

III. CONTEXTS IN THE DISCOVERY OF WHITE SLIP I AND THE THERA CONTROVERSY

White Slip I ware is of critical importance in the analysis of the development of the whole WS series. The controversy surrounding the dating of the WS I ‘Rope Lattice’ bowl from Thera, has made the whole issue a ‘hot’ topic in archaeology. In this Chapter, we shall first discuss the development of WS I and its various manifestations inside and outside of Cyprus. We shall then discuss the WS I ‘RL’ bowl from Thera and the controversy of the dating of the eruption.

We have emphasized the importance of the development of WS I as the key defining characteristic of the LC IA:2 period. We have also shown that WS I has distinctive characteristics that set it apart from the PWS series. It has been stated (ERIKSSON 2001a, 57, fig. 2) that it is “The rim motifs of the WS I series [that] are the key distinctive feature.” On the basis of the rim motifs, we can subdivide the WS I series into the following broad groups, which further refine POPHAM’s (1972a, 440) original five ‘frieze motives’ (see Fig. 12):

1. Rope Lattice Group:
 - a. Rope Lattice (RL) = POPHAM ‘frieze motif’ iv;
 - b. Rope Lattice Framed Lozenge (RLFL);
 - c. Rope Lattice Chequerboard (RLCB);
 - d. Rope Lattice Framed Chevron (RLFC);
 2. Ladder Band Group:
 - a. Ladder Band (LBD);
 - b. Ladder Band Framed Lozenge (LFL) = Popham frieze motif ii;
 - c. Ladder Band Framed Lozenge with Framed Metope below (LFLMet);
 - d. Ladder Band Framed metope (LFM);
 - e. Ladder Band Framed Chevron (LFC);
 3. Double Line Framed Group:
 - a. Framed Lozenge -
 - i. Framed Lozenge (FL) = POPHAM frieze motif ii;
 - ii. Framed Lozenge with Framed Metope below (FLMet)
 - b. Framed Cross-hatching (FXH) = POPHAM frieze motif vi;
 - c. Framed Wavy Line (FWL) = POPHAM frieze motif i;
 - d. Framed Metope (FM) = POPHAM frieze motif vii;
 - e. Framed Chevron (FC);
 - f. Framed Dotted Row (FDR) = POPHAM frieze motif iii;
 - g. Framed Ladder Band (FLBD)
4. Parallel Line Group = POPHAM frieze motif v:
 - a. Parallel Line (PL) two lines;
 - b. Parallel Line (PL) three lines;
 - c. Parallel Line (PL) four lines;
 5. Undecorated Group:
 - a. Undecorated (Undec).

These groupings are based on POPHAM’s (1972a, 440) recognition of these motifs with some modifications. One modification adopted here comes from the *Toumba tou Skourou* publication where they distinguish between ‘Ladder’ and ‘Ladder Lattice’ pattern (PADGETT 1990, 373, n.31). The first is a true ladder style consisting of only two parallel lines joined by cross line, whereas ‘Ladder Lattice’ consists of usually four horizontal parallel lines joined by vertical cross lines. It is distinguished from the PWS and WS I ‘Rope Lattice’ which has the diagonal lines across the horizontal parallel lines (see Fig. 12). Apart from the rim motifs, there are particular styles of application in relation to the decoration; one of these is the distinct ‘fine dotted’ style (Fig. 18f).

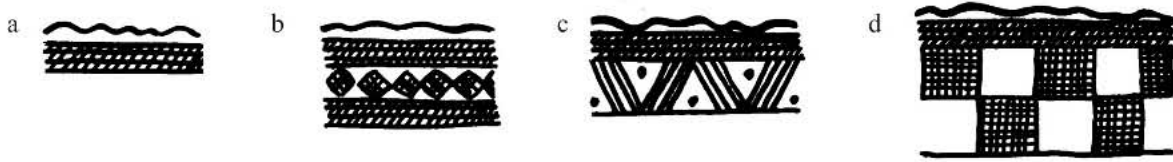
1. THE ‘ROPE LATTICE’ GROUP AND THE FIRST APPEARANCE OF WS I

There is much debate in archaeology about the timing of the initial appearance of WS I in Cyprus. As mentioned above, this issue gained some notoriety because of the potential consequences for Aegean chronology; the appearance of a WS I ‘RL’ bowl at Thera and the dating of the Thera eruption are said to be important consequences (see later in this chapter). The style that probably best represents the now lost WS I vessel from Thera (Fig. 16a) is the WS I ‘RL’, which uses the ‘Rope Lattice’ motif, (see Figs. 7c–d, 14, 15, 16a–b, 17, 18e, 30b–c).⁹⁹ Whilst it has the characteristic ‘Rope Lattice’ band that also characterises PWS, it is clearly a WS I style. In the recent literature, vessels with this type of decoration similar to the WS I bowl from Thera (see MERRILLEES 2001a, figs. 1–4) have been given a variety of labels, such as: ‘Thera style’ (MANNING 1999, 157); ‘WS I Thera’

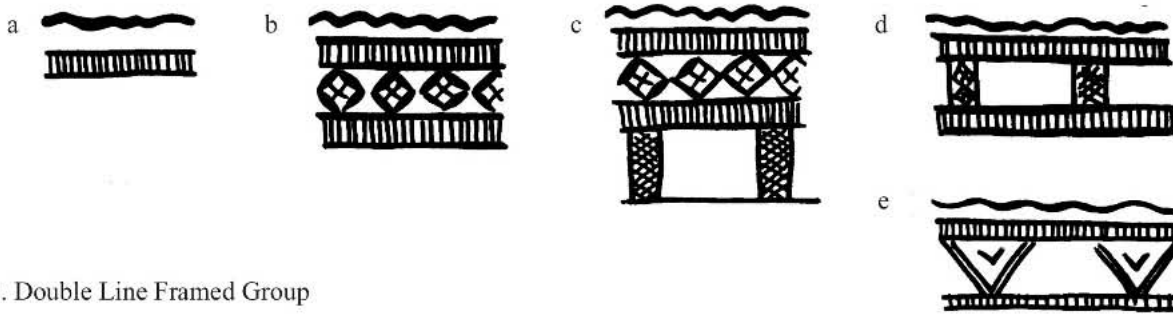
⁹⁹ See MERRILLEES 2001a for the best indication of what this vessel may have looked like.

WS I rim motifs

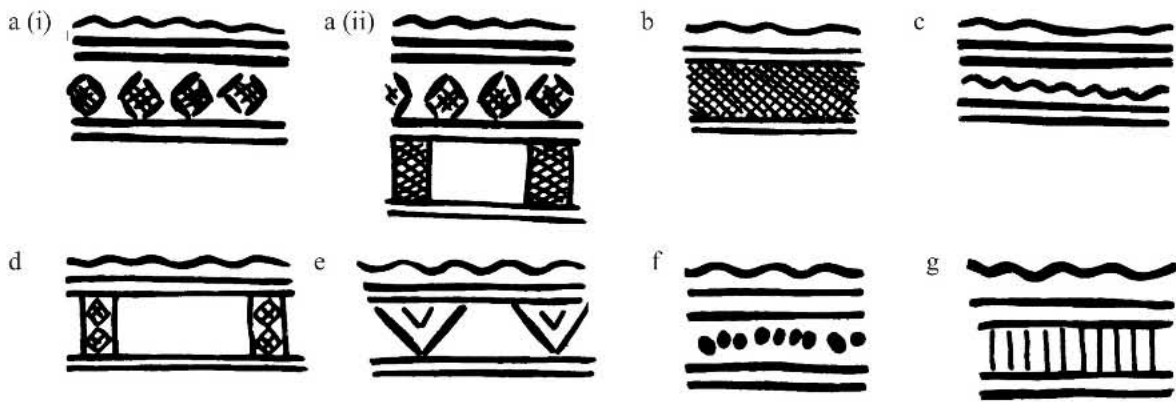
1. Rope Lattice (RL) Group



2. Ladder Band (LB) Group



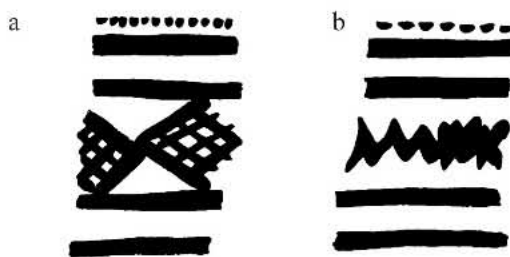
3. Double Line Framed Group



4. Parallel Line (PL) Group



1. Double Lined Framed Group



WS IIA rim motifs

Fig. 12 Main rim motifs of White Slip I and IIA wares

(ERIKSSON 2001a, 61, fig. 3); or 'WS I early' (e.g., BERGOFFEN 2001a, 151; 2002; FISCHER 2001b, 162; 2003, 274–5; FISCHER and SADEQ 2001, 128).

MANNING (2001, 81) and MANNING, SEWELL and HERSCHER (2002, 160, appendix 1) use the label 'early-style' WS I, and state:

It is particularly the 'ladder pattern style of POPHAM [1972a, 440] but includes also the ladder framed lozenge style, noted as a rarer sub-class of the general 'framed lozenge' style. A key feature is that such decoration flows out of PWS decoration, and so, along with the ubiquitous rope lattices and pendants, may exhibit circle and or larger blobs versus neat dots, or MC hangovers like chequer-board pattern, but with a 'lean, organised composition', and it might be argued to be an almost transitional style.

The fact that the motifs on these vessels are closely related to the PWS decorative schema, is largely the reason why the use of the terms like 'WS I early' came into being.¹⁰⁰ Indeed, the publication of *Toumba tou Skourou* (VERMEULE and WOLSKY 1990), gave strong support to this view that there is a class of WS that is an early form of WS I and distinct from the developed form and fine designs of WS I. It was so common at that site that PADGETT (1990, 374) considered '...that the fabric first developed locally at *Toumba tou Skourou*.' POPHAM (1962, 283, n. 4) foresaw the future discovery of a site like *Toumba tou Skourou* when, in trying to explain the stylistic similarity between PWS and WS II as evidenced by the use of the Rope or Ladder Lattice, he said:

I am tempted to believe that there is a regional explanation for this. It would not surprise me if a Late Cypriot I centre of production of White Slip I ladder pattern [Rope Lattice] is found on a site so far little known. The indications are that it will not be in the E. or S. of the island.

For MANNING, SEWELL and HERSCHER (2002, 160), "The key point is that 'early-style' WS I may be clearly contrasted with the subsequent classic WS I with its light, linear decorations, and its movement away from the lattice band (and no rope pattern). This classic WS I is typified by the two parallel line and three parallel line, and wavy line, styles characteristic of subsequent, LC IB, contexts all over the

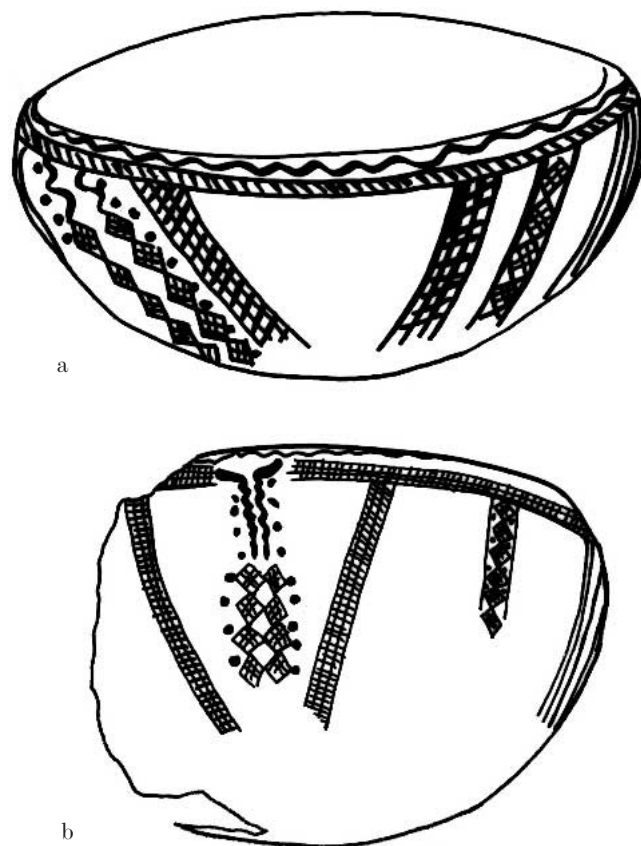


Fig. 13 WS I 'RL' Group a) Bowl from Akrotiri, Thera (after MERRILLEES 2001, 90, fig. 2); b) Bowl from Tell el-ʿAjjul (after PETRIE 1932, pl. V upper right corner)

island." Because of their (*ibid.*, 162) analysis of WS in the *Toumba tou Skourou* tombs, they argued that 'early-style' WS I must be at the earlier end of the WS I typology as a '...general sequence from 'early-style' WS I to classic WS I, is evident.' However, it should not be assumed that the evidence from *Toumba tou Skourou* is the only evidence from the northwest on this issue.

When MERRILLEES (1971) published his thesis on the 'Early History of Late Cypriote I' the main evidence he had for analysing the situation in the northwest was tombs from Pendayia, *Stephania*, Akhera, Dhenia *Kafkalla*; and the settlement of Myrtou *Pigadhes*. The full publication of the results from Ayia Irini (PECORELLA 1977; QUILICI 1990) and *Toumba tou Skourou* (VERMEULE and WOLSKY 1990)

¹⁰⁰ I myself explored the possibility of seeing this as a third phase of PWS as presented in a paper given at Proceedings of an International Conference Organised by the Anastasios G. Leventis Foundation, Nicosia, in Honour of Mal-

colm Wiener. Nicosia 29th–30th October 1998. I later (ERIKSSON 2001a) adopted the term – 'early' WS I – after Bergoffen's use of the term at Tell el-ʿAjjul.

added important material to fill what had been perceived as a discrepancy in the evolution from MC III to LC IA:1. The information weakens MERRILLEES' (1971, 57) argument about "the discrepancy between the remains from the settlement site [of Myrtou *Pigadhes*] and the grave goods from the not too far distant and contemporary cemetery of *Stephania*."¹⁰¹ Thus, the development charted by MERRILLEES (*ibid.*) for the tombs at *Stephania* cannot now be viewed as representative of the northwest sequence. Even MANNING, SEWELL and HERSCHER (2002, 151, n. 213) noted this when they said:

In the NW there is also local variation. No PWS or 'early-style' WS I was found in the tombs at *Stephania* published by Hennessy, although they span the close of the MC through early LC periods. The earlier LC I tombs, such as Tomb 12, ... have Black Slip III, WP V, WP Wheel-made, PBR, BR I and already classic, mature, WS I.

To keep their original thesis, MANNING, SEWELL and HERSCHER (*ibid.*) go on to postulate a missing phase at *Stephania*: "The PWS and then PWS–WS I transition/'early-style' WS I phases have occurred elsewhere between *Stephania* Tomb 10 ... and Tomb 12." But, as we shall see, there is an alternative explanation to this pure speculation.

The matter is in fact quite complex, as POPHAM (1962) recognized when he spoke of the connections between this group of WS I 'RL', not only with PWS, but also with WS I–II, and WS II early (as the 'Rope Lattice' becomes 'Ladder Lattice'). This connection needs to be explored in terms of stratified evidence (Fig. 28). We need to determine whether there is continuity in the development from Phase 2 PWS through to WS II, and to determine whether the other classes of WS I (characterized by rim motifs which use Ladder Band – Group 2; Double Line Framed – Group 3; and Parallel Line – Group 4) are regional variations, as they are distinct to WS I and are *not taken up* by the WS II decorative motifs, with the exception of the 'Framed Lozenge' (FL) which is characteristic of WS IIA. This was an issue

that, as we can see, even perplexed POPHAM (1962, 283) who felt: "... it is difficult to account for the overwhelming predominance of the ladder pattern in White Slip II when, if we exclude the rope pattern bowls, it is a comparatively rare type in White Slip I." The discovery of *Toumba tou Skourou* filled the gap in relation to the stylistic development from PWS to WS II 'LL'.

It is with this in mind that we here reject the use of the term 'WS I early' or 'early-style WS I' for this WS I 'RL' group, as it presumes a chronological precedence which really needs further examination based on the Cypriot evidence. Also, we need to abandon the use of the term WS I 'Thera', or any term which uses the word Thera to denote the style of pottery to which the WS I bowl from Thera is best associated with. As BERGOFFEN has commented it gives too much prominence to Thera and all the attendant chronological debates – a serious issue given that the bowl itself has been lost for nearly a century.¹⁰² It is for this reason that here we use the term 'Rope Lattice' or 'RL' to define this group. It removes any chronological connotations and relies on a descriptive basis, the 'rope lattice' motif, for definition, thus making it less controversial. This is much more appropriate in my opinion and allays the possible traps of using a missing WS bowl to define a style. The 'RL' motif can be used to distinguish this class from other WS I which are classified by different rim motifs, such as 'Framed Wavy Line' ('FWL') or 'Framed Dotted Row' ('FDR'), etc., (see Fig. 12). The WS I bowl from Thera would be classified as WS I 'RL', but the style (Group 1) also incorporates the WS I with design variations, eg., WS I 'Rope Lattice Framed Lozenge' ('RLFL') or WS I 'Rope Lattice Chequerboard' ('RLCB').

This distinctive style – WS I 'RL' – is well represented in the northwest in the tombs at *Toumba tou Skourou*, (Table 8); and, on the south coast at Palaepaphos *Teratsoudhia* (Table 9; Fig. 16); in contexts with significant Minoan, Egyptian and Canaanite connections (see Chapter VI). Random examples

¹⁰¹ A settlement nearby to *Stephania* was discovered by Hector Catling (HENNESSY 1963, 50). Hennessy (pers. comm.), after lengthy consideration, gives no credence to linking the cemetery of *Stephania* with the settlement of *Pigadhes*, particularly as it is situated some miles from *Pigadhes*.

¹⁰² I also considered calling this style 'Northwest' WS I, but that would imply a geographical restriction that also may prove to be problematic. I discussed this issue with Celia Bergoffen who replied (pers. comm. 1 November, 2002)

that she "...wouldn't call the Thera bowl the "Thera type" or NW type because: I agree with you: why so much prominence to Thera? 1) The bowl is the only one of its type known from the island; 2) The Thera bowl no longer exists and we have no way of verifying the ware; 3) The style, as you say, occurs elsewhere in Cyprus, (i.e. Palaepaphos *Teratsoudhia*), and is almost as common in the Hyksos world abroad (especially Ajjul, but also found at Dab'a and Far'ah S.) as in the Aegean."

of WS I 'RL' are also noted at Pendayia; Ayia Irini (Fig. 17); Enkomi (Figs. 14, 18e, 19, 25b–c); and at Hala Sultan Tekke (Fig. 15). Significant foreign occurrences have been recorded at Thera and Knossos (Crete) in the Aegean; Tell el-^cAjjul in Canaan (Fig. 13b); and Tell el-Dab^a in Egypt. These contexts will be discussed in more detail below.

The question now arises: Does the WS I 'RL' on its own represent the first appearance of WS I or were there also other WS I styles at this time? To answer this question we need to move beyond the issue of the absolute date given to the Thera eruption, and focus on the issue of the first appearance of WS I for the relative chronology of the East Mediterranean region.

It is generally believed that WS I began at around the same time as the start of New Kingdom Egypt. However, some problems have arisen in relation to this claim. These arose in the context of certain key historical observations by C. BERGOFFEN (1989; 2001a; 2002). Like several other archaeologists, Bergoffen is of the view that PWS appears in Canaan during the MB III phase. If this is the case, it reinforces the view that PWS must have begun in Cyprus at a time equivalent with the latter part of the SIP. The controversial question is, however: at what time did WS I appear in Canaan? Bergoffen believes that the answer to this lies in the evidence at Tell el-^cAjjul.

Most archaeologists agree that Tell el-^cAjjul is the same town as Sharuhén (KEMPINSKI 1992), the major Hyksos settlement in Canaan – which was captured by the Egyptians soon after the siege of Avaris ended, perhaps 14 years after the beginning of the 18th Dynasty. Whether this is so or not, what is indisputable is that Tell el-^cAjjul was a huge trading centre during this whole period, even after it was conquered by the first New Kingdom pharaoh, Ahmose. However, a mystery has arisen in relation to Tell el-^cAjjul: if this Canaanite town was a major Hyksos centre, why do we find WS I sherds of 'Rope Lattice', 'Ladder Band', 'Framed Lozenge' and 'Framed Dotted Row' Groups (BERGOFFEN 2001a, 153, fig. 6) in Palace I which has been dated prior to the conquest by Ahmose?

Celia Bergoffen considers this to be a real issue in determining the first appearance of WS I ware. From a historical point of view, we accept that Tell el-^cAjjul was probably the Canaanite settlement of Sharuhén whom Ahmose claimed to conquer. Furthermore, we accept that it is quite possible that some WS I wares arrived from Cyprus to this major trading town, prior to its actual conquest by Ahmose. If this is the case, then one hasty conclusion might be

that not only PWS, but even WS I must have begun in Cyprus *significantly* before the time of the New Kingdom. This conclusion would be opposed by many archaeologists working in this field.

Initially, Bergoffen wanted to draw such a conclusion based on her analysis of the relative chronology of Palace I. Bergoffen insisted that the destruction of Palace I cannot be dated much after the beginning of the Late Bronze Age in the Levant, since all of the other wares found there are of Middle Bronze Canaan origin. If the sherds in Palace I are indeed 'mature' WS I, what does this do to the generally accepted thesis that the first appearance of WS I was only at the time of Ahmose and not before? Bergoffen initially believed that this required us to conclude that WS I began well before the end of the SIP.

These views came under considerable pressure – especially since the evidence of Palace I was not conclusive. The assumption that the WS I sherds at Palace I were all in SIP contexts can be challenged. However, even if we accept Bergoffen's claim that the WS I sherds appear at Palace I prior to its destruction by Ahmose, we are not forced into the radical conclusion that WS I appeared *significantly before* the beginning of the New Kingdom. There may be a resolution of this issue which does not unduly upset the relative chronology. This can be done by adopting two likely historical assumptions: firstly, that the conquest of Tell el-^cAjjul by Ahmose came after he had conquered Avaris. The second assumption is that trade between Cyprus and Tell el-^cAjjul continued during the period when Ahmose was capturing the Hyksos controlled area of Egypt. If these two assumptions are valid, we may be able to identify the birth of WS I in Cyprus more specifically with a period in Egypt *just prior to the beginning* of Ahmose's campaign – while still accounting for the discovery of WS I in Palace I at Tell el-^cAjjul.

The second assumption needs further analysis. The fact that this Canaanite town was of enormous importance to trade with Western Asia and other centers of the then existent civilizations of the East Mediterranean would certainly support the hypothesis that it continued to play this trading role – even during Ahmose's battles with the Hyksos in Egypt. Bergoffen quotes Epstein's thesis on this very point. She refers to EPSTEIN (1966, 167–177) who said that Tell el-^cAjjul would have been "among the first to receive the flow of Cypriote imports."

A further and dramatic observation in this regard is the fact that, unlike Tell el-Dab^a in Egypt, there is *no archaeological chronological gap* between the

appearance of PWS ware and WS I ware in Tell el-^cAjjul. This contrasts with the discontinuity in the flow of these wares at Tell el-Dab^{ca} (as discussed in Chapter II). This break in Egypt can be taken to reflect the time period from the end of the Hyksos reign and the establishment of the Ahmose regime at Avaris. On the other hand, at Tell el-^cAjjul, because of its economic importance, trade probably still continued while Ahmose was conquering Avaris. Tell el-^cAjjul may thus still have been one of the first towns to receive the new WS I wares from Cyprus – perhaps within a year of their production.

This thesis allows us to pinpoint more specifically the first appearances of WS I in Cyprus. It would be about 10 years before the very start of the New Kingdom period, and 20 years before Ahmose conquered Avaris. Since the birth of WS I defines the start of the LC IA:2 period, this starting point would now be identified as closer to the beginning, rather than the end, of Ahmose's conquests of the Hyksos lands.

