on a shelf about 1 metre above the floor—and the second sign (if indeed AB 08 or AB 41) was not given its horizontal bar: one has the impression that the inscription was a makeshift one intended to be read by the person who incised it. It is significant that the vase was of a local type, so the inscription was possibly incised where the amphora was found, at Akrotiri. Corresponding examples of signs being scratched after the vase was made usually come from Cyprus, where signs of the Cypro-Minoan script have been identified on Mycenaean stirrup jars.<sup>43</sup> We cannot tell whether they indicated the contents, the capacity, the identity of the owner, or the destination of the object, though similar inscriptions occur on a variety of bronze artefacts, where the marking of some tools has been regarded as an indication of ownership.<sup>44</sup> Catling's view in the case of Cyprus, which takes into account both the tablets from Enkomi and incised or painted Cypro-Minoan 'marks' on vases, is as follows: 'While it would be misleading to insist on a general literacy in the L.C. period, so many quite humble objects have inscriptions and are distributed so widely that it can surely be inferred that at least a limited degree of literacy was the prerogative of more than the scribal class alone.'<sup>45</sup>

The case of the Thera amphora is closely related to the phenomenon of Cypro-Minoan signs incised on Mycenaean vases *outside* Cyprus and the Near East, mainly in the area of the Argolid. The interpretation offered of these is that, since the vases involved are all good quality products, they were marked in the Argolid for export to Cyprus, and were probably scratched by Cypriot 'merchants' who were choosing the merchandise, rather than by Mycenaeans, who in this case ought to have been familiar with the large number of Cypro-Minoan signs found: 'it is proposed that the diversity of these signs is best explained as reflecting personal marks of those (Cypriotes) handling the

<sup>40</sup> *Thera* IV, pl. 110, bottom. Cf. also Ayia Irini on Kea, Bikaki 1984, pl. 10. Also Evans 1921, p. 561 fig. 408 (Melian vases).

<sup>41</sup> See *GORILA* 5, p. 297.

<sup>42</sup> *GORILA* 4, p. 77 and 1, p. 304 respectively.

<sup>43</sup> 'The method of marking seems to be a Cypriot feature; while signs incised after firing are unusual within the Mycenaean Aegean, they are abundantly preserved on both local and imported ceramics on Cyprus.' (Hirschfeld 1992, p. 315. See also table in page 316, for the sites outside Cyprus with similar examples of Cypro-Minoan signs made after firing).

<sup>44</sup> Catling 1975, pp. 205-207.

<sup>45</sup> Catling 1975, p. 207.

merchandise: traders, shippers or warehousemen.<sup>46</sup> In any event, the vases in question are closed storage or transportation vases,<sup>47</sup> which implies that it was their contents that were being exported, and the signs were normally incised on the handle of the vase.

Should we therefore transfer this theoretical scheme to the earlier LM I period, and suppose that commercial agents from Crete users of the Linear A script marked a local Thera amphora in connection with the exporting of its contents? The phenomenon of the surface of a vase being marked after firing is thought to be rather rare in the Aegean,<sup>48</sup> and cannot therefore be used as an indication for directional trading, which has been suggested for the Cypriot 'market' in the LM IIIB period.<sup>49</sup> (There is also an interesting observation, that the well known stirrup jars with Linear B painted inscriptions coming from Cretan workshops are found only 'in markets where Linear B could be read'<sup>50</sup>). The amphora 1262 thus acquires particular importance in that it does not conform with the general picture of its period.

The sherd inv. no. 1366 (PLATE VIA) from Akrotiri might be selected for comparison and contrast. It has a sign incised before firing that could be a simple potter's mark, or may be identified with the Linear A fraction A 708 (K). This is a sherd from a large vase, probably a pithos, and the sign occupied a predetermined position below the relief zones that will have encircled the mouth. It was found in Δ14, which is an open area. The fraction A 708 has also been found on Samothrace in a roundel, and the same sign is used in Linear B as a dry unit of volume (possibly about 9.6 litres). The two arms of the sign in the Akrotiri sherd are of almost equal length, however, and Finkelberg's argument<sup>51</sup> does not apply in this case. The difference between this sign and those made after

<sup>46</sup> Hirschfeld 1992, p. 317, 319.

<sup>47</sup> Hirschfeld 1988, p. 312.

<sup>48</sup> 'The marks incised after firing on Aegean wares are a specific and limited phenomenon. They occur mainly on large storage vessels. They are almost exclusively associated with the LH/LM IIIB period, and are found only in certain areas: one in Egypt, a few on Crete, 29 in the Argolid, but 127 on Cyprus and a further 41 at Near Eastern sites closely associated with Cyprus.' (Hirschfeld 1988, p. 315). Evans, however, writes that the signs on the handles of the Melian jugs (Evans 1921, p. 561, Fig. 408) were incised after firing. This does not seem to be the case of an example kindly provided to me by M. Panagiotaki (PLATE VIIA), cf Panagiotaki 1999, pp. 178-9, no 342. Another two cases of signs scratched after firing have recently been reported from Palaikastro, one with AB 87 —the illustration of a chariot wheel— on the rim of a pithos of unknown date, and the other with the sign \*131, the ideogram for wine, on the handle of an oval-mouthed amphora, but of the LM II-III A period (Schoep 1998, pp. 264-68).

