THE LATE BRONZE AGE AT JERICHO

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The site of Jericho in Palestine has been excavated three times this century. Only John Garstang found substantial remains from the Late Bronze Age. He never produced a final report, and much of his material remained unpublished. Kathleen Kenyon's later excavations produced some traces of LBA occupation.

This thesis is primarily a publication and study of the LBA material from Garstang's excavations at Jericho. This consists of material from tombs and from the tell. There are three LBA tombs which had all been used in the MBA. Preliminary chapters examine M and LBA chronology, the reliability of Kenyon's MBA pottery typology, and techniques of pottery analysis. Two previously unpublished tombs, once thought to be LBA, are shown to be entirely MBA. The pottery from the MB-LB tombs has been examined, and comparisons between the two periods made on the basis of fabric analysis, supported by Scanning Electron Microscope X-Ray micro-analysis of selected pieces. This revealed and quantified a decline in the craft of pottery-making in the LBA.

The rudimentary LBA tell stratigraphy from Garstang's excavations has been correlated with Kenyon's published sections. All the available evidence suggests that LBA Jericho was unwalled and did not extend much further than the area of the 'Middle Building'. It seems to have been abandoned in early LBIIb. LBA occupation at Jericho can be dated c.1425-1275 B.C.

The conclusions drawn from the study of the pottery and the tell stratigraphy have been considered against the wider context of M and LBA Palestine. In the MBA, Jericho was a thriving community, and its pottery was of high quality. In the LBA, Jericho was a very small settlement, and there was a progressive decline in pottery manufacture. These trends are echoed elsewhere in Palestine. Analysis of the nature of Egyptian rule in LBA Palestine suggests that it was concentrated in the more densely populated areas. These continued to be relatively prosperous, while other regions declined. Several possible explanations for this decline have been examined. The conclusion is that it was caused by the diversion of resources, in the form of annual tribute, to the Egyptian empire. The Egyptian presence increased repressively in early LBIIb, which may have hastened the abandonment of Jericho.

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CHAPTER 1

INTRODUCTION

1.1 Jericho and its Setting

The mound of Tell es-Sultan in Palestine, at 250 metres below sea level, is the lowest town on the surface of the earth. There is little doubt that it is to be identified as ancient Jericho. All the literary indications point to the west side of the lower Jordan, near the fords, and the name is preserved by the modern village of er-Riha, about two miles south-east of the mound. Franken argues that all these indications are so vague that biblical Jericho cannot be equated beyond reasonable doubt with Tell es-Sultan (Franken 1976, 6). All that can be said, he suggests, is that Jericho "is to be located within an area of say twenty square miles between the mountains and the Jordan river and around the springs..." (ibid.). Apart from Tell es-Sultan, however, there would appear to be no other convincing candidate for the site of ancient Jericho. (For other doubts on the location of Jericho, see Wolf 1966.)

Archaeological work at Jericho was originally due to interest in the town where, to quote a popular negro spiritual, "Joshua fit de battle ob Jericho, an' de walls come tumblin' down" (Chambers 1953, 52). Ever since Kathleen Kenyon's excavations, however, it has been its claim to the title of 'Oldest Town in the World' that has struck people's imaginations.

So much has been written about Jericho and its environmental setting that it is unnecessary to dwell here on the climatic and geographical factors affecting its position. That kind of information is readily available in the accounts by Garstang, Kenyon and Bartlett (Garstang and Garstang 1948, 21-8; Kenyon 1957b, 23-9; Bartlett 1982, 11-26). Nevertheless, George Adam Smith's memorable description of Jericho, though imbued with Victorian romanticism, is both beautiful and vivid, and serves to remind us that, with our concern for

detail and the vast amount of material now available to us, we cannot match the "classical outlook and the broad mind" of the 19th century (Aharoni 1979, xiii):

> "Follow these roads, passes and fords to where they meet at the foot of the Judaean hills; observe the streams breaking from the hill-foot at their junction, and rendering possible an elaborate irrigation. Then, where but now a few hovels and a tower on the edge of a swamp mock your imagination, you will see a strong and stately city rise in the midst of a wonderful fertility of grove and garden. Jericho was the gateway of a province, the emporium of a large trade, the mistress of a great palm forest, woods of balsam, and very rich gardens. To earliest Israel she was the City of Palms; to the latest Jewish historian 'a divine region', 'fattest of Judaea'. Greeks and Romans spread her fame, with her dates and balsam, all over the world, and great revenue was derived from her. Her year is one long summer; she can soak herself in water, and the chemicals with which her soil is charged seem to favour her peculiar products. Like Bethshan, she can make a swamp about her; five miles in front is a river, which, if she opposes, cannot be crossed; and immediately behind are her own hills, with half a dozen possible citadels. Jericho is thus a city surrounded by resources. Yet in war she has always been easily taken. That her walls fell down at the sound of Joshua's trumpets is no exaggeration, but the soberest summary of all her history. Judaea could never keep her. She fell to Northern Israel till Northern Israel perished. She fell to Bacchides and the Syrians. She fell to Aristobulus when he advanced on his brother Hyrcanus and Judaea. She fell without a blow to Pompey, and at the approach of Herod and again of Vespasian her people deserted her. It is also interesting to note that three invaders of Judaea - Bacchides, Pompey, and Vespasian, took Jericho before they attempted Jerusalem, although she did not lie upon their way to the latter, and that they fortified her, not, it is to be supposed, as

a base of operations, so much as a source of supplies. This weakness of Jericho was due to two causes. An open pass came down on her from Northern Israel, and from this both parts of her water supply could be cut off, and the hills behind her could be occupied. But besides this, her people seem never to have been distinguished for bravery; and, indeed, in that climate, how could they? Enervated by the great heat, which degrades all the inhabitants of the Ghor, and unable to endure on their bodies aught but linen, it was impossible they could be warriors, or anything but irrigators, paddlers in water and soft earth. We forget how near neighbours they had been to Sodom and Gomorrah. No great man was born in Jericho; no heroic deed was ever done in her. She has been called 'the key' and 'the guardhouse' of Judaea; she was only the pantry. She never stood a siege, and her inhabitants were always running away" (Smith 1896, 266-8).

1.2 The Excavations at Jericho

1.2.1 Warren

The first preliminary exploration at Jericho was by Charles Warren in 1868 (Warren 1869; Warren in Conder and Kitchener 1883, 224-6). He sank several shafts into the mound, one into the Early Bronze Age city wall which he did not recognise, and another missing the Pre-Pottery Neolithic A stone tower by only one metre (Kenyon in Avi-Yonah 1976, 551). He concluded that there was nothing to be found on the site.

1.2.2 Sellin and Watzinger

Ernst Sellin and Carl Watzinger directed the large scale excavations of the German Oriental Society from 1907-9 (Sellin and Watzinger 1913). The publication was excellent for its time, displaying the contemporary concern for architectural remains, despite the ignorance of pottery chronology. Substantial remains of the Iron Age were uncovered, including a massive

building of tripartite plan, called the 'Hilani' by the excavators. The Iron Age remains at Jericho have recently been reassessed by M. and H. Weippert, who argue that there was a continuous settlement on the site from the 11th to the early 6th century B.C. Sellin and Watzinger's conclusions concerning the Iron Age were found to be convincing (Weippert and Weippert 1976). The Germans also excavated the Middle Bronze II stone glacis at the foot of the mound, and one of the Early Bronze Age walls on the top of the slope. In the original publication these were dated wrongly, but in 1926 Watzinger redated them correctly in the light of subsequent discoveries in Palestine, and concluded that Canaanite Jericho was destroyed no later than 1600 B.C. (Watzinger 1926).

1.2.3 Garstang

John Garstang of Liverpool University, who was critical of Watzinger's conclusions, directed the Marston-Melchett excavations at Jericho from 1930-36. The preliminary reports appeared regularly in the Liverpool Annals of Archaeology and Anthropology and in the Palestine Exploration Fund Quarterly Statement (Garstang 1930-36). His results will be summarised briefly here.

1.2.3.1 Neolithic (Levels VIII-XVII): Garstang 1932a, 4-6; 1935a, 163-73, Flints 174-84; 1936a, 67-73, Pottery 77-90:

The stratigraphy of the Neolithic levels is very unreliable. In general, Garstang's Level VIII (Late Neolithic) may correspond to the Pottery Neolithic B of Kenyon's subsequent work, and his Level IX (Middle Neolithic) to Kenyon's Pottery Neolithic A (although Level IX seems to have contained PPNB flints, and Level VIII a mixture of PNA and PNB flints, cf Joan Crowfoot Payne in Kenyon and Holland 1983, 714). Garstang's Levels X-XVII (Early Neolithic) are especially suspect: he made no distinction between what Kenyon later called Pre-Pottery Neolithic A and B. The architecture seems to correspond to the rectilinear style of PPNB, although one impressive rectangular building with seven superimposed strata, thought to be a shrine, had its origins just above

the Mesolithic levels which were reached in a very limited area (see Garstang 1935a, pl.XXVI, Rm.208). It is quite likely that the building was intrusive, but it helped to confuse Garstang into believing that the 'Early Neolithic' culture was homogeneous. Garstang thought that there was a transition to the use of pottery on the site, but Kenyon's re-examination of his trench and fresh evidence showed that this was wrong. The Level IX (PNA) pits containing the pottery were not recognised, and Garstang believed that the pottery belonged to the latest plastered-floor houses (PPNB) instead of being intrusive. Joan Crowfoot concluded that the flint industry of the Early and Middle Neolithic (the so-called 'Tahunian II') was the same, but again Kenyon's excavations have shown her to be mistaken. In the Middle Neolithic (Kenyon's PNA) the flint industry was characterised by the use of sickle blades with coarse denticulation rather than the finely serrated edge of the preceding period (Kenyon 1979, 45; see now Joan Crowfoot Payne in Kenyon and Holland 1983, 622ff, on Jericho's flint industries from Kenyon's excavations, which she correlates with Garstang's, correcting her mistakes of half a century ago).

1.2.3.2 Early Bronze Age (Levels III-VII): Garstang 1932a, 8-12; 1932b, 38-41; 1935a, 143-63; 1936a, 73-4, Pottery 91-100:

The stratigraphy of these levels is also very confused and unreliable. Garstang concluded that there were two phases of city and wall construction, Cities A and B. Kenyon's excavations showed that the sequence of Early Bronze Age city walls was highly complex, and in fact the double wall which Garstang attributed to the Late Bronze Age was dated by Kenyon to two successive phases of the Early Bronze Age (Kenyon 1952b, 62; also in Avi-Yonah 1976, 564). The attribution of buildings is also uncertain. It is likely that at least part of Level VII can be equated with Kenyon's Proto-Urban period, especially the houses with curved or round walls. The numerous silos and rectilinear houses,

and the great tower with three deep chambers are all certainly Early Bronze Age. Tombs 24 and A contained pottery characteristic of EBI and EBIII respectively.

1.2.3.3 Middle Bronze I (Garstang 1936a, 44):

This is probably to be identified with Kenyon's EB-MB, and Garstang's conclusions were along the same lines as those of Kenyon. He noted that there were no fresh fortifications or architectural development, and suggested that the traces of occupation, with the characteristic flat bottoms and lug handles of the pottery, represented an Aramaean migration.

1.2.3.4 Middle Bronze II (City C): Garstang 1933, 41-2; 1934, 118-31; 1936a, 74. Tombs: Garstang 1932b, 43-54; 1933, 4-40:

Garstang excavated the MBII defences at the foot of the slope, now well known from Kenyon's excavations. The Palace, not much of which was actually excavated, consisted of a square main block and storerooms, and had an elaborate drainage system (Kenyon in Avi-Yonah 1976, 563-4 notes that the Palace could be Iron Age, as the dating evidence is not conclusive; cf Chapter 9.1.1). On the slopes on either side were rooms stacked with bins and storage jars containing carbonised grain. Garstang thought that these were the storerooms of the Palace, but Kenyon has suggested that they were private houses, each with its storerooms on the ground floor (Kenyon 1954, 61). The whole of this area was destroyed by fire.

Garstang also excavated a cemetery on the west side of the tell. Eight MB tombs (three of which contained LB material) were published, and fourteen MB tombs (two apparently containing LB material) were not published. Fourteen other tombs were empty or too fragmentary for publication. There were two

types of tomb - grotto (shaft) tombs, and open graves apparently without cover except for a few large stones piled on the debris. They seem to have contained multiple successive burials, as in the tombs Kenyon excavated later.

1.2.3.5 Late Bronze Age (City D): Garstang 1934, 105-17; 1936a, 74-6. MB/LB Tombs: Garstang 1933, 14-40:

The walls which Garstang dated to the Late Bronze Age were in fact Early Bronze Age, as noted above. To City D he originally ascribed the Middle Building, a substantial structure overlying the MBA storerooms. Later he attributed it to a slightly later period, still within the Late Bronze Age (Garstang 1941). It was the only LBA building which he published in detail (cf the comments in Kenyon 1951, 120-1; also Chapter 9); in Garstang 1936a, 74, he mentioned the LBA contents of one other room.

Garstang thought that two of the three MB/LB tombs had been used continuously through MBII, LBI and LBII, but Kenyon has shown that this was wrong (Kenyon 1951, 114-17). In fact, according to her, there was a gap in occupation on the tell and in the tombs between the end of MBII (c.1550 B.C.) and c.1400 B.C. She argued that there was no 13th century B.C. occupation on the site. Jericho was not re-occupied as a city from c.1300 B.C. until well into the early Iron Age.

1.2.3.6 Iron Age (City E): Garstang 1933, fig.11 and p.36 for cremation pit 11; 1934, 102-4; 1936a, 76:

Only a few remains of the Iron Age were found by Garstang. They consisted of a four-roomed house, the precise dating of which is uncertain, other odd bits of building, and two tomb deposits.

1.2.4 Kenyon

Kathleen Kenyon excavated at Jericho from 1952-58; her reports appeared in PEQ 1952-57 and 1960, Kenyon 1960b, 1965, 1981, Kenyon and Holland 1982. The results are known well enough not to be repeated here - for a general account see Kenyon 1957b.

1.3 Aims of this Study

Garstang did not manage to produce a final report on his excavations at Jericho, and as a compromise wrote a popular account together with his son (Garstang and Garstang 1948). The publication of his material is incomplete, and much of what is published needs to be re-assessed in the light of subsequent discoveries. It may be argued, with some justification, that Kenyon's excavations have provided sufficient detailed information concerning Jericho, and that a reconsideration of Garstang's material is therefore not necessary. However, the Late Bronze Age at Jericho, about which so much argument has raged as a result of the biblical record, is really represented solely by Garstang's material. Kenyon found only a tiny area of LBA occupation - over the rest of the area she excavated, the modern surface was below the level of the floor, as a result of continuing erosion (Kenyon 1981, 371). The present study is essentially an examination of the published and unpublished LBA material from Garstang's excavations, which is crucial for our knowledge of Jericho's history. This involves a stratigraphic study of the LB buildings on the tell and a detailed examination of all the available material from those MB tombs which were re-used in the LBA. Middle as well as Late Bronze Age pottery has been included so that a comparison of the fabrics and an analysis of the trends between the two periods could be made. All the results have been considered against the wider Palestinian background and their validity for the area as a whole, as well as for Jericho itself, has been assessed. The biblical evidence, in particular the Book of Joshua Chapters

2-7, has been deliberately avoided. The convoluted problems of Old Testament chronology and exegesis are beyond the scope of a purely archaeological approach.

In order to provide a framework within which to work, chapters have been included on absolute chronology (Middle and Late Bronze Age), an examination of Kenyon's Middle Bronze Age pottery typology (developed for Jericho) and an explanation and defence of the analytical techniques used for the study of the pottery.

1.4 Sources

The sources from which the core of this thesis is derived comprise John Garstang's published and unpublished records of the excavations at Jericho and the surviving material excavated. The original excavation records are kept at the Palestine Exploration Fund, London, the Department of Oriental Studies, University of Liverpool, and the Institute of Archaeology, London.

The PEF archives include all the records dealing with the excavation of the tell - field notebooks and summaries by the site supervisors, Garstang's diaries and own site notebooks, surveyor's notes, photographer's books, negatives (including some of the tomb material), plans, sections and 'artist's impressions'. These sources were all studied and they provided information which complemented and occasionally expanded Garstang's published reports on the tell. However, it appears that Garstang published all the relevant site drawings in his preliminary reports. No useful new information was derived from the few unpublished drawings.

The Department of Oriental Studies at Liverpool University houses the tomb archives. These consist of catalogues, site notebooks, drawings and photographs of all the material excavated from the Western Cemetery, published

and unpublished. The Institute of Archaeology in London has a few remaining negatives. For the present location of the excavated material from Jericho examined in the course of this study, see the list of museums in the Appendix.

CHAPTER 2

ABSOLUTE CHRONOLOGY

2.1 Middle Bronze Age

In this study Kenyon's terminology for the Middle Bronze Age (MBI, MBIIa, MBIIb) will be used, simply for the sake of convenience. It would be confusing if not ridiculous to have different terminologies for the same site, Jericho, unless it was absolutely necessary. It may not be out of place, however, to quote Dever on why the MBIIa-b-c terminology is so popular:

> "...it is the continuity of the several phases in MBII which prompts us to retain the traditional 'MBIIa' terminology, for it denotes the links with MBIIb-c more accurately than Kenyon's 'MBI'" (Dever 1977, 9).

In fact, Dever suspects that Kenyon's choice of terms is "apparently more a matter of convenience than conviction" (ibid.27 n.61).

The chronology of the Middle Bronze Age in Palestine is very complicated and different scholars have produced radically differing dates for the period.

> "The point is that since there are no absolute dates from Palestine we are dependent upon a network of international synchronisms for both MBI (Kenyon's EB-MB) and IIa (Kenyon's MBI)" (ibid.11-12).

For example, Kenyon's chronology is:

> MBI: 1900-1850 B.C.
>
> MBIIa/b: 1850-1567 B.C. (Kenyon 1979).

Albright's chronology differs by up to 100 years:

> MBI: c.18th century B.C.
>
> MBIIa: c.17th and early 16th centuries B.C.
>
> MBIIb: c.1575-1500 B.C. (Albright in Ehrich 1965, 57).

Kenyon recognised that it is difficult to give a precise date for the beginning of the Middle Bronze Age (Kenyon 1979, 155). There is a great deal of confusion and dispute in published discussions concerning this point. The argument centres on the evidence from the Byblos tombs. These contained objects inscribed with the names of Amenemmes III (1842-1797 B.C.) and Amenemmes IV (1798-1790 B.C.), together with pottery originally thought to be very similar to Palestinian MBI (Albright op.cit.55). Tufnell, however, has shown that the pottery can be dated only generally to MBI/MBIIa (Tufnell 1969). Albright thought that none of the pottery need be dated before 1800 B.C., "especially since the Byblian princes may have outlived the pharaohs in question by many years" (Albright op.cit.). He also wrote that "the characteristic MBIIa (Kenyon's MBI) of Tombs I-IV was still in use near the end of the eighteenth century" (ibid.). Kenyon calculated that the beginning of the MBA could be anywhere between 1950 and 1850 B.C., and chose 1900 B.C. as a convenient midway point. She also differed substantially from Albright as to the extent of her MBI:

> "At Byblos, it would seem that this pottery continued in use down to the end of the (Twelfth) dynasty and as late as the beginning of the Thirteenth Dynasty, that is to say the beginning of the 18th century" (Kenyon 1979, 155).

Dever has dealt with the extremely complicated evidence and comprehensively assesses all the differing opinions (Dever 1977). On Albright's and Kenyon's dates, he comments that they are 'objectionable' in terms of both absolute and relative chronology since they compress the period too drastically (ibid.28 n.77). Dever's treatment appears to be the most reliable available, simply on the grounds of thoroughness. According to him, EBIV/EB-MB must have come to an end in Syria by c.2000 B.C., and scarcely later than c.1950 B.C. in Palestine (ibid.6; cf also his arguments in Sanders 1970, 142-44). The correlations of

the 12th Dynasty Egyptian texts with the archaeological material from Megiddo and Shechem make 1950-1900 the lowest possible dates for the beginning of MBI (Dever 1977, 12).

The division between MBI and MBIIa is based mostly on changes in pottery styles (Van Seters 1966, 22). The evidence for the start of MBIIa is the correlation between the later (Posener) group of Execration texts and MBIIa in Palestine (Dever 1977, 16-20). The Asiatics mentioned in the Execration texts seem to be the inhabitants of cities ruled by kings, rather than nomads. It is thought that this reflects the situation in the city-states of MBII Palestine (Van Seters 1966, 80), some of which are mentioned in the texts (eg Hazor, cf Posener 1940, 73). The texts belong to the mid-18th century B.C. at the latest (Dever op.cit.; cf also Mazar 1968, 74-5, 81, 82), and although the 'traditional' date of 1750 B.C. is still possible for the beginning of MBIIa, 1800 B.C. is now preferred by Dever and others (Dever 1977, 20 and references cited there).

Most scholars date MBIIb 1650-1550 B.C. (ibid.3). However, it is very difficult to define the characteristics of MBIIa and how they are supposed to differ from MBIIb. The distinction between MBIIa and MBIIb goes back many years to the time when Tell Beit Mirsim and Megiddo formed the basis for the stratigraphy of Palestine (cf Van Seters 1966, 15 fig.1, 19 n.38). In both cases the distinction was based on a stratigraphic break and not on pottery or other finds. At Tell Beit Mirsim the distinction was stratigraphically the transition from Stratum E to Stratum D (cf Albright 1932, 19ff; 1933, 75ff; 1964, 144): Stratum E was MBIIa and Stratum D was MBIIb. This break is defined purely by building levels and the pottery is not distinctly different in either stratum. One can perhaps trace tendencies in the development of the pottery, but nothing more, and there is certainly nothing to justify a clear division of the pottery into two distinct sub-periods, MBIIa and b. Albright

himself wrote that "it is not always easy to distinguish typologically between the two periods" (Albright in Avi-Yonah 1975, 175). Moreover, the stratigraphy itself is rather suspect. For instance, certain bowls ascribed to Stratum D are almost certainly typical LBII bevelled rim bowls (Albright 1933, pl.12:8, 13), and some other bowls on the same plate are also possibly LB. Albright has written that

> "it was by no means easy to make a clean separation between E and D, mainly because of the continuous occupation of the site during the whole of periods E-D, which resulted in a succession of at least four building phases that could be more or less clearly defined. Since the minute changes in pottery form and decoration, especially between E2 and D, were frequently insufficient to allow confident attribution, ambiguous masonry context usually was attended by corresponding ambiguity in pottery" (Albright 1938, 26).

There is in fact little difference in architecture between the two periods: the two principal houses of Stratum E remained in use in Stratum D with little alteration (ibid.39; compare also pls.50 and 51). In short, there is little at Tell Beit Mirsim to justify two distinct sub-periods within MBII.

At Megiddo, MBIIa and b were reflected in Strata XI and X (cf Loud 1948). However, the evidence from Megiddo is not at all reliable, as neither the plans assigned to the so-called strata nor the finds ascribed to these strata can be taken to be the entities as which they are published (Kenyon 1973c, 97). Any meaningful distinction once seen between these strata and their pottery should be treated with the utmost caution. Critical examination of the stratigraphy, however, does suggest that the first of a series of palaces and the great city gate should be assigned to Stratum X, which would provide a convenient stratigraphical break (Yadin in Avi-Yonah and Stern 1977, 845).

It has been noted that many of the major building works and fortifications of the MBII period seem to belong to MBIIb (Dever 1977, 20). Mazar saw the plastered ramparts (cf Chapter 10.5.1) and the 'migdal' temples (as at Shechem, Megiddo and Hazor) as innovations of MBIIb (Mazar 1968, 91-3), which he regarded as an intermediate phase from Middle to Late Bronze Age (ibid.97). However, there are difficulties with defining a clear stratigraphic break within MBII. In a table prepared by Dever, 26 excavated Palestinian sites were arranged in suggested chronological order (Dever 1977, Chart 2). The occupation deposits at Tell-Aviv/Jaffa, Tell el-'Ajjul, Bethshemesh, Lachish, Tell el-Far'ah (N), Jericho, Bethel, Gezer and Yabneh-Yam span the supposed MBIIa/b break, which therefore does not appear to be a break at all at those sites. In a similar table prepared by Cole, even Tell Beit Mirsim Stratum E, once the basis for the distinction and the 'type stratum' for MBIIa, is thought to continue into MBIIb! (Cole 1965, 230 fig.29). At the other sites in Dever's table which do show a break, it seems to be defined purely by the presence of major building works and fortifications, which are thus assumed to be characteristic and diagnostic of MBIIb (see discussion of Shechem stratigraphy and pottery below).

Many sites therefore have no clear break which could be used to separate two sub-periods. Since it was noted above that the MBIIa/b distinction was based on stratigraphy and not pottery, the whole concept of a definable break applicable for the whole of Palestine is thrown into doubt. Nevertheless, despite the recognition of this problem (eg Mazar 1968, 91), the MBIIa/b terminology has become firmly rooted. Even though the origins of the distinction lie in stratigraphic breaks, not in changes in pottery, scholars have also divided the pottery into MBIIa and b (although Amiran 1970 does not make any distinction). Although there are no diagnostic criteria for a distinction, such pottery divisions are then used to date stratigraphic levels, often at other sites, to MBIIa or b.

An interesting example is Shechem, which has an excellent sequence of levels running right through the Middle Bronze Age (Temenoi 1-7; see G.E.Wright in Avi-Yonah and Stern 1978, 1092). Temenoi 2-5 are classed as MBIIa, and Temenoi 6 and 7 as MBIIb, apparently because of the construction of the first 'migdal' temple in 6 (Cole 1965, 230 fig.29; Wright op.cit.). Thus, a terminological distinction was made on the basis of a clear stratigraphic break, although there are no criteria to indicate why Temenos 6 must be the start of MBIIb. It seems to have been based on an assumption that, because it was generally accepted that there was a MBIIa/b break, these major building works must reflect it, since other major building works in Palestine seem to belong to MBIIb (see above).

The division of the pottery into sub-periods followed on from this assumption. Cole, who studied the MBIIa pottery from Shechem, illustrated pottery forms which he felt were diagnostic for the three phases of the MBA at Shechem (Cole 1965, 222ff and pls.XCI-XCIX). Pottery found in MBIIb levels at Shechem is a mixture of MBI and MBIIa pottery and some new forms (ibid.227-8). Of these 'new' forms, the Platter bowls Bp.5 had appeared in MBI but not MBIIa levels; Platter bowls Bp.6, round-bottom cookpots with upright rim, large store jars with simple rim on high neck, and cylindrical juglets had already appeared in MBIIa levels (ibid.). The other 'new' forms supposedly diagnostic of MBIIb are hardly characteristic and are based on minute differences, for instance pedestal vases with cordons on both base and neck, a distinction which Price Williams has observed is largely meaningless and at best undiagnostic (Price Williams 1975, 55-7). It is clear that throughout the whole period new forms and refinements were appearing and old forms disappearing as would be expected at a site where the stratigraphic divisions are clear and numerous. Nevertheless, the pottery does not show a clear break, merely normal development. It is hazardous to attempt to define such development in absolute terms,

especially given the accidents of archaeological discovery, as the inconsistencies cited in Cole's list indicate. Furthermore, even if Cole's list is diagnostic for Shechem, it is not necessarily valid for the rest of Palestine. For instance, cylindrical juglets, cited by Cole as new to MBIIb, though first appearing in MBIIa, have been found in MBI contexts at other sites (Cole 1965, 218). Yet the pottery from the recent Gezer excavations was precisely dated to MBIIa or b by referring to Cole's work on the Shechem material (cf Dever et al 1974, 29 n.97ff), thus ignoring inter-site variability and the fact that Shechem is not representative of Palestine as a whole.

The use of the sub-periods MBIIa and b for pottery gives the impression of a definable break. However, within MBII there is no such clear break, rather a slow natural development of the pottery: the difference between MBIIa and b cannot be defined ceramically. Whether or not it can be defined stratigraphically is debatable: at some sites there is no clear break, while at others there are several. By assuming that any clear stratigraphic break followed by major building works is the MBIIa/b division, when it cannot be supported by pottery differences, a false homogeneity is imposed upon the development of Palestinian sites. Therefore, to give a truer picture, the classification should not be so precise. A better system for Palestine generally would be to define pottery (and even stratigraphic levels) simply as earlier or later within MBII - this would be less precise but more accurate. For individual sites where there is a good sequence, for instance Shechem or Gezer, the pottery could be arranged in stratigraphic sub-periods (eg at Shechem, Temenoi 1-7, or by analogy Kenyon's Jericho Groups I-V, cf Kenyon 1960b, 268-70) which would be valid only for one site.

Dever's absolute chronology for the Middle Bronze Age which will be utilised in this study is:

MBI: c.1950-1800 B.C.

MBII: c.1800-1550 B.C.

2.2 Late Bronze Age

The absolute chronology of the Late Bronze Age in Palestine, Cyprus and the Aegean is dependent ultimately on Egyptian dates. However, Egyptian chronology itself is not very secure (cf Hankey and Warren 1974; for a concise account of the problems of Egyptian chronology, see conveniently Alden 1981, 331-57, 'Egyptian Dating', following Kitchen). After the 12th Dynasty, chronology is very uncertain, and eight possible chronologies emerge. The three main variables are the date of the Sothic rising in Year 9 of Amenophis I, the lunar dates of Tuthmosis III, and the dates for Ramesses II. From these can be produced two extreme chronologies, a high and a low (Alden 1981, 331-2). This study follows the chronology and synchronisms of Palestine, Egypt and the Aegean in Alden 1981, 45-77, and the pottery groups in Kenyon 1973a, 527-30. Very roughly, this accords with Amiran 1970, 12 (not the table on p.124):

LBI: c.1550-1400 B.C.

LBIIa: c.1400-1300 B.C.

LBIIb: c.1300-1200 B.C.

However, the more precise synchronisms are:

LBI: LHI, LHIIA and LHIIB: start of 18th Dynasty - early Amenophis III[1] (1576-1399/1552-1380).

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[1] Amenophis III, 1401-1363/1382-1344.

LBIIa: 1) LHIIIA1: Amenophis III - Amarna[1] (1399-1363/1380-1344).

2) LHIIIA2: Amarna - start Seti I[2] (1363-1305/1344-1294).

Eight year co-regency between Amenophis III and Amenophis IV used in lowest chronology only (cf Alden 1981, 349).

LBIIb: LHIIIB: Seti I - Ramesses III year I (1305-1194/1294-1183).

