

Jericho, Tell el-Daba and the End of the Middle Bronze Age

The archaeological period known as Middle Bronze II is associated with numerous, apparently unrelated problems of chronology. These include the archaeological and historical date of Israel's Exodus from Egypt and subsequent conquest of Palestine, the correlation of Tell el-Daba's stratigraphy with the archaeology of Palestine, the interpretation of Tell el-Ajjul's stratigraphy, the end of the Middle Bronze Age in relation to Egyptian history, and the chronology of Egypt's 'Second Intermediate Period'. This paper suggests that these problems admit of a common solution compatible with the revised chronologies which James, Rohl and others have proposed for the Third Intermediate Period.*

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The first archaeologists to excavate Jericho methodically were Ernst Sellin and Carl Watzinger, in 1907-1909. John Garstang delved further in 1930-1936 and Kathleen Kenyon conducted an investigation in 1952-1958. The conclusion of Kenyon, who performed the most rigorous analysis of the three, was that after several centuries of continuous occupation Jericho was destroyed at the end of the Middle Bronze Age, c.1550 BC, thereafter suffered heavy erosion, and was not rebuilt as a city until some time in the Iron Age. The only intervening traces of occupation centred around a residence dubbed by Garstang the 'Middle Building', of Late Bronze II date.

Jericho is an important site for the history of the second millennium chiefly because of its place in the story of how the Israelites conquered and occupied Canaan after their exodus from Egypt. Jericho was the first city conquered by the Israelites, and the story of how its apparently impregnable walls collapsed is one of the most celebrated in the Old Testament. Thus

when archaeologists opened up the bowels of the tell to the inspection of the twentieth century, it was hoped that some light would fall on the question to what extent the biblical tradition, and the larger themes of the Exodus and the Conquest which attend it, had any historical foundation.

At first sight, the results of Kenyon's excavation would suggest that the tradition has very little foundation. According to the biblical chronology Jericho fell to the Israelites shortly before 1400 BC – that is, 40 years after the Exodus, which took place 479 years before the 4th year of the reign of Solomon, datable to 968/7 BC.¹ In the archaeological framework, the fall of Jericho should have been at the end of Late Bronze I, not the end of the Middle Bronze Age.

On the other hand, in one respect Jericho is not typical of the cities destroyed by the Israelites, if these were MB cities. Whereas all the others were rebuilt in the Late Bronze Age, Jericho was not rebuilt until Iron Age II.² Here the biblical and archaeological records show a definite correspondence, for after capturing the city Joshua uttered a curse on anyone who should rebuild it, and its foundations were not relaid or its walls rebuilt until the days of Ahab, c.860 BC, when the curse fell upon a certain Hiel (I Ki 16:34). The ruins of the MB city also match the biblical account – in every particular that might be susceptible to archaeological verification. The city was strongly forti-

*In the author's opinion the term 'New Chronology' should be avoided until there is substantial consensus as to what the new chronology ought to be. It is also important to distinguish the arguments for radically downdating the chronology of Egypt's Third Intermediate Period from those which indicate the need for some revision of the Second Intermediate Period.

fied by a wall; some of its buildings, together with the wall itself, appear to have collapsed in an earthquake; there was a violent conflagration; and, as indicated by the storejars full of grain, the city was destroyed – completely – at the time of the harvest.³ Kenyon describes its remains as follows:

Walls and floors were blackened or reddened by fire, and every room was filled with fallen bricks, timbers, and household utensils; in most rooms the fallen debris was heavily burnt, but the collapse of the walls of the eastern rooms seems to have taken place before they were affected by fire.⁴

While the chronologies of the biblical and archaeological records appear irreconcilable, their patterns are remarkably similar. In these circumstances it seems rather rash to dismiss the biblical account as unhistorical simply because of the chronological disparity.

Alternative chronologies

In the thirty years since Kenyon published her findings various attempts have been made to reconcile the two records. Emmanuel Anati, for example, has argued that Israel's conquest of Canaan should be dated much earlier than 1400 BC so as to align it with the

destructions in Palestine around the end of the Early Bronze Age.⁵ At this juncture Jericho was also destroyed by fire and its surrounding walls destroyed. However, the correspondence here is only partial, since Jericho was soon rebuilt, and then flourished – a much bigger city – through most of the Middle Bronze Age, notwithstanding the curse that was laid upon the rebuilder.

A few writers have gone so far as to make the same correlation with the end of the Early Bronze Age while retaining the biblical date, pointing out that the chronology of Egypt, on which the archaeological scheme is based, has been reconstructed from fragmentary inscriptions which are difficult to nail down to any fixed frame of reference.⁶ Some caution towards the chronology of Egypt's early history may be advisable, but it has not been demonstrated that the chronology could be shortened by the seven hundred years or more which would bring down the Early Bronze Age to the fifteenth century.

John Bimson has advocated a less extreme solution. Accepting the orthodox chronology for Egypt and utilising Manfred Bietak's 'ultra-low' dates for Palestine's Middle Bronze Age, his proposal is to lower the end of MB IIC to c.1420 and reduce the length of LB I and LB IIA from 1530-1300 to 1420-1300 BC.⁷ This argument has been faulted on



Jericho's Late Bronze Age 'Middle Building', excavated by Garstang in 1933. The view is to the south-east. (Photo courtesy of the Palestine Exploration Fund)

archaeological grounds, though not always reasonably.⁸ Its main failing, however, is that, like the chronology which it would rectify, it does not place the Exodus in a plausible historical setting.

Bryant Wood considers even this measure of revision unnecessary, arguing that certain pottery which was found in or originated from Jericho's destruction level belongs to LB I, not MB IIC, and therefore the fall of the city should be placed at the very end of LB I, in harmony with the biblical date and without straining the chronological framework.⁹

Wood's arguments have also been criticised,¹⁰ but given that he has now identified locally-made ware among the sherds recovered in Garstang's excavations, the contention that some of the pottery post-dates the Middle Bronze Age would appear to be correct.¹¹ However, Jericho is not an isolated problem, for Joshua went on to conquer other cities in Canaan. Some of these have been excavated, and since nearly every city shows evidence of destruction near the end of the Middle Bronze Age, these destructions according to Wood's hypothesis would also have to be dated to the end of LB I (or later). Aware of this objection, Wood is now claiming to have found ceramic evidence for this in the case of Tell Beit Mirsim - a key site, in view of the extent to which the dates of other sites have been correlated with it.¹² Whatever the merits of this claim, Tell Beit Mirsim has not yet been satisfactorily identified with any city in the historical record, let alone the record of cities destroyed by the Israelites.¹³ Moreover, there is something circular in an argument which cites similarities with pottery found in LB I Megiddo, Hazor and Lachish in order to bring down the date of Jericho's destruction, when the same model requires that the MB II destructions at those sites be also redated to LB I.

More obviously than Jericho, Hazor illustrates the impossibility of downdating the destructions with a view to aligning them with the biblical record. Whereas the comparison Wood draws is with the pottery from Stratum 2 in the Lower City and Stratum XV in the tell,¹⁴ both dated to LB I, the Hazor which corresponds with the city destroyed and burned by the Israelites (Jos 11:11-13) is the final MB city, highly fortified and ending in a thick layer of ashes.¹⁵ By contrast, the Hazor of LB I shows no signs of a conflagration. Wood's attempt to save the biblical record by linking MB Jericho with LB Hazor seems self-defeating.

Finally, David Rohl has now proposed the radical solution of synchronising the Exodus with one of the last kings of Egypt's 13th Dynasty and the beginning of the Hyksos Period.¹⁶ As he implies, the key to the Exodus problem lies not in any city of Palestine but in Tell el-Daba, the site of ancient Avaris and Pi-Ramesses where the Israelites gathered before leaving Egypt (Nu 33:5). Associating a mass burial of bodies

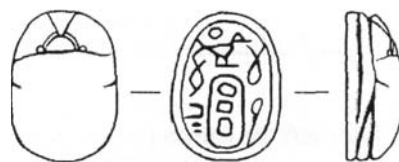


Figure 1: The scarab from Jericho's tomb H13 bearing the name of the Hyksos king Sheshi (after D. Kirkbride, in Jericho Vol.II, figure 301:2).

at the end of Stratum F with the final plague before the Exodus, Rohl deduces that the first wave of Hyksos conquered Avaris around the beginning of MB IIB and that Jericho fell early in MB IIB. A scarab bearing the name of king Sheshi (i.e. Mayibre) found in one of the latest Jericho tombs, H13, is cited in support of this thesis. Rohl hypothesises that there was an 'Early Hyksos' dynasty prior to the 15th Dynasty of the Turin Canon, and that Sheshi belonged to the former. If this is correct, and if the scarab was not an 'heirloom' from a previous generation, it would follow that Jericho fell soon after the Hyksos conquered Avaris.

Without detailed argument this interpretation raises too many questions to rank as a wholly satisfactory explanation. Crucially, it does not address Kenyon's reasons for dating the destruction to the end of MB IIC rather than the beginning of MB IIB, or Wood's contention that LB pottery was found in the last phases of the city. And it ignores the fact that 18th-Dynasty scarabs were found in tombs dug by Garstang to the northwest of Jericho, along with LB pottery similar to the pottery found on the tell. Since the tombs are thought to have fallen into disuse at the same time as the city's destruction, they would appear to support the view that the city fell at the end of LB I rather than during MB II.

On the other hand, the reasons for synchronising the Exodus with the beginning of MB IIB at Tell el-Daba are persuasive – as are those for identifying the Jericho of Joshua's time with the city that Kenyon says was destroyed at the end of MB IIC. This paper will explore the issues more fully with a view to reconciling the historical and archaeological evidence.

Can an MB IIC period be defined?

One crucial issue is the extent to which a particular assemblage of pottery can be diagnosed as belonging to a particular point in time. Until quite recently the assumption (promulgated, for example, by W. F. Petrie and W. F. Albright) was that pottery evolved in a strictly unilinear fashion, and could therefore serve as a fairly precise index for dating the strata in which it was found. There is a growing recognition that the truth is more complex. Diverse styles are found sometimes to have coexisted, overlapping rather than succeeding one another. Far from being everywhere the same, the rate and direction of evolution is seen to have depended on factors such as the extent of trade

with other cultures and the stability of social and political conditions. Discussing Middle Minoan chronology, Gisela Walberg draws attention

to the problems which arise when two ceramic styles overlap in time. Two styles can be contemporary, but two periods must follow one another. A similar problem which has not been sufficiently realised, is that two strata must succeed one another, while the pottery found in them can belong to the same ceramic style.¹⁷

Dan Cole warns against precise chronological correlations between the pottery at Hazor and that found at Megiddo and sites to the south:

There are a number of differences in the ceramic traditions, indicated both by the types of vessels which are found and by the treatments of form applied to similar vessel types. It is evident that Hazor was exposed to influences during MB IIC which did not affect central Palestine. It is also evident that the ceramic forms developing in central Palestine did not spread as far as Hazor.¹⁸

Regional variation can be an important factor. Where the basic political unit is the tribe or city-state rather than the nation-state, this may be true even if the geographical differences are small. Rupert Chapman warns:

Even within Cisjordan, it is now clear that there was regional variation and chronological overlap within the Mesolithic/Epipalaeolithic (Bar-Yosef 1981, 11-13), Neolithic (Bar-Yosef 1981, 12-13), Middle Bronze II (Kochavi 1981, 30), Late Bronze Age II-Early Iron Age I (Greenberg 1987, 78), Early Iron Age II (Mazar, A. 1981, 46), and the Persian Period (Stern 1981, 74). Such diversity *cannot* be used as supporting evidence for the use of a single rigid scheme of successive dated periods, *since the subcultures concerned are not successive*.¹⁹

In his opinion the 'Three Ages' system, dividing archaeological time into Stone, Bronze and Iron Ages, should be abandoned altogether as doing more to obscure than to clarify cultural developments.

Piotr Bienkowski points out that even at Tell Beit Mirsim, where Albright pioneered the ceramic chronology of Palestine, the task of distinguishing the pottery of Stratum E from that of Stratum D, and in certain cases F, proved to be extremely difficult. In fact Albright's belief in the unilinear evolution of pottery types may have been the product much more of what he expected and wished to see than that of raw observation.²⁰ G. Ernest Wright comments on his method:

By the third and fourth campaigns at Tell Beit Mirsim Albright had almost mastered the ceramic horizons of the mound. In preparing the loci of a given stratum for publication he knew what was 'intrusive', out of place, and removed such items before publishing the pottery of the stratum.²¹

In Bienkowski's view, 'Albright's methods of excava-

tion, tendentious recording and arbitrary phasing make Tell Beit Mirsim unusable without extreme caution.' Where more rigorous methods have been used, as at Jericho under Kenyon's direction, a very different pattern emerges. According to Chapman,

None of the material found at Jericho reveals any point corresponding to the supposed taxonomic change between MB IIB and C. There is neither a surge of new variety nor a die-off of old variety from beginning to end of the sequence.

In other words, so-called MB IIB and MB IIC forms overlap extensively, and because of sampling and statistical error it is impossible to assign an assemblage of pottery to any single point in the MB IIB-C continuum. If this is true of one site, the extent of chronological indeterminacy inherent in the MB IIB-C spectrum for all Palestine – the product of numerous correlations of varying legitimacy between sites – must be several times greater.

Another difficulty for the orthodox scheme is the relative brevity of MB IIC. Supposed to have lasted from 1650 to 1550 BC, at Shechem the period accommodates no fewer than four major building phases. As Kenyon acknowledged, the compression of these four phases into one hundred years seems somewhat forced. But while her solution was to shift the last building phase into the Late Bronze Age, this has not won general acceptance, and the problem therefore remains.²³ Jericho likewise suggests a longer period. As summarised by Wood:

From Phase 32 to the end of the life of City IV, Kenyon identified 20 different architectural phases, with evidence that some of these phases lasted for long periods of time. Over the course of the 20 phases there were three major and 12 minor destructions. A fortification tower was rebuilt four times and repaired once, followed by habitation units that were rebuilt seven times.²⁴

Bienkowski's argument that there was no definite break between MB IIB and IIC does not, of course, remove the suspicion of unnatural compression. Since MB IIB-C is allotted in total only 200 years, from 1750 to 1550 BC, the pace of change is eased at the latter end only by increasing it further back. Indeed, inasmuch as several authorities consider that Jericho may have fallen some while *before* the end of MB IIC, the compression may be substantially worse than Wood supposes.

In the light of his excavations at Tell el-Daba, Bietak would downdate the beginning of MB IIB to c.1700 BC and postulate a 100-year overlap between MB IIC and LB IA (with a slight lengthening of MB IIC to about 120 years) on the grounds that bichrome ware, the main diagnostic feature of LB I, has been found alongside MB ware in the final stratum

of Hyksos occupation.²⁵ William Dever also advocates a small overlap.²⁶ Evidence supporting Bietak's thesis occurs at other sites, notably at Tell el-Ajjul.

