

TRADE CIRCUITS AND TRADE-ROUTES IN THE SHAFT GRAVE PERIOD

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1. THE NATURE OF ARCHAEOLOGICAL EVIDENCE

Inter-Aegean and central Mediterranean contacts during the Shaft Grave period, as chronologically defined by O.T.P.K. Dickinson (1984, 115), i.e. the latest phase of the MH and LH I periods, have been substantially brought to light by recent research. The trade network is here primarily considered from a mainland perspective, but a dramatic change in trade activity can be seen during this crucial span of time throughout the Aegean (Rutter, Zerner 1984, 81; Dietz 1988, 25). This clearly is the result of interconnected events in the area as a whole, which is extremely varied in terms of its cultural, political and economic background. Therefore, any attempt to consider Aegean trade must be founded on the assumption that the Early Mycenaean culture was not homogeneous (Dickinson 1989, 133-35), as clearly shown by the comparison between contemporary vases from the two most advanced areas, namely the east and west Peloponnese (figs. 3, 4). Archaeological evidence from some sites in the north-east Peloponnese, such as Asine and Tsoungiza (Nordquist 1987; Rutter 1989a; 1989b; 1990; Wright 1990), also suggests differences within each area in terms of cultural contacts with the Aegean islands. Primary centres established preferential relations with the Aegean and undoubtedly acted as "gateway communities" in trade network¹: in the Argolid-Crete connection, for example, Mycenae replaced Lerna, which was "the main trading and redistributive center" in the region in the early MH (Dietz 1991, 207, 325; also Nordquist 1987, 66), while Tiryns established Cycladic links (Kilian 1984). Minor centres mainly participated in local exchange systems, being only occasionally, if ever, involved in major trade circuits. The same is certainly true of the south-west Peloponnese

¹ For a discussion on the concept of gateway community, see Smith 1987, 61-62 with refs.; Cline 1994, 87 with refs.

where a limited number of sites such as Peristeria, Pylos and Nichoria probably became major trading centres with the Minoan world.

Since any discussion concerning trade is firmly conditioned by available evidence, great importance is here attached to pottery, although Aegean trade was not always driven by the desire for pottery *per se*. In fact, many vases were primarily traded as containers, as suggested by Cycladic jars and bird-jugs from Crete (MacGillivray 1984, 156) and, conversely, by large Cretan jars from the Cyclades (Davis 1979 b, 146). Noteworthy exceptions are represented by some Aeginetan large storage vessels which occur widely in the Aegean (Zerner 1993, 49-50; Nordquist 1995, 205-206) as well as by the Aeginetan kitchen ware (hereafter AKW), which, although "well suited for use over fire", possibly contained "some important commodity" (Dietz 1991, 297). The same is true of a range of vases of fine appearance, such as, e.g., certain Kamares and Marine style vessels, which were prestige goods (Moody 1987, 238; Melas 1991, 184-85), while fine Cretan cups and bowls, some Cycladic Bichrome and most of Mainland Polychrome Matt-painted (hereafter MPM) vases have been considered vessels traded as luxury items in the Shaft Grave Period². Fine late MH examples and LH I Mycenaean ware no doubt were well appreciated not only in peripheral regions, but also in the Cyclades, as shown by Theran evidence (Marthari 1993, 253-54). Nevertheless, pottery was part of a more varied flow of traded goods, since even the finest wares were "travelling as a by-product of the trade" (Papagiannopoulou 1991, 265). In evaluating the intensity of contacts, pottery may therefore be deceptive. This specifically appears from Minoan imported pottery to the Cyclades, if we do not take into account other well-known major connections which reveal a profound Minoan influence on the local way of life. Imported pottery, in fact, is not exceedingly plentiful in late MC-LC I deposits, despite the strong Minoan influence on local shapes and decoration³. As discussed below, the same is true of the few Minoan pottery imports to the mainland.

² Davis 1979 b, 146; Papagiannopoulou 1991, 302 (Cycladic Bichrome); Graziadio 1991, 416. For Mainland Polychrome vessels as luxury pottery also see Rutter 1993, 791 and nt. 195 with refs.

³ Imports in LC I levels, including Minoan sherds, do not exceed 10-15% of the total assemblage of wares found at Akrotiri (Marthari 1990, 61; 1993, 249) and they are approximately 7% in Phylakopi III levels (Renfrew 1982, 225) and 8-9% in LC II House A at Keos (Schofield 1982 a, 10), although "very common" in later Middle Bronze Age deposits (Davis 1979 b, 143-44); Minoan imports in LC I deposits at Phylakopi only amounted to 2.8% (Cherry, Davis 1982, 337 Ill. 2 with refs.). For the Minoan influence on Cycladic pottery, see: Renfrew 1982, 225; Barber 1987, 167-70 with refs.; Papagiannopoulou 1991, *passim*.

In addition to finished or half finished metal objects⁴, major traded commodities in the Aegean no doubt included raw materials. In spite of the limited data still available for this period, the scientific analyses are, in fact, increasingly showing that the main source for metals such as copper, lead and silver, was the polymetallic deposit at Laurion⁵. On the other hand, a lot of traded goods do not leave any archaeological traces. They may include foodstuffs stored in baskets, liquid such as wine and oil, textiles, leather and fur, wood and wooden furniture (Wiener 1987, 264 and 265 nt. 37). Indirect evidence also suggests that at Phylakopi a surplus of wool was probably destined for export, while saffron and perfumes were presumably exported from Thera and Keos respectively (Davis 1979b, 147 with refs.). Alum has been interpreted as one of the main return goods from central Mediterranean (Jones, Vagnetti 1991, 141; Vagnetti 1991, 295 nt. 127 with refs.); trade in slaves from Italy as well as trade in horses from the Argolid to Crete have also been suggested, but there is, of course, no archaeological proof (Vagnetti 1991, 295 nt. 127; Dietz 1991, 326).

Some of the precious artefacts of great symbolic value hoarded in the shaft graves at Mycenae and, to a lesser extent, in some Early Mycenaean tombs in Messenia may have been part of a system of high level exchange. Individual prestige objects, such as stone and metal vessels, jewellery, luxury weapons, including boars' tusk helmets (Wiener 1984, 23) also occur sparsely. Although testifying to a high level exchange, they do not necessarily imply an intensive trade in ordinary commodities. Moreover, imported goods from the core areas to the peripheral regions, including weapons and possibly fine pottery, may also be interpreted as prestige goods exchanged within local prestige chains (Harding 1984, 265). Specialized craftsmen for prestige objects were probably also circulating in the Aegean, as suggested by the schools of craftsmen working at Mycenae, but taking advantage of Minoan experience (Dickinson 1977, 53-55, 67, 82-83, 108; 1984, 116; Graziadio 1991, 419 nt. 134 with refs.). The new evidence from the Levant and Egypt also shows that skilled Minoan craftsmen worked in this period for local rulers (Niemeier 1991; Bietak 1992, 1995; Cline 1995, 267-70; Morgan 1995; Younger 1995, 516-18, 533 nos. 103-104), while the Minoan

⁴ Nordquist 1987, 65; they include some of the sheets of metal or bronze wires circulating in the Argolid (*Ibid.* 45)

⁵ Gale, Stos-Gale 1984; Branigan 1989, 67; Papadopoulos 1989, 188 nt. 50 with refs.; Stos-Gale, Gale 1990, 87 fig. 20; Stos-Gale, MacDonald 1991, 266 fig. 7:b, 267 (copper), 269-70 figs. 8:a, 10 (lead); Knapp 1990, 132 table 3. The occurrence of pottery of this period, including MM III, LM IA and Cycladic imports, at Thorikos, close to the metalliferous areas, is to be connected to this activity, in spite of the incomplete knowledge of the site (Servais-Soyez, Servais-Soyez 1984, 54-58 no. 19, 65-66; Papagiannopoulou 1991, 301 with refs.).

prestige gift exchange with the Egypt (Wiener 1987, 265), and the precious unworked objects, such as ivory tusks or copper ingots, found in Minoan New Palace contexts (Kopcke 1987, 256; Melas 1991, 176) imply an extra-Aegean trade in prestige goods.

Finally, as suggested in connection with some Cycladic jars from central Crete (MacGillivray 1984, 156-57), homogeneous groups of imports in peculiar contexts might also be indicative of other types of contact such as the payment of tributes.

We can now turn to discuss the archaeological evidence. When summarizing cultural differences and the exchange of goods between the different Aegean areas, two main separate circuits of trade can be identified, despite the fact that Crete is a common terminal and the south Peloponnese an intermediate area (fig. 1). According to their relative geographical locations they can be named Eastern Circuit and Western Circuit. A rather complex network of sea trade-routes joining the various Aegean areas can also be suggested (fig. 2).

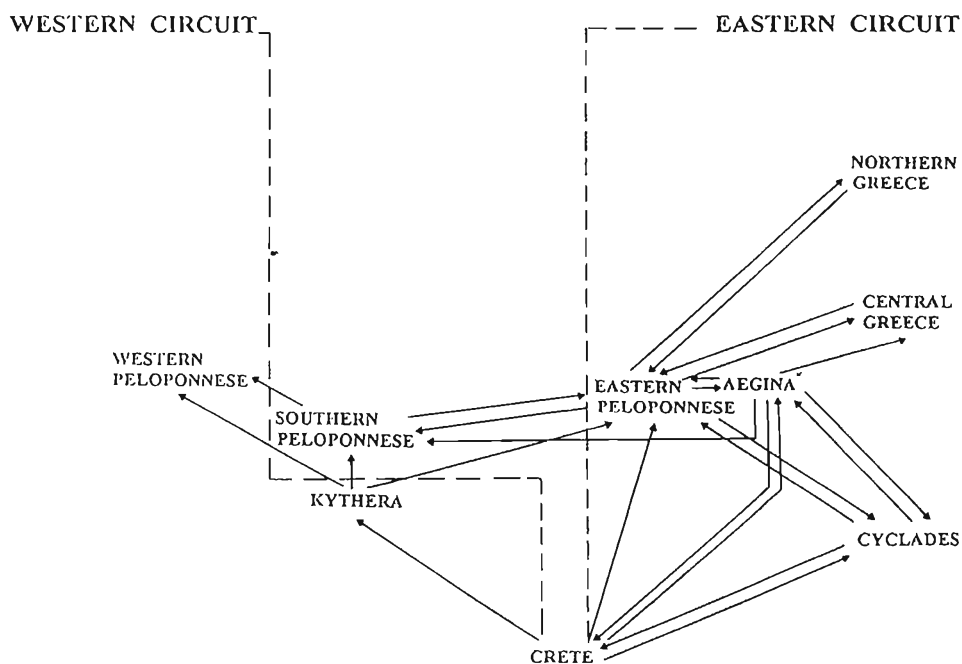


Fig. 1 – Sketch summarizing trade circuits and exchange directions in the Aegean in the Shaft Grave period.

2. THE EASTERN CIRCUIT

2.1. THE MAINLAND TRADE NETWORK

The Eastern Circuit includes Crete, the Cyclades, the east Peloponnese, and central Greece (fig. 1). Its northern border remains however unclear despite the MH finds from Pefkakia (Maran 1992 b) and the recent studies on Mycenaean trade with northern Greece (Wardle 1993)⁶. The late MH background throughout Dickinson's "central area" (1977, 17-23) is basically similar. North Attica, however, seems to be more clearly connected to Boeotia while south Attica is in contact with the Cyclades. Evidence from the Saronic Gulf area also shows that much more Aeginetan, Cycladic and Minoan imports circulated there than in the regions around the Corinthian Gulf, despite the primary role of this area in trade with north Greece and the central Mediterranean, which will be discussed below. Therefore, apart from the differences between "gateway" and secondary trading centres, within the Eastern Circuit probably there were minor interaction spheres. In particular, two sub-circuits can be suggested in the mainland-Cyclades interaction (See below: Section 2.2, *Routes A-1* and *A-2*).

The evidence for contacts between the north-east Peloponnese and central Greece

From the mainland perspective, the north-east Peloponnese is the focus of the Circuit. There is evidence for connections between the east Peloponnese and central Greece, especially with such important sites as Thebes, Orchomenos and Eutresis (Aravantinos 1995, 614-15; Kilian-Dirlmeier 1995, 49). The MPM ware, for example, is now regarded as central Greek pottery, probably manufactured in Boeotia (Jones 1986, 429-33; Dietz 1991, 32, 302 fig. 90; Zerner 1993, 48, Decorative Class 3, Matt Painted). An antecedent may be seen in a bichrome class – probably of central Greek production as well – found in MH deposits at Asine⁷. Apart from central Greece, MPM is particularly common in the LH I deposits in the Argolid (Dietz 1991, 301-303 fig. 90), where its high quality was also

⁶ Cf., in fact, the approximative northern border of MH and Early Mycenaean area, as reviewed by Rutter (1993, 784-85 figs. 15, 16).

⁷ Dietz 1991, 30, FT 4 "Asine Bichrome", 254; cf. Maran 1992 b, 162-69, 171, 305, Pefkakia; 305 nt. 909, Eutresis. The same provenance may be also suggested for unburnished polychrome Matt-painted sherds from Keos IV and Keos V deposits (Overbeck 1982, 43; 1984, 111-12; Davis 1986, 6-7).

appreciated by the members of the Shaft Grave aristocracy. The majority of Grey Minyan (hereafter GM) and Yellow Minyan (hereafter YM) examples from Lerna may also have been imported from central Greece (Zerner 1993, 47). In fact, GM was plentifully produced there not only throughout the MH⁸, but also in the Shaft Grave period, when Aegean shapes such as the Vapheio cup were also adopted (Graziadio 1988, 366 nt. 139 with refs.). By contrast, in the east Peloponnese, GM was increasingly superseded by YM as shown by LH I settlement and burial contexts⁹. The suggestion that GM pottery from LH I contexts at Tsoungiza was imported from Boeotia (Rutter 1989b) seems therefore well founded, despite the fact that the five analysed GM sherds from Korakou Levels XII-XVI apparently have a clay composition corresponding rather to local wares and may suggest a limited local production in the north-east Peloponnese¹⁰. In the light of this, some vases such as some small jars and amphoriskoi from Circle B may also be regarded as imports from central Greece¹¹. The typical LH I GM one-handed cups with sharply offset rims may also be of central Greek origin, even though their YM counterparts, commonly found both in the east Peloponnese and central Greece, might also have been made elsewhere¹².

The evidence for contacts between the north-east Peloponnese and Thessaly

Evidence for trade with Thessaly is provided by S. Dietz's Class G ("Fine Orange Ware") vases (1991, 32, 214), as well as, perhaps, by a solitary amphoriskos from Mycenae (Dietz 1991, 204, 300 nt. 305, BD-2;

⁸ MH: Overbeck 1982, 44; Dickinson 1986, 273; Jones, Mee 1986, 415. Shaft Grave period: Zerner 1993, 43, 47. IV. Other Mainland Central Greek (?), Class 1: True Gray Minyan, with refs.

⁹ For settlement deposits see: Davis 1979 a, 254-255 (Korakou); Dietz 1991, 93 fig. 26, LH IA, 103, LH IB (Asine). As to tombs, GM vases listed by Dietz from MH III-LH I contexts in the Argolid only are 29 (1991, 199-200).

¹⁰ The absence of sufficient analytic data from central Greece may be, however, misleading: Jones, Mee 1986, 417-20. See Zerner 1993, 43 for the adoption of GM style in the Argolid.

¹¹ For small jars, see: Mylonas 1973, 153 pl. 133:β1, M-144; 154 pl. 133:β 2, M – 150; cf. Mylonas 1975, pls. 49:β [no. 360], 80:β [no. 521], 101:β [no. 620], 401, Eleusis. For amphoriskoi see Dietz 1991, 204, BD-1.

¹² Such is possibly the case of the YM examples from Tsoungiza LH I strata which are suspected to be local. I am very grateful to J.B. Rutter for information. Cf. however Zerner 1993, 47, Other Mainland: Central Greek (?). Decorative Class 2: Yellow Minyan, for possible central Greek origin of YM.

cf. Maran 1992b, 107-108, 110-112). Additional Thessalian links have recently been suggested (Maran 1992b, 353-59), while precious raw materials such as the gold for Shaft Grave aristocrats may have been imported from Macedonia (Wardle 1993, 125).

The trade routes

Along with imports of prestige objects for the emerging ruling classes¹³, the existence of return trade from the Peloponnese may be substantiated by pottery. Some production centers of LH I Mycenaean pottery might have been located in the Argolid, particularly if Dietz's recognition of Argive clay (1991, 31, Class E, Lustrous Decorated Ware-Argive) is right. However, the earliest Mycenaean vases seem to have been produced elsewhere in the Peloponnese. In fact, despite a few earlier Lustrous Decorated Argive pieces, the bulk of local Mycenaean pottery from the Argolid seems to belong to the advanced phases of LH I, i.e. Dietz's LH IB (1991, 31, 301), being later than the earliest Mycenaean pottery found in the south and west Peloponnese. Moreover, the new Mycenaean pottery carried on from the MH-LH I Lustrous Decorated (Minoanizing) pottery (hereafter LDP)¹⁴ which was probably produced at Ayios Stephanos in Laconia, on Kythera and, as suggested by S. Dietz (1991, 35), perhaps, at Lerna¹⁵. A "Minoanizing Aeginetan" class has also been identified at Aegina, but its local production has not been proved by archaeometric analyses so far (Hiller 1993, 197-98). The imbalance in chronology of LH I Mycenaean pottery found in different areas may therefore imply that there was no parallel development of Mycenaean pottery from Minoanizing wares throughout the Peloponnese. LH I Mycenaean pottery is generally uncommon elsewhere and the few examples found in central Greece, including Euboea, may be the response in terms of pottery from the Peloponnese, possibly including the north-eastern districts, in view of the preferential occurrence of central Greek imports in the Argolid-Corinthia. Such may also be the case for such

¹³ Such is possibly the case of some prestige objects found in central Greece, and particularly at Thebes (see Aravantinos 1995, 615). For a piece of a gold jewellery with parallels in Circle B from Kastanas, see Cambitoglou, Papadopoulos 1993, 289 nt. 16 with refs.

¹⁴ Zerner 1993, 47, 54 nt. 41; also see Dietz 1991, 35, 315.