<sup>49</sup> 'Perhaps this is an indication of specifically directed contacts with certain wares discharged only to certain markets and not subject to peripheral trading en route.' (Hirschfeld 1988, p. 315).

<sup>50</sup> Comment by Palaima, see Hirschfeld 1988, note 25.

<sup>51</sup> That it was form of writing intermediate between Linear A and Linear B (Finkelberg 1998, pp. 268-269).

firing is quite obvious, in terms both of the clarity of its outlines, and of the regular position it occupied on the vase.<sup>52</sup>

I shall now mention two more objects that are possibly relevant to the subject of this article. One is a stone (local poros) concave artefact, the inv. no. 895, with a sign incised on the inside.<sup>53</sup> This may have been used to stamp a lump of clay in the mouth of a closed vase<sup>54</sup> used as a container. The size, 0.10 x 0.09 m., and shape of the object are suitable for this purpose. The sign has affinities with AB 04, but it has additional lines, which make it a distinct sign that possibly indicated the owner or producer of the contents. The second object (Inv. no. 7022) is a disc of unbaked clay (PLATE VIB) found in a clay chest in room Γ 1 of complex Gamma; it is not clear whether this was meant for a tablet, or something else.<sup>55</sup> It is too thin to become a loomweight (when baked) or a roundel (when marked).

Finally, there are the sealings found in Δ18 β, almost all ‘flat-based nodules’ in type.<sup>56</sup> Flat-based nodules are considered to have been ‘impressed on leather strips that sealed records on ephemeral materials,’<sup>57</sup> perhaps parchment. They are accordingly of interest here, in that they raise the possibility that such records existed in Thera society, irrespective of the place they were written or who sent them. ‘The sealed documents testify to lively interaction between elites on Crete and the islands to the north.’<sup>58</sup> Finally, we should wonder for the cases of the ‘spatial separation of sealings and written records’, as at Hagia Triada, and particularly for the view of scholars that a clear distinction was regularly drawn between the owners of seals and the scribes. ‘The seal-users are doubtless involved intimately in the economic life of Hagia Triada, but actual scribes intervene in many cases to place written characters on the sealings.’<sup>59</sup> The sealings from Thera revealed only representations, so far<sup>60</sup>

<sup>52</sup> In 1995 twenty pithoi were reported with Linear A inscriptions from 8 sites in Crete and also from Akrotiri on Thera (Floyd 1995, p. 39).

<sup>53</sup> *Thera* IV, Pl. 111, bottom right.

<sup>54</sup> Cf. *Thera* VI, Pl. 67c. See also the sign on a seal of clay: *Thera* VI, pl. 56d

<sup>55</sup> The so-called Sumerian school tablets are thicker discs of lentoid shape. A closer, Minoan parallel is perhaps the disc from Palaikastro, Schoep 1998, pp. 266-7, which is 4.8 cm. in diameter and has a greatest thickness of 1 cm. at the centre. This disc was deliberately cut into two and has a hole pierced through it. Another parallel is possibly furnished by the fifteen ‘clay pastilles’ from Phaistos (Perna 1995, p. 107).

<sup>56</sup> *PAE* 1995, p. 129, Pl. 63, Schoep 1999, p. 217. Cf. Doulas 2000, p. 59: “On the back of almost all the sealings impressions of the fine threads on which they were attached are preserved”, Up to now no holes are visible, but restoration is still in progress.

<sup>57</sup> Palaima 1994, p. 312. See in detail Hallager 1996. For the use and categories of nodules in general, see Weingarten 1986.

<sup>58</sup> Schoep 1999, p. 217. For the type of the sealed documents see also Platon - Müller - Pini 1999, p. 349.

<sup>59</sup> Palaima 1994, p. 312 and 314. See in more detail, Weingarten 1987.

<sup>60</sup> Like the flat-based nodules from Hagia Triada (Weingarten 1987, p. 36); this particular class of sealings was on a regular basis not inscribed (only a very small percentage). For the sealings from Thera we have to wait till restoration is complete.

*The problem of the language and the accessibility of the content of the texts*

Over and above the questions of the nature of the surface bearing the inscription (tablet, roundel, vase, stone libation-table, metal artefact, plaster), which is known to have varied widely at the period of Linear A,<sup>61</sup> and of the identification of the signs and their palaeographic assignment to a particular hand, there are two further questions for investigation. The first is the question of the language of the texts. Irrespective of whether the language of the Linear A texts had a Semitic or an Indo-European origin,<sup>62</sup> is it to be taken for granted that everyone spoke and read —if they could read— the same language? If so, over what geographical radius?