LBI is generally regarded to have started after the destruction of the MBII towns by Asiatics expelled from Egypt and pushed back into Palestine, and/or by Amosis I (1557-1532/1552-1527) following the three year blockade of Sharuhen (see however Chapter 10.3 and 10.5 for the end of the MBA and start of LBI). Albright calculated that both the expulsion of the Hyksos and the destruction of Palestinian MB towns took place towards the end of the reign of Amosis, so the end of the MBA and start of LBI should be around 1540/1520 B.C. (Albright in Ehrich 1965, 56). However, Moorey advises caution in the use of all-embracing absolute dates:

"Although the transition from the Middle to the Late Bronze Age is still far from fully understood, above all Egypt's role in it, recent research has established that there was no sharp break. Some towns were sacked and abandoned relatively early; some were destroyed more than once in a short period of time; and others survived damage much longer. It is most unlikely that a single agent in one campaign wrought all these disasters" (Moorey 1980, 112).

LBI corresponds to Kenyon's Groups A-C, and LBIIa to Kenyon's Group D. There was a very distinct break between Groups C and D, the latter being distinguished by the presence of LHIIIA pottery (Kenyon 1973, 529). The break

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[1]Amarna, 1359-1343/1348-1332.
[2]Seti I, 1305-1290/1294-1279. Much of the Amarna pottery has been dated LHIIIA2, although there seems to be some IIIB1 (cf Hankey 1972, 130-31).

between LBIIa and LBIIb is taken stratigraphically as the destruction of Hazor Stratum 1B, possibly by Seti I (cf Kenyon op.cit.; Yadin 1960, 159; Simons 1937, 56). However, the difference in the local pottery does not appear to be particularly diagnostic. At Hazor, the local finds of the end of Stratum 1A are "absolutely identical with those of the end of Stratum 1B" (Yadin 1960, 160). The levels are dated by the imported wares (ibid.). The same is true at other more recently published sites, for example Tell es-Sa'idiyeh (Pritchard 1980, 28). It seems that LBIIa and b are largely differentiated by the imported Mycenaean wares. The change from LBIIa to LBIIb is taken as the break between LHIIIA and LHIIIB. It should be noted that Hankey, in her report on the Aegean pottery from the Amman Temple, stresses that the separation of some pieces into LHIIIA2, IIIB1 or IIIA2/IIIB1 is very tentative, and that an unambiguous dating is sometimes impossible (Hankey 1974, 136; cf Chapter 10.10.2). Nevertheless, much is made of subtle distinctions in order to pin down the date of the LHIIIA/B transition. Hankey suggests that, since LHIIIB1 already occurs at Amarna, the transition from LHIIIA2 to IIIB1 might be put at the end of the Amarna period (Hankey 1972, 130). Alden argues that the LHIIIB1 occurrences at Amarna are debatable and that therefore the Amarna deposit does not necessarily have to be taken as the start of LHIIIB (Alden 1981, 54). One might suggest here that the Amarna deposit could conceivably reflect the start of LHIIIB1, but not necessarily the end of IIIA2 - there may have been an overlap, if not in actual production in the Aegean then in the course of trade, a point which is not usually considered. Three LHIIIA2 vessels found in the tomb of Horemheb (1334-1306/1323-1295) at Saqqara suggest that LHIIIA2 persisted in Egypt after the Amarna period (Martin 1978, 50-1). At Tell Deir 'Alla, one LHIIIA2 import was found among LHIIIB pottery in a level dated to after 1200 B.C. by a burnt faience vase with the cartouche of Tawosret, the widow of Seti II (Hankey 1967, 131-2). Hankey notes that "imported goods undoubtedly have a life sometimes lengthened by careful treatment" (ibid.). A number of Palestinian contexts, for example Deir el-Balah and Tell Fara (S),

show that LHIIIB pottery was in use during the reign of Ramesses II [(1290-1224/ 1279-1213) Alden 1981, 60]. As most of the early synchronisms for LHIIIB1 pottery are concentrated within the reign of Ramesses II, it seems reasonable to conclude that the style was already established by his reign (ibid.62). Following Furumark, Alden therefore places the start of LHIIIB in the reign of Seti I (ibid.62-3, 77).

LBIIb corresponds to Kenyon's Groups E and F. The end of LBIIb is generally taken as the destruction of the LBA towns and the appearance of 'Philistine' pottery in the following levels at some sites (Kenyon 1973, 530).

LBA Chronology

Period	Date	Greece	Egypt	Kenyon's Palestinian Pottery Groups
LBI	c.1550-1400	LHI, LIIA and LHIIB	Start of 18th Dynasty - early Amenophis III	A, B and C
LBIIa	c.1400-1300	LHIIIA1: LHIIIA2:	Amenophis III - Amarna Amarna - start Seti I	D
LBIIb	c.1300-1200	LHIIIB	Seti I - Ramesses III yr 1	E and F

CHAPTER 3

KENYON'S MIDDLE BRONZE AGE TYPOLOGY

3.1 The Reliability of Kenyon's Typology

It would be convenient to use Kenyon's typology of Middle Bronze Age pottery developed at Jericho for Garstang's MB pottery from Jericho (Kenyon 1960b, 1965; also Kenyon and Holland 1982, 268ff). Nevertheless, before using it uncritically, it is necessary to examine how reliable it is.

David Price Williams, in a study of Kenyon's Jericho typology, has questioned two of her fundamental assumptions (Price Williams 1975, 49-50):

1) That typological variance is to be interpreted solely as a function of linear chronology.

2) That piriform and cylindrical juglets, the main bases of the grouping, are chronologically significant in their relative distribution and occurrence, not only outside MBII but particularly inside that period.

The concept of piriform juglets tending to occur earlier and cylindrical juglets later was first proposed by Garstang on the basis of his understanding of the stratigraphy of his Jericho tombs (ibid.52-5). His tomb material was generally badly disturbed and his 'stratigraphic' divisions highly unreliable, since they seem to have been "sporadically assessed dead levels arbitrarily taken through the complex disturbed deposits" (ibid.58-61). Garstang himself realised that the levels were arbitrary, but still relied on them for his analysis of 'early' and 'late' forms.

Kenyon emphasised that Garstang's conclusions could not be relied upon and warned that the stratigraphy of such tombs cannot be used in the formulation of relative chronologies (Kenyon 1960b, 264). Yet to a large extent Garstang's

conclusions as to which features were early or late seem to be supported by Kenyon's own observations on the division of her mainly unstratified tomb material (Price Williams 1975, 55-7). Kenyon's typology was based on 'features of recognised chronological significance', particularly piriform and cylindrical juglets. Price Williams shows that such 'recognised features' most certainly began with Garstang, were perpetuated by Tufnell at Lachish, and were later accepted and enhanced by Kenyon -

> "evidence of which Garstang himself was unsure, upon which Kenyon was reluctant directly to rely and which by modern demands of stratigraphic analysis cannot but be rejected as unsound" (ibid.61).

Garstang made a number of other observations, some of which were accepted by Kenyon, for instance that the angularity of carinated bowls decreased, giving way to a rounder profile in late MBII (for this and other examples see ibid.52-5). Kenyon's 'rather rounded' and 'rounded' bowls (B6 and B7) are said to be especially common in Group V, while 'sharply angular' bowls (B1-B5) are becoming rarer (Kenyon 1965, 176). However, there is often no difference between her 'sharply angular' and 'rather rounded' bowls (compare Kenyon 1960b, fig.112:3 [B2] with fig.170:6 [B6]), which suggests that occasionally she created a difference where none existed, perhaps under the influence of Garstang's conclusions. As Price Williams notes,

> "the features chosen to describe the division are those which reflect the division already made, and those divisions, once made, and once described by those features, are necessarily taken to be chronologically significant divisions" (Price Williams 1975, 69).

3.2 The Validity of Cylindrical Juglets as a Dating Criterion

Price Williams shows that cylindrical juglets first occur in MBI (ibid.61-4), and are described by Kenyon as 'prototypes'. He remarks on the inconsistency of her saying that cylindrical juglets occur in MBI at Megiddo, and yet no

examples occur in her Megiddo MB Groups A-D. He points out that, as the cylindrical juglet appeared before MBII, it should be accepted as a possible variant from the beginning of the period (together with piriform juglets, which first appear in EBIII). Any sorting of the material must allow for this to happen. That no examples occur in Groups A-D at Megiddo is used by Kenyon to prove the integrity of the system, but it rather points to its obvious weakness.

> "The ultimate conclusion must be, then, that if tomb groups without cylindrical juglets are made to be early MBII groups, then by that token early MBII groups will not contain cylindrical juglets" (ibid.64).

The major failing of Kenyon's Jericho typology, as of all mostly unstratified tomb material, is that it is typology in a vacuum. For such a typology to be truly reliable, it must be checked against a stratigraphic sequence. Unfortunately, the Jericho tell stratigraphy from Kenyon's excavations may not provide the answers. The pottery from the MB levels on the tell yielded few diagnostic sherds, and there was difficulty correlating the tell and tomb types (cf Kenyon and Holland 1982, 270ff). For instance, it was usually impossible, from rim and neck fragments, to establish whether sherds belonged to piriform or cylindrical juglets (ibid. 273). For many types of bowls, dipper juglets and lamps, the rim fragments from the tell were inadequate for correlation with the tomb types (ibid. 272-4). So, as Tufnell pointed out some years ago, it may well be that it is the tombs which provide the best material for a chronological progression (Tufnell 1973, 69).

Price Williams' search for stratified occurrences of cylindrical and piriform juglets did not go further than Tell Beit Mirsim (Price Williams 1975, 66-7). Albright saw no chronological difference between the two types of juglet in Stratum E (Albright 1933, 78), but wrote that "the piriform juglet was passing out of use, if we may judge from its rarity at the end of period D" (Albright

1932, 25; for the problems concerning the Tell Beit Mirsim stratigraphy, see Chapter 2.1). There are, however, a number of reasonably well-stratified and excavated sites where both piriform and cylindrical juglets occur.

3.2.1 Hazor

Piriform and cylindrical juglets were found in many of the MBII levels at Hazor, but quite a lot of these occurrences are unhelpful in a study of the relative distribution, as either there are only one or two examples, or the area had been disturbed by ploughing.

a) Although only one Tell el-Yahudieh-style piriform juglet was found in Tomb 9011 (Area D [3] Str.4, Yadin 1958, 111-2 and pl.C:8), it is nevertheless interesting as the stratum possibly formed the earliest occupation in Area D, thought to be 18th/17th century B.C. mainly on parallels with Megiddo Stratum XII.

b) Cistern 9024 Str.4 (Area D [5], ibid.132-3 and pl.CXXI) contained the richest finds in the entire area of excavation. There were twenty definite piriform juglets, and only one cylindrical juglet. Unfortunately there was no external stratigraphy to go by, and all that can be said is that Stratum 4 is MBII (the underlying Str.5 pottery was apparently of the same period as Str.4 [cf ibid.129] and the next stratum, 3, was of LBI date).

c) Area C Stratum 3 contained eleven cylindrical juglets and only one piriform juglet (Yadin 1960, 88 and pl.CXI:11-26). These were all offerings from burials under floors. This stratum was considered as later in MBII (ibid.77), but it seems that the break from the underlying Stratum 4 was made on the basis of pottery typology rather than stratigraphic distinction. Nevertheless, even this vague stratigraphy may give an indication that the cylindrical juglets tended to be more common later in MBII.

d) The last phase of MBII at Hazor was represented partly by Area D (3) Stratum 1. Although only one piriform and one cylindrical juglet were illustrated (Yadin 1958, pl.CIII:12, 13), the text notes that there were a number of cylindrical juglets found ("juglets with flat bases of late type", ibid.116).

Without being too specific, therefore, Hazor does show a tendency for cylindrical juglets to be more prevalent than piriform juglets later in MBII.

3.2.2 Tell el-Far'ah (North)

The tell deposits at Tell el-Far'ah are generally unhelpful. Although they yielded both types of juglet, there were not enough of them to give an indication of relative distribution. The tomb material is far more widespread. However, most of the pottery is dated by cross-referencing to other sites, so there is a danger of falling into a circular argument. Nevertheless, there are some indications:

a) One cylindrical juglet was found in Tomb C (de Vaux and Stève 1948, 573 fig.12), which was dated to LBI partly on the basis of an imitation Cypriot vessel of a type imported at the end of the Middle Bronze Age.

b) One cylindrical juglet was found in Tomb 4, dated by all the other pottery to LBII (de Vaux and Stève 1949, 123).

c) Two piriform juglets were found in Tomb 11 (de Vaux 1951, 577), the rest of the pottery being Late Bronze Age. De Vaux concluded that, on the basis of the two juglets, the tomb was used occasionally in the Middle Bronze Age, but it is possible that the piriform juglets themselves were also LB.

d) Tomb E contained one piriform juglet (de Vaux and Stève 1948, 574). The tomb, dated to c.1600 B.C., cut into late MBII debris and was covered by LBI debris, placing it right at the end of MB or early in LBI.

e) Three piriform juglets were found in Tomb H (ibid.578), dated to c.1750 B.C. The tomb was cut by an early MBII wall, which dated the tomb towards the beginning of the Middle Bronze Age.

e) does show that piriform juglets were perhaps more common earlier on in the MBA. Likewise, a) and b) may show that cylindrical juglets lingered into the LBA, although the latter example, in Tomb 4, is dated to LBII, while Oren maintains that cylindrical juglets were totally absent in LBII (Oren 1973, 75). d) shows that Oren is probably right in saying that piriform juglets did not disappear before the end of MBII (ibid.). However, c) and d) should be borne in mind - the continued occurrence of piriform juglets in the LBA would certainly have an effect on the accepted typology of MB pottery.

3.2.3 Gezer

The relevant levels for the study of piriform and cylindrical juglets are Field I Strata 9-7 in Dever's excavations. Stratum 9A was dated to early MBII (Dever's MBIIb, Dever et al 1974, 32). The base of one cylindrical juglet is illustrated from this stratum (ibid.pl.14:9).

One piriform and one cylindrical juglet are illustrated from Foundation Trench 4168, dated mid-MBII (Dever's transitional MBIIb/c, ibid.34 and pl.18:21, 25).

Stratum 8 was dated transitional late MBII/LBI (Dever et al 1970, 50). LBI is clearly represented by "a few pieces of true Bichrome ware" (ibid., unfortunately not illustrated), and comparative material especially from Megiddo IX. There is no mention of specific types of juglet, and just one piriform juglet is illustrated (ibid.pl.31:24).

Continuity between Strata 8 and 7 was a striking feature of both the stratigraphy and the pottery (ibid.50). With regard to Stratum 7, the excavators wrote: "The pottery is obviously close to that of Str.8 (pl.31) and in the MBII tradition; we may note especially the storejars, carinated bowls, piriform juglets and dipper juglets" (ibid.55). However, although two cylindrical juglets are illustrated for Stratum 7 (ibid.pl.30:18, 19), there are no piriform juglets illustrated. Perhaps the excavators wished to infer that pl.31 is applicable to Stratum 7 as well as to Stratum 8 - what they have achieved is a certain amount of confusion owing to the discrepancy between text and plate.

Stratum 7, which contained Bichrome ware (ibid.pl.30:22, 24), was originally dated mid-15th century - c.1400 B.C., the enormous destruction at the end being attributed to Tuthmosis IV (ibid.55). However, the excavators later concluded that Stratum 7 was destroyed earlier, "...not in LBI proper (Tuthmosis IV) but on the late MBIIc/early LBI horizon (probably Tuthmosis III, ca.1468 B.C.)" (Dever et al 1974, 36). There was then a gap in occupation "throughout most of LBI (mid to late-15th century B.C.)" (ibid.). Whereas in Dever et al 1970, 50, the excavators wrote: "...we have no evidence for a violent destruction at the end of MBIIc such as is encountered at many sites", in Avi-Yonah 1976, 438, after the redating in Dever et al 1974, Dever wrote:

> "The MBAII strata were brought to an end by a destruction which left a meter or more of burned bricks in every field investigated."

Dever's terminology here is misleading, as he regards the Amosis-Tuthmosis III period in Palestine as late MBII/early LBI, and not as LBI proper (Dever et al 1974, 36, quoted above). As a result, he equates the destruction of Stratum 7 by Tuthmosis III with the end of MBII at Gezer. This is totally unacceptable, as LBI is commonly taken as being contemporary with the period Amosis-early Amenophis III. It is generally agreed that the appearance of Bichrome ware should be taken as the start of LBI[1], contemporary with Megiddo IX, and that the end of the Middle Bronze Age is contemporary with the destruction of Tell Beit Mirsim D and Jericho, probably in the reign of Amosis (Kenyon 1979, 181-2; Epstein 1966, 86ff, esp.97 n.4). The appearance of Bichrome ware in Gezer Field I Stratum 8 shows that there was an unbroken peaceful 'transition' from MBII to LBI within Str.8, and that the destruction of Str.7 is well into LBI, and was not the destruction of the MBII city.

Kenyon appeared to be very confused by Gezer. In Kenyon 1973b she maintained that 16th century B.C. pottery as in Megiddo IX was virtually absent at Gezer (in this she is supported by Sauer 1979). Accordingly, she wrote of Gezer:

> "...so far there is no evidence for occupation at the beginning of the LBA, pottery from Groups A and B being absent, the earliest probably belonging to Group D" (Kenyon 1979, 184).

[Kenyon's Group D is in fact represented at Gezer Field I in Str.6.] Yet Strata 8 and 7 contained Bichrome ware, one of the major characteristics of her Group A (ibid.182). In Kenyon 1973b she had dated Stratum 8 to the mid-17th century B.C., and Stratum 7 to the late 17th/early 16th centuries B.C. In Kenyon 1979, 327 she wrote that MBA Gezer was destroyed probably by Tuthmosis III (1504-1450/1479-1425), who ruled c.100 years after her date for the end of Stratum 7!

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[1]Though see de Vaux 1967, where he emphasises that the passage from MBII to LBI is uncertain and that the question is really one of terminology. cf also Chapter 10.3.

Obviously there were variations and time lags between the appearance of new pottery types at different sites. At Megiddo there is a distinct separation between the final MBII layer (X) and the LBI layer (IX), while at Gezer there was no break, so earlier and later pottery tended to mix (but cf Dever et al 1970, 50 n.19, which notes that a similar mixture occurred at Megiddo). Nevertheless, the destruction of Gezer Field I Str.7 was not the destruction of the MBII city. Str.7 was an LB level, perhaps to be equated with Kenyon's Group A and possibly early B. Who was responsible for the destruction of Str.7 is unknown. Dever has suggested Tuthmosis III, but there is no real evidence that he was involved. Unfortunately, the date for the end of Kenyon's Group B is taken to be the destruction of Megiddo VIIB by Tuthmosis III in his 23rd regnal year (Kenyon 1979, 183). Since there is also no evidence that Tuthmosis III destroyed Megiddo after its capture, it is possible that the dating of Kenyon's LB pottery groups is wrong.

The dating of the Gezer levels discussed above is crucial to the question of juglets. The excavators specifically mentioned piriform juglets in Stratum 7, so it would appear that they continued into LBI, at least, as suggested above, into Kenyon's Group A.

3.2.4 Shechem

Cole shows that at Shechem piriform juglets tended to be more common earlier in the Middle Bronze Age and cylindrical juglets later. In fact, only four sherds of cylindrical juglets were found in early MBII (Cole's MBIIb) levels at Shechem (Cole 1965, 218).

3.2.5 Conclusion

There does seem to be a general tendency at Hazor, Tell el-Far'ah and Shechem for piriform juglets to be more common earlier and cylindrical juglets later. However, at Gezer, probably the best excavated site of those considered, the evidence for juglets is very sparse, and in fact the earliest example, dated to the beginning of MBII (Str.9A), was a cylindrical juglet. There is some confusion concerning the published evidence from Str.7, but it seems that piriform juglets continued in use into the LBA, a point which may be supported by Tomb 11 at Tell el-Far'ah (see also Oren 1973, 75).

Cole notes that in northern coastal Palestine cylindrical juglets were manufactured before the end of MBI, although piriform juglets continued to be more popular till mid-MBII (his late MBIIb/IIc), ie Megiddo XI-X (Cole 1965, 218). In the more isolated central region the cylindrical shape was slower in taking hold, appearing very infrequently in 'early MBIIa', more frequently in 'late MBIIa' but still less popular than piriform juglets, and continuing to appear in 'MBIIb', after piriform juglets went into a general decline (ibid.219-21).

Price Williams does not deny the possible validity of the Jericho typology in general terms, but suggests that the system may be too refined (Price Williams 1975, 443). This may well be true, and the apparently late occurrences of piriform juglets at Gezer and perhaps Tell el-Far'ah should be considered possibly as local conservative traits. Similarly, the differences of opinion between Kenyon and Dever owing to the presence of Bichrome ware among otherwise typically MBII pottery in Strata 8 and 7 at Gezer may be explained by the peaceful overlap between MBII and LBI, although Price Williams suggests that there are non-chronological aspects which might well promote varied

typology during the same period in a fairly large area (ibid.438-42). Different regions may produce variant forms which make detailed comparisons on the basis of date almost impossible.

Price Williams shows that four burial sites in the Negev - 'Ajjul, Fara (S), Gerar and Tell Nagila - all within a 20km radius of one another and within the same geographical, social and economic area, exhibit a similar typology, just as sites on the east side of the hill country, over 100km away - Jericho and Gibeon - tend to exhibit typologies that are similar, but different from that of sites in the Negev (ibid.439-40). The different typologies may reflect regional variation rather than chronology. Likewise, conservatism within each region may well preserve deliberately the traits of local manufacture as characteristics of the region, leading not only to regional differences, but the perpetuation of these differences over a considerable length of time as a mark of that area (ibid.438).

As regards the absolute chronology of Kenyon's MB tombs at Jericho, she dated them 1850/1800-1600/1560 B.C. Lapp suggested that since Tell Beit Mirsim Str.D characteristics were lacking, the tombs should actually be dated 1750-1600 B.C. (Lapp 1961, 70). Given the distance between these two sites, one might ask if regional variation is playing a part here.

The identification and understanding of regional variation is very important, as is shown by the typological problems encountered above, especially at Gezer. The traditional 'parallel-seeking' method of pottery typology is bound to cause such difficulties and we should concentrate far more on inter-site variability than on looking for a 'type site'. A more logical typology of pottery based on rigorous analysis by objective methods is badly needed on a large scale. The following chapter explains the analytical methods used in this study to overcome some of these problems.

CHAPTER 4

CERAMIC ANALYSIS

"Our investigations on pottery should aim not only at reconstruction of ancient techniques, significant for the various cultures. They should also aim at giving information about the flow of communication and influence in time - from generation to generation - and in space - from one cultural system to another" (Hulthén 1974, 32).

4.1 Purposes of Pottery Study

The purposes of pottery study vary, depending on the types of other information available. For periods without written records, pottery is used to establish chronology, create a framework and integrate discoveries within that framework. It can also be a cultural diagnostic, along with other artifacts. For periods which have yielded a reasonable amount of written records, or about which there are strong traditions, pottery is secondary to the textual information and is itself integrated into the historical framework established by the written records.

"Archaeology of the historical period in Palestine is in its method 'prehistory'; it must also reckon with the existence of historical information about that period" (Franken 1976, 4).

In such cases, however, pottery by itself tends not to be regarded as culturally diagnostic, but is limited, as far as possible, to peoples and events mentioned in the texts.

Thus, written information is used to interpret the material remains. Nevertheless, pottery need not be limited to establishing a chronological and cultural framework, or being largely redundant when in the presence of written records. It can be of unique use in defining divisions and activities within

cultures.

4.2 Traditional Approaches

The study of pottery in the Near East is still largely orientated towards "establishing chronology with the ultimate goal of integrating archaeological discoveries within an existing historical framework" (Peacock 1977, vii), while to the prehistorian a principal use of pottery has been the identification of peoples or cultures by their ceramic traits. Nevertheless, study of the economic aspects of pottery production and marketing can provide important indications concerning the structure of past societies, as work on Roman and Medieval pottery in England (cf conveniently Peacock 1977) and Shepard's work in America has shown (cf Shepard 1956).

Chronological studies of pottery are based on 'parallel quoting' which assumes that certain types were more or less characteristic of certain periods. However, it is now generally realised that pottery did not always rigidly obey the dictates of fashion (Peacock in Peacock 1977, 22). Traditional publications, by uncritically comparing pots from the excavated site with pots from other sites, ignore the possibility of pottery markets or single production centres. Even local wares can be used to investigate marketing mechanisms at a detailed and sophisticated level (ibid.23). It is clear that if any degree of precision is to be attained, individual centres of production must be isolated and the development of their products considered on their own merits (ibid.22).

4.3 Fabric

Notes on the fabric of pottery are included in pottery reports, but whereas typology is often described in minute detail, the fabric usually receives scant notice. The majority of published descriptions are of little value, since inclusions are often misidentified. In fact, in traditional pottery

reports, type is nearly always identical to similarity of shape.

> "...descriptions of colour, hardness, grit, etc. fall outside of the type characterisation. In this system two different kinds of temper can be included in one type of pottery. It is very unlikely from a technological point of view that this is right. As a rule, different temper groups indicate different type groups" (Franken 1974, 14).

In some cases, the composition of the paste may be a more reliable guide to the heritage of the potter than form: for whereas shape typology may be influenced by relatively ephemeral contacts (eg copying of traded articles), a rather more drastic influence may be needed to change basic technological processes such as clay preparation or firing (Peacock 1970, 375). Temper does affect the possibilities of shaping pottery and other aspects of potmaking (Franken 1974, 19), so one assumes that different clays and tempers were used to make different types or forms of pottery; but unless we separate the ware groups, we will not recover this difference (ibid.18-19).

The terminology for ware description that is increasingly being adopted is that used by sedimentary petrologists in the study of rocks. The sedimentary petrologist first records the visual characteristics of his material and this may be sufficient to enable him to make certain deductions. If there are still problems outstanding, he examines the texture and constituent minerals under the microscope to deduce the mode of formation and the likely source of his sediment, and finally he may resort to geochemical study if it is felt to be warranted.

It is now generally appreciated that the examination of ancient pottery in thin section under the petrological microscope can often be of value in assessing the provenance of raw materials. For success, however, the fabric must contain minerals or rock fragments of sufficient size which can be tied

down to a particular geological outcrop. Nevertheless, the simplest methods should be used first, and there are three levels of examination, each of increasing fineness and sophistication:

a) Visual, or with a magnifying glass.

b) Microscopic.

c) Analysis of chemical constituents.

The chemical approach has proved most popular, often on its own, and it is the only worthwhile way of analysing very fine well-levigated wares. However, a consideration of the visual appearance of the analysed pottery is vital,

> "for it is only by searching for and recording visual criteria corresponding to the chemical groupings that it will be possible to extrapolate the findings on a larger scale" (Peacock in Peacock 1977, 25).

The difficulty with using such descriptions for pottery is that they will have to be made by people unfamiliar with the appropriate discipline. A simple system which can be rapidly and unambiguously applied was used by the British Expedition to Carthage (cf ibid.29-33 and Table 2) and is now nearly standard practice on Romano-British and Medieval excavations in Britain. A similar system was used by the Braidwoods in Syria (Braidwood and Braidwood 1960, 28-35) and by the Scandinavian Joint Expedition to Sudanese Nubia (Nordstrom 1972, 34-68). This involves careful and objective reporting of the characteristics of the sherds or pots as perceived by visual examination so that the different wares and fabrics can be isolated. Selected pieces are then studied in thin section under the petrological microscope to check the reality of the visual classification and to search for criteria diagnostic of origin.

4.4 **Basic Examination of Pottery** (cf Shepard 1956 and Peacock in Peacock 1977, 21-33)

The fabric of pottery is best studied by examination of a fresh break under a binocular microscope or a x20 magnifying glass. With complete or near-complete pots a fresh break may not be possible.

Colour - The basic colour of a ceramic material, fired between 500 and 1000 degrees centigrade is largely dependent on the following conditions:

1) The amount, particle size and dispersion of iron oxides, calcium carbonate and organic matter.

2) Firing temperature and duration.

3) Atmosphere dominating in the final stage of firing.

Not all the pots of the same composition in a single firing in an ancient kiln would be of the same colour, for air currents within the kiln not only modify oxidation, but give different temperatures in different parts of the kiln. Kelso and Thorley suggested that no ancient kiln had less than than 100 degrees C. variation and many had much more (Kelso and Thorley 1943, 91). Thus, variations in the colour of fired pottery may not be of great importance and it is difficult if not impossible to determine which of the above conditions was responsible for the effect in a specific instance (Cole 1965, 44). For instance, black cores can be formed either by insufficient oxygen or by rapid early heating (which causes the clay to fuse before the organic matter is burned out).

Although colour reporting is essential, Cole proposes that <u>less</u> precision rather than greater precision be used in the definition of colour characteristics (ibid.45). He concludes that

> "<u>general</u> colour characteristics can be diagnostically significant since they reflect the normative goal for which the potter strove, while

precise nuances of colour variation are irrelevant since they result from unintentional variable factors" (ibid.).

He suggests colour descriptions such as 'buff', 'dark grey', 'reddish', which,

> "imprecise as they are from a technical point of view, may be more relevant for comparative and chronological analysis than more specific designations which obscure the general colour characteristics achieved on different wares in different periods" (ibid.).

On the other hand, surface treatment such as slips, washes and painting should be thoroughly reported, since they represent

> "conscious intention on the part of the craftsman, and it is in such intentional features that we are most likely to find diagnostic pottery" (ibid.).

In this study the colour of the pottery fabric has therefore been recorded using verbal descriptions (based on those used in Munsell, so that some sort of absolute criteria are available for comparison). As colour varies depending on atmosphere, temperature and firing time, the colour of different areas of the fracture has been recorded - core, interior and exterior margin, interior and exterior surface. This may be relevant as certain types of pottery may have been fired in different ways - ie at different temperatures, for different lengths of time or in different atmospheres - than other types.

Hardness - This could be described with precision using Moh's scale of minerals, but Peacock suggests a simpler scale:

Soft: scratched with a finger nail.

Hard: scratched with a penknife.

Very hard: not scratched with a penknife.

In this study a fourth scale was found to be useful:

Medium: scratched with some difficulty with a finger nail.

Feel - This may appear subjective, but it is a very real ceramic trait.

> "The descriptive terms are difficult to define with great precision, but in practice they are seldom ambiguous and can be standardised against selected commonly occurring wares" (Peacock in Peacock 1977, 30).

The terms used are:

Harsh, Rough, Smooth, Soapy, Powdery.

Fracture - A very fine, homogeneous paste of medium hardness often has a square, even break. A fine, dense, very hard paste may fracture conchoidally. A very coarse-textured paste has an irregular, ragged break (Shepard 1956, 137). The terms used are:

Conchoidal, Smooth, Hackly (jagged), Laminated, Friable.

