

Chronological conundrums: Cypriot and Levantine imports from Thera

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In this paper I shall present no new facts, only new considerations.¹ The potential value of these new considerations lies in the scope they give to confront the dating of the Minoan eruption of Santorini with the independently established absolute chronologies of the Bronze Ages in Cyprus and Syria/Palestine, and so identify the nature and extent of their divergences. My principal aim is not to try to reconcile the differences but to highlight the problems that a high or low dating of the Minoan eruption of Santorini poses for the absolute chronology of the Late Cypriot Bronze Age, especially its acceptance by a majority of those specialising in Cypriot archaeology, as well as its implications for the absolute dating of the Middle Bronze Age in Syria/Palestine.

I should at the outset point out that the absolute chronologies of the Cypriot and Syro-Palestinian Bronze Ages have been calculated without relying on synchronisms with the Aegean and do not in any case derive their validity from the dating of the Minoan eruption of Santorini. For the purposes of this essay it is necessary to choose absolute dates for the Minoan eruption of Santorini, and for argument's sake I shall take 1630 BC at the top end of the range, representing a round figure which has consistently appeared in the scientific literature since the early 1970s, and 1500 BC at the other extreme, representing until recently the conventional position using empirical evidence.² I must emphasise that I am not endorsing either of these dates, or any figures in between, as this survey of the data is more concerned with the imperative of achieving scholarly consensus than with reaching definitive dates on their own merits.

Before reviewing the Bronze Age material of Cypriot and Levantine origin from Thera, it is nec-

essary to make certain caveats without which this presentation would be seriously compromised. The first concerns provenance. Not all the pieces I am about to discuss were indisputably discovered in the Late Minoan settlement on the island. Some lack reliable findspots because they were not brought to light in controlled excavations. Furthermore the origins of some of the items cannot be reliably authenticated. While the place of manufacture of the Cypriot vase is instantly recognisable, the derivation of the pieces attributed to the Asiatic mainland is much more difficult to confirm. Secondly, the occurrence of foreign artefacts in a stratigraphic horizon should be used to help date the imports and not the archaeological context. To arrive at the absolute dating of a pottery ware and type in Cyprus or Syria/Palestine, recourse must be had to securely based synchronisms with dynastic civilisations or scientific time spans. Using Cypriot or Levantine objects to date extraneous deposits, like the destruction layer of the settlement on Thera, is to invite challenges to the methodology and disputes over outcomes. The relative and absolute chronology concerning the Minoan eruption of Santorini, determined on the basis of internal criteria, has a greater potential to date the Late Cypriot and Syro-Palestinian Bronze Ages than *vice versa*. And finally, since all the evidence on which we are making these comparisons is empirical, there is an inescapable lack of precision in the final equations, and we should resist the temptation to lay down the

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² Cf. Manning 1999, 1–45.

law and expect everyone to follow suit. Nevertheless, within these well defined and well understood parameters, the foreign imports in the last level of Thera's Bronze Age habitation should at least help verify the contemporaneity of the Thera, Cypriot and Levantine relative chronologies, or at the minimum rule out of contention archaeologically incompatible synchronisms.

I propose therefore to deal with the Cypriot vase first, followed by the Syro-Palestinian material said to have come from the same site. The pottery exported from the Greek mainland has been dealt with by Marisa Marthari and will not be taken into account on this occasion.³

Leaving aside the White Slip II milk bowl said to have come from Thera and now in the Cairo Museum,⁴ as its provenance cannot be verified, the White Slip I milk bowl recovered by Gorceix and Mamet during their excavations in Thera in 1870 AD was first published in 1888 without any indication of where exactly it was found.⁵ There seems, however, no doubt that it turned up in the destruction layer of the settlement at the end of Late Minoan IA and therefore provides a valid synchronism, once we have taken into account its own classification and history, and the absolute dating of the Late Cypriot period. The first problem we have lies in deciding the bowl's relative chronology. I have argued for a transitional Late Cypriot IA to IB date,⁶ but Manning places it on stylistic grounds somewhat earlier, in the equivalent of Late Cypriot IA2,⁷ while Åström has assigned it to the period between *c.* 1525 and 1450 BC, that is, Late Cypriot IB1 according to his own absolute chronology.⁸ Eriksson has simply fudged the issue by stating the obvious that there exists "a synchronism between LMIA with [*sic*] the period of WSI use on Cyprus".⁹ In addition we must make allowance for the time it took to transport the vase from Cyprus to Thera and before it was lost in the volcanic eruption. The signs of ancient repair could be taken to imply that it had been in circulation for an extended period of time but Manning, rightly in my view, cautions against this assumption, though not excluding the possibility of a longer than usual lifespan.¹⁰ While it is impossible to put a figure on this phase of the vase's existence, it does mean that

the date of the bowl's manufacture cannot be contemporaneous with the destruction of the Late Minoan IA settlement but must be some time earlier.