¹⁵ Zerner 1986, 66-68; Zerner 1993, 45-47. III. Kytheran or Southern Peloponnesian. A. Mudstone and Chert. Decorative Class: Lustrous Decorated; Dietz 1991, 236-38, Class M, Lustrous Decorated ware. For a discussion on the origin and diffusion also see Rutter 1993, 776 and nt. 134, with refs.

sparse finds from Phocis, since eastern Peloponnesian influences are apparent at Kirrha and Krisa on a local Matt-painted (hereafter MP) pottery with animal motifs (Dickinson 1977, 22; Maran 1992b, 318 with refs.) and some examples of the so-called Kirrhan “prémycénienne” group of the early Late Bronze Age (Dor *et al.* 1960, 81-82, 91) show a semilustrous paint which may be indicative of the first attempts to adopt the Mycenaean technique. Some Cycladic bird jugs (Papagiannopoulou 1991, 299 with refs.) might also have been imported to Kirrha across the Corinthian gulf or following the communication routes along the east side of the gulf (Aravantinos 1995, 615), since an early circulation of Aegean artefacts around the Corinthian gulf is also suggested by an unpublished barbotine rim cup from Eutresis¹⁶. Some prestige objects may likewise have been imported to Phocis from the east Peloponnese. This may be particularly true of a short sword with ivory pommel from Kirrha with parallels in the Argolid¹⁷ as well as of the stone vases – including the well-known lion shaped rhyton of marble-like limestone – from Delphi, where there was an Early Mycenaean settlement (Müller 1992, 461-63 and nt. 48 with refs.). Kirrha seems to have also played a main role in trade as a terminal of a major route heading to the hinterland and, by means of overland lanes through the mountains, to the Spercheios valley and Pefkakia (Mountjoy 1990, 252, 254-56, fig. 7), therefore complementing the overland courses across central Greece. Along with some vases of the Kirrhan type of the Shaft Grave Period found in the hinterland, at Marmara in Phthiotis (Maran 1988), the links between the MBA pottery from Pefkakia and contemporary Argive ware can be reasonably explained by contacts favoured by this inland road (Maran 1988, 350). The same may be true of the LH I Mycenaean pottery found in Thessaly and, in the opposite direction, of the few Thessalian imports to the Argive LH I contexts mentioned above. In this connection it is also worth recalling some Shaft Grave period vases from Zerelia, S of Pefkakia, near Mt. Othrys, where the mountain course ended (Dickinson 1977, 124 Ch. VI [8] nts. 10, 12; Maran 1992b, 270). Even the MM I-II and MC sherds and the Minoanizing pottery discovered in Thessaly (Rutter, Zerner 1984, III B [6], [9] with refs.; Maran 1992 b, 115, 178-79, 114-15) may therefore have been imported via the Corinthian gulf, while it is impossible to identify the route followed by the Early Mycenaean pottery recently found at Torone

¹⁶ Rutter, Zerner 1984, 77, 81 II B (5). For Cycladic and Minoanizing pottery from MH deposits at Eutresis, also see Niemeier 1995, 73 nt. 6.

¹⁷ Dor *et al.* 1960, 140 pls. 56, 57:4, 59; Kilian-Dirlmeier 1993, 38 no. 48 pl. 9:48 and nts. 8-10, for Argive parallels. Also see Dickinson 1977, 117, Ch.V [2] nt. 7.

in Chalcidice (Cambitoglou, Papadopoulos 1993, 293, 295, 297: nos. 1-4) confirming an interest in north Aegean area.

2.2. THE CYCLADES

Crete-Cyclades connections (Route A)

There is no need to discuss in detail the well-known Crete-Cyclades connections and the main Western String route (fig. 2: *Route A*) from Crete to the Cyclades (Davis 1979b; Schofield 1982b; Niemeier 1986, 248-51; Hood 1990; Gillis 1990, 113-116; Marinatos 1990; Wiener 1990; Papagiannopoulou 1991). However, it is worth recalling the parallels between some Minoan imports to the Cyclades and central Cretan pottery (Marthari 1990, 61-63, 66; Schallin 1993, 115 with refs.), while other vases possibly came from east Crete, particularly from Gournia (Niemeier 1979; Marthari 1990, 63; Papagiannopoulou 1991, 53, 64; Schallin 1993, 115 with refs.). Although Minoan stirrup jars were probably used as oil containers (Poursat 1990, 126), no general indications of traded commodities can be inferred from the range of imported storage vessels since it is wide and hardly standardized (Davis 1979b, 146). Minoan stone vases, which frequently occur at Akrotiri, were also objects of trade (Warren 1979, 106; Schallin 1993, 165). Despite the fact that Cycladic evidence probably reflects the adoption of many traits of the Minoan way of life, the existence of resident Minoan people in the Cyclades is still a matter for discussion¹⁸.

As for return trade, Cycladic pottery is reported from only a few sites, such as Knossos, Pyrgos, Kommos, and Ayia Pelagia. At Knossos, the considerable amount of imports from MM III levels (more than 40 vases) is in contrast to their rarity in LM IA deposits (Davis 1979b, 155 with refs.; MacGillivray 1984; Catling 1984-85, 60; Dietz 1991, 298). Typological/stylistical features as well as clay analyses show that they were of Melian and Theran production (Jones 1978, 478, 479; 1986, 429-30 fig. 5.8b), but no Keian import has been identified (Papagiannopoulou 1991, 63). Recent finds from MM III and LM I levels at Kommos and from Pseira do not modify the picture substantially¹⁹. In addition to pottery, however, twenty

¹⁸ For the adoption of Minoan features such as conical cups, kitchen kits and flat discoid loom weights see Davis 1984; Gillis 1990; Tzachili 1990; Wiener 1990. For Minoans in the Cyclades see Gillis 1990, 113-15; Poursat 1990, 126; Wiener 1990, 151-54; Papagiannopoulou 1991, 123, 165, 277.

¹⁹ Betancourt 1990, 191-92; Betancourt, Banou 1991, 108, 110 pl. 17:PS 1162; Watrous 1992, 153-54; also see *ibid.* 16, 154 no. 276 (Cycladic White from a LM IB context); Watrous 1993, 81.

dacite mortars have been reported from Crete²⁰ providing evidence for further links with Thera. Since many perishable or unidentified goods, such as raw metals from Laurion, were also undoubtedly traded between the mainland and Crete via the Cyclades (Davis 1979b, 147), the relative rarity of identifiable Cycladic imports to Crete may be accidental.

The Cyclades-east Peloponnese trade route (Route A-1)

According to Davis' list, 10 sites in the east Peloponnese, central Greece, and Phokis (Kirrha) yielded Cycladic pottery (Davis 1979b, 153-55); recent finds do not change the basic diffusion pattern²¹. Moreover, it is worth noting that more Cycladic than Minoan vases have been found in the east Peloponnese, probably as a consequence of the particular interest in their contents and/or their fine appearance. In addition to imports, some marked Cycladic influences can be traced on the local pottery of the Eastern Circuit during the Shaft Grave Period²²; moreover, probably the Cyclades also acted as intermediaries for the adoption of shapes of ultimately Minoan origin – such as Vapheio cups, tea cups and some askoi – on the mainland (Graziadio 1988, 354, 366). In the light of current evidence, in the Cyclades-mainland interaction two distinct exchange spheres may be distinguished. A direct route connecting the Cyclades to the regions around the Saronic Gulf (fig. 2: *Route A-1*) may be suggested, since the Argolid yielded the bulk of Cycladic imports, including a possible antique from Circle B Grave N (Graziadio 1991, 406, 419), and vases showing Cycladic influence²³. Most of them have recently been identified as Melian, suggesting a substantial trade with the island²⁴; by contrast, Thera as well as Keian Yellow-Slipped vases are

²⁰ Warren 1969, 115-17, *sub* "Syro-Palestinian tripod mortars"; cf. Warren 1979, 108.

²¹ Also see Kilian 1981, 183, fig. 41:8; Kilian, in Hägg, Marinatos 1984, 218; Zerner 1986, 70-71; Lolos 1987, 273 nt. 127; Dietz 1991, 100 no. 297; Papagiannopoulou 1991, 297-303 with refs.; Maran 1992 b, 221 nt. 247; Maran 1993, 203 fig. 1:9 (local or Cycladic) and nt. 8 (similar pottery from Attica); 203 fig. 1:10-14.

²² Such is the case of the panelled cups (Davis 1978; Graziadio 1988, 356 nt. 70; Dietz 1991, 161) and some beaked jugs (Graziadio 1988, 357 with refs.; Dietz 1991, 176-77, AF 7-8; 219, IB-1), whose distribution is significantly limited to the Eastern Circuit. More vases of Argive production, such as some jars with two handles on the shoulders, are inspired to Cycladic prototypes (Graziadio 1988, 357-58).

²³ This route has recently been also suggested by M. Marthari (1993, 252 fig. 3, 254).

²⁴ For MH and LH I contexts, see: Davis 1979 b, 153-55 nos. 7-10 with refs.; Nordquist 1987, 53, 64 with refs.; Dietz 1991, 298 nt. 792 with refs.; Zerner 1993, 56 nt. 69 with refs.; Kilian-Dirlmeier 1995, 49.

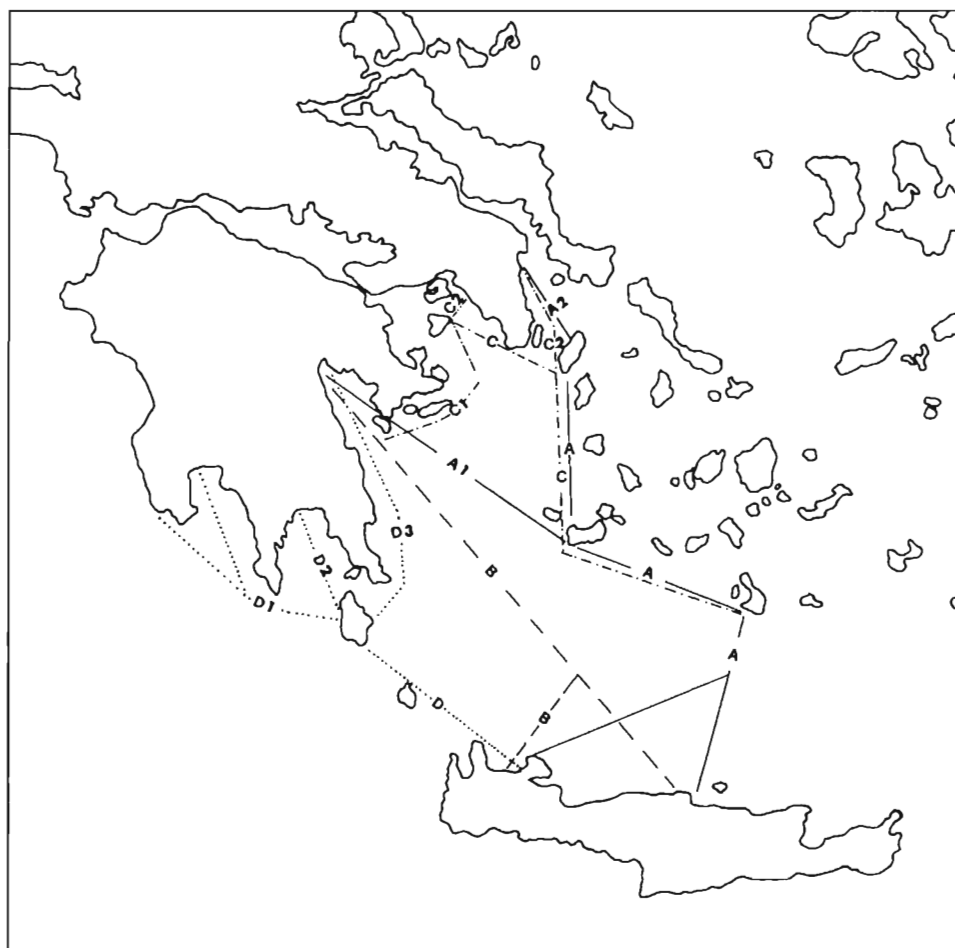


Fig. 2 – Sea trade-routes in the Aegean in the Shaft Grave period.

relatively scarce²⁵, possibly as a result of differences in attractiveness between contemporary Cycladic wares. Generally speaking, return goods from the east Peloponnese, *inter alia*, included the Mycenaean pottery and

²⁵ For Theran imports to MH-LH I contexts see: Davis 1978, 218 nt. 8 with refs.; Dietz 1991, 230 nt. 531 with refs.; Marthari 1993, 250-53 and fig. 2, pl. 32:a, b. For Keian imports to MH-LH I contexts: Overbeck 1982, 41; Schofield 1982 b, 12; Nordquist 1987, 50, 64 with refs. fig. 30:3; Papagiannopoulou 1991, 147 with refs.; Zerner 1993, 56 nt. 69 with refs.

the other mainland wares from Keos VI, Phylakopi III-i and the Volcanic Destruction deposits at Akrotiri²⁶.

The Cyclades-central Greece trade route (Route A-2)

Another trade-route (*Route A-2*) probably connected the Cyclades to central Greece, especially to the south Attica, as shown by the substantial group of Cycladic vases found at Marathon, Plasi, Brauron, Thorikos, Kiapha Thiti and Athens. Even if the possibility cannot be ruled out that such pottery was redistributed from other mainland centers along *Route A-1*, it seems more likely that there were direct contacts as a result of the Cycladic interest in the Laurion ores²⁷. Keos was in a key position on the routes to Laurion. Some earlier Keian imports are therefore reported from Athens, and Cycladic vases from Eutresis suggest links between Keos IV and Goldman's "transitional" phase²⁸; evidence for return trade is provided from Keos IV and V deposits²⁹. In the Shaft Grave period, however, Keian imports to central Greece are surprisingly scarce: in spite of the wide range of the Shaft Grave period pottery, Cycladic imports from Brauron and Kiapha Thiti are mainly of Melian character³⁰. In the light of the well-known inter-Cycladic trade³¹, it is likely that other Cycladic port towns acted as

²⁶ Keos VI: Caskey 1972, 392 pl. 92; Cummer, Schofield 1984, Chap. VII, *passim*, 141-42; Davis, Cherry 1990, 194 fig. 6:d; Dietz 1991, 311; Jones, Mee 1986, 457 (scientific analyses); Schallin 1993, 112 with refs. (Troullos). Phylakopi III-i: Cherry, Davis 1982, 337 Ill. 2; Davis, Cherry 1984, 149 no. 8 fig. 1. Thera: Marthari 1980, 201 nt. 3 with refs.; 1990, 63-64; 1993, 249 pl. 31:a, b; Lolos 1990, 54; Schallin 1993, 115. This particularly appears from the many LH I Vapheio cups from Thera, as confirmed by archaeometric analyses (Jones, Mee 1986, 427 no. 32 figs. 5.1, 5.2, 5.6, probably imported from Mycenae), but it should be pointed out that, more in general, ca. 70% of imported mainland pottery to Thera is Mycenaean in character and its majority may be assigned to the north-east Peloponnese (Marthari 1993, 249-50 fig. 1, 253-54). Imports of pottery of MH tradition also confirm such links (Marthari 1993, 249; 250 nts. 16, 17 with refs.), despite the fact that some panelled cups may be of Cycladic origin (Dietz 1991, 311).

²⁷ Analyses, in fact, show that copper, lead and silver came to the Cyclades from Laurion: Schallin 1993, 137, 144, 151, 158, 164 with refs.

²⁸ Early MH: Overbeck, Overbeck 1979, 117, Eutresis; Overbeck 1982, 42 nt. 22 with refs.; Nordquist 1987, 64 with refs., Athens; Maran 1992 b, 170, 361, Pefkakia.

²⁹ Dietz 1991, 311 with refs. For GM and MP: Papagiannopoulou 1991, 145. Bichrome MP: Overbeck 1982, 43; 1984, 111; Davis 1986, 6-7.

³⁰ Dickinson 1977, 36 nt. 57, Athens; Davis 1977, 172 nt. 10, Brauron; 1978, 218 nt. 8, Athens; 1979 b, 153 with refs., Kirrha, Marathon, Brauron, Thorikos, Eleusis; Papagiannopoulou 1991, 299 with refs., Euboea; Maran 1992 a, 172-75; 1993, 203, Kiapha Thiti; Maran 1992 b, 281 nts. 841, 842 with refs., Pteleon, Elateia; *ibid.* 394 pl. 133:4-5, Pefkakia.

³¹ Schofield 1982 b, 12-13 with refs.; Overbeck 1982, 39 with refs.; Davis, Cherry 1982,

transshipment centres in this trade. As indicated by the presence of litharge – metallurgically indicative of cupellation for silver production (Stos-Gale, Gale 1990, 85-89; Schallin 1992, 17) – in the sites of the Western String, there was also a local working of metals.

The Helladic imports to the Cyclades

In the Shaft Grave period imported goods no doubt also included bronzes from the mainland (Doumas 1986, 234 nt. 14, with refs.; Papadopoulos 1989, 188 pl. 46:a-c), if not from Mycenae itself, where there were workshops specializing in weapon and metal vessel production. Such may also be the case for a Type B sword-hilt and inlaid sword fragment in the Danish National Museum assumed to be from Thera (Dickinson 1977, 83 nt. 10, 102; Schallin 1993, 143). Rare imports probably also included deer antlers and boar's tusk plaques (Doumas 1986, 234; Schallin 1992, 18; 1993, 132), but no doubt trade with the mainland concerned a wide range of commodities including raw materials from the Laurion ores.

Helladic imported pottery provides integrative evidence for contacts between the Cyclades and the mainland along both *Route A-1* and *Route A-2*. GM and MPM from central Greece have been found in Keos VI deposits along with YM, Fine MP and Aeginetan pottery³².

At Phylakopi the amount of Helladic imports seems to contrast with the frequency of Melian vases on the mainland pointed out above. GM imports (Overbeck, Overbeck 1979, 111; Renfrew 1982, 223) are fewer than at Ayia Irini, and MH MP is also uncommon in Phylakopi II deposits (Barber 1978, 377). However, despite the lack of Aeginetan and Fine MP vases, diagnostic mainland pottery both from the east Peloponnese and central Greece may be identified in LC I deposits³³.

Helladic pottery from the Volcanic Destruction levels at Akrotiri amounts to approximately 13% of imports (Marthari 1993, 249). A group of vases of non-Mycenaean character are of central Greek production³⁴, being

339; Wiener 1990, 137; Marthari 1990, 64; Papagiannopoulou 1991, 158-60, 258 with refs.; Schallin 1992, 18; 1993, 111, 113, 115, 149, 164; Hadjanastasiou 1993, 260, 261.

³² See *supra* nt. 26. MPM: Caskey 1972, 392-93 pl. 93; Cummer, Schofield 1984, 85 pl. 64:b, e and nos. 835, 836; Davis, Cherry 1990, 194 figs. 5, 6:b. GM: Graziadio 1988, 355 nt. 64 with refs. YM and fine MP: Caskey 1972, 392, pl. 93; Cummer, Schofield 1984, 75 pls. 57, 85, 64:c, d and no. 837. For Aeginetan pottery, see *supra* (sub Aegina).

³³ For imports from the north-east Peloponnese, see *supra* nt. 26. For imports from central Greece (MPM), see Davis 1979, 258; Dietz 1991, 302 with refs.

³⁴ MPM: Dietz 1991, 302, 311 with refs.; Papagiannopoulou 1991, 357 no. 304; Marthari 1993, 249, Group 3. Fine Orange Ware: Dietz 1991, 214 no. 483, 311 with refs. GM: Dietz 1991, 201 nt. 458; Papagiannopoulou 1991, 264.