This general thesis ties in with a conclusion of Bietak (BIETAK and HEIN 2001, 172), when he suggests that WS I arrived in Egypt approximately 20 years after its beginning in Cyprus, and “that WSI and BRI were not produced before ca. 1550 BC and that they appeared in Egypt only after 1530 BC.” BIETAK (*ibid.*, 174) also states categorically that “the first occurrence of WS I in Egypt dates after the fall of Avaris (circa 1530 BC), not from the time of the accession of Ahmose!” At Tell el-Dab^{ca} an early 18th Dynasty date can be given to at least one of a few sherds which can be classified as WS I ‘Rope Lattice’ or WS I ‘Rope Lattice Framed Lozenge’.¹⁰³ Thus, if we date the fall of Avaris at a point between years 11 and 22 of the reign of Ahmose, then the first appearance of WS I in Cyprus would be dated about 10 years before the commencement of the 18th Dynasty. A date for its first appearance in Cyprus roughly 20–30 years before its first appears in Egypt, can explain why it may have arrived at Tell el-^cAjjul roughly two decades before it arrived in Egypt.

These two observations thus allow a reconciliation of the issue: WS I probably arose in Cyprus up to 20–30 years prior to the conquest of Avaris; because of the war, it was prevented from immediately arriving in Egypt. On the other hand, this distinctive WS I ‘RL’

ware arrived in Tell el-^cAjjul in Canaan soon after its production in Cyprus, about 20 years before WS I would arrive in Egypt, precisely because Avaris was under siege.

This explanation might be challenged by Bergoffen who recently claimed that trade between Cyprus, Egypt and Canaan at this time must have been simultaneous (BERGOFFEN 2001a, 146):

In addition to the economic ties between the eastern Delta and southern Canaan, Bietak and Oren have emphasized the close cultural affinities of Tell el-Ajjul, Tell Haror and Tell el-Dab^{ca}. The shared funerary and cultic practices seen in the inclusion of equid burials in front of tombs and temples is particularly noteworthy (BIETAK 1997, 103; OREN 1997b, 265). It is inconceivable, in view of the close links between Tell el-Ajjul and Tell el-Dab^{ca}, that products enjoyed in one would not have been made available simultaneously in the other. And while it is true that, to date, far more Cypriote open vessels have been found in Canaan than in Egypt, most of the material from Egypt derives from tombs (MERRILLEES 1968; BERGOFFEN 1989). Although WS bowls are still much rarer there than in Canaan, the excavation of early 18th Dynasty settlement levels at Tell el-Dab^{ca} has increased the sample dramatically, and it is quite possible that in time, the distribution of these vessels in the Delta will be found to parallel that observed in southern Canaan. It is highly unlikely that White Slip I pottery would have been in use at Ajjul decades before its appearance at Tell el-Dab^{ca} – in the early 18th Dynasty, according to BIETAK (1998) and HEIN (1998, 549).

However, this is not a necessary conclusion from Bergoffen's analysis: firstly, it does not take into account the fact that Tell el-Dab^{ca} was at war and under siege, at this time when Tell el-^cAjjul was not. Secondly, even on Bergoffen's evidence, we need only postulate a gap of twenty years (not several decades) in the arrival of WS I at the two centres.

In the last Chapter, we quoted OREN (2001) on the dramatic importance of the site of Tell el-^cAjjul for general trade with various societies in the region. If we accept that observation, then our thesis is a logical conclusion. There is no reason to suppose that the siege of Avaris stopped trade between Cyprus and

¹⁰³ BIETAK and HEIN 2001, figs. 3, 12, sherd nos: 8894 F (PWS?), 8205 M and 8441 R. Only the first comes from a context which may shed some light on the date of this

ware, as it belongs to Stratum C being found in the fill of an early 18th Dynasty well (see *ibid.*, 180).

Tell el-^cAjjul. This thesis is further reinforced by the observations of OREN (2001, 133–4) on Tell el-^cAjjul: ...the rampart-fortified town site of Tell el-Ajjul, probably ancient Sharuhen, the principal Hyksos stronghold that was besieged and captured by Ahmose, ca. 1540 BCE, is indeed a unique site in every respect. In addition to the most spectacular ensemble of gold jewels found anywhere in the Middle and Late Bronze Age Levant, as well as the imported group of Hyksos royal-name scarabs, PETRIE's excavations produced the largest store of Middle and Late Cypriote imports recorded thus far outside Cyprus; about 1100 vessels, of which more than 200 are of Middle Cypriote classes such as RoB/RR, BS, RS, and WP IV–VI. The White Slip category comprised some 25 PWS and no less than 200 WS I as well as more than 90 vessels of WS II ware. Excavations yielded a sizable assemblage of Cypriote and Palestinian Bichrome vessels along with delicate Chocolate-on-White ware and numerous imported Egyptian ceramics. So rich and diverse a record can only imply that Tell el-Ajjul, was a major harbour town of Cypriote and Aegean transit trade in the eastern Mediterranean and closely connected with the Egyptian Delta.

In general terms, OREN (*ibid.*, 134) believes that WS I is reported in Canaanite LB IA contexts and “is usually associated with diagnostic Late Cypriot ceramics, in agreement with the evidence from Egypt.” This is not, however, inconsistent with the view that some ‘early’ WS I may have appeared in a Canaanite MB IIC context, as in the Palace I at Tell el-^cAjjul. In contrast, OREN's (*ibid.*) evidence from all other sites in Canaan supports the view that WS I is not dated in contexts earlier than the New Kingdom or LBA. Our thesis achieves a compromise between these two positions, using the impact of the Hyksos-Theban war as a basis.

Our position can further be supported by the fact that OREN (*ibid.*, 127) himself wishes to stress the importance of Canaan in the earlier links between societies of the Eastern Mediterranean, including Cyprus – that is during the Middle Bronze period. Indeed, he (*ibid.*) states: “The special links between Middle Bronze Age Canaan and Egypt on the one hand, and the close cultural affinities with Middle Bronze Age Syria on the other, make Canaanite assemblages with Cypriote imports the most viable yardstick for synchronizing Cyprus, Canaan (Levant), Egypt and the Aegean.” All this supports our first premise that WS I first arrived in Canaan shortly after its first appearance in Cyprus. For reasons given above, we claim that it was delayed for a

period of 20 years before circumstances permitted its arrival in Egypt. We maintain that, when these points are put together, this supports the thesis that WS I first appeared in Cyprus, shortly before the tumultuous events which saw Egypt reunited under the New Kingdom.

This general thesis is further supported by the following conclusion from OREN (2001, 140):

The 25 examples or so of PWS and WS I vessels from Tell el-Dab^a stand out against an impressive collection of nearly ten times as many (225 specimens) at Tell el-Ajjul. The fact that the large majority of PWS and WS I vessels at Tell el-Ajjul were registered in the palace complex may suggest that these delicate vessels were destined specifically for the elite group of this affluent community during MB III–LB I period. In any case, the mechanism governing the distribution of Cypriote goods to the trading emporia of the Sharuhen and Avaris exhibits the complexity of maritime trade and economy in the eastern Mediterranean littoral during the Middle and early Late Bronze Age.

In her recent work, Bergoffen herself has moved to the view that the WS I may have arrived in Palace I at the end of the SIP. Thus, BERGOFFEN (2001a, 154–4) suggests the following:

As for the presence of WS I in Palace I and its chronological implications, the style of the sherds ascribed by Petrie to chambers inside the building is early. Such wares may have already been introduced on Cyprus, in the late PWS phase, LC IA:1, which has been shown to overlap with MB III in Canaan (OREN 2001) and the end of the Second Intermediate Period, Tell el-Dab^a stratum D/2 (BIETAK 1992, 31).

If we accept this revised statement from BERGOFFEN, then this fits in very well with our thesis as to the date of the earliest appearance of WS I.

2. THE SIGNIFICANCE OF THE WS I 'ROPE LATTICE' AT TOUMBA TOU SKOUROU

The issue of the first appearance of WS I also needs to be taken up within Cyprus itself. References to the earliest occurrences of WS I were made in the final report on *Toumba tou Skourou* (VERMEULE and WOLSKY 1990). They refer to vessels that use PWS designs, but which are modified by the use of dots rather than circles and ‘Ladder Lattice’ instead of ‘Rope Lattice’. For those reasons, they were classified as WS I. However, the distinction between PWS and WS I was not always as definite as archaeologists would have liked (PADGETT 1990, 90), because of the similarity in the designs.

In the lead up to the 1998 Nicosia conference on White Slip, I decided to see what would happen if we separated vessels with the PWS features (called them Trans. PWS/WS I) from more typical WS I (see ERIKSSON 2001, 59, fig. 3 – Trans. PWS/WS I). My technique was to focus on what other artefacts were found together with the WS I and PWS. The problem was that unfortunately, as at most Cypriot sites, the tombs are really difficult to use because of multiple re-use and disturbance of the contents. Indeed, Tombs I and IV at *Toumba tou Skourou* seem almost impossible to use. They contained a chrono-

logically long range of material and, without sufficient published ground plans, we are not able to see where individual vessels are found. We need therefore to be sceptical of comments like “Tomb I has ... plenty of Late Cypriote I B, but nothing imported later than LM IA” and “if...Late Minoan I A is limited to Late Cypriote IA, there is no further evidence at *Toumba tou Skourou* for defining separate stages within Late Cypriote I A”, (VERMEULE and WOLSKY 1990, 395, 393).

For example, this last utterance can be challenged: Why is LM IA confined to the LC IA:1 peri-

TOMB/WS Style	III	IV	I Ch.1	II Ch.1	I Ch.2	VI	I Ch.3	II Ch.3	II Ch.2	II Ch.4
PWS (Phase 2)	8- Fig. 7a	2, 33- Fig. 7b	130-Fig. 8 180, 200, 202 483							
WS I ‘RLFL’		79	99, 182, 198 229, 505, 515 521, 531, 545	9	295- Fig. 7c	25				
WS I ‘RLCB’			511		310, 479					
WS I ‘RL’		24 32- Fig. 7d 44	103, 105, 116 117, 137, 138 231, 506, 510 519, 520, 537 539, 544, 546 547							
WS I ‘FWL’			478		292, 297		324	67	58	
WS I ‘FL’			83, 183, 507 529, 530, 672		296, 300			76		
WS I ‘FDR’			489, 512, 533							
WS I ‘LFL’		115	87, 101, 121 211, 518, 522 532, 543							
WS I ‘PL’			222, 509, 517		288			68	62	
WS I Undec			516, 523, 524 525, 526, 527 528, 538		291	13	328			
WS I-II ‘LLFL’								72		
WS II ‘LLDR’										135
LM IA			485, 496, 340 34A, 34B, 494 497, 500, 498 499				495			
LM IIIA:1								80	53	
LH III A:2										93, 94 100, 103
Egyptian Razor			37, 54				367			

Table 8 Distribution of the White Slip wares and Aegean pottery styles in the tombs at *Toumba tou Skourou*

od at the site, which is characterized by the 'Proto' wares? After all, LM IA pottery occurs in Tomb I, and if Tomb I also has LC IB wares, why then do we not associate LM IA with the latter LC IB wares? One answer might be that the existence of the earlier wares preclude the later dating.

(a) Some specific tomb groups from *Toumba tou Skourou*

To tackle these problems, we need a further analysis of the relationship between White Slip wares and Late Minoan pottery styles, as provided in the various contexts at *Toumba tou Skourou* (see Table 8).

From this Table, we can identify specific tomb groups from *Toumba tou Skourou* which illustrate the progression from PWS to WS I.

(i) Tomb VI

This tomb contains only two WS bowls: one is undecorated and the other is WS I 'RLFL' (Table 8). This latter is identical to the vessel in Tomb I Chamber 2 (Fig. 7c) discussed below. While there is no PWS in this tomb, the WS I bowl is here associated with Black Slip PBR, rather than BR I. So we still have some transition from a "Proto" ware to WS I illustrated here.

(ii) Tomb I Chamber 2

The plan of this tomb shows all the vessels together in a cluster (VERMEULE and WOLSKY 1990, 166, fig. 32). There are nine WS I vessels (Table 8). One of these, a WS I 'RLFL' bowl is, as was noted above, closely comparable to one from Tomb VI (Fig. 7c). There are two unusual WS I 'RL' bowls with a 'chequerboard' motif (*ibid.*, 234, T. I:310, 479, pl. 160, 161). The remaining WS vessels include 'FWL', 'FL', 'PL' and one undecorated. In an earlier paper, I (ERIKSSON 2001a, 56), commented on these vessels saying they were "... typical of developed WS I, with the typical rim bands of Parallel Line, Framed Wavy Line and Framed Lozenge. Of interest is the spouted bowl with the Framed Lozenge (VERMEULE and WOLSKY 1990, 235, T.I:300, fig. 46), which may be compared generally with the one from 'Ezbet Helmi.'"

Clearly, from these observations, we can conclude that the tomb illustrates the association between these varying WS I styles (Table 8). However, Tomb I is of particular importance because, within it, we find one LM IA cup with the double axe motif (Fig. 44i & j). This is special; it has such close similarities with cups recovered from Thera that some thought that both originated from the same workshop in Crete. The evidence of the LM IA in Tomb I

Chamber 3 is important for linking LM IA with the LC IA:2 period, and with WS I 'FWL' as in the Ayia Irini Tomb (QUILICI 1990).

(iii) Tomb II Chamber 1

This chamber produced the famous example of the ostrich egg. What we have here (*ibid.*, 244, fig. 36) is a clump of grave goods and PBR and BR I wares. There is however, a magnificent WS I 'RLFL' tankard (VERMEULE and WOLSKY 1990, 250, T.II:9) which, in its design, shows influences from the PWS tradition (Table 8). This is illustrated by the lower body decoration of 'Rope Lattice' band, with pendant 'Rope Lattice' framing a double row of dot framed lozenges. It is very similar to the design of the bowls identified as WS I 'RLFL' in Tombs I and VI above. A comparison can be made between it and one in the Ashmolean Museum from the looted Magounda Cemetery. As Catling (CATLING and BROWN 1980, 110) noted, the presence of this style at Magounda "... indicate an extension still further west for this material."

(b) WS and LM IA at *Toumba tou Skourou*

Following the discovery of a wide range of material in Tomb I at *Toumba tou Skourou*, the dating of the LM IA wares within the Cypriot sequence has become a matter of controversy. In relation to the LM I pottery WIENER (1990, 147) noted: "All of the pieces of LM IA pottery recovered from tombs at *Toumba tou Skourou* have good parallels in the Thera volcanic destruction level, and in the case of one sherd to a Palaikastro pedestalled cup." Some have identified LM IA primarily or exclusively with the LC IA:1 period. However, this is not a supportable conclusion. We can present the following counter-argument; firstly, whilst WS I bowls with the 'Rope Lattice' ('RL') motif (similar to the WS I from Thera) occur in Tomb I and Tomb IV (Fig. 7d), they are found at a level which is otherwise identified as LC IB (Table 8). Furthermore, though we remain uncertain about their position in the sequence of burials within Tombs I or IV, WS I 'RL' style is found in other tombs at the site (see Table 8, 'RLFL').

Secondly, we may note that in Tomb II Chamber 3, a WS I-II/II early tankard is found with a similar lower body design ('LLFL') to the above mentioned bowls (*ibid.*, 256, T.II:72). This tankard is found together with a small number of other vessels, including the typical WS I with PL, 'FWL' and 'FL' rim motifs (Table 8). There is no PWS of Phase 2 here at all; only the motifs on the tankard hark back to PWS and WS I of the 'Rope Lattice' motif.



Fig. 14 WS I 'RL' style hemispherical bowl from Enkomi Tomb 19:146 (after GJERSTAD *et al.*, pl. 114: 1–2). Diameter 17.7 cms

How far advanced are we on chronological analysis? The contents of the tomb generally suggest a date in LC IB, but the WS II and the sherd of LM IIIA:1 (*ibid.*, 257, T.II:80) indicate we are at least within the LC IIA:1 period. What kind of gap did exist between the use of 'Lattice' bands on WS I and its use on WS II, where it becomes the pre-eminent motif? This evidence may demonstrate, as already indicated above, that we need to factor in a line of continuity between PWS, WS I and WS II based solely on the use of a 'Lattice' band motif.

Thirdly, the only other place where LM IA occurs on the site comes from Tomb I Chamber 3 (*ibid.*, 239, T.I:495). Here White Slip is represented by two vessels, one an undecorated bowl (*ibid.*, 239, T.I:328) and the other a classic WS I 'FWL' (*ibid.*, 239, T.I:324). Again we may note that LM IA here does not occur together with PWS or even WS I with 'Rope Lattice' motif. This chamber, like Chamber I, contained fragments of what might be another example of the Egyptian New Kingdom 'mechak' type razor (ERIKSSON 2001d, 188), dated to around the time of Thutmosis III or later (Table 8).

The above three arguments seem very persuasive in establishing that LM IA should not be associated exclusively with the LC IA:1 period, characterized by PWS at this site. Rather the majority of LM IA vessels here support a LM IA/LC IA:2 synchronism. We shall resume discussion of LM IA in Cyprus in Chapter VI. The historical implications of these observations will be discussed further in Chapter VII.

(c) First Conclusions on the WS sequence at *Toumba tou Skourou*

The issues arising from the *Toumba tou Skourou* sequence will be discussed throughout this work. However, as a preliminary conclusion we can assert that the distinction of the various White Slip wares present at

Toumba tou Skourou demonstrates that the only association with Phase 2 PWS and WS I occurs in the tombs whose chronology spans a long period and whose phasing cannot be determined as in Tomb I, Chambers 1 and 2, and Tomb IV.

Thus, notwithstanding some problems of interpretation, we perceive a clear sequence here: Phase 2 PWS gives rise to WS I characterised by its refined 'Rope Lattice' (RL) motif; and, this clearly overlaps with the Double Line Framed Group at the site. What is interesting is that there appears to be a significant gap between the demise of the use of 'Rope Lattice' on WS I until when it appears in a slightly modified form on Transitional WS I-II/ WS II early as 'Ladder Lattice'.

The WS I 'RL' bowls at *Toumba tou Skourou* are believed to be similar to the one found on the island of Thera. However, we should be careful with the conclusions we draw from this. We should keep in mind that bowls with similar 'Rope Lattice' designs are found, not only at *Toumba tou Skourou* (Table 8), but also at Ayia Irini (Fig. 17), Pen-

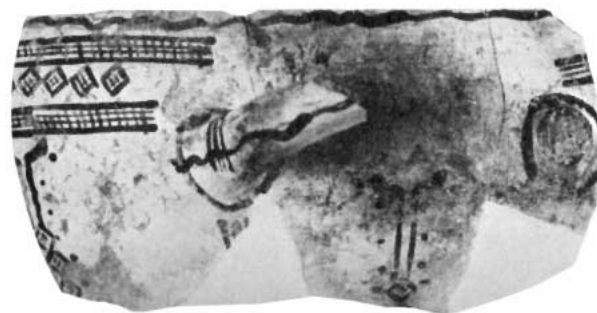


Fig. 15 WS I 'RLFL' style fragment of hemispherical bowl from Hala Sultan Tekke (after HST 1, 1976, 64, pl. 39:33)

dayia,¹⁰⁴ Enkomi (Tables 6–7; Figs. 14, 18e, 19, 25b–c), Hala Sultan Tekke (Fig. 15),¹⁰⁵ and Palaepaphos *Teratsoudhia* (Table 9; Fig. 16);¹⁰⁶ that is, in the different parts of the island. What conclusion can be drawn from this fact?

3. WS I 'RL' AT PALAEPAPHOS *TERATSOU DHIA* TOMBS 104 AND 105

This tomb complex, despite the lack of good stratigraphy, is fascinating for the study of White Slip I and WS IIA (details are provided in Table 9).

Despite the difficulties it presents for providing

any significant chronological evaluation, there are a number of points we need to consider. Firstly, as there is *no* PWS in this tomb at all (see Chapter II.3.e), it agrees with the picture presented in *Toumba tou Skourou* Tomb 1 Chamber 2 that this style of WS is not found together with PWS; a situation which Chamber 1 of that tomb fails to clarify. This allowed for it to be used in a misleading way to suggest that PWS and WS I 'RL' styles might be simultaneous. In fact WS I 'RL' is intermediate between PWS and the so-called 'mature' WS I styles, such as 'FWL'. Secondly, we can generally note in Tombs 104

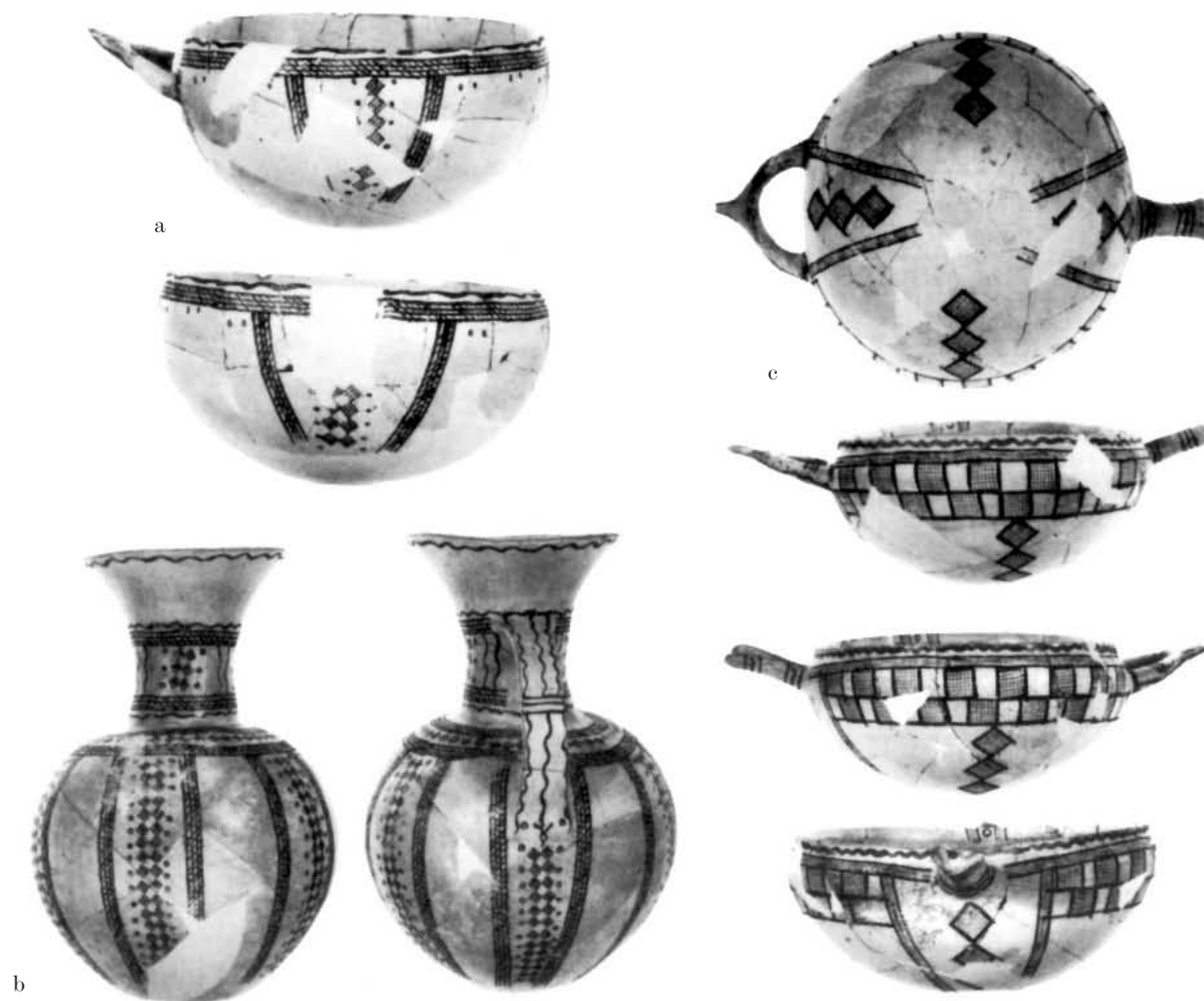


Fig. 16 WS I Group vessels from Palaepaphos *Teratsoudhia* Tomb 104 (after KARAGEORGHIS 1990) a) 'RL' bowl from Chamber E, (after *ibid.*, 27, pl. 15: Tomb 104 E. 11). D. 19.0 cms; b) 'RLFL' jug from Chamber K, (after *ibid.*, 31, pl. 18 K. 41 + T. 105/ B. 12). H. 22.4 cms; c) 'RLCB' spouted bowl from Chamber K (after *ibid.*, 31, pl. 18 K. 40). D. 16.8 cms

¹⁰⁴ KARAGEORGHIS 1965, pl. 4:1, third in second row.