The Flight of the Hyksos

Most scholars now identify Tell el-Ajjul with Sharuhén, the city to which the Hyksos fled after abandoning Avaris.²⁷ There are strong grounds for this identification. Since the Hyksos population of Avaris must have been very numerous (Manetho's figure of 240,000 may not be far off) and since its entire population took refuge in Sharuhén, the latter city is likely to have been both large and well-fortified, and to have been under Hyksos control already before they fled. In these respects Tell el-Ajjul is a much better fit than the alternative site, Tell el-Fara (South). More

Hyksos royal-name scarabs have been found there than at all other sites in southern Palestine put together, and the equid burials unearthed by Petrie, with their accompaniments of elaborate bronze

weaponry, closely resemble the equid burials in Hyksos strata at Tell el-Daba. Tell el-Ajjul covers twice the area of Tell el-Fara, and in the Middle Bronze Age it was well fortified. It was also more strategically located than Tell el-Fara, occupying a commanding position on the main highway between Palestine and Egypt. Indeed, the Hyksos could hardly have afforded not to control it, for any other masters of the city would have threatened not only their dominance of southern Palestine but also their escape route should they have had to abandon the Delta. They were a nomadic or desert-dwelling people, not natural city-dwellers. They lived by marauding and extortion, and insofar as the archaeology of southern Palestine mirrors the historical picture of Lower Egypt, Sharuhén, like Avaris, is likely to have served the Hyksos chiefly as a military base, in which power could be massively concentrated and massively drawn upon. The enormous fortifications erected by the other cities of southern Palestine during MB IIB-C may have been built against these marauders, with Sharuhén the only city outside Egypt whose gates were open to them.

The Egyptians captured and plundered the city after a three-year siege. Olga Tufnell and J. S. Stewart, both of whom took part in the excavation of Tell el-Ajjul, identified Sharuhén's capture with the destruction of Ajjul's 'City II' because of the numerous Hyksos scarabs found at that level.²⁸ This is certainly

the most natural interpretation. As Bienkowski notes, 'scarabs of obscure Hyksos kings are not known to have been kept as heirlooms or manufactured later, and thus are a better guide [than more common types of scarab] to the absolute date of burial.'²⁹ Two scarabs from the construction fills of City II bore the name of Mayibre, one of the earliest Hyksos kings; others bearing the name of Apopi, probably the last Hyksos king, were found in the destruction layers and in late City II tombs.³⁰ Thus it would appear that this stratum belongs entirely to the Hyksos Period.

Others have identified Sharuhén's capture with the destruction of the earlier 'City III', on the grounds that City II contained large quantities of bichrome ware, and bichrome ware did not come into use until after the Hyksos Period. In the light of the finds at Tell el-Daba this argument no longer seems tenable, since bichrome ware was in use there well before the end of the Hyksos Period. Moreover, no 18th-Dynasty scarabs have been found in City II.

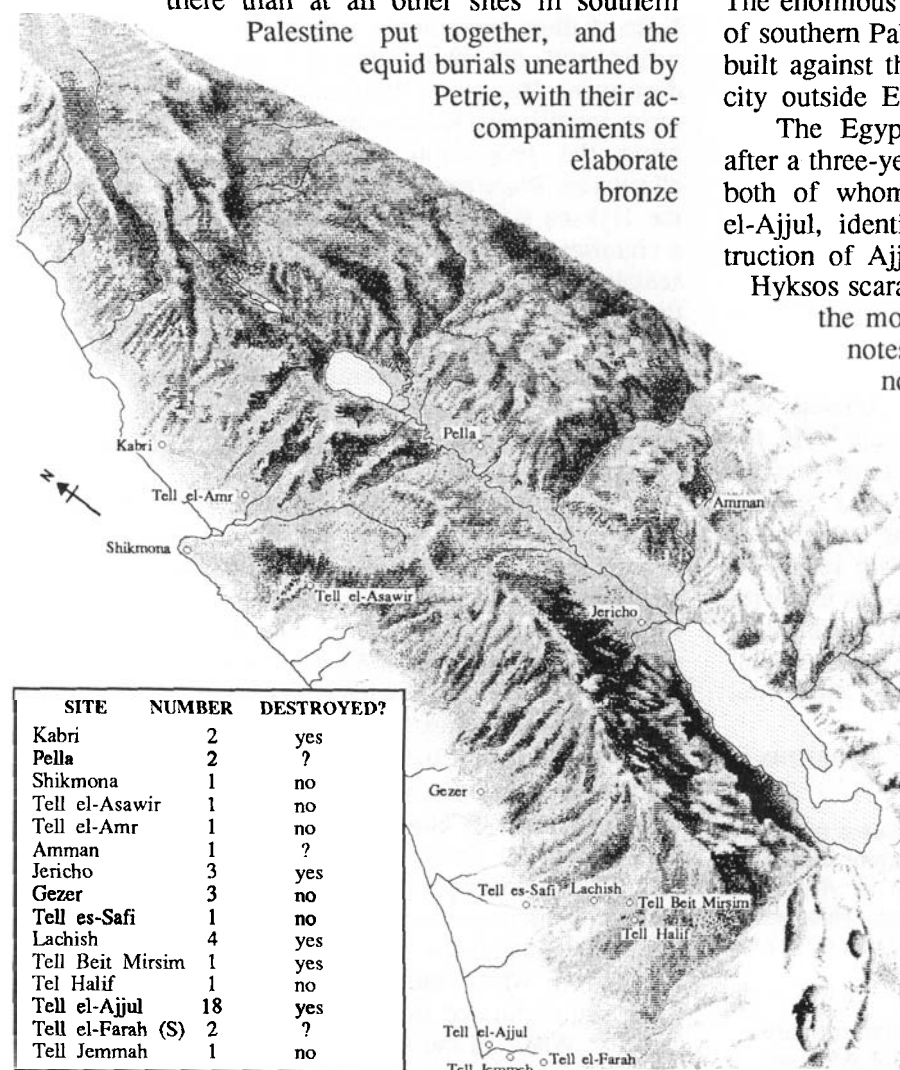


Figure 2: Map showing the number and location of Hyksos royal-name scarabs and sealings found in the Levant, and whether the sites were destroyed in MB IIC.

However, if the reading of Ajjul's stratigraphy here advocated is correct, the other destructions around the end of the Middle Bronze Age – including that of Jericho – must likewise be dated well before the end of the Hyksos Period, since in the destruction levels bichrome ware does not occur; they predate the overlap of Middle Bronze and Late Bronze. As Bimson puts it,

Not only is the end of Ajjul's Palace I [City III] synchronised with the end of Tell Beit Mirsim's Stratum D; Tell Beit Mirsim D is synchronised on the basis of pottery with the end of MBA Jericho, which is likewise synchronised with the end of Hazor. In fact the early dating proposed for Ajjul requires an earlier dating than at present for strata throughout Palestine.¹²

If 1550 BC is the approximate date for the end of the Hyksos Period, the destructions of Ajjul City III, Jericho, Hazor and so on must all be dated well before 1600.

This leads to further important consequences. First, the wave of MB II destructions in Palestine cannot be attributed to a supposed campaign by Ahmose (first king of the 18th Dynasty) against the Hyksos beyond Sharuhén, since these destructions are shown to predate such a campaign. Secondly, the discrepancy between the biblical and archaeological dates for the fall of Jericho (1450 BC compared with 1600 BC or earlier) is aggravated rather than ameliorated.

The Hyksos in Palestine

The chief proponent of the theory that Ahmose was behind the destructions is James Weinstein.³¹ In his view, 'the underlying cause behind the campaign(s) of Ahmose was a desire to destroy the hated Hyksos cities' following many years of Hyksos oppression. The archaeological record being silent with regard to the identity or nationality of the destroyers, as it is with regard to the identity of their victims, Weinstein adduces two species of evidence: Egyptian textual sources, and Hyksos royal-name scarabs from the Levant.

Upon examination the force of these arguments is not impressive. Weinstein admits:

The only specific mention of a Palestinian town in any text of this reign occurs in the autobiography of one of Ahmose's naval officers, Ahmose Son of Abana: "Then Sharuhén was besieged for three years. Then his majesty despoiled it" (*Urk.* IV:4, 14-15; *ANET*: 233).

And somewhat later:

There is only minimal evidence for Egyptian military activity in Palestine proper after the reign of Ahmose; until the reign of Hatshepsut, most of the Egyptian campaigns seem to have been directed towards Syria.

There is no textual record of a campaign beyond Sharuhén.³² As Hans Goedicke has pointed out, it is

more likely that Ahmose saw it as his priority to re-establish control over southern Nubia.³³

With regard to Hyksos scarabs, Weinstein argues from the geographical distribution of 36 royal-name scarabs that many of the cities in southern Palestine were Hyksos-controlled, and therefore Ahmose would not have been content with destroying or plundering only Sharuhén. Responding to criticism from Bienkowski, he concedes:

It is true that only six of the thirteen sites yielding Hyksos royal-name scarabs... clearly were destroyed or abandoned. It was precisely these six sites, however, that yielded thirty-one of the thirty-eight Hyksos royal-name scarabs. In other words, 81.5% of the Hyksos royal-name scarabs excavated in Western Asia up to the early 1980s came from six sites in the mid-to-late sixteenth century BC. I consider that a substantial percentage.³⁴

Even if there were some validity to this argument, it would still not show that the Egyptians were the destroyers. But since Weinstein's article, at least four more royal-name scarabs have been discovered which bring the proportion down to 74%, and if one eliminates Sharuhén/Tell el-Ajjul, whose occupation by the Hyksos is not disputed, it drops to 54% – hardly a significant proportion when the total number of such scarabs is only thirteen and as Bienkowski notes, 'of the 17 sites he lists as definitely destroyed at the end of the MBA, only 4 yielded Hyksos royal-name scarabs.'³⁵ On the contrary, the scarab evidence reinforces the implication of the Ahmose text that the Hyksos controlled only one town in Palestine – Sharuhén.

Bietak accepts that Tell el-Ajjul was Sharuhén³⁶ but not, presumably, that City II was the settlement plundered by king Ahmose. Nonetheless, his suggestion that Thutmose III was responsible for the Middle Bronze destructions and that accordingly their date must be lowered from 1550 to c.1460/50 BC³⁷ suffers from much the same weaknesses: no archaeological evidence, and no textual evidence.

At this point, therefore, it seems appropriate to reconsider Bimson's suggestion that the destructions are attributable to Israel's conquest of Canaan. As he and Livingston show,³⁸ the area encompassed by the destructions corresponds closely both with the area of Israelite settlement and with the specific towns said to have been destroyed in Joshua and Judges; contrariwise, those which the Israelites are not said to have destroyed continued into the Late Bronze Age without a break. When all the sites are considered together, the multiple correspondences between the biblical and the archaeological record appear to make the case for an MB conquest compelling.

So, does the discrepancy between the end of the Middle Bronze Age and the 1400 BC date for the fall

of Jericho have to do with flaws in the chronology of Israel or with flaws in the reconstructed chronology of ancient Egypt? Given that the biblical chronology appears to be self-consistent (Ju 11:16, I Ki 6:1 and the specific components of those figures in Ju 3-12 all point to a 15th-century date) and given that the chronology of Egypt has already been found wanting in the Third Intermediate Period,³⁹ the prime suspect must be the latter.

Faultlines in the chronological system

Rohl's reworking of the Third Intermediate Period entails redating the 18th Dynasty down from c.1530-1300 BC to c.1200-950 BC.⁴⁰ Let us accept, for a moment, that the Second Intermediate Period ended c.1200 BC and let us accept also (in the absence of good evidence to the contrary) that the 12th Dynasty ended c.1800 BC, as determined by the Sothic date from Illahun.⁴¹ The intervening period from the 13th to 17th Dynasties would then be correspondingly lengthened – from 250 to 600 years.

This is not as difficult as might be imagined. On examining the basis of the received chronology, one finds that these dynasties have been squeezed into a space which the evidence scarcely permits. Bietak summarises the current scheme:

End of Dynasty XII	1802 BC	1802 BC
Dynasty XIII	1801-1649 BC	
		-153 years
		<hr/> 1649 BC
Hyksos Period	1649-1541 BC	
		-108 years
		<hr/> 1541 BC
End of Hyksos rule during 11th regnal year of Ahmose		+ 11 years
		<hr/> 1552 BC ⁴²

Despite the unanimous testimony of Africanus and Eusebius that Manetho understood the 13th Dynasty to comprise sixty kings and to have reigned 453 years, the medieval Barbarus's total of 153 years is preferred and both earlier figures treated as in effect a corruption of the later.⁴³ Although Manetho is not always a reliable authority, Barbarus, at one further remove, is surely worse. His figure is preferred only because it fits the space available, and certainly we cannot object to the higher figure on grounds of improbable length: the arrangement into one dynasty could be artificial, an imposition of order on a particularly obscure period in Egypt's history which may in fact have comprised several dynasties. After the 12th Dynasty the Turin Canon lists a comparable sequence of sixty kings, and although most of the regnal lengths are not preserved,

the average length derived from the extant figures is about 6 years: an average much closer to Africanus's 7½ than to Barbarus's 2½.⁴⁴

column	length
10.6	2y 3m 24d
10.8	3y (6m)
11.1	4m
11.2	(1)7(y)(6m)
11.9	3y 2m (15d)
11.10	11y 1m (15d)
11.15	4y 8m 29d
11.16	10y 8m 28d
12.2	23y 8m 18d
12.3	2y 2m 9d
12.4	3y 2m (15d)
12.5	3y 1m (15d)
12.6	5y 8m
12.7	2y 4m
13.16	1y 5m 15d
14.1	3y (6m) 1d
14.2	3y (6m)
	<hr/> 102y 1m 20d
	(i) divided by 17 kings = 6.01y
	(ii) omitting line 11.2: –
	84y 7m 20d
	divided by 16 kings = 5.29y

Table 1: Average length of reign in the 13th Dynasty according to the extant figures of the Turin Canon. Column numbers as in Malek, ref. 51.

Similarly, the orthodox scheme ascribes to the Hyksos 15th Dynasty 108 years, whereas Manetho (from whom the concept of the 15th Dynasty is taken) ascribes 260 years. Since Manetho is able to name each ruler and state his exact reign length in years and months, his testimony should not be lightly dismissed.

It is only because 260 years cannot be fitted into a scheme which has the Hyksos Period ending c.1550 BC that the 108 years given to six Hyksos chieftains in the Turin Canon is preferred. In every other respect the identification of these rulers with Manetho's 15th Dynasty is most implausible. The only name preserved at this point in the Canon is Khamudy, and none of Manetho's names bears any resemblance to it. Khamudy is not even dignified with a cartouche, a circumstance which suggests that he and possibly also his predecessors were not regarded as true kings, but were local dynasts contemporary with the 'Great Hyksos'. Apart from this reference, almost no other trace of Khamudy survives. Thus it is more than likely that the kings which correspond to Manetho's dynasty were listed in one of the lacunae elsewhere in the

Canon. The Berlin Genealogy of the High Priests of Memphis decidedly speaks against the Hyksos Period being as short as 108 years.⁴⁵ Eight to nine generations span the period, yielding an average generation-length, if Manetho's figure is right and the genealogy here is complete, of about 30 years (less if the genealogy is incomplete). The received chronology reduces the average length to an improbable 12 years.

The historical evidence therefore points to a much longer period for the 13th to 17th Dynasties. Once this is recognised, the impossibility of placing the Exodus events in the history allocated to Egypt's fifteenth century becomes a further weakness of the received chronology.

