

several LH IIB types, LH IIB had evidently begun before the end of LM IB, though clear links with LM II can also be identified. Further cross-connections are perceptible in the LH IIIA and LM IIIA phases, but the earlier homogeneity within regions breaks down at the beginning of LM IIIB and during LH IIIB, and the correlation of Mycenaean and Minoan becomes less clear. In the Post-palatial Period styles become increasingly regional, although exchanges and cross-influences can be documented as late as LH IIIC Advanced, and ultimately connections between the local styles are so sporadic that relative chronology in the Dark Age is very frequently a matter for involved and inconclusive debate.

### Absolute chronology

The traditional method of calculating a chronology for the Aegean Bronze Age, through establishing synchronisms with the historical chronologies of Egypt and Mesopotamia, has been gravely weakened in recent years by the doubts cast on the value or significance of the majority of these synchronisms. While there are good reasons for rejecting the proposal of P. James and his collaborators in *Centuries of darkness* for a radical reduction of dates by as much as two and a half centuries (see the review feature in *CAJ* 1 (1991) 227–53 and Manning and Weninger 1992), they draw attention to weaknesses and ambiguities in the traditional methods. It should be noted that even by the traditional methods no agreement has been reached upon the Near East's absolute chronology. Opinion is increasingly favouring the 'low' chronology, sixty years lower than the previously favoured 'middle', since it seems more compatible with the latest lowering of Egyptian dates, but a case is still being maintained for the 'high' chronology, sixty years *higher* than the 'middle'; even for Egypt, the evidence could support two similarly divergent chronologies before the New Kingdom (cf. the papers and discussion in Åström 1987, especially Kitchen on Egyptian chronology, hereafter referred to as Kitchen).

The hope that radiocarbon dating could provide a reliable basis independent of the historical chronologies became difficult to sustain for the Aegean, when dates so often proved to be earlier than had been expected on the basis of correlations with the Near East, especially for the early LBA when these were thought to be quite tightly established. This was not entirely a new problem, for, when calibrated, radiocarbon dates for Near Eastern developments have frequently appeared too high, inspiring Mellaart's proposal to raise the 'historical' chronologies to accommodate them (1979); but his arguments concerned earlier periods than the LBA, and were heavily criticised. To reconcile the conflict for the Aegean LBA, a higher and longer chronology for the earlier phases has been suggested (Betancourt 1987; Manning 1988), partly through taking a different view of the synchronistic evidence, partly through using scientific evidence to place the eruption of Thera around 1630/20, instead of a century or more later. Some of the supporting arguments, involving supposed correlations with acidity

peaks in Greenland ice cores and 'frost events' in Californian trees, have already been abandoned by Manning (1990), who bases the scientific part of his case essentially on the radiocarbon dates from Akrotiri, the majority of which undoubtedly suit a later seventeenth century date; he discounts Olsson's argument (in Åström 1987: 18–22) that all these dates may have to be rejected because the eruption itself could have affected the carbon content of samples.

These arguments have been extensively criticised, particularly by Warren, but it is clear that the synchronistic data are often ambiguous. But one point that does not seem to have been answered by Manning (Warren and Hankey 1989: 145) deserves repetition here. It is that in the earlier 'Keftiu' tomb-paintings (below, ch. 7, p. 248), datable to the reigns of Hatshepsut and Tuthmosis III, the 'Keftiu' are dressed in a style that can be readily paralleled in Second Palace Period representations, whereas in slightly later paintings, apparently dating to the reign of Tuthmosis's successor Amenophis II, a kilt comparable to that shown on some figures in the Knossos Procession Fresco, thought to be LM II in date, is shown. It is impossible to square this with Manning's chronology (cf. Fig. 1.3), by which the Second Palace Period, and indeed LM II, should have been over before the reigns of Hatshepsut and Tuthmosis III began (probably in 1479, certainly not before 1490, according to Kitchen, 40–1), and this remains a great difficulty in Manning's case.