¹⁰⁵ See also E. ÅSTRÖM, 1983, figs. 245, 253 row 1:1; and HATZIANTONIOU 1983, fig. 361b, (as noted by PADGETT 1990, 374, n.10).

¹⁰⁶ KARAGEORGHIS 1990, present on pls. 6–8, and pl. 15:E.11.

WS rim motif	Location	KARAGEORGHIS 1990
WS IIA 'FL' bowl	Tomb 104 Chamber B: no. 5	25, no. 5, pl. 13
WS IIA 'FL' bowl	Tomb 104 Chamber B: no. 23	26, no. 23, pl. 13
WS I 'RL' juglet	Tomb 104 Chamber E: no. 4	26, no. 4, pl. 15
WS IIA 'FL'	Tomb 104 Chamber E: no. 5	26, no. 5, pl. 13
WS I 'FXH'	Tomb 104 Chamber E: no. 6	27, no. 6 (WS IIA), pl. 15
WS I 'FWL' bowl	Tomb 104 Chamber E: no. 9	27, no. 9, pl. 15
WS I 'RL' bowl	Tomb 104 Chamber E: no. 11	27, no. 11, pl. 15 (Fig. 16a)
WS I 'FM'	Tomb 104 Chamber E (i)	27, no. I, pl. 6
WS I 'RL' (2 sherds)	Tomb 104 Chamber E (ii)	27, no. ii, pl. 6
WS I 'RLFL' (3 sherds)	Tomb 104 Chamber E (ii)	27, no. ii, pl. 6
WS I 'FL' (9 sherds)	Tomb 104 Chamber E (iii)	27, no. iii, pl. 6
WS IIA 'FL'	Tomb 104 Chamber E (iv)	27, no. iv, pl. 6
WS IIA 'FL'	Tomb 104 Area F: no. 7	28, no. 7, pl. 16
WS I undec	Tomb 104 Area F: no. 15	28, no. 15, pl. 16, 45
WS I 'RLCB' bichrome spouted bowl	Tomb 104 Chamber K: no. 40	31, no. 40, pl. 18 (Fig. 16c)
WS I 'RLFL' jug	Tomb 104 Chamber K: no. 41	31, no. 41, pl. 18 (Fig. 16b)
WS I 'FL'	Tomb 105 Chamber B: no. 13	42, no. 13, pl. 23
WS I 'FL'	Tomb 105 Chamber B: no. 52	42, no. 52, pl. 23
WS I 'FL' WS I 'LFL' (3 sherds) WS I 'FWL' (3 sherds)	Tomb 105 Chamber B (ii)	48, no. ii, pl. 8
WS I 'RLFL' bowl	Tomb 105 Chamber B (iii)	48, no. iii, pl. 8
WS I 'RLFL' WS I 'FXH'	Tomb 105 Chamber B (iv)	48, no. iv, pl. 7
WS I 'RLFL' WS I 'FL' (3 sherds) WS I 'FXH'	Tomb 105 Chamber B (v)	48, no. v, pl. 7
WS I 'RLFL' (3 sherds) WS I 'LFL' (2 sherds) WS I 'LFLMet' WS I 'LFM'	Tomb 105 Chamber B (vii)	49, no. vii, pl. 7
WS I 'FL' (3 sherds)	Tomb 105 Chamber B (viii)	49, no. viii, pl. 8
WS I 'LFL' bowl	Well (i)	53, no. i, pl. 10
WS I 'FL' bowl	Well (iii)	53, no. iii, pl. 10
WS I 'RLFL' (2 sherds) WS I 'LFL' (3 sherds) WS I 'LFM' WS I 'FL' WS I 'FWL' (2 sherds)	Well (v)	53, no. v, pl. 6
WS I-II 'LL'	Well (vi)	53, no. vi, pl. 6
WS rim motif	Location	ALOUPİ <i>et al.</i>, 2001
WS I 'FXH' (not WS IIA)	Tomb 105 Chamber B	17, fig. 1:KK-C1
WS I	Tomb 105 Chamber B	17, fig. 1:KK-C2
WS I 'RL'?	Tomb 105 Chamber B	17, fig. 1:KK-C3
WS I 'FL'	Tomb 105 Chamber B	17, fig. 1:KK-C4
WS II	Tomb 105 Chamber B	17, fig. 1:KK-C5
WS I 'FLCB'	Tomb 105 Chamber B	17, fig. 1:KK-C6
WS I	Tomb 105 Chamber B	17, fig. 1:KK-C7
WS I 'Double Line Framed' Group	Well	17, fig. 1:KK-B1
WS I Undec (not PWS)	Well	17, fig. 1:KK-B2
WS II	Spit A, well F	17, fig. 1:KK-D1
WS II	Spit A, well F	17, fig. 1:KK-D5
WS I	Well F	17, fig. 1:KK-D9
WS I	Well spit I	17, fig. 1:KK-E1
WS I 'FXH' (not WS I-II trans?)	Well spit C	17, fig. 1:KK-G4
WS I 'LBD'	Well spit C	17, fig. 1:KK-G6
WS I 'LBD'	Well spit C	17, fig. 1:KK-G9
WS I 'PL'	Well spit D	17, fig. 1:KK-H1
WS I with 'LBD' (not WS II late)	Well spit D	17, fig. 1:KK-H2
WS II	Well spit D	17, fig. 1:KK-H3
WS I 'RL' (not PWS)	Well spit D	17, fig. 1:KK-H4
WS I 'LBM' (not WS I-II trans?)	Well spit D	17, fig. 1:KK-H5

Table 9 WS styles represented in Palaepaphos *Teratsoudhia* Tombs 104 and 105 (after KARAGEORGHIS 1990; ALOUPİ, PERDIKATSI and LEKKA 2001)

and 105 the lack of any wares that we need to consider as purely MC III or LC IA:1. There is thus no need for this tomb to date any earlier than LC IA:2.

This site at Palaepaphos contains a large quantity of WS I ‘RL’ Group, which includes ‘RL’ (Fig. 16a), ‘RLFL’ (Fig. 16b), and ‘RLCB’ (Fig. 16c) rim or body motifs. We can note that this is not the only site west of Limassol to produce WS I ‘RL’. POPHAM (1962, 296) records some sherds from Kouklia whose description suggests a similarity with the WS I bowl from Thera and should be reclassified into this category. The WS I bichrome spouted bowl with ‘Rope Lattice Checkerboard’ design (Fig. 16c) can be closely compared stylistically with vessels from *Toumba tou Skourou* (Table 8: nos. 182, 505). This tomb also has WS I ‘LFL’ and ‘FL’ comparable to sites like *Toumba tou Skourou* and Ayia Irini.

We also have the presence in this tomb complex of a style of WS I rim motif which can be described as ‘Framed Cross-hatching’ (‘FXH’); it was also observed at Episkopi *Bamboula*, where BENSON (1961, 66) saw it as: “The ultimate degeneration of the rim design.”¹⁰⁷ As he saw it, the wavy lines seemed to be very erratic; but it seems to me this is the gradual simplification designed to speed up the application of the detail of the earlier cross-hatched lozenge chain, the application of which must have been a substantially more time consuming task. It strikes one as a late phase of WS I, but distinct from WS I-II, which is really closer to WS II.

Interestingly BENSON (*ibid.*) cites DANIEL who had ascribed a date to this style within the LC IIA period. Its presence in the Palaepaphos Tomb would suggest that it was introduced earlier, perhaps LC IB (see Chapter III.12). This conclusion is supported by the fact that we also have the next phase at Palaepaphos, as there was quite a bit of WS IIA, and some WS I-II/WS II early found there.

4. OTHER KEY WS I SITES IN CYPRUS: AYIA IRINI, ENKOMI AND EPISKOPI *BAMBOULA*

(a) The stratification of Quilici’s Ayia Irini Tomb

In 1990, QUILICI published material found in a tomb at Ayia Irini which is important in the study of the development of WS I. In our view, the impact of this tomb on discussions of the intercultural synchronizations of Cyprus at the beginning of the Late Bronze Age is yet to be fully appreciated. The Ayia Irini tomb has a much shorter time span than *Toumba tou*

Skourou Tomb I Chamber I; on the evidence of the pottery, it has a smaller quantity of MC pottery. Quilici excavated the tomb stratigraphically and six strata were identified. A word of caution here: because it was used for multiple interments, we should not place too much emphasis on the final resting place of the burial offerings. BERGOFFEN (2001a, 153) has commented on this: “material from the tomb’s six strata was mixed: sherds were scattered throughout and mends were made between levels (QUILICI 1990, 135). The range for the entire contents, which included at least 37 burials, is LC IA:1 to the end of LC IB.”

The general conclusion regarding the Ayia Irini tomb was that it contains the following phases: PWS (Phase 2), as discussed in Chapter II, WS I ‘RLFL’ in association with the main ‘mature’ rim motifs like ‘FWL’ and ‘FDR’, and finally in LC IB an increase in these so-called ‘mature’ styles, plus the introduction of WS I ‘FWL’ late (see Table 10).

We shall now discuss the contents of the excavator’s stratification of the tomb. Consider first Stratum V: Here we find a significant number of bodies and an increase in the number of burial offerings. There is also in this level the introduction of WS I ‘RLFL’ alongside WS I with Ladder Band, Double Framed Line rim motifs, and Parallel Line style, and many other styles distributed throughout the chamber (details in Table 10). The introduction of WS I is only one of the several new additions to the ceramic repertoire, which heralds the next chronological phase of LC IB. There was also the introduction of BiW-m ware and an increase in the quantity and variety of BR I, which had already occurred in Stratum VI (see Chapter II.3.c).

Stratum V raises some important issues especially because it contains a second LM IA vessel decorated with a single band of encircling small spirals (Fig. 44c). The first LM IA spiral cup had been associated with the finds of Stratum VI itself. This latter discovery forces us to the conclusion that at least some part of the early LM IA period had an overlap with LC IA:1; although we should note that Stratum VI also had the presence of two BR I bowls (QUILICI 1990, nos. 449, 450) and WP VI ware (*ibid.*, no. 451). Now, in Stratum V we have the discovery of a second Aegean cup; this was classified as LH IIA, but should be re-classified as LM IA. Quilici believed that it was of the characteristic Vapheio type (*ibid.*, 86–7, no. 228, figs. 220–1, 316). Indeed the white dots on a dark

¹⁰⁷ See BERGOFFEN (2003, 404, fig. 5: first on top row) illustrates this style from Alalakh Level IV.

Ayia Irini (after QUILICI 1990)					
	Str. VI	Str. V	Str. III–IV	Str. I–II	Surface
PWS	355 (Fig. 10)	–	–	–	–
WS I ‘RLFL’	–	241 (Fig. 17)	–	–	–
WS I ‘LBD’	–	338	89	–	–
WS I ‘LFL’	–	324	–	–	–
WS I ‘FL’	–	219, 248	104, 125, 134, 158	–	10
WS I ‘FWL’	–	279, 366	40, 49, 128, 191	–	–
WS I ‘FC’	–	249	–	–	–
WS I ‘FDR’	–	305, 403	209, 211	–	–
WS I ‘PL’ 2	–	286, 290,	–	–	11
WS I ‘PL’ 3	–	294	–	–	–
WS I ‘PL’ 4	–	–	87	–	–
WS I Undec.	–	345	48, 161, 182	–	–
WS I ‘FWL’ late	–	–	60, 72 (Fig. 27a), 94, 95, 99, 100	–	–
WS I–II ‘LL’	–	–	73	–	–
LM IA	427	228	–	–	–
Egyptian razor	–	–	196	–	–

Table 10 Distribution of White Slip wares in the Ayia Irini Tomb

band on the lower body of the cup are considered to be characteristic of LM IA pottery at Gournia (BETANCOURT and SILVERMAN 1991, 51) and also at Knossos (WARREN 1999, 898, 899, pl. 207 P442, P442a, P443). This Knossos deposit is considered by Warren (*ibid.*, 900) to be dated close to the time of the eruption of the Thera volcano. The Knossos cups with their encircling band of small spirals may be closely compared with the one from Ayia Irini. Warren (*ibid.*, 899) again refers to a close parallel from Thera with an encircling design consisting of a double row of small spirals (Thera Museum, Santorini: Akr 3191).

In the corner of Stratum V where the Vapheio cup was recorded, we can note that the WS I ‘RLFL’ bowl was found nearby (Fig. 17). Inside there was a Bichrome Wheel-made krater,¹⁰⁸ and a PBR/Black Slip jug,¹⁰⁹ and very nearby was a stack of bowls which included BR I,¹¹⁰ PWW-m,¹¹¹ WS I ‘FL’ and WS I ‘FC’,¹¹² and other ceramic material suggestive of a LC IA:2 date.¹¹³

In conclusion we can say that Stratum V spans the LC IA:2 period, and shows a temporal association between LM IA, WS I of the ‘Rope Lattice’ Group,

but importantly also with other so-called ‘mature’ WS I styles. The contents of this layer were probably placed within this tomb in the period leading up to the eruption of Thera; or shortly thereafter. It is provisional evidence that several WS I rim motif styles, and not just WS I ‘Rope Lattice’ Group, were current during LC IA:2, in the period in Cyprus which we believe was prior to the eruption.

The next level, which is a combination of Strata IV and III, clearly belongs to a later phase in the LC



Fig. 17 S I ‘RLFL’ bowl from a tomb at Ayia Irini (after QUILICI 1990, 91–2, no. 241, fig. 234). H. 7.15 cms

¹⁰⁸ *Ibid.*, no. 243.

¹⁰⁹ *Ibid.*, no. 242.

¹¹⁰ *Ibid.*, no. 246.

¹¹¹ *Ibid.*, no. 247.

¹¹² *Ibid.*, nos. 248, 249.

¹¹³ See *ibid.*, figs. 198, 199, 202, 203.

I sequence as established in chronology. This is the level at which the Egyptian razor was discovered (see Chapter VI.5). At this level there is no WP V, PWS, or LM IA. On the other hand, we find a number of WS I bowls (Table 10). There are 19 which are the typical deep hemispherical bowl shape. The remaining bowls had concave bases (Table 10, nos. 104, 209), one with everted rim and spout; a shape typical of the earlier stratum and thus probably belonging to the early phase of the WS I bowl series. Significantly, no WS I of the ‘Rope Lattice’ Group is found; which fits with the suggestion that this floruit for this stratum is confined to LC IB. Some of the WS I ‘FWL’ seem closer to what becomes known as WS IIA; however, they are even closer to WS I and are considered as a Transitional class dating to LC IB (see Table 10 – WS I ‘FWL’ late). It is not surprising to see here that the changes which lead eventually to WS I–II, can be seen commencing in the LC IB – a time when ‘large scale commercial enterprise became possible’.¹¹⁴

However, we should note that there is no ‘true’ WS IIA; nor any LC II wares in this tomb. Hence we conclude that the majority of the evidence shows a clear transition to the next historical level, that is, LC IB. The presence of BR II, one WS I–II ‘LL’ – the successor of the WS I ‘Rope Lattice’ Group – means that we can also trace the progression further to the beginning of the LC IIA period. The presence of the razor, of a type which can be paralleled in Egypt where it is dated largely to the reign of Thutmosis III, confirms such a synchronism (see ERIKSSON 2001d, fig. 1b).

In an earlier paper, I (*ibid.*, 192) said of the sequence of the Ayia Irini tomb as a whole:

... it illustrates the link between WP V and PWS and the transition from PWS (Phase 2) through to developed WS I. In fact, this whole tomb provides one of the best sequences for illustrating this and other ceramic developments. This is especially so when we note the introduction from Stratum IV–III onwards of other typical LC IB wares such as Red Lustrous (RL) and White Lustrous Wheel-made wares – the latter being quite rare but found elsewhere in association with RLW-m (ERIKSSON 1993: 33, 34). The White Painted Wheel-made II jug (QUILICI 1990: 44, no. 98, figs. 100–1, 195) is also distinctive. It is found together with RLW-m elsewhere, in similarly dated deposits as Stratum III–IV – not only in Cyprus (ERIKSSON 1993: 34–5, 37, n. 95, 38–9) but also in Syria (ERIKSSON 1993: 109). With the presence of WS I–II and BR II, we can see the transition from LC IB

to LC IIA, after which the tomb ceased to be used further in the Late Bronze Age.

The brief discussion of the tomb highlights the critical importance of LM IA ware in the understanding of the cross-cultural synchronizations between Cyprus, Egypt and the Aegean. The evidence here supports my general conclusion that LM IA wares first appeared during the LC IA:1 in Cyprus, but became more extensive in the next period – LC IA:2; then, during the LC IB period, we see the first appearance of LM IB material from the Minoan civilization (see discussion later in this Chapter of LM IA and the Thera eruption).

(b) The critical role of Enkomi for WS I

We have argued that Level I at Enkomi is critical in our understanding of the LC IA:2 period and for the appearance of PWS and of WS I. As recognized by both Dikaios and Åström, Level I at Enkomi represents a number of phases in the development of Late Bronze Age Cyprus. In 1992, I proposed a schema for the stratification of this early level at the site and made the following observations about Level I (ERIKSSON 1992, 210–1):

The architecture constructed after the end of the MC III Level A consisted of rooms that had occupation debris located directly on bed-rock or on the original floor [DIKAIOS 1969–71, 443]. The first floor, with its debris, was sealed by an ash layer of such a magnitude that it was interpreted as representing an extensive destruction of the site. Amongst the pottery from this first period, apart from the large amount of MC III wares recorded, Proto WS, WS I, BR I, RLW-m, BLW-m, Monochrome, White Shaved wares as well as a sherd of TeY ware were recorded. If this is the initial stage of LC I wares at the site, then we cannot differentiate Åström’s LC IA:1 period [and LC IA:2 period] within the deposits of the floor and destruction level. This is so because some of the wares used by Åström to identify his initial stage of LC IA [LC IA:1] are found in the deposits prior to and including the destruction, together with wares that are used to identify his second stage of LC IA [LC IA:2].

The fact that LC IA:1 and LC IA:2 wares are found together at Enkomi does not refute Åström’s and our subdivision of LC IA into two phases. One explanation here is that the occupation was prior to the first destruction and was long lived. Thus the introduction of WS I and BR I was at a later stage

¹¹⁴ HENNESSY 1963, 51.

within the period of use of the Level. There is also some additional evidence to consider. One signifier of the LC IA:1 was BiW-m ware; yet this fabric is not recorded at the site until early in Level IB (see entries in Catalogue of Pottery, DIKAIOS 1969–71, 543–553). Our conclusion must be that, although the majority of the findings of Level I at Enkomi, and its destruction, should be dated to the LC IA:2 period, it is clearly intermixed with LC IA:1 materials.

We wish to make the following additional observations in relation to Enkomi Area III Fortress Levels IA and IB. The published ceramics from the settlement seem few, but they give the impression, as one turns the pages of the illustrations in DIKAIOS's (1969–71) publication, of the continual changing life of the site and the foreign and local factors that must have played such significant roles in the turbulent changes that altered life and custom on Cyprus.

In relation to the ware and any differences between the excavated material and published results of DIKAIOS' excavations at Enkomi, CREWE (fc, see fig. 3, tables 2–3) has made some interesting observations.¹¹⁵ Part of her study shows that in Areas I and III, there is PWS and WS I in Level IA and by Level IB, WS II has also appeared. The differences with DIKAIOS' (1969–71) publication are small, but CREWE's work does reinforce the impression that we are moving from PWS to WS II within the life of Level I. We would thus be hard pressed to have it span a period of more than 100–150 years. (This is a critical point in the discussion of Manning's 'intra-island barrier' thesis which does assume such a long period – see later in this Chapter).

We also want to refer to some observations in relation to Enkomi Area I Levels IA and IB. Here, a smaller area of the lower levels was exposed, and so the quantities of ceramics for Levels IA through to IB are by comparison to Area III quite small; so too the PWS and WS I wares (Table 6). However, what we can observe is the presence of Phase 2 PWS (Fig. 18a–b) in Level IA and note the presence of a sherd of TeY ware. In Level IB, we have Phase 2 PWS (Fig. 18c–d) along with a WS I 'RLFL' rim sherd (Fig. 18e) typical of the *Toumba tou Skourou* tombs; and one 'WS I 'fine dotted' style (Fig. 18f) and a WS I 'FDR' (Fig. 18g).¹¹⁶ The occurrences of

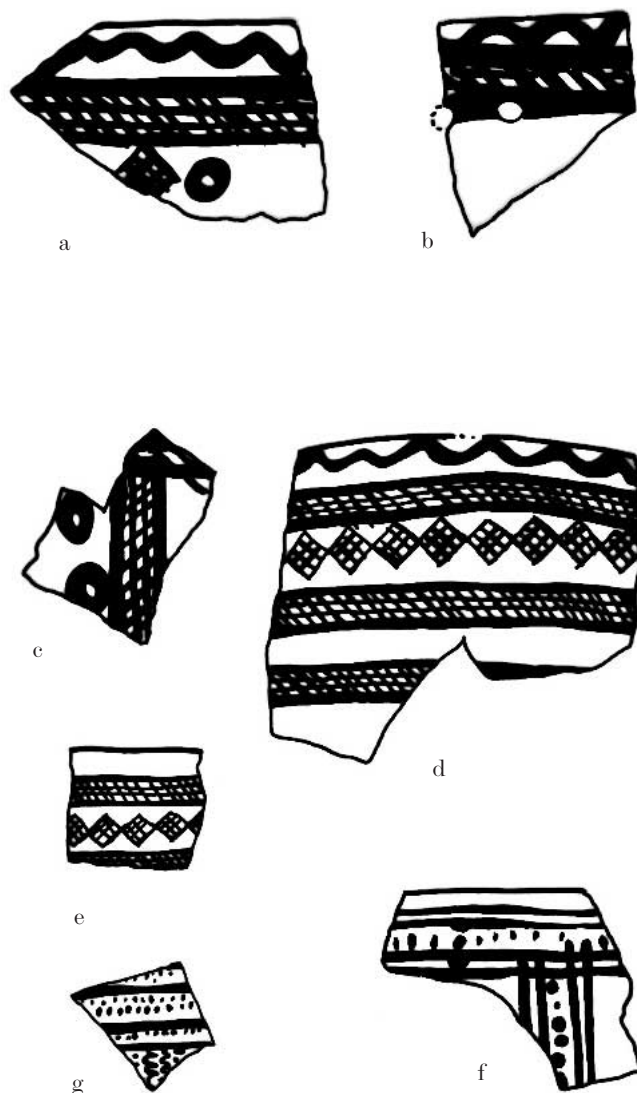


Fig. 18 PWS Phase 2 and WS I sherds from Area I Levels IA – IB (after DIKAIOS 1969–71) a) PWS Phase 2 (after *ibid.*, pl. 56:10 2288/1); b) PWS Phase 2 (after *ibid.*, pl. 56:9 2247/1); c) PWS Phase 2 (after *ibid.*, pl. 56:11 2175/1); d) PWS Phase 2 (after *ibid.*, pl. 56:15 2205/1); e) WS I 'RLFL' (after *ibid.*, pl. 56:16 2134/1); f) WS I 'fine dotted' (after *ibid.*, pl. 56:17 2162/1); g) WS I 'FDR' (after *ibid.*, pl. 56:14 5830/1)

these different WS I rim motifs together is further evidence against the claim that WS I 'RL' was significantly earlier than the other WS I rim motifs (see later in this Chapter).

All this gives rise to another critical issue with respect to Enkomi: this is the fact that a WS I bowl,

¹¹⁵ L. CREWE, *Social complexity and ceramic technology on Late Bronze Age Cyprus: the new evidence from Enkomi*. PhD Dissertation. University of Edinburgh (not available to author).

¹¹⁶ I have not illustrated the WS styles found in the following level – IIA, but note that the level is characterised by WS II accompanied by LH IIIA:2 style pottery. There is also a sherd (DIKAIOS 1969–71, pl. 59:21–3710/12) which can be associated with the WS I 'RL' Group.