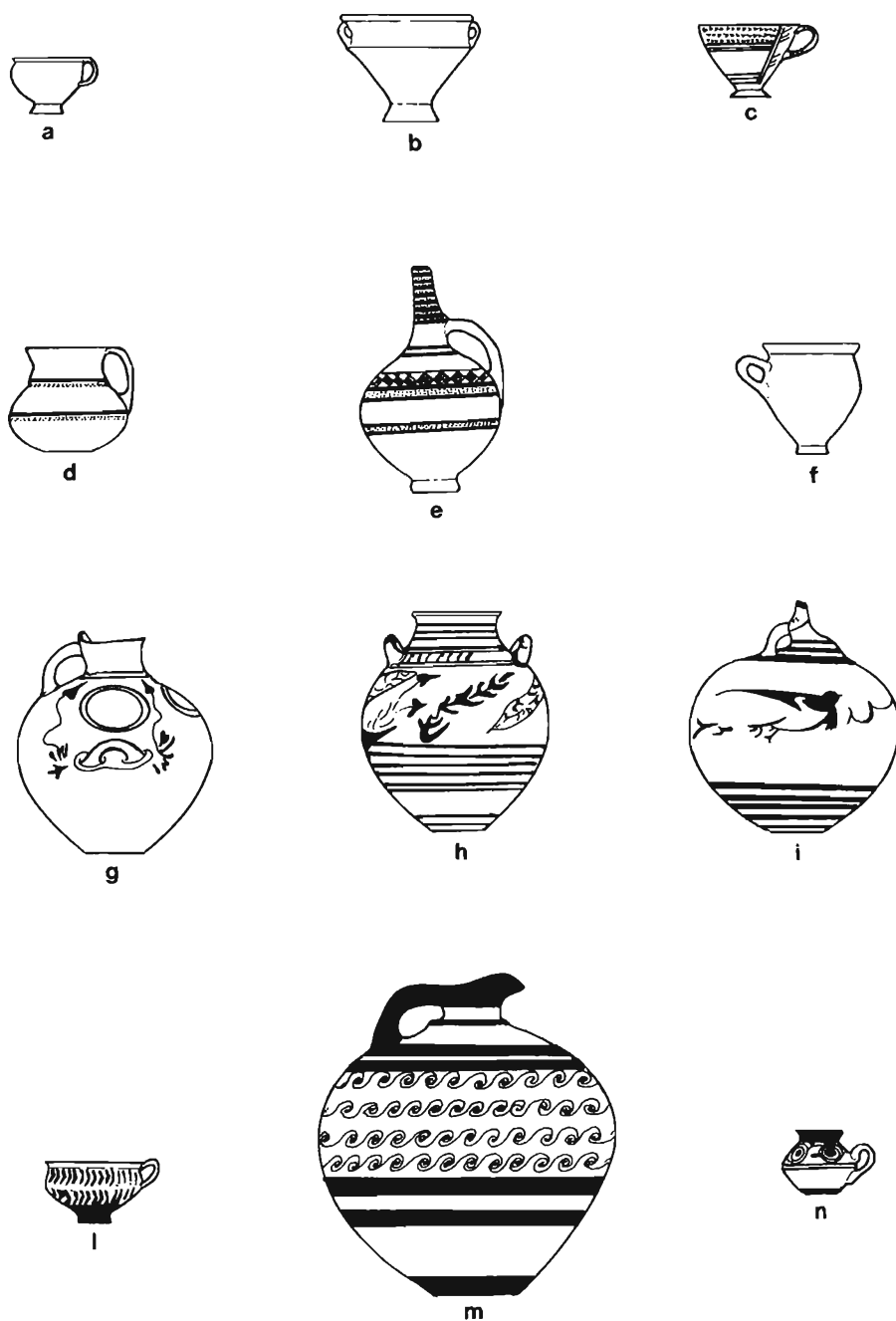


Fig. 3 – Selected pottery of the Shaft Grave period circulating in the Eastern Circuit (not to scale).

clearly carried along *Route A-2*, but pottery imported along *Route A-1* or spread by redistributive centres in contact with the Saronic gulf is also well represented in LC I deposits³⁵. Finally, Thera was probably also connected to the southeast Aegean via Kos³⁶.

Apart from other possible imports from the mainland (Papagiannopoulou 1991, 176 no. 410 pl. 56), some finds from Paroikia at Paros³⁷ suggest that direct or indirect trade reached other islands, despite the secondary role in trade played by the sites outside the Western String (Cherry, Davis 1982, 333 nt. 2, 335; Papagiannopoulou 1991, 182-83). Additional LH I-II pottery has been reported from Naxos, Delos and Kythnos (Schofield 1982b, 14, Barber, Hadjianastasiou 1989, 111-12 nos. 454-56; Schallin 1993, 110, 114) along with a fragmentary Aeginetan krater from Kato Kouphonisi³⁸.

2.3. CRETE

Imports from east and central Crete have been found in the early MH deposits at Lerna (Zerner 1986, 69-70; 1993, 50). Some links with west Crete have been suggested as well (Rutter, Zerner 1984, 79-80; Nordquist 1987, 66-67; Zerner 1993, 50), indicating that the site was also the terminal of the route connecting west Crete to the mainland via Kythera (see below: Section 4, *Route D-3*).

Crete-east Peloponnese connections (Route B)

In the Shaft Grave period, in addition to the inter-Cycladic sea-route *A-1*, another more direct course was in use (*Route B*). This is well illustrated by the unique, spectacular concentration of Minoan artefacts and prestige objects of Minoan inspiration in the two Circles at Mycenae³⁹, which

³⁵ *Supra* nt. 26.

³⁶ Marthari 1993, 256 nt. 40 with refs. For other routes from the Aegean to the East, also see Watrous 1992, 171-72 fig. 10 and Graziadio 1995 (Aegina-Rhodes-Cyprus connections).

³⁷ Classic Minyan pottery, a Mainland panelled cup and imitations of MPM: Overbeck 1989, 14-15 nos. 113-24, 6 nos. 18, 20, 21 figs. 7, 9, 10.

³⁸ Overbeck, Overbeck 1979, 117; Papagiannopoulou 1991, 175, no. 407 pl. 55. Also see Hadjanastasiou 1989, 215 pl. 40:e (cf. Davis 1992, 743 nt. 199).

³⁹ For an analytical discussion, reference can be only made to Dickinson's basic works (1977; 1984; 1989). For a recent discussion on Minoan objects in the Shaft Graves at Mycenae also see Watrous 1993, 82.

confirms Dickinson's assumption (1977, 54-55; 1989, 136) that a "special relationship" linked Crete to Mycenae implying direct connections. The ceramic evidence is, however, rather ambiguous. In this period, Minoan imports to the Argolid are, in fact, altogether comparatively few both in burial and settlement deposits⁴⁰. Moreover, there is no clear evidence indicating whether all the Minoan pottery found in the north-east Peloponnese was directly imported from Crete or redistributed by sites such as Ay. Stephanos, Kolonna or Cycladic centres⁴¹. Notwithstanding this, a deep penetration of Minoan elements into the mainland way of life is testified by the adoption of coarse and plain vases of ultimately Minoan origin, such as tripod-cooking pots and conical cups (Wiener 1984, 21 nt. 40; Dietz 1991, 242, Na-2; Rutter 1990, 451), despite the contemporary occurrence of tripod-cooking pots of Aeginetan production on the mainland (Rutter 1990, 451 nt. 66). The same is true of the Minoan loom-weights (Niemeier 1986, 248, fig. 7, nt. 67 with refs.) which have been also regarded as evidence for the presence of Minoans at Lerna in MH (Nordquist 1987, 62). Many links between the mainland and New Palace Crete have also been identified in the fields of art and religion (Watrous 1993b, 83-85).

Cretan deposits provide scarce evidence for pottery exchange as well, since, apart from occasional finds from Kommos and Knossos, no late MH and LH I pottery has been published from New Palace sites so far⁴². This may be partially due to the lower quality of mainland wares, and it is also in conformity with the exchange pattern across the Western String. A similar scarcity of pottery imports is, however, also apparent in the Old Palace period, when primary traded goods from the mainland to Crete might have included raw materials and/or other archaeologically unidentifiable

⁴⁰ For burial deposits see Dietz 1991, 239-42, 297, 315 (10 vases) For settlement contexts see, e.g., Barbouna Area and Lower Town at Asine (Nordquist 1987, 63; Dietz 1991, 66, 86-87, 100). In general, only a few sherds identified as Minoan imports occur in late MH and LH I deposits in the Argolid and some of them may be rather referred to Minoanizing wares. For a review of finds, see Papagiannopoulou 1991, 311-13 with refs. More specifically: Davis 1979 a, 240 (Korakou); Dietz 1991, 285 with refs. (Argos); Gercke, Gercke and Hiesel 1975, 8 pl. 11:2, 3; Kilian 1981, 183, fig. 42; cf. Dietz 1991, 290 nt. 748 (Tiryns); Zerner 1993, 50 (Lerna).

⁴¹ At Thorikos Minoan imports have been found along with Cycladic pottery (Davis 1979 b, 157 nos. 4, 5) which may imply that they were redistributed by Cycladic sites, but at Kiapha Thiti, in contrast to the presence of Cycladic pottery, Minoan imports do not occur in late MH deposits (Maran 1993, 206).

⁴² See in general Rutter, Zerner 1984, 82, IV [2]; Dickinson 1986, 272. Kommos: Betancourt 1990, 191 no. 585; Watrous 1992, 155 nos. 1925, 338 pls. 46, 50. Knossos: Evans 1928, 309.

commodities (cf. Rutter, Zerner 1984, 81, II [A]; Huxley 1988, 66-67; Branigan 1989, 65 and nt. 4 with refs.).

2.4. AEGINA

The Aegina-western Cyclades (and Crete) trade route (Route C)

The role played by Aeginetan trade in MH and Late Helladic I periods has been increasingly substantiated by recent research⁴³. The island is Helladic in culture, but with “vivid Minoan and Cycladic relations” (Hiller 1989, 139). This is illustrated, *inter alia*, by a stone-built grave a little earlier than the Shaft Grave period, where local, Cycladic, and Minoan objects were associated⁴⁴. However, the beginning of Aegean interaction is no doubt much earlier. In fact, the appearance of Cycladic traits on the MH MP production of central and south Greece may be related to the influence of the Aeginetan pottery, which is closely linked to Cycladic productions (Wünsche 1977a; 1977b; Zerner 1978, 156-58; Siedentopf 1991, 44-45). Moreover, Cycladic imports frequently occur in Aeginetan MBA deposits (1975, 15 pl. 2:15-19; Papagiannopoulou 1991, 189-93; Niemeier 1995, 75) and the use of potter’s marks is common both to Aegina and the Cyclades (Zerner 1993, 55 nt. 56 with refs.). Some Melian as well as Keian imports have been identified⁴⁵, while a common category of potter’s marks has been found on Keos, Melos and Aegina (Bikaki 1984, 9). Several Aeginetan vases from the Volcanic Destruction Levels at Akrotiri and Keian Period VI deposits⁴⁶, along with the krater from Kato Kouphonisi⁴⁷, suggest that there was no solution in trade continuity throughout late MBA and early LBA. In the light of this, the use of a trade-route connecting Aegina to the western Cyclades (*Route C*) may be suggested since early MH; this overlapped the major Aegean sea-route, *Route A*, in the inter-Cycladic course probably as far as Crete, since Minoan imports and Minoanizing pottery also occur on

⁴³ For an up-to-date review of finds and discussion on the present state of research see Rutter 1993, 775-81.

⁴⁴ Walter 1981, 182-84; Hiller 1989, 139 nts. 14-17, with refs.; Kilian-Dirlmeier 1995, 49-50, assigned to MH II, but cf. *ibid.*, 53 with refs.

⁴⁵ Davis 1979 b, 150 (Melian imports); Overbeck, Overbeck 1979, 117 nt. 12; Overbeck 1982, 41 nt. 35, 45 (Keian imports).

⁴⁶ Thera: Marthari 1980, 184-86; 1990, 64 with refs.; 1993, 249, Groups 1, 2; Dietz 1991, 310-11. Keos: Caskey 1972, 393, 5. Matt-painted with sparse decoration; Cherry, Davis 1982, 336; Davis, Cherry 1990, 194; Cummer, Schofield 1984, 78 no. 593 pl. 58, mixed deposit; Bikaki 1984, 26, 28-29, VI-8, VI-11, VI-15, VI-19, VI-20?

⁴⁷ *Supra* nt. 38.

Aegina and a fragmentary Aeginetan red-burnished vase, recently published from a MM IB context at Kommos, is indicative of return trade⁴⁸.

The routes between Aegina and the mainland (Routes C-1 and C-2)

The wide diffusion of Aeginetan vases with clay containing gold platelets (biotite) on the mainland indicates that, apart from the northernmost regions such as Thessaly⁴⁹, a regular trade linked the island both to the east Peloponnese (*Route C-1*) and central Greece (*Route C-2*) from the beginning of MH to the Shaft Grave period⁵⁰. This is well illustrated by domestic levels at Asine and Korakou⁵¹, but Aeginetan vases are almost ubiquitous in the peninsular regions of the Eastern Circuit (Rutter 1993b, 775, 776 nt. 133, 777 fig. 12), especially if we consider that the bulk of Buck's Buff Green and Green Yellow MP wares, commonly found on the mainland, could be of Aeginetan production⁵² and may be equated to the so-called Aeginetan monochrome Matt-painted. Aeginetan Polychrome Ware of LH I date – and possibly even earlier (Dietz 1991, 84, 303) – is also common in the mainland

⁴⁸ For Minoan imports and Minoanizing wares, see: Rutter, Zerner 1984, 81-82 with refs.; Hiller 1993; Niemeier 1995, 75-76; Papagiannopoulou 1991, 305. For Aeginetan imports to Crete, see: Betancourt 1990, 191 no. 120; a rim fragment of a cooking pot (?) is also reported from a LM IIIA deposit, but the Aeginetan provenance is uncertain (Watrous 1992, 168 no. 1098).

⁴⁹ Sparse finds: Maran 1992 b, 247 nt. 505, 305-6. A few other sites may be added: *infra* nts. 52, 53.

⁵⁰ Zerner 1978, 156-58; Zerner 1993, 42, 48-50. For full references also see Rutter 1993, 775 nt. 126.

⁵¹ Asine: Nordquist 1987, 63, table 5:3, Dietz 1991, 59 fig. 13; 71 fig. 18; 93 fig. 29. Also see G. Nordquist's counting (ca. 30% of MH pottery) in Zerner 1993, 53 nt. 28. Korakou: Davis 1979 a, 246, Matt-painted B: Light Gray Unburnished (cf. Dietz 1991, 34).

⁵² Buck 1964, 240-41; 251-78; cf. Maran 1992 b, 324 nts. 1080, 1081, with refs. The Buck's list including examples from Thessaly, Aetolia, Phocis, Boeotia, Attica, Corinthia, Argolid, Achaea, Arcadia, and Messenia-Elis does not seem to modify the diffusion pattern of distinctive Aeginetan imports substantially. More sites with Aeginetan imports have been recently listed by C. Zerner (1993, 56 nt. 63) confirming the circulation of Aeginetan pottery almost exclusively in the Eastern Circuit.

For Aeginetan MP see in general Siedentopf 1991, 46 and nt. 59. More specifically see, e.g., Maran 1993, 203 fig. 2, Kiapha Thiti; Mylonas 1959, fig. 135: 59, 71, Ay. Kosmas; Goldman 1931, 144, Class I, Eutresis; Dor *et al.* 1960, 71-74, 86-87, Kirrha; Mylonas 1932, figs. 66-68, 70:4, 7; 73:222; 77-80; 82:1, 2, 5, 9, 15, Eleusis; Blegen 1921, 22-24, Class B I; Mylonas 1973, Γ-17, Γ-38, N-160, U-236, Mycenae. Also see French 1972, 30 (2) greenish-buff; Döhl 1973, 216-17 pls. 83:3, 86: 3, Kandhia; Döhl 1978, 133-35; Dietz 1991, 289, Tiryns; Zerner 1978, 156-58; 1988, 2-4, figs. 4-17; 1993, 49 Class 3, Lerna; Nordquist 1987, figs. 41:6; 43:5, 8; 53:10; 57; Dietz 1991, *sub* AMP, Asine; Nordquist 1988, 20, fig. 7, various sites in southern Argolid; Valmin 1938, 298-99 pl. 23, Malthi, (cf. Walter, Felten 1981, 136 nt. 286).

districts of the Eastern Circuit (Dietz 1991, 303-305 fig. 91). The same is true of Aeginetan Plain and Red/Black Slipped and Burnished wares of MH and LH I date⁵³. The increase of the AKW in the Argolid, Corinthia and central Greece at the expense of local cooking vases is an additional indicator of trade in strictly utilitarian objects⁵⁴, including andesite millstones (Nordquist 1987, 63, with refs.; Wells 1990, 89). Outside these areas, Aeginetan finds from Ayios Stephanos and Aliveri (Dietz 1991, 304 nt. 825; Zerner 1993, 49, 53 nt. 28, 56 nt. 63) are indicative of occasional contacts with the south Peloponnese, despite the fact that clay analyses have shown that some "Aeginetan Polychrome" sherds from Ayios Stephanos are local⁵⁵. In LH IIA long distance trade may also be inferred from the Aeginetan pottery of Mycenaean character shipped as far as Cyprus via Rhodes as a result of the traditional shipping ability of the Aeginetans (Graziadio 1995)⁵⁶.

In addition to a number of vases of MH tradition (e. g. Hiller 1975, 15 pl. 2:20), evidence for return trade is probably also provided by Early Mycenaean pottery (Hiller 1975, 68-73 pls. 3-6) despite the existence of a local Mycenaean production (Graziadio 1995, 13-17 with refs.). A pottery group of the Shaft Grave Period from Kolonna, along with local vases, includes imported panelled cups (Wohlmayr 1989, pl. XXXII:b; Davis 1978, 219 no. 5; cf. Dietz 1991, 161) confirming the close contacts with the east Peloponnese. Mainland connections are also apparent from a group of LDP Minoanizing pottery from the early excavations which was possibly imported from the south-east Peloponnese (or alternatively from Kythera)⁵⁷.

⁵³ For plain examples see, e.g., Mylonas 1932, 111 fig. 88; 1975, pl. 21:β no. 237, Eleusis; Maran 1992 a, 184-85, Kiapha Thiti; Davis 1979 a, 247 nt. 56 nos. 208-211, Korakou; Döhl 1978, 136, 137 nos. 53, 59, Tiryns (cf. Bikaki 1984, 28 *sub* VI-8); Zerner 1978, 158; 1988, 4 figs. 18, 19; 1993, 49, Class 3, Lerna; Nordquist 1987, 53 fig. 58:l, Asine. For Red / Black Slipped and Burnished ware see, e.g., Mylonas 1973 no. 551, Mycenae; Nordquist 1987, 53 fig. 58:l, Asine; Maran 1992 a, 180-84; 1993, 203 fig. 3:1-2, Kiapha Thiti; French 1972, 26-27, various sites in Central Greece and the east Peloponnese.

