



Some Military Aspects of the Aegean in the Late Fifteenth and Early Fourteenth Centuries B.C

Author(s): Jan Driessen and Colin Macdonald

Reviewed work(s):

Source: *The Annual of the British School at Athens*, Vol. 79 (1984), pp. 49-74

Published by: [British School at Athens](#)

Stable URL: <http://www.jstor.org/stable/30103050>

Accessed: 27/11/2011 10:05

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



British School at Athens is collaborating with JSTOR to digitize, preserve and extend access to *The Annual of the British School at Athens*.

<http://www.jstor.org>

SOME MILITARY ASPECTS OF THE AEGEAN IN THE LATE FIFTEENTH AND EARLY FOURTEENTH CENTURIES B.C.*

PART I. MERCENARIES AT MYCENAEAN KNOSSOS?[†]

THE Pylian Linear B tablets of the *OKA* set are a valuable source of information on Mycenaean military organization.¹ It has long been agreed that they reflect the registration of military preparations to prevent a seaborne attack.² The documents record the installation, at several places situated along the Messenian coast, of groups of troops, each consisting of a commander, several officers, and a number of soldiers. Each contingent is accompanied by a nobleman with the designation *eqeta*, who probably acted as a kind of liaison officer between that contingent and the palace at Ano Englianos.³ As an example we can cite PY An 654:

1. ku-ru-me-no-jo, o-ka, pe-ri-te-u,
2. wo-ne-wa, a-ti-ja-wo, e-ru-ta-ra,
3. o-*34-ta, me-ta-pi-jo, ke-ki-de,
4. VIR 50
5. *vacat*
6. u-pi-ja-ki-ri-jo, ku-re-we, VIR 60
7. me-ta-qe, pe-i, e-qe-ta,
8. a-re-ku-tu-ru-wo, e-te-wo-ke-re-we-
9. -i-jo, etcetera

This document can roughly be translated as 'Under the command of *Kurumeno* (are) *Periteu*, *Wonewa*, *Atijawa*, *Erutara* (and) fifty *Kekide* from *Metapa* at *O*34ta* (and) sixty *Kurewe* from *Upijakiro*; with them goes the *eqeta Arekuturuwo*, son of *Etewokerewo* . . . '.

As well as the common soldiers, the *Kurewe* and *Kekide*, mentioned in this text, the other *OKA* tablets list troops called *Okara*, *Iwaso*, *Korokuraijo* and *Urupijajo*. Several scholars have commented on these designations and interpreted them as troop-names derived from original ethnic designations, as original ethnic groups, or as troop-names indicating the kind of equipment the soldiers carried.⁴ The first and second explanations seem the more convincing, since in most cases it is relatively easy to equate these troop-designations with later toponyms.

* Both papers assume that the Palace at Knossos was controlled and occupied by mainland Mycenaeans after 1450 B.C. until its destruction early in LM III A2 to which horizon belong the Linear B tablets. See M. R. Popham, *The Destruction of the Palace at Knossos* (SIMA 12) (Göteborg 1970); M. R. Popham, E. A. and H. W. Catling in *BSA* 69 (1974) 195-257 and M. R. Popham in *BICS* 23 (1976) 119-21.

† I am indebted to Dr. H. W. Catling for his constant encouragement. Drs. J. T. Killen and J.-P. Olivier read an earlier draft of this paper and gave much valuable criticism. I thank Miss Emma L. Faull and Mr. David Hibler for correcting the English.

¹ See J. Chadwick, *The Mycenaean World* (Cambridge 1976) (henceforth Chadwick, *MW*) 175-8; R. Schmitt-Brandt, *SMEA* 7 (1968) 69-96; S. Deger-Jalkotzy, *E-QE-TA. Zur Rolle*

des Gefolgschaftswesens in der Sozialstruktur mykenischer Reiche (Vienna 1978) (henceforth Deger, *Egeta*) 14-51; L. R. Palmer, *Minos* 4 (1956) (henceforth Palmer, 1956) 120-45; and id., *Armées et fiscalité dans le monde antique* (Paris 1976) 35-52.

² See, however, J. T. Hooker, in *SMEA* 23 (1982) 209-17.

³ Chadwick, *MW* 177 believes that the Pylian *eqeta* were in command of a regiment of the army, whereas Deger, *Egeta* 40 thinks that they controlled both troops and officers and acted as liaison officers.

⁴ For the different interpretations see especially M. Lindgren, *The People of Pylos* ii (Uppsala 1973) (henceforth Lindgren, *PoP*) 58, 75, 86, 90, and 149; Chadwick, *MW* 115; Deger, *Egeta* 26; F. Gschnitzer in *Donum Indogermanicum (Festschrift A. Scherer)* (Heidelberg 1971) 90-106.

Thus the *Iwaso* may well have been troops formed by people who came, or originally came, from Iasos, the *Urupijajo* by men who came, or originally came, from Olympia. Similar etymological explanations have been offered for the other designations, although it does not matter for the sake of this article which places were meant of where they were situated originally.⁵ It seems likely that these troops consisted of foreign elements or, at least, of groups who were originally non-Messenian. All these places are likely to have been somewhere in the Mycenaean world and probably in the Peloponnese.

It must, however, be stressed that the Pylian archive contains several indications of the existence of captive women (*Rawijaja*) from more easterly Mycenaean sites such as 'Women from Miletus' (*Miratija*), 'Women from Knidos' (*Kinidija*) and 'Women from Lemnos' (*Raminija*).⁶ 'Men' are never mentioned as captives. War and raids are regarded as the most important means of acquiring slaves in the ancient world⁷ and often male prisoners of war—or sons of female captives—were recruited into mercenary service, especially by rulers who distrusted their own countrymen. Hence it could also be possible that the troops mentioned in the *OKA* set were originally prisoners of war. On the other hand, the inclusion of the same groups of men in other Pylian tablets (for example the Na and Ma series), may suggest that small groups of foreigners were admitted to the Pylian kingdom and were allotted small fiefs of land for cultivation. In return, they had to contribute a certain amount of flax and render military service in the Pylian army.⁸

Turning to Knossos, it would therefore not be surprising to find indications of the use of mercenaries on Mycenaean Crete, since the warrior graves, the inventories of weapons and chariots, the presence of a tribute record, and the highly centralized bureaucratic system might indicate that they were required.⁹ It is interesting to note that the Knossian Linear B archive contains possibly four of the Pylian ethnic designations, namely *Okara* (Xd 70, X 7631), *Kurewe* (X 7668), *Urupijajo* (Fh <392>) and *Kekide* (F7362 v.). All these tablets are highly fragmentary and some of the terms may possibly be explained in other ways.¹⁰ One tablet, found in the *Room of the Chariot Tablets*, allows more reliable speculation. This document, B164, reads as follows;¹¹

0.	<i>sup. mut.</i>	
1.		] VIR 37
2.	ku-re-we[	]ru-wo VIR 143
3.	a-da-wo-ne[	

⁵ See e.g. R. Schmitt-Brandt, *SMEA* 7 (1968) 80-1 who concludes that the different designations derived either from toponyms or from the name of the equipment which the soldiers carried (or from both). See also Lindgren, *PoP* 86, 91, 150 and Palmer, 1956 126, 145. The *Korokurajo* could have come from *Κροκύλεια* or from *Κόρυρα*. The *Kurewe* could have a connection with the island Skyros or the name could be derived from words such as *σκόλα* 'spolia' etc. The whole thing is still under discussion.

⁶ See S. Hiller, *Živa Antika* 15 (1975) 388-412.

⁷ See J. A. Lencman, *Die Sklaverei im mykenischen und homerischen Griechenland* (Wiesbaden 1966) 200-1 and especially I. J. Gelb, *JNES* 32 (1973) 91-4. P.O.W.s were *inter alia* used as mercenaries in Israel, Egypt, Mesopotamia, Anatolia, and elsewhere.

⁸ See J. Chadwick, *BICS* 26 (1979) 130 and E. D. Foster, *Minos* 17 (1981) 67-121.

⁹ See e.g. A. J. Evans, *The Prehistoric Tombs of Knossos* (London 1904); F. Vandenabeele-J.-P. Olivier, *Les Idéogrammes*

archéologiques du linéaire B (Paris 1979) *passim*; id., *BCH* 98 (1974) 23-5.

¹⁰ The fragments mention]o-ka[(Xd 70), o-ka-ra[(X 7631), ku-ře[(X 7668), u-ru-pi-ja[(Fh <392>) and ke-ki[(F 7362 v.). Apart from ke-ki[, which could have stood for the anthroponyms *Keki*, *Kekido*, or *Kekijo*, all words are repeated only in the Pylian *OKA* set.

¹¹ The archive in the Room of the Chariot Tablets in the West Wing of the palace is regarded as a scribal school by J. Chadwick (*BICS* 13 (1966) 103-4). The fact that the find-circumstances were remarkable, that the graphic style is not found in any other Knossian archive, that the sealings of the archive and the contents of the tablets correspond, that the information does not betray obvious 'lies', that there are sufficient cross-references to the other Knossian archives, that there are no real exercise tablets, all point away from Chadwick's interpretation. The archive is indeed awkward, but seemingly for other reasons. See *KT* (4) for text and comments.

4. i-ja-wo-ne[
 5. ku-[]₄₀
 6. o-[]_{vest.}[]₄
 7. to-[] /]to[]_{VIR 144}
 8, 9. vacant

Although this tablet too is badly preserved, it is obvious that it deals with several relatively large groups of men:¹² the tablet lists 368 men (if we accept that lines 5 and 6 deal with men). It is possible that the original number of men was much higher, since the numbers mentioned in lines 3 and 4 are lost and those in lines 5 and 6 could easily have been higher. The latter is due to the Minoan-Mycenaean system of numerals. Document B 164 mentions, therefore, one of the largest numbers of men recorded at Knossos, surpassed only by tablets V 159 and B 7034 in which 428 men and 900 men are mentioned respectively.

Apart from these numbers, the text preserves three terms of which the first is known from the Pylian archive, namely the *Kurewe*. This term is followed on line 2 by another word, of which only the ending *-ruwo* has been preserved. It is not clear what this word represents: either it is the remnant of a place-name, as in the Pylian *OKA* set, indicating where the men came from or where they were posted, or a personal name, indicating who was in charge of the group. The second possibility seems more likely, since one would rather expect an ethnic adjective in *-jo*, such as *Oduruwijo*, indicating where the men came from. If it was indeed a personal name, it could have been a hapax or *Akuturuwo*], mentioned in tablet Fh 364.

The next group of men is called *Adawone*, a hapax. The number of men in this group is unknown. This is also true of the next group, the *Ijawone*, a group also mentioned on another tablet from the same archive (Xd 146.4). The term *Ijawone* is usually regarded as the earliest Greek attestation of the 'Ionians', the Homeric *Ἰάονες* (*Il.* 13.685).¹³ It is likely that the Ionians were a specific tribe somewhere in the Mycenaean world and that their name was applied to the whole of Greece by contemporary and later Near Eastern peoples, who came into contact with them, as would be the case with the later *Γραικοί*.¹⁴ The original home of this tribe, however, is still unknown.¹⁵

The fifth group, consisting of at least 40 men, was possibly also formed by a contingent of *Kurewe*, perhaps under the command of another man. The two groups of men in lines 6 and 7 are unknown and no reasonable suggestions have been offered.¹⁶ It is possible that line 7 ended with the formula *toso VIR* 'so many men', hence indicating a kind of subtotal. It is, however, unknown if this subtotal would apply to line 7 only, or to lines 5, 6, and 7.

The presence of the three terms, of which at least one can be connected with an ethnic designation, together with the occurrence of relatively large numbers of men and the character of the tablet, suggests that the tablet B 164 represents a kind of troop-list, as did the *OKA* set. The purpose of the record is not preserved. The presence, however, of the three designations

¹² See J. Chadwick in *Greece and the Eastern Mediterranean* (*Festschrift F. Schachermeyr*) (Berlin-New York 1977) (henceforth Chadwick, *GEM*) 108-9. He is not certain whether the names in lines 3 and 4 are nominatives plural of ethnics or datives singular of personal names. It seems likely, however, because of the principle of parallelism, that we are dealing here with ethnics.

¹³ Chadwick, *GEM* 106-9.

¹⁴ Examples of Near Eastern languages in the first millennium B.C. which mention the Ionians are the Hebrew *Yāwān* (Ezek. 27: 13; Gen. 10: 2), the Assyrian *Yawnai*, the Persian

Yauna, and the Egyptian *jwn(n)*. The modern Turkish word for 'Greek' is still *Yunanlı*.

¹⁵ They are mentioned in the *Iliad* together with the Boeotians and the Locrians. Herodotos (7. 94; 8. 44; 9. 26) places the prehistoric Ionians especially in Attica and the Peloponnese.

¹⁶ The third sign in line 6 is possibly *ke* or *je*. Possibilities are few, e.g. *opikerijo*, a place-name in the Pylian tablets (An 615-724) (cf. *DMG* 188). In Knossos there is the obscure word *otake* on fragment Xd 7547, again a tablet from the Room of the Chariot Tablets.

(*Kurewe*, *Iawone*, and *Adawone*) on the same tablet makes it possible that we are dealing here with three *original* ethnic designations or tribe-names.¹⁷ If this is so, B 164 could list, for example, men who were called *Kurewe*, *Adawone* and *Iawone*, because they came from a region which had a connection with these names (e.g. Ionia), wherever these places may have been. If this interpretation is correct, we must ask what these foreigners are doing on Crete, since it is highly unlikely, with regard to the recent Mycenaean conquest, which we place at the end of the LM IB period, that these groups present parts of the local population, especially since these designations cannot be connected with Cretan place-names mentioned in the Knossian archive or later. Are they, as in Pylos, foreigners who were admitted to the Knossian kingdom after the conquest of Crete, who rendered military service in return for fiefs of land? This seems a likely possibility, though no records comparable to the Pylian Na and Ma series are preserved at Knossos. The fact that the numbers listed are high, a characteristic of most military tablets,¹⁸ together with the occurrence of the *Kurewe*, who also occur in the Pylian *OKA* set, suggests that we are dealing with a list of foreign troops at Knossos. That they were mercenary forces is difficult to prove, but is possibly indicated by the fragmentary text Fh <392> on which *Urupija* was preserved, a word which can only be completed as *Urupijajo* 'Men from Olympia (?)'. Its findspot¹⁹ and the contents of the other tablets belonging to the same set, for example Fh 386, where a group of bronze-smiths (*kakewe*) were to receive about 11 litres of olive-oil, may suggest that the *Urupijajo* also received an amount of oil.