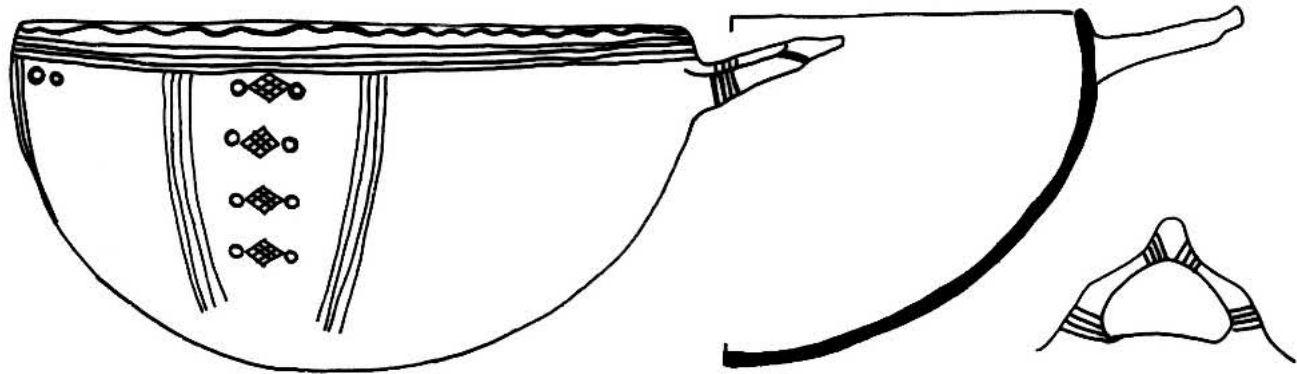


Fig. 19 WS I 'RL' bowl from Enkomi Tomb 4 (after SCHAEFFER 1936, fig. 33: Tomb 4 un-numbered)

with similar body motifs of lozenge chain and circle/dot design as that on the WS I 'RL' Group, was found at Enkomi in (French) Tomb 4 (Fig. 19). This illustrates the general point that WS I of the 'Rope Lattice' groups are not exclusive to the northwest of Cyprus; nor is there evidence that they arrive in Enkomi only after an extended period from their production date. The context was as follows: a tomb excavated by SCHAEFFER (1936, 136, fig. 33: Tomb 4) contained two WS I bowls with bichrome decoration. However, when one looks at the drawing of some of the finds from this tomb, we can note one of the WS I vessels has a 'PL' rim motif consisting of four lines, with pendant parallel lines framing a lozenge chain, on either side of which there seem to be open circles.¹¹⁷ Because this vessel had a design on it which included open circles (a typical feature of PWS), it was considered that it could be PWS Phase 2 (ERIKSSON 2001a, 56). Attempts to locate this vessel and verify the fabric, surface and decorative motifs have failed.

However, I now agree that it is unwise to classify it as PWS as the shape is more akin to WS I bowl types (see MANNING, SEWELL and HERSCHER 2002, 161, n. 275). Yet I disagree with MANNING, SEWELL and HERSCHER (*ibid.*) that the bowl should be classified as what they define as 'classic' WS, rather than WS I 'RL'. This bowl has good parallels with, for example, vessels from *Toumba tou Skourou*¹¹⁸ in the northwest and Palaepaphos *Teratsoudhia*¹¹⁹ in the south. The

associated ceramics included a Monochrome bowl; three White Shaved juglets; three BR I tankards; two BR I trumpet based juglets; and two BR I jugs with cut-away spout.¹²⁰ There is no reason not to associate this WS I bowl with its 'lozenge and circle/dot' decoration with the bichrome WS I, BR I, Monochrome and White Shaved vessels. While MANNING, SEWELL and HERSCHER (*ibid.*) concur '... the rest of the tomb contents suggest a LC I B date for the vessel,' the contents could just as well date to LC IA:2–IB and may provide evidence of WS I 'RL' moving from the northwest to the east during this period. Given the discovery of a sherd of WS I 'RLFL' in Area I, Level I (Fig. 18e); and another sherd (DIKAIOS 1969–71, pl. 59:21) that may also be classified as this style, the quantity of this style in the east is increasing.

Two important pieces of evidence which Popham examined, come from the Milia tombs. There were at least two WS I vessels belonging to 'Rope Lattice' Group: one from Tomb 1 (26);¹²¹ and the other from Tomb 10 (98).¹²² Thus, it may not be only in Enkomi Level I and Enkomi (French) Tomb 4 that we have evidence in the east of Cyprus for the overlap between WS I of the 'RL' Group with the LC IA:2 period – an important issue for the 'intra-island barrier' thesis (see later in this Chapter).

All this gives rise to another important aspect of Enkomi: the fact that the presence of WS I and other wares from the LC IA:2 period confirms the general

¹¹⁷ Note the otherwise close comparison with Fig. 12d.

¹¹⁸ VERMEULE and WOLSKY 1990, Tomb I Chamber 1 103, 436, 544; T. IV. 32.

¹¹⁹ KARAGEORGHIS 1990, Tomb 104 Chamber E, E. 11, pl. 15, E. 11.

¹²⁰ SCHAEFFER 1936, 136–7.

¹²¹ This WS I 'RL' bowl compares very well with the bowl from Thera. It was classified by POPHAM (1972a, 461) as a Bowl Type IA oddity.

¹²² This WS I 'RLFL' everted rim spouted bowl was classified by POPHAM (*ibid.*, 462) as a Type 7A:3.

character of the transition from PWS to WS I, as illustrated at the other Cypriot sites. Furthermore, Enkomi provides a good illustration of the distinctiveness of LC IB. This arises as follows: Although there are many tombs from Enkomi, very few are

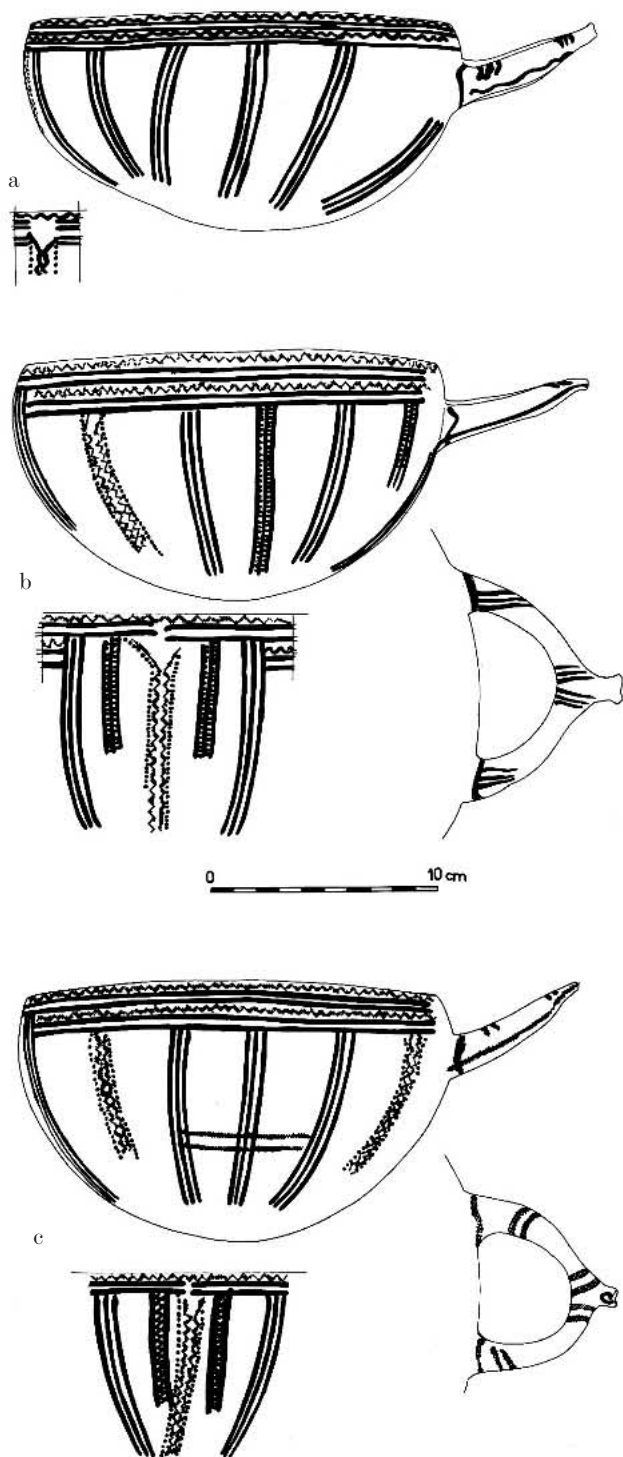


Fig. 20 WS I 'FWL' bowls from Enkomi (French) Tomb 1851 (after LAGARCE 1985, 32, 34, 40, 39, fig. 11a–b, d) a) No. 27, Max. D. 19.2 cms; b) No. 13, Max. D. 19.5 cms; c) No. 9, D. 19–18cms

intact and used for only a short period. The intact burial of Enkomi (French) Tomb 1851, with three vessels of classic WS I 'FWL' is thus quite significant (Fig. 20).¹²³ It seems that 'FWL' is more typical of LC IB, and the tomb as a whole was dated to this period by the excavators (LAGARCE 1985, 50–1). The contents are similar to (French) Tomb 4 mentioned above which also has WS I 'FWL'. Other interesting features of this tomb are the WP V CLS jugs;¹²⁴ WPW-m jugs¹²⁵ typical of LC IB in Cyprus and the Levant; BiW-m jug;¹²⁶ and the ostrich egg.¹²⁷

(c) The WS I at Episkopi *Bamboula* (southwest Cyprus)

When Benson wrote in 1961 about the White Slip sequence at Episkopi *Bamboula*, Kourion, the issue of the origin of White Slip ware was still being debated by some archaeologists, mainly those working outside of Cyprus.¹²⁸ The excavations at this site provided a carefully stratified sequence from the south-west of the island for a good part of the Cypriot Late Bronze Age. In BENSON's (1961, 61) opinion, the work of the late J.F. Daniel at the site, "proves at least that the story of White Slip ware is consistent and self-contained in Cyprus from the Late Cypriote IA:1 period." In an earlier paper I (ERIKSSON 1992, 207–9) have discussed the basis for DANIEL and subsequently BENSON's definition of the LC I period, as DANIEL (1941, 267) was the first to define subdivisions within LC IA and defined three LC I phases at the site (see also Chapter I.1).¹²⁹

Levels assigned to the LC IA:1 period by DANIEL and BENSON were, because of the relatively large percentages of BR I and WS I and the absence of any Proto wares, reassigned by ÅSTRÖM (1972b, 675) to the LC IA:2–LC IB periods. Furthermore, deposits assigned a LC IA:2 date by DANIEL and BENSON were reassigned by Åström (*ibid.*, 679) to LC IB. ÅSTRÖM

¹²³ LAGARCE 1985, figs. 8:9, 9:13, 10:27, 11:9, 13, 27.

¹²⁴ *Ibid.*, nos. 7–8.

¹²⁵ *Ibid.*, nos. 2, 11, 15.

¹²⁶ *Ibid.*, no. 18.

¹²⁷ *Ibid.*, no. 14.

¹²⁸ WOOLLEY's (1955) publication of Alalakh in which he proposed a non-Cypriot origin for White Slip had only been published 6 years earlier.

¹²⁹ The LC IA:1 and LC IA:2 periods had BR I and WS I whilst the appearance of BR II determined that a level be dated to LC IB. What Daniel and Benson meant by the term LC IB was based on Sjöqvist's definition and is equivalent to Åström's definition of LC IIA:1, both being characterised by the appearance of WS II and BR II wares.

(*ibid.*) determined that the site was founded in LC IA:2 and MERRILLEES (1974c, 303) also observed that the tombs showed “little conclusive evidence for L.C.I.A. occupation at the site.” Because there seems to be no Proto BR or WS at the site, we would say that the construction and use of the Late Cypriot settlement and tombs began shortly after the LC IA:1 period.

The style of WS I that Daniel and Benson place in their earliest phase at Episkopi *Bamboula* is typical finely decorated WS I, including bichrome decoration (BENSON 1961, pl. V, figs. 1–2). In the following stratum, we can observe that the material is still very similar to the preceding stratum, but with no indication of everted rim bowls, a feature which starts early in the life of WS I, but soon dies out (*ibid.*, pl. V, figs. 3–4). Rather than representing huge stylistic differences, what this is more suggestive of is the life span of these levels and consequently of these styles. In summary, we can note that, whilst everted rim bowls and straight rims are present in the earlier stratum, in the subsequent strata only straight rims are illustrated. In terms of decoration, it is very finely applied and includes the use of fine dotted rows. This is a feature typical of what we have called the ‘fine dotted’ style which, while present in the later stratum, is more common in the preceding stratum – as evidenced by the illustrations. As for rim designs, we may note that the ‘FL’ motif is more common in the earlier stratum and that the ‘FWL’ appears in the second. The ‘metope’ band also appears in the second stratum and as well as in Tomb 13 (Fig. 23). This has an impact on the interpretation of the date of its counterpart found in Egypt (see Fig. 21 and below).

What is highly significant here is the absence in these first two strata of any ‘rope lattice’ bands which are typical of PWS and of the WS I ‘RL’ Group style (similar to that of pre-eruption Thera). Yet strangely enough, and as we have already mentioned, it is exactly this motif which survives or is picked up again in the WS II series (see Chapter IV). This is a fascinating point and it is for these reasons that here we have avoided labelling the WS I ‘RL’ Group as ‘early-style’ WS I, since this may denote a chronology which is not necessarily that which exists in the sequence as observed on the island (see above n. 102).

In conclusion, the Episkopi *Bamboula* site has a major role in our interpretation of the Late Cypriot sequence, but also because of the connections it displays with the excavations at Tell el-Dab^a in Egypt.

There, in the excavations in the locality of ^cEzbet Helmi (the post Hyksos or New Kingdom occupation of the site), a WS I ‘FLMet’ spouted bowl was recorded (Fig. 21). Its presence marks a subsequent stylistic development in the White Slip series at Tell el-Dab^a (Fig. 11). We turn now to consider this issue.

5. WS I IN EGYPT: THE SIGNIFICANCE OF THE BOWL FROM ^cEZBET HELMI

A number of WS I finds outside of Cyprus are of enormous archaeological importance. White Slip I ware has turned up at Alalakh and Ugarit in Syria and at numerous other sites in Syria and Canaan; but in Egypt the picture is quite different. There it has been recorded at Saqqara (FWL late) and Marsa Matruh (POPHAM 1972a, 457, fig. 59:1; MERRILLEES 1968, 28, 168–9; WHITE 1986, 76), and at Tell el-Dab^a/^cEzbet Helmi (BIETAK and HEIN 2001).¹³⁰ This is in stark contrast to the quantities of the contemporary wares of BR I and RLW-m that are known from Egypt.

The WS I spouted bowl (Fig. 21) from ^cEzbet Helmi has a bichrome decorative scheme; it can be described from the rim down as follows: a wavy line sits above a horizontal chain of hatched lozenges, framed by paired horizontal lines (‘FL’ rim motif); below a ‘metope’ design of double framed pendant hatched bands; and further below paired vertical lines extending towards the base. The spout is framed by pendent hatched bands (akin to the ‘FXH’ style which seems to belong to LC IB in Cyprus, see Table 1B) with the dotted ‘eyes and nose’ motif below the spout; and with stripes on the spout. As it is decorated with ‘Framed Lozenge with Framed Metope below’, it is classified within the ‘Double Line Framed’ Group of rim motifs.¹³¹ Its stratification at the New Kingdom site is of great significance in our understanding of the links between Cyprus and Egypt. This style was also found at Tell el-^cAjjul by Petrie (Fig. 22).

(a) Stratification of the WS I ‘FLMet’ at ^cEzbet Helmi

At the ^cEzbet Helmi site, we should note firstly the upper, disturbed Levels of the three areas. Once we move to the deeper stratified Levels, which are more secure, we find the following mixture of wares: BL, BR I, Bichrome, WP IV, WP V–VI, WP VI, WS I, WS II, WL, Mono and Egyptian Imitation Red Lustrous. The local Egyptian pottery from the lowest

¹³⁰ Note also the finds of WS I at Tell Heboua (OREN 2001, 141, fig. 1).

¹³¹ HEIN 1994a, 43, fig. 12d, pl. 13B, Inv. No. 7949.

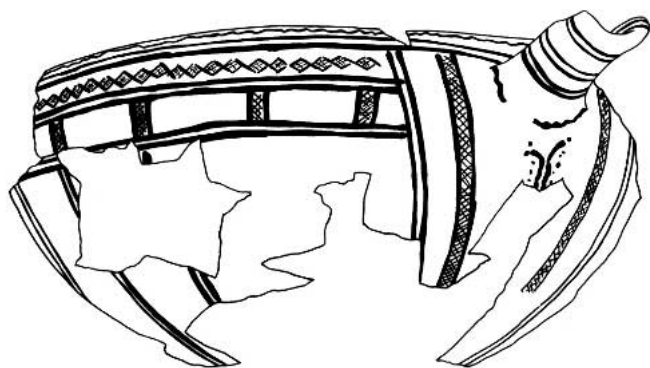


Fig. 21 WS I 'FLMet' spouted bowl from 'Ezbet Helmi
(after HEIN 1993, pl. 13B, no. 7949)

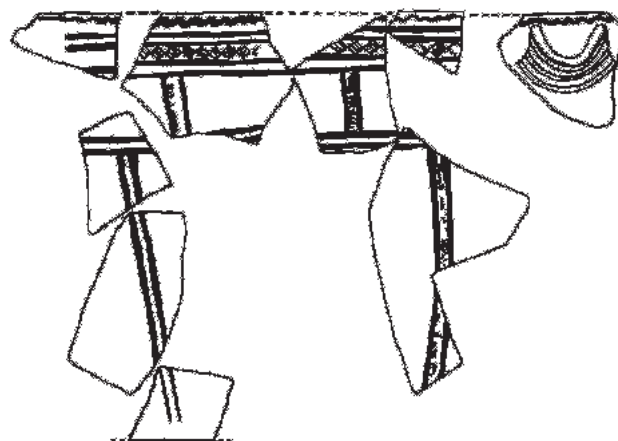


Fig. 22 WS I 'FLMet' style fragments of hemispherical bowl
from Tell el-'Ajjul (after PETRIE 1932, pl. 37)

Levels, Stratum V, includes SIP types, which allow it to be compared with Stratum D/2 in areas A/II and A/V, (HEIN 1998, 547). One of the most significant finds at 'Ezbet Helmi was a WS I 'FLMet' bichrome decorated bowl. It was in the "...top of the lowest floor Level of H/I-k/25" (*ibid.*, 549). The date given to its stratified position, based on the associated finds, is to the Thutmose era of the 18th Dynasty (BIETAK 2003, 24, fig. 1; ASTON *fc*). In the subsequent Level, but in a different part of the site (H/I-l/2), there was – along with the local pottery – a White Lustrous Wheel-made (WLW-m) spindle bottle (*ibid.*, fig. 1:7864 J & 7946 G). Chronologically, this is significant because it is at this latter Level that we find a scarab of Thutmose III and also one of Amenhotep II.

What some of the surrounding stratigraphy suggests is that, prior to the level with the WLW-m spindle bottle, there is a long, (or at least substantial) sequence of Late Cypriot pottery. This is in agreement with a mid 15th century BC date for the WS I bowl from k/25, which is said to be in the Level before the WLW-m.¹³² We should note here that a sherd of the same WS I 'FLMet' style is known from Lachish.¹³³

(b) Dating of WS I 'FLMet' in Cyprus

What do we know about this WS I 'FLMet' type in Cyprus? The 'Ezbet Helmi spouted bowl with straight or everted rim, loop handle and 'metope' style decoration has the following parallels in Cyprus:¹³⁴

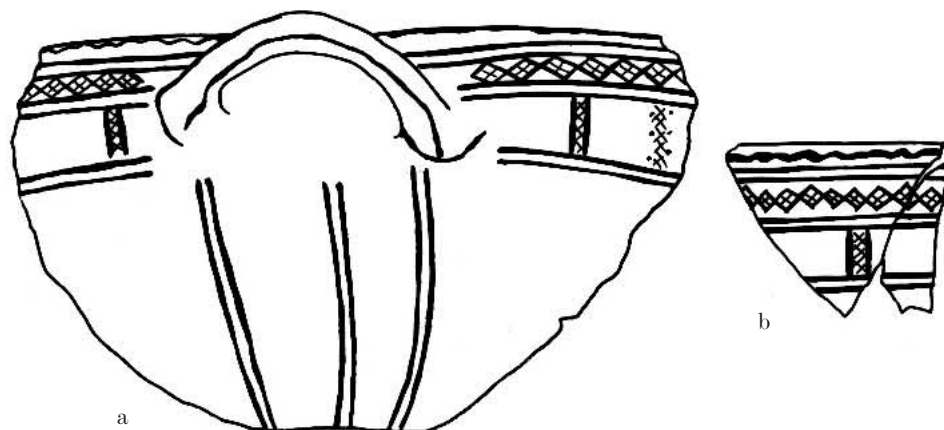


Fig. 23 WS I 'FLMet' style from Episkopi *Bamboula* a) Bowl with handle from Tomb 13 (after BENSON 1972, pl. 16 B 86). Remaining H. 9.4 cms; b) Fragment of hemispherical bowl (after BENSON 1961, fig. 3: top left corner)

¹³² I am grateful to I. Hein for discussing my observation of the long Cypriot pottery sequence, prior to the appearance of the White Lustrous Spindle bottle.

¹³³ British Museum inv. no. 1980 12-14 2056 (D 100 D8). I thank Pamela Magrill for showing me this sherd.

Firstly, we have an example in Episkopi *Bamboula* Tomb 13, which can be dated between LC IB and LC IIA:2 (Fig. 23a). As Benson has shown, this plundered tomb also contained pottery such as RLW-m spindle bottles; WS I, BR I, RLW-m, WS II, BR II, and LH IIIA:2 wares, and one can only give a general date range of LC IA:2/LC IB into LC IIA:2. However, our primary interest here is in the WS I vessels, which are all very close in style. All have the 'FL' rim motif, (see BENSON 1972, 18, 67 pl. 16: B 86), so we would date them to LC IB, which is probably when the tomb was first used, around the time of Thutmosis III. There is also another illustrated WS I 'FLMet' fragment from *Bamboula* (Fig. 23b).

Secondly, at Enkomi, this same WS I 'metope' design occurs on a krater (Fig. 24) and on tankards from Arpera (POPHAM 1972a, fig. 81:8, Tomb 205C:90).

Thirdly, there are the examples of the WS I 'Framed Lozenge Metope' style on the south coast. Thus we find an example at Maroni (JOHNSON 1980, pl. 42:209).¹³⁵ At Kalavassos, there was a spouted bowl which can be compared with the ^eEzbet Helmi WS I spouted vessel. In Kalavassos *Mavrovouni* Tomb 51, there were 12 ceramic vessels recorded along with some other artefacts (PEARLMAN 1985). These included Black Slip II (Reserved Slip), PBR, BR I, a Canaanite amphora as well as WS I. As MANNING, SEWELL and HERSCHER (2002, 161) also observe, the



Fig. 24 WS I 'FLMet' fine dotted style krater from Enkomi Tomb 3:166 (after GJERSTAD *et al.*, 1934, 481, pl. 114:5). H. 17.2 cms

assemblage is largely LC IA, although we would be inclined to describe it more specifically as LC IA:2.

Fourthly, there is *Toumba tou Skourou*, which was discussed in an earlier paper (ERIKSSON 2001a, 60):

The closest parallels in Cyprus for shape and decoration to the ^eEzbet Helmi bowl, can be drawn with material from *Toumba tou Skourou* Tomb I Chamber 1, [see Table 8, 507, 672 WS I Bichrome]; Chamber 2 [Table 8, 300]. The rim motif of Framed Lozenge Chain may also be compared with bowls which carry this design found in Tomb I Chamber 1 and Chamber 2; Tomb II Chamber 3 and in Tomb IV [Table 8]. The occurrences in Tombs I and IV do not provide any chronological information. However, we may note that in Tomb II Chamber 3, PWS wares have disappeared and LM IIIA:1 style pottery is recorded. This association is significant and suggests some overlap between LM IIIA:1 and the WS I 'FL' style, of which the ^eEzbet Helmi bowl is an excellent example. We should remember that LM IIIA:1 is important in defining the LC IIA:1 period in Cyprus and is believed to coincide with the reign of Amenhotep III in Egypt.