⁵⁴ See, e.g., Mylonas 1932, 82 fig. 59, 84 fig. 62:1-3?, Eleusis; also see Dietz 1991, 297 nt. 788: "an impressive amount"; Maran 1992 a, 185-88; 1993, 205 fig. 31:3-4, Kiapha Thiti; Davis 1979 a, 252 nos. 240-54, Korakou; Rutter 1989 a, 9, 11-12; 1990, 418, 449 no. 171, Tsoungiza; Mylonas 1973, 195, pl. 172:β O-205, Mycenae; Döhl 1978, 126-33; Kilian 1981, 185 fig. 41:5; Dietz 1991, 289, Tiryns; Zerner 1988, 5 figs. 20-23; 1993, 49, B, Gold Mica, Lerna; Nordquist 1987, figs. 50:8, 67:2-7; Dietz 1991, fig. 7,17, 24-25, 29, 30; Döhl 1973, 213 fig. 17, Synoro.

⁵⁵ Rutter, Rutter 1976, 51 nos. 723-25; Jones, Mee 1986, 421 Table 5.1, 424.

⁵⁶ For a discussion on the ships painted on MH Aeginetan vessels see Rutter 1993, 778-80; Niemeier 1995, 76, nts. 35-38, with refs.

⁵⁷ Hiller 1993, 197 (third group), pl. 22:a.

3. THE WESTERN CIRCUIT

3.1. WEST PELOPONNESE

The Western Circuit of trade includes Crete, Kythera and the west Peloponnese (fig. 1). There are substantial differences between the west and east Peloponnese in the range of pottery of LH I date. In the west Peloponnese the limited repertoire mainly includes hand-made pieces (Lolos 1987, 222; Howell 1992, 75-80) and local shapes (fig. 4: a-d); there are no small fine MP examples, but the MH/LH transitional pottery from Samikon and Makrysia includes small squat jugs of Mycenaean shape (FS 87) with a MH-type MP decoration (Lolos 1987, 278-82, here fig. 4: f). Moreover, some stamnoi of MH shape with a banded semi-lustrous decoration (fig. 4: e) show a similar mixture of traditional and new features⁵⁸, which is hardly surprising since in MH III levels at Nichoria lustrous paint in accordance with the Minoan technique is more frequent than matt paint (Howell 1992, 67, 68, 79). Despite the occurrence of coarse red micaceous clay sherds which may be of Cycladic production (Howell 1992, 79), neither vases showing strong Cycladic influences nor pottery with monochrome or polychrome bird decoration were locally made. No Aeginetan piece has been reported, apart from earlier occasional imports (Cf. Buck 1964, 253, Shape C 8, Buff Green ware, from Olympia).

3.2. CRETE AND KYTHERA

Crete-Kythera-mainland connections

Direct links between the west Peloponnese and Crete are comparatively few before LH I⁵⁹. A major role in the interaction was undoubtedly played by the Minoan settlement at Kastri in Kythera and a chain of Minoan colonies joining west Crete to Messenia has recently been suggested (Howell 1992, 77, 79-80). The reasons for the Minoan colonisation of Kythera are still under

⁵⁸ To the well-known examples from Koryphasion, Ano Englianios Tholos IV, and Chlemoutsi (Dickinson 1977, 23 nt. 41 with refs.; Lolos 1989, 324-26) several jars from Malthi, originally ascribed to Early Helladic, may be added in view of the similarity in shape and decoration and of the revised stratigraphy of the site (Valmin 1938, 277-78 pl. 17 nos. 20, 34, 37, 38, 51; cf. Howell 1974, 164; 1975, 111; Blitzer 1991, 6-7).

⁵⁹ In general see: Dickinson 1984, 117; Korres 1984, 144-46; 1993, 237. For Minoan imports and/or close local imitations before LH I: Lolos 1987, 203, 262; 1989, 175, Kephallorison T.1; Howell 1992, 79, 120-21 (P 2815, P 2827), 124 (P 2885, P 2886), Nichoria.

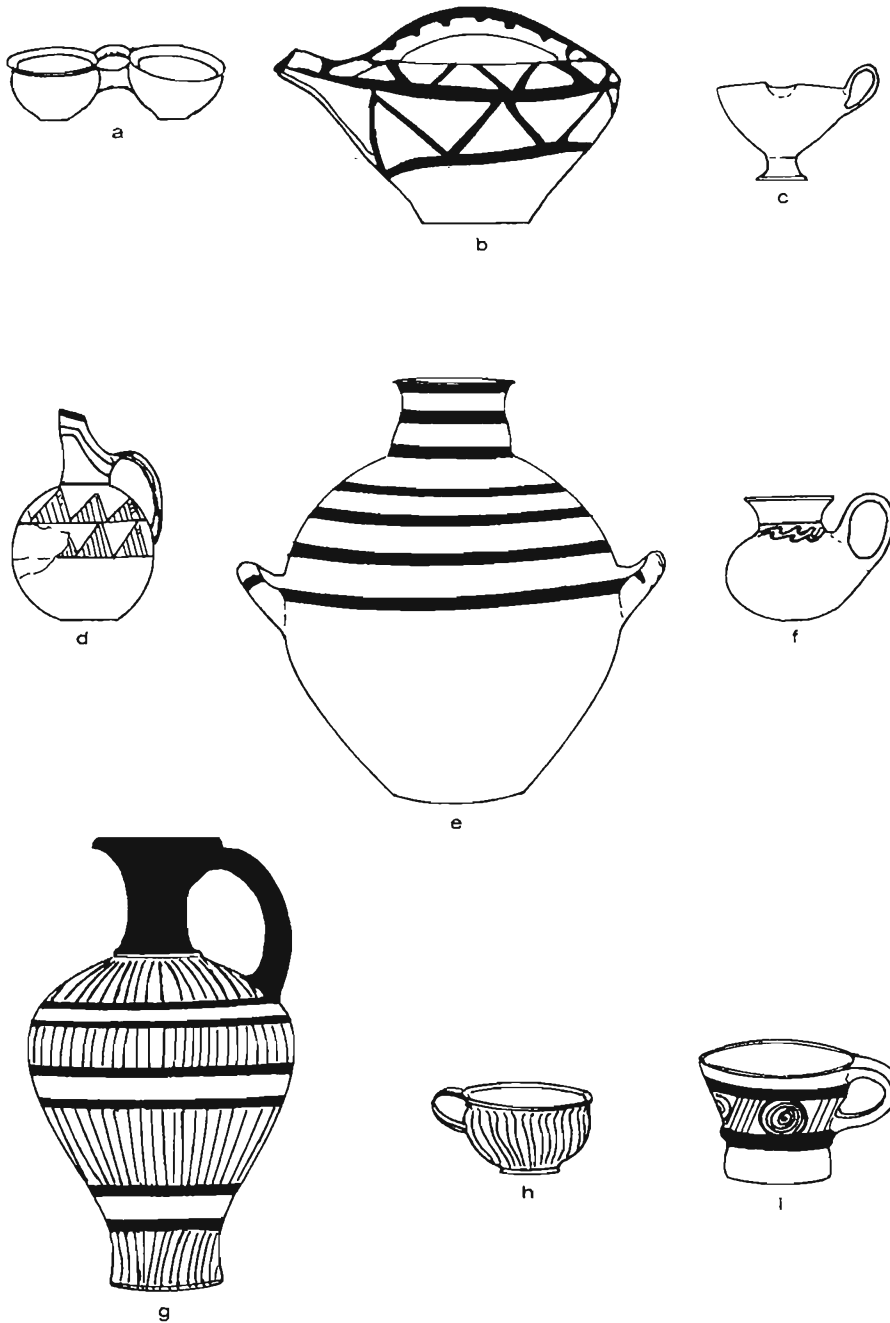


Fig. 4 – Selected pottery of the Shaft Grave period circulating in the Western Circuit (not to scale).

discussion: scholars have produced good arguments for the exploitation of natural resources such as fishing, agriculture, murex for purple dye, or for the establishment of a base for seeking metals and Laconian stones (Coldstream, Huxley 1984, 108 and discussion on pages 111-12; Rutter, Zerner 1984, 76 nt. 7; Huxley 1988, 66-67). Favoured by the geographical proximity, the earliest Minoans probably came from west Crete (*Route D*), as suggested by the EM II-III pottery connections (Coldstream, Huxley 1972, 275-277, 309; 1984, 107). The analogies between Kytheran LM IB Alternating Style and finds from Khania-Kydonia (Coldstream, Huxley 1984, 110; Schofield 1982 a, 12) confirm the continuative use of this short sea-route (Huxley 1988, 68). In addition to a few east Cretan connections, there are parallels with Knossian LM IA pottery as well⁶⁰. The peak sanctuary recently discovered improves evidence for the Minoan presence on the island⁶¹.

The beginning of Hellado-Minoan interaction via Kythera can be ascribed to MM IA/MH I (Rutter, Zerner 1984, 77, 81, 82 Appendix II [B] 4, V [c], with refs.). From that time on, and particularly in the Shaft Grave period, two main routes from Kythera, one to the west Peloponnese and the other to the south Peloponnese, were in use, while a minor route possibly connected Kythera to the Argolid (*Routes D-1*, 2, 3 respectively). Therefore Kythera seems to be the crucial point where these three routes diverged, since evidence for trade in ordinary commodities between west, south and east Peloponnese is remarkably scarce (see below: Sections 4, 5).

Crete-Kythera-west Peloponnese connections (Route D-1)

As clearly shown by Lolos (1987) and Dickinson (1992, 473-74), the links between Kythera and the west Peloponnese are particularly close at the beginning of LBA, when firm connections between Kytheran LM IA and local LH I pottery are apparent. Kytheran influence is also strong on single motifs and accessorial decoration, as shown by the characteristic Messenian Vapheio cups with "Metopal Spirals" (Lolos 1987, 407-412, 515-16; here fig. 4:i). By contrast, only a few Mycenaean shapes, such as Vapheio cups of type II, and a few single motifs have more parallels in Crete than in Kythera. However, a strong Minoan influence (possibly via Kythera) can be traced on plain conical cups, tripod cooking vases and lamps⁶², as well as on other

⁶⁰ In general: Coldstream, Huxley 1984, 108. For east Crete connections see Schofield 1982 a, 11 nt. 14 with refs.

⁶¹ Sakellarakis 1994. For a stone vase with Linear A inscription, see Sakellarakis, Olivier 1994.

⁶² Lolos 1987, 376-82 with refs. (local?); Dickinson 1992, 478-79, 480.

vases (ripple painted askoi, fruitstands and oval mouthed jars) of undetermined origin⁶³. Safe Kytheran imports, however, have rarely been found. They include some ripple painted cups from Nichoria and Kephlovryson T. 2 (Lolos 1987, 136-37, 408 nt. 219 with refs.) where the first attempts by Messenian potters to adopt LM IA features and Minoanizing wares have been also identified⁶⁴. In this light, Minoan or more probably Kytheran potters resident in Messenia may have been involved in the development of local Mycenaean production (Lolos 1987, 527-28). Apart from several type A swords from high rank tombs indicative of Minoan influence in weaponry⁶⁵, the few safe imports include prestige objects such as precious and stone vessels as well as a gold seal-ring⁶⁶. Along with the later Petsopha type figurines from Peristeria T. 2 (Hägg 1982, 36 fig. 16 with refs.), functional items such as loom and balance weights⁶⁷ may confirm the Minoan influence on the local way of life and religious beliefs, particularly after the beginning of LBA age.

Crete-Kythera-Laconia connections (Route D-2)

Turning to the route from Kythera to Laconia (*Route D-2*), clay analyses of Minoanizing wares from Ayios Stephanos have also shown that probably

⁶³ Lolos 1987, 210, 272-73, 311-17, 327-28 with refs. (imports and/or local vases); Korres 1993, 238-39 and nts. 71-73. For imports and/or local imitations also see Lolos 1987, 83, 158, 225, 236 (cups); Hägg 1982, 30 nos. 23, 30 figs. 2, 3; Lolos 1987, 303-304; 1989, 173 (ewer). For the Minoan (?) find complex from Vayenas tholos at Ano Englianos, see Hägg 1982, 31 figs. 5, 6 with refs.; Lolos 1987, 190-92, 309-310, 501; cf. however Korres 1984, 147 nt. 48 with refs.; Dickinson 1984, 117. On the other hand, the claimed Minoan influence on a plain beaked jug from Nikitopoulou T.4 at Tourkokivoura (Nichoria) is uncertain in view of the MH parallels for the shape (Choremis 1973, 40 no. 700 pl. 12:β; Hägg 1982, 30; cf. Lolos 1987, 358-59; Graziadio 1988, 367).

⁶⁴ Volimidia: Lolos 1987, 264-66, 301-302 (here fig. 4: h). MH III and LH I deposits at Nichoria yielded Minoanizing wares, including both local vases and possible imports from Kythera and/or Ay. Stephanos: Lolos 1987, 132 nt. 210 with refs.; Howell 1992, 76-77 (MH III). Lolos 1987, 141-42, 263 (LH I). Also see: Lolos 1987, 263; Dickinson 1992, 473, 522, 524 (P3028, P 3029, P 3030, P 3031, P 3130).

⁶⁵ Korres 1984, 145 nt. 26 with refs.; Korres 1993, 237; Kilian 1976, 125 fig. 4; Hägg 1982, 31 nt. 37 with refs. For a full list see Kilian-Dirlmeier 1993, 175-76 (List 2 nos. 1-13) with refs.

⁶⁶ Precious vessels: Hägg 1982, 32 nts. 46-48 fig. 8 with refs. (Minoan imports or close imitations). Seal-ring: CMS I no. 292 (cf. Hägg 1982, 30 nt. 29 with refs.). Stone vases: Hägg 1982, 30 nt. 27 with refs.; Dickers 1990, 171 no. 7 183 no. 6; 168 no. 7 with refs. (rhyton); 193 no. 5 with refs. (import?).

⁶⁷ Loom weights: Carrington Smith 1992, 687-88 (possibly later deposits than LH I; local imitations?). Balance weights: Petruso 1978, 134-41, 204-208; 1979, 138; 1992, 13-14.

there were Kytheran potters resident at the site as a result of close links between Kythera and the site (Jones, Rutter 1977; Jones 1986, 420-23); there is also a general consensus that Laconian sites and/or Kythera played a primary role in the origin of Mycenaean pottery (Rutter, Rutter 1976; Zerner 1993, 46-47). Along with the links between Ay. Stephanos and the Minoan colony at Kythera, it is worth noting that some Fine White Slipped MP sherds of the Period III at Ayios Stephanos have parallels in clay composition with White-Slip ware from Chania (Rutter, Rutter 1976, 10, 35; cf. Jones, Mee 1986, 424) and therefore confirm the connections with west Crete via Kythera. The influence of Minoan stone vases on Laconian Dark Minyan vessel forms and a stone object with a Linear A inscription provide further links with the Minoan world⁶⁸, while return trade is attested by the Laconian stone found in Crete (Rutter, Zerner 1984, 82, IV [3] with refs.).

West Crete-Kythera-Argolid trade (Route D-3)

Route D-3 may be treated in connection with the evidence for trade between the two main Circuits (see below: Section 4).

4. THE CONTACTS BETWEEN THE TWO TRADE CIRCUITS

Crete-Kythera-East Circuit connections

Leaving aside the problems concerning the origin of the earliest Mycenaean pottery from the Argolid, some individual imports to the Argolid⁶⁹ may indicate that the early tradition of contacts between the Argolid and Crete via Kythera (see Sections 2, 3) continued along the alternative *Route D-3* (Rutter, Zerner 1984, 76-80 with refs.; Huxley 1988, 65, 69). Some connections between Kythera and Thera have also been suggested in view of a few finds from Akrotiri – two ribbed Vapheio cups (Coldstream 1980, 387; Schofield 1982a, 10) and maybe a rounded cup⁷⁰ – which may be

⁶⁸ Rutter 1993, 782 nt. 150 with refs.

⁶⁹ Such may be the case of two vases (Dietz 1991, 32 nt. 44 [Red Silver Mica Ware], 216, 300. Also see Zerner 1993, 47, B. Red Silver Micaceous) as well of a rounded cup with linked spirals (Thorpe-Scholes 1978, pl. 1:2, LH I; Cf. however Lolos 1987, 409) from Mycenae. Another rounded cup with metopal spirals was found at Argos, but it was considered Minoan in view of fabric: Protonotariou-Deilaki 1980, 51 nt. 115, pl. Γ 36:1-2; Lolos 1987, 410.

⁷⁰ This is alleged to be Minoan, but it may alternatively be an import from the west Peloponnese/Kythera (Lolos 1987, 402 nt. 34)

the complement of the coarse micaceous wares of possible Cycladic origin (Howell 1992, 66 nt. 39 with refs., 79) found in MM IIIB Kytheran deposits.

In accordance with the noteworthy scarcity of indicators of return trade from the mainland to Kythera, apart from a MP sherd with Thessalian parallels (Coldstream, Huxley 1972, 179 no. 18), only a MPM rounded cup from a LM IA deposit may be identified as an occasional import from central Greece since it has parallels with the "MH IIIB" pottery at Kirrha⁷¹.

The trade between the west Peloponnese and the Eastern Circuit

Evidence for pottery exchange is mainly provided by some pieces of good quality (Howell 1992, 73, 76) imported to the coastal sites in the west Peloponnese⁷². The Nichoria material has only a few links with the Eastern Circuit, including some MH III bichrome sherds, a MPM sherd from a LH I deposit⁷³ and a few sherds from MH III and Early Mycenaean deposits which may be Cycladic⁷⁴. At Makrysia and Samikon safe imports are represented by the well-known MPM bird jug, possibly from central Greece, and by light-on-dark decorated vases with parallels in the north-east Peloponnese⁷⁵. Only two plain cups may be indicative of contacts with west-central Greece (Lolos 1987, 334-35). There is also scarce evidence – a Vapheio cup with metopal decoration from Tiryns⁷⁶ – for return trade from the Western Circuit to the Argolid, and a regular trade with the Cyclades cannot be substantiated at present from the Messenian Vapheio and rounded cups occasionally imported to Akrotiri⁷⁷.

⁷¹ Coldstream, Huxley 1972, 179 no. 19, fig. 54 pl. 51; cf. Dor *et al.* 1960, pls. 33, 48:59; 51:60; Maran 1988, 343, 346-47 fig. 2:3. Also see Cummer, Schofield 1984, 85 no. 837 pl. 64 (Keos, House A). For bichrome examples possibly imported from the north-east Peloponnese see *infra* nt. 73.

⁷² For YM and fine MP, see: Valmin 1938, 298; Dickinson 1977, 23 nt. 36 with refs.; 1992, 475, P3037, P3038. For GM see: Graziadio 1978, 190 nt. 131 with refs.; Dickinson 1986, 273-74. A flask from burial pithos 5 in the Voidokoilia Tumulus A may also be an import from the east Peloponnese (Korres 1993, 235-36 pl. 29:b).

⁷³ For MPM sherd: Dickinson 1992, 477, 522, P 3087. For other bichrome examples from Messenia and Kythera, possibly imported from the north-east Peloponnese see Howell 1992, 68, 121, P2822 and nt. 47 with refs.

⁷⁴ Howell 1992, nt. 39, 79 nt. 122.