The Exodus in its Egyptian setting

As regards the Exodus itself, one may, for non-historical reasons, feel somewhat sceptical about the biblical record. While the collapse of Jericho's walls may be attributable to a fortuitous earthquake, it is difficult to regard the series of plagues which preceded the Exodus as purely chance phenomena. The narrative indeed affirms otherwise. The Deity is the principal actor in the story; Moses is given the power of God, and with some success the magicians on Pharaoh's side emulate him (Ex 7:1, 22). Many scholars have therefore questioned its credibility, even to the point of interpreting the events out of existence, and certainly this solution to the historical and philosophical problems has its attractions. If the Exodus did not happen, there is nothing to explain, and the apparent absence of any traces of it in the record of Egypt then only confirms the tradition's lack of substance.

Nonetheless, it is possible to reason in the opposite direction. Generically the narratives of Exodus and Joshua are of a piece, and they abound in historical detail: in the names of places and people, in time references, in perceptive descriptions of character and event. If the archaeological record, so far as it can, supports the historicity of the Jericho story, perhaps we should entertain the possibility that the Exodus also happened as described. And if it did, should we not expect traces of it in the historical and archaeological record of Egypt? According to the Israelite record, the firstborn of every Egyptian family was slain, Pharaoh's standing army, his cavalry and entire chariot-force were wiped out, the Pharaoh probably among them; judgment was even executed on the gods of Egypt. If there is no evidence of such a catastrophe in the history of the New Kingdom, no trace of a large Canaanite population inhabiting the Delta and vanishing just as Egypt's economic and military power collapsed, perhaps we should look for the Exodus earlier in her history?

That the New Kingdom is not the setting of the Exodus is evident from the biblical account itself.

There the slaughter of the firstborn and the drowning of Pharaoh's army are depicted as a retribution for 400 years of oppression by the Egyptians (Gen 13:14); if we are to reckon those 400 years as having ended in the reign of Thutmose III or Ramesses II, they must have included at least 100 years when, far from being oppressors, the Egyptians were themselves oppressed by the Hyksos. The Hebrews' perception of the calamities does not, therefore, support such a chronology. Nor is the Exodus likely to have taken place in the Hyksos Period itself, for again, according to the biblical tradition, the calamities fell in judgment specifically upon the Egyptians, not on any foreign overlords. It is hardly conceivable that the Hebrews mistook the identity of their oppressors, or could have regarded the Hyksos, who were Canaanites more like themselves than like the Egyptians, as essentially indistinguishable from the Egyptians. Indeed a Hyksos oppression of Egypt which preceded the Exodus would have seemed to be itself a terrible judgment on the inhabitants. The foreordained reckoning would have been anticipated, and again their perception of the Exodus events would hardly have been possible. We may conclude, therefore, that the Exodus took place before both the New Kingdom and the Hyksos Period.

If we approach the problem from this angle, it is plain that the Exodus could have happened only at one point in Egypt's history compatibly with the biblical and archaeological record, and that is *immediately* before the Hyksos invaded the country. Manetho's account of the invasion is preserved in Josephus.

Tutimaues: in his reign, why I do not know, God blew against us, and unexpectedly, from the regions of the East men of obscure race confidently marched against the land, and by main force seized it easily, without a battle, and having empowered its rulers, then ruthlessly set fire to the cities, pulled down the temples of the gods, and treated all the inhabitants most hatefully, massacring some, and leading into slavery the wives and children of others.⁴⁶

Why, one asks, did Egypt thus abjectly succumb to the invaders without resistance? According to the Hebrew record, the Egyptians were acutely aware of the threat to their eastern border. That threat was the reason why Hebrew slave-labour had been employed to convert Pithom and Raamses into storecities – cities with large depots for arms and munitions (Ex 1:10f). Further east the border was guarded by a series of forts. A highly mobile army was maintained, including chariots and **horsemen**,⁴⁷ introduced no doubt because these were the chief strength of the Hyksos tribes who faced them. So why at the crucial moment were the Egyptians unable, according to Manetho, to oppose the Hyksos? The answer may be that just weeks or months earlier their army had been destroyed in the Red Sea,⁴⁸ the Hyksos constituting a final, twelfth plague. Those

who had sought to extirpate the Hebrew race were now themselves being massacred; the enslavers of the Hebrews were now themselves being enslaved. Even their gods suffered judgment, as the invaders tore down their temples and introduced foreign gods.

The chronology of the Hyksos Period

Such a hypothesis would place the Hyksos invasion in the same year as the Exodus, in 1446, and the expulsion of the Hyksos some 265 years later around 1181.⁴⁹ According to the Sothis List, the main Hyksos dynasty comprised:⁵⁰

Koncharis	5 years
Silites	19 years
Baion	44 years
Apachnas	36 years
Apophis	61 years
Sethos	50 years
Kertos	29 years 'according to Josephus'
Aseth	20 years

Six of these kings – omitting Koncharis and Kertos – are named by Africanus as comprising the 15th Dynasty, only he has 'Staan' instead of Sethos, and 'Arkles', with 49 years, instead of Kertos and Aseth. Apachnas, apparently by mistake, is given the same number of years as Apophis, 61 instead of 36, and Apophis is placed last. Koncharis is omitted presumably because he belonged, as in the Sothis List, to the 16th Dynasty. As quoted by Josephus, Manetho lists the same six kings, has 'Iannas' instead of Sethos, and notwithstanding the note in the Sothis List, also combines Kertos and Aseth. Manetho's figures run:

Salitis	19 years
Bnon	44 years
Apachnan	36 years 7 months
Apophis	61 years
Iannas	50 years 1 month
Assis	49 years 2 months

– a total of 259 years 10 months. In each instance the complete numbers concur with those in the Sothis List.

Koncharis, the first Hyksos king, is evidently the same name as Kencheres or Akencheres, which in the Sothis List and Manetho is the stop-gap name given to three kings in the late 18th Dynasty. When Eusebius came to prepare a digest of Manetho, he mistook the first of these 18th-Dynasty Akencheres for the Hyksos king of that name, and supposed that it was in his reign that 'Moses offered himself as leader to the Hebrews when they departed out of Egypt'. That Silites was not the first Hyksos king is clear from Manetho, who after his account of the invasion continues:

Finally, they appointed as king one of their number whose name was Salitis. He established himself at

Memphis, levying tribute from both Upper and Lower Egypt...

The invasion itself must have been led by Silites' predecessor, i.e. Koncharis, or Akencheres. Correspondingly, in the Memphite Genealogy of the High Priests of Ptah the first Hyksos king is called 'Aken'. On other monuments his name appears as Akenenre Apopi. All these variants may, in turn, be Egyptian modifications of the Amalekite name, Agag (Nu 24:7, cp I Sam 15:8), an identification supported by the Greek name, which is sometimes spelt with an 'n' and at other times with a 'g': Kog-charis, or Akeg-cheres.

In its pristine condition the Memphite Genealogy listed a succession of eight high priests, appointed in the reigns of up to eight Hyksos kings. Three of the regal names survive: Aken, then after five gaps 'Sharek' (*Shrk*), then Apopi. It is likely that all these kings except the first were members of the 15th Dynasty, since this was the pre-eminent dynasty in Egypt and Memphis was initially its seat of government. Accordingly, the surviving names ought to correspond with those in Manetho and the Sothis List. Aken we have already identified. Sharek may be a variant of Arkles, also spelt Arkaes, Africanus's penultimate king, and Apopi is obviously Apophis, who appears last in Africanus's list. Although different from the sequence in Josephus, Africanus's sequence is confirmed not only by the Memphite Genealogy but by other inscriptions, which show that the last Hyksos king at Avaris was a certain Awoserre Apopi. The 33rd year of this king is mentioned in the Rhind Papyrus.

The seven kings of this dynasty, including Kertos, may therefore be identified with the seven rulers in the Turin Canon who would have occupied column 19, lines 8-14, numbered according to Jaromir Malek's proposed original version.⁵¹ Unfortunately, little, if anything, of this part of the papyrus has survived – even the allocation of the two fragments to these lines is uncertain. What can be asserted is that the 15th Dynasty does not fit in column 19, lines 1-6 of the Canon, as postulated by the orthodox chronology. The latter group comprises, explicitly, only six rulers. They are ascribed a total of only '100+x' (probably 108) years. And the sole name from the group to have been preserved, that of Khamudy in line 6, is not enclosed in a cartouche – a fact which indicates that, unlike the Great Hyksos of

Salites	1441-1422	19 years
Bnon (= Sheshi?)	1422-1378	44 years
Apachnan/Khian	1378-1341	36 years 7 months
Iannas = 'Sethos'	1341-1291	50 years 1 month
Kertos = 'Aseth'	1291-1262	29 years
Arkaes/Sharek	1262-1242	20 years
Apophis	1242-1181	61 years

Table 2: Proposed chronology for the 15th Dynasty.



Figure 3: The 'Year 400' Stela from Tanis.

the 15th Dynasty, he was not esteemed a true king. Moreover, his position as the last king ought to be occupied by Awoserre Apopi.

Reconciling Africanus with the Sothis List, we may arrange and date the kings of the 15th Dynasty as in Table 2. Iannas is mentioned as the son of king Khian in a stela from Avaris.⁵² Seth and Aseth ('son of Seth') must be nicknames. In the reign of Iannas a new Sothic cycle was instituted, which may have given rise to the idea that Iannas was the god Seth incarnate and that he ushered in a new era.

Evidence for this association appears in the much debated 400-Year Stela. Abridged, it reads:

His majesty [Ramesses II] commanded that a great stela of granite be made, bearing the titularies of his ancestors, in order to set up the titulary of the father of his ancestors.

The Dual King *Menmaatre*, the son of Ra, *Seti-merenptah*, established and enduring for all time, like Ra every day.

Year 400, 4th month of Shomu, day 4, of the Dual King *Seth-aahpehty*, the son of Ra, whom he loves, *Seth-nubti*, beloved of Ra-Horakhty, for he indeed endures for eternity and all time.

There arrived the Hereditary Prince, mayor of the city and Vizier, fanbearer on the right hand of the king, chief of archers [etc.], the first prophet of Seth, ... the overseer of the prophets of all the gods, Seti; son of the Hereditary Prince, mayor of the city and Vizier,

chief of archers [etc.], Paramesse, the triumphant; born of the lady of the house of the chantress of Ra, Tiu, the triumphant. He says:

"Greetings, O Seth, son of Nut, great of strength in the barque of millions, felling the enemy while in the prow of the barque of Ra. ... [Mayest thou give me] a full lifespan following your ka. ..."

According to the prevailing interpretation, the stela was set up to commemorate the name of Ramesses II's father, Menmaare Seti Merenptah, i.e. king Seti I, and that it refers to a time when Seti, being vizier and high priest of Seth, celebrated the 400th anniversary of the foundation of a Seth-cult at Avaris. Paramesse is, by this reading, Ramesses I, the father of Seti. However, as Goedicke has pointed out,⁵³ this view has its problems. Whereas in the stela the name of the wife of Paramesse is 'Tiu', in the chapel of Ramesses I at Abydos the wife of that king is named Sit-Ra. The contention that Seti the vizier and Seti the king are one and the same is therefore hard to sustain. Nor is there independent evidence that Seti I was a vizier and chief priest before he ascended the throne. The Seti of the stela is more likely to be Ramesses II's brother of that name, with Seti's mother, Tiu, being the same person as Tuia, the mother of Ramesses II.⁵⁴ Paramesse, Seti's father, would then be king Seti, who according to Manetho was also called Ramesses.

The general meaning of the text is clear from the scene above it, which shows, on the left, the god Seth, in the middle, Ramesses II offering wine to the god, and on the right, the vizier and high priest Seti, standing behind Ramesses in an attitude of prayer. There is no suggestion that 'Year 400' represents an anniversary of Seth-worship; it is simply a date, referring to the arrival of Seti the Hereditary Prince in the reign of Ramesses II, who ordered the act of worship to be commemorated. Ramesses offers, while his vizier – the living vizier, not the spirit of the deceased king – attends, praying the prayer which he subsequently recorded. Seth is accorded the cartouche and titles of a human king. He bears the kingly praenomen 'Seth-aapehty', and is depicted as a man rather than as a god. H. Te Velde comments,

Seth is not depicted in the ancient Egyptian manner with his characteristic Seth-head, but as a Baal with a human head. The features are not Egyptian but those of a foreigner. ... The dress, ornamented with tassels, is exotic. The headdress, too, is not Egyptian.⁵⁵

There is evidence, therefore, that his worshippers understood him to have once been, or to have become, a king – a Hyksos king, to judge from the Canaanite dress and outlandish tiara, the same man whom the Sothis List calls Sethos, and as the stela implies, possibly an ancestor of the 19th Dynasty. In his reign a new Sothic cycle of 1460 years was inaugurated, and

Column 19

Column 20

III	x.14	Aken
III. IIII	15	} XVa
• c	16	
nnnnn	17	
	18	
	19	
20	20	total
	21	} XV
	22	
	23	
	24	
III III	25	
o	26	
20	27	
	28	} total
	29	

	x.30	preamble
	xi. 1	XVII
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	subtotal

Column 21

Column 22

xi.16	
17	
18	
19	
20	
21	
22	
23	XVI
24	
25	
26	
27	
28	
29	
30	

I I		xi.32	XVI
I I ॐ	4K _i	33	
III ॐ	4K _%	34	
III ॐ	6	35	
III ॐ	IK ₆	36	
		xii.1	
		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
		10 /	

Figure 4: Columns 19-22 of J. Malek's inferred original version of the Turin Canon (transcribed from the hieratic), together with A. H. Gardiner's numbering of his reconstructed copy and the author's proposed allocation of Dynasties '15a' to 17.

	<u>Africanus</u>	<u>(Manetho)</u>	<u>Eusebius</u>	<u>Sothis List</u>	<u>Turin Canon</u>
XV	6 (7)	(7)	—	7	7
XVI	32	(32)	—	1+x	31
XVa	(4)	(4)	4 'XVII'	4	6 (1+4+1)
XVII	43+43	(9+5)	x 'XV' + 5 'XVI'	—	9+5

Table 3: *The different historical sources for the chronology of the Hyksos Period compared.*

Year 400 fell in the reign of Ramesses II, not earlier than the jubilee in his 34th year, since he is described as 'lord of jubilees'.⁵⁶

In this interpretation the 15th Dynasty would span the whole Hyksos period, and the Hyksos 16th Dynasty would be contemporary with it. The latter may then be assigned to columns 21 and 22 of the Turin Canon. Again, virtually no names from this part of the papyrus survive. Africanus states that the 16th Dynasty comprised 32 'Shepherd Kings' (i.e. Hyksos) and reigned for 518 years, and 32 kings agrees closely with the 31 lines in the Canon. The 518 years may derive from a misunderstanding of a total in Manetho for the 15th and 16th Dynasties together, similar to the aggregate totals which he gives after every dynasty from the 1st to the 8th. That he understood the 15th and 16th to be consecutive is clear from the fact that he calls the kings from Salitis to Apophis the 'first' Hyksos rulers. The true total may therefore be 258 years, that is, 518 less 260. Its seat of government was probably somewhere in Middle Egypt, perhaps at Khmun (the later Hermopolis).