Inclusions

Identification.

Frequency: Sparse (less than 1 grain per sq. cm.).

Moderate (1-5 grains per sq. cm.).

Common (5-10 grains per sq. cm.).

Abundant (more than 10 grains per sq. cm.).

Sorting: Well-sorted or Ill-sorted. This can show whether the temper was well mixed or not.

Distribution: This refers to distribution of temper size, whether it is evenly or unevenly distributed. This can show whether the temper was sieved or not.

Size: Without a microscope it is difficult to give a precise measurement, but an educated guess or relative estimate is useful at this stage, before more accurate microscopic measurements can be made.

Rounding: This indicates whether the inclusions are angular and hence likely to be crushed tempering material, or whether they are naturally round to a high or low degree, and so possibly a natural part of the clay. The terms used are:

Angular, Sub-Rounded, Rounded.

Condition of Surface - (cf Braidwood and Braidwood 1960, 34-5):
Even, Uneven, Abrasion (wearing away of a soft surface clay or slip), Peeling (cracking or loosening of a poorly bonded surface layer), Crazing (network of fine cracks as a result of contraction), Spalling (deep flaking of spots on the surface as a result of the explosion of inclusions or steam bubbles).

Surface Coating - Noting of a slip or a wash and its colour using Munsell (see section on Colour above).

Decoration - Description and colour, using Munsell.

Lustre - The reflective qualities of the ware:
High, Medium, Low, Matt.

Manufacture - More often than not signs of manufacture, apart from wheel marks, have been smoothed away, but occasionally some feature remains which should be noted.

4.5 Microscopic Examination

4.5.1 Thin Sections

The study of thin sections of pottery under a petrological microscope is fast becoming standard practice, especially among British archaeologists. A thin section is a slice of pottery which is cemented to a glass microscope slide and ground to a thickness of c.0.03mm. Most of the minerals are then transparent and can be studied under the petrological microscope, an instrument equipped with optical refinements which enable the precise determination of mineral and rock inclusions. However, clay minerals are too fine-grained to be identified in this way and so this sort of study is limited

to coarse inclusions, either naturally occurring in the clay or added as temper (Peacock 1970, 379). This may not be a severe drawback:

> "As long as the technologist's chief objectives are to determine the relationship of pottery types, to identify intrusives, and to trace interregional trade in pottery, clay is likely to play a secondary role to temper identification" (Shepard 1956, 147ff).

4.5.2 The Scanning Electron Microscope and X-Ray Analyser

Microscopic examination with a Scanning Electron Microscope (SEM) and X-Ray Analyser combines the advantages of thin-section analysis without the drawbacks, with the provision of a lot more detailed information, including the identification of clay minerals as well as coarse inclusions. The SEM can be used for high-resolution observation of the internal morphology of pottery and for analysis of the fabric. An electron beam scans over a specimen and produces an image, which can be magnified up to 5000 times, on a TV screen (see Tite and Maniatis 1975). SEMs can be fitted with an X-ray analyser which identifies the elements present in a spot as small as 1 micron in diameter [(1 micron = 1/1000th of a millimetre) see comments in Freestone 1982, 99].

X-rays are generated by high energy electrons passing through a specimen in the electron microscope. These X-rays carry information about the atoms within the specimen in the region being irradiated and so provide a means of correlating the morphological information in the electron microscope image with chemical analyses of very small regions of the specimen. X-ray microanalysis makes use of the fact that atoms, when struck by electrons from an external source, produce X-rays which are characteristic of those atoms. Consequently, the X-rays can be used to identify and quantify the elements present. Detectors collect the X-rays, and the information is displayed for immediate interpretation of the specimen composition (Chandler 1977, 327).

4.5.2.1 Theoretical Basis of SEM Fabric Analysis

Every element has a very well defined distribution of electrons within the atom. X-ray microanalysis is dependent on the excitation of these electrons to produce an emitted X-ray spectrum characteristic of the element concerned (ibid.331).

The atom is made up of a nucleus, composed of protons and neutrons, which is surrounded by electrons circulating in orbits. Each orbit corresponds to a certain energy level of the electrons, and the orbits are grouped together into major units called shells. Elements are thus characterised by their nuclear charge and the energy distribution of their orbital electrons. Shells nearest the nucleus contain electrons with the least potential energy; shells are given the notation K, L, M etc., K being the inner shell (ibid.).

When one of the orbital electrons is removed from its normal energy level, a process called ionisation, an electron from a higher energy orbit falls immediately into this gap and its excess energy is emitted as an X-ray photon. This X-ray energy is the potential energy difference between the two shells. Thus, if the ejected electron comes from shell K, and the gap is filled by an electron from shell L, the X-ray photon will have an energy E(L) - E(K), where E(L) and E(K) are the respective electron orbital energies. A vacancy will now be created in the L shell and another transmission occurs almost simultaneously. In a large atom having a large number of electrons in orbit there can be a large number of orbital transitions and hence a large number, or spectrum, of X-ray emissions. A heavy element will give rise to a very great number of spectral emissions, whereas a lighter element will produce far fewer X-ray emissions. The emissions, or characteristic X-ray lines, also vary in intensity - in practice the most intense lines are the E(L) - E(K) transitions, which are called K lines. Even within shells there are many possible electron jumps and these give rise to $K\alpha$, $K\beta$, $K\gamma$ lines etc., in

descending order of intensity. When an element is recorded by the X-ray detector, it is usual to record, as well as the element, its transition or line, eg Si Kα, [(Silicon, Kα line) ibid.331-3].

X-ray microanalysis therefore requires the generation of X-rays from a specimen by ionising the atoms within the specimen. In the electron microscope this ionisation is caused by the primary electron beam which must have sufficient energy to remove an electron from one of the inner shells of the atom concerned (ibid.334). Detectors collect the X-rays and display the information, although elements lighter than 11 Na (Sodium) tend not to register as there are too few X-ray emissions. The information is displayed in the form of a graph, where the vertical reading is the X-ray intensity and the horizontal reading is the X-ray wavelength (see Figs.1-24). The X-ray detector can be calibrated according to X-ray wavelengths characteristic of certain elements, the position of which then acts as a reference point.

4.5.2.2 Advantages of the SEM

The advantage of the SEM is in combining a method of obtaining high-resolution images of specimens with simultaneous elemental analysis of a non-destructive nature of the same regions of the specimen (ibid.329). SEM analysis can identify coarse inclusions, clay minerals and even trace elements within pottery fabrics. It is thus much more detailed than examination of thin-sections under a petrological microscope and also more accurate, as the fabric analysis is dependent not on subjective observation of individual optical effects of minerals but on objective analysis of characteristic X-ray wavelengths of elements. The magnification of the SEM is very much greater, so the morphology of the fabric can be seen clearly three-dimensionally. This allows the observation of even individual clay minerals as well as changes in the structure of the fabric due to firing.

4.6 **Advantages of Ware Analysis** (cf Shepard 1956, 165-8)

Ware analysis is extremely valuable in characterisation, for pots made in a similar way from the same materials will appear alike under the microscope. When rock inclusions are present it is frequently possible to determine the source of raw materials from the types occurring, if the geology of the area under consideration is known. Microscopic examination by SEM is also valuable in research into ancient technology, for it is usually possible to determine the way the paste was mixed (from the types and distribution of inclusions), whether the vessel was wheel or hand-made (since wheel-turning will tend to orientate long inclusions parallel to the pot walls), and the firing temperature (by observing changes in certain key minerals and the amount of vitrification). It must be noted, however, that not all aspects can be studied successfully with any one group of sherds or pots (Matson 1960, 42). The materials in the pottery may be of very widespread distribution, and often little can be said about their sources. Occasionally, however, one finds temper or even clay that cannot possibly be local, although even then one may not be able to point to any precise source for the material. Even so, it is sometimes possible to define broad regions from which the clay or its filler may, or may not, have come, and this in itself may be sufficient to suggest trade or population movements in antiquity (Hodges 1963, 106). It is not uncommon to find clay deposits which, although widely separated geographically, cannot be distinguished by thin-section analysis simply because the non-plastic inclusions are the same in each case. The SEM can overcome these problems: in these cases the differences in composition lie, in fact, in the proportions of the clay minerals and other minute particles present, and differences of this kind can only be detected by spectrometry or with the SEM (Hodges 1968, 201).

> "The existence of scientific techniques does not mean that the traditional method of visual comparison is invalid: there is still a great

scope and need for studies of this type" (Peacock in Peacock 1977, 25). What is needed, rather than to relegate the ceramic analysis to an appendix in the final report, is to integrate the technical data into the broader ceramic and archaeological culture studies of the sites.

> "Neither of the two approaches - typological study of shape and decoration or technological investigation of ware and technique - can be regarded as more important or valuable than the other. It is the combination of these two approaches which makes it possible to extract more diversified knowledge from our most common artefact material" (Hulthen 1974, 7).

4.7 Franken's Work

H.J.Franken, in his excavations at Tell Deir 'Alla and his publication of Kathleen Kenyon's Iron Age pottery from the tell at Jericho, has pioneered a new method of pottery typology based on examination of the techniques used by the potter (Franken 1969 and 1974). In maintaining that similarity in appearance cannot be taken as proof of real identity (Franken 1974, 15), and attempting to explain the shapes rather than simply describe them, Franken has produced some interesting results. He has shown that slight differences in rims, bases, wall thicknesses and so on can mean very little (Franken 1969, 99-100). The finished vessel was not only the product of what the potter had in mind, but also of the amount of surplus clay, the presence of pebbles in the last coil (which would be a reason for him to leave the coil the thickness of the pebble, resulting in a short thick rim), or the amount turned after throwing, and other factors. Despite these differences, the type can still be the same, and this is what is not yet fully realised. Exact parallels are sought when some pots, which look slightly different, have been made in exactly the same way.

Nevertheless Tubb, in a review of Franken's Jericho work (Tubb 1977), questions whether or not pottery typology should be conditioned by such an analysis and points out that Franken has not found an adequate way of presenting his results (he refers to Franken's 'confused discussion' and 'lack of clarity'). A more basic drawback is illustrated by a quote from Franken himself:

> "What is considered 'later' from a technological point of view need by no means be later in the stratigraphical sequence. 'Earlier' or 'later' in this report are not to be translated in terms of the stratigraphical sequence...therefore in this study it is not the task of the analyst of the pottery technology to apply his results to the stratigraphical evidence" (Franken 1974, 176).

This can be very confusing for the archaeologist, especially since Franken accepts that two stages of development may have existed side by side (as they still do in parts of the world, for example Aden, cf Van Beek 1969, 88 n.13). This and other similar points were made many years ago by Kelso and Thorley in their seminal work on potters' techniques at Tell Beit Mirsim (Kelso and Thorley 1943). They pointed out that different workmen could use different techniques, different factories may have catered for different types of trade; there was a difference between careful and careless workmen, experimenters and traditionalists; a difference between a rush order and a regular stock-replenishing job; even a difference between the times of year, as clay is sensitive to temperature and humidity changes (ibid.112).

Franken's analysis is a study of pottery as seen by professional potters (Franken 1978, 67). Potters look at the evidence differently from the archaeologist, who is interested in characterisation. Thus, the technological analysis is an extremely detailed study of the potter at work, rather than being a typology which can be used easily. In what is purporting to be a

presentation of previously unpublished archaeological material, Franken should not be ignoring totally the typology and sequence of pottery as reflected in the stratigraphical analysis in favour of the technological analysis.

There is another important reason for not accepting Franken's method as a basis for the publication of pottery:

> "Evidence of some important techniques is difficult to recognise, and familiarity with methods of living potters and also experimentation are necessary. Without experience, understanding of techniques cannot be guaranteed" (Shepard 1956, 310).

Much as it would be useful, not everyone involved in the publication of pottery has experience of this kind.

However, ceramic and technological analysis should not be totally ignored or relegated to an appendix, as Tubb maintains - it is vital and basic to the study of pottery.

> "The physical properties are directly affected by materials and by the potter's techniques, also the nature of the material often limits the choice of technique, and both material and technique in turn influence style...each feature is best understood in its relation to the whole" (ibid.95).

While more attention should be paid to what variations in shape actually mean in technological terms in an effort to make shape analysis more objective, we must be very careful not to become too refined and neglect the implications of the pottery by studying it for its own sake. There is a great temptation to reject completely traditional methods in favour of new ones. This temptation should be resisted, as it is by no means certain if potters' techniques can be used effectively as a <u>basis</u> for typology. As Shepard wrote:

> "Data on forming and shaping processes are not necessary for the

establishment of taxonomic systems, but the value of such data is evident" (ibid.186).

4.8 Arguments Against Ware Analysis

Cole maintains that in Middle Bronze Age Palestinian pottery precise distinctions between colours and tempering elements will seldom prove to be significant, and that the answers to be derived from ware analysis are not likely to supplement the information that we already possess or which we can acquire by simpler means (Cole 1965, 38-46).

> "We are working within a limited geographic frame of reference, in which there is likely to be more variation in the character of the clays in two adjoining layers of the same sedimentary deposit than in the range of clays accessible to potters in different parts of the general region. In contrast to the frequently limited evidence of profile shapes of pottery vessels available to the worker in prehistoric contexts, enough whole or reconstructible materials are accessible to the student of the Middle Bronze Age and later periods so that shifts in technology and the intrusion of alien forms or wares are detectable from readily visible characteristics" (ibid.40).

These points may be answered adequately by reference to the present study of Middle and Late Bronze Age pottery from Jericho (cf Chapter 8). This study demonstrates that detailed examination of ware does provide important and complementary information. Pottery has in some cases been shown to be non-local by the ware, even though the basic shape and decoration is no different from the local assemblage (cf also Franken 1974, 57-8; F.R.Matson in Braidwood and Howe 1960, 67). Cole's argument concerning variation of clays in Palestine may well be valid, as Kelso and Thorley pointed out in 1943 (Kelso and Thorley 1943, 87). However, identification of temper can sometimes pin down the provenance of the pottery more precisely. Franken's work on the Iron

Age Jericho pottery has shown that most of it was locally made, the clay having a high content of carbonate, and the non-plastic inclusions consisting of rock characteristic of the Judaean mountains - fossiliferous chalk, chert and calcite (Franken 1974, 44-5). Franken noted that the local clay mixture could be distinguished from the pottery of Transjordan and probably sites near the coast, in the south and in the north, by the absence of quartz and basalt (ibid.), which do not occur in the local carbonate rocks. Thus, as a working hypothesis, he assumed that quartz sand-tempered pottery was not locally made (ibid.63).

Cole maintains that remarkably little change in basic clays and tempering agents is noted from one region to another, or from one period to another, as reported from visual examination (Cole 1965, 41). Apart from the fact that few excavators note changes in temper and that much is missed by mere visual examination, tempering materials are frequently wrongly identified, or are sometimes described only as 'grit'. Franken points out that often it is not possible to distinguish calcite from chalk with the naked eye, due to the fact that calcite often re-crystallised during firing and lost its shiny surface (Franken 1974, 57). Ware analysis of the Middle and Late Bronze Age pottery from Jericho in the present study has also revealed that temper does change through time, and this information complements other sources, both archaeological and historical, to provide a fuller picture of the economic situation in Palestine in the Middle and Late Bronze Ages.

4.9 Conclusion

The traditional shape typology of pottery may define a culture in time and space, but ware analysis and other technological studies can define divisions and activities within that culture. Ware analysis may not be of much immediate use as an indicator of chronology although, as already pointed out, the present study does reveal a difference in type and amount of temper between

two periods. The usefulness of ware analysis as an independent means of establishing time relations depends upon frequency of change in the custom of tempering.

> "If clear modifications of style occur more often than changes in temper, then style will be more useful as a chronological indicator than composition. This relation is not invariable. There are instances in which paste changes while the exterior features, as far as they can be judged from the potsherds, are constant" (Shepard 1956, 168).

Awareness of imports can change completely the way we look at contemporary sites, especially if we can isolate pottery markets or production centres.

> "When intrusive pottery can be identified, it is used to establish the contemporaneity of occupations and to trace trade relations" (ibid.335).

As already noted, not every group of pots or sherds will solve all the problems. The method is at its best in a wide-ranging study, like Shepard's work. If used at all in the Near East, it has been for one period at one site (eg Franken 1974), and although it shows how complicated the ceramic assemblage can be within one period, it is hoped that more interesting results will be produced when enough information has been gathered to consider all periods at one or more sites. We will then be able to compare the fabrics of contemporary sites, and also see how much clay and temper changed throughout time in relation to shape and other factors.

In the present study, the Middle and Late Bronze Age pottery from Jericho has been divided into separate ware groups as well as being arranged by the traditional shape typology. The information obtained has been studied to see how it contributes to our understanding of Middle and Late Bronze Age pottery at Jericho and also how it interprets, and is interpreted by, the wider archaeological and historical considerations of the two periods. The

techniques of the Middle and Late Bronze Age potters at Jericho have not been studied in any detail. It must be remembered that pottery-making techniques can only be studied properly by carefully examining every single sherd from a site for evidence of its manufacture. In this case that is not possible, as the whole Middle and Late Bronze Age pottery repertoire is not under consideration. Characterisation is what is important, as we are not undertaking a study of pottery-making at Jericho. We are interested in the wider implications of pottery, for instance which pots were imported, if there are significant differences between the fabrics used for different types of pottery and in different periods, and how this fits into the general milieu of Middle and Late Bronze Age Palestine. Insofar as techniques influence this, they should be studied, but they should not be allowed to dominate the typology so as to swamp it with technical data which might not be relevant to the questions we are asking.

> "The turn that pottery analysis takes reflects in large measure the archaeologist's use of, or interest in, ceramic data. As long as pottery is used primarily as a means of establishing relative chronology or setting up sequences, attention will be centred on means of type identification. If we are interested in pottery as a means of establishing trade and cultural contacts, we will very likely concentrate on composition and source of materials. If we are interested in tracing the history of technological development, we will give special attention to physical properties" (Shepard 1956, 102).

CHAPTER 5

POTTERY ANALYSES, WARE GROUPS AND TYPOLOGY

5.1 Garstang's Tombs

The Late Bronze Age material from Garstang's excavations at Jericho comes from tombs and from the tell. The tell evidence, together with the tiny area of Late Bronze Age occupation from Kenyon's later excavations, is considered in Chapter 9. The following four chapters are concerned with a detailed analysis of the pottery from Garstang's MB/LB tombs.

Garstang listed all the tombs which he had excavated by 1933, many of which were unpublished (Garstang 1933, pl.I). Five tombs were listed as 'MBII-LBI'. Of these, Tombs 4, 5 and 13 were published in part (Garstang 1933). Garstang's dating of these tombs to MBII-LBI was inaccurate and based on the insufficient knowledge of LBA pottery typology at the time. In fact, these three tombs were used initially in MBII and re-used in LBII (Kenyon 1951 and Chapter 7). All the available published and unpublished material from these tombs is considered in detail in this study (Chapter 7).

The two remaining tombs of the five 'MBII-LBI' tombs, 21 and 30, were not published by Garstang at all. Fortunately, he recorded both of them reasonably well, and a majority of the pottery has been located and studied in the course of this research. As it turned out, both tombs were entirely MBII in date. Nevertheless, because they contained a number of unusual MB pottery forms, they are published below (Chapter 6).

In the following chapters, the pottery from each tomb has been divided by period (Middle or Late Bronze Age), by ware groups, and within those by type. The ware groups are based on detailed examination of all the available

pottery according to the criteria described in Chapter 4.4 and on Scanning Electron Microscope and X-Ray analysis of a representative selection which confirms the divisions (see Chapter 4.5.2). The SEM analyses are presented and assessed below together with the ware and type divisions. The results of this detailed examination of the pottery are discussed in Chapter 8.

5.2 Scanning Electron Microscope and X-Ray Analyses

Element symbols: Mg (Magnesium), Al (Aluminium), Si (Silicon), P (Phosphorus), S (Sulphur), Cl (Chlorine), K (Potassium), Ca (Calcium), Ti (Titanium), Fe (Iron).

1. MB Bowl (cf Chapter 7, Tomb 5 no.184). BCM 286'72.

Inclusions: limestone, flint, grog, straw (cf Plate 1 for straw particle).

Area scan (Fig.1): high Si; also Ca, Al, S, Cl, K, Ti and Fe.

2. MB Pedestal Vase (cf Chapter 7, Tomb 5 no.183). AMO 1932.720.

Inclusions: flint, grog.

Area scan (Fig.2): high Si and Al; also S, K, Ca, Ti and Fe.

Spot scan (Fig.3 and Plate 2) - flint inclusion: high Si; also Al (possibly from the surrounding clay or even from the aluminium specimen support).

3. MB Piriform Juglet (cf Chapter 7, Tomb 5 no.152). BCM 309'72.

Grey fabric.

Inclusions: limestone, grog.

Area scan (Fig.4): high Si; also Ca, Al, P, S, K, Ti and Fe.

Spot Scan (Fig.5 and Plate 3) - natural quartz inclusion: Si.

4. MB Jar (cf Chapter 7, Tomb 5 no.192). MCM 47.48.233.

Inclusions: limestone, grog.

Area Scan (Fig.6): high Si and Ca; also Al, S, K, Ti and Fe.

Spot Scan (Fig.7) - limestone inclusion: Ca.

cf also Plate 4: shattered limestone inclusion.

Spot Scan (Fig.8 and Plate 5) - quartz or flint inclusion: Si and Al (background).

Ca and S were X-Ray mapped and shown to be distributed throughout the specimen, not concentrated in certain particles.

5. MB Bowl (cf Chapter 7, Tomb 5 no.221). MCM 47.48.144.

Inclusions: limestone, flint, grog, gypsum.

Area Scan (Fig.9): high S and Ca; also Al, Si, K and Fe.

Spot Scan (Fig.10 and Plate 6) - grog: high Si and Al; also Mg, Cl, K, Ca, Ti and Fe.

Plates 7-9 show the morphology of the fabric and reveal the tiny round crystals of gypsum.

6. LB Bowl (cf Chapter 7, Tomb 4 no.105). BCM 464'36.

Inclusions: straw, flint.

Area Scan (Fig.11): high Si and Ca; also Al, S, K, Ti and Fe.

Spot Scan (Fig.12 and Plates 10-11) - straw striation: high Si and Ca; also Al, K and Fe.

Spot Scan (Fig.13 and Plate 12) - straw remnants: high Si and Ca; also Al, S, K and Fe.

7. LB Dipper (cf Chapter 7, Tomb 5 no.336). BCM 317'72.

Inclusions: limestone, grog.

Area Scan (Fig.14): high Ca and Si; also Al, S, K and Fe.

Spot Scan (Fig.15 and Plate 13) - limestone inclusion: Ca.

Spot Scan (Fig.16 and Plate 14) - gypsum: Ca, S and Si.

8. LB Dipper (cf Chapter 7, Tomb 5 no.351). BCM 305'72.

Inclusions: limestone, shell, grog.

Area Scan (Fig.17): high Ca; also Al, Si, S, Cl, K and Fe.

Spot Scan (Fig.18 and Plate 15) - desiccated limestone inclusion: Ca; traces of Si and Fe.

9. LB Pedestal Bowl (cf Chapter 7, Tomb 5 no.353). BCM 318'72.

Inclusions: limestone, flint, grog, gypsum.

Area Scan (Fig.19): high Si and Ca; also Al, S, K, Ti and Fe.

Spot Scan (Fig.20 and Plate 16) - limestone inclusion: Ca.

Spot Scan (Fig.21 and Plate 17) - flint inclusion: Si; touches of Ca and Fe.

Spot Scan (Fig.22 and Plate 18) - gypsum or grog: high Ca, Si and S; also Al, K and Fe.

10. LB Base-Ring Jug (cf Chapter 7, Tomb 5 no.359). BCM 292'72.

Inclusions: limestone, flint, grog, gypsum.

Area Scan (Fig.23): high Si and Ca; also Al, P, S, K, Ti and Fe.

Spot Scan (Fig.24 and Plate 19) - limestone inclusion, natural?: Ca.

5.3 Assessment of Analyses

Some of the graphs for area and spot scans show traces of Au (gold), which was not included in the descriptions of composition. This is because all the samples were coated with a fine layer of gold before analysis to reduce the effect of charging electrons which spoil the magnified image. In some samples traces of this gold layer came up on the graph.

There are no real surprises in the composition of the Jericho pottery. The normal constituents of soils are silicon, aluminium, iron, potassium, calcium, sodium and magnesium, while clay in particular contains varying proportions of iron and aluminium oxides and compounds of these metals with silica

(Ricklefs 1980, 55). In the Lower Jordan Valley, the geological deposits consist of layers of marl (a mixture of clay and limestone), fine-grained gypsum and other substances (Orni and Efrat 1964, 82). The lissan marl, which covers the valley bottom, was deposited in the ancient lake which spread over most of the region until the last Upper Pleistocene (ibid.).

The fabrics which were analysed can be divided into six groups, three for the Middle Bronze Age and three for the Late Bronze Age. (Franken has noted different sorts of clays which are found in the region of Jericho [Franken 1974, 190-1], but direct comparison is difficult because of the different analytical techniques used: Franken's analysis concentrated on coarse inclusions at the expense of the composition of the clay.) Samples 1-3 are similar, although there are slight differences. No.1 contains Chlorine but is otherwise the same. It should be noted that veins of clay are never entirely homogeneous, but contain concentrations of particular ions in certain places. In this case, it would appear that chlorine ions were concentrated in part of the clay vein typical of nos.1-3 (I am grateful to Mr.P.Phillips, Assistant Keeper of Geology at Merseyside County Museums, for discussing this point with me). The low count of Calcium in no.2 can presumably be explained by the lack of added limestone temper. No.3 is particularly interesting because it contains Phosphorus. The main sources of phosphorus are human and animal excreta (Goffer 1980, 333). Phosphorus occurs only in nos.3 and 10, which are both grey fabrics likely to have been fired in a reducing atmosphere (ie without oxygen). We may suggest that animal dung was used for firing these fabrics - this creates a lot of smoke and so prevents oxygen from reaching the pot. The phosphorus from the dung would then have partially permeated the pot. Animal dung is still used in the Near East today in kilns and ovens, for instance in making bread.

Sample no.4 has a high calcium content which reflects the siltiness of the fabric noted during preliminary examination. This silty clay is quite distinctive and separate from the others.

Sample no.5 contains gypsum, which seems to be a natural inclusion in the clay: the gypsum crystals tend to be very rounded and homogeneous in size. Gypsum is calcium sulphate ($CaSO_4.2H_2O$) and is formed by the action of sulphuric acid on limestone. Its presence in the Jericho fabrics is evidenced by generally high levels of sulphur (which does, however, occur in smaller quantities in non-gypsum pots). The grog temper in this sample has a different reading from the surrounding fabric and so seems to have come from a pot of different fabric. It contains magnesium, which could come from dolomitic clay, which certainly occurs in the Jericho region (Franken 1974, 190-1). Dolomite ($CaMg[CO_3]_2$) occurs widely as a rock-forming mineral usually of secondary occurrence having formed by the action of magnesium-bearing solutions on limestone (Hamilton, Woolley and Bishop 1974, 66).

The LB sample no.6 contains straw temper which, however, is mostly covered over by clay and/or has been burnt out, as the X-Ray recorded only the clay fabric. This fabric is similar to the MB nos.1-3.

Nos.7 and 8 are similar to no.4, and are composed of silty clay with high calcium levels. The particularly low silicon reading in no.8 probably reflects the lack of added flint temper and the high calcium content of the limestone and shell.

Nos.9 and 10, like no.5, are gypsum fabrics. No.10 also contains phosphorus, like no.3 (see above), and may have been fired in a reducing atmosphere with animal dung as the fuel. Otherwise, the fabric is the same as no.9. This is

particularly interesting since the pot is a Base-Ring jug, which on examination in hand specimen appeared to be a real Cypriot import. This point will be discussed further in Chapter 8.1.2.

5.4 Fabric Groups

On the basis of the SEM analyses, the following fabric groups have been identified:

Middle Bronze Age

I - high Si content (natural quartz) + Ca, Al, S, (Cl), K, Ti and Fe (Samples 1-3).

II - high Si and Ca content (natural quartz and silty limestone clay) + Al, S, K, Ti and Fe (sample 4).

III - high Ca and S content (natural gypsum) + Al, Si, K and Fe (sample 5).

Late Bronze Age

IV - high Si and Ca content (natural quartz and limestone) + Al, S, K, Ti and Fe (sample 6).

V - high Ca and Si content (silty limestone clay and natural quartz) + Al, S, K and Fe (samples 7 and 8).

VI - high Si, Ca and S (natural gypsum and quartz) + Al, K, Ti and Fe (samples 9 and 10).

VII - silty limestone clay and gypsum. A sample of this was not analysed, and only two examples exist among the Jericho pottery examined.

5.5 Ware Groups

5.5.1 Middle Bronze Age

WARE IA

Fabric: I

Temper: limestone, flint, grog.

IA1 - No slip.

IA2 - Cream slip.

IA2a - Burnished cream slip.

IA3 - Dark greyish-brown slip.

IA3a - Burnished dark greyish-brown slip.

IA4 - Red/reddish yellow slip, burnished and unburnished.

IA5 - Dark grey slip on grey fabric, burnished and unburnished.

WARE IB

Fabric: I

Temper: limestone, grog.

IB1 - No slip.

IB1a - No slip, burnished.

IB2 - Cream slip.

IB2a - Burnished cream slip.

IB3 - Dark grey slip.

IB3a - Burnished dark grey slip.

IB4 - Reddish slip.

IB4a - Burnished reddish slip.

IB5 - Grey fabric.

IB5a - Dark grey slip on grey fabric.

IB5b - Burnished dark grey slip on grey fabric.

IB5c - Burnished reddish slip on grey fabric.

WARE IC

Fabric: I

Temper: limestone, flint.

IC1 - No slip.

IC2 - Burnished dark grey slip on grey fabric.

WARE ID

Fabric: I

Temper: limestone.

ID1 - No slip.

ID2 - Burnished dark grey slip.

ID3 - Burnished dark grey slip on grey fabric.

WARE IE

Fabric: I

Temper: flint, grog.

IE1 - No slip.

IE2 - Burnished cream/mottled slip.

WARE IF

Fabric: I

Temper: grog.

IF1 - No slip.

WARE IG

Fabric: I

Temper: limestone, flint, straw, grog.

IG1 - No slip.

WARE IH

Fabric: I

Temper: limestone, flint, quartz, grog.

IH1 - No slip.

WARE IIA

Fabric: II

Temper: limestone, flint, grog.

IIA1 - No slip.

IIA2 - Cream slip.

IIA2a - Burnished cream slip.

IIA3 - Red/reddish yellow slip, burnished and unburnished.