First, it has been observed that the votive inscriptions found all over Crete had a common model or formulae, which may indicate that the craftsmen (?) who incised these inscriptions on stone libation-tables understood the same language.<sup>63</sup> These formulae do not coincide with sign-groups found in the tablets, however, and this has given rise to the suspicion that the hieratic language might have been a separate one.<sup>64</sup> This, of course, depends on what one means by a separate language.<sup>65</sup> In Egypt, the written language does not appear to have been identical with everyday speech, and also differed according to the text: 'The formal written language of the 12th Dynasty —classical Middle Egyptian— was still used for monumental and religious texts, but by the 18th Dynasty features of late Middle Egyptian had permeated even royal inscriptions. At this date late Middle Egyptian were probably already further removed from everyday speech than Middle Egyptian had been in the 12th; only after the 18th Dynasty was it considered suitable for religious and funerary texts.'<sup>66</sup> As for the choice on the type of script: 'A comparable hierarchy existed in the use of the various scripts. Thus practical documents (including collections of technical knowledge) and letters were written in a rapid form of hieratic, while a more elegant form tended to be used for high literature. Cursive hieroglyphs were reserved for religious texts and neat copies of technical texts... The decorative fully drawn hieroglyphs were used for private and State monuments, which were largely religious or funerary.'<sup>67</sup> The above data might perhaps help in considering questions such as

<sup>61</sup> See, e.g., Olivier 1986, p. 384, 386-7.

<sup>62</sup> Or neither, as Patria 1988, p. 37. See, e.g., Best-Woudhuizen 1989, pp. 1-30, in favour of a semitic origin, and contrast Finkelberg 1990-91, in favour of an affinity with the language of Lycia (Indo-European). See more recently La Marle 1996, I, pp. 130-1. Also Renfrew 1998, p. 249.

<sup>63</sup> See, e.g., Driessen 1994, pp. 151-2, who speaks of a 'single religious language throughout large parts of Crete'. For the formulae on stone libation tables, see especially Karetsou - Godart - Olivier 1985

<sup>64</sup> Godart 1990, p. 185.

<sup>65</sup> The general distinction between 'vernacular language versus literary language' has been disputed in the case of the Akkadian texts (Westenholz 1999, p. 84).

<sup>66</sup> Parkinson 1991, p. 19.

<sup>67</sup> Parkinson 1991, p. 19.

the parallel use over a fairly long period of the Minoan hieroglyphic script and Linear A —to the extent that the view has been advanced that in the palace at Malia there were different scribes for the different types of script.<sup>68</sup> Throughout Egyptian history, hieroglyphics retained the pictorial character that made them ‘a highly aesthetic script’,<sup>69</sup> so in the case of the stone libation-tables, account has also to be taken not only of the difference between the continuous text (of their inscriptions) and the accounts (of the tablets), but also of the likely aesthetic aim of Linear A signs carefully inscribed on them, in order to activate the necessary magic-religious function of the inscription. In the ideology of writing, there is ‘the art of writing’<sup>70</sup> and also ‘The magic of writing, the writing of magic’.<sup>71</sup>

This brings us back to the language of the Aegean texts and to the question: Will we take for granted that the Linear A script gives expression to only a single language and that within the area of diffusion of this script, people spoke, or at least wrote the same language? We know, for example, that the scribes in Mesopotamia wrote Sumerian and Akkadian; that in the Hittite empire, scribes wrote Sumerian, Akkadian and Hittite, and could also write not only in cuneiform (which had the advantage that it could be used for *many languages*), but also in a kind of hieroglyphics.<sup>72</sup> It is not known whether the script had a different name from the language: in Akkadian, for example, the same adjective *akkadû* was applied to the language, but to a variety of items as well (such as a certain class of textiles). The language used in the Mari texts is Old Babylonian, with a number of ‘Amurrite’ words. In the texts from Boghazkoy, the language was stated before every foreign word.<sup>73</sup> The correspondence revealed by the Amarna tablets in Egypt was in Babylonian, the *lingua franca* of the time, and was written in cuneiform. The evidence from Ugarit is also very instructive,<sup>74</sup> and is worth comparing with the Linear B texts. The scribes in Ugarit wrote in different languages: Sumerian, Akkadian, Hurrian and, of course, Ugaritic. The language used depended on the nature of the text: letters abroad and legal texts were written in Akkadian —in which many school texts have also survived— while inventories of products were in the language of Ugarit. In addition to the palace archives, private archives have also been discovered containing financial texts, letters and legal texts; and the find spots of the school texts show that

<sup>68</sup> See Godart 1998, p. 188. It is still a matter of debate whether the Minoan hieroglyphic script and Linear A were used to write the same language (Schoep 1999, p. 219, note 106, with the bibliography on this subject). The fact that both scripts are found in archive texts vitiates the argument that the former was a hieratic and the latter an administrative script (Schoep 1999a, p. 273, note 1). See also Olivier 1996, p. 108; and Duhoux 1983, p. 55.

<sup>69</sup> Parkinson 1991, p. 13.

<sup>70</sup> Evans 1921, p. 636.

<sup>71</sup> The title of an article Helios 1994 (from D. Frankfurter, *Religion in Roman Egypt*, Princeton 1998).

<sup>72</sup> Greenfield 1991, pp. 173-4, 176.

<sup>73</sup> For all this, see Greenfield 1991, p. 175.