The non-Hyksos 17th Dynasty, ascribed 151 years by Africanus, was also contemporary with the 15th. In the proposed scheme (Fig. 5) its first king expelled the '100+x' dynasty from Thebes, at which point the 15th Dynasty, previously ruling from Memphis, made Avaris its capital (stratum E/1 at Tell el-Daba). Its last king was Kamose, an Egyptian who resumed the war of independence against the Hyksos begun by his father, Sekenenre Tao. These kings are recognizably those of column 20, lines 2-15 in the Turin Canon, after which there appears a subtotal (the number of years is lost) for the last five kings. At variance with the Canon, Africanus states that the dynasty comprised 43 Hyksos and 43 Theban kings.

Eusebius, at variance with both, ascribes to the 17th Dynasty only 103 years and 4 kings, namely Salitis 19 years, Bnon 40 years, Arkles 30 years and Apophis 14 years. Not dissimilarly, the Sothis List places after the 5th year of Koncharis 'four kings of Tanis, and they ruled Egypt during the 17th Dynasty for 254 years'. It would appear that Eusebius has confused the 15th Dynasty with another of which he knew only the lengths of reign, and has supplied the names Salitis, Bnon and so on because he knew that these kings, like the 15th Dynasty, followed the first

Hyksos king Akencheres. This hitherto unidentified dynasty, which we might call 15a, must have been the group of six rulers aforementioned who occupied column 19, lines 1-6 of the Turin Canon and reigned 100+x years. As we shall see, Akencheres probably stood at the head of this group, and Eusebius made the mistake of numbering them the 17th Dynasty because, although they were perhaps initially based at Tanis, once the Hyksos had gained control of the whole country these rulers governed from Thebes and thus directly preceded the 17th. Such an interpretation would explain why the Sothis List ascribes to its four kings of Tanis 254 years: it too confused the two dynasties, 254 being exactly the sum of 103 years for 15a and 151 for the 17th. Until his 5th year Akencheres will have been the only Hyksos king reigning in Egypt, and since he reigned only five years altogether, he must have died soon afterwards, perhaps while campaigning in the south. In Middle Egypt he was succeeded by the 16th Dynasty, in Lower Egypt by the 15th.

Table 2 compares the number of kings which the various sources assign to each dynasty. Conjectural numbers are in brackets. Eusebius's four kings for 15a can be reconciled with the Canon's six if we suppose that Eusebius assigned Akencheres to the 16th Dynasty whereas the Canon assigned him to 15a (hence the difference between Manetho's 32 kings for the 16th and the Canon's 31), and that Eusebius omitted Khamudy altogether, since he was not a recognised pharaoh. The partially extant numeral in column 19, line 1, of the Canon may then be completed to read 4 years (plus so many months), which would be Akencheres' length of reign to the beginning of Dynasty 15a. The king in the next line is then Eusebius's 'Salitis', to whom he ascribed 19 years. By adding the sign for ten, the partially extant numeral can be completed to read a corresponding 18 years, plus three months. Although again not necessarily complete, the next number corresponds with Eusebius's 40 years for 'Bnon' as it stands.⁵⁷

The differing numbers for the 17th Dynasty may be reconciled if we suppose that the Canon totalled the last five kings separately because they were Egyptian, whereas the preceding nine were Hyksos. Manetho will then also have divided the 'dynasty' into two, and while Eusebius understood the separate totals as those

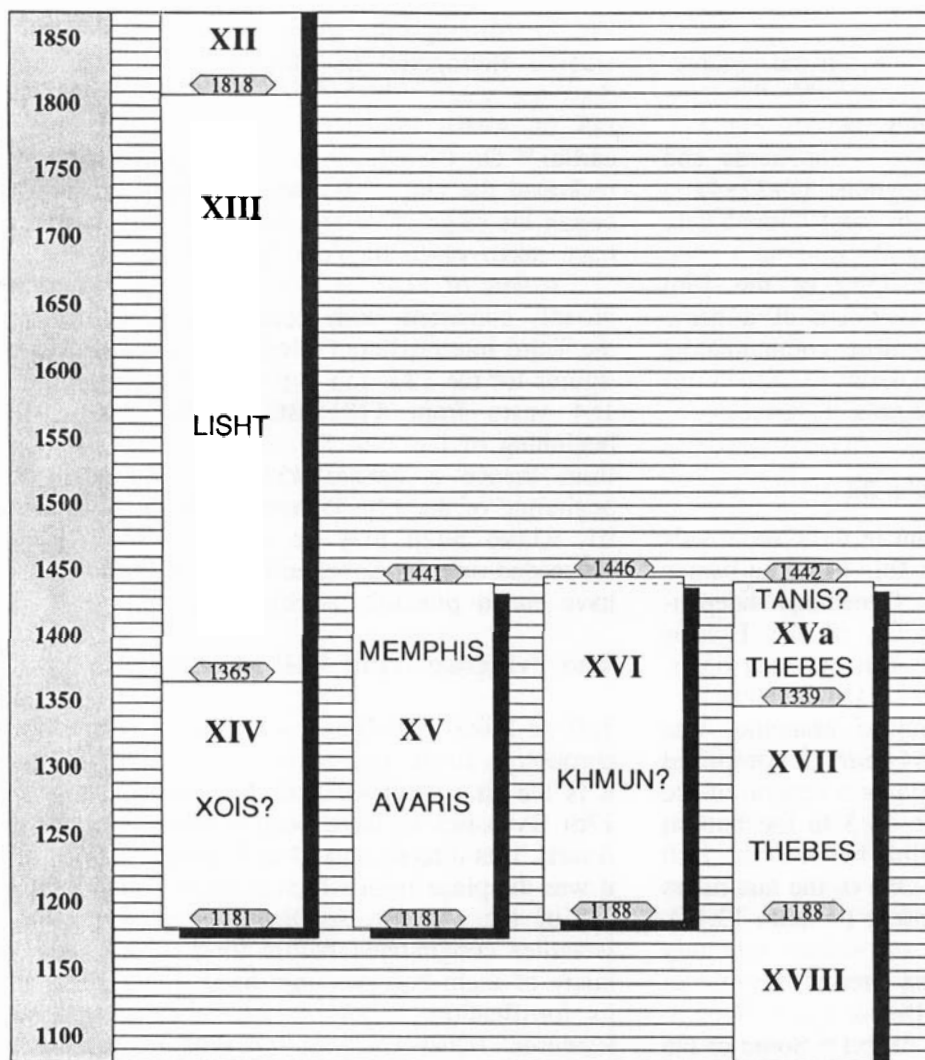


Figure 5: Proposed new chronology of the 13th to 17th Dynasties.

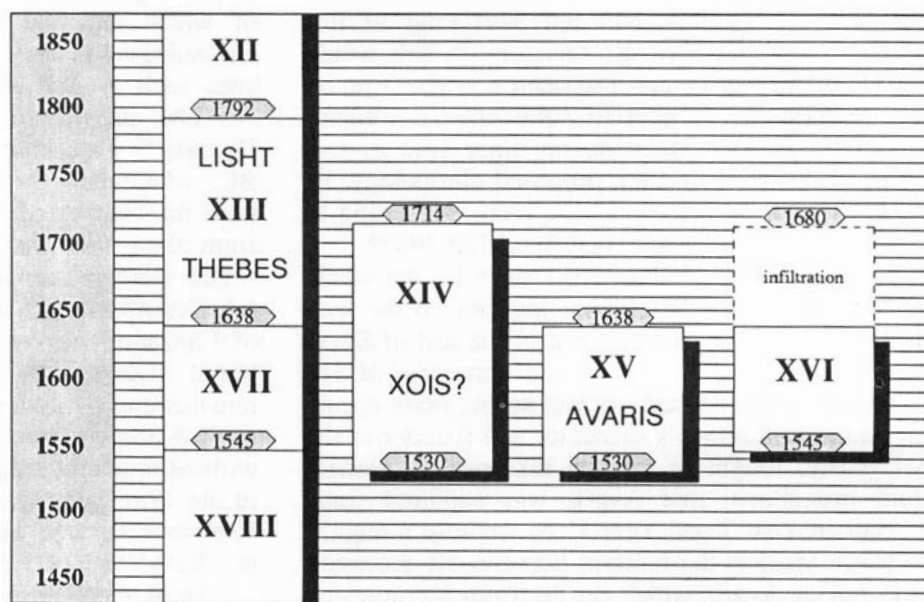


Figure 6: Current 'low' chronology of the 13th to 17th Dynasties.

of separate dynasties, Africanus apparently lacked Manetho's totals and estimated them, on the assumption that added together they came to roughly the same total as all the kings of Dynasties 15, 16 and 15a. Originally he may have written '43 Shepherds and Kings of Thebes', that is, 43 altogether (7+32+4).

In the Memphite Genealogy the king immediately before Aken is Ibi. In the Canon Ibi (although spelt differently) appears as the 40th king of the 13th Dynasty, immediately after the fragment of a name which, because of its position, most commentators identify with Djedhetepre (or possibly Djedneferre) Dudimose, and hence with Manetho's Tutimaëus:

12:12mose
12:13	Re'...ma'e Ibi

No other 13th Dynasty name extant in the Canon ends in '-mose', nor is there any other Ibi. Thus the names which Manetho and the Memphite Genealogy independently associate with the beginning of the Hyksos period are here linked together, and in the right order. Dudimose would be the pharaoh of the Exodus.

The 14th Dynasty, according to Manetho, was based at Xoïs⁵⁸ and reigned for 184 years. It comprised 76 kings, the same number that Malek's version of the Canon provides for, from column 14:3 to the bottom of column 18. No break is discernible between the 13th and 14th Dynasties in the Canon. One of the last rulers of the 13th Dynasty would be Nehesy (column 13:14). Correspondingly, on the basis of scarab typology William Ward would place Nehesy around the middle of the Hyksos Period⁵⁹ – not, as Bietak would have it, some 70 years before the Hyksos Period.⁶⁰ Some of the names belong recognizably to Hyksos kings (for example Apop in 16:3, who is probably the Nebkheperre Apop of the monuments), and it may therefore be that the new dynasty began when the Hyksos took over this enclave. In the Turin Canon the 34th king of this dynasty is partially legible as 'Men....re'.⁶¹ This would be the Menneferre of certain inscribed scarabs⁶² who on stylistic grounds is thought to have been a contemporary of the Hyksos; there is no other king of this name. Further confirming the proposed chronology, he would be the Menophres in whose reign, according to Theon, a new Sothic cycle began c.1320 BC.⁶³

Finally, Manetho's total of 511 years for the whole period reckoned from the Hyksos invasion to the time when 'the kings of the Thebaid and of the rest of Egypt rose in revolt',⁶⁴ may be explained as composed of 518 years for Dynasties 15 and 16 less seven years during which Ahmose, Kamose's successor and founder of the 18th Dynasty, fought to liberate his country. Donald Redford has shown that Avaris was captured some time between Year 7 and Year 17 of Ahmose's reign,⁶⁵ while seven years is the interval between his accession and the fall of Avaris which results from harmonising the other data for the length of the Hyksos period (see

Fig. 5). Although the Rhind Papyrus records that 'one entered Heliopolis' in Ahmose's Year 11, the verb does not necessarily betoken a forceful entry, and the fall of Avaris could have taken place some years earlier.⁶⁶ On the other hand, the Egyptians might have reckoned the end of Hyksos rule from when Ahmose *began* his siege of Avaris, in which case its fall could have taken place in Year 11 or Year 12.

A date of 1181 BC for the end of Hyksos rule is broadly consistent with Rohl's outline chronology for the Third Intermediate Period, and also with Manetho's figures for the 13th and 14th Dynasties. Counting back 184 years from 1181 BC would take us to the beginning of the 14th Dynasty in 1365, and counting from thence a further 453 years takes us to the beginning of the 13th Dynasty in 1818. If Amenemhet III, whose reign may be dated c. 1867-1821, was succeeded only by Sobeknefru, the 12th Dynasty could have ended precisely at this point.⁶⁷

The evidence from Tell el-Daba

Tell el-Daba constitutes an important test for any chronology of the Hyksos Period, and not only because it is the first stratified site encompassing the 12th to 17th Dynasties to have been excavated in Egypt. As Avaris, it is directly linked to Egyptian history because it was the place from which Ahmose drove the Hyksos out of the country. As Raamses, it was where the Israelites congregated before their escape, and where many of them had probably been living since at least its fortification; Israelites had dwelt in 'the land of Rameses' (Goshen) since the time of Joseph. Moreover, the abundant ceramic imports from Palestine within the tell bring Egyptian history and Palestinian archaeological chronology into direct association. Depending on connections with Egyptian history, none of which are free from doubt,⁶⁸ the archaeological chronology can only be as good as the evidence from sites such as Tell el-Daba proves it to be.

The origins of Avaris go back to the 12th Dynasty.⁶⁹ Canaanite settlers appear from about 1800 BC, whereupon they shared the site with Egyptians until the coming of the Hyksos. Sheep are also found from about this time – their first occurrence in Egypt – and were presumably introduced by the Canaanites (cf. Gen 46:34). Then in the 13th Dynasty a new group of Canaanites arrived, as evidenced by their different burial customs, by an absence of purely Egyptian remains and by new patterns of land ownership. At the end of the Hyksos Period the city was abandoned without apparent struggle and not reoccupied until late in the 18th Dynasty. It was rebuilt on a large scale by Ramesses II, who named the city *Per-Ramesses*, that is, 'Residence of Ramesses'.

Until recently most scholars took the use of the name 'Raamses' in Exodus 1:11 as evidence that

Ramesses II was the Pharaoh of the Exodus, and that therefore the Exodus could not have occurred earlier than the thirteenth century. Bimson rejects this argument, citing the anachronistic use of Dan in Genesis 14:14 to make the point that if the name of the city had changed prior to the text's final redaction, a redactor might well have used the later, more familiar name.⁷⁰ However, in Genesis 14:14 Dan is mentioned not as a particular city but as a conventional term for a place far in the north.⁷¹ In the eight other instances of places in Genesis which were later known by another name, the original name is made familiar to the reader by adding the modern one parenthetically.⁷² Thus the suggestion that 'Rameses' is used anachronistically in Genesis 47:11 and Exodus 12:37 and 'Raamses' in Exodus 1:11 is somewhat strained.

It is also superfluous, since the argument for a 13th-century Exodus has now been undermined by the discovery that the city was founded long before Ramesses II. And if the name Raamses was not used anachronistically, it follows that there must have been some earlier pharaoh of that name. This possibility is worth pursuing. Although the usual name of the

of Avaris and of the temple of Amun-Ra at Karnak, likewise reigned 29 years. In any event, it seems clear from the absence of any archaeological or historical support for a 19th-Dynasty Exodus, from the non-occupation of the site over most of the 18th Dynasty and from its continuous existence through the Hyksos Period, that the Hebrews must have built, or rebuilt,⁷⁴ Raamses before the Hyksos period.