The problem may ultimately be resolved through the construction of a complete dendrochronological sequence back from historical times. For the present, I have decided to accept the position adopted in Warren and Hankey, which is to make use of radiocarbon dates for the third millennium and earlier, where they are available, and to use absolute dates linked to the 'low' chronology for the second millennium; but I also show in Fig. 1.3 the alternative chronology proposed by Manning for the relevant phases. Since Warren and Hankey give extended treatment to the material, only a broad outline will be presented here, and Fig. 1.3 is designed to give a general impression.

For the beginning of the BA there is no evidence apart from that of radiocarbon dates (Warren and Hankey, 120–1). The general tendency of these is to suggest that the latest Neolithic material falls in the earlier fourth millennium and the local BA sequences could begin well before 3000 BC. This view is supported by consideration of the dates from Myrtos in particular, which suggest a beginning for EM IIB before 2500 (Whitelaw 1986). Such a dating gains general support from synchronisms with the Near East, especially Egypt (Warren and Hankey, 125–7), and radiocarbon dates from 'Lerna III' contexts give

Fig. 1.3 Suggested outline of absolute chronology. The lay-out is formal, and not intended to represent spaces of time accurately; for closer assessments see the text. The spacing of dividing dashes, or absence of them, indicates the reliability of the evidence for the placing of subdivisions.

Notes. 1. The earliest phases may well begin before 3300 BC.

2. LC II–III are shown after Barber 1987, fig. 22.

Date B.C.	Crete	Cyclades	Mainland	Manning's sequence for later BA (1988: 56)
3300				
3200				
3100	EM I	'Pelos'	'Talioti' & 'Eutresis'	
3000				
2900	-----	'Kampos'	-----	
2800	EM IIA	'Syros'	'Lerna III'	
2700				
2600	-----			
2500				
2400	EM IIB	'Kastri'	'Lefkandi I'	
2300	-----			
2200		(gap?)	'Lerna IV' etc.	
2100	EM III/ MM IA			
2000		'Phylakopi I'	MH (early)	
1900	-----		MH (mature)	
1800	MM IB/IIA,	MC (early)		MM III/MH III
1700	MM IIB/IIIA			LM IA/LH I
1600	MM IIIB	MC (late)	MH (late)	
1500	LM IA, IB	LC I (LC II)	LH I, IIA	LM IB/LH IIA LM II/LH IIB LM/LH IIIA1
1400	LM II,IIIA1		LH IIB, IIIA1	LM/LH IIIA2 LM/LH IIIB
1300	LM IIIA2, LM IIIB	(LC III early) (LC III middle)	LH IIIA2, IIB1, IIB2	
1200	LM IIIC		LH IIIC	
1100	-----	(LC III late & final)	-----	
1000	Subminoan		Submycenaean	

generalised support for transferring this kind of dating to the Helladic and Cycladic sequences. Thus the middle stages of the EBA can be spread over the greater part of the third millennium. But there is less certainty about when they end, although the sequence of radiocarbon dates from Lerna itself, going through to early MH, suits placing Lerna IV in the last centuries of the third millennium.

The problem over the definition of MM phases affects all arguments relating to the chronology of the MBA, particularly since few useful radiocarbon dates are available after the beginning of the period and many of the relevant items are from 'MM IA' contexts, which may actually be later. Rather more helpful is the discovery of pottery of clearly First Palace Period styles in a series of contexts in Egypt and at Beirut whose date range runs from a fairly early stage in the Twelfth Dynasty into the period of the Thirteenth Dynasty (Warren and Hankey, 134-5). This provides general support for dating this period to run from the early or middle nineteenth to the earlier seventeenth century. Radiocarbon dates from Phaistos and Ayia Irini (Warren and Hankey, 128) fit within this range. But despite demonstrable links between the Töd Treasure and First Palace Period pottery (Warren and Hankey, 131-4), the equally clear links between two Töd kantharoi and one of transitional MH/LH date from Peristeria, with other considerations (most recently Laffineur 1988), make it impossible to accept that the material can be associated exclusively with the reign of Amenemhet II (1917-1882 or 1875-40, Kitchen), so that this link remains chronologically unreliable.