<sup>74</sup> See Van Soldt 1991, pp. 519-21.

scribes were taught in private houses. An incredible wealth of information is furnished by the Near East on the question of writing and education. Knowledge of foreign languages may also have extended to others besides the scribes. I cite two extreme examples: the ‘interpreter’ of the Keftiu on a tablet from Mari,<sup>75</sup> who might have been a kind of commercial agent, and King Shulgi at the time of the third dynasty of Ur, who boasted of his accomplishments in the art of writing and described himself as ‘the wisest scribe of Nisaba’; there is also the case of Yariris, ruler of Karchemish, who claims in a text of the 9th c. BC that he knew four scripts and twelve languages, which he names explicitly, for by the First Millennium languages were referred to by name. In the light of all this, the question arises what was the relationship between the diffusion of Linear A script, examples of which have been found as far afield as Samothrace, Miletos and Palestine,<sup>76</sup> and the diffusion of the language or languages expressed in Linear A texts. The fact that so many Linear A signs were used to write Greek in Linear B, and the general view that the Cypro-Minoan script evolved from Linear A suggest, I believe, that the diffusion of the script may not be identical with that of the language.

Whatever the case, was the language of the Keftiu known to the Egyptians — possibly to a few scribes? This is suggested by Egyptian texts, e.g. the one that cites a Minoan therapeutic incantation:

‘Incantation pour la maladie Tamet-Amou (lit. celle de l’Asie = Asiatique). C’est (lit. consistant en) ce que disent dans ce cas (lit. pour cela) les [habitants du] Keftiou: *s-n-t-k-p-p-w-y-i-i-m-n-t-r-k-k-r.*’<sup>77</sup>

After the topic of the language, the second question is the content of the inscription, viewed from the point of view that not only the script, but also the knowledge of the texts was a source of power and authority. Of Egypt, for which there is a wider variety of written sources, Baines comments: ‘Within the human sphere, as against the royal-divine one, the premise that knowledge is power — in diverse spheres — remains valuable, and can be related to the evolution of the sources. Restricted knowledge is socially competitive or divisive, enhancing competition within a social group and accentuating divisions between groups to which knowledge is available and others to which it is not. The character of the knowledge is not as significant as is the question of who owns it... Such knowledge sets the king apart as a knower and as an actor.’<sup>78</sup> The significance of, for example, the title ‘Keeper of the secrets of god’s words (hieroglyphic writing)’, among the various titles of a nomarch of the 12th Dynasty at el-Barsha, becomes comprehensible in this spirit, as does the significance of the reference in an inscription dating from the 13th Dynasty, to the ability of the king to find in the archives and read texts that his officials cannot understand.<sup>79</sup>

<sup>75</sup> This tablet, which records a despatch of tin, is included in many articles. See, e.g., Heltzer 1989.

<sup>76</sup> See the bibliography assembled in Finkelberg 1998.

<sup>77</sup> Translation of the original by Vercoutter 1956, pp. 82-85.

<sup>78</sup> Baines 1990, p. 22.

<sup>79</sup> Baines 1990, pp. 9-10.

The social level at which there is limited access both to the art of writing (which is usually regarded as an instrument of power) and to knowledge itself (in the sense of ‘restricted religious or profane knowledge’<sup>80</sup>), is accordingly of some significance. This brings us back to the subject of the bearing surface of the script. In the Minoan world, for example, no regular inscriptions have been found on architectural monuments to compare with the texts of aesthetic, religious and propaganda content found on temples and tombs in Egypt. There may have been continuous texts—in contrast with the account records of the tablets—on papyrus or parchment:<sup>81</sup> if so, at what social level did they circulate? And more specifically, who saw, and who understood the inscriptions on the offering-tables? (Unless these were meant as ‘God’s Words’ like the Egyptian hieroglyphic)

Let us begin from the beginning, and from the top, with the professional scribe. In the Aegean world, the ‘hands’ of individual scribes have been recognised in the Linear B tablets and in texts in Linear A.<sup>82</sup> However, we possess no secure information as preserved in the neighbouring civilisations, such as their names, social status, place of work, etc. Study of the eastern sources may perhaps suggest what we should be looking for, in the Aegean societies, especially that of Thera, and under what conditions.

#### *The professional scribe*

The profession of scribe was considered an important one in Egypt. The Lansing papyrus, BM (EA 9999) contains the following extract:

‘Set your heart on being a scribe. You call to one and a thousand answer you.’<sup>83</sup>

And a Sumerian proverb comments on the skills of the profession:

‘A scribe whose hand rivals his mouth, he is indeed a scribe.’<sup>84</sup>

The profession was considered very profitable, as is clear from the Lansing papyrus BM 9994:

‘Writing, for *one who knows how*, is more profitable than all other professions... See, I am instructing you... so that you may become one who is trusted by the king... so that you may take delivery from the corn-bearing ship at the entrance to the granary, so that on feast-days *you may measure out* the god’s offerings.’<sup>85</sup>

<sup>80</sup> See Baines 1990.