Bietak divides the stratigraphy of the site until its abandonment by the Hyksos into nine strata, each approximately 30 years long and designated H to D/2 at 'Tell A' and d/2 to a/2 at 'Area F' (west of Tell A, nearer the river). The rebuilding of Raamses by the Israelites would be located after the hiatus between d/1 and c = G/1-3. In Stratum G/1-3 a 'densely developed settlement of sandbrick' was found, with 'Egyptian or Egyptianised and Canaanite populations living side by side', just as Israelites and Egyptians (perhaps fellow slaves) may have lived side by side in the time of Moses.⁷⁵ At the end of this stratum disaster struck. In contrast to previous burials, the bodies were thrown unprotected into shallow, unoriented pits, occasionally several bodies together, and without offerings. An analysis of the teeth revealed evidence of malnutrition, evoking the destruction of crops and livestock and consequent famine which preceded the Exodus (Ex 7:21, 8:24, 9:6 & 25, 10:15). Bietak has suggested that the inhabitants died from an epidemic of bubonic plague.⁷⁶

After a brief interval, with Stratum F 'a complete change is visible'. The site is newly occupied and land-plots newly distributed. 'Inevitably this was influenced by what had survived of Stratum G, but it was markedly different, and the outlines of those new plots were maintained, with only minor adjustments, throughout the whole series of strata covering the Second Intermediate Period.'⁷⁷ A major change in patterns of land ownership indicates that the settlement was taken over by a different people. 'The tombs were now purely Canaanite and showed little Egyptian influence, [and] were normally richly furnished.' The regular inclusion of weapons with the burials showed the warrior nature of the inhabitants. The Israelites, in other words, had gone, and the Hyksos had taken possession of the site. By contrast, the corresponding stratum in Area F, which seems to have been the centre of Egyptian habitation, showed no such break. Stratum F also saw the building of 'one of the largest Middle Bronze Age temples in the eastern Mediterranean'.⁷⁸ Probably dedicated to Seth, whom the Hyksos worshipped as their chief god Baal, the temple continued in use until Stratum D/2.

It seems clear that the Hyksos arrived in substantial numbers, not just a few at a time. Their leader, Akenenre, dedicated an altar to 'Seth, lord of Avaris', presumably to commemorate his having conquered the city. Manetho speaks of the land being

	Tell A	Area F
1800 - 1770	H	d/2
1770 - 1740	G/4	d/1
1740 - 1710	G	c
1710 - 1680	F	b/3
1680 - 1650	E/3	b/2
1650 - 1620	E/2	b/1
1620 - 1590	E/1	a/2
1590 - 1560	D/3	a/2
1560 - 1530	D/2	a/2
End of Dynasty XII 1792 BC		
Hyksos Period 1638/33-1530/25 BC		

Table 4: *Bietak's nine strata at Tell el-Daba, with dates based on an average 30 years per stratum.*

settlement during the 13th Dynasty was *Haware* (in Greek, Avaris), it was also called 'Domain of Amenemhet',⁷³ and there is a strong suggestion in the Book of Sothis that Amenemhet, founder of the 12th Dynasty, was actually nicknamed Rameses ('born of Ra'). Like other king lists, the Sothis List omits the 13th Dynasty. Instead, the 15th Dynasty is preceded by a group of seven kings, six of whom have names based on the name Rameses; the lengths of their reign being reconcilable with those of the 12th Dynasty. For example, the first of these is 'Rameses' and is ascribed 29 years; Amenemhet I, founder of the 12th Dynasty,

STRATUM	DATE	ARCHAEOLOGICAL 'PERIOD'		TELL EL-DABA	NARRATIVE
		El-Daba	Palestine		
	1560	A	B	Hiatus	
G/1-3	1520			Mixed Canaanite and Egyptian population. High proportion of female burials.	Israelite (and Egyptian?) slaves build Raamses for Egyptian taskmasters. Birth of Moses; Israelite infants drowned in the Nile.
	1480				
	1440	B	C	Epidemic (plague?) and starvation evidenced in mass burials. Warrior people take over suburbs; distinct tombs, new land distribution.	Plagues; slaves leave Egypt; Hyksos invade Egypt; Avaris fortified?
F	1400				Israelites destroy Arad, Jericho, Hazor and other Canaanite cities.
E/3	1360				End of 13th Dynasty.
E/2	1320	C	LB I	Enormous expansion of settlement.	Avaris becomes seat of 15th Dynasty (1339 BC).
E/1	1280				
D/3	1240				
D/2	1200	LB I	LB I	Avaris abandoned.	End of 15th Dynasty; Hyksos driven out of Avaris (1181 BC). Fall of Sharuhen.

Table 5: *Tell el-Daba's stratigraphy in relation to Bietak's chronological analysis of its Middle Bronze pottery (third column), the author's generalised chronology of Palestinian pottery in Palestine itself (fourth column), alien aspects of Tell el-Daba's archaeological sequence and the author's interpretation of them in relation to a revised chronology of the historical record (second and sixth columns). Note the disparity between the two archaeological chronologies. It is suggested that the pottery of Strata G/1-3 may in fact be MB IIB.*

taken by storm, not long after which Salitis rebuilt and fortified Avaris and planted there a huge garrison.

Bietak, on the other hand, argues that the 15th Dynasty did not come to power until Stratum E/2, fitting Strata F and E/3 into the prevailing view among Egyptologists that Hyksos peoples had long before infiltrated the country, and that the 15th Dynasty had risen from a power-base which these peoples had gradually established within it. Manetho's tradition of a sudden, military invasion is rejected, on the grounds that increasing numbers of 'Asiatics', many of them with Semitic names, were living in Egypt from at least the early 13th Dynasty. However, it is surely more plausible to identify these foreigners with the descendants of Jacob than with the Hyksos who subsequently ruled the country. Many of them were slaves in private houses or in the mines – scarcely a fate which peaceful immigrants would have brought upon themselves – and the Hebrew tradition is explicit that the Israelites were subjected to hard labour. Redford makes the point that

It must have been an occurrence of some importance to raise such an obscure figure as Dudumose from obscurity to lasting fame. Does the collective historical memory of a people, much less their written sources, date slow, peaceful immigrations, extending over decades, by specific reigns?⁷⁹

That is an objection which seems hard to answer, especially when texts from as early as the 17th Dynasty and the New Kingdom agree with Manetho in referring to the Hyksos as violent oppressors. Far from tolerating cross-border infiltration, the Egyptians built their eastern defences to keep Asiatics out.

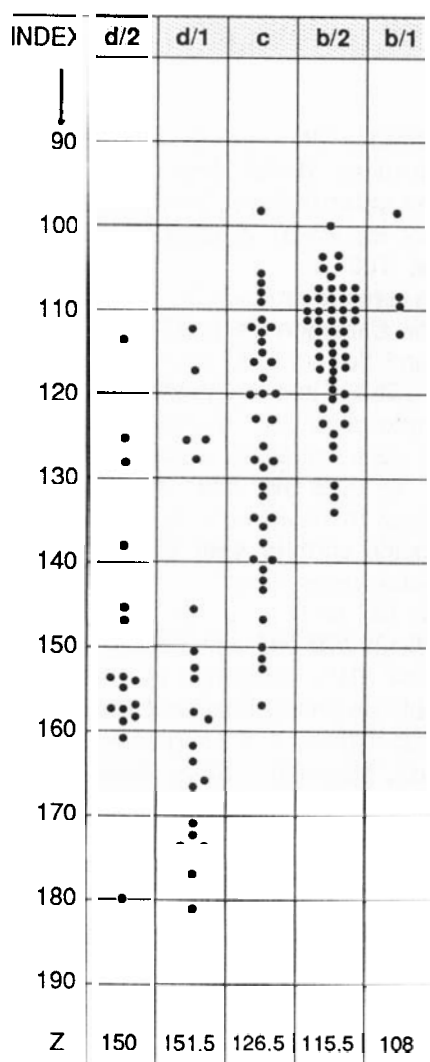
So far as Tell el-Daba is concerned, Bietak's interpretation seems to have been reached chiefly on chronological grounds. Nine strata in 270 years (250 or less if the 'ultra-low' chronology is not adopted) is a tight fit, and if one were to put the beginning of the 15th Dynasty earlier than E/2, the Hyksos strata – already averaging only 27 years each – would have to be compressed even further, while the pre-Hyksos strata would be disproportionately lengthened. Nonetheless, 'the 13th Dynasty with four settlement strata (G4 = d/1, G = c, F = b/3, E/3 = b/2) is strongly represented and chronologically pushes upwards'.⁸⁰

Bietak recognises a similar difficulty when he entertains the possibility of lower dates for the end of the 12th Dynasty. These would not work for Tell el-Daba, because the resultant

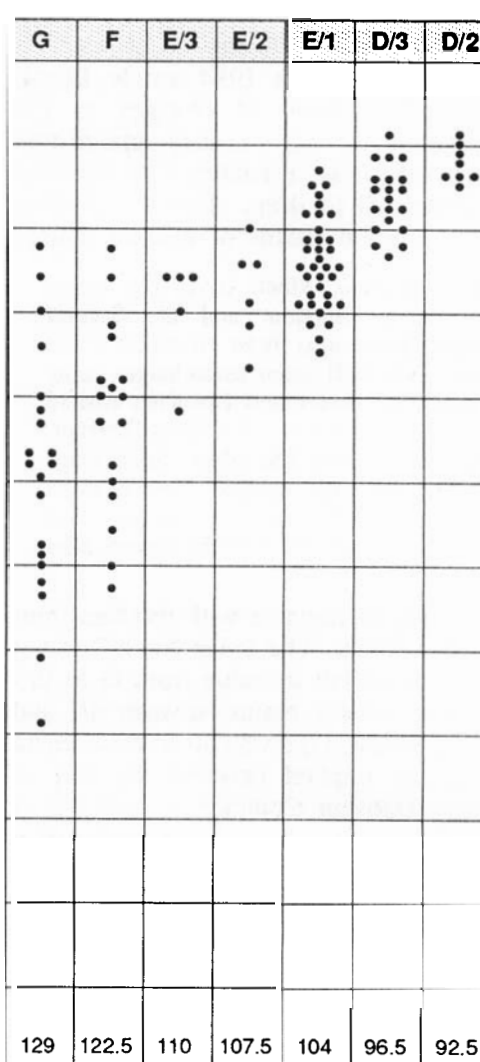
216 years [would be] too short to accommodate the eight strata, G/4-D/2. On the contrary, the stratigraphic evidence indicates that the Second Intermediate Period [G/4-D/2] should be very long.⁸¹

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•
177
•
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Area F

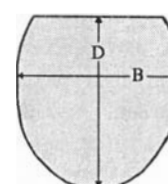
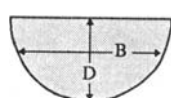


Tell A



Dahshur
Complex 7
Mid 13th Dyn.

•
•
•
•
•
128



$$\text{INDEX} = \frac{B \times 100}{D}$$

$$\begin{aligned} G &= c \\ F &= b/3 \\ E/3 &= b/2 \\ E/2 &= b/1 \end{aligned}$$

Figure 7: Chart showing the gradual increase in depth-to-breadth ratio of the Egyptian drinking cup at Tell el-Daba. Variability progressively decreases. The Z number is the stratum average. Finds from Dahshur (near Memphis) permit some extrapolation beyond the sequence in either direction. Note the hiatus between d/1 and c (= G/1-3), equivalent to at least two strata. [Source: Bietak AJA 88 (1984).]

As it is, Bietak is able to allocate only 240 years to G/4-D/2, while the archaeological evidence of Stratum F, as well as the testimony of Manetho, works against the infiltration theory: the Canaanite population at Tell A were replaced all at once by a different group of Asiatics of a warrior character.

But this is not the only difficulty occasioned by the orthodox chronology. In his 1984 article Bietak published a statistical analysis of changes in the Egyptian drinking-cup at the tell. Because cups of this kind are common and show a tendency to develop from shallow, unrestricted to deep, slightly restricted forms, they provide a good means of relative dating.

Assemblages of such cups, which cover the whole period of the Middle Kingdom and the Second Intermediate Period, have also been found in other Egyptian contexts. Two well dated assemblages came from the excavations of Dieter and Dorothea Arnold at the pyramid complex of Amenemhat III at Dahshur. ... The range of indices from [the older] assemblage is distinctly earlier than the earliest Tell el-Daba collection from stratum d/2 = H or before H. This means that the MB series of Tell el-Daba started after ± 1800 BC.⁸²

The results of this analysis together with the data from Dahshur are shown overleaf. The value for b/3 is not given, but from the mean fall in value from G to E/3 and c to b/2 one may infer a hiatus between d/1 and c equal to about two strata. Likewise an interval equal to about two strata is implied between the end of Amenemhet's reign (Dahshur Complex 6) and d/2. If one takes these into account, the average length of a stratum drops to about 23 years, making the whole sequence still more compressed. On the other hand, if the beginning of G/3 is placed in the generation before Moses, c.1530, the stratigraphy can be interpreted without strain. The average length of the strata down to D/2 becomes about 50 years, so that something over a century elapsed in the hiatus before G/3, taking us back to c.1640. Below the hiatus are two further strata (d/2 and d/1) which would have lasted about 100 years, from c.1740 BC, and these in turn would have come 80-100 years after the end of Amenemhet's reign. In accordance with this interpretation, the dates of the latter's reign are approximately 1867-1821.⁸³ Likewise the last years of Stratum E/2 plus Stratum E/1, which saw an enormous expansion of the settlement, would coincide with the reign of Iannas, when (I have postulated) the Hyksos were driven out of Upper Egypt and made Avaris their capital.

The existence of a substantial hiatus after G/4 would also account for the sudden increase in Canaanite pottery from less than 20% of the total corpus in G/4 to about 40% in G/1-3 and F, for the large number of new pottery types which appear at this point and for the appearance of a new type of housing. In fact, while the length of the interval is impossible

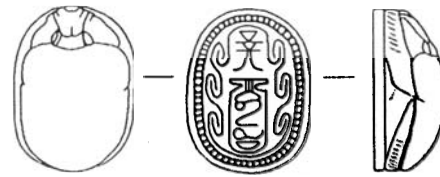


Figure 8: *The disputed scarab from Jericho's Tomb Group III (after D Kirkbride, in Jericho Vol. II, figure 286:13).*

to determine from purely stratigraphic evidence (or absence of it), Bietak does allow for a small interval after the corresponding Stratum d/1 in Area F (in the centre of the town). A layer of ash separates G/4 from G1-3 at Tell A.

On ceramic grounds Bietak synchronises Stratum F with the transition from MB IIA to MB IIB, c.1700-1670, and Stratum D/3 with the last phase of MB IIB, c.1590-1560. Thus analysed, Tell el-Daba unquestionably contradicts the received chronology of Middle Bronze Age Palestine, since it allocates the Hyksos Period to MB IIB and the beginning of MB IIC. According to Palestine's chronology the period ought to coincide entirely with MB IIC.

Bietak reconciles the two sets of data by arguing for MB IIC to be lowered from 1650-1550 to 1560-1460. Both MB IIC and LB IA would then end with Thutmose III's campaign in Syria-Palestine. This is untenable on purely historical grounds. Textual sources state that Thutmose's campaigns were directed against Megiddo, Megiddo's allies, Syria and Mesopotamia – not against the cities destroyed at the (supposed) end of the Middle Bronze Age, most of which lay much further south.⁸⁴ Unless one ascribes their destruction to internecine warfare, the end of MB IIC must be placed before his reign and a more plausible agent identified. Accordingly the *beginning* of MB IIC must also be pushed further back relative to Egyptian history.