If MM IIIA is to be considered the final phase of the First Palace Period, as argued by MacGillivray (1986), the finding of a stone lid bearing the cartouche of the pharaoh Khyan in a context of this date would be of some significance. On the most recent dating for Khyan (1648-30 or 1637-19 in Kitchen; Warren and Hankey, 136) this would bring the end date of the First Palace Period down towards 1600, and so conflict completely with the Betancourt-Manning chronology. But it must be admitted that the contextual material has never been fully published and analysed, and it may be best to suspend judgement on this piece of evidence.

In comparison with the earlier periods the LBA is relatively straightforward, although its beginning cannot be very closely fixed. That LM IA began before the Eighteenth Dynasty of Egypt (1550 or 1539, Kitchen) is suggested in particular by the presence of apparently MB II Syro-Palestinian stone vessels at Akrotiri, although these could have survived for some time; certainly, a date in the first half of the sixteenth century might seem to follow. A series of links between the time of Hatshepsut and Tuthmosis III (1479-25, Kitchen) and the LM IB, LH IIA, and LH IIB phases (Warren and Hankey, 141-6), though not unassailable, is cumulatively impressive, and such a connection would fit well with the later synchronisms between LM IIIA<sub>1</sub>, LH IIIA<sub>1</sub>, and the reign of Amenophis III (1390-52, Kitchen), and late LH IIIA<sub>2</sub> and the reign of

Akhenaten (1352–36, Kitchen). These phases, then, are likely to have covered much of the fourteenth century, and the transition to LH IIIB may have occurred within Akhenaten's reign or not much later (Warren and Hankey, 146–54), so that LH IIIB had begun by 1330 or soon afterwards. LH IIIB also has considerable associations with the reign of Ramesses II (1279–13, Kitchen), but may extend to the end of the Nineteenth Dynasty (1186, Kitchen). Radiocarbon dates from the destruction levels of Mycenae and Pylos could certainly fit a time around or slightly after 1200.

Thereafter, fixed points are almost impossible to identify; the best is the discovery of pottery classified as LH IIIC Middle at Beth Shan in contexts that may have a link with the reign of Ramesses VI (1143–36, Kitchen) (Warren and Hankey, 164–5). Many indications, including cross-connections between the Cypriot and Aegean sequences, suggest that the Postpalatial Period was of considerable length; though there is still considerable disagreement, LH IIIC is now generally taken to end well after 1100, perhaps even after 1050.

#### **Appendix: the last palace at Knossos**

The date, relative to the LB sequence, of the destruction of the last palace of Knossos is one of the most important unresolved questions in Aegean prehistory. Whole books have been written on the topic, and further data which have or may have a bearing on it are still being uncovered. Essentially, the dispute is between those who favour what has become a standard view following Popham's work (1970), placing the destruction early in LM IIIA<sub>2</sub>, equivalent to an absolute date somewhere in the second quarter of the fourteenth century, and those who favour a date within or at the end of LM IIIB, so probably somewhere between the middle and end of the thirteenth century (Hallager 1977; Niemeier 1982). There is, however, a middle view which would place the destruction late in or at the end of LM IIIA<sub>2</sub>, thus quite late in the fourteenth century (cf. Hood 1971: 149–50), and for a variety of reasons this is beginning to look like a reasonable compromise.

I do not believe that the problem can ever be conclusively answered through re-examination of what has been reported of the stratigraphy and contents of the Knossos palace itself; too much remains a matter for speculation, such as the attribution of the masses of plainer pottery discarded in the original excavations. Rather, I feel that the most important question is, which period seems more likely as the time of the major functioning palace demonstrated by the contents of the Linear B texts, which indicate that it was the administrative centre of a state with interests in much of Crete?

To summarise very briefly, there is considerable evidence for the continuing wealth and importance of Knossos in the earlier part of the Third Palace Period, covering the LM II and IIIA phases. This is a time of elaborate tombs and rich burials, especially in the neighbourhood of Knossos, of the renewal of many