However, in all this we must remember that a context should be dated by what appears to be the latest artefact. The WS I spouted bowl was considered by PEARLMAN (1985, 175), to be quite rare in stratified contexts, with examples cited from Ayia Irini, Kazaphani, Enkomi and Livadhia *Kokotes*. Pearlman's evidence for the WS I spouted bowl from Kalavassos *Mavrovouni* fits in with the *Toumba tou Skourou* sequence. More generally, it helps us define the chronology of contexts with this type of vessel with its 'Framed Lozenge' rim motif as at ^eEzbet Helmi.

Finally, a few rim sherds are known from Palaepaphos *Teratsoudhia*, and we should also note the presence of 'Ladder Band Framed Lozenge with Framed Metope below' ('LFLMet'), as well as the WS I 'FL' (see Table 9 – WS I 'FLMet'). This tomb group spans LC IA:2–LC IIA(–B?).

The above suggests that the appearance of WS I 'FL' style of the kind found at ^eEzbet Helmi, is likely to be one of the later occurrences of WS I wares, that is in the LC IB period (except for Kalavassos *Mavrovouni* Tomb 51). It is also of significance here

¹³⁴ Also an example from Laxia tou Riou – Cyprus Museum A 1312. In the British Museum in the Cypriot collection there are two vessels which have some similarity with the ^eEzbet Helmi spouted bowl: C 227 (BM 97 4–1 1256 88) WS I 'FL' spouted bowl; and C 250 WS I 'FLM' tankard.

¹³⁵ See also a WS I 'LFL' spouted bowl from a tomb near Limassol, (KARAGEORGHIS 1977, fig. 25).

that outside of Cyprus we have an almost identical WS I bowl at Tell el-^cAjjul in Canaan (Fig. 22, and see next sub-section).

It should be noted, however, that there are at least two sites in Cyprus where parallels for the ^cEzbet Helmi spouted bowl are very rare. Thus at *Stephania*, we find 38 published WS vessels, yet only four of them have lozenge chains, and of these, only one is WS I (see HENNESSY 1963). Similarly at Ayia Irini, there were 68 WS vessels, of which only seven had the lozenge chain. Furthermore, only the rim design on two of these seven bowls may be compared with the ^cEzbet Helmi spouted bowl – these are from Tomb 3 (PECORELLA 1977, 40, figs. 98, 114:127) and Tomb 20 (*ibid.*, 117, figs. 287, 313:65).

Other examples of a similar rim motif are to be found further west along the south coast of Cyprus. From Palaepaphos *Asproyi* Tomb 9 we may mention a WS I (late?) ‘FWL’ spouted bowl (GORING 1988, 65, no. 62). The contents of this tomb are not published, but some of the finds were illustrated in an exhibition catalogue (*ibid.*, 65, 66, 69, nos. 61, 64, 65, 72). These are a WLW-m spindle bottle, a WS I bowl, and two BR I jugs. If these vessels are all associated, then we must regard with interest the presence of the WL spindle bottle as they are quite rare. The fact that there are fragments of one of these bottles at ^cEzbet Helmi (HEIN 1998, fig. 1:7864 J & 7946 G) in the stratum above the WS I ‘FLMet’ spouted bowl, links both these strata at that site to the LC IB period. The date of the level with the WS I ‘FLMet’ spouted bowl is now dated to the reign of Thutmose III (BIETAK 2003, 24, fig. I; ASTON *fc*).

In conclusion here, we have referred to five areas in Cyprus which do have parallels to the ^cEzbet Helmi spouted bowl. None of them are without problems; however, it can be concluded that the ^cEzbet Helmi bowl itself probably originated from the northwest or southern coast area of Cyprus. Our evidence suggests that its context is best dated to the mid-18th Dynasty (towards the end of the reign of Thutmose III). This is a good example where a specific type of White Slip ware can be used to identify a specific historical period – in this case the LC IB/Thutmose III correlation between Cyprus and Egypt.

We should also note here that there is other supporting evidence, from Ayia Irini and *Toumba tou Skourou* Tomb 1 Chambers 1 and 3, for a LC IB/Thutmose III synchronism, especially the Egyptian bronze rotating razor (VERMEULE and WOLSKY 1990, 222, T.I:56, pl. 107; ERIKSSON 2001d, 188, fig. 1a). We shall discuss this extensively in Chapter VI.5, as this type of razor has identical

examples in Canaan and Egypt, many from the latter area which can be dated securely to the reign of Thutmose III. These implements, although they were rare, were often found associated with RLW-m spindle bottles (see ERIKSSON 1992, 170ff; 1993, 83, 84, 91; 2001d) – the latter have also been associated primarily with the time of Thutmose III. The evidence for the LC IB/Thutmose III connection thus continues to accumulate.

6. WS I AND THE AEGEAN CIVILIZATION

Examples of WS I and other Late Cypriot wares are found throughout the Aegean; they testify to the close links which existed between the Minoans and Cyprus during the LC IA:2 period and later. We shall refer at this point to only two cases – because both raise broader questions than merely the direct links between Cyprus and the Minoan civilisation.

(a) WS I ‘Rope Lattice’ from the pre-eruption occupation of (Akrotiri) Thera

We have already referred to the controversies and the huge amount of literature that has been created in relation to the WS I ‘Rope Lattice’ bowl found in one of the areas around Akrotiri, Thera. From the time of its publication by H. MAMET and H. GORCEIX in 1870, it has been used to link pre-eruption Thera with Cyprus and thus as a tool to date the eruption in terms of the Cypriot cultural development, (for a detailed bibliography of this bowl, see BUCHHOLZ 1987, 164, n. 16; MERRILLEES 2001). We can safely accept that the WS I bowl came from the Minoan settlement at Thera that was covered by lava and pumice, following one of the most terrifying volcanic eruptions in history. Since its discovery, the WS I bowl has always been associated with the pre-eruption settlement of the site. From the early 20th century, Gjerstad believed that the bowl provided an invaluable link between LC Cyprus and the Aegean. He claimed that the ceramics found together “...with the White Slip bowl seem to belong to the end of the Middle and the beginning of the Late Cycladic period...” (GJERSTAD 1926, 324).

At Thera extensive archaeological debate has established that there is no material later than mature LM IA from the settlement. This has led most archaeologists to the general conclusion that there must be a link between LM IA and the periods of WS I use on Cyprus, that is, LC IA:2 and LC IB. However, as we shall see later, there are some archaeologists, such as MANNING (1999), who challenge this conclusion. They wish to date the bowl much earlier, to the time normally ascribed to the LC IA:1 period, or even earlier.

In examining the issues here, we should begin with an uncontroversial observation already referred to: there are parallels to the general decorative motifs and layout on the bowl from Thera with bowls found at *Toumba tou Skourou*. These are bowls found in Tomb I Chamber 1, Tomb I Chamber 2, Tomb IV, Tomb II Chamber 1 and Tomb VI (see Table 8 – WS I ‘RL’, ‘RLFL’, ‘RLCB’). However, it should be emphasized that, in at least one of these tombs (Tomb I Chamber 2), we find WS I ‘Framed Lozenge’ style bowls similar to the WS I spouted bowl from ‘Ezbet Helmi (see Table 8 – ‘FL’). This latter evidence tends to support the chronological conclusion that the WS I of the ‘Rope Lattice’ Group may also be better associated with LC IA:2 in Cyprus. We will discuss the implications of the Thera bowl in the remaining parts of this Chapter.

(b) The WS I ‘Ladder Band Framed Lozenge’ sherds found in Phylakopi, Melos

This discovery not only links Cyprus to the Aegean, but is also important in the chronology of Tell el-^cAjjul (see next subsection). These sherds from Phylakopi are illustrated by POPHAM (1972a, 457, fig. 58), and fall within his ‘frieze motif ii’ group. The issue was discussed by me in 2001 thus (see ERIKSSON 2001a, 61):

Six sherds of WS I [‘LFL’] were recovered from excavations in Area J2 (CADOGAN 1972, 6 with refs) at Phylakopi on Melos. They may all belong to one bowl, which is described as having a fine white paste. The rim design, which employs the ‘Ladder [Band] Framed Lozenge’, is quite rare (POPHAM 1972a, fig. 58). Parallels for the rim motif come from Palaepaphos-*Teratsoudhia* Tomb 105 Chamber B [Table 9, ii, viii] and from the well [Table 9, i–ii], from *Toumba tou Skourou* Tomb I [Chamber 1 and Tomb IV (Table 8)] and Enkomi [Fig. 30a].

A further connection between Palaepaphos and the Phylakopi material is noted by Karageorghis (1990, 57, n. 28), who remarked on the similarity between the fine (almost eggshell) quality of the WS I sherds from Phylakopi, with sherds [of undecorated WS I] from Palaepaphos Tomb 104, Area F, Nos F.15 and F.16 (*ibid.*, 28, nos. 15, 16, pls. XVI, XLV [Table 9]).¹³⁶ He poses the question: could the WS I at Phylakopi have been exported from Palaepaphos? His proposal finds very good support by way

of the ‘Ladder [Band] Framed Lozenge’ motif which is well represented at Palaepaphos. We may note that this rim motif is relatively common among the published material from Tell el-Ajjul, so we have a definitive link between Palaepaphos, Phylakopi in the Aegean and Tell el-Ajjul in Canaan/Palestine at a very precise point in the development of WS ware.

We can now add to the corpus of this rather rare style an example from Tell el-Dab^a (BIETAK and HEIN 2001, 192, fig. 12:8476 H (not 8478). Another example is from Stratum V of the Ayia Irini tomb (Table 10). This last, combined with the other evidence, suggests that this style had its floruit during LC IA:2. Finally, the identification of the south coast of Cyprus as the source for this particular style of White Slip, is further supported by the discovery of an intact WS I bichrome spouted bowl with the ‘Ladder Band Framed Lozenge’ rim motif from a tomb found in the centre of Limassol (CHRISTOU 1992, fig. 28). The historical implications of this are significant, especially given the recent evidence for identifying the place of origin of the Alashiya letters at Amarna from somewhere on the south coast, between Limassol and Paphos (GOREN *et al.*, 2003). We shall take this matter up in Chapter VII.2, where an attempt is made to provide an account of the links between the Aegean, Egypt, Canaan and Cyprus during the early part of the Bronze Age.

7. STRATIFIED WHITE SLIP FROM TELL EL-DAB^a AND TELL EL-^cAJJUL: IDENTIFICATION OF A PROBLEM

The stratified evidence for the PWS/WS I period in Cyprus has been supplemented with material from outside of the island – most notably, Tell el-^cAjjul in Canaan, and Tell el-Dab^a in the Nile Delta. The evidence from these two sites in particular has been used to support a variety of theses on the first appearance and development of the White Slip series.

Tell el-^cAjjul was excavated and published by Sir Flinders Petrie. Anyone who has used the Ancient Gaza volumes (PETRIE 1931–4, 1952), can only be amazed at the wealth of this site during the MB/LB period. However, they must also notice the small number of supervisors compared to the large excavation force that worked on the site, and then consider that there are virtually no published site sections. Petrie undoubtedly contributed to the early develop-

¹³⁶ POPHAM 1963, 92 notes that the WS I sherd from Knossos (which has design motifs comparable to the WS I ‘RL’ bowl from Thera), also has a high quality white clay fabric

like the Phylakopi WS I. See also MANNING, CREWE and SEWELL 2006, 482, fig. 7.

ment of the discipline of archaeology, but we must remember that when he came to Tell el-^cAjjul, he had never excavated a tell site and we really need to be cautious about how we use the evidence.

As we noted earlier in this chapter, C. BERGOFFEN (1989) has done a great deal to unveil the wealth of Cypriot pottery from the earlier excavations at the site. The corpus of Late Cypriot I ceramics, which includes around 200 WS I sherds, is unrivalled elsewhere in Canaan. BERGOFFEN (2002, 25) makes the following assessment of this situation:

[Cypriot wares] turn up at other Canaanite sites besides Tell el-Ajjul but in much smaller quantities and often post LB I contexts, as survivals. The lack of assemblages comparable to Ajjul's may be attributed to the fact that many towns were destroyed at the end of the Middle Bronze Age or early in the Late Bronze Age and had a gap in occupation in LB IA when LC IA wares such as PWS and WS I were in fashion.

We can now add to this 67 WS I sherds from Fischer's recent excavations at the site (FISCHER and SADEQ 2001, 138, table 1). Overall the Joint Swedish-Palestinian expedition recorded at least 830 Cypriot sherds 'which dominated amongst the imported finds', from a limited excavation area (see *ibid.*, 138, table 1; *id.*, 1999, fig. 8; FISCHER 2003, table 1).¹³⁷ FISCHER (2003, 265) says of these finds:

Imports from Cyprus dominate (a total of 830 sherds/vessels in H8 to H1/Coll) ... Cypriote imports are Base-ring I and II, Bichrome Wheel-made, Red and Black Slip, Monochrome, Red Lustrous Wheel-made, Red-on-Black/Red-on-Red, White painted V/VI, White Shaved, and White Slip I and II. There are also 22 sherds of Black Lustrous Wheel-made Ware ...

In Stratum H 5 there are 23 WS I sherds and this level is dated by the excavators to LC IA:2/B equivalent with the late SIP/early 18th Dynasty horizon (*ibid.*, table 1). Two of these have been illustrated and can be identified as WS I 'RL' bichrome and WS I 'LBD' bichrome (*ibid.*, fig. 4:1-2 respectively). Of great interest in this stratum is the quantity of pumice that has been identified as coming from Thera (*ibid.*, 265-271). Fischer was in charge of a project to examine the pumice at Tell el-^cAjjul, using neutron activation analysis. He concluded "it can be proved that the main volcanic source of the Tell el-^cAjjul pumice is Thera by studying the element distribution patterns displaying the elements concentra-

tion normalised to the mean Minoan pumice" (see *ibid.*, 267, figs. 1-3).

From these observations FISCHER (*ibid.*, 270) concluded categorically that "the Thera volcano erupted before H5." This Level H5, is categorised as "Late Cypriote IA2/B/early 18th Dynasty" (*ibid.*, 281) and was also the time when WS I is most distinctive at Tell el-^cAjjul. This claim, if valid, would contradict our thesis as to the relative dating of the Thera eruption in the early New Kingdom, as will be argued later in this chapter. At the latest, Fischer would place the eruption at the transition from late SIP into the early 18th Dynasty.

There are at least two serious problems with Fischer's views: Firstly he relies on a highly problematic synchronism between Egypt and Cyprus. Thus in a further recent report, the data for Level H5 referred to above was subdivided by Fischer (FISCHER and SADEQ 2001, 125) into Level H5A and Level H5B. Although he does not give a specific definition of these Levels, FISCHER (*ibid.*, 139, table 2) does give us a preliminary date: MB/LB-Transitional equated with LC IA:2/LC IB; and with Egypt SIP Late/Early 18th Dynasty. Yet, it appears that the Egyptian dating for the Cypriot periods must be wrong. FISCHER (*ibid.*, 129, fig. 19:9-10) has relied on two Egyptian jars found in Level 5 which Hein (pers. comm.) has determined are no earlier than Hatshepsut/Thutmose III. (Notice that her observations tie up with our historical account of events, see Chapter VII.3). In the subsequent Levels 4 and 3, there are 32 WS I sherds recorded, including WS I 'FL' (FISCHER and SADEQ 2001, fig. 4: 4-5). The excavators assign this to the second part of the 18th Dynasty which they equate with LC IB (FISCHER 2003, 270). WS II sherds are also present (FISCHER and SADEQ 2001, 138, table 1).

Secondly, FISCHER (2003, 270) himself points out that: "It is, however, astonishing, if the Thera eruption has occurred in either period which is represented by H6 down to H8 [chronologically earlier phases], that the Thera pumice - either traded or accumulated along the shorelines - has not yet been found below H5."

As we have seen, Tell el-^cAjjul was destroyed at the end of the MB period. This destruction of both City III and Palace I has been attributed to Ahmose. However, some scholars have considered them to be separate events with Palace I outlasting City III. On this view, both are still destroyed, but prior to Ahmose's northward push into Canaan which

¹³⁷ The Table does not include BLW-m ware nor any Plain wares.

occurred after the fall of Avaris (see BERGOFFEN 2002, 25–6 for details and references). In any event, either view of the destruction dating is problematic for the WS I sherds assigned to either City III or Palace I. Their presence went contrary to the belief that this fabric did not appear in Canaan or elsewhere until the LB IA/New Kingdom horizon.

This issue has been discussed earlier. As we have seen, Bergoffen has consistently expressed the view that a chronological analysis of the pottery would see part of the WS I assemblage of Palace I dated to MB IIC, due to her acceptance of Petrie's stratification of the site, and assignment of 40 or so WS I specimens to either Palace I or City III prior to their destruction (BERGOFFEN 2002, 25, 27). Here, we are going to go part of the way with Bergoffen: we accept their assignment to these contexts, rather than considering them all to be intrusive. This is not an improbable scenario for some of the sherds, although it may be an unlikely explanation for 40 samples. Where we differ from Bergoffen is that we wish to apply the historical explanation (as outlined earlier in this Chapter) to the differences between the LC I ceramic assemblages of Tell el-^cAjjul, as opposed to Tell el-Dab^{ca}. This thesis maintains that PWS arrived at Tell el-Dab^{ca} prior to Ahmose's siege of the site.¹³⁸ However, at a given moment, Egypt was cut off from Cypriot imports during the siege. As a result, the site of Tell el-^cAjjul increased its already significant trade with Cyprus (including the receipt of the first WS I ware). This occurred only a few years prior to its own destruction, presumed here to be the end result of Ahmose's siege of Sharuhen (identified with Tell el-^cAjjul after Kempinski).

The style of WS I at the site is distinctive as the 'Rope Lattice' Group is the dominant style, an observation that Bergoffen has detailed in her many studies of the Tell el-^cAjjul assemblage. As discussed this style draws on motifs that characterized PWS, yet it also has links with the 'Ladder Band' and 'Double Line Framed' styles of WS I. The latter group is characterised in the main by 'FWL' rims. As we have seen, the WS I 'RL' style found in Palace I and City III is abundantly represented in

the tombs at *Toumba tou Skourou* and Palaepaphos *Teratsoudhia*. It is otherwise very sparsely represented across the island.

Interestingly BERGOFFEN (2002, 26–7) refers to STEWART'S (1974) analysis of Tell el-^cAjjul and his own understanding of an early phase in the WS I series to support her case:

But Stewart, who accepted Petrie's data, recognised that an early phase of the Late Cypriot ceramic repertoire defined at Stephanía and which included a bichrome or red-painted WS I style was present at Ajjul and could be correlated with palace I while the "normal White Slip I style" phase succeeding it should be contemporary with palace II. In this article, it is argued that the singularly early appearance of WS I at Ajjul proceeds from its typological distribution, that is, the assemblage includes numerous sherds executed in early WS I style that to date has hardly ever been found outside of Cyprus.

However, the WS I that Stewart was referring to as found in the *Stephanía* tombs is different to that which Bergoffen illustrates as indicative of the WS I assemblage of Palace I and City III – that is WS I 'Rope Lattice'.¹³⁹ We have seen that this latter style, while typical of *Toumba tou Skourou*, was not found at *Stephanía*. In fact, the early bichrome style that Stewart was referring to at *Stephanía* are generally the 'FWL' bichrome bowls,¹⁴⁰ and the bowl with 'FL' rim motif.¹⁴¹ Thus, it is quite different to the 'RL' style that Bergoffen is referring to, that is the same style as that found in the pre-eruption context at Akrotiri on Thera. Bergoffen's evidence suggests that it is this style of WS I that is found in MB IIC contexts at Tell el-^cAjjul. Naturally, the assignment of this WS I 'RL' style to MB IIC contexts has been welcomed by MANNING (1999, 156–7) because he believes it lends weight to his argument for a very early date of the Thera eruption. He contends that the Thera bowl has its best parallels in the northwest of Cyprus and at Tell el-^cAjjul, and that it is relatively dated equivalent with the MB IIC period, and with the late LM IA, when the eruption occurred. This argument will be subjected to considerable scrutiny in Sections III.8 to III.11 of this Chapter.

¹³⁸ We should note here that according to BERGOFFEN (2002, 26, n. 17) "there are no extant PWS sherds that may be assigned to palace I, only WS I".

¹³⁹ BERGOFFEN 2002, fig. 1 – "from debris of city IIA"; fig. 2 – "possibly associated with Palace I".

¹⁴⁰ See HENNESSY 1963, pls. 25:8, 27:21, 23, 24, 28:45 (Tomb 4A); 18, 32:5, 33: 15, 16, 23 (Tomb 5); 51:12 (Tomb 12); 59:28, 60:47, 61:60, 61 (Tomb 14A).

¹⁴¹ See *ibid.*, pls. 37:5 (Tomb 7).

The issues can be further illuminated, if we consider what was happening in Egypt at this time, especially the evidence of the more recent excavations at Tell el-Dab^{ca}. An Austrian team has meticulously excavated this site over a long period under the authority of Manfred Bietak and his field director Josef Dorner. In terms of scientific precision, the evidence of the stratigraphy of Tell el-Dab^{ca} is far superior to that available to us from Tell el-^cAjjul.¹⁴² As MAGUIRE (1992, 119) has emphasized, Tell el-Dab^{ca} “affords a well stratified, well sampled and dated sequence of Cypriot imports.” Besides the pottery discovered at this site, there is also the evidence provided by the wall paintings, which clearly define a link between Thera and Tell el-Dab^{ca} at this time. As BIETAK (1997, 117, 124) says:

The paintings from Tell el-Dab^{ca} are especially valuable, because they date to a period (Late Minoan IA) from which only very few frescoes are preserved at Knossos. Close iconographic similarities can be found, however, with the paintings in Thera, which also date from the LMIA period. The detailed rendering of the plumes of griffins are practically identical in style and color at Thera and Tell el-Dab^{ca}. Further, the representation of youths with partly shaven heads, blue-painted scalp, and locks of hair is found only at these two sites. The close similarities are most likely due to their near-contemporaneity in chronological terms, which has been corroborated by the repetitive presence of Late Cypriot White Slip I-ware in the early Eighteenth Dynasty stratum at Tell el-Dab^{ca} as well as in the old French excavations at Thera. ... Yet nowhere except at Tell el-Dab^{ca} and Knossos do we find bull-leaping, maze patterns, and the half-rosette frieze. What kind of deal was forged between the early Eighteenth Dynasty and the court of Knossos?

Hence, whilst it is not perfect, the site of Tell el-Dab^{ca} is the more useful in attempting to work out the relative chronology of the WS sequence. Firstly, we have a PWS bowl found in a grave which was stratigraphically assigned to the final Hyksos settlement at the site (see Chapter II.5). Almost immediately, this find was incorporated into the argument about the date of PWS and consequently about the beginning of the

LC IA:I period by MERRILLEES (1977). We then have the issue of the first appearance of WS I at the site. MANNING (1999, 34–5) has expressed some annoyance that Bietak had initially assigned WS I to the final Hyksos occupation at the site and then later retracted the statement without, in his view, sufficient clarification. In any event, the latest determination on WS I at Tell el-Dab^{ca} is that it is found in the New Kingdom area of ^cEzbet Helmi and dated to the early (-mid) 18th Dynasty (see BIETAK and HEIN 2001). Because the style of one particular WS I spouted vessel from ^cEzbet Helmi was seen to be a later type than the WS I ‘RL’ style of the majority of WS I at Tell el-^cAjjul, Bergoffen does not consider that this evidence disturbs her analysis of the Tell el-^cAjjul WS I. However, Manning seeks to extend the argument to conclude that there is a substantial chronological precedence of WS I ‘Rope Lattice’ Group over the so-called ‘mature’ WS I styles found at ^cEzbet Helmi. The conclusion that there is such a large gap does not follow at all. All it shows *at best*, is that the WS I ‘RL’ bowl from Thera was produced a few years before the so-called ‘mature’ WS I.

The problem with the debate to this point, however, was that it focused on one (relatively late) WS I bowl at ^cEzbet Helmi of the so-called WS I ‘Framed lozenge with metope below’ style. However, there were other WS I styles recorded from Tell el-Dab^{ca}/^cEzbet Helmi. In fact, when we do get WS I at Tell el-Dab^{ca}, if it can be dated, it is not dated earlier than the New Kingdom. It includes various styles: WS I rim motifs of ‘LFL’,¹⁴³ ‘FLMet’ (Fig. 21), and ‘FL’;¹⁴⁴ (we should note the absence of WS I ‘FWL’). The key point, however, is that we also find some sherds with ‘Rope Lattice’ designs such as ‘RLFL’.¹⁴⁵ This array is typical of *Toumba tou Skourou* and Palaepaphos *Teratsoudhia* in Cyprus (see Sections III.2 and III.3).