In support of his scheme, Bietak draws parallels between Tell el-Daba and material from the tombs at Jericho to show that MB IIB Jericho was contemporary with, rather than prior to, the Hyksos Period. Ward, who has made a special study of the scarabs, rejects the parallels. Responding to Bietak's suggestion that one scarab in Tomb Group III spells the name of the Hyksos king Mayibre, he notes that:

Several features of this scarab – head A5, side d8, the rope border, the 7B3 scroll border – never appear on Mayibre scarabs. Conversely, the title "goodly god" and the epithet "living eternally", which *always* appear on scarabs of Mayibre, are missing on the Jericho example.⁸⁵

In rebuttal Bietak does not answer the point.⁸⁶ As Ward points out, the first instance of a genuine Mayibre scarab is in Tomb Group V, and this last of the tomb groups corresponds with the final MB phases of the tell. A more reliable scarab from Group III would date

it around the reign of the 13th-Dynasty king Sobekhotep V, twelve kings before Dudimose. Thus the fall of Jericho is likely to have taken place soon after the beginning of the Hyksos Period, notwithstanding the fact that, on ceramic grounds, Jericho is thought to have fallen at the end of MB IIC, and Tell el-Daba shows the Hyksos period to have begun at the end of MB IIA.

The evidence of Tell el-Daba also creates problems for the interpretation of Tell el-Ajjul. Since Sharuhén and Avaris were both Hyksos strongholds, one ought to be on fairly safe ground in aligning their cultures. Yet while Tell el-Ajjul's Hyksos City II is assigned to MB IIC/LB IA, most of Tell el-Daba's Hyksos City is assigned to MB IIB! Indeed the problem is worse, since at the end of City III (below City II) small amounts of bichrome ware were found, and bichrome ware until recently has been considered diagnostic of LB I. Ajjul therefore implies that not only MB IIC but even LB I extends back into MB IIB. By contrast, bichrome ware appears at Tell el-Daba for the first time in Stratum D/2, coincident with the beginning of MB IIC, albeit in 'ample quantities'.⁸⁷ Bietak somewhat understates the situation when he says that 'it is not easy to correlate Strata D/3-D/2 at Tell el-Daba in their Egyptian chronological setting with the MB IIC developments in Palestine'.⁸⁸

Apparently recognising the difficulty, Dever places the beginning of Ajjul II in the middle of MB IIB, c.1700 BC, and attempts to solve the Tell el-Daba problem by raising the date of Stratum H = d/2 from 1800 to at least 1950 BC, and allocating 25 years to some strata, 50 or 75 years to others.⁸⁹ Further, because of his belief in an 'early, peaceful infiltration of Asiatics into the Delta',⁹⁰ he assigns the Hyksos Period proper to just the last three Strata, E/1 to D/2. But this solution is unlikely to command general assent. For one thing, the culture of these strata at Tell A is essentially continuous with the culture of Strata F to E/2 (notwithstanding the abrupt ceramic change in E/2), and F begins not with a gradual infiltration but with sudden appropriation of the site, by inhabitants with a distinctly warrior culture. In Stratum E/1 the warrior graves which appeared first in Stratum F now make their *last* appearance.⁹¹ Correlations with the pottery from Kerma, Lower Nubia, during the Hyksos Period also indicate that the Hyksos arrived earlier, possibly as early as Stratum F. Further, Dever's redating of Stratum H is arbitrary and ignores the pattern in the seriation of drinking cups, which points without contrary evidence to a late-12th Dynasty date.⁹²

Bietak's diagnosis of the pottery from Strata G/1-3 and F may not, in fact, be as secure as Dever and others have supposed. If a substantial interval separates G/1-3 from G/4, the pottery from G/1-3 is unlikely to be 'MB IIA3' if that from G/4 is 'MB IIA2'. In any case, the precision implied by such subdivisions may

be illusory, for the same reasons that make it impossible to draw a clear division between MB IIB and IIC. Since there are no dateable historical events with which to associate them, the transitions must rest solely on ceramic correlations, and to the extent that the 13th Dynasty overlaps the Hyksos dynasties but is assumed to precede them, there is ample room for confusion. In Stratum F MB IIB types are said to 'mingle' with MB IIA types, which is a different thing from saying that all types are transitional MB IIA/B; chronologically, the stratum could belong to MB IIB pure. One should also bear in mind the possibility that some of the bronzes are of earlier manufacture than the pottery, since those objects would have been more highly prized, more durable, and more likely to be passed on to the next generation. Any bronze weapons owned by slaves would probably have been smuggled in when the site was resettled.

MB IIC versus LB I

Nonetheless, while there may be scope for some re-interpretation of the pottery, the root of the problem may go much deeper. In the empirical light of Tell el-Daba the archaeological chronology of Palestine and the historical chronology of Egypt have both, to some degree, been found wanting. The unsoundness of the the historical chronology has already been elaborated. The archaeological chronology is likewise not viable because it has structured itself largely on a synchronism between Palestine's 'MB IIC' destructions and an alleged campaign against the same, supposedly Hyksos, cities by Ahmose. The concept of 'final MB IIC' is, in origin, not the concept of a chronologically distinctive uniformity of pottery styles but of a Palestine-wide, historically determinable marker-bed, the concept of MB IIC being predicated on the validity of that marker-bed. As several authorities have pointed out, that synchronism is illusory; the historical evidence for Ahmose having campaigned beyond Sharuhén is illusory. Nor is there evidence that any later pharaoh could have been responsible for a single wave of MB IIC destructions.⁹³

Because of this situation, pottery-based dating at this juncture is trapped in a circular argument. Dever notes the difficulty of discerning a clear ceramic break between the Middle and Late Bronze Ages:

The dilemma is felt and is often expressed in such questions as, "Is this destruction level MB III [i.e. MB IIC], or LB I?" What is really at issue is a ceramic distinction, however, because that is almost always the implicit criterion for dating destruction layers. The specific diagnostic wares in question are Cypriot Bichrome, Monochrome, White Slip I, and Base Ring I wares; locally made chocolate-on-White wares (perhaps of Cypriot inspiration); and, in certain cases, Syrian-style Gray Lustrous wares (Oren 1971).

When those wares are absent, the destruction layer may be said to be early, i.e. late MB III; when they are present, it may be slightly later, or early LB IA. ... The best criterion for the relative dates of destruction levels in late MB III or within "MB IIA/LB IA" may be the presence or absence of Bichrome ware.⁹⁴

Because one cannot satisfactorily distinguish between MB II and LB I on the basis of the local pottery, they are distinguished on the basis of bichrome ware from Cyprus. However, the latter distinction is valid only if one assumes that imported bichrome ware appeared everywhere at the same time, and that cannot be verified without the very assumption of a universal marker-bed which Dever and others reject. In fact a comparison of Tell el-Daba with Tell el-Ajjul, two sites which can be aligned historically, shows that bichrome ware did not appear everywhere at the same time. At Ajjul bichrome material first appears at the end of City III,²⁸ at the time of Sheshi, so that the time-difference may be as much as 150 years. In other words, an 'MB' stratum which contains no bichrome ware may be later than an 'LB' stratum elsewhere which does contain bichrome ware. Reasons for the apparent non-synchronicity include remoteness from the earliest established trade routes; cultural 'backwardness'; excavation of an impoverished quarter; political hostility; and chance.

The assumption that local pottery of a definite style or form appeared everywhere at the same time also, of course, depends on having first identified a true historical horizon. Wood deduces from the presence of bowls with internal concentric rings in both Jericho City IV and Hazor Stratum 2 that Jericho must have fallen in the period LB IB, since Stratum 2 is LB IB.⁹ But if the two correlated strata have not been independently established as contemporaneous, the similarity of their pottery is of no consequence. Wood could equally argue that Stratum 2 is MB IIC because City IV is MB IIC!

As already pointed out, the Hazor that corresponds with the city destroyed by Joshua is Stratum 3, the last Middle Bronze city, rather than Stratum 2. Hence the Jericho destroyed by Joshua is unlikely to be LB in chronological terms. Indeed, since MB IIC and LB IB strata are both present at Hazor and separated by a period of squatter occupation, and since bichrome ware is found in Stratum

2 but not Stratum 3, the latter is likely to have ended well before the end of the Middle Bronze Age. That being so, the final Jericho city will also have fallen before the end of the Middle Bronze Age.

Jericho

So far as the historical record is concerned, there is no reason to suppose that Jericho should be completely devoid of LB remains. Enjoying an abundant supply of water, Jericho was known as the city of palms (Deut 34:3) and may well have been frequented by herdsmen who, living in tents rather than buildings, were drawn to its spring. Just one century after Joshua the city is said to have been occupied by allies of the king of Moab (Ju 3:14), and much later – in the reign of David – it functioned as a sanctuary for social outcasts (II Sam 10:5). Perhaps the LB I sherds which Wood has

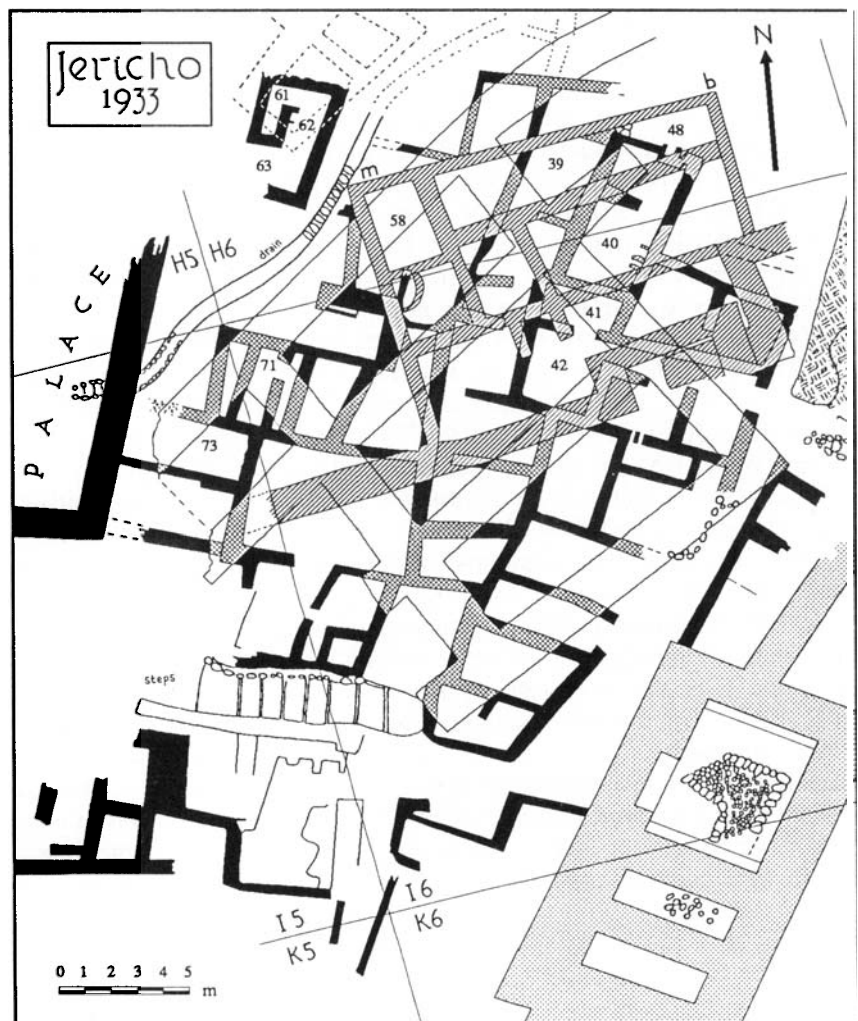


Figure 9: Composite plan of Garstang's 1933 excavations at Tell el-Sultan. MB IIB-C structures are shown in black. Above them lies the Middle Building (diagonal lines) of LB date and above that an Iron Age structure known as the 'Hilani'. Bottom right is a gate tower of MB IIA construction. (After Garstang, LAAA 1934, plate xiii.)

attributed to the last phases of City IV were left by the Moabite garrison, much as squatters are thought to have occupied the ruins of MB Hazor?¹⁵ It would be surprising if such occupants had not left remains of their pottery among its ruins.

The main source for Wood's contention that LB pottery was discovered in City IV is Garstang's report of his 1933 excavations.⁹⁵ The report repays study. Although his techniques were much less refined than Kenyon's, the data he recorded are of enduring value, not least because they differ somewhat from the data Kenyon gathered from a much smaller area immediately north of Garstang's.

The area dug by Garstang was the 'Palace area' on the southeast slope of the tell, just above the spring. Here he identified three strata, designated Upper, Middle and Lower. The Upper Stratum was Iron Age II and is not of present concern. The Middle Stratum, consisting chiefly of a thick layer of bricks and ash called the 'Streak' which had spread down from the ruins of a 'Palace' upslope, belonged to the Late Bronze Age. Almost the only building in this stratum was the brick house which Garstang called the Middle Building. The Lower Stratum, by contrast, was occupied almost wholly by buildings – notably a 'Palace', some storerooms next to it and a suite of rooms to the east (Fig. 9). These belonged to the Middle Bronze Age. Successive floors were distinguishable within the buildings and designated by letters, level *a* being uppermost.

The Middle Building rested upon a terrace which cut through the tops of some of the storeroom walls and obliterated the upper levels of some rooms (Fig. 10). Over room 48, below the foundations of the Middle Building, was a layer of earth and pebbles, and below that, within the room itself, were two levels designated *b* and *c*. Burnt brick debris was found immediately beneath level *b*, representing the destruction of the room when occupied at level *c*. However, as Kenyon argued⁹⁶ and subsequently confirmed from her own excavations,⁹⁷ the debris above level *b* represented the destruction of an upper floor of the same building rather than a later occupation level. Both levels contained pottery classified as MB II.

A similar stratigraphy was found in room 39, where an even lower floor was classified as early MB II, and in rooms 40-42 adjacent. Concerning these Garstang recorded:

The uppermost layer *a* contained a number of painted sherds at the level of the highest walls; two of them ... are of the same class as those so freely found in the overlying stratum; the polychrome concentric bands like those which decorate the former are found

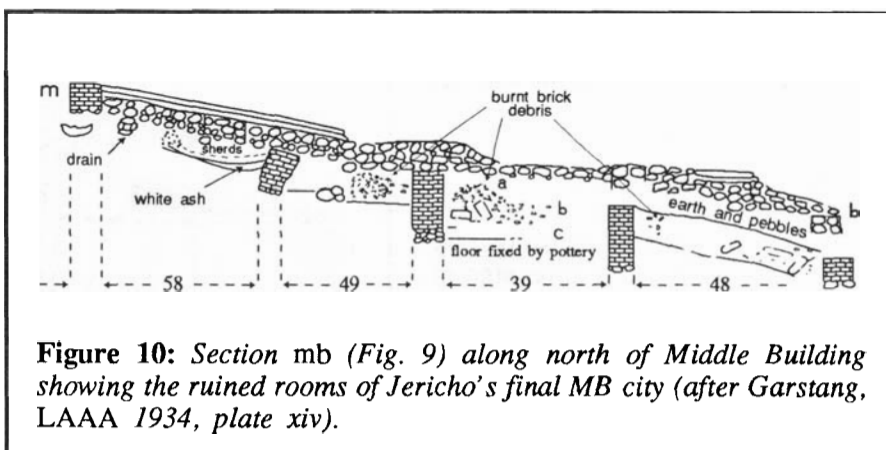


Figure 10: Section mb (Fig. 9) along north of Middle Building showing the ruined rooms of Jericho's final MB city (after Garstang, LAAA 1934, plate xiv).

on a dish from *b* layer of Tomb 5, dated therefore to the 15th century B.C.⁹⁸

Wood says that the sherds belonged to a type of simple round-sided bowl which occurs only in LB IB, and cites parallels from Hazor 2 and Ashdod XVII. He also says that just such a bowl was found by Kenyon in 'the final phases of City IV'.⁹⁹ To be precise, it came from phase liii, the layer of bricks and ash which Garstang termed the Streak and which overlay the Lower Stratum.¹⁰⁰ The sherds reported by Garstang also came from the layer above destruction level *c* and were typical, not of the Lower Stratum, but of the Middle Stratum which he identified as Late Bronze.