Several other Knossian tablets seem to deal with people who were temporarily employed by the Knossian palace and received a payment in kind (Am 819-597, E 777-847, G 820).²⁰ There are also some allusions in the *Iliad* to several groups of the Trojan army who were recruited to defend the Trojan people in return for loot, gifts, and food (e.g. *Il* 17. 225).²¹ One can compare these practices with those in use in fourteenth-century-B.C. Egypt, where large numbers of Nubian and Sherden warriors were used in the Egyptian army but at the same time in the Hittite army.²² There are indications that Egypt and hence possibly the well-organized Egyptian army²³—was well known to the Mycenaeans, which may be relevant. Moreover, if we may rely on the fresco of the 'Captain of the Blacks' from the House of the Frescoes at Knossos, which is slightly earlier than the Linear B archive, there is also iconographic evidence for the use of foreigners in military service at Knossos.²⁴

With regard to this, we may point to a set of Knossian tablets from storeroom XV in the West Wing of the palace, the Ld(1) set. As J. T. Killen established, these Ld(1) tablets deal with a specific aspect of the Knossian textile industry, an industry which was based on large flocks of sheep and a well organized artisan system.²⁵ The set contains about fifteen tablets and fragments with a very similar content. They form a part of the so-called 'staple texts', documents which dealt with finished textile products which were stored in one of the palace magazines and on

¹⁷ There is no reason why *kurewe* should not mean the same as in Pylos, since both are accompanied by the VIR ideogram and high numbers.

¹⁸ See e.g. the *OKA* set in Pylos and possibly the newly discovered tablet Al 7 from Tiryns (L. Godart, J. T. Killen, and J.-P. Olivier in *AA* 1983, 418).

¹⁹ The tablet is missing but was found in the Room of the Column Bases in the West Wing of the palace. Like the other tablets of the set, it was probably written by scribe 141.

²⁰ Deger, *Eqeta* 86-8. This may have been during the harvest season.

²¹ See T. D. Seymour, *Life in the Homeric Age* (London 1907) 589.

²² J. H. Breasted, *A History of Egypt* (New York 1905) 336, 449-50 and I. J. Gelb, *JNES* 32 (1973) 91-4.

²³ See J. Vercoutter, *L'Egypte et le monde égéen préhellénique* (Cairo 1956) *passim*, esp. 29-30, 423-30 and R. O. Faulkner, *JEA* 39 (1953) 32-47.

²⁴ *PM* ii. 755-7, pl. XIII (LM IB).

²⁵ See *KT* (4) 219-23 for texts and comments and J. T. Killen in *BSA* 59 (1964) 1-15; J. T. Killen in *Colloquium Mycenaeanum* (Neuchâtel 1979) (henceforth Killen, *CM*) 151-81.

which the origin of the product (e.g. the weaving or fuller shop) is not indicated.²⁶ Two examples of this set may suffice:

Ld 571

- a. pe-ne-we-ta a-ro₂-a *158 1
- b. pa-we-a,/e-qe-si-ja, re-u-ko-nu-ka, TELA³ 25

Ld 573

- a. e-ru-ta-ra-pi
- b. pa-we-a,/ke-se-nu-wi-ja, re-u-ko-nu-ka TELA³ 35 *158 1

All these documents deal with *pa-wea* (cf. *φᾶπος* Il. 2. 43), a specific kind of textile or garment, further defined by adjectives such as *peneweta* ('with wedge-pattern'), *aro₂a* ('of better quality'), *reukonuka* ('with white fringes'), *erutarapi* ('with red pattern') and others.²⁷ The exact meaning of the ideogram *158 () is not known, but an interpretation such as 'bale' should not be too far wrong.²⁸ The problem consists of the two terms which occur in a parallel position in each tablet, either *eqesija* or *kesenuwija*.²⁹ The words are clearly derived from *eqeta* and **keseno* but what do they actually mean? It is interesting to note that whereas *eqesija* garments vary in character and decoration, the *kesenuwija* textiles are always of the same type, with a 'red pattern' and 'white fringes'. The total amount of stored '*pharwea*' was probably about 453 items, as indicated by the totalling tablet LD 587.³⁰

1. to-sa, po-ki-ro-nu-ka TELA² 24 re-u-ko-nu-ka TELA² 372
 2. ko-ro-ta₂ TELA² 14 *56-ra-ku-ja TELA^x 42 po-ri-wa TELA² 1
- lat. inf.* *vacat* to-ša TELA 149

What is meant by *eqesija* and *kesenuwija*? Since the two terms occur in a parallel position in the booking, it is reasonable to assume that they represent alternatives for each other. The problem is how to interpret these terms: do they indicate the type of garment, the origin, or the destination of the garments? It is not characteristic of the Ld(1) set to indicate the place of origin; in other words, the textiles are not likely to have been manufactured in the workshops of the *eqeta* or the **keseno*. On the other hand, while *eqesija* and *kesenuwija* seem to be the most consistent characteristics of these garments, they are obviously difficult to visualize. Otherwise, one would have encountered these designations in the totalling tablet Ld 587 mentioned above. We may, therefore, infer that they represent different destinations, and two destinations which, though not identical, must have had enough in common to explain their booking in the same set. Who are the *eqeta* and **keseno* meant by the Ld(1) set?

The men indicated by the title *eqeta* in Knossos seem to have had a predominantly military function. The designation occurs twice on tablet Am 821 and once on the tablets As <4493> and B 1055.³¹ As <4493> especially seems to be relevant for the identification of their function;³²

1.]e-pi-ko-wo, e-qe-ṭa, e-re-u-ṭe[
2.]da-mo, / e-ro-pa-ke-u // VIR 1 ko-ki[
3.]-jo / ra-wo-po-qo, ze-ro[

Although this text is fragmentary and the tablet is missing, one may accept that the meaning of

²⁶ Deger, *Eqeta* 98–105.

²⁷ Killen, *CM* 153 and Deger, *Eqeta* 99 (references).

²⁸ Deger, *Eqeta* 99.

²⁹ *Eqesija* in Ld 571–572–575–583; *kesenuwija* in Ld 573–574–585 and *kesenuwija* in Ld 649.

³⁰ *DMG*² 319.

³¹ See *KT* (4) 18, 28, 36, 38–9 for texts and comments.

³² Deger, *Eqeta* 92–4 and J. L. Melena, *Studies on Some Mycenaean Inscriptions from Knossos dealing with Textiles* (Salamanca 1975) (henceforth Melena, *Textiles*) 37–42.

the text is a military one.³³ This interpretation is based primarily on the presence of the word *epikowo* *ἐπικοφοί ‘guards, look-outs’. The meaning of *ereute* is less obvious: either it is connected with a *nomen agentis* in *-ter* (**ereuter*) and derived from verbs such as ἐρέω, ἐρευνάω, and ἔρομαι (‘to ask, to control, to inspect’) or it is connected with the verb ἐλευθερόω ‘to make free’.³⁴ Though the exact meaning of the sentence is further dependent on its structure (asyndetic or not?), it is likely that the *eqeta* either controlled or relieved the guards. Our two other *eqeta*-texts will show us that the *eqeta* at Knossos—in contrast with those from Pylos—are always connected with an ethnic designation; hence they seem to have been territorially bound.³⁵ We may infer, therefore, that these ethnic designations were mentioned in lines 2 and 3 of As <4493> and that more than one *eqeta* was meant in the heading. In this way, it is possible that ‘*damo* (in his function as) *eqeta* relieved or inspected the guard *Eropakeu*’ etcetera.

Another document which seems to be relevant for the identification of the function of the Knossian *eqeta* is tablet B 1055,³⁶

1. ko-no-si-jo, e-qe-ta,
2. pi-sa-wa-ta, VIR[]-ṣe[]
3. wo-si-jo-ne VIR[]
- 4, 5. *desunt*
6. []VIR 1 e-ko-te[]
7. []wī-[]VIR 1 me-ṭu[]
8.]-ma-ro, VIR 1
9. to-so, pa-te VIR 213[]

Probably from the same archive and by the same scribe (hand 102b) is tablet B 807;

- sup. mut.*
1. tu-ri[-si-jo?
 2. u-ta-ni-jo VIR 237

Both documents mention large numbers of men in connection with ethnic designations. B 1055 seems to record several personal names, of which the number may have coincided with the thirteen men mentioned in the sum ‘*tossoi pantes 213*’. This would mean that the remaining 200 men were somehow implied but not explicitly mentioned. The problem is, however, whether there was only one official with the title ‘*eqeta* of Knossos’, who had thirteen adjutants and 200 men under his command—the scheme of the Pylian *OKA* set—or if there were thirteen *eqeta* at Knossos, of whom some names are preserved, such as *Pisawata*, *Wosijone*, and *Ekote*, and who were all together responsible for 200 men (i.e. 12 *eqeta* have 15 men each, 1 *eqeta* has 20 men). It is also possible that there were about thirteen *eqeta* at Knossos, each in command of 213 men. The fact that *pate* is mentioned explicitly in the totalling formula and the general structure of the tablet make the last interpretation more likely.³⁷

The last *eqeta* occurrence is Am 821;³⁸

1.]ra-jo, e-qe-ta-e, e-ne-ka, e-mi-to VIR 2//ki-ta-ne-to, su-ri-mo, e-ne-ka ‘o-pa’ VIR 1
2.]ḍu-we, ṭa-ṣa, /i-je[-re-]u, po-me, e-ne-ka, ‘o-pa’ X VIR 1//ko-pe-re-u, e-qe-ta, e-ki-‘si-jo’
VIR 1
3.]*vacat*

³³ This interpretation is not accepted by Melena, *Textiles* 42.

³⁴ Lindgren, *PoP* 50–1.

³⁵ Deger, *Egeta* 203–4.

³⁶ Deger, *Egeta* 94–8 and Melena, *Textiles* 33–6.

³⁷ In this way there would have been about 13 *eqeta* at Knossos and one *eqeta* at Tylissos and *Utano*. The numbers

mentioned in these tablets are surprisingly similar; both are multiples of 24 (product minus 3): i.e. $24 \times 9 = 216 - 3 = 213$ (B 1055) and $(24 \times 10 = 240 - 3 = 237)$ (B 807). Coincidence?

³⁸ Deger, *Egeta* 83–92 and Melena, *Textiles* 26–49 (references).

This tablet is also characterized by the VIR ideogram; hence it is the 'men' mentioned who provide the occasion for the drawing up of this tablet. This is further stressed by the fact that only the personal names are written in large characters and by the correspondence between the amount listed after the ideogram and the number of men who constitute the subject of each sentence (e.g. *eqetae*—a dual form—agrees with *VIR* 2 etc.). The reason why the two *eqeta* of]ra³⁹ and the *eqeta* *Kopereu* of *Ekoso* are recorded is probably indicated by *eneka emito*, whereas the priest-shepherd *Tara* of *Sijaduwe*⁴⁰ and the shepherd *Kitaneto* of *Surimo*⁴¹ were recorded is *eneka opa*. Now *eneka* is without doubt the later *ἐνεκα* 'because of' and *opa* is best translated by 'contribution',⁴² which in connection with the shepherds may mean wool, meat, or a kind of service. The word *emito*, on the other hand, is usually linked to *μισθός* (Thuc. 6. 22), meaning 'payment, reward'.⁴³ It is likely that *emito* and *opa* indicate some alternative of each other, hence the *eqeta* could be recorded because of a contribution or a service of a special kind. Though this tablet does not contribute to our knowledge of the military function of the *eqeta* at Knossos—whatever its other implications—it stresses the fact that they were bound territorially and that they stood in a different relation to the palace from the shepherds.

If we apply this scanty evidence to the *eqeta* at Knossos, taken together with the etymology which connects the term with *ἑπεσθαι* 'to follow' (hence 'Followers'),⁴⁴ it seems likely that the *eqeta* represent some kind of military commanders, each responsible for an amount of men and a specific geographical place.

The *eqeta* may therefore be regarded as a distinct group with a military function. If we return to the Ld(1) set, we may infer that the palace administration recorded the storage of a certain number of garments which would be distributed to these military commanders. If we stress the parallel recording of *kesenuwija* in these texts, we may conclude that the **keseno* are also likely to have formed a specific group, the main characteristic of which was a military one, a kind of alternative to the *eqeta*. The individuals designated by the term **keseno* seem to have stood on a lower step on the hierarchical ladder than the *eqeta*, since the garments designated for them were never 'of better quality' and are of a rather uniform decoration. This 'military' group was provided with a special uniform by the palace, hence it stood in a specific relation to the *wanaka* of Knossos, as did the *eqeta*.

The word *kesenuwija* is without doubt connected with the later word *ξείνος* or *ξένος* but has been interpreted in different ways. Scholars suggest 'of foreign type', 'for guests', 'for export', or 'for guest-gifts'.⁴⁵ Although some of these interpretations may be attractive for other reasons, they do not accord with the context in which the term appears. If the **keseno* were, as the *eqeta*, a military group, it is likely that the word **keseno* was the designation for 'foreign warriors' (*vel sim.*) who were supplied with garments by the palace.⁴⁶ In the epics *ξενήϊα* usually means 'guest-gifts' but the word *ξένοι* is applied to foreigners on Trojan soil over whom Priam ruled (*Il.* 24. 202), to hirelings who worked for Odysseus (*Od.* 14. 102) and to foreigners who were especially

³⁹ Either *Katara* or *Samara*, if two signs are lost as in line 2, *Era* or *Qara* if only one sign is lost; the former places were situated more westerly, the latter two in Central Crete.

⁴⁰ *Sijaduwe* is the only possible completion of the word. The identification is supported by the occurrence of an *ijereu* (*ἱερεὺς*) in *Sijaduwe* in Am 821 and the sheep belonging to the *Potnia* at *Sijaduwe* in the D-series. Melena, *Textiles* 31, is of a different opinion.

⁴¹ Also mentioned as a shepherd on Da 1108.

⁴² *DMG*² 420, 564.

⁴³ Melena, *Textiles* 48 and Deger, *Egeta* 85–6. The classical word for mercenary was sometimes *ἐμμισθος* (cf. Philo v. 29).

⁴⁴ Deger, *Egeta* 196–8.

⁴⁵ *DMG*² 218, 553 (*Il.* 11. 779); Deger, *Egeta* 104; Melena, *Textiles* 44–5: *Kesenuwo* is probably a man's name in PY Cn 286.