WARE IIB

Fabric: II

Temper: limestone, grog.

IIB1 - No slip.

IIB2 - Cream slip.

IIB2a - Burnished cream slip.

IIB3 - Burnished dark grey slip.

IIB4 - Burnished reddish slip.

IIB5 - Grey fabric.

IIB5a - Burnished dark grey slip on grey fabric.

IIB5b - Burnished cream slip on grey fabric.

WARE IIC

Fabric: II

Temper: limestone, flint.

IIC1 - No slip.

WARE IID

Fabric: II

Temper: limestone.

IID1 - No slip.

IID2 - Burnished dark grey slip on grey fabric.

WARE IIIA

Fabric: III

Temper: limestone, flint, grog.

IIIA1 - No slip.

IIIA2 - Cream slip.

IIIA3 - Reddish yellow slip.

IIIA3a - Burnished reddish yellow slip.

WARE IIIB

Fabric: III

Temper: limestone, grog.

IIIB1 - No slip.

IIIB2 - Cream slip.

IIIB2a - Burnished cream slip.

IIIB3 - Burnished reddish slip.

IIIB4 - Burnished dark grey slip on grey fabric.

WARE IIIC

Fabric: III

Temper: limestone, flint.

IIIC1 - Cream slip.

WARE IIID

Fabric: III

Temper: limestone.

IIID1 - Burnished dark grey slip on grey fabric.

WARE IIIE

Fabric: III

Temper: limestone, basalt, grog.

IIIE1 - Burnished cream slip.

5.5.2 **Late Bronze Age**

WARE IVA

Fabric: IV

Temper: limestone, flint, grog.

IVA1 - No slip.

IVA2 - Cream slip.

IVA3 - Burnished red slip.

WARE IVB

Fabric: IV

Temper: limestone, grog.

IVB1 - No slip.

IVB2 - Cream slip.

IVB3 - Burnished reddish yellow slip.

WARE IVC

Fabric: IV

Temper: limestone, flint.

IVC1 - No slip.

WARE IVD

Fabric: IV.

Temper: limestone, flint, straw, grog.

IVD1 - No slip.

WARE IVE

Fabric: IV

Temper: limestone, straw, grog.

IVE1 - No slip.

WARE IVF

Fabric: IV

Temper: limestone, flint, straw.

IVF1 - No slip.

WARE IVG

Fabric: IV

Temper: flint, straw.

IVG1 - No slip.

WARE VA

Fabric: V

Temper: limestone, flint, grog.

VA1 - No slip.

VA2 - Cream slip.

WARE VB

Fabric: V

Temper: limestone, grog.

VB1 - No slip.

VB2 - Cream slip.

WARE VC

Fabric: V

Temper: limestone, flint.

VC1 - No slip.

WARE VD

Fabric: V

Temper: limestone.

VD1 - No slip.

WARE VE

Fabric: V

Temper: limestone, flint, straw, grog.

VE1 - No slip.

WARE VF

Fabric: V

Temper: limestone, shell, grog.

VF1 - No slip.

WARE VG

Fabric: V

Temper: limestone, grog (handmade).

VG1 - No slip.

WARE VIA

Fabric: VI

Temper: limestone, flint, grog.

VIA1 - No slip.

VIA2 - Burnished reddish slip.

WARE VIB

Fabric: VI

Temper: limestone, grog.

VIB1 - No slip.

VIB2 - Reddish slip, burnished and unburnished.

WARE VIC

Fabric: VI

Temper: limestone.

VIC1 - No slip.

WARE VID

Fabric: VI

Temper: limestone, straw, grog.

VID1 - No slip.

WARE VIE

Fabric: VI

Handmade Base-Ring jugs, grey fabric.

WARE VIIA

Fabric: VII

Temper: limestone, grog.

VIIA1 - No slip.

VIIA2 - Burnished red slip.

5.6 Pottery Typology

Where the pottery has been published previously by Garstang, a reference is made to the relevant publication, plate and number. Many of the remaining pieces have not been illustrated, either because the type is well known enough from Kenyon's excavations, or because references to other published or illustrated forms have been considered sufficient documentation. However, all of the pottery which was examined during the course of this study has been reported on in detail. Pottery which was unlocated and previously unpublished and undrawn is merely listed, more or less in the form in which it appears in Garstang's Tomb Catalogues (kept at the Department of Oriental Studies, University of Liverpool).

5.6.1 Typology of the Middle Bronze II Pottery

The Middle Bronze II pottery has been classified according to the typology developed by Kenyon for her Jericho tombs (Kenyon 1960b, 271-301; 1965, 176-202; cf Chapter 3). The relevant part of Kenyon's typology is reproduced below. This is the method followed by Pritchard for the Gibeon MBII pottery (Pritchard 1963). The notations appended to the descriptions of the MBII pottery (eg A1a, A1b) refer to this typology. Pottery which does not have published parallels at Jericho has been illustrated.

BOWLS

A. PLATTERS

1. Disc base

b. Rim inverted flatly and bevelled

c. Rim inverted, inclined up and bevelled

d. Plain rim

2. Flat base

b. Rim inverted, inclined up and bevelled

3. Ring base

   a. Rim inverted flatly and bevelled

   b. Rim inverted, inclined up and bevelled

5. Low pedestal base

   a. Plain rim

B. CARINATED

   2. Sharply angular

      c. Concave disc base

      e. Flat base

      f. Ring base

   3. Sharply angular, deep

      a. Concave disc base

      c. Low pedestal base

      d. Disc base

   6. Angle rather rounded

      b. Flat base

      d. Ring base

   7. Angle rounded

      a. Disc base

      b. Flat base

      c. Ring base

C. CARINATED, WIDE

   1. Sharply angular

   4. Upper wall upright, rim turned over

      a. Ring base

D. FLARING CARINATED

2. Deep, marked shoulder

b. Ring base

c. Ring base, recessed centre

e. Disc base

3. Deep, with rather rounded shoulder

a. Ring base

4. Flat, with marked shoulder

a. Ring base, recessed centre

c. Ring base

6. Deep, shoulder not inclined in

E. CURVED WALLS, DEEP

1. Rim incurved

a. Ring base

F. WIDE, WALLS UPRIGHT

1. Walls curved, plain rim

c. Disc base

2. Walls curved, rim turned out flatly

a. Ring base

3. Walls curved, everted rim

a. Ring base

H. NECKED BOWLS

2. Medium size

k. 3 looped feet, curved flaring rim

4. Small

a. Ring base, straight flaring neck

J. SMALL GLOBULAR

3. Slightly out-turned rim

a. Disc base

K. SMALL

2. Cup-like

PEDESTAL VASES

A. NO CORDON

1. High, slightly rounded shoulder

a. Narrow mouth

b. Fairly wide mouth

2. High, sharply angled shoulder

3. Rounded shoulder

a. Fairly wide mouth

b. Wide mouth

B. CORDON AT NECK AND BASE

1. Sharply-angled shoulder

a. Narrow neck

2. High, slightly rounded shoulder

a. Narrow neck

C. CORDON AT NECK

1. High, slightly rounded shoulder

a. Narrow neck

2. High, sharply angled shoulder

a. Narrow neck

JUGS

A. ROUND-MOUTHED

1. Small mouth, body spherical

b. Handle on shoulder

2. Body depressed-spherical

b. Handle on shoulder

3. Body spherical, large mouth

a. Handle on shoulder, ring base

b. Handle on shoulder, disc base

4. Body piriform, large mouth

D. OVOID BODY

1. Round mouth

a. Flattened base

2. Pinched mouth, slightly flattened base

a. High, wide neck

3. Pinched mouth, flat base

a. High, wide neck

E. HIGH NECK, PINCHED MOUTH

PIRIFORM JUGLETS

B. VESTIGIAL RING BASE

1. Marked shoulder

a. Single handle

d. Twin handle with button

C. SMALL FLAT BASE

2. Body rounded

b. Twin handle

D. POINTED BASE

1. Marked shoulder

a. Single handle

E. SLIGHT BUTTON BASE

1. Marked shoulder

b. Twin handle

d. Single handle with button

2. Rounded body

a. Single handle

b. Twin handle

F. SMALL BUTTON BASE

1. Marked shoulder

a. Single handle

b. Twin handle

c. Single handle with button

d. Twin handle with button

2. Rounded body

a. Single handle

b. Twin handle

c. Single handle with button

d. Twin handle

G. MARKED BUTTON BASE

1. Marked shoulder

a. Single handle

d. Twin handle with button

H. TELL EL-YAHUDIEH TYPE

1. All over pattern

b. Three zones of chevrons

2. Bands of decoration

a. Chevrons

b. Ladder pattern

CYLINDRICAL JUGLETS

A. ROUNDED BASE

2. Oblique shoulder

a. Single handle

B. SLIGHTLY ROUNDED BASE

1. Rounded shoulder

a. Twin handle

b. Twin handle with button

c. Single handle

2. Oblique shoulder

a. Single handle

b. Twin handle with button

c. Twin handle

d. Single handle with button

C. FLAT BASE

1. Oblique shoulder

2. Square shoulder

a. Twin handle

3. Rounded shoulder

a. Single handle

DIPPER JUGLETS

A. PLUMP, ROUNDED BODY

3. Slightly rounded base

B. SLIGHTLY ROUNDED BODY, SLIGHTLY ANGULAR SHOULDER

1. Slightly rounded base

c. Handle to rim

2. Pointed base

a. Handle below rim

b. Handle to rim

C. PARALLEL SIDES, SLIGHTLY ANGULAR SHOULDER

D. TAPERING BODY, SLIGHTLY ANGULAR SHOULDER

1. Slightly pointed base

a. Handle just below rim

2. Pointed base

a. Handle just below rim

b. Handle below rim

G. ANGULAR SHOULDER, TAPERING SIDES

1. Pointed base

a. Handle just below rim

LAMPS

A. ROUND BASE, CIRCULAR

1. Curved walls

a. No appreciable folding at nozzle

B. ROUND BASE, SIDES SLIGHTLY FLATTENED TOWARDS NOZZLE

1. Curved walls

a. Slightly folding towards nozzle

2. Shallow, walls slightly angular

a. Slight folding towards nozzle

b. Fairly pronounced folding towards nozzle

3. Very shallow, walls angular

a. Folding towards nozzle

C. ROUND BASE, MARKED FLATTENING TOWARDS NOZZLE

1. Shallow, walls slightly angular

E. FLAT BASE, CIRCULAR

F. FLAT BASE, SIDES SLIGHTLY FLATTENED TOWARDS NOZZLE

1. Splaying sides with slight angle

b. Slight folding towards nozzle

G. SLIGHT DISC BASE, CIRCULAR

1. Walls curved

a. No appreciable folding towards nozzle

b. Slight folding at nozzle

2. Shallow, walls angular

a. Slight folding towards nozzle

J. PRONOUNCED DISC BASE, CIRCULAR

1. Walls curved

2. Shallow, walls angular

a. Fairly pronounced folding towards nozzle

STORAGE JARS

A. HIGH NECK

2. Single fold at rim

a. Two handles

3. Plain rim

a. Two handles

FAIENCE VESSELS

A. BAG-SHAPED

1. Wide mouth

a. Greatest girth low

B. LENTOID FLASK

1. Flat band at junction of two halves

a. Sides fairly flat

5.6.2 Typology of the Late Bronze Age Pottery

In the typology of the Late Bronze Age pottery from the Jericho tombs, the following classifications (and classification letters) used by other authors have been retained: Platters and Carinated bowls (Pritchard 1963, 8), Base-Ring I jugs (Gittlen 1977, 164-78, a complex but comprehensive system) and Imitation Base-Ring II jugs (Tufnell 1958, 210-11). The remainder of the classification has been developed during the present study: the classes created seem to define characteristic differences between types of pottery more usefully than those used by, for instance, Tufnell and Pritchard. Where appropriate, parallels for standard types have been reproduced in Figs. 25 and 26 for easy reference. For certain types of pottery, for example jugs, the classification is by no means exhaustive, and more detailed descriptions are provided in the catalogue.

BOWLS

PLATTERS

A. Plain inverted rim

Gibeon - Tomb 10A (Pritchard 1963, fig.7:1). cf fig.25:1.

Tomb 10B (ibid. fig.9:1, 3-5)

Megiddo - Tomb 989 C1 (Guy and Engberg 1938, pl.19:11)

B. Plain rim

Gibeon - Tomb 10B (Pritchard 1963, fig.9:6-9). cf fig.25:2.

C. Bevelled rim (with some degree of flare and thickened internally)

Gibeon - Tomb 10A (Pritchard 1963, fig.7:3-6). cf fig.25:3.

Tomb 10B (ibid. fig.9:10-17)

CARINATED

E. Straight wall above shoulder, no differentiated rim

Gibeon - Tomb 10B (Pritchard 1963, fig.10:26-31). cf fig.25:4.

F. Slight wall above shoulder

Gibeon - Tomb 10A (Pritchard 1963, fig.7:7, 8)

Tomb 10B (ibid. fig.10:32-6). cf fig.25:5.

H. Miscellaneous bowls

PEDESTAL BOWLS

J. Plain rim

Gibeon - Tomb 10B (Pritchard 1963, fig.10:39). cf fig.25:6.

K. Inverted rim

Hazor - Tomb 8144 (Yadin 1960, pl.CXXIX:18, 19). cf fig.25:7.

L. Plain wall, flaring rim

Lachish - Temple II (Tufnell 1940, pl.XLVI:207). cf fig.25:8.

M. Carinated, flaring rim

Jerusalem - Dominus Flevit (Saller 1964, fig.8). cf fig.25:9.

KRATERS

JUGS

A. One handle, shoulder to rim or just below

Megiddo - Str.IX (Loud 1948, pl.50:25)

Str.VIII (ibid. pl.57:9). cf fig.26:1.

B. Two handles; usually decorated

Jerusalem - Dominus Flevit (Saller 1964, figs.5 and 6)

Tomb (Amiran 1963, fig.3:38-9)

Gibeon - Tomb 10A (Pritchard 1963, fig.8:27)

Tomb 10B (ibid. fig.12:74)

Tell el-Far'ah (N) - Tomb 1 (de Vaux and Stève 1949, 117 fig.5:1). cf fig.26:2.

Tomb 12 (de Vaux 1951, 588 fig.14:13)

DIPPERS

A. Bag-shaped

Jerusalem - Dominus Flevit (Saller 1964, figs.42, 43). cf fig.26:3.

B. Slightly tapering

Jerusalem - Dominus Flevit (Saller 1964, figs.46:6, 47:12). cf fig.26:4.

Tomb (Amiran 1963, fig.2:28, 29, 34)

LAMPS

A. Upright plain rim

Tell Beit Mirsim - Str.C (Albright 1933, pl.18:8)

Megiddo - Str.X (Loud 1948, pl.47:7, 8)

Str.VIII (ibid. pl.62:5). cf fig.26:5.

B. Upright bevelled rim

Jerusalem - Dominus Flevit (Saller 1964, fig.54:2, 4). cf fig.26:6.

Tomb (Amiran 1963, fig.3:50, 51)

C. Everted rim

Gibeon - Tomb 10A (Pritchard 1963, fig.7:12, 14)

Tomb 10B (ibid. fig.11:46, 47). cf fig.26:7.

STORAGE JARS

COOKING POTS

MISCELLANEOUS LOCAL

BASE-RING I WARE

JUGS

D. handle from neck to shoulder

1. Circular mouth

a. Juglet with globular or piriform body; high, narrow, tapering neck, widening upward; funnel mouth; strap handle or rectangular handle; trumpet base.

α' . Two horizontal ridges on the middle of the neck; plain body.

ε' . Single ridge on the neck; plain body. Horizontal groove down centre of handle.

d. Big jug with globular or piriform body; medium wide neck; everted rim; ring base; two ridges around the neck; ridge around the neck base. Var.A: low conical ring base; usually with only single rim moulding; technically of good quality.

γ'. Two antithetic, curved relief-lines on the body.

SPINDLE BOTTLE

IMITATION BASE-RING WARE

BRII JUGS

A. Tubular neck, ridged at junction with ovoid body; splayed base.

B. Tubular neck, no ridge at base of neck; ovoid or globular body, splayed base.

TANKARDS

BRI SPINDLE BOTTLE

IMITATION MYCENAEAN

ALABASTER

CHAPTER 6

TWO UNPUBLISHED MIDDLE BRONZE AGE TOMBS

6.1 Introduction

Tombs 21 and 30 were excavated in three layers of 20cm each in depth, and although it was recognised that these layers were artificial, it was believed that they gave, on the whole, an indication of real stratigraphy. However, the burials in these tombs were of the multiple successive type, and such burials do not produce orderly stratification. Kenyon's excavations have shown that the usual burial practice in MBA Jericho was multiple successive interments in the same chamber (Kenyon 1960b, 263). As each new body was put in, the remains of previous burials were pushed to one side with little ceremony, in order to leave a clear space towards the front for the new burial. In the process of brushing bodies and offerings to one side, an irregular mounding resulted, making it difficult if not impossible to reconstruct the original sequence of the finds. As all the material from Tombs 21 and 30 is homogeneous, Garstang's artificial 'levels' can be regarded as misleading and ignored.

6.2 Tomb 21

6.2.1 Description

The information available concerning Tomb 21 consists of the original field notebook in pencil and a detailed summing up, in ink, in a second notebook. The field notebook includes some plans and rough sections of the tomb in pencil, with measurements noted - these seem to have been copied neatly into the second notebook. Both sources together form the basis of the tomb plan published here. There are also a few photographs of the entrance stone and part of the inside of the tomb.

Tomb 21 was a fairly small grotto (shaft) tomb situated between Tombs 12 and 22 (cf Garstang 1933, pl.I). Neither of the two notebooks makes it clear if the tomb was robbed or damaged. The entrance to the burial chamber was closed by a large stone. The plan (fig.27) shows that most of the objects were found near the edge of the tomb, probably because they were swept aside to make room for new interments. Several fragments of pottery were found in the shaft of the tomb; perhaps these had also been cleared out of the chamber to make room - unfortunately the pottery from the shaft was not drawn or photographed, but the verbal descriptions suggest that it was Middle Bronze Age in date.

There was no identifiable final burial recorded. Kenyon's excavations have shown that the sweeping aside of earlier burials usually resulted in their considerable dismemberment (Kenyon op.cit.). However, most of Kenyon's tombs contained one or two final burials in situ, generally towards the front of the tomb. Those without reasonably intact final burials had either been disturbed by a roof fall or by ancient entry, and a good deal of the pottery in the tomb was thus broken or fragmentary. A feature of Tomb 21, noted by the excavator in his notebook, was that the pottery was mostly complete and very few sherds were found. This suggests little disturbance - the excavator suggested that the stone at the mouth of the tomb preserved the objects inside. How then do we account for the lack of a final burial? Unfortunately, the sketches in the notebooks do not give a good indication of the amount and position of the bones, although the excavator noted that bones appeared mostly in layer c, the lowest level, and that the earth of lower b and c consisted almost entirely of crushed remains of human bones. Confusingly, this information does imply a severe disturbance. Perhaps the relative paucity of the bones and their disturbed nature, together with the completeness of the pottery and the position of most of the material at the edges, suggests that the tomb was prepared for another burial but not used. Given the tomb's small size, some of the bones from earlier burials may have been deliberately thrown out, as

happened in some of Kenyon's tombs (Kenyon 1965, 170). The only valid alternative suggestion is that the tomb was damaged by a roof fall in the centre, but there is no mention of this in the excavation record.

6.2.2 The Pottery

Abbreviations: h=height, d=diameter, m=mouth, b=base.
For museum number abbreviations see Appendix.

WARE IA1

BOWLS

1) 21 b 4. Type B6. Everted rim, slightly concave disc base. AMUA 48.19.

h. 128mm, d. of m. 230mm.

Colour: core and surface light yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

2) 21 b 5. Type B7a. AMUA 48.20.

h. 77mm, d. of m. 143mm.

Colour: core yellowish brown, surface pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

3) 21 b 11. Fragment of base only. Type miscellaneous. Used as lamp.

AMUA 48.24.

d. of b. 44mm.

Colour: core light red, surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint sparse, up to 2mm.

grog sparse, up to 4mm.

JUGS

4) 21 c 6 (fig.28:3). Type D. Handle to rim, pinched mouth, flat disc base.

AMUA 48.30.

h. 167mm.

Colour: core light yellowish brown, surface pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 3mm.

grog sparse, up to 2mm.

Parallels

Megiddo - Str.XIV (Loud 1948, pl.11:18).

Str.XI (ibid. pl.34:2).

DIPPER JUGLETS

5) 21 c 16. Type A3a. AMUA 48.38.

h.183mm.

Colour: core pale brown, surface yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint moderate, up to 3mm.

grog moderate, up to 3mm.

6) 21 b 10. Type B1c. AMUA 48.23.

h. 194mm.

Colour: core and surface light yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 3mm.

grog sparse, up to 3mm.

LAMPS

7) 21 c 2. Type B2a. AMUA 48.26.

d. 119mm.

Colour: core pale brown, interior surface pale brown to light red, exterior surface pale brown to light yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

8) 21 c 8. Fragments. Type G2a. AMUA 48.32.

Original d. 129mm.

Colour: core and surface yellowish brown.

Hardness: soft. Feel: rough. Fracture: hackly/crumbly.

Inclusions: limestone common, up to 2mm.

flint common, up to 5mm.

grog sparse, up to 2mm.

WARE IA2

BOWLS

9) 21 b 6. Type A3b. Slightly misshapen. AMUA 48.21.

h. 78mm, d. of m. 284mm.

Colour: core unknown, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

WARE IB1

BOWLS

10) 21 b 1 (fig.28:1). Carinated bowl, no Jericho parallels. Angle rounded, everted rim, one handle shoulder to rim, flat convex base. Rounded angle on bowls is a Kenyon Group IV and V characteristic (Kenyon 1960b, 270). Bowls do not usually have handles, and this shape seems to be modelled on cooking pot forms, although it is not a cooking pot. AMUA 48.16.

h. 82mm, d. of m. 135mm.

Colour: core light yellowish brown, surface pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Parallels

Hazor - Cistern 9024 Str.5 (Yadin 1958, pl.CXVI:16).

Area C Str.3 (Yadin 1960, pl.CX:16, 17, 20, 21).

JUGS

11) 21 a 3. Type D1a. Hole in lower part of body, c.10mm across. AMUA 48.14.

h. 340mm.

Colour: core and surface very light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

LAMPS

12) 21 c 3. Type B2a. AMUA 48.27.

d. 118mm.

Colour: core and surface light yellowish brown,

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
grog moderate, up to 3mm.

STORAGE JARS

13) 21 a 1. Type A3a. AMUA 48.12.

h. 425mm.

Colour: core unknown, surface pale brown.

Hardness: medium. Feel: soapy. Fracture: unknown.

Inclusions: limestone and grog, quantities unknown.

Manufacture: vertical smoothing and scraping marks.

WARE IB1a

DIPPER JUGLETS

14) 21 b 2. Type B2a. AMUA 48.17.

h. 174mm.

Colour: core unknown, surface pale brown.

Hardness: medium. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 4mm.
grog sparse, up to 2mm.

Lustre: matt.

Manufacture: burnished vertically, though not slipped.

WARE IB2

BOWLS

15) 21 b 8. Type D2c. AMUA 48.22.

h. 62mm, d. of b. 49mm.

Colour: core light reddish brown, surface yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

PEDESTAL VASES

16) 21 c 11. Type B1a. AMUA 48.34.

h. 132mm, d. of m. 80mm.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

CYLINDRICAL JUGLETS

17) 21 c 4. Type B1, single handle with button. Dent in body c.10mm X 25mm. AMUA 48.28.

h. 122mm.

Colour: core and surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

WARE IB4a

JUGS

18) 21 b 3 (fig.28:4). Type E, marked shoulder, high swollen neck, mouth pinched, collar round base of neck, slightly concave disc base. AMUA 48.18.

h. 189mm.

Colour: core unknown, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 3mm.

Slip: red 2.5YR 5/8, burnished.

Lustre: medium.

Parallels

Megiddo - Tomb 24, MBII (Guy and Engberg 1938, pl.23:19).

DIPPER JUGLETS

19) 21 c 14. Type B1, mouth and handle missing. AMUA 48.36.

Colour: core dark red, surface red.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

grog moderate, up to 3mm.

Slip: red 2.5YR 5/8.

Lustre: low.

WARE IB5

CYLINDRICAL JUGLETS

20) 21 c 10. Type B1b. AMUA 48.33.

d. of b. 78mm.

Colour: core and surface light grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Manufacture: smoothing marks visible near base.

21) 21 c 15. Type B2b. AMUA 48.37.

h. 145mm.

Colour: core and surface dark brownish grey.

Hardness: soft. Feel: soapy/rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

WARE IB5b

PIRIFORM JUGLETS

22) 21 c 9. Fragments. Type C, flat convex base, one handle. AMUA 48.39a.

Colour: core and surface dark grey.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: light green to dark grey 10YR 4/1. Overfired.

Lustre: low.

UNCATEGORISED POTTERY

23) 21 c 17 (fig.28:5). Cylindrical juglet, Type B2c. Decorated with one band of chevrons of incised dots, lines around collar. AMUA 48.39.

h. 142mm.

Colour: core unknown, surface grey.

Hardness: soft. Feel: rough. Fracture: unknown.

Inclusions: unknown (pot too complete).

Parallels for decoration

Jericho - Kenyon 1965, figs.183:9, 231:17.

UNLOCATED POTTERY

24) 21 c 13b. Small dish, flat disc base.

25) 21 a 2 (fig.28:2). Carinated bowl, angle rather rounded, rim everted beyond shoulder, flat concave base. No exact parallel at Jericho. Dever notes that there is a tendency in late MBII (his MBIIc) for bowl rims to be thicker and more flaring (Dever et al 1974, 35 n.139).

h. 78mm, d. of m. 150mm.

Parallels

Tell Beit Mirsim - Str.D (Albright 1933, pl.12:2).

Str.E (ibid. pl.8:6).

Gezer - MBIIc (Dever et al 1974, pl.21:18).

26) 21 b 7. Fragments of piriform juglet, double handle with button. Black slip.

27) 21 c 5. Dipper juglet, type B2a. h. 173mm.

28) 21 b 9. Fragment of lamp, flattened base.

29) 21 c 12. Fragment of small lamp, flat base.

30) 21 c 13. Broken lamp, type B2a.

FAIENCE VESSELS

31) 21 c 1 (fig.28:6). Type B1a. Decorated with concentric star design. Line of 'drops' just below neck, separated from rest of design by 'collar'.

AMUA 48.25.

h. 69mm, d. 71mm.

OTHER MATERIALS

32) 21 a 4. Fragments of bronze needles. AMUA 48.15.

33) 21 c 7. Two blue beads, an 'orange pip' (?), five carnelian beads, two faience beads, a circular disc of ivory (AMUA 48.31), and carved pieces of bone inlay (AMUA 48.31a).

6.2.3 Scarabs

It is well known that scarabs do not provide reliable dating evidence. Concerning the Jericho MBA scarabs, Kirkbride has written that "the same forms are in use throughout, and the most that can be shown is the slight change in popularity of certain styles and motifs at different times" (in Kenyon 1965, 590). The following scarabs are no exception, and do not give any firm indication of date. They are all typically 'Hyksos' and at most can only provide a terminus post quem.

Eight scarabs were found in Tomb 21 (see fig.29). Their material was not recorded, but is probably steatite. The 'profile' designations in the descriptions below refer to Kirkbride's list in Kenyon 1965, 595. (Seven of these scarabs are in AMUA, under the number 48.40.)

a) Back: head and clypeus in slight detail. Nicks.
Base: large male figure standing. Wrap-over garment across shoulder, to knees. Long wig. Arm extended holding palm branch incorporated into border.

Profile H (pronounced curve giving squat, humped effect).

b) Back: head and clypeus in some detail. Nicks.

Base: border of hooked scrolls, within twisted rope border. Rough signs inside.

Profile H.

c) Back: head blocked out, eyes shown. Nicks.

Base: decorative knot pattern.

Profile F (back with very gentle curve; body narrow in relation to plinth).

d) Back: head blocked out. Nicks on one side.

Base: upper half - nfr flanked by sw.

lower half - dd flanked by 'nḫ.

Profile N (back curves gently to prothorax-elytra division).

e) Back: head small. Clypeus frilled. Nicks.

Base: lotus surrounded by signs, including 'nḫ and large ḫpr.

Profile F.

f) Back: head blocked out with two lines. Nicks.

Base: uraei flanking Hathor (?) on nb.

Profile N-H.

g) Back: head blocked out with two lines. Nicks.

Base: large Horus-headed ?sphinx. Uraeus in front. Tail of sphinx curled over back, ?ending in uraeus.

Profile N.

h) Back: ?not drawn.

Base: man fighting lion on nb. Lion standing on back legs, right paw raised above left. Man has left arm raised. Wrap-over garment across shoulder to knees, peaked. Long wig.

Profile unknown.

6.2.4 Date

Some of the pottery from Tomb 21 is chronologically characteristic:

a) Four cylindrical juglets and fragments of two piriform juglets tend to date the tomb to the second half of MBII.

b) The flaring carinated bowl with recessed centre (no.15) tends to be dated later in MBII (Kenyon 1965, 173).

c) The faience lentoid flask with a flat band at the junction of the two halves (no.31) is found only in Kenyon's Group V.

Parallels from Jericho and other sites suggest a late MBII date. It was argued in Chapter 3 that Kenyon's Jericho typology is probably too precise, so a general date for Tomb 21 in the second half of MBII takes into account the possibilities.

6.3 Tomb 30

6.3.1 Description

The type of information available for Tomb 30 is similar to that for Tomb 21, with the original excavation record in one notebook and more detailed notes in a second notebook (in fact the same one as used for Tomb 21).

Tomb 30 was also a grotto tomb, situated between Tombs 21 and 19 (cf Garstang 1933, pl.I). During excavation it was noted that the entrance was unusual as it did not face the back of the tomb, but curved away to the south, thus facing the south-east corner of the tomb (fig.30). Some objects were recovered from the tomb shaft and drawn - they all seem to be MBA in date. The excavator concluded that there were at least three separate interments, two in the Middle Bronze Age and one in the Late Bronze Age. However, this division was made primarily on the basis of the pottery, which in fact cannot be separated chronologically. Vessels 30 a 5-10 were regarded as a separate LBA group, but re-examination shows them all to be MBA.

It is quite impossible to reconstruct a sequence of burials. The second notebook had this to say about the 'stratigraphy': "Strongest evidence for later interference of a 5-a 10 is state of layer b. Main interment (b 2-9, b 12-14), lying partly under a 5-10, is in a largely broken condition and shows signs of complete displacement from above." This notebook calls layer b "a distinctly separate interment", but then adds that no rigid line separated the lower half of layer a from layer b. Also, apparently, parts of vessels in layer a were found in layer c, so it would be extremely hazardous to assign the finds to any sequence within the MBA.