A vase of distinctly LB character was restored from several pieces. One piece was found embedded in the wall of room M.I-1 of the Middle Building, another came from the foundations of M.IV-1, a third from the debris of that room, and the bulk of it had been plastered round the sides of a mudbrick oven at the foundation level. 'The conclusion is obvious that the level was in occupation prior to the construction of the M. building as a whole.' Wood's examples of Cypriot bichrome ware from Jericho City IV were of the same general provenance. One of the the sherds cited was found embedded in the wall of M.I-2.¹⁰¹

Also under the floor level of the Middle Building was a fragment of bichrome ware characteristic of the 'LB style of Thutmose III'. Garstang concluded that if it came from the uppermost layer of the storerooms, as seemed to be the case, it would suggest that the rooms had either survived the destruction of the town or been subsequently repaired. Slight traces of reconstruction could in fact be discerned, prompting him to ask:

Do the fragments of painted wares found at the level of the wall tops, and the scanty traces of architectural restoration, represent a third stage of re-use and partial rebuilding of these rooms, subsequently destroyed by the construction of the M. Building above?¹⁰²

The deep terracing of the Middle Building into the underlying stratum had left the area too disturbed to provide an answer. What could be affirmed was that

among the ruins of the burnt rooms which underlay the Streak just south of the Middle Building there was no trace of the painted fabrics so common in the Middle Stratum and present in the Streak itself, such as would have indicated the subsequent infiltration of a culture contemporary with level *a*, and there was no sign of rebuilding.

It would seem then certain that our recorded top layer *a* of the lowest stratum within the enclosure is to be associated generally with the lowest layer *c* of the middle or L.B. stratum, and represents a period of partial occupation, during which the slope below the Palace remained largely an open space unoccupied by buildings.

That period had to be after the destruction of the Middle Bronze city but before the construction of the Middle Building. A cleavage rather than an overlap between the MB and subsequent LB deposits was also indicated by the ceramic evidence.

Rooms 71-73 immediately east of the Palace, on the other hand, showed plain traces of reconstruction, and the pottery was somewhat mixed. While most of it was characteristic of level *b*, other pieces pointed to a somewhat later development.

There is no doubt in this case of a confusion between the two superposed layers, whereof the uppermost (an independent local level *a*) seems to represent a late or even transitional M.B.ii period and culture. Confirmatory evidence was found in the reconstruction of the preserved walls, which actually rested upon pottery objects of the original deposit.¹⁰³

Rooms 61-63, also immediately east of the Palace, appeared to belong entirely to the Middle Stratum. Not only was their pottery of LB character, but part of the Streak ran *under* one of the rooms.

Similarly, objects recovered from the Palace itself showed that that building had been used during the LB period. That is, it had been rebuilt – or reoccupied – after the fall of the city recorded in the Lower Stratum. Like the other buildings which Garstang excavated, it had been destroyed in or at the end of MB II and afterwards renovated, along with associated storerooms, in LB I. This much could also be inferred from the drain running from the Palace, which was reconstructed so as to run from above the extant MB floor-level.

The Streak, Garstang believed, derived from the ruins of the re-used Palace, for the pottery within it differed from the pottery of the stratum below and was typologically Late Bronze. The Streak comprised two layers. The Middle Building was constructed upon, and partly in, the lower layer, representing the attrition of the Palace which went on into the Iron Age.¹⁰⁴

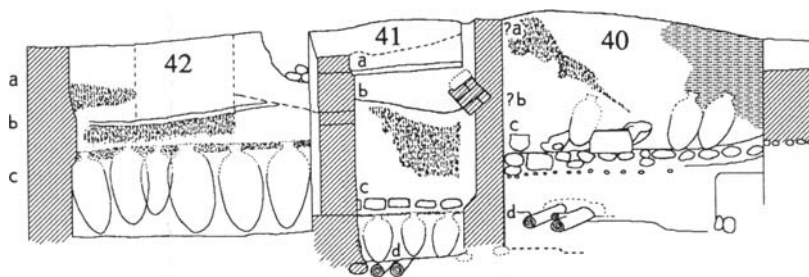


Figure 11: Section through Middle Bronze 'store-rooms' 40-42 (they were probably shops), showing embedded storage jars at the lowest floor level, *c*, and the collapsed upper storey of level *b* (after Garstang, LAAA 1934, plate xvi).

It is apparent, therefore, that Wood's arguments rest not on Garstang's analysis itself, but on a misrepresentation of it. The 'final phases of City IV' in Garstang's maturest interpretation consisted of the destruction of the rebuilt Palace and the formation of the lower Streak.¹⁰⁵ As all authorities agree, including Wood, the Middle Building was not erected until well into LB IIA. The final phases of the Middle Bronze city, after which, in Kenyon's view, there was a complete gap until the erection of the Middle Building, were those of Lower Stratum level *b* (phase li).

In her excavations just north of Garstang's Palace area Kenyon found no phase equivalent to his level *a*. She analysed the final phases of the MB city as follows:

- | | |
|------------|--|
| lii | Room M rebuilt |
| lii a | Occupation levels in street |
| lii b | Occupation levels in rooms |
| lii c | Objects on floor upturned by final destruction |
| lii-liii | Destruction debris of li |
| lii-liii a | Destruction and early erosion pre phase liii |
| liii | Wash eroded from top of burnt buildings |

The wash consisted of powdery streaks of burnt material which directly overlay the heavily eroded Middle Bronze city, and she understood the material to have entirely derived from erosion of the same city upslope. However, since the tops of the destroyed buildings were eroded away, it is possible that there was once a level of occupation or partial rebuilding above some of them, which when it washed down the slope became stratigraphically indistinguishable from the eroded material of the earlier level. As we have seen, Garstang's findings suggest that this is precisely what occurred.

Wood has argued that some of the pottery recovered from phases lii and liii should be classified as LB IB distinct from MB II, but this does not mean that all the material in these phases must be assigned to LB IB. In her final report Kenyon herself noted that phase liii contained a small number of LB pieces, including a bowl fragment of Cypriot White Slip II design;¹⁰⁶ likewise Garstang found numerous examples of LB pottery from the Streak. On the other hand, the pottery from the destruction levels below the Streak 'equated closely with that of Tell Beit Mirsim levels E and D, and with Megiddo XI-X, that is to say the latest M.B. levels of these sites.'¹⁰⁷ Garstang discerned a ceramic 'cleavage' between the Lower and Middle Strata. Thus it seems more reasonable to suppose that, where Kenyon excavated, phases lii and liii were mixed deposits – that LB material from subsequent use of the site occasionally intruded into the destruction debris before the fallen bricks and brick walls had fully decayed and become consolidated. It is noteworthy that all the LB pottery retrieved by Kenyon which Wood cited in *Biblical Archaeology Review* comes from no earlier than phases li to liii.¹⁰⁸ Garstang's Streak had a higher LB content than Kenyon's wash because it lay directly downslope from the Palace, whereas the area upslope of Kenyon's excavation area might have remained deserted.

Thus the evidence of the tell does not support the idea that Jericho was destroyed at the end of LB I. All one can say (and this with reservation) is that it fell about the same time as Tell Beit Mirsim E-D and Megiddo XI-X. The former site cannot be identified. The latter was one of the many cities that the Israelites did not destroy (Ju 1:27), and indeed neither Stratum XI nor Stratum X records a destruction, but the transition from one to the other appears to have occurred about the time of Sheshi.¹⁰⁹ Thereafter some of Jericho's buildings were repaired and re-used (layer a of the Lower Stratum, the 'Palace' and lower Streak). Later still, in LB II, a few buildings such as the Middle Building and rooms 61-63 next to the Palace were built from new. Finally the whole city was rebuilt in Iron Age II. In view of this sequence, it does not seem unreasonable to identify the LB I remains with the 18 years of Moabite occupation mentioned in Judges 3:14, a hundred years after Jericho's destruction.

The tombs tell a similar story. The cemetery which Kenyon excavated lay north of the city. Using ceramic criteria derived principally from Megiddo, she arranged the tombs into five successive groups. Coinciding with the final phases of the Middle Bronze city, the tombs of the last group contained multiple burials which appeared to have been performed simultaneously. As there were no obvious signs of injury on the skeletons, Kenyon suggested that shortly before its destruction Jericho had been visited by plague.¹¹⁰

As Wood acknowledges, there is no unequivocally

LB material in these tombs.¹¹ On the basis of the scarab evidence – including the Sheshi scarab – Tufnell dated Group V about half-way into the Hyksos Period;¹¹¹ Kempinski agrees.¹¹² In Cole's opinion the ceramic evidence also favours such a date, for the 'Group V tombs generally accord with early MB IIC materials as defined by Shechem XVI-XV and Tell Beit Mirsim D'.¹¹³ However, if Group V spans, at most, just a few years, it is likely to be very close in time to Group IV, an expectation which accords with Ward's analysis of the key pottery types.¹¹⁴ Cole correlated Group IV with Shechem XVIII-XVII, i.e. late MB IIB.

Garstang excavated the tombs to the west of the city. Although most, like the tombs excavated by Kenyon, contained burials from the Middle Bronze Age, a few were re-used in the Late Bronze, as indicated by scarabs from the reigns of Hatshepsut, Thutmose III and Amenhotep III and numerous examples of LB pottery.¹¹⁵

Other cities

The cities said explicitly to have been destroyed by the Israelites under Joshua are Jericho, Ai, Makkedah, Lachish, Libnah, Eglon, Hebron, Hazor, Hormah, Arad and Bethel. Makkedah, Libnah and Eglon have not been identified, while the locations of Ai and Bethel are disputed,¹¹⁶ so apart from Jericho we are left with Lachish, Hebron, Hazor, Hormah and Arad. All these cities existed in the Middle Bronze Age and all have left an archaeological record compatible with the thesis that they were destroyed in MB IIB.¹¹⁷

Lachish suffered a violent conflagration in MB IIB-C (Stratum VIII), after which there was a gap before resettlement in LB I. The gap may therefore represent what at Shechem, Dan, and Tell el-Ajjul was MB IIC. No bichrome or chocolate-on-white wares were found in the Middle Bronze city.

Hebron was also destroyed in MB IIB-C. Whether it was abandoned thereafter is at present unclear.

Hazor suffered a violent conflagration in MB IIB-C, after which it was abandoned. It was rebuilt in LB I. No Cypriot wares were found in the Middle Bronze city (Stratum XVI).

Hormah (i.e. Zephath) is identified with Tel Masos. Excavations revealed MB IIB fortifications and a settlement from the Iron Age, but no Late Bronze remains.

Finally, one year before the fall of Jericho the Israelites destroyed the cities of Arad in the Negeb. The name of that region was therefore called 'Hormah' (Nu 21:1). The city Arad itself was then defeated a second time (but not necessarily destroyed) under Joshua (Jos 12:14). Correspondingly, its remains at Tell Malhata revealed an MB IIB-C city destroyed by fire. Soon afterwards it was resettled on a smaller

scale, but was abandoned, possibly destroyed, before the end of the Middle Bronze Age. It remained deserted until the Iron Age.¹¹⁸

To summarise, the archaeological evidence, both alone and in conjunction with the historical record, supports the thesis that the Jericho destroyed by the Israelites belonged culturally to MB IIB. Whether the spectrum of its pottery can be used to fix that moment more precisely within MB IIB is doubtful, since it is not clear where MB IIA at Jericho ends.²⁰ It may be that the corresponding stratum at Tell el-Daba (E/3) is more appropriately understood as late MB II, and that there the transition from MB IIA to MB IIB should be placed somewhat earlier. What does seem fairly clear is that the end of MB Jericho, MB Hazor and so on, Stratum E/3 of Tell el-Daba, the end of Tell el-Ajjul City III and the reign of Sheshi all belong to the same historical horizon, and that our ideas about ceramic development must be framed accordingly. There is now enough archaeological information from a sufficiently large number of sites to permit correlations that are based on historical events first and foremost. When correlations of this kind are made a more coherent picture emerges – one in which the ancient traditions, Egyptian and Hebrew, are conserved and reconciled. On grounds that are independent of the Jericho problem the Exodus can be placed in Egypt's history immediately before the Hyksos Period. At Tell el-Daba we have for the first time an archaeological reflection of the Exodus. The Hyksos Period is allocated its proper length. The MB IIB-C period with which it is associated is given a length commensurate with its complex stratigraphy. □