⁷⁵ Samikon: Lolos 1987, 476-77 fig. 504:b; 298-300 with refs. (cf. Dietz 1991, 213, FC - 1; Davis 1979 a, 240 nos. 14-16 fig. 4; Rutter 1989 a, 3, 4, fig. 3.1, 8 no. 16 fig. 6:16). Makrysia: Lolos 1987 fig. 533? (cf. Dietz 1991, 178, 182 fig. 54:AF-13; 213 fig. 66).

⁷⁶ Gercke, Gercke and Hiesel 1975, pl. 24:1, bottom left (cfr. Lolos 1987, 410).

⁷⁷ See, e.g., a very few more Vapheio cups (Marthari 1993, 249 pl. 31:c) including a Vapheio cup with crossed tangents (Lolos 1987, 251 fig. 627:b; 1990, 54 fig. 1:3), and perhaps a rounded cup with loop-linked framed circles (*ibid.*, 416 nt. 68 with refs.).

By contrast, many parallels between prestige objects from the two Circles at Mycenae and the contemporary items from the high rank tombs in Messenia have been repeatedly pointed out. They may be indicative of a preferential trade in precious goods, but it is also possible that specialised workshops produced similar objects separately – Messenian schools of craftsmen have been also suggested – and/or that there were itinerant craftsmen who spread prestige artefacts in the Peloponnese⁷⁸. This particularly applies to the fields of metal vessel and jewellery production. Despite the suggestion of a local production (Matthäus 1980, 341-42; cf. Wright 1995, 70), some bronze vases from Messenia such as those from Vayenas Tomb at Ano Englianos, in fact, have close parallels at Mycenae, where the most advanced mainland workshops were located (Blegen *et al.* 1973, fig. 228:1-3; cf. Iakovidis 1981, 22). Moreover, precious vessels from the west Peloponnese, particularly those from Tholos 3 at Peristeria, have been compared to examples from Mycenae (Dickinson 1977, 93; Iakovidis 1981, 19-20). The fragmentary vase (or vases) with inlaid decoration from Peristeria T. 2, although a little later than the Shaft Grave period, may be an import from Mycenae (Dickinson 1977, 83); the same may be true of a golden kantharos from Peristeria if it had a common origin with the silver item from Tôd treasure⁷⁹. As suggested by Argive parallels (Dickinson 1977, 81 and nt. 44), some gold ornaments from Messenia were similarly used to decorate wooden boxes. An oval gold diadem from Peristeria T. 3 has been regarded as “practically identical” to those from the Shaft Graves at Mycenae, in accordance with other head bands which have close parallels in the Argolid (Iakovidis 1981, 19; Papadopoulos 1989, 185-86). Nevertheless, a parallel Messenian production of gold ornaments might also be suggested in view of certain differences and the occurrence of peculiar examples possibly inspired by Cretan prototypes⁸⁰; a stone mould-fragment from Nichoria is also evidence for a local manufacture of personal ornaments (Dickinson 1977, 77). Prestige objects from rich Messenian tombs also include lapis lazuli, ivory and amber finds (Dickinson 1977, 77 and nt. 50; Poursat 1977, 12 with refs.; Harding 1984, 68-87, 305-306). Lapis lazuli and ivory as raw materials or in a finished state may have been imported from Crete and/or

⁷⁸ For Argive parallels, maybe suggestive of foreign production, see Dickinson 1977, 82; cf. however Tripathi 1988, 185, 218. For a discussion on metal vessels as prestige artefacts see Wright 1995, 69-70 with refs. and list on Table II. For itinerant craftsmen see *ibid.* 70 nt. 39 with refs.; Laffineur 1995, 190-95.

⁷⁹ Maran 1987; Laffineur 1988. In such a case both examples may have been exported from Mycenae as suggested by the exclusive links between Mycenae itself and Egypt.

⁸⁰ Dickinson 1977, 77 nt. 44 with refs.; 1989, 134; Korres 1976, 477 pl. 256:b. For Minoan parallels see Hägg 1982, 32 fig. 9.

the Argolid, as suggested by their preferential connections with the Near-East, while Baltic amber and non-Baltic resins were probably imported directly along the Adriatic coasts.

On the other hand, the distinctive traits of west Peloponnese culture are confirmed by weaponry, since Type B swords and, perhaps, spearheads have not been found there⁸¹. Therefore, the two main Early Mycenaean districts shared Type A swords, some types of daggers and arrowheads, in addition to defensive weapons, such as boars' tusk helmets; except for two later inlaid daggers from Routsis T. 2, perhaps made at Mycenae (Dickinson 1977, 83; Xenaki-Sakellariou, Chatziliou 1989, 27-28 nos. 9-10, pls. V:2, VI, with refs.), it is, however, generally impossible to identify mutual imports.

To sum up, there is scarce evidence for pottery exchange between the two Circuits if compared to the internal trade in each Circuit. The range of possible imports from the east Peloponnese to Messenia in LH I seems to be restricted to a few luxury items which Messenians occasionally acquired in order to stress their status. The possibility that the idea of the tholos tomb was transmitted from the west Peloponnese, where the earliest examples have been found, to the Argolid at the end of the Shaft Grave period seems to be justifiable⁸². However, a special difference in usage can be seen in the fact that Messenian tholoi appear to have been used for many more interments on average than in the Argolid. The supersession of shaft graves by tholos tombs may therefore add evidence that contacts between the aristocracies in the two districts substantially increased after the end of LH I when a more regular trade seems to have been established.

5. THE TRADE WITH THE SOUTH PELOPONNESE

The Eastern Circuit-Laconia trade

Archaeological evidence is in agreement with the location of the south Peloponnese between the two main trade Circuits. However, leaving aside the Minoanizing vases and related problems, safe evidence for contacts between the Eastern Circuit and south Peloponnese is limited, despite the fact that some LH I vases from Asopos have parallels in the east Peloponnese (Demakopoulou 1992, 96-100, figs. 28, 29). Apart from a few Aeginetan

⁸¹ For swords see Tripathi 1988, 186. As to spearheads, possible exceptions are from Peristeria (Dickinson 1989, 134 nt. 13); a possibly later spearhead also is from Vorias Chamber T. 3 at Volimidia (Tripathi 1988, 332 no. 940).

⁸² For a recent discussion on the Messenian predecessors of the tholos tombs, see Korres 1993, 236-37 with refs.

sherds from the Laconia survey (Cavanagh 1995, 84) and the Aeginetan cooking vases mentioned above, Periods III and IV pottery at Ayios Stephanos only includes occasional imports from the Eastern Circuit districts⁸³; the true GM and MP occur at the end of MH or early LH (Zerner 1993, 52 nt. 15, 53 nt. 20), despite the fact that Laconian Dark Burnished Ware may be, to a certain extent, connected to Argive examples. A few examples from Amyklaion may be regarded as Argive imports⁸⁴ and the bulk of MH pottery at Menelaion is of local type, in contrast to the later fine Early Mycenaean vases and LM IB imports (Catling 1976-77, 28-29). As for return trade, some Laconian imports have been recently identified at Lerna and elsewhere in the Argolid (Zerner 1993, 45, II. Southern Peloponnesian. Quartz and Mica. Decorative Class: Dark Burnished, with refs.).

Apart from earlier pieces and possible imports from MH III deposits at Ayios Stephanos (Howell 1992, 79 nt. 120 with refs.), only a sherd of panelled cup from Pavlopetri (Lolos 1987, 235 nt. 27 with refs.) is indicative of trade with the Cyclades. This weak connection is confirmed, conversely, by the only find, a Vapheio cup from Akrotiri, which may be of south Peloponnesian origin (Marthari 1993, 241 pl. 31:d), along with the *Rosso Antico* stone imported as raw material (Schallin 1993, 162 with refs.).

The Western Circuit-Laconia trade

As pointed out above, there are close links with Kythera (and Crete) along the *Route D-2*, but, apart from the Minoanizing Ware from Nichoria, pottery exchange with the south Peloponnese is only attested by a few finds (a double cup and possibly a cup with metopal spirals) from Ayios Stephanos⁸⁵.

6. THE POTTERY OF THE SHAFT GRAVE PERIOD IN ITALY AND THE ROUTES TO THE WEST

6.1. THE EVIDENCE FOR CONTACTS WITH THE TWO AEGEAN CIRCUITS

If we consider the pottery of the Shaft Grave period from Italy as a whole, the range of argued Aegean connections needs to be

⁸³ Namely a few Fine MP examples and a solitary MPM sherd (Rutter, Rutter 1976, 39 nos. 294-96, 51 no. 717; Jones, Rutter 1977, 212-13, 218).

⁸⁴ A White on Burnished Dark rim-handled jar as well as a Fine MP vase: Aberg 1933, 53 figs. 92-93 with refs.

⁸⁵ Double cup: Lolos 1987, 332-33 nt. 244 with refs. Cup with metopal spirals: Lolos 1987, 410 nt. 47 with refs., fig. 67:a (from a burial context). A Fine Minoanizing cup sherd from settlement deposits has been also found at the site (*Ibid.*, 410 nt. 48 with refs.).

restricted⁸⁶. Apart from the sporadic Early Mycenaean finds from Capo Piccolo in Calabria and Molinella in Apulia, fully published pottery finds are limited to the Phlegraean and Aeolian islands; however, additional evidence for early contacts with the Aegean may be provided by some metallic finds from south-east Sicily and by recent excavations at Monte Grande (Agrigento) where a good deal of Aegean pottery has been reported⁸⁷. As shown by the chronology of the associated Mycenaean pottery and by the Aegean parallels, all the MH-type sherds from the two archipelagos can hardly antedate the LH I period⁸⁸, and the first Aegean contacts may be dated as early as the developed Shaft Grave period.

In order to identify firm connections with the main Aegean trade circuits discussed above, an analysis of the pottery published so far is needed. LM IA pottery is undiagnostic, since it was found in association with local vases both in Eastern and Western Circuit. Therefore, even if direct contacts with Crete cannot be excluded at all, the few LM IA sherds⁸⁹ might also have been shipped along with any other Aegean ware. Some sherds with MP decoration from the Aeolian islands regarded as "Local Matt-painted" or tentatively attributed to an undefined Cycladic production still await

⁸⁶ As a matter of fact, there is no evidence for the suggested MH origin of the well-known cup from Monte Sallia in Sicily: Taylour 1958, 55-56, pl. 16:1 a, b; cf. Benzi, Graziadio 1982, 23; Bietti Sestieri 1988, 31-32 fig. 10. Claimed Early Mycenaean finds from some Apulian sites such as Giovinazzo and Punta delle Terrare are of uncertain chronology (Benzi, Graziadio 1982, 24; Vagnetti 1982, 33 fig. 3; Von Hase 1990, 82 fig. 2, 85 nt. 15; Vagnetti 1991, 291). The same is true of the examples from Porto Perone originally assigned to the MH and LH I periods (Lo Porto 1963, 333-34 fig. 49; Cf. Benzi, Graziadio 1982, 21-22; Harding 1984, 246 and nt. 78; Vagnetti 1991, 291). A sherd from Palmi has been recently regarded as a MH MP import (Tinè 1995), but the Aegean provenance is dubious. For a review of the earliest Aegean finds also see Marazzi 1994, 23-29.

⁸⁷ Capo Piccolo: Marino *et al.* 1987. Molinella: Nava 1982, 43-44, pl. X:4. Metallic objects from Sicily: Cultraro 1989, 272-77 pl. III: 1, 2 (bronze bowl and glass beads from Grotta Maccarrone), 280-81 with refs. (various finds); Marazzi 1994, 26-27. Monte Grande: Castellana 1993; 1993-94; 1996. Some links between Sicilian and Aegean tombs have been suggested as well (Cultraro 1994, forthcoming).

⁸⁸ Such is probably the case of some sherds of MH appearance from Lipari and Vivara: Taylour 1958, 16 pl. 2:6; 1980, 794 nos. 14, 15; Cavalier, Vagnetti 1986, 141; Re 1994. The revised stratigraphy suggests that similar sherds from Filicudi can be also assigned to the LH I period (Benzi, Graziadio 1982, 22 nt. 30, with refs.; Vagnetti 1991, 280), and others have parallels in the east Peloponnese (Cavalier, Vagnetti 1986, 141-42 fig. 2:2; Taylour 1958, 14 no. 2 pl. 1; also see Vagnetti 1991, 264 nt. 2, 265 nt. 7 with refs.).

⁸⁹ Lipari: Taylour 1958, 16-17 nos. 2-5; Taylour 1980, 796 no. 45 (?); Vagnetti 1982, 132 no. 2 pl. XLIII:2. Filicudi: Vagnetti 1991, 278, 283 no. 75. Vivara: Marazzi 1986, 159 no. 134, 138 figs. 5 (regarded as "Minoan or Minoanizing imports", but considered LH I/IIA and LH IIA in the final publication: Panichelli, Re 1994, 199 nos. 91, 92 pl. XII fig. 8, 217); Panichelli, Re 1994, 188, 212 no. 40 pl. III fig. 5 (Vapheio cup with monochrome interior).

clarification⁹⁰. On the other hand, a hand-made vase with MP phytomorphic decoration from Lipari as well as a Vivaran small sherd with bichrome floral (?) motifs may be of Cycladic origin⁹¹, but admittedly no firm correlation can be established. However, a group of MPM sherds from Filicudi is of paramount importance (Vagnetti 1991, 264 no. 4, 267-68 nos. 16, 18, 20; 274 no. 58, 280-283 with refs.) and may come from the Eastern Circuit. Five large vases, probably used as commercial containers and table ware of good quality, have been identified, but, despite the lack of preserved decoration, more sherds may belong to this class (Vagnetti 1991, 283). A krater is the only open shape and may be compared to characteristic Early Mycenaean examples. A fragmentary askos of large size probably was a container for precious goods such as ointments or perfumes. Greater value must be attached to this pottery, when taking into account that no other evidence for MPM has been found so far outside the Aegean and that the MPM vases from the rich shaft graves of Circle B at Mycenae are less than double the number of those identified at Filicudi. If a sherd from Filicudi is Aeginetan, as dubiously stated by L. Vagnetti (1991, 265, 283 no. 12), it may provide an additional connection with the Eastern Circuit. The same may be true of the two sherds of L. Re's Class 7 referred to Keian or Aeginetan pottery (Re 1994, 254, 273 nos. 274, 275). On the other hand, a good deal of Early Mycenaean patterned pottery from Italian contexts is too fragmentary to be dated precisely and it is impossible to identify the provenance on the grounds of visual analysis⁹². Certain relationships with the Western Circuit can however also be established. Such is the case of a rounded cup with metopal spirals from Lipari, which provides a "good link" with Messenian/Kytheran pottery (Taylour 1958, 30 no. 53 pls. 4:13, 14; Vagnetti 1982, 134 no. 14; cf. Lolos 1987, 412, 532 nt. 24; 1992). Visual analysis of a fragmentary Vapheio cup with metopal spiral decoration from Vivara (Panichelli, Re 1994, 208, 213 no. 128 with refs.; Cf. Lolos 1987, 407-412; 1992) leads to the same provenance⁹³. In addition to the general links recently pointed out

⁹⁰ "Local MP": Taylour 1958, 33-35; Vagnetti 1991, 276, 280 no. 62. "Cycladic": Taylour 1980, 794 nos. 5-12. No Cycladic or Helladic vase seem to be closely comparable, despite the fact that MP pottery was also produced during the LBA (Vagnetti 1991, 280, 289, with refs.).

⁹¹ Cavalier, Vagnetti 1986, 141 fig. 1:6, 8; Panichelli, Re 1994, 198 no. 88 pl. XII fig. 8. Cf. Graziadio 1988, 352-354; Dietz 1991, 228-35 fig. 74 (Cycladic imports to the east Peloponnese).

⁹² Such is, for example, the case of some Vapheio cups with foliate band or running spiral decoration. The wide range of parallels for Early Mycenaean pottery from Vivara is also significant: Panichelli, Re 1994, 211-20.

⁹³ Another Vapheio cup might be added, if its poorly preserved decoration was origi-

(Panichelli, Re 1994, 219), clay analyses reinforce the suggestion that a part of the Early Mycenaean pottery from Italy came from the Western Circuit districts. In fact, a group of decorated Mycenaean examples from Vivara (Cluster A) is comparable to southwest Peloponnese (apparently excluding Kythera) pottery, even if the clay distinctions in the Peloponnese admittedly are not always secure⁹⁴.

Other heterogeneous sherds of domestic ware from Vivara – and to a far lesser extent from Lipari and Filicudi (Vagnetti 1991, 285-86, 289 with refs.) – belong to large shapes, suitable for storage and transport of food-stuffs (Re 1993; 1994). Unfortunately, their state of preservation does not allow any precise correlation to distinctive pottery of either one or the other Aegean circuit, and chronology of many sherds is probably later than LH I. Some of the coarse, burnished and MP sherds from Vivara seem to have their counterparts in Mycenaean pottery assemblages of LH I date. There may be also early Canaanite jars (Re 1994, 226, 246-51, 269-70, Class 5); if so, they may have been imported via the Eastern Circuit areas where they occasionally occur, but they are probably later than the Shaft Grave period (Re 1993, 334, LH IIB-III A). On the other hand, a possible connection between some sherds with banded decoration in matt or semilustrous paint⁹⁵ and a group of Messenian jars (fig. 4: e) may be suggested. Finally, clay analyses have shown that some samples of domestic pottery have a composition consistent with the local bay of Naples group (Jones, Vagnetti 1991, 131; Re 1994, 271-72; Jones 1994, 307 table 5) and may confirm Bietti Sestieri's suggestion (1988, 26) that there were some Mycenaean residents at Vivara.

To sum up, it is worth emphasizing the convergence to the South Tyrrhenian sea of safe imports from both the Western and Eastern Circuits in the time corresponding to the advanced Shaft Grave period. When considering that evidence for trade in pottery between the two Circuits is not plentiful, this cannot be coincidental and may imply partially distinct trade-routes from different terminals in the Aegean.

nally represented by metopal spirals (Panichelli, Re 1994, 184, 213 no. 24 pl. II fig. 3), but the vertical stroke may be indicative of another motif.

⁹⁴ Jones, Vagnetti 1991, 131, with refs.; Jones 1994, 306-307; also see Panichelli, Re 1994, 219. As to Cluster B samples, is not possible to distinguish the provenance either from north-east or south-west Peloponnese (including Kythera). The clay composition of a sherd from Capo Piccolo, originally considered of southern Peloponnesian/Kytheran production (Jones, Vagnetti 1991, 131) now may be referred to this group of undefined origin (Jones 1994, 307, 313 table 4).

⁹⁵ Re 1986, 162 (Class IV); also see Re 1994, 244-46 (Classe 4 dipinta), 261 nos. 312-13.

6.2. THE ROUTES FROM GREECE TO ITALY

If we attempt to identify the possible Early Mycenaean routes to Italy, reference must be made to some traditional views, summarized by M. Marazzi in a chart showing possible and certain Mycenaean routes⁹⁶. According to this view, a direct route connected the west Peloponnesian coast to the Straits of Messina, going further on to the South Tyrrhenian archipelagos. Another route from Kythera (and central Aegean) followed the western Peloponnese coasts, and, following the western coasts of Zakynthos and Kephallenia, directly headed to the Gulf of Taranto; hugging the Ionian coasts, afterwards it joined the direct route in the Straits of Messina.