The next hurdle to be overcome is the absolute dating of the Late Cypriot Bronze Age. I have consistently and persistently argued for a high chronology, beginning Late Cypriot IA at 1650 BC and ending it at 1550 BC.¹¹ Åström has consistently and persistently favoured a middle chronology, starting Late Cypriot IA at 1600/1575 BC and ending it at 1525/1500 BC.¹² Eriksson has never resiled from her attachment to a Low Chronology for the opening of the Late Cypriot Bronze Age at 1530 BC,¹³ despite the fact that, using essentially the same evidence, she has, without any *arrière-pensée*, contradicted herself by asserting at one time that "there is no basis to the argument that places the LCIA period prior to the XVIIIth Dynasty...",¹⁴ while at another stating that we now have "a synchronism between LCIA and the late Hyksos culture".¹⁵ All other experts have chosen dates within the range of 1650 and 1530 BC,¹⁶ with, for example, Manning supporting a high chronology at 1660/1650 BC for the opening of the Late Cypriot Bronze Age,¹⁷ Karageorghis preferring the range of 1600 to 1450 BC for the whole of Late Cypriot I,¹⁸ and Coleman opting for a Low Chronology, beginning Late Cypriot I at 1550 BC.¹⁹ As fixing the start of Late Cypriot I is crucial for determining the absolute date of the White Slip I bowl from Thera,

³ Marthari 1993.

⁴ Merrillees 2001, 94–8.

⁵ Merrillees 2001, 89–93.

⁶ Merrillees 2001, 93–4.

⁷ Manning 1999, 153–4.

⁸ Åström 1971, 419; Åström 1972, 762.

⁹ Eriksson 2001b, 61.

¹⁰ Manning 1999, 153 n. 735.

¹¹ Merrillees 2002 – with previous references.

¹² Åström 1972b, 762; Åström 1987, 62; Åström 2000, 153; Åström 2001, 50.

¹³ Eriksson 1992, 155, 218; Eriksson 1993, 4 fig. 3.

¹⁴ Eriksson 1992, 219.

¹⁵ Eriksson 2001b, 63; *cf.* Eriksson 2007a, 58.

¹⁶ *Cf.* Manning 1999, ix, 3 Table 1; Åström 2000, 153.

¹⁷ Manning 2001, 80.

¹⁸ *E.g.* Karageorghis 2006, xiii.

¹⁹ Coleman 1992, 223.

we find ourselves in something of a bind. All of us had hoped that the exceptional finds of Cypriot Bronze Age pottery from the carefully conducted excavations at Tell el-Dab^a in Egypt would have helped narrow the chronological choices, but ironically they have done just the opposite. While Bietak has claimed that “this spectrum of Middle and Late Cypriote wares strongly suggests that LC IA started not before *c.* 1600, probably as late as 1580 BC....”,²⁰ I have used the ceramic evidence from the same site to argue that the Late Bronze Age in Cyprus opened at 1650 BC.²¹ A major problem with using the Cypriot material from Tell el-Dab^a is that it has still not yet been definitively published in full and in detail.