When we take into account the full range of WS I finds at Tell el-Dab^{ca}/^cEzbet Helmi, then there are significant similarities with Tell el-^cAjjul. Although the assemblage at Tell el-^cAjjul is primarily of the WS I ‘RL’ Group, the fact is that we also have a similar WS I style at Tell el-Dab^{ca}/^cEzbet Helmi in early New Kingdom contexts. It seems, therefore, that the asserted dramatic difference in WS I styles, which was an argument for Manning’s hypothesis of a large

¹⁴² See OREN’s (2001, 135) comments about the difficulties of using the Ajjul material. As a student of Prof. J.B. Hennessy at the University of Sydney, who in turn was taught by J.R.B. Stewart, I was fortunate to hear recollections of Stewart’s reminiscences of his campaign of work with W.M.F. Petrie at Tell el-^cAjjul. Suffice to say they

were of a nature which cautioned one against relying excessively on the stratigraphy of the site.

¹⁴³ BIETAK and HEIN 2001, figs. 3:7944 U, 8476 H, 12:7944 U, 8476 H (not 8478).

¹⁴⁴ *Ibid.*, figs. 11:6462 E.

¹⁴⁵ *Ibid.*, figs. 3: 8441 R, 8205 M; 12: 8441 R, 8205 M.

chronological gap, is not factually based. Certainly the quantities of WS I found at each vary greatly, but look at the number of WS I that were recorded in the stratigraphy of Enkomi (Tables 5–6). Tell el-^cAjjul is just different.

This view is further reinforced by the following development: the WS I 'Framed Lozenge with metope below' (FLMet) style from Stratum c at ^cEz-bet Helmi, on which much of the argument has been based, has now been dated to no earlier than the later part of the reign of Thutmosis III (BIETAK 2003, 24, fig. 1; ASTON *fc*). If this is correct, then even if there is a gap between the WS I 'RL' at Tell el-^cAjjul and the WS I 'FLMet' 'metope' style at Tell el-Dab^ca/^cEz-bet Helmi, it is a gap within the two phases of the New Kingdom period. It is thus not the gap from the SIP to the start of the New Kingdom which Manning requires for his argument.

8. CRITIQUE OF MANNING'S 'INTRA-ISLAND BARRIER' THESIS

However, MANNING, in his 1999 book, does not just rely on the difference in styles for his argument. Rather he develops an additional thesis to bolster his case for a very early date to be assigned to the WS I 'RL' bowl from Thera. He claims that there were very substantial 'intra-island barriers' on Cyprus in LC IA that have disappeared by LC IB. We have already discussed the general 'intra-island barrier' thesis in Chapter I.5. Manning wishes to develop a version of this thesis by claiming that the Cypriot ceramic assemblage of the late SIP/end MB IIC period found at Tell el-^cAjjul arrived from the northwest area of Cyprus, whereas the Cypriot ceramics at Tell el-Dab^ca were primarily arriving from the east of Cyprus.¹⁴⁶ A barrier was preventing the flow of goods from the northwest to the east of the island itself.

More specifically, Manning's argument proposes that Tell el-^cAjjul traded principally with the northwest while Tell el-Dab^ca traded principally with the east and southeast of the island at that time. He (MANNING, SEWELL and HERSCHER 2002, 101) then defines an early style of WS I which was produced exclusively in the northwest:

Because of the changes in the elaborate painted decoration, it is possible to isolate some WS I that appears to belong to an initial period of WS I pro-

duction – what may be termed *early-style* WS I – and so the beginning of the classic expression of the LC I period.

This is the WS I 'RL' Group which he sees as exemplified by the evidence at *Toumba tou Skourou* (see section I.2 above). He then goes on to make a very controversial point: he claims that this 'early-style WS I' could be exported from the northwest of Cyprus to reach Thera and Tell el-^cAjjul up to 40 years before any WS I wares were able to arrive at Enkomi in the eastern part of Cyprus itself (BIETAK 1998; 2003, 25, using the premises of Manning, calculates a 100 year gap). This, he alleges, is because of 'intra-island barriers' which prevented the movement of goods from one side of the island to the other for all of that time. Indeed, by the time this barrier is no longer present, new 'mature' styles of WS I like 'FWL' are said to predominate. At that point, it is argued, that these new styles are exported to both Egypt and Canaan from Enkomi at the beginning of LC IB.¹⁴⁷

As we indicated in the Introduction, it is true that WS I 'RL' Group style (as found at Thera) is rare at Enkomi. However, does this event establish that barriers to intra-island trade existed during LC IA:1–2? There is no evidence for the view that the arrival of this style in the east at Enkomi and Hala Sultan Tekke was 40–100 years later than its appearance at *Toumba tou Skourou* or at Thera. We should also note the presence of WS I 'RLFL' at Ras Shamra (YON 2001, 119, fig. 1). In contrast to this, MANNING (1999, 323) specifically maintains:

With one or two rare exceptions, Egypt only received the new LC styles of WS I and BR I once these styles had been adopted in eastern Cyprus in LCIB. This is the early eighteenth Dynasty in Egyptian terms. Meanwhile the 'LC' styles had developed the northwestern Cyprus rather earlier, in LCIA, and had been potentially available for export throughout this period. They are an already mature style when adopted in eastern Cyprus in LCIB. As it happens, eastern Cyprus seems to have dominated exports to Egypt in LCIA, and LCIA northwestern Cypriot products are thus found only in the Levant, and at present, more or less, only at Tell el-Ajjul from current data.

There are many observations that can be raised here: some have already been proposed in our gener-

¹⁴⁶ For Tell el-^cAjjul see BERGOFFEN (2001a, 151, 153, fig. 6).

¹⁴⁷ It is interesting to note that WS I 'FWL' is very rare at Tell el-^cAjjul (BERGOFFEN 2001a, 151, 153, figs. 5, 6), and

not present at all at Tell el-Dab^ca. From Egypt there is only the bowl said to be from Saqqara (POPHAM 1972a, 457, fig. 59:1).

al discussion of the ‘intra-island barrier’ thesis in Chapter I.5. We present here some further arguments against Manning’s thesis. Firstly, let us assume that the intra-island conflicts at the close of the Middle Cypriot period extended into LC IA:1, and these may have created some barriers. Why should we suppose that such barriers restricted the movement of goods at the time of the first appearance of WS I in the dramatic way that Manning has suggested, and for such a long period? Secondly, what is the conclusive evidence that all the WS ceramics were manufactured in the northwest? As KNAPP and CHERRY (1995, 57) state, it is “possible to distinguish several groups of WS ware. It is, therefore, *prima facie* unlikely that White Slip wares were produced in any single center.”¹⁴⁸ Thirdly, Manning assumes the WS I ‘RL’ style occurs significantly before other WS I styles. However, there is strong evidence that other styles of WS I were appearing in Cyprus within a few years, at the most, of the WS I ‘RL’ Group.

Fourthly, even if we concede that WS I ‘RL’ was produced in only one part of the island (the northwest), it does not follow that the ware could not be distributed in the rest of the island. This implies a confusion between the question of production and that of distribution – as discussed in Chapter I.5. Finally, the most serious question is: does the ‘intra-island barrier’ thesis in fact explain the perceived type differences in the Late Cypriot ceramic assemblages that we get at Tell el-Dab^{ca} when compared with that from Tell el-^cAjjul?

Let us consider the issue further. The picture begins with the fact that we have PWS at both Tell el-Dab^{ca} and Tell el-^cAjjul, and that we can assume that a general chronological relativism must exist between the discoveries of PWS at both sites. We can also safely presume that this PWS is an earlier style and arose before any form of WS I of the ‘Rope Lattice’ Group, and indeed any of the other WS I stylistic groups (Fig. 12). We then have the following observation: there seems to be a gap in the flow of Cypriot ceramics to Tell el-Dab^{ca}, between the end of the occupation of the SIP and beginning of the occupation of the New Kingdom in the area of ^cEzbet Helmi. Such a clear break in the Cypriot assemblage at Tell el-Dab^{ca} has also been strongly argued for by MAGUIRE (1995, 54). The siege of Tell el-Dab^{ca}

covers a period from the very last years of the SIP into the very early years of the New Kingdom; we maintain that this is the period of the gap. It is also at this time that we would date many of the contexts of the *Toumba tou Skourou* WS I ‘RL’ style found at Tell el-^cAjjul.

In contrast to Manning’s ‘intra-island barrier’ thesis, a more likely scenario is the one we have presented earlier in this Chapter (section III.1). There we proposed that, whilst Tell el-Dab^{ca} was under siege by Khamose and Ahmose, it was cut off from the Cypriot trade and that during this hiatus, Tell el-^cAjjul (which probably also became a haven for fleeing Avarisites) took over more of the relations with Cyprus. We could assume that there was the very urgent need for copper, especially as it seems likely that the access to some of the traditional sources in the Sinai was cut off (posing quite a problem if one needs to manufacture tools and weapons). Therefore the distinctions between the Tell el-^cAjjul and Tell el-Dab^{ca} Late Cypriot ceramic assemblages can be seen more a result of the historical situation facing Cypriot exporters, rather than due to ‘intra-island barriers’. The large quantity of *Toumba tou Skourou* style (WS I ‘RL’) in Palace I and City III at Tell el-^cAjjul could thus be explained in this way.

We conclude that at the time of this break – which we equate with the siege of Avaris by Khamose and Ahmose – WS I ‘Rope Lattice’ Group went to Tell el-^cAjjul (about 38 examples known),¹⁴⁹ while hardly any (three sherds thus far recorded) went to Tell el-Dab^{ca}.¹⁵⁰ However, this situation dramatically changed again after the conquest of Sharuhen and is evidenced by the ‘rush’ of Cypriot goods in the early New Kingdom period as exemplified by the BR I, and later RLW-m, that flowed into Egypt as recorded at sites right down into Upper Egypt. Our thesis here is further supported by the stratification at Enkomi which suggests that we are not looking at an extensively long period, as we move through the development from PWS to ‘mature’ WS I (contrary to Manning’s claims).

In order to further evaluate the situation, we now consider a more detailed analysis of the ceramic events within Cyprus at this time. We begin with the evidence from Enkomi regarding White Painted wares (particularly the PLS and CLS styles) that are

¹⁴⁸ See also the characterisation by ALOUPI, PERDIKATIS and LEKKA, (2001) of at least two fabrics used for WS I.

¹⁴⁹ See BERGOFFEN 2001a, fig. 5 for the distribution of this rim motif at Tell el-^cAjjul.

¹⁵⁰ BIETAK and HEIN 2001, 8899E, 8205M, 8441 R.

found in Middle Bronze IIC contexts and late Second Intermediate Period contexts in Egypt. These wares are important to the details of Manning's 'intra-island barrier' thesis. When these wares occur in Egypt, he wishes to emphasize that they originated from Enkomi, as they are more an invention of this part of the island. On Manning's thesis, when similar MC III/LC IA:1 WP wares from the east of the island appear in the Levant and Egypt, they are together with PWS and with the later WS I 'RL' style as found at Tell el-^cAjjul. Yet Manning chooses to emphasize the northwest connections of this assemblage. Whilst the situation in regard to the White Painted wares is the same at Tell el-Dab^ca, the quantities of associated PWS and WS I 'RL' at this site are very few by comparison with Tell el-^cAjjul. This is the reason why he emphasizes the eastern Cypriot connection with Tell el-Dab^ca. Just one of the things this thesis ignores is the distribution in Egypt and the Levant of Cypriot RoB/RoR wares, which were manufactured in the Karpas area in the northeast of the island. This ware is recorded in far greater quantities at Tell el-^cAjjul than at Tell el-Dab^ca, according to OREN (2001, 140); but, in contrast to WS I 'RL', it comes from the opposite side of Cyprus. Manning's 'intra-island barrier' thesis does not deal with this point.

There are also other serious problems of coherence in the story. For example, Manning maintains that MC III styles of pottery like WP PLS and CLS at Avaris come from eastern Cyprus where this style originated. This may or may not be true, but it proves nothing about the events at the critical period, namely the juncture between LC IA:1 and LC IA:2. The point here is that these MC III wares are only useful to Manning's thesis if we find some overlap *in Cyprus* between them (that is, WP PLS and CLS) and the WS I 'RL' style. In fact, we do not find any such association. For example, when the MC III styles are found at Enkomi, there are no LC I wares present.¹⁵¹ Some may wish to challenge this point. For example, MANNING, SEWELL and HERSCHER (2002, 150) claim, in relation to Area III, Level I, that, "WS I, BR I, and WP III-IV PLS co-occur." An examination of the published finds shows that this is not the case. In the rooms with either WS I (Rooms 101, 103) and BR

I (Room 101), there is no White Painted pottery (see DIKAIOS 1969-71, 543-54 lists). White Painted is found in Level IA in Room 111, along with PWS; but WS I is not found in there until the end of Level IB (*ibid.*, pl. 53:4-6, 13, 15-6; and see Table 7). In terms of the White Slip in this area, we can observe the progression from developed Phase 2 PWS (Fig. 25a-d); to the typical rim motifs that characterize 'mature' WS I - 'FWL' (Fig. 25f, i, n); 'FDR' (Fig. 25j, p); 'PL' (Fig. 25o); and 'FL' (Fig. 25k, l, m).¹⁵² The latest style represented is the WS I 'FXH', probably dating to LC IB (Fig. 25q, and see section III.12 below). What we are missing in this area is WS I of the 'Rope Lattice' Group.

What of the situation in the northwest? It is also the case that when the White Painted III-IV CLS style occurs at *Toumba tou Skourou*, again no LC I wares are present.¹⁵³ As mentioned earlier, there are some cases when PWS occurs together with WP PLS, as in Pendayia Tomb 1 in Cyprus.¹⁵⁴ But for the White Painted material to be useful in establishing Manning's thesis, we would need an appearance of these MC III styles contemporary with WS I 'RL'. We do not have this phenomenon. This illustrates the folly of trying to push back the start of WS I 'RL', and trying to make it contemporary with WP PLS and CLS several decades before the end of the SIP era.

Furthermore, the geographical distribution within Cyprus of the MC III wares themselves creates a problem for the 'intra-island barrier' thesis. Manning argues that the intra-island barriers prevent styles from the north reaching Enkomi until sometime (decades?) after their appearance in the northwest. But if this is correct, then presumably the barriers also prevented the eastern wares from flowing to the northwest. How then do we explain the arrival of the WP CLS wares in *Toumba tou Skourou* and Pendayia? Surely it is absurd to suggest that the barrier applies to one group of wares and not to another? This is a very serious issue, especially given that MANNING wishes to make these MC III wares central to his argument.

In fact, the WP wares are very unhelpful to Manning's case because they provide evidence that the barrier did not exist in Cyprus. From a further analysis of the evidence at Tell el-Dab^ca, we see that one of

¹⁵¹ See LAGARCE and LAGARCE 1985, Tomb 240.

¹⁵² A discussion with Lindy Crewe in 2003 suggests that the room (Rm 111) which strongly supports the presence of PWS in Level IA is 'very confused and disturbed'.

¹⁵³ VERMEULE and WOLSKY 1990, 301, Tomb V Chamber 2.

¹⁵⁴ KARAGEORGHIS 1965, fig. 9:30, 126.



Fig. 25 PWS Phase 2 and WS I sherds from Area III Levels 1A – 1B (after DIKAIOS 1969–71) a) PWS Phase 2 (after *ibid.*, pl. 56:12 2933/20); b) PWS Phase 2 (after *ibid.*, pl. 56:13 2933/24); c) PWS Phase 2 (after *ibid.*, pl. 56:25 2933/21); d) PWS Phase 2 (after *ibid.*, pl. 56:18 4107/8); e) WS I (after *ibid.*, pl. 56:21 2303/4); f) WS I 'FWL' (after *ibid.*, pl. 56:26 3781/1); g) WS I (after *ibid.*, pl. 56:23 2313/1); h) WS I interior rim (after *ibid.*, pl. 56: 29 2358/1); i) WS I 'FWL' (after *ibid.*, pl. 56: 22 2336/23); j) WS I 'FDR' (after *ibid.*, pl. 56: 37 3532/1); k) WS I 'FL' (after *ibid.*, pl. 56: 28 2369/2); l) WS I 'FL' ('metope' style?) (after *ibid.*, pl. 56: 19 4079/2); m) WS I 'FL' (after *ibid.*, pl. 56: 34 1256/1); n) WS I 'FWL' (after *ibid.*, pl. 56: 30 2510/12); o) WS I 'PL' (after *ibid.*, pl. 56:33 2511/11); p) WS I 'FDR' (after *ibid.*, pl. 56: 31 2510/14); q) WS I 'FXH' dotted rim (after *ibid.*, pl. 56: 24 3813/17)

the key MC III wares found at Tell el-Dab^{ca} is White Painted V. If we look at the evidence in Cyprus for this ware, we see that it has been found in many different parts of the island. MAGUIRE (1991, 64, fig. 7.6) identifies 14 different sites in the north, centre and south of the island where we find White Painted V. How can this be explained if the 'intra-island barrier' thesis is true?

Finally, there is an important piece of counter-evidence in Cyprus: if one looks at the material from Area I Level I at Enkomi, one can note that in this area, we have together PWS, WS I 'FL' and WS I 'FLMet' (?) style (Table 6). This is evidence that these wares do actually come together within a much shorter chronological horizon, than Manning requires for his thesis (even if we regard the PWS as residual in this area). We have already emphasized these points in our earlier discussion of Enkomi. Manning needs to deal with these specific points, as well as the general arguments in Chapter I.5 concerning the central problems of the 'intra-island barrier' thesis.

Our analysis to this point has ramifications for the absolute dating of the Thera eruption itself. MANNING (1999) has been attempting to justify a very early Thera eruption date by reference to the difference in trade from the two sides of Cyprus. As we have seen, he uses this to suggest that WS I 'RL' developed decades earlier than the start of the New Kingdom. For the 'intra-island barrier' thesis to have valid application to these events, certain improbable 'facts' would need to be true as M. WIENER (2003) has pointed out in relation to Manning's thesis here:

How is it possible to explain the presence of a WS I bowl in Thera prior to 1650–43 B.C. on the Aegean Long Chronology, when pottery of this type does not appear in Egypt or the Near East, and cannot be shown to exist in Cyprus, until at least 120 years later? Sturt Manning contends that Proto WS and WS I were in use for a century in the west of Cyprus, from where one of the earliest examples of WS I was exported to Thera, before they arrived in any number in the Enkomi area of southeast Cyprus. The Manning argument notes that warfare may have divided Cyprus at this time, and contends that in any event, Egypt and sites in Canaan had no contact with sites in the west of Cyprus, but rather traded exclusively with the Enkomi area. Evidence from sites in Cyprus and abroad presented at the 1998 White Slip Ware Conference [KARAGEORGHIS (ed.), 2001], confirmed by the results of recent excava-

tions, make the hypotheses of major internal Cypriote barriers to trade and exchange of goods and stimuli, and of highly directional exchange abroad, difficult to accept. ... At Hala Sultan Tekke *Vyzakia* on the south coast of Cyprus, for example, PWS appears clearly stratified below WS I, separated by a layer of brick. Hala Sultan Tekke is about 80 kilometers from Enkomi, the principal site in southeast Cyprus, with no natural barriers or known fortifications separating the sites. It is difficult to understand how first Proto WS and then WS I could each arrive in succession at one or both sites with a delay of four to five generations.

WIENER (*ibid.*) also attacks much of the physical evidence provided by Manning in support of a date 120–130 years earlier. All this reinforces our view that, for Manning's thesis on the dating to be valid, PWS would need to start well before the 1628 BC date proposed for Thera. He would need some decades before the WS I 'RL' bowl could appear at Thera (unless we accept the virtually absurd proposition that the first appearance of PWS was the same as the first appearance of WS I 'RL'). This means that LC IA:1 would have to start no later than ca mid-17th century BC and probably earlier.

There is an additional problem: MANNING and BRONK RAMSEY (2003, 120) have maintained that "as we reach the end of the Late Minoan II period, that the radiocarbon derived age range is much closer to the conventional age range (c. 1390 BC for the close of LM II) determined from material cultural linkages." It follows that for them Late Cypriot IIA must start around 1400ish BC. If we accept this, then we are left with the dilemma of trying to stretch the LC I period over an extraordinary length of time (around 275 years) – which not even an argument for intra-island trade barriers nor regionalism explains effectively (see MANNING 1999, 150–87; *id.*, 2001; MANNING, SEWELL and HERSCHER 2002).

We shall return to this issue presently. For the moment, we can summarize our position on the 'intra-island barrier' thesis, thus:

1. There is no evidence of any intra-island barrier in relation to the MC III/LC IA:1 White Painted wares. The evidence of these wares in Egypt and Canaan does not support this thesis.
2. The Phase 2 PWS which is found at Tell el-^cAjjul and Tell el-Dab^{ca} towards the end of the SIP period may have come from the northwest of the island, such as *Toumba tou Skourou*. However PWS is also found at Enkomi at this time (although not

- in great quantities). This counts against the barrier thesis.
3. The WS I ‘RL’ style which appears at Tell el-^cAjjul and at Tell el-Dab^ca may have come from *Toumba tou Skourou* (or Palaepaphos *Teratsoudhia*), but there is no evidence of a barrier which prevented this type of bowl from being distributed to the east (and southwest) of the island. On the contrary, this style is found in the east; it occurs not only in the tombs at Enkomi and Milia (Tomb 1:26, T.10:98), but also in the stratified remains of Area I, Level I and Level IIA. This suggests that it follows on from PWS; but that it may also be contemporary or at least overlap with other styles of WS I.
 4. The more developed, WS I ‘FLMet’ found at Tell el-Dab^ca is also found at Enkomi in Area III; this suggests it also follows on from PWS and possibly overlaps with the other WS I styles, such as ‘FWL’ and ‘FDR’. There is no evidence of a very large time gap between its production and that of WS I ‘RL’ style.
 5. The problem which needs explanation is the relatively small gap at Tell el-Dab^ca between the time of the appearance of MC III and LC IA:1 wares like PWS and the later appearance of so-called ‘mature’ WS I (but note that there is also WS I ‘RL’ at this site). Manning seeks to explain the gap with the ‘intra-island barrier’ thesis, but this clearly does not succeed. As we have seen, it is not because the WS I ‘RL’ style could not reach Enkomi as a result of a barrier. We have seen that some of this style did reach Enkomi as well as nearby Milia and, for other reasons, the evidence is that there was no such barrier which prevented the movement of people and goods.
 6. We accept that there is a temporal gap, as far as the LC IA Cypriot ceramics are concerned, between the end Hyksos occupation and the context with the appearance of WS I at Tell el-Dab^ca/^cEzbet Helmi. We also accept that Tell el-^cAjjul becomes more prominent during this time and that this explains the larger quantity of WS I ‘Rope Lattice’ Group in Palace I at Tell el-^cAjjul. However, we reject Manning’s claim that this gap extended for several

decades. We have also presented what we consider to be a viable and plausible alternative explanation of the gap at Tell el-Dab^ca, which does not rely on the intra-island barrier thesis.

We turn now to consider Manning’s major arguments on the Thera eruption itself, and the role of the WS I said to have been found in a pre-eruption context.

9. WHITE SLIP, THE THERA ERUPTION AND MANNING’S ‘A TEST OF TIME’

Sturt Manning seeks to use developments in Cypriot archaeology and the associated finds in neighbouring Western Mediterranean societies to support his 1999 claim that the Thera eruption was around the time of 1628 BC.¹⁵⁵ It is not possible to give a comprehensive analysis of his work here – and especially since we do not wish to deal at length with absolute chronology in this book. However, there are three key arguments/observations which must be made – because of the persistence of Manning in drawing what we consider to be the wrong conclusions from the archaeological evidence regarding relative chronology.

In seeking to establish his view that the Thera eruption must have been at an early date within the second half of the 17th century BC, Manning sets out a new relative chronology for the Eastern Mediterranean, in particular Egypt and Cyprus. However, the actual archaeological analysis does not establish this bold thesis, as MANNING (1999, 44; 2004) himself concurs in one paragraph of his book, where he says (*my italics*):

This book seeks to remedy the situation. It ends proposing the “early” or “high” chronology as *perhaps* the most likely from all the evidence, and *on the balance of probabilities*. However, the issue is *not beyond reasonable doubt and an alternative compromise chronology is also possible*.