The suggestion of a direct route from the Western Circuit areas to the South Tyrrhenian islands may seem justifiable. As shown below, the use of alternative courses is however equally possible, coasting along north-west Greece and Albania and crossing the Otranto channel where the Italian coast is split by only a short stretch of sea. The LH I Mycenaean pottery found at Vasiliko-Kalogeros⁹⁷, on the eastern coast of Zakynthos, opposite the Elis, might be related to a northward route coasting the west Peloponnese (fig. 5).

As for the other route connecting the Eastern Circuit regions to the central Mediterranean by circumnavigating the Peloponnese, it may be complemented or substituted by a shorter course along the coasts of the Corinthian Gulf⁹⁸. In such a case, a major terminal of this route might have been Korakou which was probably connected to the Argolid by a road-system involving inland sites such as Zygouries (Blegen 1928, 1-3). As clearly shown by J.L. Davis' (1979a), the LH I pottery assemblage from Korakou has close parallels in the Argolid and it is also linked to the other areas of the Eastern Circuit. In spite of the relative scarcity of the pottery of this period, the same is possibly true of Zygouries⁹⁹. By contrast, the range of contacts is apparently more restricted at Tsoungiza, a minor Corinthian hamlet located outside the main communication routes (Rutter 1989a; 1989 b), even if a MP jar with a depicted human being may be related to Cycladic influence (Rutter 1993, 791-92 fig. 17). As also appears elsewhere, both Zygouries and Tsoungiza were abandoned during EH III and were re-occupied at the

⁹⁶ Marazzi 1988, 6, map 1; see also Smith 1987, 126 fig. 21.

⁹⁷ Hope Simpson, Dickinson 1979, 193-94, E-40; also see Taylour 1958, 187.

⁹⁸ This route, recently has been also taken into account by A. and S. Sherratt (1991, 370) as a potential way for trade.

⁹⁹ Wright 1990, 354: "... Zygouries would seem to have been the highest order settlement in the region...".

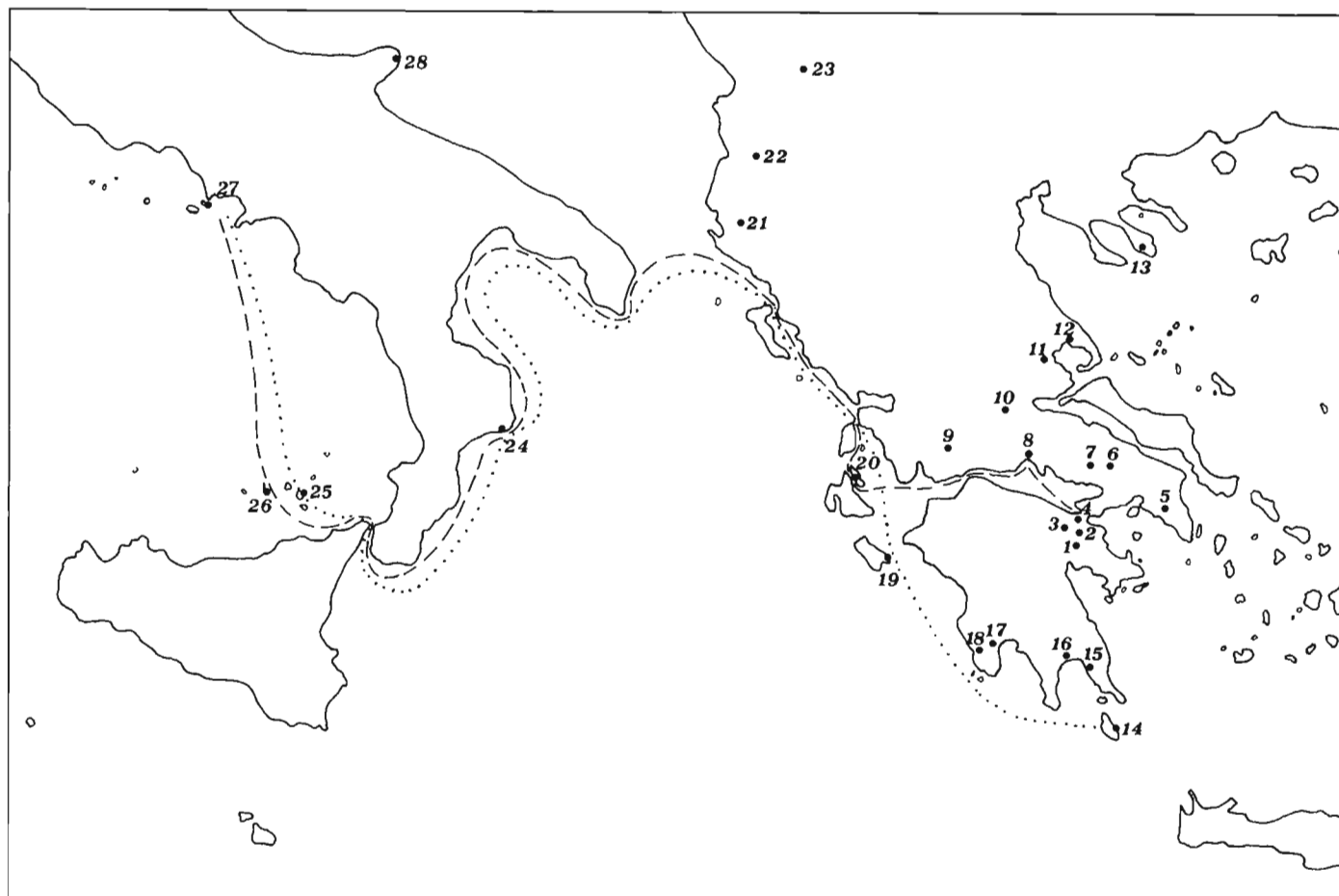


Fig. 5: Early Mycenaean sites mentioned in the text and suggested routes from Greece to Italy in the Early Mycenaean period. Key: 1: Mycenae; 2: Zygouries; 3: Tsoungiza; 4: Korakou; 5: Kiapha Thiti; 6: Thebes; 7: Eutresis; 8: Kirrha; 9: Thermon; 10: Marmara; 11: Zerelia; 12: Pefkakia; 13: Torone; 14: Kastri; 15: Asopos; 16: Ayios Stephanos; 17: Nichoria; 18: Epano Englianios; 19: Vasiliko-Kalogeros; 20: Tris Langadas; 21: Vajzë; 22: Pazhok; 23: Iglarevo; 24: Capo Piccolo; 25: Lipari; 26: Filicudi; 27: Vivara; 28: Molinella.

beginning of the Shaft Grave period¹⁰⁰. Therefore the process of exploitation of the Corinthian hinterlands during this crucial period might, *inter alia*, be connected to the increasing commercial interest in connecting the Argolid to the Corinthian gulf.

On the opposite coast, as shown above, Kirrha clearly had links with the east Peloponnese and acted as a "gateway community" for the hinterland and Thessalian sites. Turning to the west, if the LH I-IIA pottery from Thermon (Hope Simpson, Dickinson 1979, 103-104 [B 102] with refs.; Vagnetti 1991, 293 nt. 119) may simply be indicative of trade links between the two coasts of the Corinthian gulf, some finds from Ithaka, in the mouth of the gulf, may more probably be related to this route. The little true GM pottery found on the island along with local (?) imitations (Heurtley 1934-1935, 30-31), in fact, was undoubtedly imported by sea either from central Greece or the east Peloponnese during the MH, since it is basically alien to the ceramic traditions of the north-west Peloponnese and neighbouring countries. If the provenance of the Early Mycenaean pottery from Polis (Hope-Simpson, Dickinson 1979, 186 [E 18]) cannot be precisely determined, it is worth examining some finds from Tris Langadas in detail. In addition to a large number of later Mycenaean sherds, a pottery group of earlier appearance includes some interesting examples originally regarded as MH-type vases of the advanced LBA. However, a fragmentary jar with polychrome MP decoration (Benton, Waterhouse 1973, 14 no. 165 fig. 8) may be assigned to the MPM of LH I period, since it is similar, in profile and decoration, to examples from Mycenae and Korakou (cf. Dietz 1991, 221, fig. 69: ID 1, ID 4; Davis 1979 a, 244 fig. 6:59, 60, 63). Moreover, some GM sherds (Benton, Waterhouse 1973, 15 nos. 167-70 fig. 8) may belong to one-handled cups with sharply offset rims characteristic of LH I production of the east Peloponnese and/or central Greece¹⁰¹. Other MP (Aeginetan?) and YM examples may be paralleled by the Shaft Grave period pottery (Benton, Waterhouse 1973, 15 nos. 166, 174 fig. 8; cf. Graziadio 1988, 357 nt. 83 with refs.; 1991 nt. 111 with refs.; Dietz 1991, 150 fig. 47). Therefore, if this pottery group is of LH I date, it may testify to more contacts with the Eastern Circuit than with the nearer Western Circuit, confirming that in the Ionian islands there were some staging-posts in a northward route from the Corinthian gulf.

¹⁰⁰ Rutter 1990, 452-53; Wright 1990, 347. For a discussion on the resettlement in the MH III phase also see Lambropoulou 1991, 284-95; Rutter 1993, 781-82 and nt. 147. For the exploitation in the Shaft Grave period see: Wright 1990, 354; Wright *et al.* 1990, 609, 629, 640-41.

¹⁰¹ See *supra* nt. 12.

Apart from the well-known LH IIA Vapheio cup from Pazhok¹⁰², some scattered Albanian finds from the Ionian area are also indicative of contacts with the Aegean (Graziadio 1992; Marazzi 1994, 32 and nt. 24 with refs.). Without considering the well-known dagger from Vodhinë Grave 16, which, despite the MM connections, was found in a much later context (Harding 1984, 170 with refs.), at least a Type A sword from Vajzë (Wardle 1993, 125 and nt. 59 with refs.; Kilian-Dirlmeier 1993, 18 no. 38) was probably imported in the Shaft Grave period¹⁰³. Moreover, some links with the Eastern Circuit can be discerned. The distribution of the Avila's type I spearheads, "Sesklo-type" (Avila 1983, 5-8), in the Aegean, apart from some Thessalian and Cretan examples, is generally limited to the Eastern Circuit, while they are lacking in the west Peloponnese (Avila 1983 pl. 58:A; Dietz 1991, 299 fig. 89). As suggested by S. Dietz (1991, 298), such spearheads were probably produced by Aegean travelling smiths, but, contrary to his opinion, their period of use cannot be restricted to MH, since an example was also found in Circle A Grave IV at Mycenae¹⁰⁴. In the light of this, the occurrence of Avila's type I spearheads along this route heading to the Otranto channel, on Leukas and at Vajzwë in Albania, may be related to contacts with people coming from the Eastern Circuit possibly across the Corinthian gulf. Moreover, the long sword from Iglarevo (Methoijs) in Kosovo has been appropriately compared to the Type A swords from the Circles at Mycenae in view of original decoration (Kilian 1976, 113-115 fig.1:1; Harding 1984, 153; Kilian-Dirlmeier 1993, 30, 87), while a knife with three nails placed in a triangular position from the same burial context can be connected to examples mainly occurring in the Argolid and central Greece from the advanced MH to Shaft Grave periods (Kilian 1976, 113 fig. 1:4; cf. Maran 1988, 347, 354 nt. 89 with refs.).

Baltic amber imported from northern Europe to the north-east Peloponnese may also be considered from this perspective¹⁰⁵. Apart from the close analogies between a set (an amber bead and bone objects) from Circle B Grave Iota and some finds from the Bush Barrow in Wiltshire (Dickinson

¹⁰² Sueref 1989, 67 with refs., pl. I:3; Dickinson 1977, 104, for chronology.

¹⁰³ For other swords from Midhe and Pazhok of more uncertain origin see Harding 1984, 155-56; Wardle 1993, 125 and nt. 58 with refs.; Kilian-Dirlmeier 1993, 19 nos. 41, 42 with refs.

¹⁰⁴ Avila 1983, 6 no.1; Tripathi 1988, 137, 295 no. 635; for chronology of G. IV see Graziadio 1991, 433 table 4, 436, 439.

¹⁰⁵ For the amber routes along the Adriatic coasts see Dickinson 1977, 94-95; 1986, 274; for an alternative route see Harding 1984, 80. The Ledro cup and the cup from Dohnsen, Lower Saxony should be left out of consideration since Aegean connections are problematic: Harding 1984, 108, 261 with refs.; Vagnetti 1991, 294 nt. 121 with refs.

1977, 43 nt. 11 with refs.; Harding 1984, 114-15; 1990, 148), the concentration of amber objects in the Shaft Grave deposits is impressive. If, as suggested above, the route along the Corinthian gulf was used in this period to export goods from the east Peloponnese to the Ionian countries and further, the use of this course in the opposite direction may seem likely. The occurrence of amber in the Peloponnese might, however, also be related to Messenian traders playing a basic role in the diffusion throughout Greece in a prestige exchange chain.

When considering the Aegean trade in the Mediterranean in the Shaft Grave period comprehensively, a sharp contrast between the Mycenaean interest to the Occident and the eastward Minoan trade may be emphasized, probably implying two distinct and alternative trade spheres. The earliest Minoan finds in the Eastern Mediterranean, including Egypt, date back to the Early Palace period (Niemeier 1986, 205 nt. 105 with refs.) and the LM IA pottery from Toumba tou Skourou in Cyprus (Vermeule, Wolsky 1990, 381-83) is particularly indicative of the increasing Minoan interest in Oriental exchange circuits in the Shaft Grave period. By contrast, no safe LH I vase has been found in the Orient and the appearance of the earliest Mycenaean imports in the Eastern Mediterranean, a group of LH IIA vases from Ayia Irini *Paleokastro*, not far from Toumba tou Skourou (Graziadio 1995, 8-10 with refs.), is later than the end of the Shaft Grave period. In this light, a major problem concerns the reasons for Mycenaean trade in the Occident at the beginning of the LBA, especially if we admit that individuals living in different regions of the Mycenaean world were greatly interested in visiting the South-Tyrrhenian islands. Some years ago, O.T.P.K. Dickinson (1977, 55, 56, 105) suggested that control of the metal trade by the Shaft Grave aristocracies was a possible explanation for their dramatic enrichment and the Aeolian islands might have been a staging-post for Mycenaeans searching for metals in Tuscany and/or Sardinia. However, he later changed his mind, regarding the connections with the central Mediterranean as "unexplained" (Dickinson 1989, 136; cf., however, Vagnetti 1991, 294-95). Despite the presence of basic metals in Sardinia (copper, lead and silver) and Central Italy (copper, tin, lead, and silver)¹⁰⁶, no evidence for Aegean contacts has been found so far in these regions as early as the beginning of the Aegean LBA, while the systematic exploitation of the copper ores in Calabria seems to start some centuries later (Bietti Sestieri 1988, 26). Moreover, any discussion about the search of metal sources outside the Aegean cannot leave out of consideration the

¹⁰⁶ Cf. Von Hase 1990, 86 fig. 5.

exploitation of Aegean ores and the metal trade in the Aegean itself, as appears from recent scientific research. From this perspective there may be no compelling reason to refer to Italian mineral resources and long-distance trade for satisfying Aegean demand for metals other than tin and gold in this period. However, since the South Tyrrhenian islands were clearly so attractive for Mycenaeans, no plausible explanation for long journeys from Greece seems possible other than trade. The trade connections between the Aeolian islands, mainland Italy and Sicily are strong, as indicated by exchange and mutual influences¹⁰⁷. While the Aeolian archipelago became part of an important trade crossroads in the central Mediterranean, evidence for trade connections between Vivara and the other south Tyrrhenian areas is weak and mainly concerns earlier phases. However, there are a few Phlegraeon-Aeolian links contemporary with the Shaft Grave period¹⁰⁸, which, in theory, might suggest that the Aeolians actually were the only middlemen in trade with the Aegean. By contrast the domestic ware with Aegean links found at Vivara as well as the distinctive connections with the south-west Peloponnese above discussed seem rather to point to direct contacts with the Aegean traders. Whatever kind of goods might have been sought by the Mycenaeans in the central Mediterranean trade systems, even in the Shaft Grave period it was worth reaching the South Tyrrhenian islands to participate actively in the network of the traditionally established local sea-routes. It has been shown above that some features of some LH I imports from Vivara are indicative of contacts with the south-west Peloponnese, while a certain number of Aegean vases from the Aeolian islands point to commercial relations with the Eastern Circuit as well. In the light of current evidence, however, it can not be said if there was any competition between the two Aegean commercial Circuits in acquiring pre-eminence in the south Tyrrhenian trade system at the beginning of the Aegean LBA, and this admittedly remains a matter of speculation.

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¹⁰⁷ Holloway 1981, 62 nt. 9 with refs., 66 fig. 18; Bietti Sestieri 1988, 39, 43 figs. 20, 21. For a recent discussion also see Marazzi 1994, 19-23.

¹⁰⁸ They are represented by Capo Graziano sherds from the settlement of Punta Mezzogiorno at Vivara Damiani *et al.* 1984, 10, 15-16 fig. 3. 3, 4.

ACKNOWLEDGEMENTS

I wish to express my gratitude to Mario Benzi, John Cherry, Jeremy Rutter, and Lucia Vagnetti who read the early drafts of this paper passing valuable comments on them. Of course, I am fully responsible for the contents of the article and for any remained oversight.

REFERENCES

- ÅBERG N. 1933, *Bronzezeitliche und früheisenzeitliche Chronologie*. Vol. 4, Stockholm.
- ARAVANTINOS V. 1995, Old and New Evidence for the Palatial Society of Mycenaean Thebes: An Outline, in Laffineur, Niemeier eds. 1995, 613-22.
- AVILA R.A.J. 1983, *Bronzene Lanzen-und Pfeilspitzen der griechischen Spätbronzezeit*. PBF V, 1, Munich.
- BARBER R.L.N. 1978, The Cyclades in the Middle Bronze Age, in *Thera and the Aegean World I*, Athens, 367-79.
- BARBER R.L.N. 1987, *The Cyclades in the Bronze Age*, London.
- BARBER R.L.N. and HADJIANASTASIOU O. 1989, Mikre Vigla: A Bronze Age Settlement on Naxos, *BSA* 84, 64-162.
- BENTON S. and WATERHOUSE H. 1973, Excavations in Ithaca: Tris Langadas, *BSA* 68, 1-24.
- BENZI M. and GRAZADIO G. 1982, Note sulla provenienza delle ceramiche micenee rinvenute in Italia meridionale, in ΑΠΑΡΧΑΙ, *Nuove ricerche e studi sulla Magna Grecia e la Sicilia antica in onore di Paolo Enrico Arias*, Pisa, 19-33.
- BETANCOURT P.P. 1990, *Kommos II. The Final Neolithic through Middle Minoan III Pottery*, Princeton.
- BETANCOURT P.P. and BANOU E.S. 1991, Pseira and Minoan Sea-Trade, in Laffineur, Basch 1991, 107-110.
- BIETTI SESTIERI A.M. 1988, The "Mycenaean Connection" and its Impact on the Central Mediterranean Societies, *DdA*, Terza Serie, 6, 23-51.
- BIETAK M. 1992, Minoan Wall-paintings unearthed at Ancient Avaris, *Egyptian Archaeology* 2, 26-28.
- BIETAK M. 1995, Connections Between Egypt and the Minoan World. New Results from Tell el-Dab'a/Avaris, in Davies W.V., Schofield L. eds., *Egypt, the Aegean and the Levant. Interconnections in the Second Millennium B.C.*, London, 19-28.
- BIKAKI A.H. 1984, *Ayia Irini: The Potters' Marks*. Keos Vol. IV, Mainz.
- BLEGEN C.W. 1921, *Korakou*, Boston and New York.
- BLEGEN C.W. 1928, *Zygouries*, Cambridge (Mass).
- BLEGEN C.W., RAWSON M., TAYLOUR W. and DONOVAN W.P. 1973, *The Palace of Nestor at Pylos in Western Messenia. Vol. III*, Princeton.
- BLITZER H. 1991, Middle and Late Helladic Chipped Stone Implements of the Southwest Peloponnese, Greece. Part I: The Evidence from Malthi, *Hydra* 9, 1-73.
- BRANIGAN K. 1989, Minoan Foreign Relations in Transition, in Laffineur 1989, 65-71.
- BUCK R.J. 1964, Middle Helladic Mattpainted Pottery, *Hesperia* XXXIII, 231-313.