Notes and References

1. S. J. Robinson: 'The chronology of Israel re-examined' in *JACF* 5 (1991/92), pp 89-98.
2. H. Weippert & M. Weippert: 'Jericho in der Eisenzeit' in *Zeitschrift des Deutschen Palästina-Vereins* 92 (1976), pp 105-48.
3. See John J. Bimson: *Redating the Exodus and Conquest*, 2nd edn. (Sheffield 1981), pp 119-24.
4. Kathleen M. Kenyon: *Excavations at Jericho, Volume 3: The Architecture and Stratigraphy of the Tell*, ed. T. A. Holland (London 1981), p 370.
5. Emmanuel Anati: *The Mountain of God* (New York 1986).
6. E.g. Donovan A. Courville: *The Exodus Problem and its Ramifications* (Loma Linda, Ca 1971). The strength of the Early Bronze case is usefully reviewed in William H. Stiebing: *Out of the Desert? Archaeology and the Exodus/Conquest Narratives* (New York 1989).
7. J. J. Bimson & D. Livingstone: 'Redating the Exodus' in *Biblical Archaeology Review* Sep/Oct 1987; J. J. Bimson: 'Exodus and Conquest – myth or reality?' in *JACF* 2 (1988), pp 27-40.
8. E.g. B. Halpern: 'Radical Exodus redating fatally flawed' in *BAR* Nov/Dec 1987; Stiebing, *op. cit.* [6].
9. B. G. Wood: 'Did the Israelites conquer Jericho?' in *BAR* Mar/Apr 1990, pp 45-58.
10. P. Bienkowski: 'Jericho was destroyed in the Middle Bronze Age, not the Late Bronze Age' in *BAR* Sep/Oct 1990.
11. As reported by J. J. Bimson in *Chronology and Catastrophism Review* XV (1993), p 48.
12. Bimson: *op. cit.* [3], p 167.
13. Bimson & Livingstone: *op. cit.* [7], note 8.
14. Wood: *op. cit.* [9]; *idem.*, 'The archaeology and history of Jericho in the Late Bronze Age', paper presented at the "Who was the Pharaoh of the Exodus?" Symposium at Memphis, April 24, 1987.
15. Yigael Yadin: *Hazor* (London 1972).
16. D. M. Rohl: 'A test of time: rediscovering ancient Israel' in *JACF* 5 (1991/92), pp 30-58.
17. G. Walberg: 'Middle Minoan chronology: relative and absolute' in Paul Astrom (ed.): *High, Middle or Low? Part 2* (Gothenburg 1989), p 208.
18. Dan P. Cole: *Shechem I: The Middle Bronze Age IIB Pottery* (Winona Lake 1984), p 88.
19. R. L. Chapman: 'The three ages revisited: a critical study of Levantine usage, Part II: the proposal' in *Palestine Exploration Quarterly* 122 (1990), pp 1-20.
20. P. Bienkowski: 'The division of Middle Bronze IIB-C in Palestine' in *Levant* XXI (1987), pp 169-76.
21. G. E. Wright: 'Archaeological method in Palestine: an American interpretation' in *Eretz-Israel* 9, p 128, quoted in Bienkowski: *op. cit.* [20].
22. R. L. Chapman: 'A preliminary analysis of the MB pottery from Squares H II, III, VI at Jericho' in *Levant* XXI (1989), p 178.
23. Kathleen M. Kenyon: 'Palestine in the time of the Eighteenth Dynasty' *Cambridge Ancient History* (Cambridge 1973), Vol. II, Part 1, p 541f. Cole (*op. cit.*) assigns four building strata to MB IIB and two to MB IIC. See also M. Bietak: 'Egypt and Canaan during the Middle Bronze Age' in *Bulletin of the American Society for Oriental Research* 281 (1991), p 57 with references.
24. Wood: *op. cit.* [9], p 52; Kenyon: *op. cit.* [4], pp 354-70. Ward, *op. cit.* [68], stresses that the pottery evidence also indicates a lengthy period of occupation for MB II Jericho.
25. Bietak: *op. cit.* [23], p 57.
26. W. G. Dever: 'The chronology of Syria-Palestine in the second millennium BCE: a review of current issues' in *BASOR* 288 (1992), at p 16.
27. See particularly J. M. Weinstein: 'Egypt and the Middle Bronze IIC/Late Bronze IA transition in Palestine' in *Levant* XXIII (1991), p 104.
28. O. Tufnell: 'El-Ajjul, Tell' in M. Avi-Yonah (ed.) *Encyclopaedia of Archaeological Excavations in the Holy Land* Vol. I (1975), pp 52-61; J. R. Stewart: *Tell el-Ajjul: the Middle Bronze Age Remains*, *Studies in Mediterranean Archaeology*, Vol. 38 (Gothenburg 1974), pp 62f.
29. Bienkowski: *op. cit.* [10], p 46.
30. A. Kempinski: 'Tell el-Ajjul – Beth Aglayim or Sharuhen?' in *Israel Exploration Journal* 24, p 147; *idem.*, in Amnon Ben-Tor (ed.): *The Archaeology of Ancient Israel* (New Haven 1992), p 190; M. Bietak: 'Problems of Middle Bronze Age chronology: new evidence from Egypt' in *American Journal of Archaeology* 88 (1984), p 482.
31. J. Weinstein: 'The Egyptian empire in Palestine: a reassessment' in *BASOR* 241 (1981), pp 1-28.
32. D. B. Redford: 'A gate inscription from Kamak and Egyptian involvement in Western Asia during the early 18th Dynasty' in *Journal of the American Oriental Society* 99 (1979), pp 270-87.
33. H. Goedicke: 'The end of the Hyksos in Egypt' in Leonard E. Lesko (ed.), *Egyptological Studies in Honor of Richard A. Parker* (Hanover, NH 1986), pp 37-47.
34. Weinstein: *op. cit.* [27], pp 107ff.
35. Piotr Bienkowski: *Jericho in the Late Bronze Age* (Warminster 1986), p 127.
36. Bietak: *op. cit.* [23], p 64, note 46.
37. Bietak: *op. cit.* [24], pp 57ff.
38. Bimson & Livingstone: *op. cit.* [7].
39. Peter James with I. J. Thorpe, Nikos Kokkinos, Robert Morkot and John Frankish: *Centuries of Darkness* (London 1991).
40. D. M. Rohl: 'The early Third Intermediate Period: some chronological considerations' in *JACF* 3 (1989/90) and *op. cit.* [16], p 48.
41. The Sothic dating has been challenged. See, for example, *JACF* 1 (1987), p 52, and most recently L. E. Rose: 'The astronomical evidence for dating the end of the Middle Kingdom of ancient Egypt to the early second millennium: a reassessment' in *J. of Near Eastern Studies* 53/4 (1994).
42. Bietak: *op. cit.* [30], p 473. In *op. cit.* [23] he plumps for slightly lower dates.
43. Manetho's reported figures for the 14th Dynasty are an instance of such corruption, Africanus and Eusebius giving 184 years and the later, Armenian version of Eusebius 484 years. The true figure is agreed to be the earlier one.
44. A. H. Gardiner gives an English translation of the Turin Canon at the end of *Egypt of the Pharaohs* (Oxford 1961). His reconstruction is not perfect. While it was rolled up, the papyrus was bored into by an ancient insect and subsequently repaired with patches, one of which is still incorrectly positioned. See W. Helck: 'Anmerkungen zum Turiner Königspapyrus' in *Studien zur altägyptischen Kultur* 19 (1992), pp 150-216, esp. p 180. The proposal of two additional columns between IX and X to

accommodate the misplaced patch (p 183) seems unlikely.

45. Ludwig Borchardt: *Die Mittel zur seitlichen Festlegung von Punkten der ägyptischen Geschichte und ihre Anwendung* (Cairo 1935), pp 96-112, plates 2 and 2a.
46. Manetho tr. W. G. Waddell (London 1940), p 79.
47. J. J. Bimson reviewed the evidence for the use of horse and chariot in 'A chronology for the Middle Kingdom and Israel's Egyptian bondage: Part 2' in *SIS Review* (subsequently *Chronology & Catastrophism Review*) IV, at p 17, citing W. Helck: 'Ein indirekter Beleg für die Benutzung des leichten Streitwagens' in Ägypten zu Ende der 13. Dynastie' in *JNES* 37 (1978), pp 337-40.
48. It is commonly suggested that the Hebrew *Yam Suph* designates a certain 'Sea of Reeds', but the notion that two different waters in the area had the same Hebrew name, and that the biblical authors did not bother to distinguish the two, seems implausible. In some verses the traditional translation is vindicated by the context, e.g. Ex 23:31, Nu 21:4, Deut 1:40, I Ki 9:26. Neither the Septuagint nor the New Testament knows anything about a Sea of Reeds (Acts 7:36, Heb 11:29).
49. (a) The date of the Exodus is based on I Ki 6:1, taken at face value. (b) The theory that the Hyksos invaded Egypt just after the Israelites left was first proposed by Immanuel Velikovsky in *Ages in Chaos* (New York 1952). His revision of Egypt's subsequent chronology has not withstood scrutiny.
50. In Waddell: *op. cit.* [46], pp 239ff.
51. J. Malek: 'The original version of the Royal Canon of Turin' in *Journal of Egyptian Archaeology* 68 (1982), pp 93-106. For disagreement see W. Barta: 'Bemerkungen zur Rekonstruktion der Vorlage des Turiner Königspapyrus' in *Göttinger Miszellen* 64 (1983), pp 11-13 and J. von Beckerath: 'Bemerkungen zum Turiner Königspapyrus und zu den Dynastien der ägyptischen Geschichte' in *SAK* 11 (1984), pp 49-57.
52. M. Bietak: 'Eine Stele des ältesten Königssohnes des Hyksos Chajan' in *Mitteilungen der Deutschen Archäologischen Institut von Kairo* 37 (1981), pp 63-71.
53. H. Goedicke: 'Some remarks on the 400-Year Stela' in *Chronique d'Égypte* 41 (1966), pp 23ff.
54. A name could be represented in more than one way – A. H. Gardiner: *op. cit.* [44], p 240. However, the names Seti, Ramesses and Tuia seem to have been fairly common in the royal family.
55. H. Te Velde: *Seth, God of Confusion: a Study of his Role in Egyptian Mythology and Religion* (Leiden 1967), p 124.
56. H. Goedicke: 'The "400-Year Stela" reconsidered' in *Bulletin of the Egyptological Seminar* 3 (1982), pp 25-42.
57. If the total for these kings in the Turin Canon is 108 years, Khamudy ruled for about a year.
58. 'Xois' could be a corruption of 'foreign lands' – D. B. Redford: *Orientalia* 39 (1970), pp 17ff.
59. W. Ward, in Olga Tufnell: *Studies on Scarab Seals II: Scarab Seals and their Contribution to History in the Early Second Millennium BC* (Warminster 1984), pp 170-72.
60. Following Jürgen von Beckerath: *Untersuchungen zur politischen Geschichte der zweiten Zwischenzeit in Ägypten* (Glückstadt 1964).
61. The first to suggest that the full name was Mennoferre was G. Farina in *Il Papiro dei Re* (Rome 1938).
62. H. Gauthier: *Le Livre des rois d'Égypte*, Vol. II (Cairo 1912), p 107, and R. Weill: *Chronologie égyptienne* (Paris 1926), pp 10f, note 1.
63. Tufnell: *op. cit.* [59].
64. Josephus, in Waddell: *op. cit.* [46], pp 85ff.
65. Donald B. Redford: *History and Chronology of the Eighteenth Dynasty of Egypt* (Toronto 1967), pp 46-49.
66. Contra Goedicke: *op. cit.* [33].
67. S. J. Robinson: 'The chronology of the 12th Dynasty' in preparation. On the basis of the Sothic date, Senusret III Year 7 may be equated with c.1883 BC, taking into account evidence for a slightly greater obliquity of the ecliptic than is commonly allowed for. Others calculate a slightly lower date: 1875 (W. Barta), 1872 (W. F. Edgerton) or 1866 (R. Krauss), the latter assuming an observation point at Elephantine rather than at Memphis. As regards coregencies, see P. E. Newberry in *JEA* 29 (1943), pp 74f, and W. J. Murnane: *Ancient Egyptian Coregencies*, SAOC 40 (1977).
68. W. A. Ward: 'Scarab typology and archaeological context' in *AJA* 91 (1987), pp 507-32, especially p 530.
69. Bietak: *op. cit.* [23], p 31.
70. Bimson: *op. cit.* [7], p 28.
71. So Deut 34:1, Ju 20:1 and *passim*.
72. Gen 14:2,3,7,8,17, 23:2,19 and 35:19.
73. Bietak: *op. cit.* [23], p 28.
74. That Hebrew 'build' may mean 'rebuild' is seen, for example, in Ju

18:28, or Ezra 1:3.

75. M. Bietak: 'Avaris and Piramesse: Archaeological exploration in the Eastern Nile Delta' in *Proceedings of the British Academy* (London 1979), pp 237, 241.
76. Bietak: *op. cit.* [23], p 38. He referred to the dendrological evidence in his ISIS Fellowship Lecture at the British Museum, 27th April 1991.
77. Bietak: *op. cit.* [75], p 241.
78. Bietak: *op. cit.* [23], p 40.
79. Redford: *op. cit.* [58], p ...
80. M. Bietak: 'Die Chronologie Ägyptens und der Beginn der Mittleren Bronzezeit-Kultur' in *Ägypten und Levante* 3 (1992), pp 29-37, at p 32.
81. Bietak: *op. cit.* [23], p 48.
82. Bietak: *op. cit.* [30], p 480.
83. See note 67.
84. W. H. Shea: 'The conquests of Sharuhen and Megiddo reconsidered' in *IEJ* 29 (1979), pp 1-5.
85. Ward: *op. cit.* [68], p 522.
86. Bietak: *op. cit.* [23], pp 55f.
87. *Ibid.*, p 57, Bietak refers to ample quantities of Late Cypriot ware, i.e. Bichrome, Proto White Slip and White Slip I.
88. *Ibid.*, p 55.
89. Dever: *op. cit.* [26].
90. W. G. Dever: 'Relations between Syria-Palestine and Egypt in the "Hyksos" Period' in Jonathan N. Tubbs (ed.): *Palestine in the Bronze and Iron Ages* (London 1985), at p 80.
91. Bietak: *op. cit.* [24], p 42.
92. J. M. Weinstein: 'The chronology of Palestine in the early second millennium BCE' in *BASOR* 288 (1992), observes at p 32 that the drinking cups at Dahshur are horizontally distributed and cannot be subdivided into neat phases. However, seriation depends only on the existence of a trend, not 'neat phases', and the reign of Amenemhet III is clearly the *terminus post quem* for the cups at Tell el-Daba. See also Bietak: *op. cit.* [80], p 32.
93. J. K. Hoffmeier: 'Reconsidering Egypt's part in the termination of the Middle Bronze Age in Palestine' in *Levant* XXI (1989), pp 181-93.
94. Dever: *op. cit.* [26], pp 16f.
95. J. Garstang: 'Jericho: city and necropolis (fourth report)' in *University of Liverpool Annals of Archaeology and Anthropology* 21 (1934), pp 99-136.
96. K. M. Kenyon: 'Some notes on the history of Jericho in the second millennium BC' in *PEQ* 83 (1951), pp 101-38.
97. *Ibid.*, ed. T. A. Holland: *Excavations at Jericho, Volume 3: The Architecture and Stratigraphy of the Tell*, (London 1981), p 368.
98. Garstang: *op. cit.* [95], pp 120f.
99. Wood: *op. cit.* [9], pp 51f, 58.
100. Kathleen M. Kenyon, ed. T. A. Holland: *Excavations at Jericho, Volume 5: The Pottery Phases of the Tell and Other Finds* (London 1983), p 464.
101. Wood: *op. cit.* [9], p 69 (note 54), esp. Garstang's pl. 39:5.
102. Garstang: *op. cit.* [95], p 122.
103. *Ibid.*, p 126.
104. *Ibid.*, p 106.
105. J. Garstang & J. B. E. Garstang: *The Story of Jericho*, revised edn. (London 1948).
106. Kenyon: *op. cit.* [100], p 463.
107. Kenyon: *op. cit.* [96], p 113. See text above for not placing great reliance on Albright's reporting. The Megiddo reports should be handled with equal caution.
108. B. G. Wood: 'Dating Jericho's destruction' in *BAR* Sep/Oct 1990, p 47.
109. Graham I. Davies: *Megiddo* (Cambridge 1986).
110. Kathleen M. Kenyon: *Digging up Jericho* (London 1957), p 254.
111. Tufnell: *op. cit.* [29], p 200.
112. Aharon Kempinski: *Syrien und Palästina (Kanaan) in der letzten Phase der Mittelbronze IIB Zeit (1650-1570 v.Chr.)* (Wiesbaden 1983), p 225; also in Amnon Ben-Tor (ed.): *The Archaeology of Ancient Israel* (New Haven 1992), p 178.
113. Cole: *op. cit.* [18], p 85.
114. Ward: *op. cit.* [68], p 519.
115. J. Garstang: 'Jericho city and necropolis' in *LAAA* 20 (1933), pp 3-42; Garstang: *op. cit.* [95], pp 107-9, 113, 121.
116. D. P. Livingston: 'Further considerations on the location of Bethel at el-Bireh' in *PEQ* 126 (1994), pp 154-59.
117. See Bimson & Livingston: *op. cit.* [7] for references; also Stiebing: *op. cit.* [5].
118. M. Kochavi: 'Tel Malhata' in *IEJ* 17 (1967), pp 272f.