<sup>81</sup> There is considerable debate on this issue. The question of the bearing surface used for continuous—profane—texts may possibly be illuminated by the famous diptych from the Kaş wreck, made of wood and wax (and ivory): *AJA* 93, 1989, p. 10, fig. 19.

<sup>82</sup> See, for example, Palaima 1994, p. 310, 322 and notes 19, 26, 34 (with bibliography on Linear A), and Woodard 1986, esp. pl. 6 and 7, for connections between the hands of scribes in Linear B and features of the Mycenaean dialects.

<sup>83</sup> Translation from James 1998, pp. 156f.

<sup>84</sup> From Oates 1993, p. 149.

<sup>85</sup> Robins - Shute 1987, p. 4.

The last text reveals the link between measuring and recording, and suggests the potential for upward social mobility through possession of the knowledge of writing. Writing, then, though not an ability possessed by all (as, indeed, today), could nevertheless be learned by anyone who wished to do so? The question of literacy in Egypt is treated in detail in articles on the subject by Baines, Eyre and Lesko, to which I refer below, though the views expressed in them are conflicting.

What is of interest to research in the Aegean is to establish the social level at which the scribe worked in Egypt: Pharaoh had scribes, as did officials, landowners, and even communities (e.g. Deir-el-Medina, to which I refer at length below). Does one here include the activities of a merchant (or a commercial agent)? For the question arises whom a scribe would work for at Akrotiri, where no palace has been discovered to date. How closely was writing connected with trade, if at all? It is notable that at a slightly later period, the deciphered Linear B tablets make no mention of the trade of the merchant nor, indeed, of the scribe (despite the fact that, as we have seen, scribes can be identified palaeographically). It should be noted that in Egypt the word scribe had a wide content. It was frequently used as a title and as a pictorial type for an official,<sup>86</sup> and painters were also called scribes (writers of contours).

In Mesopotamia, there is an example from the Isin archive, where ‘the few persons called DUB-SAR, ‘scribe’, do not belong to the workshop, but represent other institutions as conveyors... In the workshop only two persons are called DUB-SAR: since the title seems to have been an honorific rather than a true professional name, it probably does not refer to the function these people performed in the workshop, but to the fact that they were graduates of the scribal school.’

Were there similar ‘schools’ on Crete, associated with the sanctuaries, to produce the specialised inscriptions on stone libation-tables and other sacral vessels? Should we think in terms of a special scribe for the workshop, or was the manufacturer also trained to write?<sup>88</sup> What was the relationship between the producer/s of the specialised vase types recorded —some in large quantities— in the two tablets HT 31 and HT 39 and the scribe, who was the same in both cases?<sup>89</sup> The libation-tables undoubtedly proclaimed some message.<sup>90</sup> Who wrote the —magical? votive?— Linear A texts inside the two handleless conical cups from the palace at Knossos?<sup>91</sup> Was it perhaps a prescription for their content

<sup>86</sup> Shaw - Nicholson 1995, p. 294.

<sup>87</sup> Van de Mieroop 1987, p. 99.

<sup>88</sup> Cf. the ‘useful distinction between scribal literacy and craftsmen’s literacy’ drawn by W. V. Harris and cited in Whitley 1997, p. 639.

<sup>89</sup> ‘The monitoring of pottery by scribe 31 HT on two tablets is probably our best evidence for special concerns by an administrative official or department’ (Palaima 1994, p. 322).

<sup>90</sup> See for example Schoep 1994, pp. 17 ff, where relative bibliography can be found.

<sup>91</sup> Evans 1921, pp. 623f.

or a spell, similar to the, now incomprehensible, Keftiu words in the Egyptian source cited above?<sup>92</sup> The cups are of further relevance to two aspects of the question under consideration. First, since ink was used, they point to possible existence in the Aegean, of other —perishable— surfaces<sup>93</sup> that bore texts of *a continuous form* (of hieratic or literary content); and second, we probably have here —as in Egypt— examples of limited access or ‘restricted knowledge’. The question is, who wrote the religious texts?<sup>94</sup> Was it a scribe —of the priesthood— or the manufacturer that wrote the inscriptions on the two terracotta figurines from Tyliossos and Poros?<sup>95</sup> Or were their owners in a position to write some kind of spell? In connection with the likely familiarity of wall-painters with writing (which is unequivocally attested in Egypt), Evans refers to a linear mark on a piece of wall-painting from Knossos,<sup>96</sup> and particularly to an inscription on plaster at Hagia Triada.<sup>97</sup>

*Thoughts and working hypotheses*

As we have seen, four clear cases are attested at Akrotiri of writing on pottery after firing, two of which are secure inscriptions (sherd THE Zb 5, and amphora inv. no. 1262).