Manning’s ‘compromise early’ chronology relies on currently available low probability data from the radiocarbon evidence which chronologically is closer to the traditional low chronology analysis of the archaeological evidence. He (*ibid.*, 44; 2004) goes on to rule out the “low” chronology, which he associates with Manfred Bietak and is defined as “the range between 1515 and 1460 BC, according to the present Egyptian

¹⁵⁵ See MANNING 1999; 2004. This date was raised upwards to around 1645 BC, see HAMMER *et al.*, 2003 and WIENER 2003; but see now MANNING 2004, part 4. Tephra shards in the GRIP ice-core – NOT Theran; WIENER 2006, both with further references. However, what we are arguing here is

that any date in the 17th century BC, does not fit with a more traditional interpretation of the relative intercultural connections, unless all of that evidence can be moved in synchronism.

chronology." However, Manning clearly concedes that all his own archaeological evidence is consistent with what he (misleadingly) calls "the compromise early" chronology. This latter period is defined thus: "the mid-16th century BC (from a revised but conventional consideration of the archaeological evidence and because c. 1530 BC is about the latest date possible from the radiocarbon evidence)" (*ibid.*, 42). Surely, it would be a more fair and objective account to describe this period as the "middle chronology" between the "high" and the "low" descriptions, rather than with his biased term "the compromise early chronology."

However, the issue here is one which goes far beyond semantics. Manning is here stating that, *even* if we accept *all* his archaeological analysis (which I do not), it would still be a substantially valid conclusion for him to adopt the "middle" or so-called "early compromise" chronology – rather than his high chronology. So why does he not adopt this compromise path, which would at least bring him *closer to* the general body of archaeological opinion in relation to the chronology of this period? It cannot be the physical evidence itself because he concedes (see above quote) that the "early compromise" date would also be consistent with an interpretation of the radiocarbon evidence.

Manning is quick to dismiss the "low chronology" argument for Thera. But, in fact it is his high chronology thesis which ought to be dismissed. As we have noted, it is not necessary to adopt it because of his concession regarding his own analysis of the archaeological evidence. Furthermore, in adopting the high chronology approach, Manning ignores the dramatic consequences for relative chronology in Egypt, Cyprus and the Aegean of insisting on such a path.

The most significant consequence of adopting such a high chronology is the requirement to push the absolute dates for the whole Egyptian sequence much earlier than most archaeologists would be prepared to accept. Manning attempts to obscure this point - but a close analysis of his book shows that he would have to change accepted Egyptian chronology by a minimum of 50 years (Manfred Bietak believes the change would be 130 years). On Manning's analysis, the rise of Ahmose in Egypt would need to be put back to at least 1585 BC and this would still require that the Thera eruption occurred 43 years before the New Kingdom. (These dates were based on his 1628 BC date for the eruption).

Thus, if one looks at this figure (*ibid.*, 339, fig. 62), and if one were to start with a low Egyptian chronol-

ogy, one would then have to allow a period of almost 130 years (the figure quoted by Bietak) from the high date of the Thera eruption to the beginning of the New Kingdom in Egypt. In what way could one then fit in the findings at Tell el-^cAjjul, Tell el-Dab^ca and Cyprus into such a chronological mismatch?

Manning should not seek to obscure this fundamental point: if he wishes to insist on a high eruption date for Thera based on the WS I 'RL' bowl, then we will need to argue for a dramatic lift in the widely accepted chronology of Egypt. If he did so, however, his argument for a high 17th century BC date for the Thera eruption would be exposed as having little credibility. On the other hand, if he sought to retain the bulk of traditional Egyptian chronology, he runs into problems with both the physical evidence and the relative archaeology. WIENER (2003) sums up the problem thus:

Pumice from the Thera eruption has been found in quantity at Tell el Dab^ca in Egypt and in lesser amounts at Tell el-^cAjjul and at Tell Nami in Canaan in New Kingdom post-Ahmose contexts-after 1525 B.C. on the Egyptian Middle Chronology-and not earlier. The Thera pumice from Tell el-Hebwa also appears to be from a New Kingdom context. All pumice examined to date found in earlier contexts, on the other hand, comes from older eruptions of Hellenic Arc volcanoes at Kos, Nisyros and Yali in the Dodecanese. Large lumps of waterborne pumice such as those found at Tell el Dab^ca would have reached the Nile Delta within months of the eruption, raising the question whether it is likely that such pumice would have lain on the shore unused for about 150 years as required by a Thera eruption date between 1650 and 1643 B.C. The most recent study of the stratigraphy of the area of the pumice at Dab^ca notes the existence of two substantial strata of New Kingdom material with the palace containing the Minoan frescoes (see *infra*) in the second phase, followed by a stratum containing the pumice, to which Manfred Bietak, the Director of the Austrian excavation, assigns a date, based on scarabs and pottery found in the stratum with the pumice, not earlier than the reign of Thutmose I beginning in 1504 B/C. on the Egyptian Middle Chronology, and perhaps later.

This evidence from the pumice itself would require explanation by Manning, above and beyond the many archaeological arguments against his view. But what of the WS I 'RL' bowl from Thera itself?¹⁵⁶

¹⁵⁶ For the most recent and informative expose see MERRILLEES 2001a.

We have argued against the possibility that, if it originated from northwest Cyprus it could have reached Thera long before similar vessels reached the east of Cyprus at sites like Enkomi and Hala Sultan Tekke. MANNING (1999, 124ff., n. 577; MANNING *et al.*, 2002) draws heavily on MERRILLEES (1971) paper, as well as the work of other scholars, in which he outlines the evidence suggesting that hostilities may have existed between the populations of the east and the west of the island. However we can still not determine what effect these may have had on intra-island trade. The evidence of late MC III into the early LC I architecture and tombs do suggest that one could not pass easily along the intra island routes. The issue is, however, were the hostilities at such a point that goods did not pass for extended periods of time? It appears not. We would argue that items were widely dispersed and quickly from their point of origin and this would also have been facilitated by the sea routes around the coastline of the island.

The use by Manning of the relative archaeology in support of his main argument for a 1628 BC date for the eruption appears to be simply not sustainable. What then of his secondary and fallback position – the so-called “compromise early” or what I have called the “middle” position. Admittedly this is a more coherent position, which is more consistent with mainstream chronological thinking. However, for us to accept this position, we would have to accept certain key points in Manning’s archaeological analysis – in particular, the context of the WS I bowl within the Cycladic/Minoan civilization itself.

10. CRITIQUE OF MANNING’S CLAIMS ON WS I

MANNING (1999, 365) sums up his dramatic conclusions in relative chronology so:

The central conclusions of the present work are, therefore, the need to realign the LM IA period in the Aegean, and the LC IA period of Cyprus (comprising its distinct regional northwest and eastern/southeastern groupings) with the SIP period in Egypt, and the late MB IIC period in Syria-Palestine.

There are two specific elements of this argument: firstly, that the WS I ‘RL’ Group were produced in Cyprus, several decades before the end of the SIP period – at least 40 years prior to the beginning of the New Kingdom, and based on a higher chronology for the start of the New Kingdom that is ca. 1590. The WS I ‘RL’ bowl from Thera itself must have been produced significantly prior to the New Kingdom. Secondly, that the LM IA period was completed in the Aegean before the rise of Ahmose in Egypt and

certainly did not extend for any significant period into the New Kingdom.

Manning has not established ‘beyond reasonable doubt’ either of the above propositions. As already indicated, we have in this book accepted Bietak’s (BIETAK and HEIN 2001, 172) view that WS I probably first occurred in Cyprus around 20–30 years prior to the fall of Avaris; this first appearance may have been of WS I ‘RL’ (Manning’s ‘early style’ WS I) type. This is very close to the end of the Hyksos reign and just prior to the beginning of the New Kingdom. Manning’s date for WS I ‘RL’ Group is much earlier – but what is the evidence for this?

(a) The origin of the WS I bowl from Thera was not decades before the New Kingdom

Part of the problem is the confusion in Manning’s work between the two phases of the LC IA period, that is LC IA:1 and LC IA:2. While Manning recognizes this division in his text at certain points, he fails to differentiate between the two phases at other critical points. For example, in the quote cited above, MANNING (1999, 365) says that “the LC IA period of Cyprus” should be identified “with the SIP period in Egypt.” In fact, it is only the LC IA:1 which should be identified with the SIP in Egypt. Most of the LC IA:2 period, with the exception of the very beginning, should be identified with the New Kingdom Egypt, from about 10 years before the start of the New Kingdom to around the beginning of the reign of Thutmose III (see earlier this Chapter). MANNING is clearly aware of the distinction between these two periods (see MANNING 1999, 123), yet elsewhere he seeks to throw them together into the SIP period.

We have already presented many arguments against Manning’s view that the WS I ‘RL’ bowl at Thera first appeared many decades before the New Kingdom. Furthermore, as we have shown earlier in this chapter by quoting Bergoffen herself, the Tell el-‘Ajjul evidence of WS I ‘RL’ rim motif can be accounted for by adopting a first appearance of this ware shortly before the start of the New Kingdom. We have explained our view that the best account for their presence in the Palace I and City III is that trade between Tell el-‘Ajjul and Cyprus continued during the period of war in Egypt between the Hyksos and the Thebans (especially the struggle at Avaris).

If we accept this proposition, then the existence of the WS I ‘RL’ bowl at Thera before the time of the eruption would date it *at the earliest*, at the very beginning of the New Kingdom – with the rise of Ahmose and about 20–30 years before the fall of Avaris. How-

ever, we would argue that the date of the Thera eruption should be *later* than this time in history.

There are several reasons for this: Firstly, there is no reason to suppose that the bowl at Thera was one of the earliest of its type. Secondly, that WS I 'RL' style continued to be produced for a significant period: even concurrently with so-called 'mature' WS I. As indicated, there is a connection between the decorative motifs typical of PWS and then found on WS I 'RL' style with those that occur on WS II early, and which, in a debased form, typify WS II. Furthermore, there is no reason to suppose that the mature form of WS I (characterised by rim motifs such as 'FWL' etc) actually replaced the presumed earlier, 'Thera' style of decoration. Thirdly, irrespective of when the WS I 'RL' bowl from Thera was first produced, we do not know when it arrived at Thera and for how long it was there before it was buried in the volcanic debris of the eruption.

Thus the date of the origin of the bowl only gives us the *earliest possible* date for the eruption, not the actual date. To determine the latter, we need to discuss the second matter on which Manning relies – the dating of the LM IA wares.

(b) The dating of LM IA definitely extends into the 18th Dynasty

Turning now to Manning's second argument which claims that LM IA must have *concluded* by the time of the start of the New Kingdom, again this argument has many problems and has not been established conclusively. We accept that LM IA began sometime during the LC IA:1 period, before the New Kingdom. However, we believe that LM IA extended significantly into the New Kingdom. The LM IA found at Thera and associated with the WS I bowl there, could thus have been from this later time.

In Chapter VI.2 and VI.3, we discuss at length the presence of LM IA wares in Cyprus and their chronological horizon. We survey the evidence at the sites of Enkomi, Maroni, *Toumba tou Skourou*, Ayia Irini and Palaepaphos *Teratsoudhia*. The evidence is very strong that LM IA does extend significantly into the early New Kingdom period and is often associated with WS I styles other than the 'RL' Group.

Notwithstanding this evidence, Manning places enormous weight in his argument for an early Thera explosion on the dating of the LM IA period as hav-

ing been completed prior to the start of the New Kingdom. This flies in the face of the archaeological evidence from several parts of Cyprus which strongly suggests that we have LM IA possibly as late as the start of the LC IB period and certainly throughout LC IA:2.

What, then, are Manning's reasons for persisting with this argument? The answer is not easy to find. A closer analysis shows that, in much of his chapter entitled "Archaeological and Historical Evidence", Manning seeks to establish that LM IA existed in Egypt in the last phase of the Hyksos period and perhaps earlier. For example, he makes much of a dispute with Manfred Bietak as to the dating of the H/I platform at 'Ezbet Helmi – Bietak maintains it was during the Ahmose period, while Manning maintains it was during the reign of Khamose, the last ruler of the 17th Dynasty and contemporary of Apophis-Auserre (the penultimate ruler of the Hyksos, before Ahmose conquered Avaris). The problem, however, is that – even if we were to agree with Manning on this point – it does not establish that LM IA did not continue into the New Kingdom, or his high chronology thesis about the eruption of Thera.

For his thesis, Manning needs to establish that the LM IA period had nearly finished significantly before the beginning of the New Kingdom. This is because he claims that the Thera eruption was near to the end of the LM IA period.¹⁵⁷ This is made clear when he discusses the specifically post-Thera LM IA period – which he describes as a 'short interval'. He says (MANNING 1999, 330):

An obvious issue for early chronology (especially) is what lies between mature LMIA and the eruption of Thera, and the evidence for mature LMIB from the time of the earlier 18th Dynasty. In the last decade a so-called post eruption LMIA phase has been proposed to account for some or even quite a portion of the time period by some scholars. However, as we shall argue below; this appears to cover at best a relatively short interval. Instead it shall be argued that the apparent 'gap' is most plausibly filled by the earlier part of the LMIB and LHIIA periods.

If we accept this statement by Manning that the post-eruption LM IA period must have been quite short, then it follows that the eruption must have been near the end of the LM IA period. But this cre-

¹⁵⁷ See SOLES, TAYLOR and VITALIANO (1995, 391) who say that: 'The context and stratigraphy of the Mochlos tephra

suggest that the eruption of the volcano and fall-out of ash marked the end of the IA pottery phase.'

ates a huge problem for Manning, if he insists on the 17th century BC eruption date. To his credit, MANNING (1999, 333) recognizes this issue:

If 1628BC is regarded as being the most likely date of the eruption, ... then, at face value, it appears difficult to accommodate the ... eruption date, and the pattern of Aegean correlation data, with the Egyptian chronology which does not begin the 18th Dynasty until c. 1550 or c. 1540 BC, unless something can be found to stretch between mature or late LMIA at 1628BC, and mature LMIB at some point in the first one to four decades of the 18th Dynasty. The Egyptian chronology requires an interval of around a century between these points. But we have determined that a long post-eruption final LMIA phase probably gets us no further than c. 1600BC, or at the very most c. 1580 BC. What about the missing 50–70 or so years?

What indeed? And just imagine where we would be if we accept that the post-eruption LM IA period was indeed short-lived (as Manning accepts) and furthermore that we adopt a low or middle Egyptian chronology (instead of the high chronology which he chooses). The gap would then become more than 100 years.

Manning believes that he has overcome the above problems, but this does not appear to be correct. Instead his attempts to do so lead him to a number of archaeologically dubious statements. For example, he argues (*ibid.*, 334) that LM IB would need to be a very long period (about 100 years) and dismisses other views which hold that it was considerably shorter. This, however, is not enough for his purposes. He (*ibid.*, 335) then goes further and distinguishes between mature LM IB and an earlier phase of LM IB:

This mature, or late, LMIB phase seems in Egyptian terms to have stretched from Ahmose/Amenhotep I (/Tuthmosis I) through to about the beginning of the reign of Tuthmosis III. This is already some c. 25 to 70 years; earlier LMIB may plausibly be regarded as at least as long in duration.

At this stage Manning is arguing for an earlier LM IB phase that begins 25 to 70 years prior to Ahmose. Yet, within the same book, he argues that

LM IB must be chronologically after LM IA (see *ibid.*, 42). To accept this would be to accept that the LM IA period ended 50 to 70 years before the New Kingdom. This is clearly contradicted by the evidence from Cyprus, as outlined in Chapter VI.2, where at least some LM IA artefacts are associated with New Kingdom material. There is also other evidence in Egypt which dates the end of LM IA at least to the end of the SIP, and most probably later – in any event, certainly not 50–70 years prior to the start of the New Kingdom.

To further support his position, Manning (*ibid.*, 42) argues against Bietak's thesis that LM IA extended "into the period after Ahmose and before Tuthmosis III." He (*ibid.*, 42) refers to the BOURRIAU-ERIKSSON (1997) paper which he claims establishes "that imported LM IB and later LH IIA material was in fact being deposited in Egyptian contexts dating somewhere between the reigns of Ahmose and Tuthmosis I."¹⁵⁸ Since LM IB and LH IIA are definitely subsequent to LM IA in relative stratigraphic terms, it is clear that these analyses cannot both be correct!

Manning here is referring to the analysis of the context, '530', which was the subject of an extensive article by BOURRIAU and ERIKSSON (1997) in which an early 18th Dynasty date for the context was proposed by Bourriau. This presented some difficulties for me at the time, and I could have perhaps have gotten around it by attributing the sherd to LM IA style. However, at the time, I believed that the sherd could on the basis of fabric, style and shape be best attributed to LM IB. While I still consider my reasons valid, I now accept the advice of those working more intimately in the field of Minoan ceramics that the best attribution one could give to the jar rim from Kom Rabi'a/Memphis '530' is to LM I.¹⁵⁹ It is of importance that recently ASTON (fc) considered that this level at Memphis should be redated to the time of Thutmose III, something I considered in 1995. Traditionally Late Minoan IB ceramics found in the eastern Mediterranean in reasonable contexts have been dated to the time of the reign of Thutmose III. However, at this point in time, the date of the context at Memphis with the LM I sherd will

¹⁵⁸ In a preliminary paper written in 1995 I discussed my impressions of the stratigraphy surrounding these early New Kingdom levels at Kom Rabi'a. In that paper I stated: "... there is no doubt that deposit 530, in which a rim sherd (1301) of a Late Minoan IB bridge spouted jar was found as well as a White Painted V (1723) sherd ... belongs

with Level IV. As with [context] 300/305 to the west of wall II, [context] 530 which runs east of wall II, is also located immediately above the top of the sand, here labelled 531.

¹⁵⁹ I greatly appreciate the discussions I have had with Peter Warren on this subject.

only be revealed when the full pottery report is published.¹⁶⁰

At present, even if we accept the conclusion that Manning wishes to draw here about LM IB, it does not overcome his chronological problems mentioned above – if he persists with a high chronology 17th century BC date for the eruption. For even if we assume an early date for LM IB, all that such an analysis would establish (if it were valid) is that the Thera eruption occurred just before, or around the time of, the New Kingdom. However, this is at least 70 years after the time required by Manning to establish his thesis.

As has already been indicated, our view is that the more likely possibility for the eruption of Thera is well into the first part of the New Kingdom period of Egypt. On this WIENER (2003) says:

The analysis of tomb deposits at *Toumba tou Skourou* and Ayia Irini on the northwest coast of Cyprus reinforces the links between the Late Minoan IA period (which witnesses, at or near its close, the eruption of Thera), the LC IB period in Cyprus with its major production of WS I and BR I, and the New Kingdom in Egypt beginning about 1550 B.C., particularly after the expulsion of the Hyksos from Tell el-Dab^{ca} and the Nile Delta around 1530 B.C.

Certainly dating of the Thera eruption at some stage in the early New Kingdom seems by far the most viable proposition. However, further evidence needs to be adduced to pinpoint a more exact date in this period.

There is a further problem in relative chronology for MANNING (1999, 169), when he associates LM IB with the LC IB period. Yet he rejects the general view that LC IB period does not begin until the reign of Thutmose III. Again here Manning has a problem in relative chronology – the claim that the LC IB period is earlier in the New Kingdom, makes it very difficult to fit in the LC IA:2 period into Egyptian chronology. For all the reasons mentioned in this book, it is far better to suppose that LC IA:2 began just before Ahmose and continued to just before Thutmose III; it is at that stage that LC IB begins.

Another part of this argument is presented so by MANNING (1999, 116): “we may note the probable total absence of definite 18th Dynasty objects in

definite LMIA contexts.” This appears to be mistaken. On the contrary, the evidence indicates that both the Aegean and Cyprus renewed their imports into New Kingdom Egypt: – shortly after the pharaohs' power was consolidated and the defeat of the Hyksos confirmed. As we saw earlier in this chapter, in the case of Cyprus, imports into Egypt, such as WS I and BR I, were renewed after an identifiable time gap. We contend that, during this time, there were also LM IA imports from the Aegean into Cyprus. We further contend that they continued until the eruption of Thera in the first part of the New Kingdom.

Manning's arguments to this point are still very far from establishing the 17th century BC date for the Thera eruption. What other archaeological arguments does Manning have for his position on this issue?

(c) Manning's debate with Bietak

The most significant additional claim relates to the dating of the Aegean style frescoes in Egypt at Tell el-Dab^{ca}. In an argument of nearly 40 pages directed primarily against the views of Manfred Bietak, MANNING (1999, 80–119) tries to show that the frescoes and fortifications at Tell el-Dab^{ca} must have begun during the Hyksos period. We do not quarrel with Manning's argument that Avaris was the most significant of the Hyksos cities having a huge size and infrastructure and not easily conquered by Ahmose (see Chapter VII.1 for the historical background). That the Minoans may have had significant contacts with the Hyksos also seems to be a reasonable proposition. However, even Manning is not proposing that all of the Minoan style frescoes and infrastructures were from the Hyksos period and none from the New Kingdom.

True it is that Bietak has changed his emphasis over time. The current position is that the context in which the wall painting fragments were found dates to within, or near, the reign of Thutmose III (BIETAK, DORNER and JÁNOSI 2001, 44–5; BIETAK 2003, fig. 1; ASTON *fc*). In the end, even if one accepts Manning's position on the dating of the frescoes to the last part of the Hyksos Period, what does it establish about the dating of the Thera eruption? What does it establish about the beginning and the end of the LM IA period?

¹⁶⁰ This enormous task is currently in preparation under the leadership of Janine Bourriau. I am deeply indebted to Janine, Lisa Giddy and David Jeffreys for the opportunity

to participate in the 1989, 1991, 1992, 1993, 1994 and 1996 study seasons at Memphis.

Indeed, after a lengthy discussion of the frescoes, MANNING (1999, 107) himself comes to the following remarkable conclusion: “While exciting, the Tell el-Dab^a frescoes do not resolve the date of the LMI period/Aegean LBA. Therefore we now need to examine the other archaeological evidence of relevance to the dating of the initial Aegean LBA. This primarily consists of the evidence relevant to the LMIA period.” What then was the point of the argument with Bietak about whether the frescoes began at the end of the Hyksos Period or in the New Kingdom? Virtually no one denies that the LM IA period began during the Hyksos Period. The central issue is: How long did it last and, with the Thera eruption placed towards the end of this period, how do we link it up with the relative sequence in Egypt?

We have argued that the LM IA period extended significantly into the New Kingdom to a period just before Thutmose III. The additional archaeological arguments promised by Manning (*ibid.*, 107 see quote above) do not produce any convincing counter argument to this position. Thus, the fact that a number of archaeologists associate part of LM IA with the late SIP or late Hyksos Period is not enough for Manning’s (*ibid.*, 108) thesis. Nor do we argue with the view that during the Hyksos times, trade between the Aegean and Egypt was limited to Avaris and surrounding areas (*ibid.*, 110). But so what? It is a sufficient counter to Manning that LM IA is definitely found in some New Kingdom contexts – as Bietak has argued.

In a more recent publication, BIETAK (2003, 25) has further argued against Manning’s position so:

In order to reduce this time gap of over a 100 years Manning tried to cast doubt on the definiteness of the present historical Egyptian chronology proposing accession dates of Tutmosis III at 1490 BC and of Ahmose at 1564 or even 1578 BC. To some extent he follows the high chronology of Wentz and Van Siclen who, in the meantime, have themselves abandoned such a high position since, among other problems, 18 regnal years are difficult to accept for the reign of king Tutmosis II as his reign is not credibly covered for such a long period with monuments, and the evidence for such a high regnal date is highly dubious and lost. Even so, the gap after the fall of Avaris, in or after the 11th year of Ahmose at 1567 BC would amount to ca. 70 years as an unfeasible minimum.

Bietak argues that these assumptions cannot stand up to any serious test and lists three major reasons, (which are similar to those given in this chapter). For Bietak, there is an additional argument: the

dating of the first appearance of Theran pumice in Egypt, which he sees as occurring around the time of Hatshepsut and Tutmosis III. He (*ibid.*, 28) also provides additional evidence of Theran pumice in other surrounding societies:

This pattern of first appearance repeats itself in other sites. There is Theran pumice from new kingdom levels at Tell Hebwa on the northern Sinai and lots of pumice can still be picked up along an ancient seashore nearby. Theran pumice also appears in larger quantities at level H5 at Tell el-‘Ajjûl together with the first appearance of WS I, BR I, RLWM, in combination with Egyptian Marl B pottery approximately at the time of Hatshepsut and Tutmosis III. This is the same time range when Theran pumice also appears in Tell el-Dab^a.