Where does that leave us? In the absence of scholarly consensus, students are free to choose whichever chronology they like best for the start of the Late Cypriot Bronze Age. Each dating scheme is backed by as much or as little authority as any other, and none can be considered correct or invalid until everyone agrees on suitable figures. However, my preferred high chronology is a *terminus post quem*, for if it were found in due course to be seriously wanting, the date for the start of Late Cypriot I would have to be lowered, not raised. Otherwise it would have no chance of scholarly acceptance. This has significant implications for the chronology of the Cypriot vase found on Thera. The only legitimate way forward with this line of argument is to test a series of dates for the White Slip bowl from the highest to the lowest in the proposed absolute chronologies for Cyprus and see how they match the independent dating of the destruction of the Late Minoan IA settlement. If we start with the high Cypriot chronology and Manning’s classification, the Cypriot vase could not have been made any earlier than 1625 BC, which gives a *terminus post quem* for the Minoan eruption of Santorini. That already puts us in trouble with a scientific dating of the destruction on Thera if it is set at 1630 BC, since it leaves no margin for the bowl’s time in use. Again, taking the high chronology but my ceramic classification, which is later than Manning’s, the date of the bowl’s manufacture would have been around 1600 BC and abandonment in the destruction layer of Thera even later.

This fits the scientific data even less well. Åström’s classification of the bowl, combined with the high chronology, would obviously make a synchronism with 1630 BC impossible.

If then we take 1600 BC for the start of the Late Cypriot period and Manning’s classification, the White Slip I import would have had to have been made around 1575 BC, thereby ruling out any synchronism with a date earlier than 1575 BC for the Minoan eruption of Santorini but making any date after 1575 BC feasible. Again using 1600 BC for the start of Late Cypriot IA but my classification, the destruction of Thera would have had to take place after 1550 BC, which only widens the gap between the scientific and empirical chronologies. Åström’s placement of the Cypriot bowl between *c.* 1525 and 1450 BC fits in with a Minoan eruption of Santorini at 1500 BC but hardly earlier, whereas Eriksson’s Low Chronology, opening the Late Cypriot Bronze Age at 1530 BC, would effectively rule out dating the destruction on Thera to 1500 BC, even if Manning’s classification were used. In practical terms this means that the high chronology for the Late Cypriot period using Manning’s classification for the Cypriot bowl is compatible with a date of around 1630 BC for the catastrophe on Thera, but only just, while the date of 1600 BC for the start of the Late Bronze Age in Cyprus makes a synchronism with 1630 BC on Thera impossible. It also means that the Low Chronology for the Late Cypriot period, regardless of the classification used for the White Slip I bowl, is completely incompatible with a Theran destruction at 1500 BC. This implies that for nearly all the specialists on Cyprus a date for the Minoan eruption of Santorini is too high at 1630 BC and too low at 1500 BC. Even if the range of possible choices were narrowed to between 1600 BC and 1530 BC, there would still be problems for the synchronism with Cyprus, unless, of course, a date for the destruction of the settlement on Thera were put at some time in between.

Before further addressing that issue, we should take a quick look at the other imports from the

²⁰ Bietak & Hein 2001, 172; Bietak & Höflmayer 2007, 19 fig. 5.

²¹ Merrillees 2002, 3, 6.



Fig. 1. Thera. Tell el-Yahudiyeh juglet. Courtesy of Deutsches Archäologisches Institut, Athens.

Levant found in the Late Minoan IA settlement on Thera. Canaanite storage jars and stone vessels are said to have their parallels on the Asiatic mainland in Middle Bronze IIB,²² the ending of which has been assigned almost as many absolute dates as the start of the Late Cypriot period, ranging from as early as 1650 BC to as late as 1550 BC.²³ However, the case for the origins and dating of the Canaanite amphorae, as Manning has shown, is far from clear-cut,²⁴ and there is no certainty over the place of manufacture of the bowls of gypsum.²⁵ It is nevertheless significant that on the basis of this evidence Warren has gone so far as to argue that

it therefore appears that the Late Minoan IA period (date of Akrotiri) had begun before the end of Middle Bronze II in Syria-Palestine, that is, within the time of the Second Intermediate Period in Egypt and before the start of the XVIIIth Dynasty....²⁶

Dr Malcolm Wiener (pers. comm.) also sees no significant obstacle to reducing the 100 years conventionally allotted to Middle Minoan III by 20 years, thereby allowing Late Minoan IA to begin *c.* 1620 BC, nor any reason why Late Cypriote IA cannot



Fig. 2. Thera. Syro-Palestinian juglet of MB IIB. Courtesy of Deutsches Archäologisches Institut, Athens.

begin earlier than Late Minoan IA. This does not, however, materially help with the dating of the Minoan eruption of Santorini as it begs the question of how long the Late Minoan IA period actually lasted.