The rounded sherd inv. no. 1940 (PLATE IIIB, FIG. 2), bearing one Linear A sign, calls to mind the wooden discs —albeit larger and bearing inscriptions accompanied by numerical signs— that have been interpreted as ‘military ration tokens’, used in association with the distribution of bread at the fort of Uronarti in Nubia at the time of the Middle Kingdom. That the use of tokens —even uninscribed ones— was not necessarily abandoned after the introduction of writing is clear from the ‘counters’ attested in the palace at Nuzi in the Second Millennium BC, and in general ‘it is presumed that the tokens were used for computations and record-keeping in households and business.’<sup>98</sup> May it therefore be assumed that rounded sherds from Akrotiri played a similar role, and were also used as ‘counters’ or tokens for intra-community exchanges not falling within the official — bureaucratic— system involving the ‘roundels’?<sup>99</sup> In

<sup>92</sup> See also Franceschetti 1990-91, p. 41.

<sup>93</sup> I add the comment that ‘one of the official scribal hands at Khania is ‘papyrological’ and the closest parallel is the ink-written cup from Knossos’ (Schoep 1999, p. 210, note 48).

<sup>94</sup> Karetsou rightly emphasises the small percentage of the inscribed libation tables among the stone items offered to the peak sanctuary of Iouktas, Karetsou 1987, p. 89.

<sup>95</sup> Evans 1921, p. 634, Olivier 1993.

<sup>96</sup> The piece of wall-painting bearing the sign AB 50 is striking, since it is painted in black on a white, slightly yellowish, smooth surface (Cameron 1965, pp. 12-15). It is something different from other inscriptions in plaster, which are incised.

<sup>97</sup> Evans 1921, p. 637.

<sup>98</sup> Schmandt-Besserat 1979, p. 19, 20. For a comprehensive treatment of the subject, see Schmandt-Besserat 1992.

<sup>99</sup> For those see most recently the book by Hallager 1996.

functional terms they will have been closer to the 'noduli',<sup>100</sup> again not forming part of their administrative system, *but belonging to a different level of socio-economic behaviour*. I believe that the rounded sherd from Akrotiri may be used as the basis for a working hypothesis requiring an examination of the distribution of such sherds. The sherd inv. no. 136 (PLATE IV, FIG. 1) may perhaps be relevant in this context. A sherd has been published from Naxos, again bearing sign AB 41, which is not mentioned in the Linear A corpus (possibly being regarded as not a script sign?), but since it is not stated whether the sign was incised after firing, we do not know whether it can be classified as *ostrakon*.<sup>101</sup> By contrast, the scratch on the cup inv. no. 3030 (PLATE VB) rather belongs to the vase and probably served as a 'sign' of ownership. A conical LM IB cup from Knossos with two signs inscribed in a ligature, is a similar practise.<sup>102</sup>

The inscription on the typical Theran oval-mouthed amphora inv. no. 1262 (PLATE VA, FIG. 3) is a makeshift mark<sup>103</sup> made after firing on the body and not the handles (as the signs on the Melian jugs at Knossos.)<sup>104</sup> The short inscription does not necessarily indicate a product for export, since this vase was found along with others—including amphoras— stored near the group of bronze vases in the cellar of Δ3 in the north house of complex Delta. Interestingly, the amphora inv. no. 1264 with the inscription THE Zb 3 (PLATE IIA) and the jug inv. no. 1110 with the A 318 mark (PLATE IIB) were found in the area of Δ3, while the jug inv. no. 1372 (PLATE IA) with the inscription THE Zb 2 (made before firing, as also the above) was found in Δ4, another room of the same house. Did the occupant of the house understand these inscriptions? Could he himself have made a note of a name, or of the specific content of the amphora in question,<sup>105</sup> to distinguish it from others on the shelf?<sup>106</sup>

The main point of interest here is that in the case of the two sherds (PLATES IIIB, IV) and the amphora (PLATE VA, FIG. 3) (plus the accounts sherd in PLATE IIIA), the inscriptions are makeshift marks that are not necessarily to be attributed to an official scribe, though of course this eventuality cannot be ruled out. I return to the problem of 'literacy' referred to in the introduction. I believe that the data from Thera provide good starting point for research: in a settlement that has not so far produced a palace, the quantity of preserved written documents is not in principle less than that in the Minoan palatial world: writing

<sup>100</sup> See Weingarten 1986, p. 17 and Poursat 1994, p. 248.

<sup>101</sup> Kontoleon 1965, pp. 84-85.

<sup>102</sup> Hood 1964, p. 111. Cf. also Olivier 1999, p. 428: PYR Zb 5.

<sup>103</sup> It recalls the makeshift inscription on the lead balance weight from Mochlos, on which Olivier (1989, p. 142) comments: 'Tout ce que l'on peut dire —et ce devait être l'essentiel— c'est qu'elle était visible et lisible.'

<sup>104</sup> See Evans 1921, where he cites the sign A 318 (fig. 408), well-known from Thera.

<sup>105</sup> I do not believe that it indicated the capacity of this vase, of a form that was of highly standardised sizes; see Katsa-Tomara 1990.

<sup>106</sup> The position of the inscription is consistent with the vase being placed at some height, as I ascertained in the pottery storeroom of the Museum at Phira.

was executed on tablets, on local vases before (and after) firing, and on small sherds in second use (two or three examples so far).