6.3.2 The Pottery

WARE IA1

BOWLS

1) 30 a 6 (fig.31:1). Carinated bowl, everted rim, concave disc base.

R 33.1082.

h. 76mm, d. of m. 141mm.

Colour: core and surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Parallels

Tell Beit Mirsim - Str.D (Albright 1933, pl.8:9).

Str.E (ibid. pl.12:2).

Gezer - MBIIc Glacis 8012 (Dever et al 1974, pl.21:19).

2) 30 a 9 (fig.31:3). Wide bowl, two handles, carinated, ring base. R 33.1085.

d. of m. 125mm.

Colour: core unknown, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 4mm.

grog moderate, up to 2mm.

Parallels

Jericho - Tomb 9 (Garstang 1932, pl.XXXV:7).

Shechem - MBIIb (Cole 1965, pl.XIV:a, b).

Megiddo - Str.X (Loud 1948, pl.46:1).

3) 30 a 5 (fig.31:4). Wide bowl, two handles, slightly everted rim, carinated, slightly concave disc base. Contained no.22. Similar to no.2 above. R 33.1080.

h. 150mm, d. of m. 291mm.

Colour: core and surface very pale brown.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate/common, up to 3mm.

grog sparse, up to 3mm.

JUGS

4) 30 a 1. Type A3b, two ribs on shoulder. R 33.1076.

h. 286mm.

Colour: core and interior surface reddish yellow, exterior surface very pale brown to reddish yellow.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint sparse, up to 3mm.
grog sparse, up to 2mm.

5) 30 b 10 (fig.31:5). Type D, pinched mouth, handle to rim, concave disc base. R 33.1099.

Colour: core pale brown, surface very pale brown.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint sparse, up to 2mm.
grog sparse, up to 2mm.

Parallels

Megiddo - Str.X-IX (Loud 1948, pl.41:25).

6) 30 a 2. Base of jug, used as lamp on two sides. R 33.1077.

d. 25mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint moderate, up to 3mm.
grog sparse, up to 2mm.

LAMPS

7) 30 c 1. Type C1, shallow, walls slightly angular. R 33.1112.

d. 107mm.

Colour: core and interior surface light grey, exterior surface light grey to light red. Overfired - slight greenish tinge.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
flint moderate, up to 2mm.
grog sparse, up to 2mm.

8) 30 c 3. Type G1a. R 33.1114.

d. 95mm.

Colour: core yellowish red, interior surface very pale brown, exterior surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint common, up to 3mm.
grog sparse, up to 3mm.

Manufacture: base grotesquely misshapen, with a large nodule of fired clay sticking out.

WARE IA2

PEDESTAL VASES

9) 30 b 12. Type C1a, fragments. R 33.1106.

h. 145mm, d. of m. 85mm.

Colour: core reddish brown, surface reddish yellow.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint common, up to 2mm.
grog moderate, up to 2mm.

Slip: white 2.5Y 8/2, with tinge of yellow suggesting overfiring.

Lustre: matt.

WARE IB1

BOWLS

10) 30 a 7. Type A3, rim inclined up and bevelled. Contained child burial. R 33.1083.

h. 90mm, d. of m. 310mm.

Colour: core and interior surface grey, exterior surface light grey to very pale brown to light red.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
grog moderate, up to 3mm.

Parallels

Gibeon - Tomb 14, MBII (Pritchard 1963, fig.19:1).

Gezer - MBIIc (Dever et al 1974, pl.16:13, 14).

11) 30 a 13 (fig.31:2). Type C1, very flaring rim, flat base with potter's mark ✳ R 33.1089.

d. 162mm.

Colour: core and interior surface pink, exterior surface pink to very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog moderate, up to 2mm.

Parallels

Tell Fara (S) - MBII (Price Williams 1977, fig.57:5).

JUGS

12) 30 a 4. Type A1b. R 33.1079.

h. 159mm.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

LAMPS

13) 30 a 3. Type A1a. R 33.1078.

d. 120mm.

Colour: core and surface very pale brown.

Hardness: hard. Feel: soapy. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

14) 30 a 15. Type B2a. R 33.1090.

d. 120mm.

Colour: core grey, interior surface reddish yellow, exterior surface reddish yellow to very pale brown.

Hardness: soft. Feel: soapy. Fracture: smooth.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 3mm.

15) 30 b 4. Type G1a. R 33.1094.

d. 117mm.

Colour: core light grey, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 3mm.

WARE IB2a

JUGS

16) 30 b 8. Slightly concave disc base of jug, used as lamp on two sides.

R 33.1097.

d. of b. 42mm.

Colour: core light red, interior surface greyish brown, exterior surface grey.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: light brownish grey 2.5Y 6/2, burnished. Slightly greenish tinge suggests overfiring.

Lustre: matt.

WARE IB3a

CYLINDRICAL JUGLETS

17) 30 b 3. Type B1c. R 33.1093.

h. 130mm.

Colour: core dark grey, surface light red.

Hardness: hard. Feel: smooth. Fracture: hackly/friable.

Inclusions: limestone common, up to 0.5mm.

grog sparse, up to 2mm.

Slip: originally had a burnished slip, but the surface is too mottled to make out any details.

Lustre: matt.

WARE IIA3

CYLINDRICAL JUGLETS

18) 30 b 2. Type B1b. R 33.1092.

h. 122mm.

Colour: core and surface light red.

Hardness: medium. Feel: smooth. Fracture: laminated/friable.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Slip: light red 2.5YR 6/8, burnished.

Lustre: medium.

WARE IIB5a

CYLINDRICAL JUGLETS

19) 30 a 12. Type C1, single handle with button. R 33.1088.

h. 93mm.

Colour: core and surface black.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: black 7.5YR 2/0, burnished.

Lustre: medium.

WARE IIIA3a

JUGS

20) 30 b 9. Ring base of jug, used as lamp all round. R 33.1098.

d. of b. 62mm.

Colour: core and exterior surface light red, interior surface greyish brown.

Hardness: soft. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 2mm.

grog moderate, up to 3mm.

Slip: reddish yellow 5YR 6/6, burnished.

Lustre: low.

WARE IIIB1

CYLINDRICAL JUGLETS

21) 30 b 14. Fragments. R 33.1107.

Colour: core and surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone moderate, up to 2mm.

grog sparse, up to 2mm.

UNCATEGORISED POTTERY

22) 30 a 5bis. Bowl, type B7a. Contained bones. R 33.1081.

d. 150mm.

Colour: core unknown, surface pink.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: unknown.

UNLOCATED POTTERY

23) 30 b 13. Part of neck of pedestal vase with collar.

24) 30 b 5. Cylindrical juglet, type B2c. h. 110mm.

25) 30 b 6. Cylindrical juglet, type B2c. h. 104mm.

26) 30 a 11. Dipper juglet, type B2b. h. 179mm.

27) 30 b 7. Fragments of lamp.

28) 30 a 8 (fig.31:6). Small storage jar, wide short neck, plain rim, two handles below shoulder, rounded base.

h. 260mm, d. of m. 83mm.

Parallels

Megiddo - Str.XIII (Loud 1948, pl.21:2).

Str.XII (ibid. pl.27:2).

Str.X (ibid. pl.42:5).

29) 30 a 14. Fragment of side of very large storage jar.

30) 30 b 1 (fig.32:1). Bag-shaped flask, everted rim, flat base. Imitates shape of MBII alabaster vessels, eg Kenyon 1960b, fig.171:11.

31) 30 a 16. Fragments: flat disc base of bowl, inverted rim of platter bowl.

32) layer c. Fragments: handle of storage jar, mouth and neck of cylindrical juglet, base of piriform juglet.

FAIENCE VESSELS

33) 30 a 10. Type A1a. Traces of painting in a geometric pattern. h. 81mm.

OTHER MATERIALS

34) 30 b 11. Six bronze toggle pins:

a) Henschel-Simon 1938, type 9b, pl.LXX, no.109. R 33.1100.

b) ibid. type 6b, no.33. R 33.1101.

c) ibid. type 8c, no.73. R 33.1102.

d) ibid. type 6b, pl.LXVIII, no.32. R 33.1103.

e) ibid. type 9b, no.108. R 33.1104.

f) ibid. no.19. R 33.1105.

35) 30 b 15. Carnelian bead (R 33.1108), pieces of carved ivory for inlay in shape of man, duck and ?hen (R 33.1109-11, 1115).

36) 30 c 2. Hilt of dagger in soft limestone. R 33.1113.

FRAGMENTS FROM SHAFT

i) Neck and mouth of storage jar, type A1.

ii) Neck and mouth of storage jar, type A3.

iii) Low pedestal base of bowl or vase.

iv) Rim of platter bowl, inverted, inclined up.

v) Carinated plain rim of jug.

vi) Rim of bowl with incised herringbone decoration on body and incisions on upper part of rim (fig.32:2).

6.3.3 Scarabs

No scarabs from Tomb 30 were recorded in the excavation catalogues, but the original excavation notebook mentioned five. However, in the course of this research, ten scarabs have been identified as coming from Tomb 30. Only drawings or photographs of the bases exist: two of the scarabs were published in Garstang 1934. For the others cf fig.32.

a) Scarab of Hetepibre (the prenomen of Sihornedjheryotef the Asiatic, cf Kirkbride in Kenyon 1965, 592), published in Garstang 1934, 131 and 130 fig.4:7. Hayes places this king fifth in the 13th Dynasty (CAH 2:2). "It was hoped that the pottery (from Tomb 30) might fall into one of the first two Groups, but this was not the case, so the scarab must have been an heirloom" (Kirkbride in Kenyon op.cit.). R 33.1256.

b) Scarab of Aa.em.neter.ra (Garstang 1934, 131 and 130 fig.4:6). R 33.1263.

c) Possible reading of htp above Red Crown on nb flanked on the left by hm (cf Kenyon 1965, fig.286:7). R 33.1264.

d) Pattern of six pairs of concentric circles with dots in centres, surrounding central signs. R 33.1260.

e) šn, design of loops and lines at top with nicks on the border on lower half. R 33.1259.

f) Striped lion, left, attacking striped horned animal, left, over part of a fallen human figure. R 33.1255.

g) 'nḫ, sw and dd signs surrounding Horus Eyes. R 33.1262.

h) Large human figure standing, right, one leg advanced. Knee-length kilt. Left arm extended holding a lotus flower (?), with possibly a nfr sign below. R 33.1257.

i) In centre, Ne.Ra repeated. To right and left, ntr. R 33.1258 (not drawn).

j) Badly defaced: to left apparently a human figure with outstretched arms. To right a sign. R 33.1261 (not drawn).

6.3.4 **Date**

As with Tomb 21, the scarabs from Tomb 30 are not very helpful for dating purposes, aside from being typically 'Hyksos'. It has been suggested that the scarab of Hetepibre of the 13th Dynasty was an heirloom and so cannot be regarded as a reliable guide to absolute date. It certainly seems to be much earlier than the pottery from Tomb 30.

The pottery from Tomb 30 included the following chronologically diagnostic characteristics:

a) There were six cylindrical juglets and only one piriform juglet, a grouping which tends to place the tomb towards the end of MBII.

b) The shoulder-handled jug (no.4), carinated bowl with rounded angle (no.22), and faience vessel (no.33) were all common in Kenyon's Groups III-V (though see comments on this typology in Chapter 3).

c) The wide bowls (nos.2 and 3) have a parallel in Megiddo Stratum X, at the end of the Middle Bronze Age.

According to the pottery, therefore, we may date Tomb 30 also towards the end of MBII.

CHAPTER 7

MIDDLE AND LATE BRONZE AGE TOMBS

7.1 General

Tombs 4, 5 and 13, like Tombs 21 and 30 (cf Chapter 6.1), were excavated in artificial layers which were originally thought to give an indication of real stratigraphy. The intermingling of characteristic pottery forms suggested to Garstang a gradual transition from MBII to LBI. However, the mixture of Middle and Late Bronze Age pottery is the result of the clearing and shovelling up of successive burials, and in fact there is a complete chronological gap in the tombs from c.1550 B.C. to c.1400 B.C. (Kenyon 1979, 182).

Nevertheless, the earlier MB pottery tends to be found in the lower 'levels', and the later LB pottery in the upper 'levels'. So, for instance in Tomb 4, Garstang's layer a is entirely LB, layers b and c are a mixture, and layers d and e are entirely MB.

7.2 Tomb 5

7.2.1 Description

Tomb 5 was an open grave situated at the northern end of the western cemetery excavated by Garstang (Garstang 1933, pl.I; for Tomb 5 and its contents see ibid. 27-40 and pls. XVIII-XXV, XXIX-XXXIV). The tomb was excavated in seven layers, described as 'well-stratified' (ibid.27). However, analysis of the pottery from the tomb shows a mixture of MB and LB pots in most layers, although layer a is entirely LB, and layer g contained only two LB pots, the rest all being MB.

A total of 537 pots was found in Tomb 5, of which 361 were located and examined in the course of this study. A further 12 pots which were not located had been published previously by Garstang (1933) or his original drawings of them still existed. Of these 373 pots, 250 are MB and 123 are LB.

164 pots or fragments which had not been published previously, or drawings of which did not exist, were not located. These have been listed here, following the descriptions in Garstang's Tomb 5 Catalogue (at the Department of Oriental Studies, University of Liverpool). From these descriptions, we can date 7 of the pots to the Late Bronze Age, and 70 to the Middle Bronze Age. Of the Middle Bronze Age pots, 17 are piriform juglets, 8 are cylindrical juglets and 27 are pedestal vases (or fragments). The other pots cannot be dated merely from the descriptions in the catalogue.

7.2.2 The Middle Bronze Age Pottery

WARE IA1

BOWLS

1) 5 g 176. Type A1b, concave disc base. M 1958.6.

d. of m. 264mm.

Colour: core unknown, surface light yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint abundant, up to 2mm.
grog sparse, up to 2mm.

Manufacture: base added separately, and bottom of bowl comes through - poor smoothing at junction.

2) 5 e 66. Type A1c, fragments. BCM 470'36.

Colour: core and exterior surface red, interior surface reddish brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 4mm.

grog moderate, up to 3mm.

3) 5 f 85. Type A1c. HMG D 1932.8.

d. of m. 203mm.

Colour: core reddish brown, surface brownish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

4) 5 f 14. Type A1c. R 32.1227.

d. of m. 222mm.

Colour: interior margin light red, exterior margin very pale brown, surface very pale brown to light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog common, up to 3mm.

Manufacture: base moulded from body, not added separately (cf no.1).

5) 5 g 187. Type A1d. R 32.1298.

d. of m. 207mm.

Colour: core and interior surface reddish yellow, exterior surface light yellowish brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Manufacture: smoothing occasionally produces shiny surface, rather like burnishing.

6) 5 g 102. Type A1d. BCM 274'72.

d. of m. 116mm.

Colour: core reddish yellow, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint common, up to 3mm.
grog sparse, up to 2mm.

Manufacture: string-cut base.

7) 5 f 48. Type A3a. L A0 25465.

d. of m. 292mm.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint common, up to 4mm.
grog moderate, up to 3mm.

Manufacture: base moulded from body.

8) 5 g 48. Type A3b, fragments. R 32.1268.

d. of m. c.320mm.

Colour: core and interior surface very pale brown, exterior surface brownish yellow.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint common, up to 3mm.
grog sparse, up to 2mm.

9) 5 g 108. Type A3b. R 32.1290.

d. of m. 255mm.

Colour: core light yellowish brown, surface reddish yellow.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 4mm.

grog sparse, up to 3mm.

Manufacture: base added separately.

10) 5 f 62. Type A3b. R 32.1238.

d. of m. 293mm.

Colour: core and interior surface light yellowish brown, exterior surface light yellowish brown to light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

flint common, up to 4mm.

grog moderate, up to 2mm.

Manufacture: base added separately.

11) 5 g 135. Type A3b. L AO 25467.

d. of m. 217mm.

Colour: core and surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

12) 5 f 76. Type A3b. HMG D 1932.9.

d. of m. 243mm.

Colour: core unknown, surface light red to pale brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 3mm.

grog sparse, up to 2mm.

Manufacture: slightly misshapen, possibly from overfiring.

13) 5 f 40. Type A3b. B 0.1160.

d. of m. 237mm.

Colour: core unknown, surface reddish brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog common, up to 2mm.

14) 5 g 157. Type A3b. B 0.1153.

d. of m. 239mm.

Colour: core unknown, surface pale brown to light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog common, up to 2mm.

15) 5 e 33. Fragments of platter bowl, including ring base. R 32.1193.

Colour: core and surface reddish yellow.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Manufacture: base added separately.

16) 5 c 37. Type B2e. Used as lamp. BCM 279'72.

d. of m. 95mm.

Colour: core and exterior surface reddish yellow, interior surface reddish brown.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint common, up to 3mm.
grog moderate, up to 3mm.

17) 5 d 31. Type B2e. BCM 469'36.

d. of m. 138mm.

Colour: core light red, interior surface reddish brown, exterior surface red to greyish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.
flint common, up to 3mm.
grog sparse, up to 3mm.

Manufacture: overfired.

18) 5 f 20. Type B2f. AMO 1932.719.

h. 90mm, d. of m. 115mm.

Colour: core and surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint moderate, up to 2mm.
grog sparse, up to 3mm.

Manufacture: scraping marks on outside, especially from shoulder vertically to base.

19) 5 g 12. Type B2f. R 32.1253.

d. of m. 122mm.

Colour: core light red, surface very pale brown.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 5mm.

flint abundant, up to 5mm.

grog sparse, up to 2mm.

20) 5 e 38 (Garstang 1933, pl.XXIV:6). Type B2. R 32.1196.

Colour: core light brown, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog moderate, up to 3mm.

21) 5 g 27. Type B2 (cf no.20). R 32.1262.

d. of m. 135mm.

Colour:: core reddish yellow, interior surface light red, exterior surface

light red to reddish yellow.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint abundant, up to 2mm.

grog moderate, up to 2mm.

22) 5 g 177. Type B3d. BCM 278'72.

d. of m. 124mm.

Colour: core very pale brown, interior surface pale brown, exterior surface

light yellowish red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog moderate, up to 3mm.

23) 5 f 19. Type B6b. BCM 283'72.

d. of m. 143mm.

Colour: core and interior surface reddish brown, exterior surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

24) 5 b 3 (Garstang 1933, pl.XXIV:3). Type B6b. HMG D 1932.5.

Colour: core and surface light yellowish brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

25) 5 c 17. Type B6b. R 32.1135.

d. of m. 144mm.

Colour: core and surface light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

26) 5 e 22. Type B6b. HMG D 1932.2.

d. of m. 139mm.

Colour: core and surface very pale green.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 5mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Manufacture: slightly overfired.

27) 5 f 8. Type B6d. BCM 282'72.

d. of m. 150mm.

Colour: core and interior surface very pale brown, exterior surface pink.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.

flint moderate, up to 5mm.

grog sparse, up to 2mm.

Manufacture: slightly overfired - has a greenish tinge.

28) 5 d 29. Type B7a. R 32.1158.

d. of m. 264mm.

Colour: core and surface light yellowish brown.

Hardness: soft. Feel: rough/soapy. Fracture: hackly/friable.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 3mm.

grog sparse, up to 2mm.

29) 5 f 24. Type B7c. BCM 281'72.

d. of m. 114mm.

Colour: core and interior surface light yellowish red, exterior surface light

yellowish red to light reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog moderate, up to 3mm.

30) 5 e 86 (Garstang 1933, pl.XXIII:6). Type D3a. R 32.1217.

Colour: core light yellowish brown, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 3mm.

grog moderate, up to 3mm.

31) 5 e 42 (Garstang 1933, pl.XXIV:7). Type D6. R 32.1197.

Colour: core and surface pink.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 2mm.

grog sparse, up to 3mm.

32) 5 g 103 (fig.33:1). Type F1c. R 32.1283.

Colour: core unknown, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

33) 5 c 16 (Garstang 1933, pl.XXIII:2). Type F3a. R 32.1134.

Colour: core and surface very pale brown.

Hardness: hard. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

34) Tomb 5. Type F3a, misshapen. HMG D 1932.3.

d. of m. 150-177mm.

Colour: core unknown, surface very pale brown.

Hardness: soft. Feel: soapy/rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Manufacture: patch of red due to uneven firing as a result of stacking in kiln.

PEDESTAL VASES

35) 5 f 83. Type C1a. BCM 288'72.

h. 160mm.

Colour: core and interior surface light reddish brown, exterior surface light reddish brown to very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 3mm.

grog sparse, up to 3mm.

JUGS

36) 5 c 19. Type A3a, top missing. R 32.1137.

Colour: core and interior surface yellowish brown, exterior surface brownish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly/smooth.

Inclusions: limestone common, up to 1mm.

flint sparse, up to 2mm.

grog moderate, up to 3mm.

Manufacture: base added separately, but not made high enough so bottom of pot comes through, and jug stands crookedly.

37) 5 f 57. Type A3a. L AO 25462.

h. 146mm.

Colour: core and surface brownish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 3mm.

38) 5 c 27. Type D2a. L AO 25509.

h. 310mm.

Colour: core unknown, surface reddish yellow.

Hardness: medium. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

flint moderate, up to 2mm.

grog sparse, up to 3mm.

Manufacture: seems that made in two separate parts, top and bottom.

39) Tomb 5. Type D2a. HMG D 1932.16.

h. 220mm.

Colour: core and surface light red.

Hardness: hard. Feel: rough/smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 3mm.

grog sparse, up to 2mm.

40) 5 c 21. Type D2a. R 32.1138.

h. 295mm.

Colour: core, exterior margin and interior surface very pale brown, interior margin light red, exterior surface very pale brown to light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

41) 5 d 38. Type D3a. BCM 334'72.

h. 360mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common/abundant, up to 4mm.

grog sparse, up to 3mm.

PIRIFORM JUGLETS

42) 5 g 185 (Garstang 1933, pl.XX:9). Type H2b. R 32.1297.

Colour: interior margin and surface reddish yellow, exterior margin light red.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 3mm.

grog common, up to 2mm.

Decoration: row of incised dots between parallel lines on shoulder.

CYLINDRICAL JUGLETS

43) 5 g 130 (Garstang 1933, pl.XX:4). Type A2. R 32.1287.

Colour: core and surface very pale brown.

Hardness: medium. Feel: soapy/rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

44) 5 e 96. Type B1, single handle with button. R 32.1221.

h. 130mm.

Colour: interior margin and interior surface light yellowish brown, exterior margin and exterior surface light red.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 2mm.
flint sparse, up to 2mm.
grog sparse, up to 2mm.

45) 5 d 15. Type B2c. BCM 308'72.

h. 101mm.

Colour: core pinkish grey, surface very pale brown.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.
flint sparse, up to 3mm.
grog sparse, up to 2mm.

DIPPER JUGLETS

46) 5 b 1 (Garstang 1933, pl.XX:12). Type B2a. R 32.1112.

Colour: core yellowish brown, interior surface yellow, exterior surface very pale brown to light red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 4mm.
flint common, up to 3mm.
grog sparse, up to 2mm.

47) 5 g 89. Type D1a. L A0 15666.

h. 210mm.

Colour: core unknown, surface light brown.

Hardness: hard. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

flint sparse, up to 2mm.

grog moderate, up to 3mm.

48) 5 f 9. Type D1a. L A0 15642.

h. 220mm.

Colour: core reddish brown, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 3mm.

LAMPS

49) 5 f 45. Type B1a. R 32.1235.

d. 130mm.

Colour: core reddish yellow, surface light reddish brown to light red.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

50) 5 g 136. Type B1a. R 32.1288.

d. 133mm.

Colour: core very pale brown, surface very pale brown to light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly/friable.

Inclusions: limestone abundant, up to 0.5mm.

flint common, up to 8mm.

grog common, up to 3mm.

51) 5 b 6. Type B1a. R 32.1114.

d. 121mm.

Colour: core and interior surface reddish yellow, exterior surface reddish yellow to light red.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 5mm.
flint moderate, up to 2mm.
grog sparse, up to 3mm.

52) 5 d 30. Type B1a, slightly flattened base. L AO 15659.

d. 119mm.

Colour: interior margin grey, exterior margin reddish yellow, surface yellowish red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint common, up to 3mm.
grog sparse, up to 4mm.

53) 5 e 35bis. Type B1a. BCM 326'72.

d. 127mm.

Colour: core and interior surface reddish brown, exterior surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint sparse, up to 3mm.
grog moderate, up to 3mm.

54) 5 d 68. Type B1a. BCM 330' 72.

d. 90mm.

Colour: core and exterior surface reddish yellow, interior surface reddish brown.

Hardness: soft. Feel: rough/powdery. Fracture: friable.

Inclusions: limestone common, up to 2mm.
flint common, up to 3mm.
grog sparse, up to 2mm.

55) 5 e 25. Type B1a. BCM 325'72.

d. 104mm.

Colour: core unknown, surface yellowish red.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone, flint and grog, quantities unknown.

56) 5 f 39. Type B1a. BCM 328'72.

d. 110mm.

Colour: core and interior surface light red, exterior surface yellowish red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint moderate, up to 3mm.
grog sparse, up to 2mm.

57) 5 e 60 (Garstang 1933, pl.XXIV:12). Type B2a. R 32.1203.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.
flint moderate, up to 4mm.
grog moderate, up to 2mm.

58) 5 d 67. Type B2b. R 32.1172.

d. 108mm.

Colour: core pale yellow, surface very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 3mm.

grog sparse, up to 2mm.

59) 5 e 62. Type B2b. BCM 327'72.

d. 111mm.

Colour: core grey, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

60) 5 c 15. Type B2b. BCM 324'72.

d. 120mm.

Colour: core unknown, interior surface light red, exterior surface light red to yellowish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 3mm.

grog sparse, up to 2mm.

61) 5 f 55. Type E, walls curved, no appreciable folding towards nozzle. BCM 329'72.

d. 120mm.

Colour: core and surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 3mm.

grog sparse, up to 3mm.

62) 5 e 61 (Garstang 1933, pl.XXIV:13). Type G1a. R 32.1204.

Colour: core brown, interior surface reddish yellow, exterior surface reddish yellow to light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 4mm.

grog sparse, up to 3mm.

63) 5 d 62. Type G1a. R 32.1170.

d. 117mm.

Colour: core light red, interior surface reddish yellow to grey, exterior surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 4mm.

grog sparse, up to 3mm.

64) 5 g 101. Type G1a. R 32.1282.

d. 130mm.

Colour: core and interior surface very pale brown, exterior surface very pale brown to reddish yellow.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog moderate, up to 3mm.

65) 5 f 28. Fragments of lamp with rounded base. R 32.1230.

Colour: core and surface yellow.

Hardness: soft. Feel: soapy. Fracture: friable/laminated.

Inclusions: limestone common, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 3mm.

66) 5 d 8. Fragments. R 32.1149.

Colour: core very pale brown, surface very pale brown to light red.

Hardness: soft. Feel: soapy. Fracture: friable/laminated.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 3mm.

grog sparse, up to 2mm.

67) 5 d 54. Fragments of lamp with flat base. L A0 15660.

d. c.112mm.

Colour: core reddish brown, interior surface light reddish brown, exterior surface light red.

Hardness: soft/medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

flint moderate, up to 3mm.

grog sparse, up to 2mm.

STORAGE JARS

68) 5 d 23. Type A3a. HMG D 1932.21.

h. 410mm.

Colour: core light reddish yellow, interior surface very pale brown, exterior surface very pale brown to very pale green.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint abundant, up to 2mm.

grog sparse, up to 3mm.

Manufacture: slightly overfired. Dent in body, possibly caused by carrying while leather-hard.

WARE IA2

BOWLS

69) 5 g 58. Type A1b. BCM 273'72.

d. of m. 241mm.

Colour: core and interior surface yellowish red, exterior surface yellowish red to light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

flint common, up to 3mm.

grog sparse, up to 7mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

70) 5 g 86. Type A3a. MCM 47.48.145.

d. of m. 240mm.

Colour: core unknown, interior surface pale yellow, exterior surface light grey.

Hardness: medium. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 3mm.

Slip: yellow 10YR 7/6.

Lustre: matt.

71) 5 g 4. Type B3a. BCM 284'72.

d. of m. 70mm.

Colour: core and surface light reddish brown.

Hardness: medium. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone, flint and grog, quantities unknown.

Slip: very pale brown 10YR 7/4, on outside and inner rim.

Lustre: matt.

72) 5 e 23. Type B6b. R 32.1186.

d. of m. 128mm.

Colour: core light yellowish brown, interior surface very pale brown, exterior surface very pale brown to light red.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint sparse, up to 3mm.
grog moderate, up to 2mm.

Slip: white 10YR 8/2.

Lustre: matt.

73) 5 e 67. Type F2a. R 32.1207.

d. of m. 221mm.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
flint common, up to 3mm.
grog moderate, up to 2mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

PEDESTAL VASES

74) 5 f 44. Type A1a. R 32.1234.

h. 127mm.

Colour: interior margin very pale brown, exterior margin and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint sparse, up to 2mm.
grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

75) 5 f 67. Type A1a. R 32.1241.

h. 120mm.

Colour: core and exterior surface very dark greyish brown, interior surface greyish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
flint sparse, up to 1mm.
grog moderate, up to 1mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

76) 5 g 141. Type A1a. L A0 15632.

h. 171mm, d. of m. 119mm.

Colour: core and surface reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
flint sparse, up to 3mm.
grog moderate, up to 3mm.

Slip: white 10YR 8/2.

Lustre: matt.

77) 5 g 42. Type A3b. B 0.1152.

h. 122mm.

Colour: core unknown, interior surface yellowish brown, exterior surface yellowish brown to very light red.

Hardness: hard. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 1mm.

grog sparse, up to 1mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

78) 5 e 20. Type C1a. R 32.1185.

h. 133mm.

Colour: core brownish yellow, interior surface very pale brown, exterior surface very pale brown to light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 3mm.

grog moderate, up to 2mm.

Slip: yellow 10YR 8/6.

Lustre: matt.

DIPPER JUGLETS

79) 5 d 57. Type D2b. R 32.1167.

h. 190mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/4, with patch of reddish yellow 5YR 7/6.

Lustre: matt.

LAMPS

80) 5 b 2. Type B2b. HMG D 1932.1.

d. 125mm.

Colour: core unknown, surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4, inside and outside.

Lustre: matt.

WARE IA2a

BOWLS

81) 5 g 1bis. Type D2b. L A0 15654.

d. of m. 128mm.