In addition three so-called Tell el-Yahudiyeh juglets, now in the Thera Archaeological Museum, were ostensibly found on the island.²⁷ They were

²² Niemeier 1990a, 120–1; Cline 1994, 5; Doulas 1998, 134–5; Kempinski 2002, 274 n. 20.

²³ Dever 1992, 3 fig. 1; Weinstein 1992, 29 Table 1; Weinstein 1996, 56 fig. 1; Bietak 2002b, 31 fig. 2.

²⁴ Manning 1999, 113–114 n. 510.

²⁵ Warren 1979, 106–107.

²⁶ Warren 1979, 107 n. 2; Warren & Hankey 1989, 140; *cf.* Manning 1999, 26.

²⁷ Åström 1971.

photographed in 1909 for the Deutsches Archäologisches Institut in Athens, and were once part of the Nic. Nomikos private collection. It is possible that they came from the excavations conducted by Mr M. Alafouzos and Dr D. Nomikos in 1866 at the foot of the southern cliff on Therasia but this cannot be proven.²⁸ The first specimen catalogued by Åström is typical Tell el-Yahudiyeh Ware of Bietak's Egyptian Group (Fig. 1);²⁹ the second is of Syro-Palestinian or Egyptian origin and belongs to what is classified by the Swedish Cyprus Expedition as Red Burnished Ware;³⁰ and the third again comes from the Asiatic mainland or Egypt but has painted decoration (Fig. 2).³¹ They are all at home in the Middle Bronze IIB in the Levant and the Second Intermediate Period in Egypt, and therefore have a *terminus ante quem* of c. 1550 BC. In Cyprus Tell el-Yahudiyeh Ware belonging to Bietak's Egyptian Group is essentially confined to Late Cypriot IA.³² Apart from the limited value of these equations, Kaplan and Manning are disinclined, with good reason, to put any weight on their evidence for dating the Theran destruction,³³ and I for one share their reservations.

We return now to the vexed question of how to rationalise the differences between the scientific and empirical dates for the eruption on Thera, on the one hand, and the absolute chronologies of the Late Bronze Age in Cyprus, on the other. Following the principle that the context should date the import, not the other way round, the beginning of Late Cypriot IA should antedate 1630 BC by at least 25 years if not more, if we follow the upper range indicated by the scientific findings. While this may not be incompatible with the high chronology, it represents the top end of a very long range of possibilities and to my way of thinking unduly stretches the evidence and strains credibility. It should be recalled that the absolute chronology

of the Late Bronze Age in Cyprus has been calculated on the basis of synchronisms with almost everywhere else except Thera, and no-one is going to accept the presence of one stray White Slip I bowl in a destruction layer at the end of Late Minoan IA as a compelling argument for raising the date of the opening of Late Cypriot IA beyond, let us say, 1600 BC. Still less should we advocate lowering the date of the Theran catastrophe to accommodate the independently established chronologies of the Late Bronze Age in Cyprus. I do note, however, some give in the scientific dating of the Minoan eruption of Santorini, and a lowering of this event closer to the end of the 17th century BC would fit the high chronology more comfortably, as well as satisfy me. But that is no guarantee that others would see this as grounds enough to abandon their long-held positions in favour of lower dates and opt for a higher chronology for the Late Cypriot Bronze Age, though I have begun to detect moves in this direction. We have still have some way to go before achieving scholarly consensus on this controversial point in time, and it behoves all participants in the debate to show open-mindedness in presenting and debating their cases. Nothing will be gained by inflexibility.

²⁸ Cf. Perrot & Chipiez 1894, 144–8; Page 1970, 24 fig. 13. A, 24–25; Höchmann 1974, 48 fig. 1 No. 4; Manning 1999, 9.

²⁹ Åström 1971, 416 fig. 1, 415–6; Kaplan 1980, fig. 93. e, 120, 303; Deutsches Archäologisches Institut, Athens, Neg. No. Thera 486 = Fig. 1.

³⁰ Åström 1971, 416 fig. 3, 416; Åström 1972a, 132 Jug Type IIB1a; Aston 2004, 231 Group 278.

³¹ Åström 1971, 416 fig. 2, 416; Deutsches Archäologisches Institut, Athens, Neg. No. Thera 678 = Fig. 2.

³² Merrillees 2007, 91.

³³ Kaplan 1980, 120; Manning 1999, 114 n. 510.