*Ostraka* are of key importance for the question of literacy in Egypt, though a different approach has been adopted by scholars to the vast quantity of material from Deir-el-Medina, consisting of papyri, graffiti, and above all tons of inscribed sherds and flakes of limestone, found in the great pit, in the village generally, in tombs, and in the royal necropolis. These 'ostraka' have a varied content, ranging from literary excerpts, copied for educational purposes to short texts referring to economic exchanges between the inhabitants. Should this case be regarded as an exception to a majority of illiterate people in Egypt,<sup>107</sup> on the grounds that the inhabitants of this particular village belonged to a special class of artists, whose education included learning to write? The opposite view is that the number of names of scribes mentioned (66) is rather large, since two scribes at a time would be enough for just over 100 inhabitants. Lesko counters that 'if at Deir-el-Medina foremen, scribes, draftsmen, some common workers, and some wives could read and write, as we know to be the case, this indicates a much higher percentage of literacy than John Baines and others are prepared to accept.'<sup>108</sup> This would mean that alongside the official scribes whose names, and on occasion their life history, even their library, are known,<sup>109</sup> a large proportion of the inhabitants will, according to one view, have been able to write.

Unlike papyrus or parchment, *ostraka* do not disintegrate, and one would expect to find more of them in the Aegean, if they had existed.<sup>110</sup> Not many have been found at other sites in Egypt, however. At Deir-el-Medina, the construction of the tombs meant that there was material to hand in the form of fragments of stone (these are also called 'ostraka' by Egyptologists when they bear writing or a drawing). If we confine ourselves to the evidence afforded by potsherds in the Aegean, account should be taken of the fact that these were recycled in ancient times (used, e.g., as additional material for the substructure of floors), and that inadequate attention has been paid by excavators to the 'scattered sherds' found in their trenches. Even so, there were probably not many *ostraka*.

One certain difference from Egypt is that there, since inscriptions also existed on monuments, a larger proportion of the population will have come into contact with writing than seems to be the case on Crete.<sup>111</sup> This kind of contact may have

<sup>107</sup> Baines 1990.

<sup>108</sup> Lesko 1994, p. 135, see also pp. 133-134.

<sup>109</sup> See, e.g., Lesko 1994, p. 137, 138.

<sup>110</sup> For this reason we should pay attention to any sherd bearing any kind of 'semeion', possibly intended to give a message, e.g. the sherd from Phaistos (Militello 1990, p. 325). Even instances like a rounded sherd from the Museum at Chania, deliberately cut so as to preserve (?) part of the painted Linear B inscription of the vase; possibly the same practice is indicated by the sherd from Tell Haror with Aegean script (Olivier 1996, p. 109). And above all the ostrakon from Enkomi with the lay-out of a tablet (Dikaios 1967, p. 85).

<sup>111</sup> There is, of course, no comparison between the Egyptian monuments, which were covered with inscriptions, and the isolated cases of the preservation of linear script on certain monuments on Crete: cf. Owens 1996, pp. 169-171.

occurred on Crete in the case of inscriptions on ritual vessels, and above all on stone libation tables. Many people were probably unable to read the text, which may have played a magic, aesthetic, or even propaganda rôle.<sup>112</sup> Some could probably read signs on tools or other objects *ad hoc*. So, too, with votive inscriptions.

But I believe that people could understand accounting records—insofar as they saw them—at the same level as we today understand the undeciphered Linear A tablets: certainly the numbers, and presumably the ideograms in which they were particularly interested on a given occasion. It is possible, therefore, that they were not completely ‘illiterate’, but able at least to mark their cup with a simple sign, whether or not this was inspired by the signs of the script that they had seen. The accounting records, which are now fortunately known also from Akrotiri, will have been easier to understand than continuous texts. This understanding will have been assisted by the fact that both the visual arrangement of the text and its internal organisation take a standard form. This greatly facilitated the task of both the reader and the scribe. And back to the question: at Akrotiri, who was the scribe of the above inscriptions?

With regard to the tablets, there is a view (at least for the LM IB period), that local archives were kept by local managers.<sup>113</sup> So far, there is nothing to suggest that a Linear A scribe worked in different places.<sup>114</sup> Are we to suppose that the proprietor of the storeroom  $\Delta 18 \alpha$  with the tablets (of the House with double horns, possibly set on the roof, the rare feature of wall-paintings in ground-floor room  $\Delta 2$ , and the find of sealings in a wooden container (?) in the room  $\Delta 18 \beta$ ) was a priest-scribe? To date, no inscribed ritual vessels have been discovered at Akrotiri, despite the considerable numbers of stone vases (in  $\Delta 18$ , amongst other areas). It is not certain that this is an archive, rather than a deposit of two or three tablets.<sup>115</sup> It is interesting to know that some of the tablets and sealings found at Chania on Crete in what are considered to be private buildings, have been interpreted as evidence for private management.<sup>116</sup> The flat-based (or parcel)

<sup>112</sup> ‘The palaeography of the inscribed stone vessels with their ‘archaic character’ or ‘archetypal signs’ may be a sign of the use of Linear A as political propaganda. The LM IA inscriptions on clay from Knossos also seem to display a somewhat archaic character, but the material is too scanty to allow for certainty.’ (Schoep 1999, p. 219, note 108.)