- CAMBITOGLU A. and PAPADOPOULOS J. 1993, The Earliest Mycenaean in Macedonia, in Zerner, Zerner and Winder eds. 1993, 289-302.
- CARRINGTON SMITH J. 1992, Spinning and Weaving Equipment, in W.A. McDonald, N.C. Wilkie eds., *Excavations at Nichoria in Southwest Greece. Vol. II: The Bronze Age Occupation*, Minneapolis, 674-711.
- CASKEY J.F. 1972, Investigations in Keos. Part II: A Conspectus of the Pottery, *Hesperia* 41, 357-401.
- CASTELLANA G. 1993, Età del rame ed età del Bronzo, in Catalogue of the Exhibition, *Contatti e scambi egei nel territorio agrigentino nel III e II millennio a.C.*, Agrigento, 8-36.
- CASTELLANA G. 1993-1994, Notizia preliminare sui recenti ritrovamenti di materiali egeo-micenei nel territorio agrigentino, *Kokalos* XXXIX-XL, 49-57.
- CASTELLANA G. 1996, Il Santuario del Bronzo Antico di Monte Grande presso Agrigento: problemi di contatti culturali e seriazione delle ceramiche castellucciane agrigentine, in Proceedings of the Viareggio Conference, *L'Antica Età del Bronzo in Italia*, (Viareggio 9-12 January 1995) 501-508.
- CATLING H.W. 1976-1977, Excavations at the Menelaion, Sparta, 1973-76, *AR*, 24-42.
- CATLING H.W. 1984-85, Archaeology in Greece, 1984-85, *AR*, 3-69.
- CAVALIER M. and VAGNETTI L. 1986, Arcipelago eoliano, in Marazzi *et al.* eds. 1986, 141-45.
- CAVANAGH W.G. 1995, Development of the Mycenaean State in Laconia: Evidence from the Laconia Survey, in Laffineur, Niemeier eds. 1995, 81-87.
- CHERRY J.F. and DAVIS J.L. 1982, The Cyclades and the Greek Mainland in LC I: The Evidence of the Pottery, *AJA* 86, 333-41.
- CHOREMIS A. 1973, Μυκηναϊκοί καί πρωτογεωμετρικοί τάφοι εις Καρποφόραν Μεσσηνίας, *ArchEphem*, 25-74.
- CLINE E.H. 1994, *Sailing the Wine-dark Sea. International Trade and the Late Bronze Age Aegean*, BAR 591, Oxford.
- CLINE E.H. 1995, Tinkers, Tailors, Soldiers, Sailors: Minoans and Mycenaean Abroad, in Laffineur, Niemeier eds. 1995, 265-83.
- COLDSTREAM J.N. 1980, Summary of the paper given to the Second International Congress, Santorini, Greece, *Thera and the Aegean World II*, London, 387.
- COLDSTREAM J.N. and HUXLEY J.L. 1972, *Kythera*, London.
- COLDSTREAM J.N. and HUXLEY J.L. 1984, The Minoans of Kythera, in Hägg, Marinatos eds. 1984, 107-110.
- CUMMER W.W. and SCHOFIELD E. 1984, *Ayia Irini: House A, Keos Vol. III*, Mainz.
- CULTRARO M. 1989, Il Castellucciano etneo nel quadro dei rapporti tra Sicilia, penisola italiana ed Egeo nei secc. XVI-XV a.C., *Sileno* XV, 259-86.
- CULTRARO M., forthcoming, Considerazioni sull'architettura funeraria in Sicilia durante l'Età del Bronzo Antico, in Atti del Congresso Internazionale, *L'ipogeismo nel Mediterraneo*, Sassari – Oristano 23-28 maggio 1994.
- DAMIANI I., PACCIARELLI M. and SALTINI A.C. 1984, La facies archeologica dell'isola di Vivara e alcuni problemi relativi al Protoappenninico B, *Annali Istituto Orientale Napoli, Sezione Archeologia e Storia Antica* VI, 1-38.

- DAVIS J.L. 1977, Brauron and Keos in the Shaft Grave Period, *AAA* 10, 270-72.
- DAVIS J.L. 1978, The Mainland Panelled Cup and Panelled Style, *AJA* 82, 216-22.
- DAVIS J.L. 1979a, Late Helladic I Pottery from Korakou, *Hesperia* 48, 234-63.
- DAVIS J.L. 1979b, Minos and Dexithea: Crete and the Cyclades in the Later Bronze Age, in Davis, Cherry eds. 1979, 143-57.
- Davis J.L. 1984, Cultural Innovation and the Minoan Thalassocracy at Ayia Irini, Keos, in Hägg, Marinatos eds. 1984, 159-65.
- DAVIS J.L. 1986, *Ayia Irini: Period V*, Mainz.
- DAVIS J.L. 1992, Review of Aegean Prehistory: The Islands of the Aegean, *AJA* 96, 699-756.
- DAVIS J.L. and CHERRY J.F. 1979 (eds.), *Papers in Cycladic Prehistory*, Los Angeles.
- DAVIS J.L. and CHERRY J.F. 1984, Phylakopi in Late Cycladic I: A Pottery Seriation Study, in MacGillivray, Barber eds. 1984, 148-61.
- DAVIS J.L. and CHERRY J.F. 1990, Spatial and Temporal Uniformitarianism in Late Cycladic I: Perspectives from Kea and Milos on the Prehistory of Akrotiri, in Hardy *et al.* eds. 1990, 185-200.
- DEMAKOPOULOU K. 1992, Some Early Mycenaean Vases from Asopos, Laconia, in Sanders J.M. (ed.), *Φιλολάκων, Lakonian Studies in Honour of Hector Catling*. Oxford, 95-107.
- DICKERS A. 1990, Spätbronzezeitliche Steingefäße des Griechischen Festlandes, *SMEA* 28, 125-223.
- DICKINSON O.T.P.K. 1977, *The Origins of Mycenaean Civilisation*, SIMA 49, Göteborg.
- DICKINSON O.T.P.K. 1984, Cretan Contacts with the Mainland during the Period of the Shaft Graves, in Hägg, Marinatos eds. 1984, 115-117.
- DICKINSON O.T.P.K. 1986, Early Mycenaean Greece and the Mediterranean, in Marazzi *et al.* eds. 1986, 271-76.
- DICKINSON O.T.P.K. 1989, 'The Origins of Mycenaean Civilisation' Revisited, in Laffineur ed. 1989, 131-36.
- DICKINSON O.T.P.K. 1992, The Late Helladic I and II Pottery, in McDonald W.A. and Wilkie N.C. eds., *Excavations at Nichoria in Southwest Greece. Vol. II: The Bronze Age Occupation*, Minneapolis, 669-88.
- DIETZ S. 1988, On the Origin of the Mycenaean Civilization. Some Recent Results, in *Studies in Ancient History and Numismatics Presented to Rudi Thomsen*, Aarhus, 22-28.
- DIETZ S. 1991, *The Argolid at the Transition to the Mycenaean Age. Studies in the Chronology and Cultural Development in the Shaft Grave Period*, Copenhagen.
- DIETZ S. and DIVARI-VALAKOU N. 1990, A Middle Helladic III/Late Helladic I Grave Group from Myloi in the Argolid (Oikopedon Manti), *OpAthen* XVIII, 45-62.
- DÖHL H. 1973, Die prähistorische Besiedlung von Synoro, in *Tiryns VI*, Mainz, 195-240.
- DÖHL H. 1978, Bronzezeitliche Graffiti aus Tiryns I, *Kadmos* 17, 115-50.
- DOR L., JANNORAY J., VAN EFFENTERRE H. and M. 1960, *Kirrha. Étude de Préhistoire phocidienne*, Paris.

- DOUMAS C. 1986, Trade in the Aegean in the Light of Thera Excavations, in Marazzi *et al.* eds. 1986, 233-44.
- EVANS A. 1928, *The Palace of Minos at Knossos*. Vol. II, Part I, London.
- FRENCH D.H. 1972, *Notes on Prehistoric Pottery Groups from Central Greece*, Athens.
- GALE N.H. (ed.) 1991, *Bronze Age Trade in the Mediterranean*, SIMA XC, Jonsered.
- GALE N.H. and STOS-GALE Z. A. 1984, Cycladic Metallurgy, in MacGillivray, Barber eds. 1984, 255-76.
- GERCKE P. and HIESEL G. 1971, Grabungen in der Unterstadt von Tiryns von 1884 bis 1929, in *Tiryns V*, Mainz 1-19.
- GERCKE P., GERCKE W. and HIESEL G. 1975, Tiryns-Stadt 1971: Graben H, in *Tiryns VIII*, Mainz, 5-40.
- GILLIS C. 1990, Akrotiri and its Neighbours to the South: Conical Cups Again, in Hardy *et al.* eds. 1990, 98-116.
- GOLDMAN H. 1931, *Excavations at Eutresis in Boeotia*, Cambridge (Mass.).
- GRAZIADIO G. 1978, Le influenze minoiche e cicladiche sulla cultura tardo medio-elladica del Peloponneso, *SMEA XIX*, 165-203.
- GRAZIADIO G. 1988, The Chronology of the Graves of Circle B at Mycenae: A New Hypothesis, *AJA* 92, 343-72.
- GRAZIADIO G. 1991, The Process of Social Stratification at Mycenae in the Shaft Grave Period: A Comparative Examination of the Evidence, *AJA* 95, 403-440.
- GRAZIADIO G. 1992, La Grecia continentale all'inizio del Tardo Bronzo e le rotte protomicenee verso Occidente, Paper given to the "Convegno Internazionale: dinamiche ed incontri di culture marinare nel Basso Tirreno nei secc. XVI e XV a.C". Napoli – Isole Flegree June 1992 (forthcoming).
- GRAZIADIO G. 1995, Egina, Rodi, Cipro: rapporti inter-insulari agli inizi del Tardo Bronzo?, *SMEA XXXVI*, 7-27.
- HADJIANASTASIOU O. 1989, Some Hints of Naxian External Connections in the Earlier Late Bronze Age, *BSA* 84, 205-215.
- HADJIANASTASIOU O. 1993, Naxian Pottery and External Relations in Late Cycladic I-II, in Zerner, Zerner and Winder eds. 1993, 257-62.
- HÄGG R. 1982, On the Nature of the Minoan Influence in Early Mycenaean Messenia, *OpAthen* 14, 27-37.
- HÄGG R. and MARINATOS N. (eds.). 1984, *The Minoan Thalassocracy: Myth and Reality*, Stockholm.
- HÄGG R. and MARINATOS N. (eds.). 1987, *The Function of the Minoan Palaces*, Stockholm.
- HARDING A.F. 1984, *The Mycenaean and Europe*, London.
- HARDY D.A., DOUMAS C.G., SAKELLARAKIS J.A. and WARREN P.M. 1990, *Thera and the Aegean World III*. Vol. I, London.
- HARDY D.A. and RENFREW A.C. 1990, *Thera and the Aegean World III*. Vol. III, London.
- HEURTLEY W.A. 1934-1935, Excavations in Ithaca II, *BSA* 35, 1-44.
- HILLER S. 1975, *Alt-Ägina IV,1. Mykenische Keramik*, Mainz.
- HILLER S. 1989, On the Origins of the Shaft Graves, in Laffineur 1989, 137-44.

- HILLER S. 1993, Minoan and Minoanizing Pottery on Aegina, in Zerner, Zerner and Winder eds. 1993, 197-99.
- HOLLOWAY R.R. 1981, *Italy and the Aegean 3000-700 B.C.*, Louvain-la-Neuve, Providence.
- HOOD S. 1990, The Cretan Element on Thera in Late Minoan IA, in Hardy *et al.* eds. 1990, 118-23.
- HOPE-SIMPSON R. and DICKINSON O.T.P.K. 1979, *A Gazetteer of Aegean Civilisation in the Bronze Age, Vol. 1. The Mainland and the Islands*, SIMA 52, Göteborg.
- HOWELL R.J. 1974, Some New Light on the Prehistoric Pottery Sequence in Messenia from Nichoria, *AJA* 78, 167.
- HOWELL R.J. 1975, The Middle Helladic Pottery, in McDonald W.A. *et al.*, *Excavations at Nichoria in Messenia 1972-1973*, *Hesperia* 44, 110-11.
- HOWELL R.J. 1992, The Middle Helladic Settlement: Pottery, in W.A. McDonald and N.C. Wilkie (eds.), *Excavations at Nichoria in Southwest Greece. Vol. II: The Bronze Age Occupation*, Minneapolis, 43-204.
- HUXLEY G.L. 1988, Kythera and the Minoan Maritime Economy, in Acquaro E., Godart L., Mazza F., Musti D. eds., *Momenti precoloniali nel Mediterraneo antico*, Roma, 65-71.
- IAKOVIDIS S. 1981, Royal Shaft Graves Outside Mycenae, *TUAS* 6, 17-28.
- JONES R.E. 1978, Composition and Provenance Studies of Cycladic Pottery with Particular Reference to Thera, in *Thera and the Aegean World I*, Athens, 471-82.
- JONES R.E. 1986, *Greek and Cypriot Pottery. A Review of Scientific Studies*, Athens.
- JONES R.E. 1994, Chemical Analysis of the Aegean Painted and Unpainted Wares from Vivara, in Marazzi, Tusa eds. 1994, 303-316.
- JONES R.E. and MEE C. 1986, Provenance Studies of Aegean Middle Bronze Age, in Jones 1986, 411-436.
- JONES R.E. and RUTTER J.B. 1977, Resident Minoan Potters on the Greek Mainland? Pottery Composition Analyses from Ayios Stephanos, *Archaeometry* 19, 210-17.
- JONES R.E. and VAGNETTI L. 1991, Traders and Craftsmen in the Central Mediterranean: Archaeological Evidence and Archaeometric Research, in Gale ed. 1991, 127-47.
- KILIAN K. 1976, Nordgrenze des ägäischen Kulturbereiches in mykenischer und nachmykenischer Zeit, *Jahresbericht des Instituts für Vorgeschichte der Universität Frankfurt a. M.*, 112-129.
- KILIAN K. 1981, Ausgrabungen in Tiryns 1978. 1979, *AA*, 149-256.
- KILIAN K. 1984, Kilian's speech in final discussion, in Hägg, Marinatos eds. 1984, 218.
- KILIAN-DIRLMEIER I. 1993, *Die Schwerter in Griechenland (ausserhalb der Peloponnes), Bulgarien und Albanien*. PBF IV, 12, Stuttgart.
- KILIAN-DIRLMEIER I. 1995, Reiche Gräber der Mittelhelladischen Zeit, in Laffineur, Niemeier eds. 1995, 49-51.
- KNAPP A.B. 1990, Ethnicity, Entrepreneurship, and Exchange: Mediterranean Inter-island Relations in the Late Bronze Age, *BSA* 85, 115-153.
- KOPCKE G. 1987, The Cretan Palaces and Trade, in Hägg, Marinatos eds. 1987, 254-59.
- KORRES G.S. 1976, Ανασκαφαί εν Περιστεριά Πύλου, *Prakt*, 469-550.

- KORRES G.S. 1984, The Relations between Crete and Messenia in the Late Middle Helladic and Early Late Helladic Period, in Hägg, Marinatos eds. 1984, 141-52.
- KORRES G.S. 1993, Messenia and Its Commercial Connections in the Bronze Age, in Zerner, Zerner and Winder eds. 1993, 231-48.
- LAFFINEUR R. 1988, Reflexions sur le trésor de Tôd, *Aegaeum* 2, 17-29.
- LAFFINEUR R. (ed.). 1989, *Transition. Le monde égéen du bronze moyen au bronze récent*. *Aegaeum* 3, Liège.
- LAFFINEUR R. 1995, Craftsmen and Craftsmanship in Mycenaean Greece: for a Multimedia Approach, in Laffineur, Niemeier eds. 1995, 189-99.
- LAFFINEUR R. and BASCH L. (eds.) 1991, *Thalassa. L'Égée préhistorique et la mer*. *Aegaeum* 7, Liège.
- LAFFINEUR R. and NIEMEIER W.-D. (eds.) 1995, *Politeia. Society and State in the Aegean Bronze Age*. *Aegaeum* 12, Liège.
- LAMBROPOULOU A. 1991, *The Middle Helladic Period in the Corinthia and the Argolid: An Archaeological Survey*, Diss. Bryn Mawr.
- LA ROSA V. 1993-1994, Influenze di tipo egeo e paleogreco in Sicilia, *Kokalos* XXXIX-XL, 9-47.
- LOLOS Y.G. 1987, *The Late Helladic I Pottery from the Southwestern Peloponnesos and its Local Characteristics*, Göteborg.
- LOLOS Y.G. 1989, The Tholos Tomb at Koryphasion: Evidence for the Transition from Middle to Late Helladic in Messenia, in Laffineur ed. 1989, 171-75.
- LOLOS Y.G. 1990, On the Late Helladic I of Akrotiri, Thera, in Hardy, Renfrew eds. 1990, 51-56.
- LOLOS Y.G. 1992, Paper given to the "Convegno Internazionale: dinamiche ed incontri di culture marinare nel Basso Tirreno nei secc. XVI e XV a.C"., Napoli – Isole Flegree June 1992 (forthcoming).
- LO PORTO F.G. 1963, La stazione protostorica di Porto Perone, *NS XVII Serie Ottava*, 280-380.
- MACGILLIVRAY J.A. 1984, Cycladic Jars from Middle Minoan III Contexts at Knossos, in Hägg, Marinatos eds. 1984, 153-57.
- MACGILLIVRAY J.A. and BARBER R.L.N (eds.) 1984, *The Prehistoric Cyclades. Contributions to a Workshop on Cycladic Chronology*, Edinburgh.
- MARAN J. 1987, Die Silbergefäße von et-Tôd und die Schachtgräberzeit auf dem griechischen Festland, *PZ* 62, 221-27.
- MARAN J. 1988, Zur Zeitstellung der Grabhügel von Marmara (Mittelgriechenland), *ArchKorr* 18, 341-55.
- MARAN J. 1992a, *Kiapha Thiti. Ergebnisse der Ausgrabungen II 2 (2Jt. v. Chr. Keramik und Kleinfunde*. Marburger Winckelmann-Programm 1990 (1992), Marburg.
- MARAN J. 1992b, *Die deutschen Ausgrabungen auf der Pefkakia-Magula in Thessalien III. Die mittlere Bronzezeit, Teil I*, Bonn.
- MARAN J. 1993, Middle and Late Bronze Age Pottery from Kiapha Thiti (Attica): A Preliminary Report, in Zerner, Zerner and Winder eds. 1993, 201-207.
- MARAZZI M. 1986, Importazioni egeo-micenee dall'isola di Vivara (Procida), in Marazzi *et al.* 1986, 155-61.