⁴⁶ If one accepts—as we do—that Crete was partly conquered only two generations before the palace fell, it is likely that the 'foreign guests' were mercenaries and not local Cretan tribes or allies. For mercenaries, see further N. K. Sandars, *The Sea Peoples* (London 1978) 49–50, 94 and H. W. Parke, *Greek Mercenary Soldiers* (Oxford 1933) 3–6 '... as long there were wealthy masters, there were also masterless men who for need or greed or adventure would sell their swords and even their lives ...'.

recruited because of their skills (*Od.* 17. 382). Herodotus (*I.* 77), Thucydides,⁴⁷ Aristophanes (*Ploutos* 173), and Xenophon (*Anab.* 1. 10; 1. 2. 1), all use the word ξένοι to indicate mercenaries.

The fact that these 'foreigners' are mentioned only in tablets with a military sound (B 164, Ld(1)set) and often seem to receive remuneration (Ld(1)set and Fh <392>), suggests that they were mercenaries in the service of the Mycenaean *wanaka* of Knossos, who probably needed them to maintain his control over parts of Crete. These mercenaries could have been called **keseno* by the palace administration, since they probably were both guests and foreigners.⁴⁸ They were to receive *inter alia* garments and possibly olive oil from the palace stores. The contingent seems to have consisted of men from different parts of the Mycenaean world. Their help, however, did not prevent the destruction of the palace of Knossos—or were they the cause?

J. M. DRIESSEN

PART II: AEGEAN SWORDS AND WARRIOR GRAVES: THEIR IMPLICATIONS FOR KNOSSIAN MILITARY ORGANIZATION.‡

Burials accompanied by weapons were a new phenomenon in Crete in Late Minoan (LM) II.⁴⁹ The title 'warrior grave' is one of convenience used to single out burials which form only a small proportion of the total number even in the areas where they are most concentrated.⁵⁰ In this paper, which discusses LM II–IIIA swords and warrior graves from the whole Aegean, only men buried with 'horned' (types C and G) and 'cruciform' (type D) swords and dirks will be called warriors,⁵¹ since these are the only weapons we can be sure were made primarily for combat.⁵² Although many burials accompanied by daggers and spearheads, particularly the one-piece examples, may also be those of military men,⁵³ a life connected with warfare is more likely for men buried with swords and dirks because their main functions are limited; they may have been prestige items representing military standing⁵⁴ or weapons used by a select few in battle.

In Homer, as Lorimer pointed out,⁵⁵ there is no example of a sword-fight although military leaders were equipped with elaborately decorated swords. This later literary evidence cannot be

⁴⁷ Herodotus uses ξένοι to indicate Carian and Ionian mercenaries in Egypt (2. 163, 169). See E.-A. Bétant, *Lexicon Thucydideum* ii (Hildesheim 1961) for the use of the words ξένος, ξενότροφεῖν, and ξενάγός in connection with mercenaries.

⁴⁸ Which would mean that ξένος still had a double meaning ('guest' and 'foreigner'). Cf. F. Gschnitzer in *Colloquium Mycenaeanum* (Neuchâtel 1979) 128–9 n. 67.

‡ *Acknowledgements.* I am grateful to the following people for helpful comments on early drafts of this paper: Miss J. M. Cocking, Mr. J. Driessen, Miss E. L. Faull and Mr. J. A. MacGillivray. Miss P.-A. Mountjoy gave help when needed with pottery and Mr. D. Smyth with the drawings. Miss N. K. Sandars, Mr. M. R. Popham, and, particularly, Dr. H. W. Catling gave advice and detailed criticism which enabled me to produce the final draft; to them I owe a special debt. Any work on this subject must begin by acknowledging the important work carried out by Miss Sandars over twenty years; constant reference to her article (*AJA* 67 (1963) 117–53) is required throughout this paper.

Abbreviations not standard but used here are:

PTK A. J. Evans, *Prehistoric Tombs at Knossos* (1906)
Royal Tombs A. W. Persson, *The Royal Tombs at Dendra near Midea* (1931)

⁴⁹ M. R. Popham, *BICS* 23 (1976) 119–20.

⁵⁰ Only seven of the one hundred Zapher Papoura tombs at Knossos contained swords or dirks.

⁵¹ See V. R. d'A. Desborough, *The Last Mycenaeans and their Successors* (Oxford 1964) 67, where swords, dirks, and daggers are defined according to length. Swords: more than 0.50 m; dirks: 0.30–0.50 m; daggers: less than 0.30 m. From the supplementary catalogue it will be seen that only a handful of C and Di weapons are less than 0.40 m.

⁵² There is iconographic evidence from both the fifteenth and twelfth centuries to show that the sword/dagger was also used in hunting. A seal from Shaft Grave III at Mycenae depicts a man fighting a lion with a sword (*CMS* I, 20 no. 9). The Griffin Slayer (Enkomi) and the Lion Slayer (Kouklia), both carved on Late Cypriot ivory mirror-handles are similar scenes (H.-G. Buchholz and V. Karageorghis, *Prehistoric Greece and Cyprus* (1973) 480–1). However, spears and bows are much more common in such scenes.

⁵³ e.g. Zapher Papoura Tomb 66 (PTK 71) and Dendra, Chamber Tomb 2 (*Royal Tombs* 91–107).

⁵⁴ *AJA* 67 (1963) 128. Examples could be the Di sword from Zapher Papoura (ZP) Tomb 36 and the huge Ci swords from the Dendra Tholos and Ialysos New Tomb (NT) 4.

⁵⁵ H. L. Lorimer, *Homer and the Monuments* (London 1950) 272, 274.

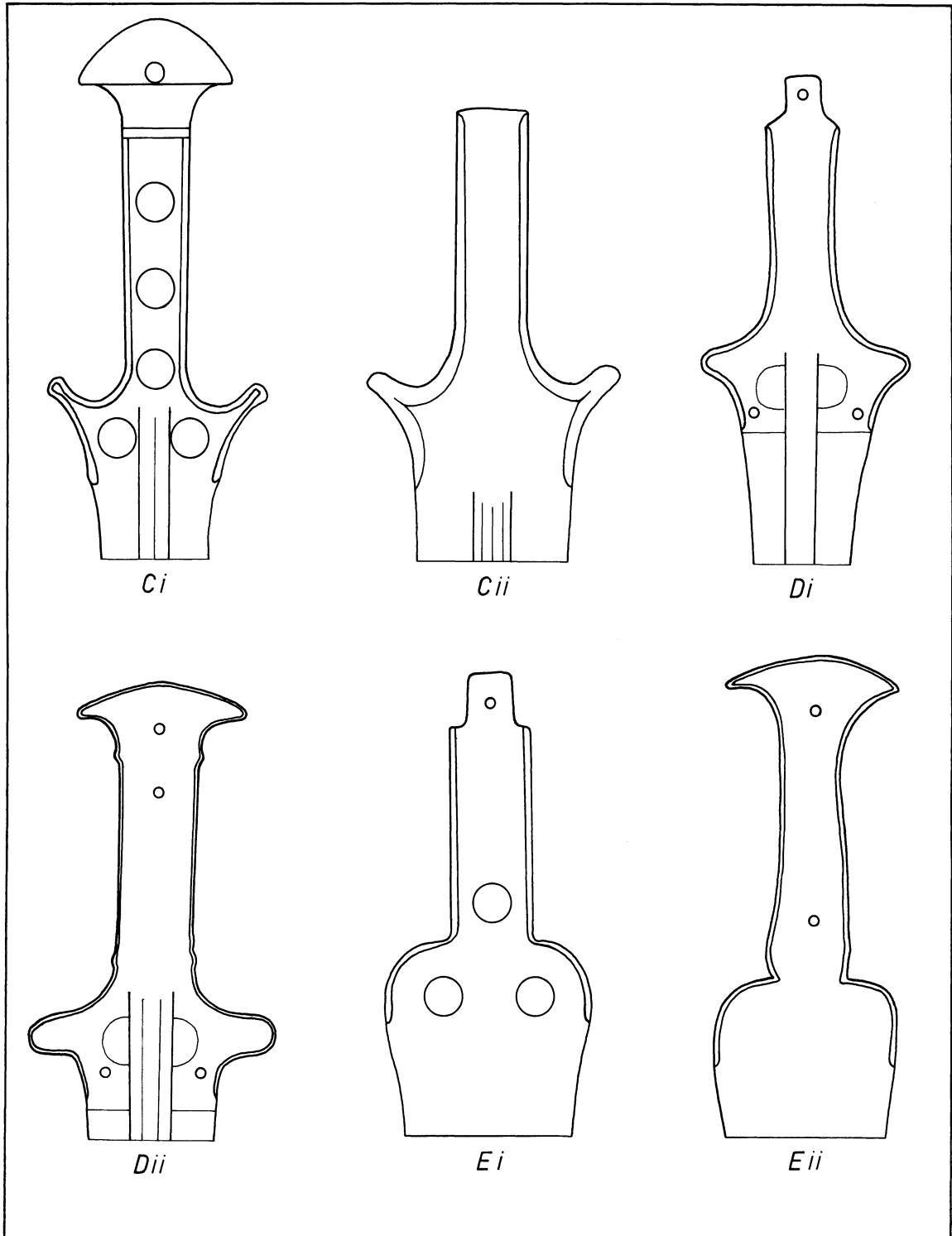


FIG 1. Examples of sword, dirk, and dagger-hilts of types C, D, and E. Drawings after published illustrations of Ci1, Cii5; Di35, Dii9, Ei1, Eii2. Scale 1:2

used to interpret the Late Bronze Age uncritically. In fact, iconographic evidence from the early fifteenth century suggests that swords were more prestigious than other weapons and adds other details which show that the sword was used in combat. Three gold signet rings from Grave Circle A at Mycenae depict scenes in which a warrior gives the final, thrusting death-blow with a sword.⁵⁶ The first, from Shaft Grave III, shows the defeat of a soldier holding his shield and spear. The other from the same grave depicts a swordsman killing a man holding a shield but no other weapon. The signet from Shaft Grave IV shows two warriors fighting with swords in a rocky landscape while another man (squire?) attempts to intervene. The central theme of each of these scenes is the victory of the swordsman. There is no example of a spearman defeating a swordsman. This justifies the treatment of burials with swords as a special group which may be considered separately from those merely furnished with spears.

Sandars has discussed the development of Aegean swords in detail and very little can be added to her typology.⁵⁷ My catalogue gives details of those swords, dirks, and daggers of types C, D, E, and G which have been found since 1963.⁵⁸ Most of Miss Sandars's observations have been confirmed by recent finds. The contexts in which types Ci, Cii, Di, and E have been found are still chronologically confined to LM/LH II–IIIA2.⁵⁹ True swords of type Dii are of a similar date, but dirks and daggers of this type have been found in LM/LH IIIB contexts.⁶⁰ While the main concentration of the dominant types (Ci and Di) remains in the Knossos area and the Argolid, examples have now been found in many other parts of Mainland Greece and the Islands (figs. 2–3). The recent finds from the Mainland show that all the areas which had burials with earlier swords of types A and B also have warrior graves furnished with cruciform or horned swords, particularly the Argolid, Laconia, Messenia, and Elis.⁶¹ In certain instances, types A or B have been found with types C or D, e.g. Mycenae Chamber Tombs 78 and 81, the Dendra Tholos, and perhaps the Myrsinochorio Tholos 2.⁶² In Crete, recent finds of Ci and Di swords are confined to the Ci dirk from Archanes (Ci4), the two Di swords from Sellopoulo (Di11–12), and the magnificent Ci swords from Kato Syme (Ci7–8).

Weapons buried with warriors also included spearheads and daggers. Spears are likely to have been the most usual weapon used in battle,⁶³ and, as Sandars has said,⁶⁴ were probably the most effective and lethal of all the arms carried by a warrior. The one-piece variety is the finest and most formidable type and has a similar distribution to the swords.⁶⁵ The type E dirks and daggers—none are swords—are short stabbing weapons and should probably be considered of

⁵⁶ *CMS* i, 22 no. 11; 23 no. 12; 27 no. 16.

⁵⁷ *AJA* 67 (1963) 117–53. Other, more recent articles include: K. Kilian, 'Nordgrenze des ägäischen Kulturbereiches in mykenischer und nachmykenischer Zeit', *Jahresbericht des Instituts für Vorgeschichte der Universität Frankfurt a. M.* (Munich 1976) 112–19; H. Matthaus, 'Two Mycenaean Bronzes', *BSA* 74 (1979) 163–73; St. Foltiny, 'Schwert, Dolch und Messer' in *Archaeologica Homerica* vol. 1, chapter E, part 2 (1980) 231–74. For the purposes of this article, constant reference is required to Sandars' paper; full references are not given here to swords which appear in her catalogue.

⁵⁸ Sandars's format has been followed here. The numbers against each sword in the Catalogue refer to those in my Supplementary Catalogue, which lists all examples of types C, D, E, and G. These numbers are often used in the text thus: (Ci10) i.e. sword no. 10 of type Ci from Dendra Tholos. The numbers on the distribution maps (figs. 2–4 and 6) correspond to the Supplementary Catalogue.

⁵⁹ By no means all are well dated, but none have to be later than LM/LH IIIA2.

⁶⁰ e.g. dagger from Poros Wall founder's hoard, Mycenae (Dii5).

⁶¹ For distribution of type A and B see Kilian (1976) fig. 4.

⁶² Several swords were found with the last burial on the floor of the tholos, and Sandars mentions that one may have been of type A (*AJA* 65 (1961) 26).

⁶³ Spears are more common than swords in tombs. In addition, there is iconographic evidence from Knossos for the use of the spear by groups of men, presumably soldiers (*Knossos Fresco Atlas* pl. iv, figs. 1–2).

⁶⁴ *AJA* 67 (1963) 128.

⁶⁵ One-piece spearheads have been found in the following areas: Knossos, Archanes, Argolid, Attica, Boeotia, Thessaly, Elis, Kos, Rhodes. For details of provenance and variations in form see R. A. J. Avila, 'Bronzene Lanzen und Pfeilspitzen der griechischen Spätbronzezeit', *Prähistorische Bronzefunde (PBF)* v. 1.; O. Höckmann, 'Lanze und Speer im spätminoischen und mykenischen Griechenland', *Jahrbuch des Römisch Germanischen Zentralmuseums Mainz* 27 (1980) 13–158.