<sup>113</sup> Schoep 1999, p. 212.

<sup>114</sup> Schoep 1999, p. 211.

<sup>115</sup> Account should be taken of random element of their preservation, of whether or not they were found *in situ*, and above all of ‘the function of a deposit (working deposits versus archives)’ (Schoep 1999, p. 204 and 206, note 21).

<sup>116</sup> Weingarten 1990, p. 109; it is interesting that the sealings in House I are recorded as found in a cupboard next door to a room containing a single Linear A tablet, a picture somewhat relevant to Akrotiri. Cf. also Schoep 1999, pp. 205-6 (two tablets, noduli, a parcel nodule, and sealed stopper in House I, and tablet fragments in Houses II and III) and the comment by Hallager-Vlasakis 1986, p. 118 for ‘additional evidence that Minoan book-keeping was not confined to one place only within a community.’

nodules found in House A at Zakros, on one view indicate that this strategically sited house functioned as a kind of ‘road-station, involved in intersite relations’.<sup>117</sup> Some of the seal impressions (visually not on local clay) found in the Akrotiri house—which looks on to a square—belong, like those of Chania,<sup>118</sup> to an ‘intensive sealing pattern’, but there are also motives appearing only once.<sup>119</sup>

Despite all the above, it is perhaps still early to come to definite conclusions. Like Evans,<sup>120</sup> I suspect that there was greater familiarity with writing in the sphere of craft-industries. It also seems reasonable to expect that the Akrotiri community could have a scribe or scribes, as at Deir-el-Medina (of the later—Ramesside—period, though). What is significant is that the concentration of examples of writing observed in at least three out of the four houses in complex Delta, is possibly related to the particular finds in the storerooms of these houses, and these finds suggest that the occupants may have been businessmen or merchants.<sup>121</sup> They were probably the people who came into contact with Crete (receiving and reading the sealed correspondence) and other parts of the Mediterranean. Did they employ a scribe for their activities, or did they learn the script themselves? The rather makeshift incisions mentioned above tend to suggest the latter. In this case, some of the responsibility for the diffusion of Linear A will have been born by the people of the Cyclades (as Palaima believes<sup>122</sup>), especially when account is taken of the fact that some of the examples of writing were on sherds from Middle Cycladic vases (inv. no. 136 and possibly 1940);<sup>123</sup> this points to the probability—no more—that the makeshift marking on them also dates from this period.

I close the present article with a neat coincidence: if we read the makeshift inscription on the local amphora 1262 from top to bottom as AB 08-A318, there is a visual similarity with the inscription on one of the two tin ingots from the sea of Haifa.<sup>124</sup> Was the occupant of the north house of complex Delta involved in the tin trade? (the Theran equivalent of the ‘interpreter’ of the Keftiu on the Mari tablet?). Was this the reason that so many lead weights were also found in the

<sup>117</sup> Schoep 1999, p. 206. Flat-based nodules impressed by HT 54 travelled between Zakros and Hagia Triada and Zakros and Sklavokambos: Schoep 1999, p. 215, note 79. On Wiener’s view, though (Wiener 1999, pp. 419-20) House A in Zakros was involved in maritime expeditions, and this would suite well to evidence from Complex Delta on Thera.

<sup>118</sup> Schoep 1999, p. 207.

<sup>119</sup> Two of the motives most frequent occur—as a rule—on the two sides of the same sealing. while the total of 15 motives “both thematically and artistically suggest a Cretan provenance” (Doumas 2000, p. 63).

<sup>120</sup> See the introduction to this article.

<sup>121</sup> Michailidou forthcoming. See also Doumas 1983, p. 48, and Boulotis 1998, p. 410.

<sup>122</sup> See the introduction to this article.

<sup>123</sup> I am grateful for the information to A. Papayannopoulou, my colleague in the excavation team of Akrotiri. See also Michailidou 1992-3, p. 19.

<sup>124</sup> See, provisionally, Harding 1984, fig. 11.

same house?<sup>125</sup> We are going too far, these coincidences do not represent scientific remarks in the absence of firm evidence, especially in the hazardous world of 'signs' (and the ingots in question are not dated). But there are other coincidences, to which I shall not refer here.<sup>126</sup>

Any way, we should make an emphasis on the different 'hands' writing the sign AB 08 on pottery, in three (or four) instances. Also ask ourselves about the cognitive equipment of the Aegean traders.<sup>127</sup> For the Aegean world, the picture that is gradually emerging is of a script that was systematised by the bureaucracy and in cases 'imposed' under the cloak of the priesthood,<sup>128</sup> but also partially adopted and disseminated by the traders circulating goods and ideas.

GR- 116 35 Athens  
Research Centre For Greek and Roman Antiquity  
48 Vas. Constantinou Ave.

ANNA MICHAILIDOU

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<sup>125</sup> The main products that were weighed were metals and wool.

<sup>126</sup> But in the Study of the Potter's Marks found on Thera.

<sup>127</sup> Michailidou 2000, pp. 205-206.

<sup>128</sup> For instance on Kythera: Sakellarakis 1996, p. 84.

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