- MARAZZI M. 1988, La più antica marineria micenea in Occidente, *DdA*, Terza Serie, 6, 5-22.
- MARAZZI M. 1994, Vivara e le prime navigazioni egeo-micenee in Occidente, in Marazzi, Tusa eds. 1994, 17-54.
- MARAZZI M. and TUSA S. (eds.) 1994, *Vivara. Centro commerciale mediterraneo dell'Età del Bronzo. Vol. II Le tracce dei contatti con il mondo egeo (scavi 1976-1982)*, Roma.
- MARAZZI M., TUSA S. and VAGNETTI L. (eds.) 1986, *Traffici micenei nel Mediterraneo. Problemi storici e documentazione archeologica*, Taranto.
- MARINATOS S. 1968, Ανασκαφαί Θήρας II, *Prakt*, 87-127.
- MARINATOS N. 1990, Minoan-Cycladic Syncretism, in Hardy *et al.* eds. 1990, 370-76.
- MARINO D.A., VAGNETTI L. and JONES R.E. 1987, Nota preliminare sul sito protostorico di Capo Piccolo presso Crotone, *Klearchos* XXIX, 25-44.
- MARTHARI M. 1980, Ακρωτήρι, κεραμεική ΜΕ παράδοσης στο στρώμα της ηφαιστειακής καταστροφής, *ArchEphem*, 182-211.
- MARTHARI M. 1990, The Chronology of the Last Phases of Occupation at Akrotiri in the Light of the Evidence from the West House Pottery Groups, in Hardy, Renfrew eds. 1990, 57-70.
- MARTHARI M. 1993, The Ceramic Evidence for Contacts between Thera and the Greek Mainland, in Zerner, Zerner and Winder eds. 1993, 249-56.
- MATTHÄUS H. 1980, *Die Bronzegefäße der kretischen-mykénischen Kultur*, PBF II, 1, München.
- MELAS M. 1991, Acculturation and Social Mobility in the Minoan World, in Laffineur, Basch eds. 1991, 169-88.
- MOODY J. 1987, The Minoan Palace as a Prestige Artifact, in Hägg, Marinatos eds. 1987, 235-40.
- MORGAN L. 1995, Minoan Painting and Egypt: The Case of Tell el-Dab'a, in Davies W.V. and Schofield L. eds., *Egypt, the Aegean and the Levant. Interconnections in the Second Millennium B.C.*, London, 19-28.
- MOUNTJOY P.A. 1990, Regional Mycenaean Pottery, *BSA* 85, 245-70.
- MÜLLER S. 1992, Delphes et sa région à l'époque mycénienne, *BCH* CXVI, 445-96.
- MYLONAS G.E. 1932, Προϊστορική Ελευσίς, in K. Kourouniotis, *Ελευσινιακά*, Athens.
- MYLONAS G.E. 1959, *Aghios Kosmas. An Early Bronze Age Settlement and Cemetery in Attica*, Princeton.
- MYLONAS G.E. 1973, *Ο ταφικός Κύκλος Β των Μυκηνών*, Athens.
- MYLONAS G.E. 1975, *Το Δυτικόν Νεκροταφείον της Ελευσίνας*, Athens.
- NAVA M.L. 1982, Molinella (Vieste, Foggia), in Vagnetti ed. 1982, 43-44.
- NIEMEIER W.-D. 1979, The Master of the Gournia Octopus Stirrup Jar and the Late Minoan I A Workshop at Gournia Exporting to Thera, *TUAS* 4, 18-26.
- NIEMEIER W.-D. 1986, Creta, Egeo e Mediterraneo agli inizi del Bronzo Tardo, in Marazzi *et al.* eds. 1986, 245-70.
- NIEMEIER W.-D. 1991, Minoan Artisans Travelling Overseas: The Alalakh Frescoes and the Painted Plaster Floor at Kabri (Western Galilee), in Laffineur, Basch eds. 1991, 189-200.

- NIEMEIER W.-D. 1995, Aegina. First Aegean "State" outside of Crete?, in Laffineur, Niemeier eds. 1995, 73-75.
- NORDQUIST G.C. 1987, *A Middle Helladic Village. Asine in the Argolid*, Uppsala.
- NORDQUIST G.C. 1988, The Middle Helladic Pottery from the Southern Argolid, *Hydra* 5, 17-31.
- NORDQUIST G.C. 1995, Who made the Pots? Production in the Middle Helladic Society, in Laffineur, Niemeier eds. 1995, 201-207.
- OVERBECK J.C. 1982, The Hub of Commerce: Keos and Middle Helladic Greece, *TUAS* 7, 38-49.
- OVERBECK J.C. 1984, Stratigraphy and Ceramic Sequence in Middle Cycladic Ayia Irini, Kea, in MacGillivray, Barber eds. 1984, 108-113.
- OVERBECK J.C. 1989, *The Bronze Age Pottery from the Kastro at Paros*, Jonsered.
- OVERBECK J.C. and OVERBECK G.F. 1979, Consistency and Diversity in the Middle Cycladic Era, in Davis, Cherry eds. 1979, 106-121.
- PANICHELLI S. and RE L. 1994, Ceramiche d'importazione egea di fabbrica fine a pittura brillante e opaca, in Marazzi, Tusa eds. 1994, 173-220.
- PAPADOPOULOS T.A. 1989, The Greek Mainland and its Aegean Neighbours During the Transitional Period from MBA to LBA: The Evidence of Metalwork, in Laffineur ed. 1989, 183-89.
- PAPAGIANNOPOULOU A.G. 1991, *The Influence of Middle Minoan Pottery on the Cyclades*, Göteborg.
- PETRUSO K.M. 1978, *Systems of Weight in the Late Bronze Age Aegean*, Indiana University Diss.
- PETRUSO K.M. 1979, Reflections on Cycladic and Minoan Metrology and Trade, in Davis, Cherry eds. 1979, 135-42.
- PETRUSO K.M. 1992, *Ayia Irini: The Balance Weights*, Keos VIII, Mainz.
- POURSAT J.-C. 1977, *Les ivoires mycéniens. Essai sur la formation d'un art mycénien*, Paris.
- POURSAT J.-C. 1990, Craftsmen and Traders at Thera: A View from Crete, in Hardy *et al.* eds. 1990, 124-27.
- PROTONOTARIOU – DEILAKI E. 1980, Οι τύμβοι του Ἀργούς, Athens.
- RE L. 1986, Importazioni di ceramica d'uso corrente nell'isola di Vivara, in Marazzi *et al.* eds. 1986, 162-64.
- RE L. 1993, Early Mycenaean Plain and Coarse Ware from Italy, in Zerner, Zerner and Winder eds. 1993, 331-34.
- RE L. 1994, Ceramica di fabbrica corrente di tradizione mesoelladica e ceramica corrente micenea, in Marazzi, Tusa eds. 1994, 221-78.
- RENFREW C. 1982, Prehistoric Exchange, in Renfrew C. and Wagstaff M. eds., *An Island Polity. The Archaeology of Exploitation in Melos*, Cambridge, 222-27.
- RUTTER J.B. 1989a, A Ceramic Definition of Late Helladic I from Tsoungiza, *Hydra* 6, 1-19.
- RUTTER J.B. 1989b, The "Aegeanization" of an Inland Corinthian Village: The Transition from Middle Helladic to Late Helladic I at Tsoungiza, Lecture given at the AIA Institute in Boston in december 1989.

- RUTTER J.B. 1990, Pottery Groups from Tsoungiza of the End of the Middle Bronze Age, *Hesperia* 59, 375-458.
- RUTTER J.B. 1993, Review of Aegean Prehistory II: The Prepalatial Bronze Age of the Southern and Central Greek Mainland, *AJA* 97, 745-97.
- RUTTER J.B. and S.H. 1976, *The Transition to Mycenaean. A Stratified Middle Helladic II to Late Helladic IIA Pottery Sequence from Ayios Stephanos in Lakonia*, Los Angeles.
- RUTTER J.B. and ZERNER C.W. 1984, Early Hellado-Minoan Contacts, in Hägg, Marinatos eds. 1984, 75-8.
- SAKELLARAKIS J.A. 1994, Το μινωικό ιερό κορυφής των Κυθηρών, in Λοίβη εις μνήμην Ανδρέα Γ. Καλοκαιρίνου, Iraklion, 195-203.
- SAKELLARAKIS J.A. and OLIVIER J.P. 1994, Un vase en pierre avec inscription en linéaire A du sanctuaire de sommet minoen de Cythère, *BCH* 118, 343-51.
- SCHALLIN A.-L. 1992, Various Types of Exchange and Trade in the Cyclades during the Late Bronze Age, *Hydra* 10, 17-20.
- SCHALLIN A.-L. 1993, *Islands under Influence. The Cyclades in the Late Bronze Age and the Nature of Mycenaean Presence*, SIMA XCI, Jonsö.
- SCHOFIELD E. 1982a, Plus and Minus Thera: Trade in the Western Aegean in Late Cycladic I-II, *TUAS* 7, 9-14.
- SCHOFIELD E. 1982b, The Western Cyclades and Crete: A "Special Relationship", *OJA* 1, 9-25.
- SERVAIS-SOYEZ J. and B. 1984, La tholos "oblongue" (Tombe IV) et le tumulus (Tombe V) sur le Vélatur, in Mussche H.F. et al., *Thorikos VIII. 1972/1976*, Gent, 14-71.
- SHERRATT A. and S. 1991, From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems, in Gale ed. 1991, 351-86.
- SIEDENTOPF H.B. 1991, *Alt-Ägina IV, 2. Mattbemalte Keramik der Mittleren Bronzezeit*, Mainz.
- SMITH T.R. 1987, *Mycenaean Trade and Interaction in the West Central Mediterranean 1600-1000 B.C.*, BAR 371, Oxford.
- STOS-GALE Z.A. and GALE N.H. 1990, The Role of Thera in the Bronze Age Trade in Metals, in Hardy et al. eds. 1990, 72-91.
- STOS-GALE Z.A. and MACDONALD C.F. 1991, Sources of Metals and Trade in the Bronze Age Aegean, in Gale ed. 1991, 249-88.
- SUEREF C. 1989, Presenza micenea in Albania e Epiro. Problemi ed osservazioni, *Iliria* 19:2, 65-79.
- TAYLOUR W. 1958, *Mycenaean Pottery in Italy and Adjacent Areas*, Cambridge.
- TAYLOUR W. 1980, Aegean sherds found at Lipari, in L. Bernabò Brea and M. Cavalier, *Meligunis-Lipara, Vol. IV, L'acropoli di Lipari nella preistoria*, Palermo, 793-817.
- THORPE-SCHOLES K. 1978, Akrotiri: Genesis, Life and Death, in *Thera and the Aegean World I*, London, 437-47.
- TRIPATHI D.N. 1988, *Bronzework of Mainland Greece from 2600 B.C. to C. 1450 B.C.*, Göteborg.

- TZACHILI I. 1990, All Important yet Elusive: Looking for Evidence of Cloth-Making at Akrotiri, in Hardy *et al.* eds. 1990, 380-89.
- VAGNETTI L. (ed.) 1982, *Magna Grecia e mondo miceneo. Nuovi documenti*, Taranto.
- VAGNETTI L. 1991, Appendice III. Le ceramiche egeo-micenee, in L. Bernabò – Brea, M. Cavalier, *Meligunis-Lipara Vol. VI. Filicudi, Insediamenti dell'Età del Bronzo*, Palermo, 263-305.
- VALMIN N.S. 1938, *The Sweedish Messenia Expedition*, Lund.
- VERMEULE E.D.T. and WOLSKY F.Z. 1990, *Toumba tou Skourou. A Bronze Age Potter's Quarter on Morphou Bay in Cyprus*, Lunenburg.
- VON HASE F.-W. 1990, Ägäische Importe im Zentralen Mittelmeergebiet in späthelladischer Zeit (SH I-III C), in Bader T. *et al.* eds., *Orientalisch-ägäische Einflüsse in der europäischen Bronzezeit*, Bonn, 80-108.
- WALTER H. 1981, Ανασκαφές στο λόφο Κολώνα, Αίγινα 1981-1982, *AAA* 14, 179-84.
- WALTER H. and FELTEN F. 1981, Die vorgeschichtliche Stadt. Befestigungen-Häuser Funde, *Alt-Ägina III, 1*, Mainz.
- WARDLE K.A. 1993, Mycenaean Trade and Influence in Northern Greece, in Zerner, Zerner and Winder eds. 1993, 117-41.
- WARREN P.M. 1969, *Minoan Stone Vases*, Cambridge.
- WARREN P.M. 1979, The Stone Vessels from the Bronze Age Settlement at Akrotiri, Thera, *ArchEphem*, 82-113.
- WATERHOUSE H. and HOPE SIMPSON R. 1960, Prehistoric Laconia Part I, *BSA* 55, 66-107.
- WATROUS L.V. 1992, *Kommos III. The Late Bronze Age Pottery*, Princeton.
- WATROUS L.V. 1993, Cretan Relations with the Aegean in the Late Bronze Age, in Zerner, Zerner and Winder eds. 1993, 81-90.
- WIENER M.H. 1984, Crete and the Cyclades in LM I: the Tale of the Conical Cups, in Hägg, Marinatos eds. 1984, 17-25.
- WIENER M.H. 1987, Trade and Rule in Palatial Crete, in Hägg, Marinatos eds. 1987, 261-67.
- WIENER M.H. 1990, The Isles of Crete? The Minoan Thalassocracy Revisited, in Hardy *et al.* eds. 1990, 128-60.
- WOHLMAYR W. 1989, Ägina Kolonna. Die Schachtgräberzeitliche Siedlung, in Laffineur 1989, 151-53.
- WRIGHT J.C. 1990, An Early Mycenaean Hamlet on Tsoungiza at Ancient Nemea, in P. Darcque and Treuil R. eds., *L'habitat égéen préhistorique, BCH Suppl. XIX*, Paris, 127-147.
- WRIGHT J.C. 1995, From Chief to King in Mycenaean Society, in Rehak P. ed., *The Role of the Ruler in the Prehistoric Aegean, Aegaeum* 11, 63-80.
- WRIGHT J.C., CHERRY J.F., DAVIS J.L., MANTZOURANI E., SUTTON S.B and R.F. 1990, The Nemea Valley Project: A Preliminary Report, *Hesperia* 59, 579-659.
- WÜNSCHE R. 1977a, *Studien zur äginetischen Keramik der frühen und mittleren Bronzezeit*, München-Berlin.
- WÜNSCHE R. 1977b, Die Entwicklung der mittelhelladischen Mattbemalten Keramik, *Münchener Jahrbuch der Bildenden Kunst* 28, 7-27.

- YOUNGER J.C. 1995, Bronze Age Representations of Aegean Bull-Games III, in Laffineur, Niemeier eds. 1995, 507-41.
- ZERNER C.W. 1978, *The Beginning of Middle Helladic at Lerna*, Diss. University of Cincinnati.
- ZERNER C.W. 1986, Middle Helladic and Late Helladic I Pottery from Lerna, *Hydra* 2, 58-74.
- ZERNER C.W. 1988, Middle and Late Helladic I Pottery from Lerna: Part II, Shapes, *Hydra* 4, 1-10.
- ZERNER C.W. 1993, New Perspectives on Trade in the Middle and Early Late Helladic Periods on the Mainland, in Zerner, Zerner and Winder eds. 1993, 39-56.
- ZERNER C., ZERNER P. and WINDER J. eds. 1993, *Wace and Blegen. Pottery as Evidence for Trade in the Aegean Bronze Age 1939-1989*, Amsterdam.
- XENAKI-SAKELLARIOU A. and CHATZILIOU C. 1989, *'Peinture en métal' à l'époque mycénienne*, Athens.

SOURCES OF FIGURES

Fig. 3. a: Grey Minyan one-handed cup with sharply everted rim from Circle B Grave Γ (Graziadio 1988, fig. 3:b); b: Yellow Minyan goblet from Circle B Grave Π (Graziadio 1988, fig. 3:a); c: Mainland Panelled cup from Asine Grave 30 (Nordquist 1987, fig. 58: 5); d: Mainland Polychrome Matt-painted jug from Myloi Grave IV (Dietz, Divari-Valakou 1990, fig. 12:IV, 1); e: Mainland Polychrome Matt-painted cut-away neck jug from Circle B Grave K (Graziadio 1988, fig. 1:e); f: Aeginetan cooking pot from Circle B Grave O (Dietz 1991, fig. 71); g: Aeginetan Matt-painted hydria from Circle B Grave Γ (Graziadio 1988, fig. 3:f); h: Cycladic jar from Circle B Grave B (Graziadio 1988, fig. 2:a); i: Theran jug from Circle B Grave Γ (Graziadio 1988, fig. 2:d); l: Lustrous Decorated cup from Circle B Grave Γ (Graziadio 1988, fig. 2:j); m: LM IA jug from Circle B Grave Γ (Graziadio 1988, fig. 1:g); n: LH I squat jug from Myloi Grave VII (Dietz, Divari-Valakou 1990, fig. 22:VII, 4).

Fig. 4. a: Double cup from Kephalovryson Grave 1 (Lolos 1987, 363); b: Matt-painted basket handled spouted bowl from Voroulia (Lolos 1987, fig. 87); c: Plain spouted goblet from Voroulia (Lolos 1987, fig. 96); d: Matt-painted beaked jug from Voroulia (Lolos 1987, fig. 86); e: Banded jar with semi-lustrous paint from Ano Englianos (Blegen *et al.* 1973, fig. 196:1); f: Matt-painted squat jug from Makryisia (Lolos 1987, figs. 522, 523); g: MM III B / LM IA ewer from Koryphasion Tomb (Hägg 1982, 29 fig. 2); h: LH I rounded cup with ripple decoration from Kephalovryso T. 2 (Lolos 1987, fig. 367:a); i: LH I Vapheio cup with Metopal Spirals (Lolos 1987, figs. 370, 660:3).