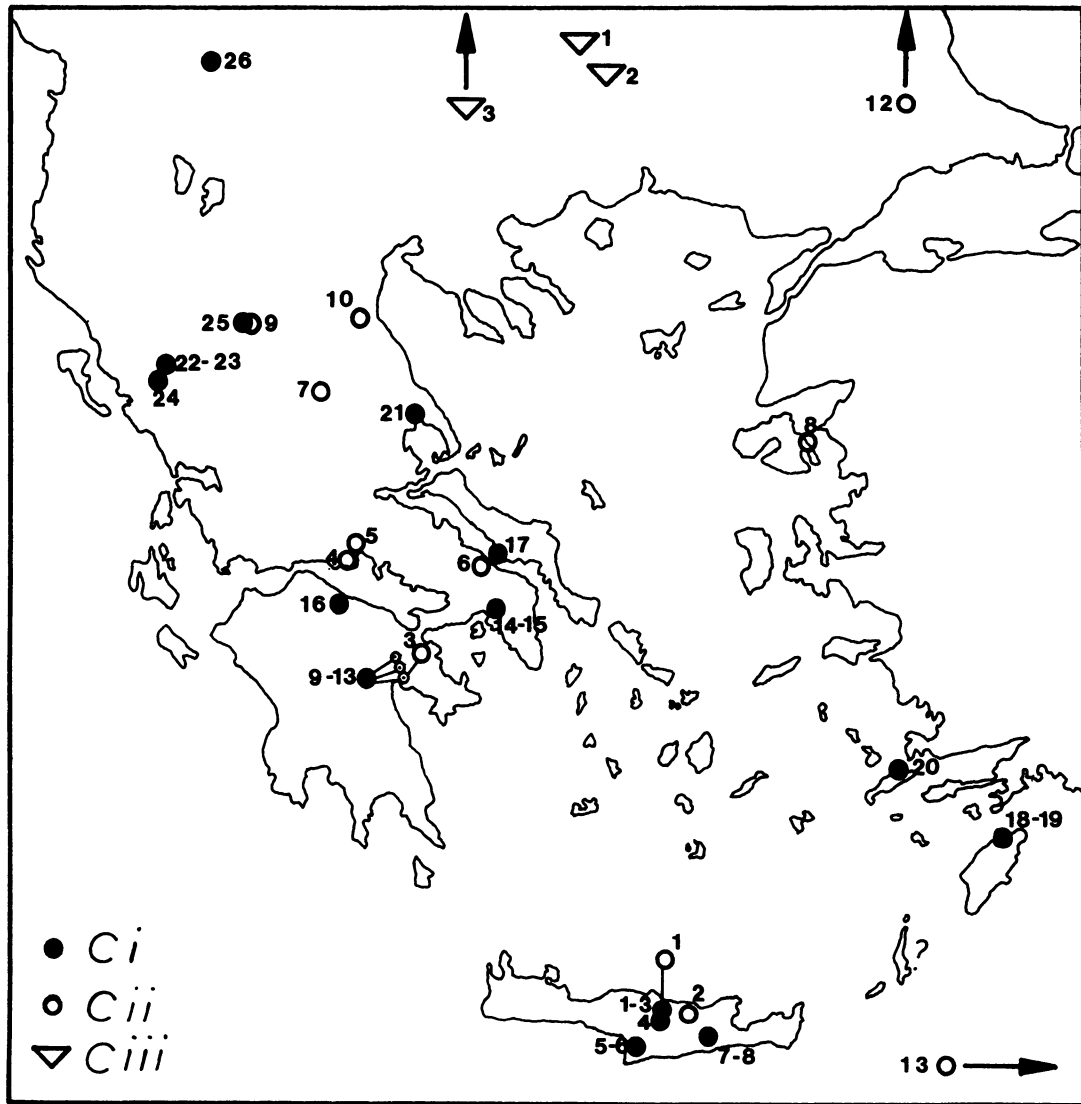


FIG. 2. Distribution of type C. Map after Matthaus, *BSA* 74 (1979) fig. 3

secondary importance when they occur with swords and spears.⁶⁶ Although type E is most common on the Mainland (fig. 4), the earliest example comes from LM II Knossos.⁶⁷

The equipment of a warrior sometimes included other bronze objects (knives, 'cleavers', axes, mirrors, etc.) to which no specific military function has to be assigned. Some burials are also furnished with metal vessels, sealstones, signet rings, and jewellery, the quantity and quality of which are likely to tell us something about a warrior's status in society.⁶⁸ The pronged 'fishing

⁶⁶ Type E is found with types C and/or D in the following tombs: Ayios Ioannis (A. J.) Tomb 2 (Di), Mavrospelio Tomb XVIII (Di), Sellopoulo Tomb 4 (Di), Argive Heraion Tomb 25 (Di), Pylos Chamber Tomb E (Di), Tanagra Tomb 16 (Cii), Ialysos NT 4 (Ci and Dii).

⁶⁷ Eii1 from the Unexplored Mansion.

⁶⁸ Metal vessels have been found with types C, D, E, and G in the following tombs: ZP 14 (bronze); ZP 36 (bronze); 'Silver Cup' Tomb, Sellopoulo Tomb 4 (bronze); A.J. Tomb 2 (gold cup); Fourni, Archanes (silver cup); Phaistos, 'Tombe dei

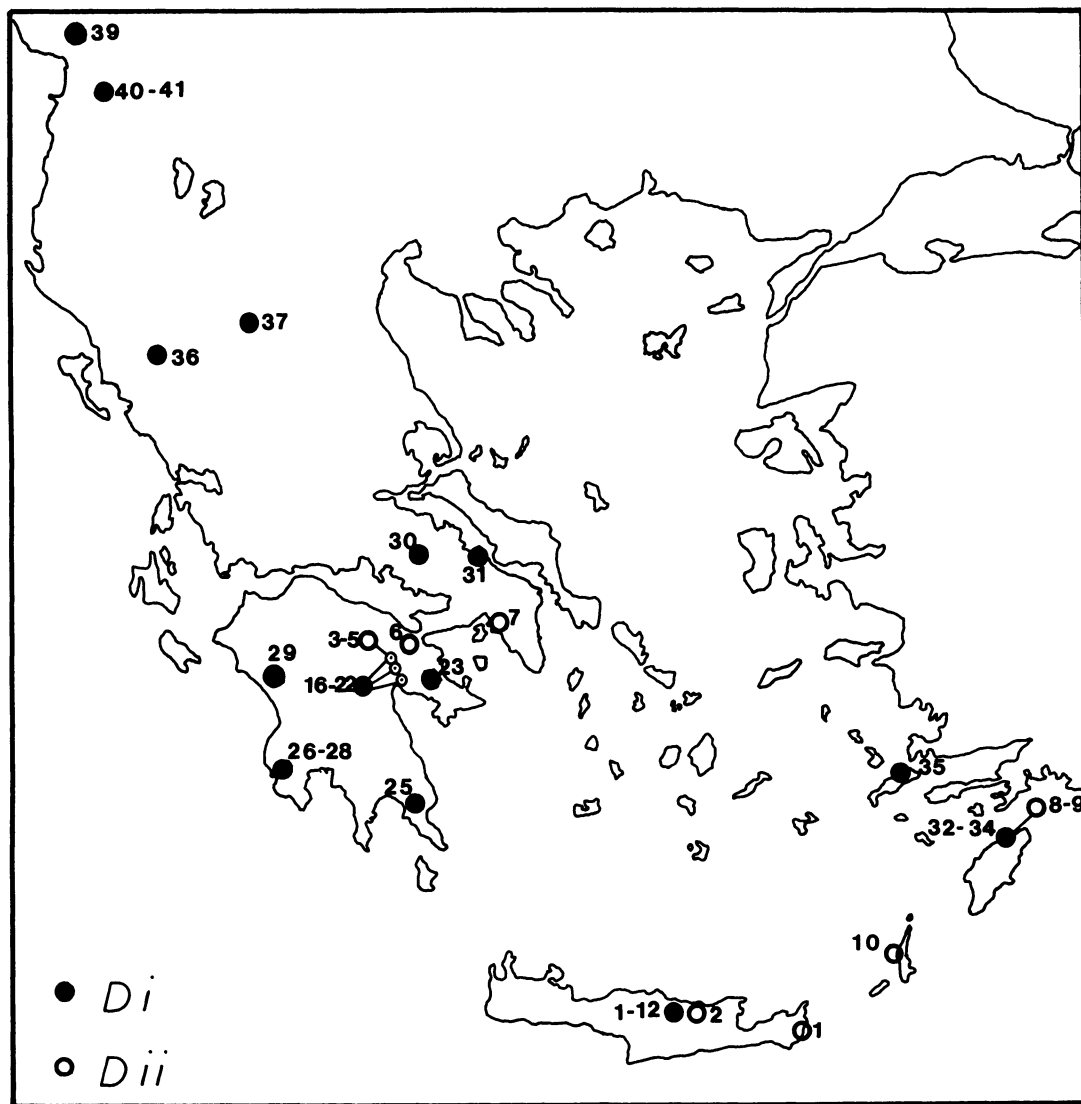


FIG. 3. Distribution of type D

spear', discussed by Catling,⁶⁹ probably had some military function. The contexts of the Sellopoulo and Dendra⁷⁰ examples, both of which were accompanied by weapons, were discussed by him; that of the Orchomenos piece had not then been published.⁷¹ It has six prongs and is said to have been found in a LH IIIA2 settlement context quite near the great tholos tomb, although the assemblage of bronzes with which it was found is more reminiscent of Sellopoulo Tomb 4, Burial 1 and, therefore, of a grave-group. The bronzes also included a Di sword (Di30), two spearheads, and two bronze discs.

Nobili', Tomb 8 (bronze); Dendra Tholos (gold, silver and bronze); Dendra Chamber Tomb 2 (bronze); Dendra Chamber Tomb 12 (silver and Bronze); Mycenae Tomb 78 (2 silver cups); Ialysos OT 4 (bronze).

⁶⁹ *BSA* 69 (1974) 146.

⁷⁰ Dendra Chamber Tomb 2 (*Royal Tombs* pl. XXXIV).

⁷¹ Th. Spyropoulos, *AAA* 7 (1974) 322.

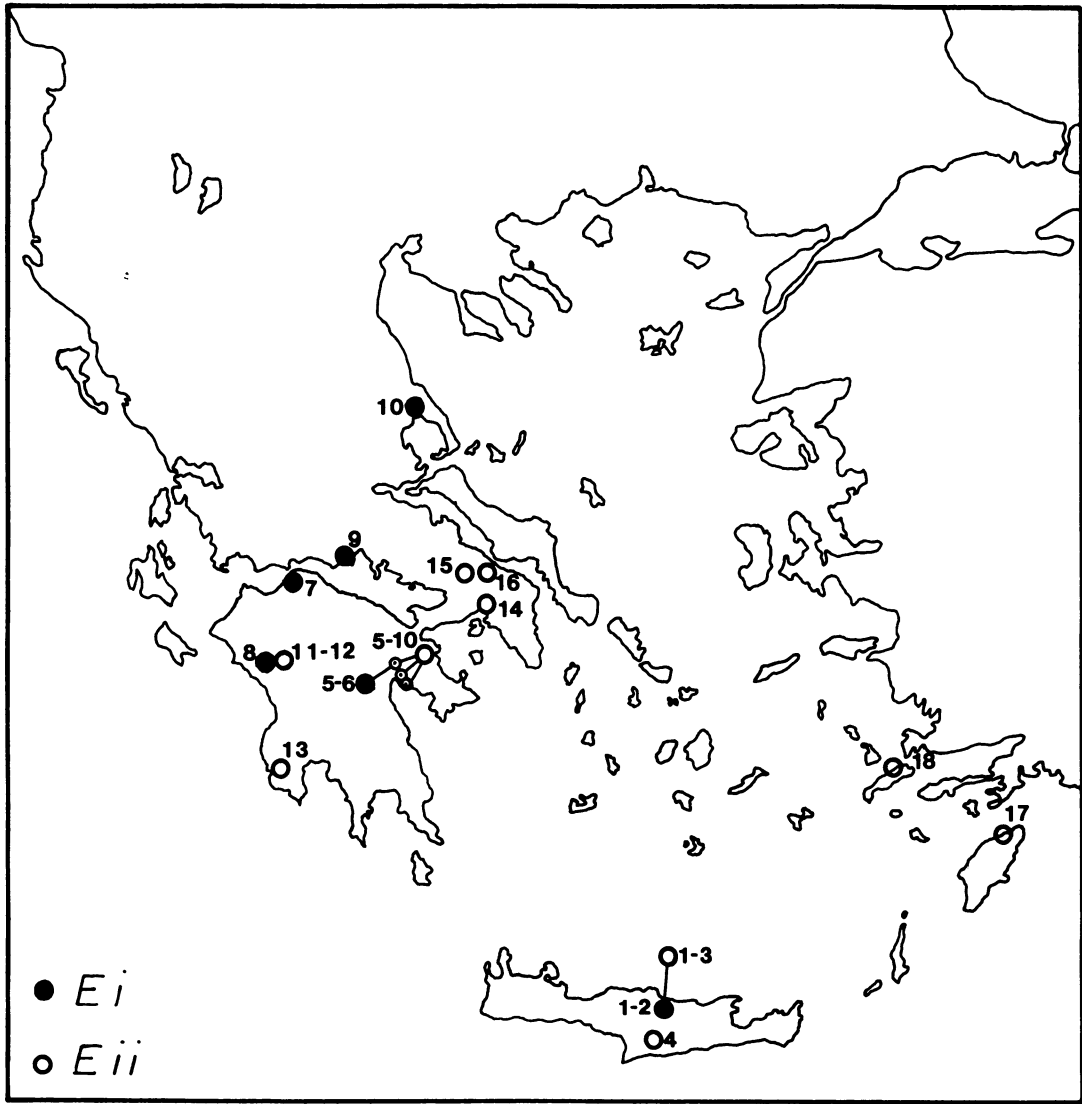


FIG. 4. Distribution of type E

New evidence has appeared which makes it necessary to re-examine the validity of one of Sandars's sword groups, namely type G. Three very fine swords were found in the post-LM I dedication deposits at Kato Syme in Crete. The longest two (over one metre; Ci7-8) have 'dropped' horns which link them with type G, but are otherwise comparable with the finest Ci weapons. The association of these with a type G sword (Gi2) is of great importance for the chronology of the latter. The chronological contexts of type G swords are widely separated and their characteristics do not form a homogenous group. One of the earliest pieces is likely to be the Zapher Papoura (ZP) Tomb 14 dirk (Gi1) which cannot be later than LM IIIA₂, while the Perati sword (Gii3) must be placed in LH IIIC.⁷² The Perati example differs from ZP 14 in two

⁷² Sp. Iakovides, *Perati* (Athens 1970) 360 fig. 158.