Colour: core pinkish grey, surface light brown.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 3mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 7/4, burnished, outside and on inner rim.

Lustre: medium.

PEDESTAL VASES

82) 5 g 5. Type A1a. R 32.1250.

h. 129mm, d. of m. 82mm.

Colour: core and surface reddish brown.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
flint sparse, up to 1mm.
grog moderate, up to 4mm.

Slip: pink 5YR 8/4 to white 10YR 8/2, burnished.

Lustre: low.

83) 5 f 69. Type A1a. B 0.1156.

h. 116mm, d. of m. 87mm.

Colour: core unknown, surface brownish red.

Hardness: medium. Feel: soapy/smooth. Fracture: unknown.

Inclusions: limestone, flint and grog, quantities unknown.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: low.

84) 5 b 16. Type C1a, fragment. R 32.1117.

Colour: core and interior surface very pale brown, exterior surface very pale brown to reddish yellow.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
flint common, up to 1mm.
grog moderate, up to 2mm.

Slip: very pale brown 10YR 8/3.

Lustre: low.

Manufacture: rings of burnishing suggest that burnished on wheel.

85) 5 c 35. Base of pedestal vase, used as lamp on one side. R 32.1144.

Colour: core and surface pale yellow.

Hardness: soft. Feel: smooth. Fracture: hackly/friable.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 2mm.

grog moderate, up to 2mm.

Slip: white 2.5Y 8/2, burnished. Yellowy tinge suggests overfiring.

Lustre: low.

PIRIFORM JUGLETS

86) 5 g 84. Type F1b. LUSA JG.32.6.

h. 132mm.

Colour: core grey, surface pinkish grey.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

flint sparse, up to 2mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/3, burnished.

Lustre: matt/low.

WARE IA3a

PIRIFORM JUGLETS

87) 5 g 41. Type B1a. R 32.1264.

h. 92mm.

Colour: interior margin and interior surface dark grey, exterior margin dark grey to reddish yellow, exterior surface grey to pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog common, up to 2mm.

Slip: very dark greyish brown 10YR 3/2, burnished.

Lustre: low.

88) 5 c 35. Head of piriform juglet. R 32.1144.

Colour: core and surface light red.

Hardness: soft. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Slip: very dark greyish brown 10YR 3/2, burnished.

Lustre: low.

WARE IA4

BOWLS

89) 5 g 97 (fig.33:2). Small hemispherical bowl, incurving walls, plain rim, flat string-cut base. LUSA JG.32.7.

Colour: core unknown, interior surface pink, exterior surface pink to light yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

flint common, up to 1mm.

grog moderate, up to 2mm.

Slip: light red 2.5YR 6/6.

Lustre: matt.

Manufacture: uneven, and may be handmade and finished on a wheel.

Parallels

Jericho - type F1a (Kenyon 1960b, fig.140:19).

Gibeon - Tomb 10 (Pritchard 1963, fig.15:2).

PIRIFORM JUGLETS

90) 5 g 80. Type F1a. L AO 15643.

h. 115mm.

Colour: core light reddish brown, surface reddish brown.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
flint sparse, up to 3mm.
grog sparse, up to 3mm.

Slip: reddish yellow 7.5YR 6/8 to light grey 5Y 7/2, burnished.

Lustre: medium.

Manufacture: slightly greenish tinge of slip probably due to overfiring.

91) 5 g 121. Type F2b. L AO 15644.

h. 140mm.

Colour: core and surface very pale brown.

Hardness: soft. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint sparse, up to 2mm.
grog moderate, up to 3mm.

Slip: red 2.5YR 5/8, burnished.

Lustre: low.

WARE IA5

PIRIFORM JUGLETS

92) 5 f 21. Type F1, head missing. BCM 297'72.

h. 135mm (estimated).

Colour: core and surface greyish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint moderate, up to 3mm.

grog moderate, up to 3mm.

Slip: traces of very dark grey 10YR 3/1.

Lustre: matt.

93) 5 f 25. Type F1c. R 32.1228.

h. 165mm.

Colour: core and surface greyish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 12mm.

grog moderate, up to 2mm.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: low.

94) 5 f 37. Fragments of piriform juglet. BCM Unaccessioned.

Colour: core and surface brownish grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

Slip: traces of very dark grey 10YR 3/1.

Lustre: matt.

WARE IB1

BOWLS

95) 5 g 94. Type H4a. R 32.1281.

d. of m. 52mm, h. 62mm.

Colour: core dark grey, surface very dark grey.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 1mm.

Manufacture: possibly fired in reduced atmosphere (cf Ware IB5).

PEDESTAL VASES

96) 5 g 44 (Garstang 1933, pl.XXIV:4). Type A1a. R 32.1265.

Colour: core unknown, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

JUGS

97) 5 f 86 (fig.34:1). Type D1a. B 0.1145.

h. 375mm.

Colour: core unknown, surface pale brown to very light red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 3mm.

Parallels

Jericho - Tomb B48 (Kenyon 1965, fig.97:3).

Gibeon - Tomb 15 (Pritchard 1963, fig.21:46).

98) 5 d 55. Type D2a. BCM 311'72.

h. 290mm.

Colour: core light yellowish red, surface pink to very pale brown.

Hardness: hard. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 3mm.

99) 5 d 33. Type D3a. R 32.1160.

h. 315mm.

Colour: core reddish yellow, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

100) 5 e 52 (fig.33:7). Jug, plain rim, one handle rim to shoulder, slightly carinated ovoid body, concave disc base. R 32.1200.

Colour: core and surface very pale brown.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

grog sparse, up to 6mm.

Manufacture: made in two halves - much patching and smoothing on the shoulder.

Parallels

Jericho - Tomb B35 (Kenyon 1960b, fig.150:2).

Gibeon - Tomb 57 (Pritchard 1963, fig.61:18).

PIRIFORM JUGLETS

101) 5 f 17. Head of piriform juglet. EBAF.

Colour: interior margin grey, exterior margin and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog moderate, up to 2mm.

CYLINDRICAL JUGLETS

102) 5 d 51. Type B2a. R 32.1166.

h. 126mm.

Colour: core and surface very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog common, up to 3mm.

103) 5 e 43. Fragments. BCM 306'72.

Colour: interior margin light brownish grey, exterior margin and exterior surface pink, interior surface very pale brown.

Hardness: soft. Feel: soapy/powdery. Fracture: friable.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

DIPPER JUGLETS

104) 5 f 82. Type C, pointed base, handle just below rim. R 32.1245.

h. 207mm.

Colour: core unknown, surface light red.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

LAMPS

105) 5 f 46. Type B1a. BCM 331'72.

d. 120mm.

Colour: core unknown, interior surface pale brown, exterior surface brownish grey.

Hardness: medium. Feel: soapy. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

106) 5 g 77. Type B1a. R 32.1275.

d. 112mm.

Colour: core light brownish grey, interior surface light red, exterior surface light red to very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
grog moderate, up to 2mm.

107) 5 d 28. Type B2b. R 32.1157.

d. 122mm.

Colour: core and surface light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 2mm.

108) 5 e 14. Type E, walls curved, no appreciable folding towards nozzle. R 32.1181.

d. 110mm.

Colour: core and surface brown.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 3mm.

109) Tomb 5. Type G1b. L AO 15661.

d. 123mm.

Colour: core red, surface reddish yellow.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 3mm.

STORAGE JARS

110) 5 c 1 (Garstang 1933, pl.XXIV:10). Type A3a. B O.1146.

Colour: core unknown, surface light red to pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 3mm.

WARE IB2

BOWLS

111) 5 g 126. Type A3b. HMG D 1932.4.

d. of m. 238mm.

Colour: core and surface dark reddish brown.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 7/4, inside and outside.

Lustre: matt.

112) 5 g 128. Type B2, large part missing. L A0 25463.

d. of m. 101mm.

Colour: core and surface red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

113) 5 g 66 (Garstang 1933, pl.XXIII:7). Type D4c. L A0 15653.

Colour: core and interior surface red, exterior surface red to greyish brown.

Hardness: medium/hard. Feel: soapy/rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

114) Tomb 5. Type H2k. R 32.1248.

d. of m. 154mm, h. 214mm.

Colour: core and interior surface light reddish brown, exterior surface light red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

Decoration: red 10R 4/6. Horizontal parallel wavy lines on shoulder and neck. This type of decoration is placed by Amiran into her 'chocolate-on-white' category (Amiran 1970, 158-9, photo 152 and pl.49:8). cf comments on 'chocolate-on-white' below (no.233).

PEDESTAL VASES

115) 5 g 13. Type A1a. R 32.1254.

h. 110mm, d. of m. 89mm.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: pale yellow 2.5Y 8/4.

Lustre: matt.

116) 5 f 35. Type A1a. BCM 471'36.

h. 129mm, d. of m. 81mm.

Colour: core and exterior surface reddish brown, interior surface grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: white 10YR 8/2.

Lustre: matt.

117) 5 g 134. Type A1a. BCM 468'36.

h. 97mm, d. of m. 77mm.

Colour: core red, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

Manufacture: scraping marks visible on shoulder, remnants of shaping after wheel-throwing.

118) 5 g 46. Type A1b. HMG D 1932.14.

h. 140mm, d. of m. 107mm.

Colour: core and surface light reddish brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

Manufacture: scraping marks on neck from shaping.

119) 5 e 39. Type C1a. HMG D 1932.13.

h. 134mm, d. of m. 75mm.

Colour: core and surface light reddish brown.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 1mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

Manufacture: all scraping marks clearly visible, body very uneven.

DIPPER JUGLETS

120) 5 f 71. Type D1a. LCM D 523.1960.

h. 200mm.

Colour: core reddish brown, surface yellowish red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 4mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

Manufacture: ridge inside neck suggests that made separately from body and added later.

121) 5 e 73. Type D1a. BCM 307'72.

h. 230mm.

Colour: core reddish yellow, interior surface yellow, exterior surface yellow to light red.

Hardness: soft. Feel: soapy/rough. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

122) 5 d 32. Type D1a. BCM 304'72.

h. 207mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

123) 5 e 71. Type D2b. R 32.1211.

h. 193mm.

Colour: core reddish brown, surface pink.

Hardness: hard. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 1mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

124) 5 e 80. Type D2b. HMG D 1932.19.

h. 193mm.

Colour: core unknown, surface light reddish brown.

Hardness: soft. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

125) 5 d 23bis. Type D2b. HMG D 1932.20.

h. 196mm.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

WARE IB2a

BOWLS

126) 5 g 75. Type D2b. BCM 285'72.

d. of m. 144mm.

Colour: core unknown, surface light reddish brown.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone and grog, quantities unknown.

Slip: very pale brown 10YR 7/4, burnished.

Lustre: low.

PEDESTAL VASES

127) 5 f 80. Type A1a. R 32.1244.

h. 107mm.

Colour: core reddish yellow, surface reddish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: white 10YR 8/2, originally burnished.

Lustre: matt.

128) 5 g 92. Type A1a. R 32.1280.

h. 140mm.

Colour: core red, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 8/4, burnished.

Lustre: low.

129) 5 g 43. Type A1a. BCM 289'72.

h. 170mm.

Colour: core and surface light reddish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: low.

130) 5 g 68. Type A1a. BCM 291'72.

h. c.170mm.

Colour: core and surface reddish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: low.

131) 5 g 21. Type A1b. HMG D 1932.12.

h. 130mm, d. of m. 99mm.

Colour: core unknown, surface light reddish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: low.

132) 5 g 122. Type C1a. Much of rim and base missing. R 32.1285.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: white 10YR 8/2, burnished.

Lustre: low.

133) 5 d 22. Type C1a. R 32.1154.

h. 145mm.

Colour: core light grey, surface pink.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

grog sparse, up to 1mm.

Slip: very pale brown 10YR 8/3, burnished.

Lustre: low.

PIRIFORM JUGLETS

134) 5 g 139 (Garstang 1933, pl.XX:5). Type F1d. R 32.1289.

Colour: core and surface light yellowish brown.

Hardness: medium/hard. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone sparse, up to 1mm.

grog sparse, up to 1mm.

Slip: white 10YR 8/2, burnished.

Lustre: low.

Decoration: red 10R 4/6, three concentric lines of varying thicknesses on shoulder.

Manufacture: burnished before application of paint.

Parallel

Jericho - Tomb J12 (Kenyon 1960b, fig.175:8).

WARE IB3

PIRIFORM JUGLETS

135) 5 g 3. Type B, body rounded, single handle. R 32.1249.

h. 123mm.

Colour: core unknown, interior surface light red to dark grey, exterior surface light yellowish brown to dark grey.

Hardness: medium. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone common, up to 1mm.
grog moderate, up to 3mm.

Slip: very dark grey 10YR 3/1.

Lustre: matt.

136) 5 e 89. Type F1d. BCM 296'72.

h. 104mm.

Colour: core light red, surface reddish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

Slip: greyish brown 10YR 5/2 to dark grey 10YR 4/1.

Lustre: matt.

WARE IB3a

PIRIFORM JUGLETS

137) 5 g 59. Type F1a. R 32.1271.

h. 107mm.

Colour: core very dark grey, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

grog moderate, up to 2mm.

Slip: very dark grey 2.5YR 3/0 to very dark brown 10YR 2/2, burnished.

Lustre: low.

138) 5 g 45. Type F1b. R 32.1266.

h. 144mm.

Colour: core very dark grey, surface light yellowish brown to reddish yellow to dark grey.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog moderate, up to 2mm.

Slip: greyish brown 10YR 5/2, originally burnished.

Lustre: matt.

139) 5 g 30. Type F1d. EBAF.

h. c.150mm.

Colour: interior margin and interior surface dark grey, exterior margin light red, exterior surface reddish brown.

Hardness: medium. Feel: smooth. Fracture: laminated/friable.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: yellowish red 5YR 5/6 to black 5YR 2.5/1, burnished.

Lustre: medium.

CYLINDRICAL JUGLETS

140) 5 e 74. Type B2a. R 32.1213.

h. 115mm.

Colour: core and interior surface brown, exterior surface brown to reddish yellow.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 1mm.

Slip: very dark greyish brown 10YR 3/2, burnished.

Lustre: low.

MISCELLANEOUS

141) 5 g 49 (fig.33:4). Cup, upper part missing, doubly carinated body, small ring base. Unique - no parallel found. R 32.1269.

Colour: core and interior surface light reddish brown, exterior surface very dark grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

grog moderate, up to 2mm.

Slip: very dark grey 5YR 3/1, originally burnished.

Lustre: matt.

WARE IB4

BOWLS

142) 5 g 167. Type A3b. BCM 466'36.

d. of m. 270mm.

Colour: core reddish grey, interior surface reddish brown, exterior surface light red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Slip: pink 7.5YR 8/4.

Lustre: matt.

PIRIFORM JUGLETS

143) 5 f 75. Type F1a. BCM 361'72.

h. c.120mm.

Colour: core and surface yellowish red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Slip: red 2.5YR 5/8.

Lustre: matt.

WARE IB4a

PIRIFORM JUGLETS

144) 5 g 22. Type B1d. R 32.1258.

h. c.105mm.

Colour: interior margin and surface very pale brown, exterior margin yellow.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

grog moderate, up to 2mm.

Slip: yellowish red 5YR 5/6, burnished.

Lustre: low.

Manufacture: base crudely made, cut out of body.

145) 5 f 74. Type E1b. AMO 1932.723.

h. c.142mm.

Colour: core light yellowish brown, interior surface very pale brown, exterior surface reddish yellow.

Hardness: soft. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 1mm.

Slip: light red 2.5YR 6/8, with patches of yellow 10R 7/6, burnished.

Lustre: low.

146) 5 g 91. Type E2a. R 32.1279.

h. 131mm.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 1mm.

Slip: light red 2.5YR 6/8, burnished.

Lustre: low.

147) 5 g 83. Type F2a. R 32.1277.

h. 159mm.

Colour: core unknown, surface light red.

Hardness: soft. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog common, up to 2mm.

Slip: reddish yellow 5YR 6/8, burnished.

Lustre: low.

148) 5 g 149. Type G1d. B 0.1158.

h. 131mm.

Colour: core unknown, interior surface yellowish brown, exterior surface yellowish brown to light red.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 1mm.

Slip: red 10R 5/8, burnished.

Lustre: low.

DIPPER JUGLETS

149) 5 g 14bis. Type D2a. R 32.1255.

h. 188mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.
grog moderate, up to 1mm.

Slip: light red 2.5YR 6/8, burnished.

Lustre: low.

WARE IB5

PIRIFORM JUGLETS

150) 5 d 50. Type C2b, in fragments. R 32.1165.

h. c.170mm.

Colour: core very dark grey, surface dark grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
grog moderate, up to 2mm.

151) 5 e 34. Type F1d, fragments. R 32.1194.

h. c.135mm.

Colour: core and interior surface very dark grey, exterior surface very dark grey to dark greyish brown.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone common, up to 2mm.
grog moderate, up to 2mm.

Decoration: incised herringbone pattern between parallel lines below shoulder and neck.

152) 5 e 21. Fragments (cf Chapter 5.2 no.3). BCM 309'72.

Colour: core and surface greyish brown.

Hardness: hard. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

CYLINDRICAL JUGLETS

153) 5 e 18 (Garstang 1933, pl.XX:3). Type C2a. R 32.1184.

Colour: core reddish brown, interior surface dark grey, exterior surface very dark grey to brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
grog moderate, up to 2mm.

WARE IB5a

PIRIFORM JUGLETS

154) 5 g 2. Type F1a. BCM 300'72.

h. 87mm.

Colour: core unknown, surface dark grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

Slip: black 7.5YR 2/0.

Lustre: matt.

CYLINDRICAL JUGLETS

155) 5 d 9. Type C3a. L AO 15646.

h. 130mm.

Colour: core unknown, surface very dark grey.

Hardness: hard. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 3mm.

Slip: black 7.5YR N2/0.

Lustre: matt.

WARE IB5b

PIRIFORM JUGLETS

156) 5 g 161. Type B1a. BCM 302'72.

h. 92mm.

Colour: core unknown, surface dark greyish brown.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone and grog, quantities unknown.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: low.

157) 5 g 18. Type E2a. R 32.1256.

h. 89mm.

Colour: core unknown, surface pale brown.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

grog moderate, up to 1mm.

Slip: dark grey 10YR 4/1 to pale brown 10YR 6/3, burnished.

Lustre: low.

158) 5 e 54. Type E2a. BCM 293'72.

h. 80mm.

Colour: core and surface greyish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: dark greyish brown 10YR 4/2, burnished.

Lustre: low.

159) 5 g 116. Type E2b. HMG D 1932.17.

h. 148mm.

Colour: core and interior surface unknown, exterior surface brownish grey.

Hardness: medium. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 1mm.

Slip: greyish brown 10YR 5/2 to very dark grey 10YR 3/1, burnished.

Lustre: medium.

160) Tomb 5. Type E2b. HMG D 1932.18.

h. c.170mm.

Colour: core and surface brownish grey.

Hardness: hard. Feel: smooth. fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 1mm.

Slip: greyish brown 10YR 5/2 to black 10YR 2/1, burnished.

Lustre: medium.

161) 5 g 36. Type E2, single handle with button. L A0 15665.

h. 97mm.

Colour: interior margin and interior surface very dark grey, exterior margin reddish brown, exterior surface very dark greyish brown.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 1mm.

Slip: very dark greyish brown 2.5Y 3/2, burnished.

Lustre: low.

162) 5 g 160. Type F1a. R 32.1292.

h. 80mm.

Colour: core unknown, surface dark grey.

Hardness: soft. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

Slip: black 10YR 2/1 to brown 10YR 4/3, burnished.

Lustre: medium.

163) 5 g 20. Type F1a. L A0 15645.

h. 98mm.

Colour: core very dark grey, surface very dark greyish brown.

Hardness: hard. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

Slip: black 10YR 2/1, burnished.

Lustre: low.

164) 5 f 53. Type F1a. R 32.1237.

h. 97mm.

Colour: core unknown, surface very dark grey.

Hardness: soft. Feel: smooth. Fracture: unknown.

Inclusions: limestone and grog, quantities unknown.

Slip: black 10YR 2/1, burnished.

Lustre: high.

165) 5 g 28. Type F1a. AMO 1932.722.

h. 100mm.

Colour: core grey, surface dark grey.

Hardness: soft. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

grog moderate, up to 1mm.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: low.

166) 5 g 124. Type F1b. R 32.1286.

h. 76mm.

Colour: core unknown, surface dark grey.

Hardness: medium. Feel: smooth. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

Slip: very dark grey 10YR 3/1 to dark yellowish brown 10YR 3/4, burnished.

Lustre: low.

167) 5 e 85. Type F1b. BCM 295'72.

h. 141mm.

Colour: core and surface greyish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: black 10YR 2/1, burnished.

Lustre: low.

168) 5 g 55. Type F1b. B 0.1151.

h. 73mm.

Colour: core unknown, surface brownish grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone and grog, quantities unknown.

Slip: dark grey 10YR 4/1 to light yellowish brown 10YR 6/4, burnished.

Lustre: low.

169) 5 f 51. Type F1c. BCM 299'72.

h. 131mm.

Colour: interior margin and interior surface dark greyish brown, exterior

margin and exterior surface reddish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

Slip: greyish brown 10YR 5/2 to black 10YR 2/1, burnished.

Lustre: low.

170) 5 f 73. Type F1d. R 32.1212.

h. c.110mm.

Colour: core and interior surface dark grey, exterior surface very dark grey.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 1mm.

Slip: black 10YR 2/1, burnished.

Lustre: low.

171) 5 f 70. Type F1d. R 32.1242.

h. 108mm.

Colour: core and surface brown.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very dark grey 10YR 3/1 to dark yellowish brown 10YR 3/6, burnished.

Lustre: medium.

172) 5 g 178. Type G1a. R 32.1296.

h. 100mm.

Colour: core dark grey, surface dark grey to light yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 1mm.

Slip: black 10YR 2/1 to very dark greyish brown 10YR 3/2, burnished.

Lustre: low.

173) 5 g 32. Shoulder-handled juglet, twin handles, ring base. R 32.1263.

h. c.95mm.

Colour: core grey, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

grog sparse, up to 2mm.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: low.

Parallel

Jericho - Tomb A34 (Kenyon 1960b, fig.141:6, 7).

CYLINDRICAL JUGLETS

174) 5 f 4. Type B1c. R 32.1225.

Colour: core and interior surface dark grey, exterior surface dark grey to dark greyish brown.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Slip: very dark grey 10YR 3/1 to very dark greyish brown 10YR 3/2, burnished.

Lustre: low.

175) 5 e 13 (Garstang 1933, pl.XX:2). Type B2b. L A0 15647.

Colour: core dark grey, interior surface very dark greyish brown, exterior surface very dark greyish brown to dark reddish brown.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very dark brown 10YR 2/2, burnished.

Lustre: low.

MISCELLANEOUS

176) 5 g 173 (fig.34:3). Double-juglet - two juglets made separately and joined at shoulder and rim. Everted rim, one handle rim to junction of two juglets, pronounced shoulder tapering to pointed base. L A0 15668.

Colour: core and surface very dark greyish brown.

Hardness: soft. Feel: soapy/smooth. Fracture: hackly.

Inclusions: limestone and grog, quantities unknown.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: low.

Parallels

Gibeon - Tomb 30 (Pritchard 1963, fig.33:27), but not same type.

Tell es-Safi - (Bliss and MacAlister 1902, pl.31:18 S, reproduced in Duncan 1930, 51:K8), single juglet only.

WARE IC1

BOWLS

177) 5 e 76. Type A3b. Fragments. R 32.1214.

d. of b. 115mm.

Colour: core and surface yellow.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint common, up to 3mm.

Manufacture: base added separately.

178) 5 d 53. Type B7b. BCM 280'72.

d. of m. 145mm.

Colour: core reddish brown, surface reddish yellow.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint common, up to 5mm.

179) 5 g 87 (fig.33:3). Type K2, everted rim, very sharply carinated shoulder, flat base. BCM 287'72.

d. of m. 97mm.

Colour: core and surface yellowish red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.
flint moderate, up to 2mm.

WARE IC2

CYLINDRICAL JUGLETS

180) 5 e 84. Type C3, twin handle with button. BCM 310'72.

h. 140mm.

Colour: core dark greyish brown, surface greyish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 3mm.

Slip: very dark greyish brown 10YR 3/2 to dark brown 10YR 3/3, burnished.

Lustre: low.

WARE ID1

BOWLS

181) 5 f 26. Type B2c. R 32.1229.

h. 103mm, d. of m. 125mm.

Colour: core and surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone sparse, up to 0.5mm.

PIRIFORM JUGLETS

182) 5 f 63. Fragments. R 32.1239.

Colour: core and interior surface red, exterior surface dark reddish brown.

Hardness: soft. Feel: rough/soapy. Fracture: friable.

Inclusions: limestone abundant, up to 1mm.

WARE IE2

PEDESTAL VASES

183) 5 g 31. Type A1b (cf Chapter 5.2 no.2). AMO 1932.720.

h. 115mm, d. of m. 92mm.

Colour: core light reddish brown, surface very pale brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: flint sparse, up to 2mm.

grog moderate, up to 2mm.

Slip: white 10YR 8/2 to yellow 10YR 7/6 to dark reddish brown 2.5YR 3/4, burnished.

Lustre: low.

WARE IG1

BOWLS

184) 5 g 93. Type B6b, concave flat base (cf Chapter 5.2 no.1). BCM 286'72.

d. of m. 118mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone, flint, straw and grog, quantities unknown.

WARE IH1

CYLINDRICAL JUGLETS

185) 5 e 24 (fig.34:2). Type B2b, ridge below neck. R 32.1187.

h. 105mm.

Colour: core reddish yellow, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

flint moderate, up to 2mm.

quartz abundant, up to 2mm.

grog sparse, up to 1mm.

Parallel

Jericho - Tomb H11 (Kenyon 1960b, fig.205:10).

GENERAL WARE I

BOWLS

186) 5 g 16. Type A2b. BCM 467'36.

d. of m. 193mm.

Colour: core unknown, surface light yellowish brown.

Hardness: medium. Feel: soapy. Fracture: unknown.

Inclusions: unknown.

Slip: reddish brown 2.5YR 5/4.

Lustre: matt.

Manufacture: string-cut base.

WARE IIA1

LAMPS

187) 5 b 24. Type B1a. R 32.1121.

d. 115mm.

Colour: core and surface light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

188) 5 b 22. Type B2b. R 32.1120.

d. 112mm.

Colour: core reddish yellow, interior surface light red, exterior surface light red to reddish yellow.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

grog moderate, up to 2mm.

WARE IIA2a

BOWLS

189) 5 f 49 (Garstang 1933, pl.XXIII:1). Type F2a. R 32.1236.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.
flint sparse, up to 2mm.
grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/4, burnished.

Lustre: medium.

Decoration: groove on outside just below rim, incised oblique strokes round rim.

Parallel

Jericho - Tomb P19 (Kenyon 1965, fig.194:6, 7).

PEDESTAL VASES

190) 5 f 30. Type B1a. R 32.1231.

h. 138mm.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint sparse, up to 2mm.
grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/4, burnished.

Lustre: low.

Manufacture: slip extends inside mouth to bottom of neck.

WARE IIB1

PEDESTAL VASES

191) 5 e 2. Type A1a, fragments. R 32.1174.

Colour: core light reddish brown, surface pink.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 0.5mm.

JUGS

192) Tomb 5d (Garstang 1933, pl.XX:8 - this is published as 5 d 38, but that is not the same pot as on the illustration). Type D1a (cf Chapter 5.2 no.4). MCM 47.48.233.

Colour: core light red, interior surface light red to greyish brown, exterior surface reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 3mm.

193) 5 b 33. Type D2a, slight ridge on rim. BCM 335'72.

h. 360mm.

Colour: core and surface very pale brown.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
grog sparse, up to 2mm.

194) 5 d 47. Type D3a. R 32.1163.

h. 335mm.

Colour: core light red, surface very pale brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

PIRIFORM JUGLETS

195) 5 g 137. Type F1a. R 32.1310.

h. c.120mm.

Colour: core brownish yellow, surface red to very pale brown.

Hardness: soft. Feel: rough. Fracture: friable.

Inclusions: limestone abundant, up to 4mm.

grog moderate, up to 3mm.

CYLINDRICAL JUGLETS

196) 5 e 16. Fragment. R 32.1182.

Colour: interior margin yellowish brown, exterior margin reddish yellow to light red, interior surface light yellowish brown, exterior surface light red.

Hardness: soft. Feel: soapy. Fracture: laminated.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

LAMPS

197) 5 d 59. Type B1a. R 32.1168.

d. 113mm.

Colour: core light red, interior surface reddish yellow, exterior surface light red to very pale brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 4mm.

WARE IIB2

BOWLS

198) 5 g 90 (Garstang 1933, pl.XXIV:2). Type D3a. R 32.1278.

Colour: core unknown, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog moderate, up to 1mm.

Slip: white 10YR 8/2, inside and outside.

Lustre: matt.

PEDESTAL VASES

199) 5 g 19 (Garstang 1933, pl.XXIV:5). Type A1a. R 32.1257.

Colour: core and surface light reddish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog common, up to 3mm.

Slip: white 10YR 8/2.

Lustre: matt.

200) 5 f 79. Type A1a. R 32.1243.

h. 128mm.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

201) 5 e 94. Type A1a. R 32.1219.

h. 123mm.

Colour: core reddish brown, surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 1mm.

Slip: white 10YR 8/2.

Lustre: matt.

202) 5 e 95. Type A1a. R 32.1220.

h. 135mm.

Colour: core light red, interior surface reddish yellow, exterior surface light brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

203) 5 g 56. Type A1b. R 32.1270.

h. 144mm.

Colour: interior margin and interior surface greyish brown, exterior margin light red, exterior surface reddish yellow.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: white 10YR 8/2.

Lustre: matt.

PIRIFORM JUGLETS

204) 5 g 162. Type F1d. R 32.1293.

h. c.100mm.

Colour: core and surface light red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

DIPPER JUGLETS

205) 5 e 70. Type D1a. R 32.1210.

h. c.260mm.

Colour: core and exterior surface red, interior surface very pale brown.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Slip: white 10YR 8/2.

Lustre: matt.

WARE IIB2a

PEDESTAL VASES

206) 5 g 47. Type A1a. Fragments. R 32.1267.

Colour: core light reddish brown, surface pink.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: white 10YR 8/2, burnished.

Lustre: low.

207) 5 g 163. Type A3a. R 32.1294.

h. 116mm.

Colour: core and surface reddish brown.

Hardness: hard. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: white 10YR 8/2, burnished.

Lustre: low.