In this article BIETAK (*ibid.*, 28–29) also presents further argument which shows a synchronism between the appearance of LM IA and the early part of the 18th Dynasty of Egypt. Keeping in mind that the Thera eruption occurred towards the end of the LM IA period, this further supports our suggestion of the relative dating of the Thera eruption, somewhere in the Thutmose II–Hatshepsut period.

(d) Thera and the dating of LM IB

Not surprisingly, Manning recognizes that his argument needs to be further bolstered. So he tries to establish his thesis by looking at the other direction of trade, that is, into the Minoan civilization. He says (*ibid.*, 117): ‘As noted, it is the mature LM IB period which witnesses the arrival of clear early 18th Dynasty imports, and Syro-Palestinian LB types likewise dated no earlier than the start of the 18th Dynasty’. He seeks to support this proposition by reference to a number of examples from CLINE (1994) of material supposedly found in Aegean LM IB contexts and dated to the 18th Dynasty.

In support of this, MANNING (*ibid.*, 117) says: “Perhaps the most significant of all are the appearance in LM IB contexts of the distinctive LBA/LC IB (from early 18th Dynasty onwards), Cypriot RLW-m ware spindle bottles at LM IB Gournia and LM IB (or later) Kommos, along with other LBA types.” He then quotes me in a footnote for support of this position. However, this is just an unfortunate mistake by Manning; in all my work, the LC IB period begins with Thutmose III and not early in the New Kingdom as he asserts. While I conceded in 1993 that a small number of RLW-m may date to the early 18th Dynasty; this needs to be re-examined in the light of ASTON’s (fc) analysis which assigns many of these Egyptian contexts a longer period of use, at least into

the reign of Thutmose III. The RLW-m spindle bottle from Gournia and the one from Kommos are both dated to LM IB (ERIKSSON 1993, 135; WATROUS 1992, 156, pl. 51:278). However, this is clearly identified as during the LC IB period, which is not equivalent with the first part of the 18th Dynasty – but rather of Thutmose III's reign. Furthermore, the vast majority of RLW-m in Egypt dates to, or around, the reign of Thutmose III (see Chapter V.4). The spindle bottle from Gournia in a LM IB context is of the shorter and broad shouldered type of bottle with a wide ring-base (Type VIA1a, see *ibid.*, 135, no. 158).

We should also note the relevance to the LM IB context on Gournia of the contents of the Saqqara Tomb NE. 1 in Egypt with its RLW-m spindle bottle (VIA1a) and LH IIA style pottery (see *ibid.*, 72–3; BOURRIAU and ERIKSSON 1997, 100). Whilst there have been recent attempts to raise the date of this burial to the early 18th Dynasty, it is worthwhile quoting what the excavator, Firth, told GJERSTAD (1926, 318) about the date of this tomb.

During the latest excavations by Mr. Firth another Base-ring-jug was found in a tomb which, as Mr. Firth most obligingly writes me, to judge from a very characteristic scarab [FIRTH and GUNN 1926, 70, no. i, pl. 46A:1] found in the tomb must belong to the time of Thutmose III or a generation (30 years) later at most.

This view is also in accordance with ASTON's (fc) recent analysis of this tomb group.

In conclusion, the evidence as a whole supports the view that LM IB must have overlapped with the reign of Thutmose III. We may note MUHLY's (1991, 239) observation that S. WACHSMANN's (*Aegeans in the Theban Tombs*, Leuven, 1987) historical reconstruction provides support for this dating of LM IB. This is because the last representation of Aegeans in Egyptian tombs was dated by Wachsmann to the 42nd year of the reign of Thutmose III. According to Muhly (*ibid.*, 235–6) Wachsmann places the fall of the Minoan civilisation; and therefore the transition from LM IB to LM II at the end of Thutmose III's reign. The overwhelming evidence is that the end of LM IA was at the start of the reign of this pharaoh. On Manning's own analysis the Thera eruption occurred only a few years beforehand.

In some recent papers brought to my attention during the editing of the page proofs of this book, C14 data from Akrotiri has been determined to provide strong support for the LM IA Thera eruption in the late half of the 17th century BC (FRIEDRICH *et al.*, 2006; MANNING *et al.*, 2006). FRIEDRICH *et al.*, (2006, 548) acknowledge that the only way to explain

this is if there is a flaw in the “linkage of the Aegean to the Egyptian chronology or in the chronology itself...”. Here we reject the first thesis based on the material presented in this Chapter, and remain open to the consequences of the second should it be demonstrated beyond refute. Manning however, has not moved to this latter position; that is, completely changing the accepted absolute chronology of the LBA and New Kingdom Egypt by 100 or more years.

For reasons given in this chapter, we cannot accept MANNING's *et al.*, (2006, 569) attempt to wriggle out of the difficulties by adopting a position “which suggests a reinterpretation of some of the cultural linkages.” For example, one of the conclusions drawn is that the Middle Cypriot III–Late Cypriot IA period would all be before 1600 BC (*ibid.*). The implications of this for the Late Cypriot IB period, with its close links to the time of Thutmose III (Manning uses Kitchen's dates of 1479–1425 for the reign), highlight the improbability of such miscued cultural links. We need to persist with our approach, that is, working from the basis of the material remains in determining the cultural inter-relationships that existed. That is the primary first step in the resolution of this issue.

11. WARREN ON THE MINOAN EVIDENCE FOR THE ERUPTION

In making our final determinations about the dating of the Thera eruption, the impact of any theory on the chronology of surrounding civilisations need to be closely studied. We maintain that the investigations using relative chronology are thus of overwhelming importance in this matter.

One important source of archaeological evidence outside of Thera and predicted by the volcanologists is the impact of the eruption which we expect to find on Crete, which is only 60 miles from Thera. In evaluating this, we should keep in mind the enormous magnitude of the Thera eruption. Modern scientists who have studied volcanoes are amazed when they evaluate what must have been the impact of the explosion on the surrounding civilisations such as Crete. For example, GRIBBIN (1978, 135) says, when comparing the impact of Thera to the tremendous known consequences of Krakatoa in modern times that “The explosion must have been truly enormous. ... four or five times that of Krakatoa – [which] could have sent a huge ash fall and a massive tsunami across the 70 miles to Crete, as well as burying its own major city, Akrotiri, now being unearthed.”

There has been much debate about the relationship between the various levels of destruction in Crete and

the volcanic eruption. Peter Warren has taken a special interest in this issue. In an article entitled “Absolute Dating of the Bronze Age Eruption of Thera (Santorini)”, published in 1984, he refers to the conflict between archaeological evidence and the views proposed by certain physical scientists. WARREN (1984) sets out to discuss the issue of whether the Thera explosion occurred during the last part of the Late Minoan IA period (as proposed by Marinatos and Doumas) or whether in fact it was during LM IB – a period closer to the destruction of Crete itself.

Even though he was writing before Manning, Warren (*ibid.*) rejects completely the view that LM IB could possibly be associated with any context prior to the 18th Dynasty. Warren (*ibid.*, 492) concluded this article thus: “from the archaeological evidence, the Thera eruption does not appear to be datable anywhere near 1626 BC or even 1600 BC.”

This matter was taken up again by him in a later article published in 1990/1 entitled “The Minoan Civilisation in Crete and the Volcano in Thera.” WARREN (1990/1, 29) has this to say on the possible impact of the Thera eruption on nearby Crete:

Understandably, therefore, the cause of the Minoan destruction has been sought by some in the effects of the great eruption of the volcano of Thera, about 107 kilometres north of Crete, during the Late Minoan I Period. Others, noting the destruction of the large and richly endowed town of Akrotiri on Thera in the Late Minoan IA period and the close stratigraphical relationship of the thick pumice fall overlying the buildings of Akrotiri, have accepted a Late Minoan I A date for the eruptions. They thereby rule out that major volcanological event as a cause of the Late Minoan IB destruction on Crete and in Minoan settlements or settlements under some Minoan influence on Aegean islands and on Rhodes and Kos in the Dodecanese.

We accept the conclusion here, in both historical and archaeological analysis: the first LM I destruction of Crete – from which the Mycenaeans greatly benefited – was after the Thera eruption. Warren (*ibid.*, 29–30) outlines five elements of the observed sequence of events at Thera/Akrotiri:

1. ...A flourishing settlement existed and was destroyed at the time of the Middle Minoan III B – LM IA transition in Crete. This is usually known as the ‘seismic destruction’.
2. The town was immediately rebuilt, often using the same walls, and it flourished in LM IA.
3. This town was completely destroyed in LM IA and

thousands of artefacts and wall paintings were revealed in its ruins in the 1967–74 excavations and since. This is the town visible today... The destruction is often called the ‘volcanic destruction’, in distinction to the earlier ‘seismic destruction’.

4. A repair phase then ensued and in one area at least, in the main or Telchines road, humic, organic soil formation was found overlying stone tumble or rubble. ...
5. Over the whole town, including the areas of repair and apparent soil formation, fell an enormous rain of pumice and volcanic bombs as the volcano erupted. The site was thickly covered forever. The stratigraphy of the pumice fall indicates several distinct stages, although the conclusion of the volcanologists is unambiguous: the entire volcanic event took place in a very short time, perhaps only a few tens of hours or about four days.

WARREN (*ibid.*, 32–3) thus reaches a more definitive result than in his earlier paper:

...the conclusion from the above evidence nevertheless seems clear: the great volcanic eruption of Thera took place within the Late Minoan IA pottery phase, and certainly before the catastrophic destruction of the Minoan civilisation in Late Minoan IB. ...We have here then a negative conclusion upon a major historical question: the Cretan destruction was not caused by the great eruption of Thera. This is a clear confirmation of the LM IA case long argued by Hood, Schiering and others.

Warren concludes his analysis here by stating that the date of 1492 BC is the likely candidate for the eruption of Thera. This is very similar to the Thutmose II – Hatshepsut period favoured by us and close to the date favoured by Bietak. Most importantly, it does not involve any wholesale shift in the currently accepted dating of the Egyptian and Minoan civilizations.

In conclusion to this whole discussion, the arguments of Manning establish very little of his claim concerning the dating of the WS I bowl and even less of his attempt to date the Thera eruption at an excessively early level. The counter-claims to Manning, based on relative chronology, continue to remain strong on this issue.

12. THE DISTINCTIVE FEATURES OF THE LC IB PERIOD

As we saw in Chapter I.2, the LC IB phase is equated with our Historical Period 3, which begins with the first part of the long reign of Thutmose III (including the Hatshepsut period) and extends after

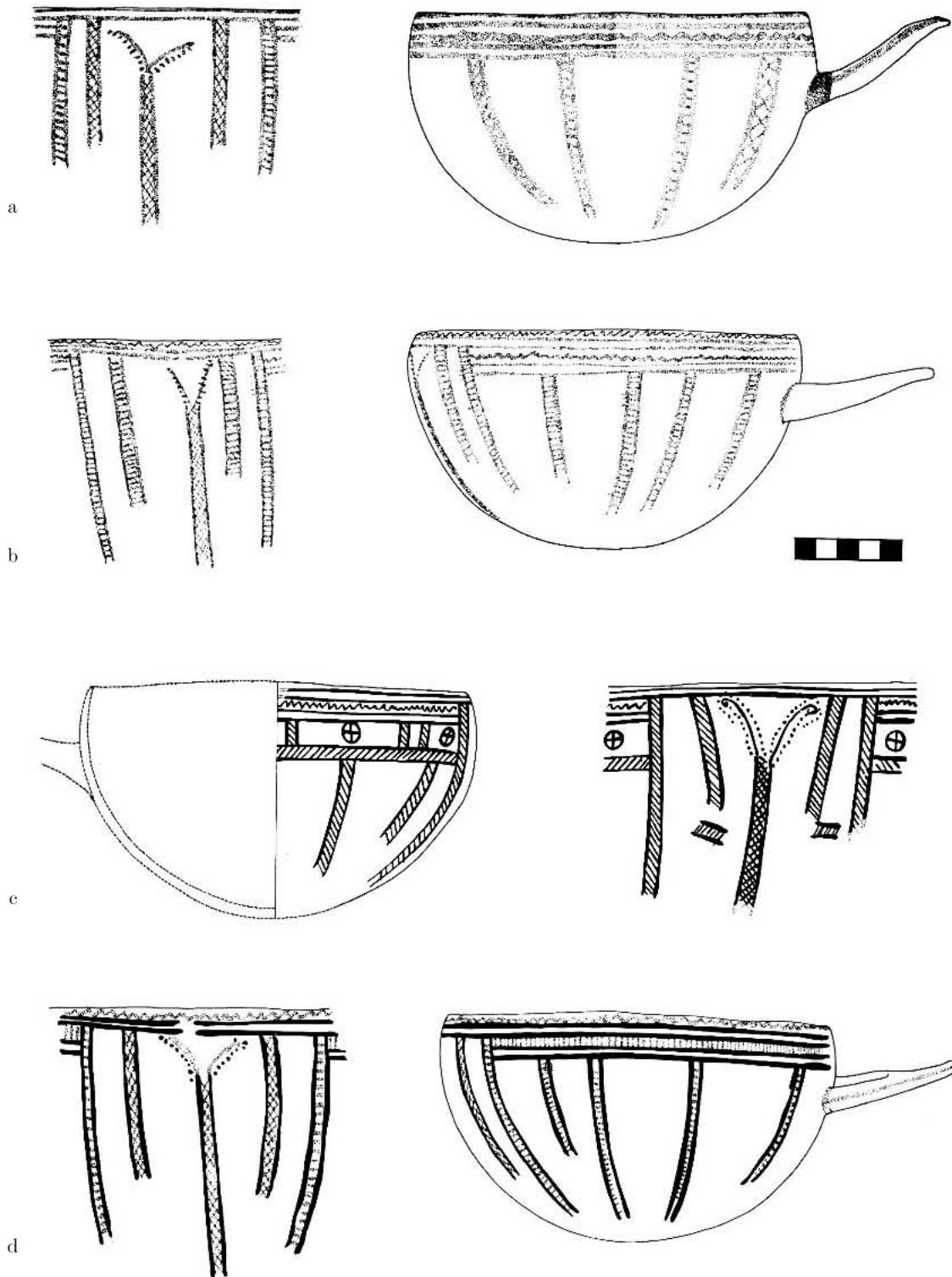


Fig. 26 WS I late styles from Aya Irini Tomb 21 (after PECORELLA 1977) a) 'FWL' late bowl (*ibid.*, 84, no. 27, fig. 475:27). D. 19.1 cms; b) 'FWL' late bowl (after *ibid.*, 184, no. 31, fig. 475:31). D. 18.5 cms; c) 'FWL' late bowl (after *ibid.*, 190, no. 97, fig. 489:97). D. 18.5 cms; d) 'FLBD' late bowl (after *ibid.*, 188, no. 22, fig. 485:22). D. 18.5 cms

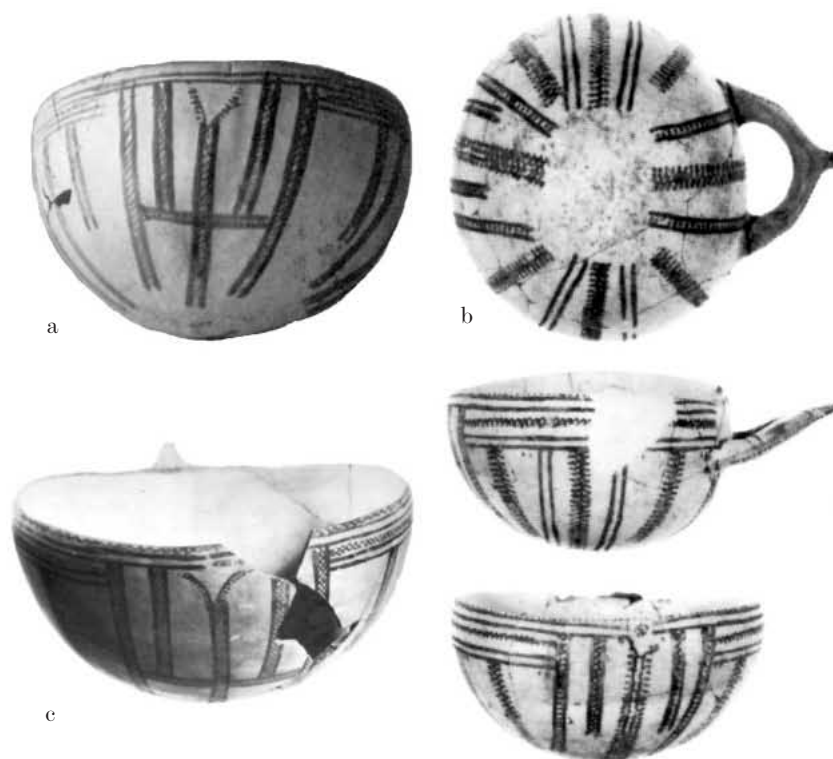


Fig. 27 WS I late vessels a) 'FWL' bowl from Ayia Irini Tomb no. 72 (after QUILICI 1990, 39, no. 72, fig. 77). D. 17.5 cms; b) 'FWL/FXH' bowl from Palaepaphos *Teratsoudhia* Tomb 104 Chamber E (after KARAGEORGHIS 1990, pl. 15:E. 6). D. 14.3 cms; c) 'FWL/FXH' bowl from Kouklia TA. V. 185 (after POPHAM 1972a, 445, fig. 51:1-2)

Thutmosis III to the first part of the reign of Amenhotep II.

There are three historical reasons for considering it to be a separate Cypriot period, LC IB. Firstly, the official links between Cyprus and Egypt expanded substantially and we find pharaoh Thutmosis III taking a keen interest in Cyprus and its produce. We also have the first documented evidence of links between the Egyptian ruler and Cyprus. The historical events in Egypt, the Hittite empire and Syria/Canaan which are associated with this period are outlined in Chapter VII.3.

Secondly, there was a dramatic increase in the number of Cypriot wares in Egypt (and in the areas under Egyptian control such as Syria/Canaan) during this time. Indeed, this was the major period of export of BR I juglets and RLW-m spindle bottles to Egypt and Canaan (MERRILLEES 1968; OREN 1969). RLW-m ware also appears in the Syro/Palestinian area at this time, although in smaller quantities than Egypt (ERIKSSON 1993). It was only at the end of LC IB/early LC IIA that we have the first appearance of RLW-m in Anatolia.

Thirdly, the links between Cyprus and the Minoan civilization remain strong and we have the first

appearances of LM IB wares in Cyprus and Egypt during this period. There is some important ceramic evidence in relation to the Minoan connection which specifically relate to LC IB. There are a few pieces of RLW-m ware in the Aegean were found at Gournia (before the LM IB destruction), Kommos and Ayia Trianda *Ialysos*. Significantly, all of these contexts are not dated earlier than LM IB, with the latter two sites dated between LM IB to no later than LM IIIA:1. This is roughly equivalent to the full reign of Thutmosis III, (the Kommos and Ayia Trianda *Ialysos* examples possibly as late as the reign of Thutmosis IV/early Amenhotep III). It was also during this LC IB period that some BR I ware juglets are found in Aegean contexts.

An intriguing question in archaeology is: Do we have a specific ceramic incident that signifies the beginning of the LC IB period? As we have indicated, during this period, there was a general continuation of the WS I wares, in particular the 'Ladder Band' and 'Double Line Framed' Groups. We also know that WS I 'Rope Lattice' was no longer being produced. These ceramic events in themselves do not mark off a new period (see Table 1B).

In Chapter I.2, we saw that ÅSTRÖM (1972b,

758–9) attempted a definition of the LC IB period using the first appearance of Late Minoan IA wares in Cyprus and the first appearance of RLW-m ware. Unfortunately, this does not work because the evidence now indicates that LM IA started earlier than LC IB: see Chapter VI.2 and VI.3. In fact, the evidence indicates that LC IB is better associated with LM IB. Furthermore, we cannot at this stage definitively say that the first appearances of RLW-m ware are dated to the start of the LC IB period. In my work, I have argued that this first appearance in Cyprus was sometime during the LC IA:2 period (see also ÅSTRÖM 1972b, 700–1). However recent evidence from ASTON (fc) suggests that the LC IB starting point for RLW-m in Egypt may be viable (see discussion in Chapter IV.6.a). Until this issue is resolved, however, we cannot use the first appearance of RLW-m as a marker for the start of the LC IB.

Are we then left with no distinguishing ceramic ware for the beginning of LC IB? For the first time, we wish to propose an answer here, which we believe is worthy of further investigation. There are two specific WS I styles, which are here called ‘Framed Cross-hatching’ and ‘Framed Wavy Line’ late. They represent the development of the ‘Framed Lozenge’ and ‘Framed Wavy Line’ style of earlier WS I (Table 1B). From the evidence discussed here I am certain they first appear only during this LC IB period.

(a) Framed Wavy Line late

The Framed Wavy Line can degenerate into a very ‘sharp’, erratic, thin zig-zag line as in *Teratsoudhia* Tomb 104 (Fig. 27b, note the dotted rim). In this sense it is almost more suitable to call it a ‘FXH’ motif. However, there is a distinction between the traditional ‘FWL’ of WS I late; even though they are contemporary styles. On WS I late, the so-called ‘snake’ motif has evolved into a cross-hatched motif where it has started to look like a ‘palm-tree’ rather than a ‘snake’ like figure (Figs. 31c).

In Ayia Irini Tomb 21 (Stratum V–Phase III), there is a WS I ‘FWL’ late spouted bowl,¹⁶¹ and in the next level (Stratum 4–Phase IV) there is WS I ‘FWL’ late (Fig. 26a) and a bowl with ‘FLBD’ rim motif (Fig. 26d). WS I late is also found in Stratum V Phase II (Figs. 26b–c). Perhaps of most significance

for this style is its presence in Ayia Irini Tomb Stratum III–IV (Table 10). On vessels of this style we can note that they can have a wavy line around the rim (Fig. 27a) or a dotted rim (Fig. 27b–c). We have discussed this Stratum in detail above (Section 4a) and date it to the LC IB period.

(b) Framed Cross-hatching (= Popham’s ‘frieze motif’ vi) – ‘FXH’

That the cross-hatching which appears on WS I vessels could be considered a stylistic late feature of WS I has already been observed by POPHAM (1972a, 441). It precedes the final ‘degeneration’ of this motif in WS IIA. Popham grouped some vessels with the cross-hatching together with WS IIA (*ibid.*, 464, WS IIA Type 1, figs. 46g:5 top row, 51:1–2). We have here separated out this group on the basis of stratified evidence that was not available to Popham when he was writing. This observation is discussed below. It appears as though there was one WS I production centre that clearly moved away from the carefully drawn, horizontal and vertical framed cross-hatched lozenge chains, and now the technique is to abbreviate it into a more rapidly applied band of framed cross-hatching (Fig. 27b–c, see also vertical cross-hatched bands on Fig. 26).

At Enkomi a sherd of ‘FXH’ was found in Area III at the end of Level IB (Fig. 25q, Table 7). On the south coast this style is found at a number of sites, like Kouklia (Fig. 27c, note the dotted rim). At *Bamboula*, Tomb 12 (Period B) can be dated to LC IB in which there were four WS I ‘FXH’ vessels (see Chapter IV.6.a).¹⁶² Close by, examples of this style are found in *Teratsoudhia*, which can only be broadly dated to LC IA:2 – LC IIA (see Section 3 above, Table 9). Whilst, we have not examined the contexts of any overseas finds of this ware, we may also note that BERGOFFEN (2003, fig. 5:row 1,1) has observed this style in Level IV at Alalakh, so after the start of LC IIA. It is also present at Tell Abu al-Kharaz (see Chapter IV.5.e).

Whilst WS I late ‘FXH’/‘FWL’ does show a link with WS IIA (Fig. 27c), it is better regarded as a separate chronological development. It had its floruit during LC IB, that is before WS IIA, and indeed WS II ware, came into use (Table 1B). We shall now consider these later White Slip styles in some detail.

¹⁶¹ PECORELLA 1977, no. 34, figs. 363a–b, 489:34.

¹⁶² BENSON 1972, 16–7, B 72, B 74, B 75, B 82; *id.*, 1961, pl. 7:3, 4, 5, 6.