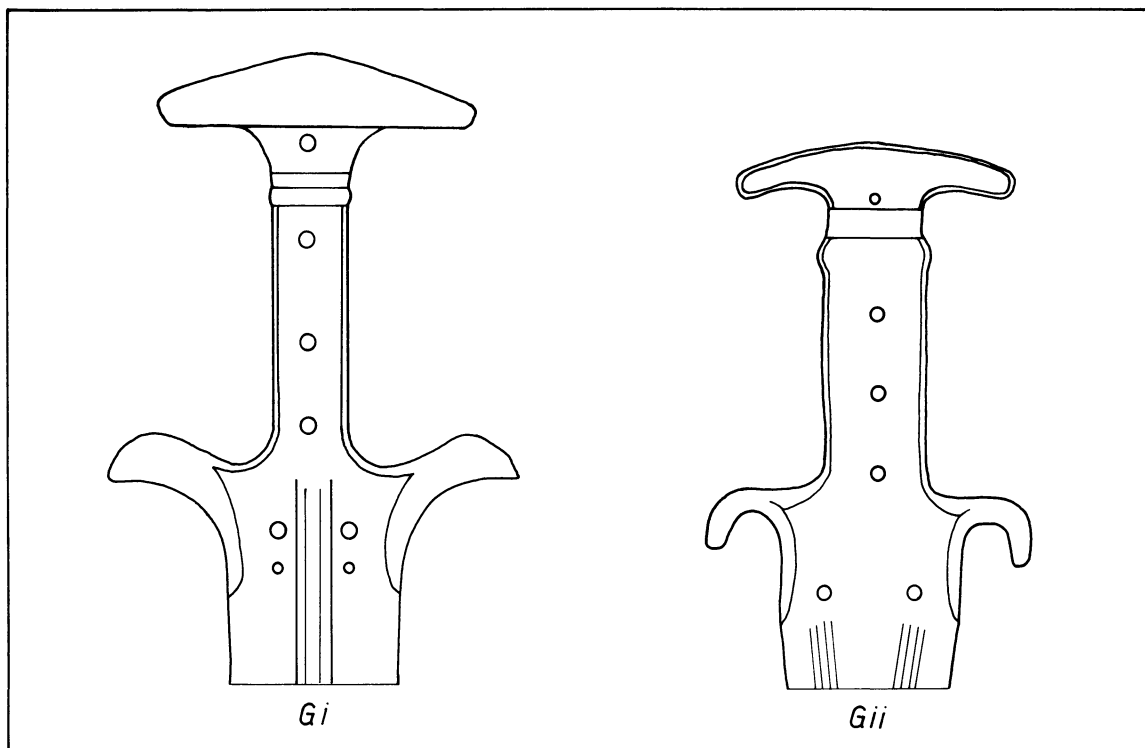


FIG. 5. Examples of hilts of type G. Drawings after published illustrations of Gi1, Gii3. Scale 1:2

important ways: its horns are narrower and more downward curving, and the blade has no midrib. Taking these two features, type G can be divided into two groups (Gi and Gii) which can also be separated chronologically (figs. 5–6).

Type Gi is represented by four examples, namely those from ZP 14, Kato Syme, and the large hoard of 1890 from Mycenae (Gi3–4). ZP 14 is dated to LM IIIA2 by Catling on the basis of the bronze vessels.⁷³ The Kato Syme sword is unlikely to be later. The sword and dirk from Mycenae were found in a hoard of bronzes, the chronological homogeneity of which has been much disputed.⁷⁴ All discussions fail to mention the three rows of exquisitely traced spirals on the midrib of the type G dirk (Athens 2536), a feature of prime chronological significance, associating it with the finest decorated Ci and Di swords, for which a date later than LM IIIA2 is unacceptable. The type G sword from the Mycenae hoard (Athens 2537), only 0.023m longer than the Kato Syme example, may well be of the same date. While the hoard was probably deposited near the end of the thirteenth century, or later, the Gi weapons must have been made much earlier.

The second group (Gii) is represented by at least four examples, none of which have midribs. The sword from Siteia (Gii1) is said to have been found with a Naue Type II sword and should probably be dated LM IIIB–C; the Perati sword has already been mentioned; the dirk from Delphi (Gii2) was dated by Furumark to LH IIIC on the basis of the fibula found with it; the

⁷³ BSA 69 (1974) 253.

⁷⁴ See S. Benton, *PPS* 18 (1952) 297; Catling, *PPS* 22 (1956) 110; Sandars, *AJA* 67 (1963) 135–7; Th. Spyropoulos, *Υστερω

Μυκηναϊκοί Έλλαδικοί Θησαυροί (1972) 15–16 figs. 14–15. pls. 7γ, 8α–β.

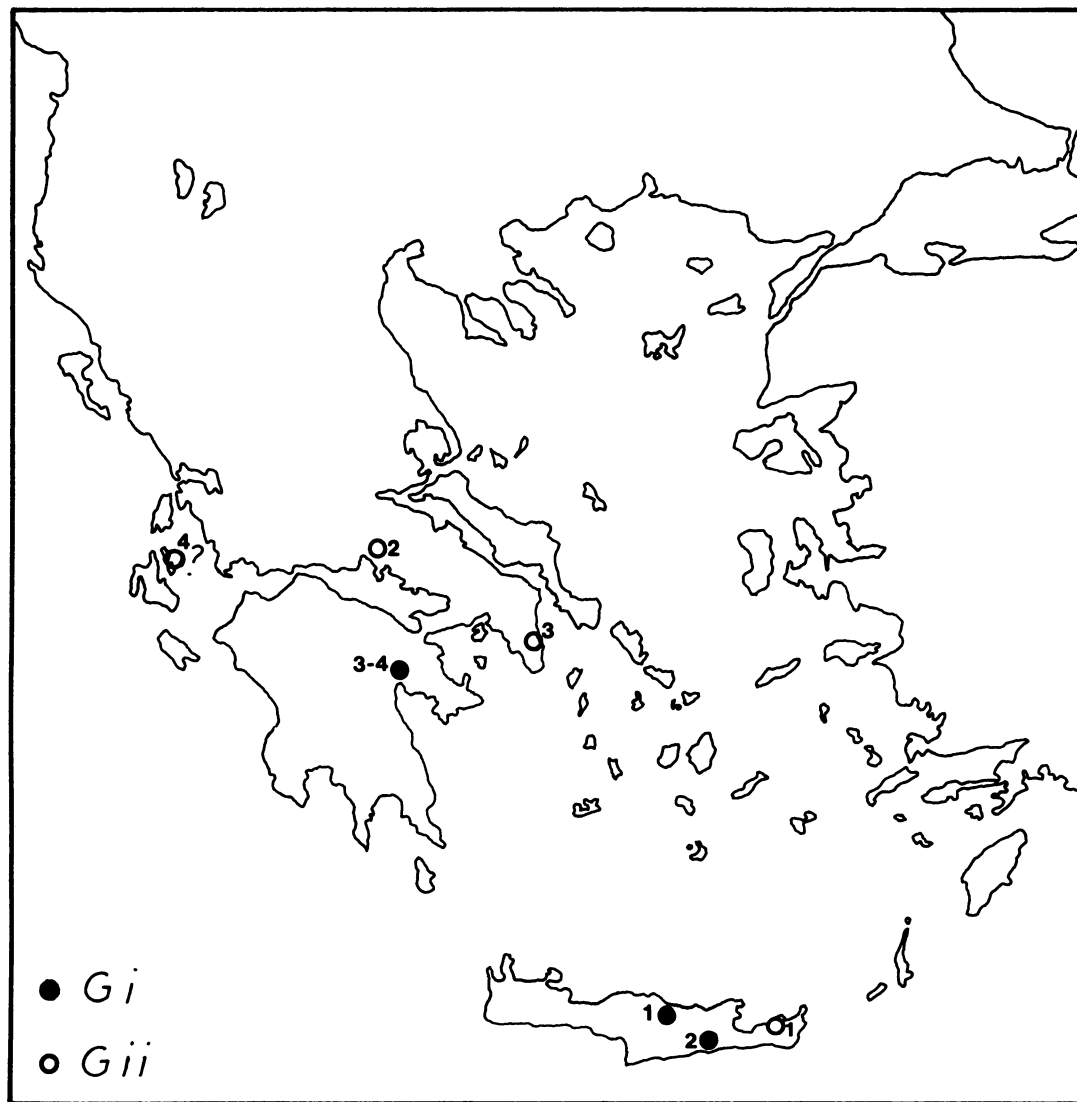


FIG. 6. Distribution of type G

dirks in the British Museum which may have come from Ithaca (Gii4) cannot be dated. The features and contexts of type Gii make it clear that it forms a group distinct from earlier Gi weapons.

The Orchomenos, Kate Syme, and Mycenae hoard swords are all from non-funerary contexts. There is one other, a broken Di sword (Di23) which is decorated on the midrib with three rows of spiral tracing and was found in a cult context at the Sanctuary of Apollo Maleatas near Epidaurus. There is an obvious parallel with the Kato Syme finds and it is interesting that both sites are outside the immediate areas where C and D swords are concentrated. We shall probably never know whether these sanctuaries were connected with the Knossos area on the one hand and the Argive Plain on the other, or whether they were merely cult places of local importance.

The problem of workshops has been discussed by Sandars⁷⁵ and Catling,⁷⁶ both authors being of the opinion that the finest specimens of types Ci and Di were made at Knossos. Sandars adduces several arguments to support her statement that the Di sword is the 'Knossos sword *par excellence* . . .', namely stylistic unity, the high level of technical skills required to produce such weapons, the Minoan connections of graves such as the Dendra Tholos where Di swords were found, the discovery at Knossos of a crystal hilt-plate fragment from a cruciform sword, and, finally, the concentration of these weapons around Knossos. Catling extends the arguments to the Ci swords which have decorated gold-covered hilts or midribs with spiral tracing. The Di sword from the 'Chieftain's Grave' (Di1) has both types of decoration and it could be argued that all Ci and Di swords decorated in one of these ways came from the same workshop or were made by travelling smiths trained in it.

Intricate spiral decoration of the blades of swords is well known from Grave Circles A and B at Mycenae. Mylonas suggested that all type A swords were imports from Crete while type B was a Mycenaean development which compensated for the weaknesses of type A.⁷⁷ It is interesting, therefore, that only type A swords have traced decoration, many examples of which are more finely executed than those found on later bronzes. It is worth considering whether some type A swords were the products of the same workshop which later produced the finest type C and D weapons. Knossos may not have suffered as much as other sites at the time of the 1450 B.C. destructions, and it is possible that craftsmen survived to develop the type C and D swords and to pass on their skills to apprentices, as Catling has suggested.⁷⁸ Our main concern here, however, is types C and D; if traced decoration is indicative of a Knossian workshop, at least fourteen swords were among its products.⁷⁹

If decoration is a good indicator of the place of manufacture, it appears that the same workshop also made one-piece spearheads; compare the delicate traced ornament of the Archanes spearhead and one from the Dendra Tholos with some of the swords already mentioned.⁸⁰

To the evidence for a Knossian workshop presented by Sandars and Catling should be added the information gleaned from the Knossian Linear B tablets. The Ra series is an inventory of swords or daggers. One tablet (Ra 1540) mentions at least fifty weapons and another (Ra 7498), eighteen and ninety-nine.⁸¹ On most of the twenty-two tablets, the totals are either missing or incomplete. The Sword Tablets, therefore, are likely to have dealt with considerable numbers of swords or daggers, and one of these (Ra 1548) may mention the swordsmith. The ideogram *233^{PUG} appears to represent the type D sword or dagger since, although schematic, the scribe included a midrib; this is also the case with *234 and 236^{PUG}, which could otherwise be interpreted as type E or even F swords or daggers. Fragments of swords and the crystal hilt plate fragment were found near the Sword Tablets.⁸²

The present evidence supports the existence of a major workshop at Knossos that produced Ci, Di, and G swords. No such evidence yet exists from the Argolid, although there is no reason why an Argive workshop should not have been in operation even if it comprised craftsmen trained in

⁷⁵ *AJA* 67 (1963) 126.

⁷⁶ *BSA* 69 (1974) 243.

⁷⁷ G. Mylonas, 'Ο Τάφικος Κύκλος Β τῶν Μυκηνῶν (Athens 1973) 419.

⁷⁸ *BSA* 69 (1974) 252.

⁷⁹ ZP 36 (Ci and Di); ZP 42 (Di); ZP 44 (Ci); Sellopoulo Tomb 4 (2 Di); NHS Tomb II (Di); Phaistos, 'Tombe dei Nobili', Tomb 8 (Ci); Dendra Tholos (Ci and Di); Dendra Tomb 12 (Ci); Mycenae Tomb 91 (Di); Mycenae 1890 hoard, Athens 2536 (Gi); Apollo Maleatas (Di). It is highly likely that

some other undecorated swords came from this workshop e.g. Di21 from Mycenae Tomb 91.

⁸⁰ *PBV* V, 1, 871 pl. 34, 40 pl. 6. There is one sword (unpublished and therefore not included in n. 79) which is decorated with exactly the same combination of motifs as the Archanes spearhead. It comes from Crete.

⁸¹ Chadwick, Killen, and Olivier, *The Knossos Tablets* (Cambridge 1971) 267-9.

⁸² *PM* IV 854 fig. 837.

Crete. That other workshops did exist is made more probable by the Ci swords from Epirus and Yugoslavia (Ci21-3, 25), the peculiarities of which have been discussed by Sandars;⁸³ from a technical point of view, it is highly unlikely that they are Knossian or even Argive products.⁸⁴

Who were these warriors? Hood,⁸⁵ with reference to the Knossian warrior graves, was the first to use the term 'military aristocracy', a phrase much repeated by authors who do not seem to have taken note of his observations that some are modest in style while others 'might qualify as "princely" or even "royal" graves'. Catling, however, observed differences between the three main Knossian cemeteries of the period LM II-III A, each of which contained warrior graves and asked: 'Were they, in fact, the burial grounds for very different elements among the Knossian ruling class between c. 1450 and 1380 B.C.?' In the same article, Popham suggested that gold necklaces might have been insignia of rank for the Sellopoulo warriors.⁸⁶

It is impossible to prove that any of the Knossian warrior graves are those of Mycenaeans. The arguments for such a hypothesis have been discussed by Popham.⁸⁷ Two aspects may be further considered, namely the different types of graves in which warriors were interred and the different characters of the Knossian cemeteries to which Catling referred.