JUGS

208) 5 f 0 (fig.33:6). Jug, piriform body, plain rim, tubular neck, disc base, stands crookedly. R 32.1222.

Colour: core and surface light reddish brown.

Hardness: soft. Feel: soapy/smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 3mm.

Slip: white 10YR 8/2, burnished.

Lustre: low.

Parallels

Megiddo - Str.X (Loud 1948, pl.39:16).

Tell el-Far'ah (N) - MBII (de Vaux 1951, 425, fig.13:2).

PIRIFORM JUGLETS

209) 5 e 79. Top only. R 32.1215.

Colour: core and exterior surface reddish brown, interior surface light yellowish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/4, burnished.

Lustre: low.

DIPPER JUGLETS

210) 5 g 175 (Garstang 1933, pl.XX:11). Type G1a. R 32.1295.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 3mm.

Slip: yellow 10YR 8/6, burnished.

Lustre: low.

WARE IIB3

PIRIFORM JUGLETS

211) 5 f 88. Type F1d. R 32.1247.

h. 112mm.

Colour: core and surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Slip: very dark grey 5YR 3/1, burnished.

Lustre: low.

WARE IIB4

PIRIFORM JUGLETS

212) 5 g 159. Type B1a. R 32.1291.

h. 95mm.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: light red 10R 6/8 to yellowish red 5/6 to greyish brown 10YR 5/2, burnished.

Lustre: medium/high.

WARE IIB5

PIRIFORM JUGLETS

213) 5 g 25. Fragments. R 32.1260.

h. c.120mm.

Colour: core and interior surface very dark grey, exterior surface very dark grey to brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

WARE IIB5a

PIRIFORM JUGLETS

214) 5 f 88. Type B1d. R 32.1246.

h. 117mm.

Colour: core dark grey, interior surface dark greyish brown, exterior surface dark greyish brown to light red.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: low.

215) 5 g 11. Type F1b. R 32.1252.

h. c.90mm.

Colour: core and surface dark grey.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: black 10YR 2/1, burnished.

Lustre: medium.

WARE IIB5b

PEDESTAL VASES

216) 5 f 59. Type A1a. R 32.1313.

h. 182mm, d. of m. 110mm.

Colour: core and exterior surface grey, interior surface greyish brown.

Hardness: hard. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 1mm.

Slip: very pale brown 10YR 8/3, burnished.

Lustre: low.

WARE IIIA1

BOWLS

217) 5 f 16. Type A1d. HMG D 1932.7.

d. of m. 225mm.

Colour: core and surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.

flint moderate, up to 4mm.

grog sparse, up to 2mm.

PIRIFORM JUGLETS

218) 5 e 71. Type F1d. BCM 294'72.

h. c.105mm.

Colour: core and surface dark reddish brown.

Hardness: medium. Feel: soapy/rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

LAMPS

219) 5 d 7. Type B1a. L A0 15658.

d. 108 X 113mm.

Colour: core and exterior surface light red, interior surface brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint common, up to 3mm.

grog sparse, up to 3mm.

WARE IIIA2

BOWLS

220) 5 g 8. Type A3b. AM0 1932.725.

d. of m. 212mm.

Colour: core light red, interior surface light reddish brown, exterior surface reddish yellow.

Hardness: medium. Feel: soapy/rough. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

flint common, up to 2mm.

grog common, up to 4mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

WARE IIIA3

BOWLS

221) 5 e 83. Type B2f (cf Chapter 5.2 no.5). MCM 47.48.144.

d. of m. 148mm.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog common, up to 3mm.

Slip: reddish yellow 5YR 6/8.

Lustre: matt.

WARE IIIB1

CYLINDRICAL JUGLETS

222) 5 e 36. Type B2b. L AO 15652.

h. c.147mm.

Colour: interior margin light grey, exterior margin and surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: friable/laminated.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 1mm.

LAMPS

223) 5 d 65. Type B1a. BCM 323'72.

d. 113mm.

Colour: core reddish brown, surface pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 2mm.

224) 5 e 26. Type B2b. L AO 15657.

d. 116 X 123mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

grog sparse, up to 2mm.

WARE IIIB2

BOWLS

225) 5 g 125. Type A3a. BCM 276'72.

d. of m. 290mm.

Colour: core and surface dark reddish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4, on inside only.

Lustre: matt.

WARE IIIB2a

BOWLS

226) 5 e 77 (Garstang 1933, pl.XXIV:1). Type B3c. L AO 15634.

Colour: core reddish yellow, surface reddish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 8/4, burnished.

Lustre: low.

PEDESTAL VASES

227) 5 f 61. Type A1a. L AO 15633.

h. 123mm, d. of m. 91mm.

Colour: core red, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/3 to pink 5YR 7/4, burnished.

Lustre: low.

228) 5 g 62. Type A1a. BCM 290'72.

d. of m. 108mm.

Colour: core light reddish brown, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 3mm.
grog moderate, up to 3mm.

Slip: very pale brown 10YR 7/4, burnished.

Lustre: low.

WARE IIIB3

CYLINDRICAL JUGLETS

229) 5 f 84. Fragment, double handle with button. L AO 15663.

Colour: interior margin very dark grey, exterior margin and exterior surface red, interior surface dark greyish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
grog sparse, up to 2mm.

Slip: red 10R 4/8, burnished.

Lustre: low.

WARE IIIB4

PIRIFORM JUGLETS

230) 5 g 61. Type B1a. R 32.1272.

h. 100mm.

Colour: core and surface very dark grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: dark yellowish brown 10YR 4/4, burnished.

Lustre: low.

WARE IIIC1

PIRIFORM JUGLETS

231) 5 f 36. Type G1a. R 32.1233.

h. c.135mm.

Colour: interior margin and interior surface brown, exterior margin and exterior surface light red.

Hardness: hard. Feel: rough. Fracture: hackly/friable.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

WARE IIID1

PIRIFORM JUGLETS

232) 5 g 85. Type E2a. L A0 15648.

h. 157mm.

Colour: core and surface dark greyish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone sparse, up to 1mm.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: low.

WARE IIIE1

PEDESTAL VASES

233) 5 g 188 (Garstang 1933, pl.XXXI; Amiran 1970, 159 photo 151). Type A2, no cordon; high, sharply angled shoulder; wide neck. L A0 15691.

h. 247mm, d. of m. 153mm.

Colour: core light red, interior surface reddish brown, exterior surface light brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
basalt common, up to 2mm.
grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/4.

Lustre: medium.

Decoration: red 10R 5/8, wavy lines and spirals in between parallel horizontal lines above shoulder.

Note

Amiran discusses this piece together with her late MBII/LBI 'Chocolate-on-White' ware (Amiran 1970, 158-9 and pl.49, where she illustrates an example from Jericho Tomb 9). From the shape, fabric and finish of this example, it is clear that it is securely MBII. It seems doubtful, though, if 'Chocolate-on-White' can be defined as a separate class, given the range of vessel types, decoration and distribution.

The term 'Chocolate-on-White' ware was first coined by Petrie but has been resurrected by Amiran. In her definition it "comprises a surprisingly wide variety of vessels, which have in common a series of stylistic criteria, pertaining to shape, finish and decoration, but mainly to workmanship"

(ibid.158). Nevertheless, she admits that the forms are mostly standard and commonly occurring MBII-LBI shapes. Furthermore, the Jericho example is no better made than some other Jericho vessels.

The main feature of the ware is apparently a thick creamy-white slip applied while the vessel was turned on the wheel. However, this seems to have been a common practice, especially in MBII, and many of the Jericho slipped vessels discussed in this study have wheelmarks clearly visible in the burnishing. Likewise the decoration, which is thick chocolate-brown or reddish-brown, is really no different from other commonly occurring examples. It is the standard decoration of the period. Amiran notes that "the decoration is also neatly carried out with a sure hand, perhaps even with the aid of instruments. It appears probable that the decoration was partly made on the wheel, hence the exactitude of the horizontal lines" (ibid.159). By contrast, the Jericho piece has poorly executed painting, which even Amiran's photo shows. The horizontals, though possibly made on a wheel, are irregular, and the wavy lines are roughly painted, certainly not with instruments. The other examples illustrated by Amiran also vary in the quality of their decoration.

Amiran's questionable judgement that the excellent workmanship of the ware in general is evidence of the high technical standard of the potter surely infers the existence of a cohesive 'school' of potters. This is highly unlikely given the wide geographic distribution of the 'ware', from Megiddo in the north, to 'Ajjul in the south-west, to Jericho in the east and Zerqa in Transjordan (cf ibid.pl.49 and photos 147-156; note, however, that the Jericho example may conceivably be an import from another Palestinian site, cf Chapter 8.1.1).

A recent, still unpublished, find of about 1500 pots from Pella Tomb 62 apparently includes lots of 'Chocolate-on-White' ware. Although this amount from a single tomb may be misleading, nevertheless it may prompt some to

suggest a major manufacturing centre for this ware in Transjordan, from where it was traded all over Palestine. However, this would be very hard to prove. There seems little reason to regard 'Chocolate-on-White' as a separate ware with definable stylistic criteria. Nevertheless, it may be a useful general descriptive term, without any particular implications for workmanship, form or distribution.

GENERAL WARE III

SHOULDER-HANDLED JUGLET

234) 5 g 81 (Garstang 1933, pl.XX:6). Pronounced shoulder, twin handle.

R 32.1276.

Colour: core unknown, interior surface pink, exterior surface pinkish white.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: dark grey 5YR 4/1, burnished.

Lustre: low.

UNCATEGORISED POTTERY

PIRIFORM JUGLETS

235) 5 g 111. Type D1a. BCM 301'72.

h. 105mm.

Colour: core very pale brown, interior surface unknown, exterior surface grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: black 7.5YR 2/0, burnished.

Lustre: medium.

236) 5 g 23 (Garstang 1933, pl.XX:1). Type E2b. R 32.1259.

Colour: core and surface grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: light grey 10YR 7/1 to black 10YR 2/1, burnished.

Lustre: medium/high.

237) 5 g 63. Type E2b. R 32.1273.

h. 147mm.

Colour: core unknown, interior surface pink, exterior surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: unknown.

Slip: red 10R 4/8, burnished.

Lustre: low.

238) 5 g 114. Type F1a. L A0 15677.

h. 114mm.

Colour: core unknown, surface reddish brown.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: light yellowish brown 10YR 6/4 to dark greyish brown 10YR 4/2, burnished.

Lustre: medium.

239) 5 g 150. Type F1a. L A0 15664.

h. 137mm.

Colour: core light reddish brown, interior surface reddish yellow, exterior surface reddish yellow to red.

Hardness: soft. Feel: smooth. Fracture: hackly.

Inclusions: unknown.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

240) 5 f 65 (Garstang 1933, pl.XX:10). Type H1b. R 32.1240.

Colour: core and surface yellowish brown.

Hardness: soft. Feel: smooth/soapy. Fracture: unknown.

Inclusions: unknown.

Slip: very dark brown 10YR 2/2, burnished.

Lustre: high.

Decoration: punctuated ornament in three panels.

Parallel

Jericho -Tomb A34 (Kenyon 1960b, fig.142:5).

241) 5 e 81. Type H2a. R 32.1216.

h. 160mm.

Colour: core unknown, interior surface dark grey, exterior surface very pale brown to very dark grey.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: unknown.

Slip: dark greyish brown 10YR 4/2, burnished.

Lustre: medium.

Decoration: incised herringbone pattern between parallel lines below shoulder.

CYLINDRICAL JUGLETS

242) 5 e 68. Type B1a. R 32.1208.

h. 115mm.

Colour: core unknown, surface light red.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: yellowish red 5YR 5/6, burnished.

Lustre: medium.

243) 5 e 17. Type B1b. R 32.1183.

h. 115mm.

Colour: core unknown, surface dark grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: very dark grey 10YR 3/1 to very dark greyish brown 10YR 3/2, burnished.

Lustre: low.

244) 5 e 7. Type B2a. R 32.1179.

h. 139mm.

Colour: core unknown, surface dark greyish brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: unknown.

Slip: remains of dark slip, too worn to recognise accurately.

Lustre: matt.

UNLOCATED POTTERY

245) 5 f 3 (Garstang 1933, pl.XXIII:8). Bowl, type A5a.

246) 5 f 7 (Garstang 1933, pl.XXIV:8). Bowl, type K2, flat base.

247) 5 g 154. Pedestal vase, type A3a.

248) 5 d 36 (fig.33:8). Jug, type A4, thickened rim, round mouth, pinched lip, one handle, piriform body, slight button base.

Parallels

Megiddo - Str.XII (Loud 1948, pl.24:35).

Str.XII-X (ibid. pl.34:3).

249) 5 e 56 (fig.33:5). Cup, straight sides; flat, thick base, wheelmade.

The shape is unusual, and the only parallels are handmade pots from Megiddo.

Parallels

Megiddo - Str.XIV (Loud 1948, pl.15:5).

Str.XIIIB (ibid. pl.16:18).

FAIENCE VESSELS

250) 5 f 22. Type A1a. R 32.1232.

7.2.3 The Late Bronze Age Pottery

WARE IVA1

PLATTER BOWLS

251) 5 d 27 (fig.35:1). Type B, ring base. L AO 25466.

Colour: core dark greyish brown, interior surface pale brown, exterior surface pale brown to light grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint moderate, up to 4mm.
grog sparse, up to 2mm.

Manufacture: greenish tinge suggests overfiring, and body is slightly warped and poorly smoothed.

Parallels

Gibeon - Tomb 10A (Pritchard 1963, fig.7:2).

Lachish - Temple II (Tufnell 1940, pl.XXXVII:18, 19).

Tell el-Far'ah (N) - LBI (de Vaux and Stève 1947, 577 fig.1:1).

252) 5 g 151. Type B, flat string-cut base. BCM 275'72.

d. of m. 153mm.

Colour: core light red, surface yellowish red.

Hardness: soft. Feel: harsh/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint common, up to 4mm.
grog sparse, up to 2mm.

Manufacture: poorly cut base - pot stands crookedly.

253) 5 g 78. Type B, flat string-cut base. LUSA JG.32.5.

d. of m. 104mm.

Colour: core white, surface reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint abundant, up to 3mm.

grog common, up to 2mm.

Decoration: rim painted dark red 2.5YR 3/6.

Manufacture: poorly made and misshapen.

254) 5 e 41. Type B. AMO 1932.727.

d. of m. 225mm.

Colour: core and surface red.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog common, up to 3mm.

Parallel

Megiddo - Tomb 25 (Guy and Engberg 1938, pl.57:5).

CARINATED BOWLS

255) Tomb 5 (fig.35:5). Type E, rim very slightly indented on top, flat base. BCM 272'72.

d. of m. 157mm.

Colour: core very pale brown, surface very pale brown to yellowish red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog moderate, up to 7mm.

Parallel

Megiddo - Tomb 912 A1 (Guy and Engberg 1938, pl.32:13).

256) 5 b 13. Type F. L AO 15655.

d. of m. 175mm.

Colour: core unknown, surface light red to reddish yellow.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 1mm.

grog sparse, up to 1mm.

Manufacture: poorly smoothed, with folds and lumps of clay left.

257) 5 d 5. Type F. L AO 25464.

d. of m. 183mm.

Colour: core dark reddish grey, surface reddish brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 4mm.

grog sparse, up to 3mm.

PEDESTAL BOWLS

258) 5 e 63 (fig.36:1). Type J, rather pointed rim. R 32.1205.

Colour: core and interior surface light red, exterior surface light red to pink.

Hardness: hard. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint moderate, up to 2mm.

grog common, up to 10mm.

Parallels

Tell el-Far'ah (N) - LBII (de Vaux and Steve 1947, 579 fig.2:15).

Tomb 5, LB (de Vaux and Steve 1949, 128 fig.9:7).

259) 5 d 19 (fig.36:5). Type K, very slightly carinated. L AO 15631.

Colour: core reddish brown, interior surface light reddish brown, exterior surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint sparse, up to 2mm.
grog sparse, up to 3mm.

Parallel

Hazor - Str.1A (Yadin 1958, pl.XCI:18).

JUGS

260) 5 f 18. Type A, flat disc base. B 0.1149.

h. 89mm.

Colour: core unknown, surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
flint moderate, up to 3mm.
grog moderate, up to 2mm.

261) 5 b 31 (fig.38:1). Type B. R 32.1126.

Colour: core and surface light red.

Hardness: hard. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
flint sparse, up to 2mm.
grog sparse, up to 3mm.

Decoration: dark red 10R 3/6, two parallel lines at base of neck and one just below handles.

Manufacture: base cut from body, smoothing generally uneven.

262) 5 d 64. Type B, flat disc base (cf no.365). R 32.1171.

h. 99mm.

Colour: core and surface very pale brown.

Hardness: hard. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Decoration: dark red 10R 3/6, on rim, three horizontal lines on neck and one just below handles. In between are pairs of vertical lines.

Manufacture: stands crookedly.

DIPPERS

263) 5 b 19 (fig.39:1). Type A, fairly high neck, pointed base. R 32.1118.

Colour: core unknown, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone common, up to 3mm.

flint common, up to 4mm.

grog sparse, up to 2mm.

Parallel

Lachish - Temple I (Tufnell 1940, pl.LII:293).

264) 5 e 4. Type A (cf no.289). R 32.1176.

h. 133mm.

Colour: core and interior surface pink, exterior surface very pale brown to light red.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog moderate, up to 2mm.

265) 5 e 27. Type A, as above. R 32.1188.

h. 155mm.

Colour: core and surface very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 3mm.

WARE IVB1

PLATTER BOWLS

266) 5 d 46 (Garstang 1933, pl.XXIII:3). Type A, disc base. R 32.1162.

Colour: core and exterior surface very pale brown, interior surface pink.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

267) 5 e 69 (fig.35:2). Type B, ring base. R 32.1209 and 1148 (two fragments).

Colour: core grey, surface very pale brown to reddish yellow to light red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 3mm.

Parallels

Gibeon - Tomb 10A (Pritchard 1963, fig.7:2).

Tell Beit Mirsim - Str.C (Albright 1932, pl.47:8; 1933, pl.16:6, 12).

Hazor - T.8145, Str.1B (Yadin 1960, pl.CXXVIII:10).

268) 5 c 6. Type B, lumpy base. R 32.1129.

d. of m. 172mm.

Colour: core and surface yellow.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Manufacture: base crudely made, so pot wobbles; poor smoothing.

269) 5 c 3. Type B, flat string-cut base. BCM 267'72.

d. of m. 199mm.

Colour: core unknown, interior surface reddish yellow, exterior surface

reddish yellow to black.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Manufacture: poorly fired, with black patches and cracked base, and poorly

smoothed.

270) 5 c 13. Type B. BCM 269'72.

d. of m. 213mm.

Colour: core unknown, interior surface pale brown, exterior surface pale brown

to yellowish red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

271) 5 d 61. Type B, flat disc base. R 32.1169.

d. of m. 237mm.

Colour: core brownish yellow, margins and exterior surface light red, interior

surface very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 2mm.

272) 5 e 55. Type B. HMG D 1932.6.

d. of m. 230mm.

Colour: core unknown, interior surface reddish brown to dark grey, exterior surface light red to dark grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 4mm.
grog moderate, up to 4mm.

273) 5 e 1. Type C, string-cut base. BCM 277'72.

d. of m. 241mm.

Colour: core unknown, surface pink to very pale brown.

Hardness: medium. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.
grog sparse, up to 2mm.

Manufacture: marks of folded rim visible inside.

CARINATED BOWLS

274) 5 b 7 (Garstang 1933, pl.XXIII:5). Type F, flat disc base. R 32.1115.

Colour: core light red, interior surface very pale brown, exterior surface very pale brown to light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
grog sparse, up to 3mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.12:1, 2).

Megiddo - Tomb 1145 B, LBI (Guy and Engberg 1938, pl.50:6).

275) 5 f 5. Type F, flat base. HMG D 1932.11.

d. of m. 174mm.

Colour: interior margin yellowish brown, exterior margin light red, surface light red to yellowish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 4mm.
grog moderate, up to 4mm.

PEDESTAL BOWLS

276) 5 d 2 (fig.36:3). Type J. R 32.1147.

Colour: core light red, interior surface reddish yellow, exterior surface reddish yellow to very pale brown.

Hardness: hard. Feel: harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 5mm.
grog sparse, up to 7mm.

Parallels

Lachish - Temple II (Tufnell 1940, pl.XLVI:212).

Bethshan - Tomb 27, LBI (Oren 1973, fig.35:16).

Note that the bases of these pedestal bowls tend to be slightly different in most cases, so it is largely irrelevant to look for a precise parallel there.

277) 5 d 49. Type J. R 32.1164.

d. of m. 253mm.

Colour: core unknown, interior surface reddish yellow, exterior surface very pale brown.

Hardness: hard. Feel: rough/harsh. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.
grog moderate, up to 3mm.

278) 5 c 10. Type J. BCM 316'72.

d. of m. 255mm.

Colour: core and surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 11mm.

Manufacture: stands crookedly.

279) 5 d 13. Type J. BCM 322'72.

d. of m. 290mm.

Colour: interior margin light yellowish brown, exterior margin light reddish yellow, surface yellowish red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

grog sparse, up to 2mm.

280) 5 c 26. Type J. BCM 317'72.

d. of m. 247mm.

Colour: core and exterior surface light red, interior surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 4mm.

Decoration: red 10R 5/8, three concentric lines inside, thin-thick-thin.

281) 5 d 25 (Garstang 1933, pl.XXIII:12). Type M. R 32.1156.

Colour: core light red, surface pink.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Decoration: dark red 10R 3/6, horizontal lines inside and outside.

Parallels

Lachish - Temples I-II (Tufnell 1940, pl.XL:76, 86).

Megiddo - Tomb 989 A1, LBI (Guy and Engberg 1938, pl.16:6).

Tomb 1145 B, LBI (ibid. pl.50:5).

282) 5 e 35 (fig.36:6). Type M. R 32.1195.

d. of m. 190mm.

Colour: core light red, surface light red to pale yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 4mm.

Decoration: dusky red 10R 3/4, concentric circles inside on rim and near centre.

Manufacture: stands crookedly.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, pl.50:10; pl.48:12).

Lachish - Temple II (Tufnell 1940, pl.XXXIX:61).

Megiddo - Str.IX-VIII (Loud 1948, pl.53:16).

283) 5 e 65 (fig.36:7). Type M. BCM 320'72.

Colour: core and surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Parallels

Hazor - LBI (Yadin 1958, pl.CCXL:1).

Str.1B (ibid. pl.CCLXXIII:2).

Megiddo - Tomb 1145 B, LBI (Guy and Engberg 1938, pl.50:9, 10).

Str.VIII (Loud 1948, pl.61:5).

JUGS

284) 5 c 11 (Garstang 1933, pl.XXII:13). Type B. AMO 1932.721.

Colour: core unknown, surface yellow.

Hardness: soft. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.
grog moderate, up to 4mm.

285) 5 d 44. Type B (as above). L AO 25461.

h. 170mm.

Colour: core red, surface red to pale brown.

Hardness: hard. Feel: rough. Fracture: hackly/friable.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 4mm.

Decoration: dusky red 10R 3/2, two horizontal parallel lines below handles.

Manufacture: base added separately.

286) 5 b 10. Type B (cf no.365). BCM 313'72.

h. 153mm.

Colour: core light reddish brown, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
grog sparse, up to 2mm.

Decoration: red 10R 5/8, three horizontal lines on neck, one below handles,
and in between pairs of vertical lines framing wavy lines.

287) 5 b 26. Type B, as above. BCM 315'72.

h. 143mm.

Colour: core light yellowish red, interior surface light reddish brown,
exterior surface light reddish brown to pink.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

Decoration: dark red 10R 3/6, three horizontal lines on neck, one below handles, and in between pairs of vertical lines framing wavy lines.

288) 5 b 14. Type B (cf no.284). BCM 314'72.

h. 195mm.

Colour: core and interior surface reddish brown, exterior surface very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

DIPPERS

289) 5 e 44 (Garstang 1933, pl.XX:13). Type A, slightly pointed base. The mouth and neck are quite straight, which is possibly an earlier feature from MBII. The classic LBII dipper mouths are very pinched (cf Garstang 1933, pl.IV:12 and Yadin 1960, pl.CXX:1-9). R 32.1201.

Colour: core and surface light red.

Hardness: soft. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

<u>Parallel</u>

Hazor - Str.3, LBI (Yadin 1958, pl.CXXIII:15-18).

290) 5 d 34 (fig.39:2). Type A, ovoid mouth, rounded base. R 32.1161.

Colour: core unknown, interior surface yellow, exterior surface yellow to light red.

Hardness: medium. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Parallels

Lachish - Class D (Tufnell 1958, pl.78:798, which came into use before the end of Temple II and continued to appear till the last tombs, ibid.194).

Megiddo - Str.VIII (Loud 1948, pl.58:7, 12).

Tomb 877 B1, LBII (Guy and Engberg 1938, pl.14:3).

Bethshan - Tomb 42 (Oren 1973, fig.29:6).

Tell el-Far'ah (N) - Tomb 11 (de Vaux 1951, 577 fig.8:8).

291) 5 b 5. Type A, as above. L AO 15667.

h. 160mm.

Colour: core and surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly/friable.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 4mm.

IMITATION BASE-RING WARE

292) 5 e 29 (Garstang 1933, pl.XXII:4). Jug, one handle shoulder to just below rim, tall narrow neck, slightly flaring rim. This is a derivation from Imitation Base-Ring, as with Lachish jugs Class E (Tufnell 1958, 188-9), where the handle is attached at or near the rim, and vertical lines of decoration are replaced by horizontal bands. R 32.1190.

Colour: core unknown, surface very pale brown.

Hardness: hard. Feel: harsh. Fracture: unknown.

Inclusions: limestone common, up to 3mm.

grog common, up to 4mm.

Decoration: dusky red 10R 3/4 horizontal lines in between dark grey 5YR 4/1 lines, on upper part of shoulder.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.34:12).

Tomb (Amiran 1963, fig.3:40).

WARE IVB2

JUGS

293) 5 c 20 (Garstang 1933, pl.XXI:8). Type A, pinched mouth, lip inside neck, ovoid body, flattened base. L AO 15637.

Colour: core and surface very pale brown.

Hardness: hard. Feel: soapy/smooth. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

grog sparse, up to 2mm.

Slip: light yellowish brown 10YR 6/4.

Lustre: matt.

Decoration: reddish brown 5YR 4/4 concentric lines around base of neck and body.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.27:1, 2).

Lachish - Temple I (Tufnell 1940, pl.LI:277).

Megiddo - Tomb 989 A1, LBII (Guy and Engberg 1938, pl.17:3).

WARE IVB3

JUGS

294) 5 a 8 (Garstang 1933, pl.XXII:5). Type B. L AO 15638.

Colour: core unknown, surface pink.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 4mm.

Slip: reddish yellow 7.5YR 7/6, burnished.

Lustre: low.

Decoration: dark red 10R 3/6, horizontal lines at base of neck and below handles; in between, groups of vertical lines framing wavy lines; streaks on handles.

295) 5 d 24 (fig.38:2). Type B. R 32.1155.

Colour: core red, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 3mm.

Slip: reddish yellow 5YR 7/8, burnished.

Lustre: medium.

Decoration: dusky red 10R 3/4, two pairs of horizontal lines, one narrow and one wide, at base of neck and just below handles; in between, vertical lines framing a wavy line; rim painted; painted streak on each handle.

IMITATION BASE-RING WARE

296) 5 g 73 (Garstang 1933, pl.XX:7). Spindle bottle. R 32.1274.

Colour: core very pale brown, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: smooth.

Inclusions: limestone common, up to 2mm.
grog sparse, up to 2mm.

Slip: reddish yellow 7.5YR 7/8 to red 2.5YR 5/8, burnished.

Lustre: low.

WARE IVC1

CARINATED BOWLS

297) 5 e 53. Type E, string-cut base. BCM 465'36.

d. of m. 168mm.

Colour: core reddish yellow, surface pink to very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

flint moderate, up to 4mm.

WARE VA1

PLATTER BOWLS

298) 5 a 4. Type B, flat base. R 32.1106.

d. of m. c.216mm.

Colour: core light reddish brown, surface reddish yellow to light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 2mm.

grog moderate, up to 2mm.

Manufacture: stands crookedly; poorly smoothed.

299) 5 b 34 (Garstang 1933, pl.XXIII:4). Type B, flat base. AMO 1932.726.

Colour: core unknown, surface reddish yellow to very pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 2mm.

grog sparse, up to 3mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.20:6).

Lachish - Temple II (Tufnell 1940, pl.XXXVII:10-11).

300) 5 c 8 (fig.35:3). Type B, flat base. R 32.1159.

Colour: core unknown, interior surface very pale brown, exterior surface

reddish yellow to light red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog sparse, up to 3mm.

Parallels

Tell Beit Mirsim - Str.C (Albright 1932, pl.47:2; 1933, pl.16:12).

Hazor - T.8144, Str.1B (Yadin 1960, pl.CXXVIII:1).

301) 5 e 49. Type B, flat disc base. R 32.1199.

d. of m. 263mm.

Colour: core light red, surface light red to reddish yellow.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 8mm.

flint moderate, up to 2mm.

grog moderate, up to 4mm.

CARINATED BOWLS

302) 5 e 3 (fig.35:9). Type F, flat base. R 32.1175.

Colour: core unknown, surface light red.

Hardness: hard. Feel: rough/harsh. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

Manufacture: slightly misshapen.

Parallels

Hazor - T.8144-5 (Yadin 1960, pl.CXXIX).

Lachish - Temples I-III (Tufnell 1940, pls.XL and XLI).

Megiddo - Str.VIII (Loud 1948, pl.61:7).

Bethshan - Tomb 42, LBI (Oren 1973, fig.28:30).

303) 5 e 64. Type F, string-cut base. R 32.1206.

d. of m. 180mm.

Colour: core brownish yellow, surface very pale brown to light red.

Hardness: hard. Feel: rough/harsh. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 3mm.

304) 5 d 17. Type F, flat disc base. R 32.1152.

d. of m. 163mm.

Colour: core reddish yellow, interior surface light red, exterior surface light red to reddish yellow.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

Manufacture: string-cut base, stands crookedly.

JUGS

305) 5 e 12 (fig.38:3). Type B. B 0.1147.

h. 156mm.

Colour: core and surface light red.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 1mm.

grog sparse, up to 1mm.

Decoration: red 10R 5/8, three horizontal bands at base of neck, two just below handles; in between, groups of three vertical lines enclosing two wavy lines.

Manufacture: vertical scraping marks give effect of burnishing.

LAMPS

306) 5 c 30. Type B. R 32.1140.

d. 135mm.