Only two main cemeteries are known at Knossos before LM II, Mavro Spelio and Upper Gypsadhes, both of which continued into LM IIIC.⁸⁸ There is no evidence that the Mycenaean type of chamber tomb with dromos was introduced to these cemeteries before LM IIIA₁; indeed, the only pottery of LM II was found in a multiple chamber tomb of Minoan type at Mavro Spelio (Tomb VII).⁸⁹ The only other feature which could be said to be Mycenaean is the warrior grave in Tomb XVIII at Mavro Spelio. Both cemeteries appear to be traditional Minoan burial grounds.

Burials datable to LM II are few and belong to scattered cemeteries. Some are warrior burials (New Hospital Site) and the earliest burials from the Kephala Tholos and the Isopata Royal Tomb may also be LM II. Many burials from the Knossos area are undatable but it seems that no burial ground which began to be used in LM II became a major cemetery. It is possible, as Hood has suggested,⁹⁰ that these scattered burials indicate a reallocation of land after 1450 B.C. People may have been given land in return for services rendered to the Palace administration, and elected to be buried on their estates.

At the beginning of LM IIIA₁, a large cemetery was established at Zapher Papoura, eight hundred metres north of the Palace. Although a few tombs were in use in LM IIIB, e.g. Tomb 99, there is no evidence that any were cut later than LM IIIA. It is basically a burial ground for part, at least, of the Knossian LM IIIA community. The cemetery comprises chamber tombs with dromoi, shaft graves, and pit caves; there are no multiple chamber tombs. A Mycenaean feature which has often been overlooked is the introduction of the shaft grave into Crete. It had no previous history on the island, and both Evans and Dickinson noted the connections with the Mycenae Shaft Graves, although examples are found elsewhere on the mainland.⁹¹ Despite the time-gap, it is possible that this type was a specifically Argive introduction whereas the chamber tomb could have been introduced from any part of the mainland.

The Zapher Papoura cemetery is the largest and richest of all the main Knossian cemeteries and displays more Mycenaean features, namely two Mycenaean grave forms, several burials

⁸³ *AJA* 67 (1963) 121.

⁸⁴ Some of the 'northern' finds of swords are probably genuine imports (Galatin, Romania (Ci12); Mati, Albania (Di40)). Such imports may have been the source of inspiration for the atypical C and D swords outside Greece.

⁸⁵ *BSA* 47 (1952) 245.

⁸⁶ *BSA* 69 (1974) 253, 255.

⁸⁷ *BSA* 69 (1974) 256.

⁸⁸ *BSA* 28 (1926-7) 243-96. *BSA* 53-4 (1958-9) 194-262.

⁸⁹ *BSA* 28 (1926-7) figs. 17-18, Tomb VII, Chambers A and B.

⁹⁰ Hood and Smyth, *Knossos Survey* (1981) 12.

⁹¹ *PTK* 11; Dickinson, *Origins of Mycenaean Civilization* (1977) 51. Also see Dickinson, *BSA* 78 (1983) 56 for precise definition of shaft grave and parallels.

with bronzes, and some with 'tinned' unpainted vessels like kylikes which never achieved great popularity in Crete. Seven hundred metres north-east of ZP is the small cemetery of Sellopoulo, two of whose five tombs are LM IIIA₁; their Mycenaean features have been discussed by Popham. The other two chamber tombs have been assigned to LM IIIA₂-B and the shaft grave to LM IIIA but the details have not been published.⁹²

The ZP and Sellopoulo tombs are very different from the Mavro Spelio and Gypsadhes cemeteries. A plausible explanation of this is that the former were the burials grounds of the LM IIIA Mycenaean community and the latter, traditional Minoan burial grounds.

Whether or not this hypothesis is correct, it is worth making some observations on the problem of the status within society of those buried with weapons. The situation is likely to be extremely complex, but three important questions are worthy of discussion.

1. Do the warrior graves represent a formal military organization at Knossos? The graves themselves cannot answer this, although their existence makes such an organization possible. If one adds to this the ample evidence for the kind of centralized society and bureaucracy which it would require, as well as that of the Linear B tablets, which include inventories of weapons, it is highly likely that a military organization was part of the palatial structure. The discussion will proceed with this assumption.

2. Did the officers of the military organization have a specific status within Knossian society? For this to be so, it would have to be imagined that those buried in the warrior graves formed a single class rather like the *homoioi* of Sparta. A Knossian military aristocracy would be such a class, one which ranked above others by reason of birth and perhaps fortune, and into whose hands were entrusted the military activities of the Palace. Such an exclusive interpretation of the warrior graves is not, I think, in harmony with the evidence, as I will attempt to show.

3. What was the status of the individual warriors within Knossian society and the military organization?⁹³ I have suggested that the sword more than the spear was a symbol of military prowess and prestige. The graves furnished with swords at Knossos are not poor burials and none are likely to represent the lower echelons of society nor the rank and file of the Knossian military; whether the latter could be identified in other graves is a matter for further research. By no means all warrior graves are rich in non-military grave goods,⁹⁴ nor do all rich burials have a military appearance.⁹⁵ Several warrior graves are extremely rich in weapons *and* other grave gifts; foremost amongst those in Crete are ZP 36, Sellopoulo Tomb 4 Burial 1, and Tomb 8 of the 'Tombe dei Nobili' at Phaistos.

Each of these three tombs contained gold necklaces which Popham suggested were insignia of rank. This could be supported by the LM I 'Chieftain's' vase from Ayia Triada which depicts a warrior standing to attention with his sword and wearing a necklace.⁹⁶ The 'Chieftain' himself seems to be wearing two necklaces, one more elaborate than the other. But neither on the

⁹² Hood and Smyth (1981) 26.

⁹³ It is difficult to separate the features of a burial which may be indicators of military, as opposed to social, status and *vice versa*; both may depend on economic status and be inseparable archaeologically, indeed this would not be at all surprising. The quantity, quality, and type of weapons should be the primary evidence for military standing, and the accompanying goods for social and/or economic status. In practice, the finest arrays of weapons tend to be found in graves which are also rich in non-military grave gifts, e.g. ZP 36; ZP 14; Sellopoulo Tomb 4 Burial 1; 'Tombe dei Nobili', Tomb 8; Dendra Tholos; Dendra Tomb 12; Mycenae Tomb 91. If Evans is right when he suggests that the main burial in ZP 14 had been placed in a wooden sarcophagus, which was subsequently removed along

with most of the more valuable objects such as jewellery (PTK 38), it is possible that this tomb was the richest in the cemetery; the large elaborate doorway and chamber, and the exceptionally long dromos (for Knossos) would support this hypothesis. Indeed, the robbed Isopata Royal Tomb may have been one of the few Knossian sepulchres to rival it.

⁹⁴ e.g. ZP 42, ZP 43, ZP 55, ZP 98, Mavro Spelio Tomb XVIII.

⁹⁵ e.g. ZP 7 (PTK 25-7), ZP 66 (PTK 71-2), ZP 99 (PTK 87-90), Sellopoulo Tomb 3 (BSA 69 (1974) 195-257), Archanes Tholos (PZ 45 (1970) 133). A major problem is that some of the rich graves are likely to be those of women since one would not expect them to have been buried with weapons.

⁹⁶ Zervos, *L'Art de la Crète* (1956) pls. 536-7.

Mainland nor on Crete are they confined to warrior graves. Even in Tomb 8 at Phaistos and the Dendra Tholos, the gold necklaces were not found with the skeletons of the warriors but with other rich burials in the same tombs.⁹⁷ At Knossos, two of the five tombs with gold necklaces were completely non-military in appearance (ZP 7 and 66). Both tombs were also furnished with gold signet rings, bronze mirrors, 'tinned' vases, and such exotic objects as an ivory boat in ZP 7 and a faience cylinder seal in ZP 66.⁹⁸ Similarly, Archanes Tholos A and Dendra Tomb 10 are not warrior graves but contained some of the finest jewellery ever found in the Aegean.⁹⁹

It can be concluded that, although gold necklaces tend to be found with rich burials, they were by no means confined to warriors. They seem to be symbols of social status according to wealth rather than exclusively military insignia.

The men buried in Sellopoulo Tomb 4 Burial 1 and ZP 36 may have been part of an 'aristocracy', but the exclusively military character of such a class cannot be demonstrated. An interpretation which sees the warrior burials as representing officials of different ranks in the Palace military organization, drawn from different levels of society, is the most plausible explanation of the evidence.¹⁰⁰

Lack of evidence prevents the extension of such a hypothesis to other areas of the Aegean. It is possible that a palatial system was necessary for the existence of the kind of military organization envisaged for Knossos and that it was unique at the turn of the fifteenth century in possessing such an organization. We do not yet know enough about the origins of the Mycenaean palace nor anything about its earliest functions. Most of the military evidence comes from burials. In the Argolid, likely enough to have been the area to exercise control over Knossos, the evidence is split between three cemeteries of different sites.¹⁰¹ Nothing is known of the relationship of one Argive settlement to another nor if control of Knossos would have been exercised collectively or by a single site. If collectively, it was probably organized by the most powerful settlement. The evidence at Mycenae is largely missing as all its tholoi are looted; the fact that the finest array of military equipment of the period was found in the Dendra Tholos is coincidence and can tell us nothing about the ranking of Argolid sites. The earlier military pre-eminence of Mycenae is anyway clear from the warrior burials in Grave Circles A and B. If Mycenaean control of Knossos in LM II-III A is a reality, a similar military organization may have existed at one or more Argive sites but the evidence is not at all conclusive.

Other areas of the Mycenaean world provide even less evidence for the interpretation of warrior burials. In Rhodes, the three tombs which contained warrior burials at Ialysos, when added to the ample evidence for Argive-Rhodian connections from LH IIB to IIIA, could be seen in purely local terms, representing a military presence in an island apparently settled by Mycenaean after 1450 B.C.¹⁰²

Recent discoveries in Boeotia have emphasized the Mycenaean importance of this region, and remind us that very powerful Mycenaean centres may have lain beyond the limits of the Argolid.¹⁰³ The ancient reputation of sites such as Thebes and Orchomenos,¹⁰⁴ and the

⁹⁷ L. Savignioni, *Scavi e scoperte nella necropoli di Phaistos* (1905) 37. *Royal Tombs* 13-14 figs. 12, 16, pl. xviii 2.

⁹⁸ ZP 7 (PTK fig. 22), ZP 66 (PTK 76 fig. 85).

⁹⁹ PZ 45 (1970) 135-219.

¹⁰⁰ The Knossian warrior burials can be divided into three groups although the boundaries between them are, to a certain extent, arbitrary. *Group 1*: ZP 14(?), ZP 36, Sellopoulo Tomb 4 Burial 1, *Group 2*: Sellopoulo Tomb 4 Burial 2, Ayios Ioannis Tomb 2, 'Silver Cup' Tomb, *Group 3*: ZP 42, 43, 44, 55, 98, Ayios Ioannis Tomb 1, NHS Tomb II, NHS Tomb V, Mavro Spelio Tomb XVIII.

¹⁰¹ Mycenae, Argive Heraion, Dendra-Midea.

¹⁰² The evidence for a Mycenaean presence in Rhodes from LH IIB is more conclusive than that from Crete. The important point in the argument is the beginning of a cemetery of chamber tombs at Ialysos; much of the pottery of LH IIB-III A is likely to be Argive. See C. Mee, *Rhodes in the Bronze Age* (1982) 81.

¹⁰³ See K. Demakopoulou and D. Konsola, *Archaeological Museum of Thebes. Guide*. (Athens 1981) for excellent description of finds and full bibliography.

¹⁰⁴ See Catalogue of Ships, *Iliad* ii 494-516; *Iliad* ix 381 refers

magnificent tholos at the latter, rivalled only by the 'Treasury of Atreus',¹⁰⁵ make recent discoveries less than surprising. The proximity of major settlements is comparable with the Argolid but nothing is known of the relationship of one to another, nor of Boeotian sites in general to other areas of the Mycenaean world.¹⁰⁶ However, the latest discoveries here, as well as those in Messenia and Laconia, do demonstrate that certain areas outside the Argolid may have been of great consequence in the history of the Aegean in the late fifteenth and early fourteenth centuries. Some may have had the potential at least to assist in the domination of Knossos, perhaps by providing officers and men, or, alternatively to destroy an Argive Mycenaean administration at the Palace of Minos!

The preceding discussion has attempted to explain a few of the problems connected with the warrior grave phenomenon. Any attempt to place the graves in a historical context will be open to criticism, but it seems worthwhile to present here one possible interpretation. After the destructions in Crete and the Islands around 1450 B.C., the Knossian palatial administration was apparently controlled by Mycenaean, possibly from the Argolid, who spoke a form of Greek. Knossos, however, remained the artistic and technical innovator, one aspect of which was represented by the Knossian workshop which produced the finest swords and spearheads in the Aegean from LM II to IIIA2. At Knossos, these weapons occur in graves which could represent officers in the Knossian military organization. The differences in the quantity, quality, and type of grave goods in several of these tombs might indicate that some of the men held different ranks and/or were drawn from different levels of society. The graves are not evidence of an aristocracy which was exclusively military in character. The new finds of warrior graves, particularly in Attica, Boeotia, Laconia, and Messenia, are just one aspect of discoveries which are changing the way we view the relative importance of different areas of the Mycenaean world. It cannot be assumed that control of Knossos was an exclusively Argive affair; indeed the different types of graves used for warriors could be indicative of different origins, a possibility which Evans foresaw eighty years ago.¹⁰⁷ Several areas of the mainland give an impression of strong military traditions from at least the beginning of the Late Bronze Age, and the evidence presented here implies that these continued into the fourteenth century. Some of the Mainland warrior burials could be those of local rulers, e.g. the Dendra Tholos and Myrsinochorio Tholos 2. The majority, however, are more modest and could be those of officers.

After LM/LH IIIA2, a decline is apparent in many crafts including bronze-working. The uniformity of sword-types disintegrates during LH IIIB, so that by the twelfth century every Aegean sword 'appears to be *sui generis*'.¹⁰⁸ This suggests a greater number of weapon workshops after LM/LH IIIA2. It has been suggested that the standardization of sword-types in the late fifteenth and early fourteenth centuries was due to the Knossian workshop which produced the finest swords of types C, D, and Gi. It is tempting to associate the later lack of uniformity and general decline in bronze-working with the destruction of that workshop and the extinction of its craftsmen in LM IIIA2. Similarly, the absence of warrior graves in the Knossos area after that time might indicate that the Knossian military organization had ceased to exist.

CATALOGUE

All new finds published between 1960 and December 1983 are included here, as well as any information on older finds which has recently become available. The catalogue numbers refer to

to the great wealth of Orchomenos. Also *Oxford Classical Dictionary* (Oxford 1970) under various sites.

¹⁰⁵ The tholos is discussed by O. Pelon, *Tholoi, tumuli et cercles funéraires* (Paris 1976) 233-7 pl. cx.

¹⁰⁶ In this respect, it is unfortunate that the date of the stirrup-jars with painted Linear B signs has not been solved. For the latest discussion see *BSA* 75 (1980) 95-7.

¹⁰⁷ *PTK* 20.

¹⁰⁸ *AJA* 67 (1963) 133.

the full list of swords, dirks, and daggers in the Supplementary Catalogue. The main catalogue is divided into the following areas: Crete, Central and Southern Greece, Islands, Northern Greece, and Other Countries.

Ci

Crete

4. Fourni, Archanes. Beneath larnax containing child burial. L. 0.455. Flanged hilt with small rivet-hole, another in pommel-tang; angular midrib with two pairs of grooves on both sides of blade. Found with one-piece spearhead decorated with spiral and joining semicircle tracing, a silver cup and an alabaster pear-shaped rhyton. Cup and spearhead should not be later than LM IIIA. *PAE* 1966 (1968) 183 pl. 152.
7. Kato Syme, Viannou. 'Dedication' in post LM I cult area. L. 1.04. Horns related to Gi; five large rivet-holes, three in deeply flanged hilt, one on either side of narrow pronounced midrib; pommel-tang with small rivet-hole. Found with two other swords (Ci8, Gi2) with similar horns. Date? *PAE* 1973 (1975) 193 pl. 198a.
8. Kato Syme, Viannou. Context as last. L. 1.03. Handle secured in very deeply flanged, narrow hilt by single rivet; pommel-tang. Other features as Ci7. References as last.

Central and Southern Greece

9. Dendra, Midea. 'King's Tholos', found in Pit I near 'King's' body. Sandars discussed the sword in detail but misquoted the length stated in the publication, which is 1.094. The length and width across the horns (0.081) make it closely comparable with the Ci sword from Ialysos NT 4 (1.09 and 0.0805). Neither sword apparently had a pommel-tang. Persson *Royal Tombs at Dendra near Midea* (1931) 35 pls. XX iii, XXII 2.
 14. N. Slope of Areopagus, Athens. Tomb III 17. L. 0.74. Five gold-capped rivets; pommel-tang; flanged hilt with traces of wooden handle; high, narrow midrib. Probably lay on wooden table with Ci15 next to Burial C. Tomb contained at least ten 'tinned' vases (LH IIIA1-2), Compare sword with Ci13 and 19. S. Immerwahr, *The Athenian Agora* 13 (1971) 175 pl. 36.
 15. N. Slope of Areopagus, Athens. Tomb III 18. Ext. L. 0.46; original L. c. 0.50. Very badly preserved. Pronounced narrow midrib. Refs. as Ci14, 176.
 16. Aigeira, Achaea. Chamber Tomb. L. 0.347. Deeply flanged hilt, no pommel-tang (broken?); three rivets, one in middle of hilt, one either side of narrow pronounced midrib. Complete. LH II-III A. T. J. Papadopoulos *Mycenaean Achaea* (1979) 165 fig. 319.
- Islands*
17. Chalcis, Euboea. Chamber Tomb. L. 0.87. Complete. Five large rivet-holes, three in flanged hilt, one on either side of narrow pronounced midrib; unriveted pommel-tang. Found with two cylinder seals and thirty vases (LH IIIA1-2), at least one of which is LM IIIA1. *ADelt* 25 (1970) B1 250 pl. 215a.
 18. Ialysos, Rhodes. NT 4. L. 1.09. Present L. 0.9475. Lightly flanged hilt with no pommel-tang; three large and one small rivet-holes in hilt, one small rivet-hole on either side of pronounced narrow midrib; half of hilt and tip now missing; traces of linen in two places on one side of blade (compare Di1). The sword must have been wrapped in linen or placed on the clothed or shrouded body. This tomb was thought to have been reused in LH IIIC but vases 16-17 are FS 267/Unpainted; both are 'tinned' and should be placed with the other vases in LH IIIA2 (Benzi in *SMEA* 23 (1982) 324). *ASAtene* 6-7 (1923-4) 98 fig. 15; 255 fig. 158.
 19. Ialysos, Rhodes. NT 74. L. 0.74. Deeply flanged hilt with pommel-tang; rivet-hole in tang for marble pommel. Single burial with spearhead and five vases. The latter are LH IIIA1 apart from a piriform jar assigned by Jacopi to NT 79 (*ASAtene* 13-14 (1930-1) 305 fig. 51 centre); in fact, this jar is clearly visible in the photograph of the vases and bronzes of NT 74 *in situ*. Furumark (1941) placed this piriform jar (FS 34/FM 46) in LH IIIA2, but had he known that this vase came from a single burial of LH IIIA1, he might have allowed this type to begin within that period. *ASAtene* 13-14 (1930-1) 297-8.
 20. Asclepeion, Kos. L. 0.407. Difficult to place in a category; but for the five large rivet-holes—three in hilt, one on either side of midrib—it could be a Cii dirk. No pommel-tang evident, folded horns, broad low midrib; remains of bone handle. It is said to have been found east of the Lapidario with two spearheads, a knife (Ib), a 'dagger' and a bronze ring. These may be the grave gifts of a destroyed tomb or a hoard, or dedications. Date? *ASAtene* 50-1 (1972-3) 256 figs. 198, 204.
- Northern Greece*
21. Iolkos, Thessaly. Tomb 6. L. 0.73. Complete. No details published but looks entirely typical from plan of tomb. Found with two spearheads in cist grave. Published pottery with burial 1 looks LH IIB rather than LH IIIA1 as stated in publication. If so, this is the earliest warrior burial on the mainland with a type C or D sword. *AAA* 3 (1970) 198-203.
 22. Grevena, Macedonia. Tomb. Ext. L. 0.29. Original L. c. 0.50. Flanged hilt and folded, slightly 'dropped' horns as C7-8; no pommel-tang; three rivets in hilt; narrow pronounced midrib. Found with spearhead, four bronze discs, and bronze ring. Date? *AE* 1969 (1970) 14-15 fig. 4.

Cii

Central and Southern Greece

5. Kirrha, Phocis. Tomb 5. L. 0.66. Complete. Flanged hilt; folded horns; no pommel-tang or rivets; rounded midrib

with two parallel incised lines. Entirely typical. L. Dor, J. Jannoray, H. and M. van Effenterre, *Kirrha* (1960) 140 pl. lvi.

6. Tanagra, Boeotia. Tomb 16. L. 0-67. Rivetless hilt without pommel-tang; more deeply flanged than any other example of this type; characteristic folded horns; prominent midrib. Larnax burial accompanied by Eii dagger (Eii16), one-piece spearhead and a sealstone. Date? Cemetery in use from LH IIIA1-B. *PAE* 1970 (1972) 34 pl. 47a; *PAE* 1973 (1975) pl. 11; *Ergon* 1970 (1972) 18 fig. 15.
7. Agrilia, Boeotia. Volos Museum Inv. No. M. 1655. No details available. Killian, *Jahresbericht des Instituts für Vorgeschichte der Universität Frankfurt a. M.* (1976) 126.

Other Countries

12. Galatin, Romania. Context ? L. c. 0-86. Broken flanged hilt; folded horns; one small rivet-hole on either side of angular midrib; very narrow blade. The length and high midrib are comparable with the example in the National Museum, Athens, which is labelled Dendra (Ciig). The Galatin sword appears to be a genuine Aegean product, unlike the Bulgarian Ciii swords, for which see Hansel (1970) and Killian (1976). *PZ* 45 (1970) 27 fig. i 6.

Di

Crete

11. Sellopoulo, Knossos. Tomb 4 Burial 1. L. 0-475. Pommel-tang may have been broken; the original length would therefore have been c. 0-49. Flanged hilt, pronounced midrib; flanges and midrib decorated with two rows of spiral tracing; one small rivet-hole on either side of midrib. Found with two one-piece spearheads, two 'cleavers', a six-pronged object, two bronze discs, numerous bronze vessels, jewellery, and 'tinned' vases amongst other objects. Date LM IIIA1. *BSA* 69 (1974) 225 figs. 16-17.
12. Sellopoulo, Knossos. Tomb 4: Burial 2. L. 0-702. Pommel-tang at end of flanged hilt; prominent midrib with three rows of spiral tracing; three small rivet-holes, one on either side of midrib, one in hilt. Found with type Eii dirk (Eii2), a knife, and two seals amongst other objects. Date LM IIIA1. *BSA* 69 (1974) 226 figs. 16-17.

Central and Southern Greece

20. Mycenae, Argolid. Chamber Tomb 91. L. 0-502. Discussed by Sandars but now published by I. A. Sakellarakis. Athens 3196. Pommel-tang, no hilt rivets but one on either side of four grooves which run the length of the blade; spiral tracing between these grooves; skeuomorphic bulges just before handguard. On display in National Museum with LH IIIA2 vertical flask (3198), a collection of very fine jewellery, two 'mirrors' (3210, 3211), and a large psi figurine (3193); four gold signet rings were also found in this tomb. I. A. Sakellarakis in *Die kretisch-mykenische Glyptik und ihre gegenwärtigen Probleme* (Boppard 1974) 125 figs. 31-2.
21. Mycenae, Argolid. Chamber Tomb 91. L. 0-502. Athens 3197. Lacks decoration and skeuomorphic bulges; pommel-tang broken; otherwise as last. Refs. as D20.
23. Epidaurus, Argolid. Dedication in burnt stratum of the Sanctuary of Apollo Maleatas. Incomplete. Cruciform handguard runs smoothly into blade; one small rivet-hole on either side of midrib, which is decorated with spiral tracing; large rivet-holes in broken flanged hilt. Date? *PAE* (1948) 101 fig. 7.
24. Argolid. Fragment of hilt and guard only; originally one rivet-hole on either side of rounded midrib and at least one in hilt. Date? *BSA* 74 (1969) 167 fig. 4.
25. Sykea, Laconia. Chamber Tomb. L. 0-45. Profile of cruciform hand-guard as Di23; three large rivet holes in hilt with rivetless pommel tang; one small rivet hole on either side of broad low midrib. Found with 'cleaver', a spearhead, and two pairs of tweezers. Pottery in tomb ranged from LH IIA to IIIC, but the dirk is assigned to LH IIA. It is possible that these weapons with cruciform

- handguards which are not well differentiated from the blade are early examples of type Di and are more closely related to type B weapons. Even if this is so, a date before 1450 B.C. is unlikely for a type Di dirk. *BCH* 104 (1980) 605 fig. 54. *ADelt* 29 (1973-4) 294-5 fig. 189.
26. Pylos, Messenia. Chamber Tomb E6 Burial E. L. 0-633. Pommel-tang with rivet-hole; three large rivet-holes in hilt and two small ones on either side of rounded midrib; traces of wooden handle when found. Grave goods included Eii dagger (13), 'cleaver', and spearhead. Date LH IIIA2 *PofN* III, 188 fig. 243. 5.
27. Myrsinochorio (Routsi), Messenia. Tholos Tomb 2. L. ? Riveted pommel-tang, broken; flanged hilt, edges covered with gold; one gold-capped rivet on either side of broadish midrib. On display in Chora Museum. Belongs to last burial on floor of tholos and found with ten swords and daggers (knives?), one very long spearhead (0-456), mirror with ivory handle, leather object (possibly sheath), two cylinder seals, about twelve other sealstones, one gold bead seal, one 'fire hook' and about twelve vases, the latest of which were LH IIIA1. The spearhead is probably from the same workshop as that from Ayios Ioannis, Shaft Grave. Burial dated by the latest whole vases: LH IIIA1. *PAE* (1953) 250, (1956) 103, (1957) 118. *ILN* 6/4 and 27/4/1957. *ADelt* (1960) B114. For spearhead see R. A. Avila, *Bronzene Lanzen- und Pfeilspitzen der griechischen Spätbronzezeit* (1983) 24 fig. 8. 48.
28. Pylos Area, Messenia. Athens 8389. L. ? Flanged hilt with pommel tang; one rivet in hilt, one on either side of broad midrib. Intact. On display in National Museum with two magnificent spearheads (8393), a gold necklace (8396), and amethyst beads (8400-1). The label merely reads 'Pylos'. The spearheads and jewellery come from Tholoi 1 and 2 at Tragana, but the sword does not appear in the literature. *PAE* 1955 (1960) 248; *BCH* 80 (1956) 285. For details of the spearheads see *PBF* V, 1. fig. 8. 44, 45. Also note the decoration on the knife from Tholos 1, which is identical with that on the Archanes one-piece spearhead; both are likely to come from the same workshop. *BCH* 80 (1956) 283 fig. 10.
29. Tripes, nr. Olympia, Elis. Chamber Tomb. L. ? Five rivet-holes including one in pommel-tang; low broad midrib. Found with two spearheads. Date LH IIIA2-C. *ADelt* 19 (1964B) 177 pl. 187f.
30. Orchomenos, Boeotia. L. c. 0-70. Flanged hilt with three large gold-capped rivets; tang broken(?); two small rivet-holes on either side of broad low midrib. Found with two spearheads, two daggers with gold-covered rivets, two bronze discs, and six-pronged object. Said to come from

LH IIIA2 settlement context but assemblage more reminiscent of grave gifts as in Sellopoulo Tomb 4 Burial 1. *AAA* 7 (1974) 322.

Islands

32. Ialysos, Rhodes. NT 45. L. 0.37. Discussed by Sandars. Close examination of the hilt shows that the pommel tang has been broken off very cleanly. It is therefore very similar to Di dirks from Rhodes and Kos. *ASAtene* 6-7 (1923-4) 199 fig. 124.
35. Eleona, Kos. Tomb 7 (or 6?). L. 0.4175. Flanged hilt with rivet-hole in pommel-tang; one small rivet-hole on either side of broad low midrib. Date: the sword was found in Tomb 6 or 7. The only vases retrieved from the former were LH IIIC in date; as a result, Tomb 7, which contained both LH IIIA1 and IIIC vases is the most likely provenance of the dirk, which should be assigned to the earliest phase of use. *ASAtene* 43-4 (1965-6) 83 figs. 63-4.

Northern Greece

36. Mazaraki, Epirus. Cist Grave. L. 0.41. Lightly flanged hilt with pommel-tang; three small rivet-holes, one in hilt on

either side of rounded midrib with two pairs of grooves. Date LH IIIA2-B. *AE* (1969) 192 fig. 4, pl. 27b.

38. Greece. Basle/Borowski Collection. Tomb? L. 0.369. Pommel-tang broken, so original L. c. 0.38. Three rivet-holes, one in hilt and one on either side of low, broad midrib defined by two grooves; two skeuomorphic bulges on hilt. Found with bronze vessel. Date? *BSA* 74 (1969) 163 fig. 1.

Other Countries

39. Nenshat, Albania. Tomb. L. c. 0.65. Hilt and handguard broken. Uncharacteristic due to downward turn of handguard and rivet-hole in that area. Two small rivet-holes in hilt and one on either side of narrow midrib; two skeuomorphic bulges on hilt where it tapers towards handguard. Compare with Di38. Date? *Studia Albanica* 7, 2 (1970) 51 pl. iii4.
40. Mati, Albania. Tomb. L. c. 0.62. Entirely typical and close to Di38. Two rivet holes visible, one on either side of broad midrib with two pairs of grooves. Date? *Studia Albanica* 7, 2 (1970) 51 pl. iii5.
41. Mati, Albania. Apparently from the same tomb as Di40 but not illustrated. No other details. Ref. as last.

Ei

10. Iolkos, Thessaly. Nea Ionia Tomb 18. L. 0.38. Complete. Flanged hilt with pommel-tang; rounded shoulders; no rivets? Found with two spearheads and short dagger in cist

grave. Same cemetery as for Ci21. Pottery from tombs LH IIB-III A1. *AAA* 3 (1970) 198-203.

Eii

1. Unexplored Mansion, Knossos. L. 0.084. Hilt only; flanged with one rivet in cast pommel. Found in debris of upper floor along with other bronzes apparently collected for resmelting. Date: LM II. *AR* (1972-3) 58 fig. 35. Dimension kindly provided by Mr. Popham.
2. Sellopoulo, Knossos. Tomb 4 Burial 2. Incomplete. Flanged pommel, hilt, and shoulders; rounded pommel and shoulders; two rivet holes in hilt; blade elliptical in section. Date LM IIIA1. *BSA* 69 (1974) 229 fig. 16.
4. Galia, Mesara. Chamber Tomb. L. 0.341. Riveted hilt (no?). No other details but appears typical. Found with spearhead, leaf-shaped razor and one-edged knife. Date LM IIIA2. *PAE* 1975 (1977) 522 pl. 335b.

Central and Southern Greece

10. Nauplion, Argolid. Evangelistria Cemetery. L. ? Flanged hilt and rounded pommel and shoulders; two rivets in hilt and one at top of blade. *AR* (1979-80) 30 fig. 52.
11. Pisa, Elis. Chamber Tomb. L. c. 0.3275. Flanged hilt with rounded pommel; two large rivets in pommel and hilt; another two on shoulders; blade much sharpened. Found with one-piece spearhead (L. 0.37). Note that these two weapons are published at different scales in the same plate so that the dirk appears longer than the spearhead. Date LH IIIA2. *ADelt* 25 (1970) 193 pl. 173.

12. Miraka, Elis. Tomb. L. 0.32. Much corroded and broken. Rounded pommel and shoulders with two large rivets. Found with spearhead (L. 0.375). Date? *ADelt* 25 (1970) 189 pl. 164.
13. Pylos, Messenia. Chamber Tomb E6 Burial E. L. 0.387. Flanged hilt with rounded pommel; traces of wooden handle attached by seven rivets, three in hilt, two on each shoulder. Found with Di26. Date LM IIIA2. *PofN* III, 188 fig. 243. 5.
16. Tanagra, Boeotia. Tomb 16. Larnax Burial. L. 0.29. Pommel appears broken; flanged hilt and rounded shoulders with two rivets. For further details see under Cii6. *PAE* 1970 (1972) 34 pl. 47a.

Islands

18. Asclepeion, Kos. SE. corner of Sanctuary. L. 0.363. Original L. c. 0.37 since tip is broken. Rounded shoulders and pommel; four rivets, one in pommel, one in hilt, and two on shoulders; skeuomorphic bulges just below pommel. Found with axe, whetstone, and LH IIIA2 piriform jar. Exact circumstances of discovery unknown but this assemblage looks more like the remnants of a destroyed tomb than a hoard. Date: LH IIIA2. *ASAtene* 50-1 (1972-3) 253 figs. 198-9.

Gi

Crete

2. Kato Syme, Viannou. 'Dedication' in post-LM I cult area. L. 0.61. Cast pommel and 'dropped' horns as ZP 14 (Gi1);

details not fully published but on display in Heraklion Museum with the two fine Ci swords (7 and 8) which have similar horns. Date? *PAE* 1973 (1975) 193 pl. 198a.

Central and Southern Greece.

3. Mycenae, Argolid. Acropolis, large hoard of 1890. Athens 2536. L. 0.41. Discussed by Sandars but three rows of spiral tracing separated by grooves on pronounced midrib not mentioned. Hoard probably deposited LH IIIB-C but dirk almost certainly manufactured before end of LH

IIIA2. Th. Spyropoulos, **Υστερω Μυκηναϊκοί Έλλαδικοί Θησαυροί* (1972) 15-16 fig. 14; pl. 7.

4. Mycenae, Argolid. Context and details as last except no decoration. Athens 2537. L. 0.623. Discussed by Sandars. Date and references as Gi3, fig. 15, pl. 8.

Gii

Central and Southern Greece

3. Perati, Attica. Tomb 12. L. 0.575. (Sandars: c. 0.60) Date LH IIIC. Sp. Iakovides, *Perati* (1970) ii. 360 figs. 158-9.

SUPPLEMENTARY CATALOGUE

Each weapon has been listed according to its type and given a catalogue number to facilitate reference and the addition of new finds. The provenance is followed by the length; * indicates an incomplete weapon.

Ci

Knossos Area (including Archanes)

1. Zapher Papoura (ZP) 36 (0.945)
2. ZP 44 (0.955)
3. Silver Cup Tomb (0.613)
4. Fourni, Archanes (0.455)

Messara

5. Tomb 8 'Tombe dei Nobili', Phaistos (0.43)*
6. Tomb 8 'Tombe dei Nobili', Phaistos (?)

Viannou

7. Kato Syme (1.04)
8. Kato Syme (1.03)

Argolid

9. Dendra, 'King's Tholos' (1.094)
10. Dendra, 'King's Tholos' (0.682)*
11. Dendra, 'Cuirass Tomb' (0.40)*
12. Mycenae, Chamber Tomb 81 (0.62)
13. Argive Heraion, Tomb 37 (0.75)

Attica

14. N. Slope of Areopagus, Tomb III17 (0.74)
15. N. Slope of Areopagus, Tomb III18 (0.46)*

Achaia

16. Aigeira (0.347)

Euboea

17. Chalcis (0.87)

Rhodes

18. Ialysos NT 4 (1.09)
19. Ialysos NT 74 (0.74)

Kos

20. Asklepeion (0.407)

Thessaly

21. Iolkos, Nea Ionia (0.73)

Epirus

22. Peramatos (0.58)*
23. Peramatos (0.857)*
24. Dodona (0.58)*

Macedonia

25. Grevena (0.29)*

Yugoslavia

26. Tetovo (c. 1.00)

Cii

Thessaly

7. Agrilia (?)

Lesbos

8. Thermi (0.34)*

Macedonia

9. Grevena (0.56)

Greece (no exact provenance)

10. 'Mount Olympus', British Museum (0.618)
11. Stockholm No. 19293 (0.675)

Romania

12. Galatin (c. 0.86)*

Israel

13. Gezer (0.235)*

Ciii

Bulgaria

1. Dolnolevski (0.77)
2. Pershitsa (0.761)
3. Doktor-Iosifovo (0.567)

Di

Knossos Area

1. ZP 36 (0·61)
2. ZP 42 (0·62)
3. ZP 43 (0·50)*
4. ZP 55 (0·655)*
5. ZP 98 (0·61)*
6. Ayios Ioannis, Shaft Grave, A.J. 1 (0·40)
7. Ayios Ioannis, Chamber Tomb, A.J. 2 (0·62)*
8. New Hospital Site (NHS) Tomb II (0·61)*
9. NHS V, Chamber Tomb (0·47)
10. Mavrospelio Tomb XVIII (0·475)
11. Sellopoulo Tomb 4 Burial 1 (0·475)*
12. Sellopoulo Tomb 4 Burial 2 (0·702)

Crete (no exact provenance)

13. Giammalakis Collection 356 (0·356)*
14. Giammalakis Collection 437 (0·415)*
15. Heraklion No. 409 (0·212)*

Argolid

16. Dendra, 'King's Tholos' (0·765)
17. Dendra, 'King's Tholos' (0·715)
18. Dendra, 'Cuirass Tomb' (0·387)*
19. Mycenae, Chamber Tomb 78 (0·66)
20. Mycenae, Chamber Tomb 91 (0·502)
21. Mycenae, Chamber Tomb 91 (0·502)*
22. Argive Heraion, Tomb 25 (0·455)
23. Epidaurus, Apollo Maleatas (?)*
24. Argolid, Göttingen (0·06)*

Laconia

25. Sykea (0·45)

Messenia

26. Pylos, Chamber Tomb E6: Burial E (0·633)
27. Myrsinochorio Tholos 2 (?)*
28. Pylos Area (?)

Elis

29. Trypes, nr. Olympia (?)

Boeotia

30. Orchomenos (c. 0·70)
31. Aulis (?)

Rhodes

32. Ialysos NT 45 (0·37)*
33. Ialysos OT (c. 0·42)
34. Rhodes? B. M. Walter's no. 3 (0·52)

Kos

35. Eleona Tomb 7 (0·4175)

Epirus

36. Mazaraki (0·418)

Macedonia

37. Grevena (0·418)*

Greece (no exact provenance)

38. Basle/Borowski Collection (0·369)*

Albania

39. Nenshat (c. 0·65)*
40. Mati (c. 0·62)*
41. Mati (?) Di?

France?

42. Lyons? (0·25)*

Dii

Siteia

1. Palaikastro, Beehive Tomb (0·33)

Pedhiadha

2. Gournes (0·37)

Argolid

3. Mycenae, Acropolis, 'above Shaft Grave III' (c. 0·33)
4. Mycenae, large hoard of 1890, Athens 2551 (0·234)
5. Poros Wall Founder's Hoard (0·29)

Corinthia

6. Corinth MF 1271 (0·11)

Attica

7. Athens Acropolis Hoard (0·199)

Rhodes

8. Ialysos NT 4 (0·60)
9. Ialysos OT 4 (0·52)

Carpathos

10. BM No. 46 (0·31)

Ei

Knossos Area

1. Ayios Ioannis Tomb 2 (0·355)
2. Ayios Ioannis Tomb 2 (0·205)*

Crete (no exact provenance)

3. Giammalakis Collection No. 355 (0·324)
4. Giammalakis Collection No. 357 (0·315)*

Argolid

5. Argive Heraion Tomb III (0·266)
6. Argive Heraion Tomb XLIII (0·272)

Achaea

7. 'From near Patras', 1891, Ashmolean Museum 1927, 1375 (0·243)*

Elis

8. 'From near Olympia', 1898, Ashmolean Museum 1927, 1376 (0·282)

W. Locris

9. Galaxidi (0·265)

Thessaly

10. Iolkos, Nea Ionia (0·38)

Eii

Knossos Area

1. Unexplored Mansion (0·084)*
2. Sellopoulo Tomb 4 Burial 2 (0·214)*
3. Mavro Spelio Tomb XVIII (0·275)

Mesara

4. Galia (0·341)

Argolid

5. Dendra, Chamber Tomb 2 Dromos cist (0·40)
6. Dendra, Chamber Tomb 7 (0·38)
7. Argive Heraion Tomb XXV (0·311)
8. Argive Heraion Tomb XLII (0·299)
9. Argive Heraion Tomb XLIII (?)*
10. Nauplion, Evangelistria Tombs (?)

Elis

11. Pisa (c. 0·3275)
12. Miraka (0·32)

Messenia

13. Pylos, Chamber Tomb E6 Burial E (0·387)

Attica

14. Eleusis, cist graves (0·31)

Boeotia

15. Thebes, Ismenion Tomb 5 (0·305)
16. Tanagra, Tomb 16 (0·29)

Rhodes

17. Ialysos NT 4 (0·38)

Kos

18. Asclepeion (0·363)*

Greece (no exact provenance)

19. Ashmolean Museum 1927.1445 (0·35)*

Gi

Knossos Area

1. Zapher Papoura Tomb 14 (0·42)

Viannou

2. Kato Syme (0·61)

Argolid

3. Mycenae, Acropolis, large hoard of 1890, Athens 2536 (0·41)
4. Mycenae, Acropolis, large hoard of 1890, Athens 2537 (0·623)

Gii

Siteia

1. Fitzwilliam Museum, Cambridge, no. G.R. 94b-1906 (0·50)*

Phocis

2. Delphi, Temenos Tomb L (0·38)

Attica

3. Perati Tomb 12 (0·575)

Ithaca?

4. British Museum no. 38. 1-10 342, 2753 (0·43)

COLIN MACDONALD

ADDENDUM

Since writing this article, I have discovered certain omissions. The Kato Syme swords (Ci7-8; Gi2) have been published (*AE* 1981 (1983) 15 pl. 2). The Gi sword is decorated with spiral and joining semicircle tracing and is that mentioned in note 80 above; Miss Lembessi assigns it to the Knossian workshop. Two dirks appear in the guide to the Hagios Nikolaos Museum (K. Davaras, *Hagios Nikolaos Museum* (1981) pl. 68 A, c). No. 1865. Unknown provenance. Ci. 0·40. 'Dropped' horns related to Gi. Compare with Ci7-8. No. 1492. Pharmakokephalo. Cii. 0·38. 'Dropped' horns as last.