Colour: core yellowish brown, surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 2mm.

grog moderate, up to 4mm.

IMITATION BASE-RING WARE

307) 5 e 59 (fig.38:7). Jug, type B. R 32.1202.

Colour: core and surface red.

Hardness: soft. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

Decoration: dark red 10R 3/6, horizontal line at base of neck, two on shoulder, with two parallel vertical lines in between, framing a wavy line.

<u>Parallel</u>

Lachish - Class B (Tufnell 1958, pl.82:897).

308) 5 c 5 (fig.39:7). Type B. R 32.1145.

Colour: core light red, interior surface very pale brown, exterior surface very pale brown to light red.

Hardness: medium. Feel: rough. Fracture: friable.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 2mm.

grog sparse, up to 3mm.

Decoration: very dark grey 10YR 3/1, horizontal 'ladder' design on neck; vertical lines on body, wide at base of neck, tapering towards base; in between, oval splashes of paint; handle has painted line down its length with flicks along the sides; at junction of handle and body is a triangular motif.

Manufacture: base added separately, and possibly neck.

WARE VA2

LAMPS

309) 5 d 21 (fig.39:4). Type A, fairly pronounced fold at nozzle, flat base. AMO 1932.724.

Colour: core and surface light red.

Hardness: soft. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.
flint moderate, up to 2mm.
grog moderate, up to 2mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

Manufacture: potter's mark, curved V gouged in base.

WARE VB1

PLATTER BOWLS

310) 5 a 13 (Garstang 1933, pl.XXIII:9). Type B, concave disc base. BCM 268'72.

Colour: core unknown, surface red to reddish yellow.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

Parallel

Jerusalem - Dominus Flevit (Saller 1964, fig.18:4, 9).

311) 5 e 31. Type B, flat base. R 32.1192.

d. of m. 180mm.

Colour: core unknown, interior surface light red, exterior surface light red to very pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.
grog sparse, up to 2mm.

Decoration: red 10R 4/6, concentric lines on rim and inside.

312) 5 d 11. Type B, flat base, part of rim missing. R 32.1150.

Colour: core grey, margins light red, interior surface very pale brown, exterior surface very pale brown to reddish yellow.

Hardness: hard. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 5mm.
grog sparse, up to 2mm.

313) 5 d 26. Type B, fragment. BCM 271'72.

d. of m. 229mm.

Colour: core and surface yellowish red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

314) 5 d 41 (fig.35:4). Type C, flat base. MCM 47.48.143.

d. of m. 180mm.

Colour: core unknown, interior surface light yellowish brown, exterior surface light yellowish brown to light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

grog moderate, up to 4mm.

Parallels

Gibeon - Tomb 10B (Pritchard 1963, figs.9:10, 10:21).

Hazor - T.8144, Str.1B (Yadin 1960, pl.CXXVIII:18, 23).

Lachish - Class J (Tufnell 1958 pls.71-2).

315) 5 d 39. Type C, rim not thickened inside. HMG D 1932.10.

d. of m. 204mm.

Colour: core unknown, interior surface light red to light brownish grey,
exterior surface pale brown to light reddish brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

CARINATED BOWLS

316) 5 c 4 (fig.35:6). Type E, disc base. R 32.1128.

Colour: core light reddish brown, surface yellow.

Hardness: hard. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.
grog sparse, up to 3mm.

Parallel

Megiddo - Str.VII-VIA (Loud 1948, pl.68:17).

317) 5 c 25 (fig.35:7). Type E, flat base. BCM 270'72.

Colour: core unknown, interior surface reddish brown, exterior surface light
red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 4mm.

Parallel

Megiddo - Tomb 877 B1 (Guy and Engberg 1938, pl.13:20).

PEDESTAL BOWLS

318) 5 c 7 (fig.36:4). Type J. R 32.1130.

Colour: core dark grey, interior surface light red, exterior surface light red to very pale brown.

Hardness: hard. Feel: harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 4mm.

Parallels

Hazor - Str.1B (Yadin 1961, pl.CCXCI:13).

Lachish - (Tufnell 1958, pl.72:634-37).

319) 5 d 42. Type L. BCM 319'72.

d. of m. 258mm.

Colour: core and exterior surface light red, interior surface yellowish red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

320) 5 e 93 (Garstang 1933, pl.XXIII:11). Type M. BCM 321'72.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Manufacture: cracked inside because base too thick.

Parallel

Lachish - Temples II-III (Tufnell 1940, pl.XLVI, for bases).

JUGS

321) 5 b 35 (fig.37:1). Type A, slightly pinched lip, rounded shoulder, ring base. R 32.1127.

Colour: core light red, interior surface reddish yellow, exterior surface reddish yellow to light red.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 3mm.

Parallels

Megiddo - Str.X-IX (Loud 1948, pl.39:17).
Tomb 77, LBI (Guy and Engberg 1938, pl.42:6).
Tomb 1145, LBI (ibid. pl.51:4).

322) 5 b 15 (Garstang 1933, pl.XXII:2). Type A, everted, profiled rim, bag-shaped body, flat disc base. R 32.1123.

Colour: core reddish yellow, interior surface light reddish brown, exterior surface light reddish brown to grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

Decoration: dark red 10R 3/6, concentric lines on body and at base of neck.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.34:4).

Lachish - Class E (Tufnell 1958, pl.76:718).

Tell el-'Ajjul (Petrie 1934, pl.LV:68 E2).

323) 5 a 10 (Garstang 1933, pl.XXI:7). Type A, pinched mouth, narrow neck, globular body, concave disc base. R 32.1109.

Colour: core light red, surface pink.

Hardness: hard. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Decoration: dark red 10R 3/6, vertical groups of five painted lines, three straight and two wavy, between two horizontal bands at base of neck and on shoulder.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, figs.27:1, 28:3).

Megiddo - Tomb 77, LBI (Guy and Engberg 1938, pl.42:8).

324) 5 f 29. Type A, everted, profiled rim, bag-shaped body, flat disc base (cf no.322). BCM 298'72.

h. 86mm.

Colour: core yellowish red, surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 3mm.

Decoration: dark red 10R 3/6, five concentric lines on body.

325) 5 b 29. Type A, pinched lip, flattened base (cf no.369). HMG D 1932.15.

h. 198mm.

Colour: core yellowish brown, surface yellowish brown to pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

326) 5 c 24. Type A, pinched mouth, ovoid body, flattened base (cf no.293). R 32.1139.

h. 268mm.

Colour: core unknown, surface light red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 4mm.

grog moderate, up to 5mm.

327) 5 a 1 (fig.38:4). Type B. R 32.1105.

Colour: core reddish brown, surface light reddish brown.

Hardness: hard. Feel: harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 3mm.

Decoration: worn away, though drawing shows one horizontal band, probably red.

328) 5 e 6 (Garstang 1933, pl.XXII:12). Type B. R 32.1178.

Colour: core unknown, surface pink.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Decoration: dusky red 10R 3/4, on rim, and two groups of three horizontal lines on neck, and two just below handles; in between are groups of three vertical lines framing wavy lines.

329) 5 a 7 (Garstang 1933, pl.XXII:6). Type B. R 32.1108.

Colour: core unknown, interior surface very pale brown, exterior surface very pale brown to light red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Decoration: dusky red 10R 3/4, horizontal lines at base of neck and just below handles; in between are vertical lines in threes, framing wavy lines.

330) 5 a 16 (Garstang 1933, pl.XXII:11). Type B. R 32.1111.

Colour: core unknown, surface light red.

Hardness: medium. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 2mm.

Decoration: dark red 10R 3/6, horizontal lines at base of neck and just below handles; in between are pairs of vertical lines framing wavy lines.

331) 5 b 21 (fig.38:5). Type B. LCM D 524.1960.

Colour: core grey, interior surface light brownish grey, exterior surface light brownish grey to very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 3mm.

Decoration: dusky red 10R 3/2, three horizontal lines of different thicknesses at base of neck, one just below handles; in between are vertical lines framing wavy lines.

332) 5 e 37 (fig.37:4). Type B. B 0.1154.

Colour: core unknown, surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 3mm.

<u>Parallel</u>

Tell el-Far'ah (N) - Tomb 16 (de Vaux 1955, 545 fig.2:9).

333) 5 b 12 (Garstang 1933, pl.XXII:8). Type B. L A0 15639.

Colour: core and interior surface light red, exterior surface light red to very pale brown.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Decoration: reddish brown 2.5YR 4/4, on rim, two horizontal lines on neck, one just below handles; in between is a vertical 'ladder' decoration; nicks of paint on handles.

334) 5 c 32. Type B (cf no.284). R 32.1142.

h. 175mm.

Colour: core and surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 3mm.

Decoration: dark red 10R 3/6, three horizontal lines on neck, one just below handles; in between are pairs of vertical lines framing wavy lines.

335) 5 c 2. Type B (cf no.329). HMG D 1932.22.

h. 160mm.

Colour: core brownish grey, surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Decoration: three concentric lines on neck, alternately brown 10YR 5/3 and dark red 10R 3/6; dark red horizontal lines below handles; in between are groups of three vertical parallel dark red lines, framing wavy brown lines; handles have alternate nicks of brown and dark red.

DIPPERS

336) 5 b 25 (Garstang 1933, pl.XX:14). Type A (cf no.289) [cf Chapter 5.2 no.7]. BCM 317'72.

Colour: core and interior surface light red, exterior surface light red to light brownish grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 5mm.

337) 5 d 14. Type A, as above, although base slightly more pointed.

L AO 15641.

h. 154mm.

Colour: core reddish brown, interior surface very pale brown, exterior surface very pale brown to red.

Hardness: medium. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 4mm.

338) 5 e 48. Type A (cf no.289). B 0.1155.

h. 157mm.

Colour: core and surface light red.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 1mm.

LAMPS

339) 5 a 12 (Garstang 1933, pl.XXIV:11). Type B, fairly pronounced folding at nozzle, rounded base. R 32.1110.

Colour: core unknown, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Parallel

Lachish - Temple I (Tufnell 1940, pl.XLV:190, 191).

MISCELLANEOUS LOCAL

340) 5 e 30 (Garstang 1933, pl.XXIV:9). Mug, flat base. R 32.1191.

Colour: core and interior surface light red, exterior surface pink.

Hardness: hard. Feel: soapy/rough. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 1mm.

Decoration: red 10R 4/6, concentric lines on rim and body.

Parallels

Hazor - LBI (Yadin 1958, pl.CXXII:1-16).

Megiddo - Tomb 38, LBI (Guy and Engberg 1938, pl.40:14).

Str.X-VIII (Loud 1948, pl.44:5).

IMITATION BASE-RING II JUGS

341) 5 c 34 (Garstang 1933, pl.XXII:3). Type B. R 32.1143.

Colour: core unknown, surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 2mm.

Decoration: dark grey 5YR 3/1, on rim, painted 'star' pattern on body; handle decorated with horizontal strokes.

Manufacture: base added separately.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.29:10).

Tomb (Amiran 1963, fig.3:40).

Lachish - Class B (Tufnell 1958, pl.81:891).

342) 5 b 36 (Garstang 1933, pl.XXI:9). Type B. BCM 312'72.

Colour: core and interior surface light red, exterior surface light red to very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

343) 5 c 29. Type B (cf T.4 no.121). L A0 25510.

h. 280mm.

Colour: core and exterior surface red, interior surface light red.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 4mm.

IMITATION BASE-RING TANKARDS

344) 5 d 20 (Garstang 1933, pl.XXI:3). BRI tankard, handle (with thumb-grip) from rim to shoulder. Circular mouth, flat rim. Tapering neck, carinated shoulder, ring base. Plain. Gittlen Type B1e 1, Gittlen 1977, 188 no.1. R 32.1153.

Colour: core and surface reddish brown.

Hardness: hard. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

WARE VB2

PLATTER BOWLS

345) 5 d 12. Type B, flat disc base. R 32.1151.

d. of m. 237mm.

Colour: core brown, surface reddish yellow.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: white 10YR 8/2.

Lustre: matt.

JUGS

346) 5 e 28 (fig.38:6). Type B. R 32.1189.

Colour: core dark grey, surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Slip: white 2.5Y 8/2.

Lustre: matt.

Decoration: dark red 10R 3/6, wide band below handles, vertical lines on shoulder with vertical rows of dots in between and diagonal lines crossing.

WARE VC1

JUGS

347) 5 a 3 (Garstang 1933, pl.XXI:10). Type A, everted rim, ring base.

L A0 15650.

Colour: core and surface very pale brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

Parallels

Gibeon - Tomb 10A (Pritchard 1963, fig.8:26).

Hazor - T.8144, Str.1B (Yadin 1960, pl.CXXXIII:7-12).

Megiddo - Str.VIII (Loud 1948, pl.57:18).

WARE VD1

JUGS

348) 5 b 27 (fig.37:5). Type B. R 32.1122.

Colour: core reddish yellow, surface red.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 4mm.

349) 5 e 87. Type B (cf no.365). R 32.1218.

h. 145mm.

Colour: core light reddish brown, surface pink.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

Decoration: dusky red 10R 3/4, horizontal lines on neck and shoulder; in between are vertical parallel lines framing wavy lines; three vertical lines below handles at junction with body.

WARE VE1

CARINATED BOWLS

350) 5 d 37 (fig.35:8). Type E, disc base. B 0.1157.

Colour: core unknown, surface pale brown to grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

straw voids sparse, up to 3mm.

grog moderate, up to 1mm.

Parallels

Hazor - T.8144-5, Str.1B (Yadin 1960, pl.CXXIX:10, 12).

Lachish - Class E (Tufnell 1958, pl.69).

Tell el-Far'ah (N) - Tomb 6 (de Vaux and Steve 1949, 132 fig.11:3).

WARE VF1

DIPPERS

351) 5 d 43. Type B (cf T.4 no.84) [cf Chapter 5.2 no.8]. BCM 305'72.

h. 130mm.

Colour: core light red, surface pink.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

shell sparse, up to 3mm.

grog sparse, up to 2mm.

GENERAL WARE V

JUGS

352) 5 b 28 (Garstang 1933, pl.XXII:7). Type B. R 32.1124.

Colour: core unknown, interior surface light red, exterior surface light red to reddish yellow.

Hardness: hard. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm. Others unknown.

Decoration: dusky red 10R 3/4, horizontal lines on neck, vertical lines on body in no particular pattern; nicks of paint on handles.

WARE VIA1

PEDESTAL BOWLS

353) 5 d 63 (fig.36:2). Type J, rim bevelled on outside (cf Chapter 5.2 no.9). BCM 318'72.

Colour: core light reddish brown, interior surface very pale brown, exterior surface light yellowish red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Parallels

Lachish - (Tufnell 1958, pl.70:600, 604, 609, 610).

Megiddo - Tomb 877 C1, LBI (Guy and Engberg 1938, pl.14:9).

WARE VIA2

JUGS

354) 5 a 9 (Garstang 1933, pl.XXII:1). Type A, wide neck, asymmetrical, ring base. This type is popular throughout the LBA (Amiran 1970, pl.46).

L AO 15636.

Colour: core yellowish red, surface reddish yellow.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.

flint moderate, up to 3mm.

grog moderate, up to 4mm.

Slip: reddish yellow 7.5YR 6/6, burnished.

Lustre: low.

Decoration: dark red 2.5YR 3/6, horizontal band across rim and part of handle, vertical groups of 'ladders' between two horizontal bands at base of neck and on shoulder.

Parallels

Lachish - Class D (Tufnell 1958, pl.76:708).

Megiddo - Str.IX (Loud 1948, pl.49:11).

For ladder motif:

Hazor - Str.1B (Yadin 1960, pl.CXXXIX:15; pl.CXLII:12).

Megiddo - Tomb 1178, LBI (Guy and Engberg 1938, pl.53:2).

IMITATION BASE-RING II JUGS

355) 5 b 30 (fig.39:3). Type B (cf no.342), most of rim missing. R 32.1125.

Colour: core light brownish grey, surface reddish yellow.

Hardness: hard. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 3mm.

grog sparse, up to 3mm.

Slip: reddish yellow 5YR 6/8, burnished.

Lustre: low.

Manufacture: very uneven body; seems to be handmade and finished on wheel.

WARE VIB1

CARINATED BOWLS

356) 5 b 40. Type F, slightly concave disc base. R 32.1131.

d. of m. 190mm.

Colour: core red to yellowish brown, surface light red to light grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

WARE VIC1

JUGS

357) 5 a 5 (Garstang 1933, pl.XXI:11). Type A, pinched lip, concave base.

R 32.1107.

Colour: core and interior surface red, exterior surface red to very pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone moderate, up to 2mm.

Parallel

Gibeon - Tomb 10A (Pritchard 1963, fig.7:13).

Lachish - Class D (Tufnell 1958, pl.75:702).

WARE VIE

BASE-RING I JUGS

358) 5 b 4 (fig.39:5). Type D 1 a∝1 (Gittlen 1977, 164ff - this example is not included in Gittlen's list). R 32.1113.

Colour: interior margin and interior surface grey, exterior margin and exterior surface yellowish red.

Hardness: very hard. Feel: smooth. Fracture: hackly.

Inclusions: unknown.

Slip: very dark grey 5YR 3/1, burnished.

Lustre: low.

Manufacture: handle stuck through body; very fine, thin pottery.

359) 5 a 15. Type D 1 a∝1 (Gittlen 1977, 167 no.62). Fragmentary (cf Chapter 5.2 no.10). BCM 292'72.

Colour: core light grey, surface yellowish red.

Hardness: very hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone, flint, grog, quantities unknown.

Slip: very dark greyish brown 10YR 3/2, burnished.

Lustre: medium.

360) 5 d 55 (fig.39:6). Type D 1 a∝1 (Gittlen 1977, 167 no.64). MCM 35.64.7.

Colour: core very pale brown, interior surface unknown, exterior surface reddish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone, flint, grog, quantities unknown.

Slip: dark grey 5YR 4/1, burnished.

Lustre: low.

Manufacture: handmade, possibly finished on slow wheel; not symmetrical.

361) 5 c 12 (Garstang 1933, pl.XXI:2). Type D 1 a ε 1 (Gittlen 1977, 170 no.4). R 32.1133.

Colour: core grey, surface light red.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.
grog moderate, up to 1mm.

Slip: red 2.5YR 5/8 to very dark grey 2.5YR 3/0, burnished.

Lustre: low.

Manufacture: handle stuck on outside.

362) 5 d 1 (Garstang 1933, pl.XXI:1). Type D 1 d γ 1 Var.A (Gittlen 1977, 178 no.3). R 32.1146.

Colour: core dark greyish brown, surface light red.

Hardness: very hard. Feel: smooth. Fracture: hackly.

Inclusions: unknown.

Slip: red 10R 4/8 to yellowish red 5YR 5/6 to dark grey 5YR 4/1, burnished.

Lustre: medium.

Decoration: applied strips, as illustrated.

Manufacture: handle stuck through body; very thin, fine pottery.

GENERAL WARE VI

BASE-RING I JUGS

363) 5 d 45. Neck of BRI jug. L AO 15649.

Colour: core dark grey, surface yellowish red.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone and grog, quantities unknown.

Slip: very dark greyish brown 10YR 3/2, burnished.

Lustre: medium.

Decoration: two applied 'straps' by handle.

Manufacture: remnant of handle stuck to outside.

WARE VIIA1

LAMPS

364) 5 b 8bis. Base of lamp. R 32.1116.

Colour: core and surface light red.

Hardness: soft. Feel: rough. Fracture: friable/laminated.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

WARE VIIA2

JUGS

365) 5 c 18 (Garstang 1933, pl.XXII:9). Type B. R 32.1136.

Colour: core and surface light red.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: red 2.5YR 5/8, burnished.

Lustre: medium.

Decoration: dusky red 10R 3/4, three horizontal lines on neck, one just below handles; in between are pairs of vertical lines framing wavy lines.

UNCATEGORISED POTTERY

BASE-RING I JUGS

366) 5 c 22. Type D 1 a∝1 (Gittlen 1977, 167 no.63). B 0.1148.

h. 145mm.

Colour: core unknown, surface light red.

Hardness: very hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: light red 2.5YR 6/8 to reddish brown 5YR 5/4, burnished.

Lustre: medium.

Manufacture: handle stuck on outside.

UNLOCATED POTTERY

367) 5 b 23 (Garstang 1933, pl.XXIII:10). Platter Bowl, type B, concave disc base. Decorated inside with four concentric lines.

Parallels

Gibeon - Tomb 10B (Pritchard 1963, fig.9:6, 8).

Megiddo - Str.IX (Loud 1948, pl.53:7).

Lachish - Temple I (Tufnell 1940, pl.XXXVII:1).

Temples II-III (ibid. pl.XXXVIII:51).

Bowl Class G (Tufnell 1958, pl.70:591).

368) 5 a 6 (fig.35:10). Carinated Bowl, type F; red burnished slip inside.

369) 5 b 37 (fig.37:2). Jug, type A, lip missing, flat base. This type seems to be the descendant of the MBII ovoid jar - in the LBA the body tends to become rather fatter.

Parallels

Gibeon - Tomb 10A, Class D jug (Pritchard 1963, fig.7:13).

Megiddo - Tomb 989 C1 (Guy and Engberg 1938, pl.19:23).

370) 5 a 0 (fig.37:3). Jug, type A, rim folded over inside, disc base. The rim is quite unusual and there seems to be no exact parallel, although some jugs from Hazor do show similarities.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.24:5).

Hazor - T.8144-5, Str.1B (Yadin 1960, pl.CXXXIII).

371) 5 e 46 (Garstang 1933, pl.XXII:10). Jug, type B. Decorated with three horizontal bands at base of neck, one below handles; in between are groups of vertical lines framing wavy lines.

372) 5 c 31 (Garstang 1933, pl.XXI:6). Base-Ring I Spindle Bottle (Gittlen 1977, 190 no.15).

373) 5 d 3 (Garstang 1933, pl.XXI:5). Imitation BRII jug, type B; shape of shoulder is rather more eccentric than usual.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.49:6).

Lachish - Class B (Tufnell 1958, pl.82:898).

7.2.4 List of unlocated, unpublished and undrawn objects from Tomb 5

This list has been compiled from Garstang's Tomb 5 catalogue. Seven of the pots on this list, which numbers 169 pots or fragments, have been included above in sections 7.2.2 and 7.2.3. However, their layer numbers were unknown, and they were recorded simply as 'Tomb 5'. Which of the following pots they are is impossible to establish.

5 a 2: Dish.

5 a 14: Dish.

5 b: Fragments of BR jug (LB).

5 b 8: Lamp in fragments.

5 b 9: Bronze rings.

5 b 11: Fragment of BR jug (LB) and handle of MB dipper juglet.

5 b 17: Base of pedestal vase (MB).

5 b 18: Lamp with rounded base.

5 b 20: Two-handled jug, ring base. Decorated in dull red: wavy line between horizontal parallel lines on upper half (LB). IA 10 403.

5 b 38: Bottom of juglet, grey ware (MB).

5 b 39: Fragments.

5 c 9: Lamp with flattened base, handmade. IA 10 405.

5 c 14: Two-handled jug, flat base. Decorated, but too encrusted for detail (LB).

5 c 28: Lamp with rounded base.

5 c 33: One-handled jug with pinched lip.

5 c 38: Fragment of bowl, inverted rim, flat base (MB).

5 d 4: Dish with flat base.

5 d 6: Lamp with rounded base.

5 d 6bis: Bronze needles.

5 d 10: Small one-handled jug, flat base. Decorated with concentric brown lines on lower part.

5 d 16: Dish with inverted rim, ring base (MB).

5 d 18: Bowl, thickened rim, ring base.

5 d 35: Piriform juglet, double handle with button, button base (MB).

5 d 40: Imitation BR jug, decorated with double star pattern in dull red (LB).

5 d 48: Dish, inverted rim, ring base (MB).

5 d 52: Pedestal vase (MB).

5 d 56: Carinated bowl, everted rim, flat base.

5 d 58: Dish, inverted rim, flat base (MB).

5 d 60: Cylindrical juglet, convex base; neck and double handle missing (MB).

5 d 66: Large one-handled jar in fragments, flat base.

5 e 5: Imitation BR jug, decorated in dull red on upper half (LB).

5 e 8: Two-handled jug, ring base; brown decoration on upper half (LB).

5 e 9: Cylindrical juglet, convex base, double handle (MB).

5 e 10: Fragments of juglet, button on handle, flattened base (MB).

5 e 11: Fragments of cylindrical juglet, flat base (MB).

5 e 15: Fragments of dish.

5 e 15bis: Charred remains, various bones.

5 e 22bis: Lamp with rounded base.

5 e 32: One-handled jug, pinched lip, rounded base.

5 e 40: Cylindrical juglet, flat base (MB).

5 e 45: Carinated bowl on pedestal base, everted rim.

5 e 47: Large jar in fragments.

5 e 50: One-handled jug, flattened base; neck missing.

5 e 51: Large one-handled jar, pinched lip, flattened base.

5 e 57: Elongated neck of jug.

5 e 58: Fragment of dish, inverted rim (MB).

5 e 72: Pedestal vase (MB).

5 e 75: Carinated bowl on pedestal base, everted rim.

5 e 82: One-handled jug, button on handle, button base (MB).

5 e 88: Various fragments.

5 e 90: Carinated bowl, ring base.

5 e 91: Juglet, handle missing.

5 e 92: Pedestal vase (MB).

5 f 1: Lamp in fragments.

5 f 1bis: Bronze needle in several pieces. R 32.1223.

5 f 2: Lamp with rounded base.

5 f 6: Lamp with flattened base, in fragments.

5 f 10: Double-handled jug, neck and handle missing, ring base.

5 f 11: Juglet with pointed base, in fragments.

5 f 12: Lamp with rounded base.

5 f 13: Pedestal vase in fragments (MB).

5 f 15: Cylindrical juglet, convex base (MB).

5 f 23: Lamp fragment.

5 f 31: Various fragments.

5 f 32: Fragments of dish, inverted rim (MB).

5 f 33: Fragments of cylindrical juglet, double handle, flat base (MB).

5 f 34: Carinated bowl, thickened rim, flat base.

5 f 38: Cylindrical juglet, double handle, convex flattened base (MB).

5 f 41: Lamp with rounded base, in fragments.

5 f 42: Broken juglet.

5 f 43: Piriform juglet, double handle with button, button base (MB).

5 f 47: Piriform juglet, neck and handle missing, button base (MB).

5 f 50: Fragments of dish, inverted rim (MB).

5 f 52: Piriform juglet in fragments, double handle, button base (MB).

5 f 56: Piriform juglet, handle missing, button base (MB).

5 f 58: Pedestal vase (MB).

5 f 60: Fragments of carinated bowl, ring base.

5 f 64: Pedestal vase (MB).

5 f 66: Base of dish, in fragments.

5 f 68: Fragments of dish with inverted rim (MB).

5 f 72: Piriform juglet with button base, in fragments (MB).

5 f 77: Neck and handle of juglet.

5 f 78: Dish, inverted rim, ring base (MB).

5 f 81: Pedestal vase (MB).

5 f 87: Piriform juglet, double handle, button base (MB).

5 f 89: Fragments.

5 f 90: Fragments of pedestal vase (MB).

5 f 91: Large two-handled jar.

5 g 6: Jug, one-handled, pinched lip, pointed base.

5 g 7: Carinated bowl, ring base.

5 g 9: Lamp with rounded base.

5 g 10: Bowl, inverted rim, flat base (MB).

5 g 14: Large jar.

5 g 15: Pedestal vase (MB).

5 g 17: Piriform juglet, neck and handle missing, ring base (MB).

5 g 24: Bowl, inverted rim, flat base (MB).

5 g 26: Juglet in fragments, one handle, broken base.

5 g 29: Dish in fragments.

5 g 33: Fragments of lamp, flattened base.

5 g 34: Fragment.

5 g 35: Fragments of jug, pointed base.

5 g 38: Fragments of alabaster object.

5 g 39: Lamp in fragments.

5 g 40: Pedestal vase (MB).

5 g 50: Juglet, ring base, tapering.

5 g 51: Fragments of large object.

5 g 52: Piriform juglet, button base (MB).

5 g 53: Juglet, handle missing, ring base.

5 g 54: Piriform juglet, button base (MB).

5 g 57: Pedestal vase (MB).

5 g 60: Large jar in fragments, pinched lip.

5 g 64: Carinated bowl, ring base.

5 g 65: Cylindrical juglet with convex base, in fragments (MB).

5 g 69: Fragments of bowl, everted rim, ring base.

5 g 70: Base of pedestal vase (MB).

5 g 71: Juglet, neck and handle missing, ring base.

5 g 74: Fragments of juglets.

5 g 76: Fragments of lamp, rounded base, inverted rim.

5 g 79: Bowl, inverted rim, flat base (MB).

5 g 82: Jug, one handle, pinched lip, pointed base.

5 g 88: Fragments of black juglet (MB).

5 g 95: Bronze pins, rings, beads etc.

5 g 96: Bowl, flat base.

5 g 99: Juglet with double handle, in fragments.

5 g 100: Piriform juglet, button base (MB).

5 g 104: Lamp, rounded base.

5 g 105: Fragments.

5 g 106: Base of pedestal vase (MB).

5 g 107: Fragment of pedestal vase (MB).

5 g 109: Carinated bowl, flat base.

5 g 110: Fragments.

5 g 112: Juglet, ring base.

5 g 113: Large piriform juglet, neck and handle missing, button base (MB).

5 g 115: Juglet, ring base.

5 g 117: Lamp, flat base.

5 g 118: Piriform juglet, neck and handle missing, button base (MB).

5 g 119: Fragment of carinated bowl, everted rim, small pedestal base.

5 g 120: Pedestal vase in fragments (MB).

5 g 123: Various fragments.

5 g 127: Fragment of lamp, rounded base.

5 g 129: Fragment of lamp, rounded base.

5 g 131: Base of pedestal vase, in fragments (MB).

5 g 132: Two black juglets in fragments (MB).

5 g 133: Fragments.

5 g 138: Fragments of pedestal vase (MB).

5 g 140: Lamp, flat base.

5 g 142: Bowl, inverted rim, concave flat base (MB).

5 g 143: Piriform juglet, handle missing, button base (MB).

5 g 144: Piriform juglet, double handle, button base (MB).

5 g 145: Juglet in fragments.

5 g 146: Fragments.

5 g 147: Fragments of juglet.

5 g 148: Pedestal vase (MB).

5 g 152: Fragments.

5 g 153: Juglet in fragments.

5 g 155: Juglet in fragments.

5 g 156: Fragments of pedestal vase (MB).

5 g 158: Juglet with pointed base, in fragments.

5 g 164: Carinated bowl, everted rim, in fragments.

5 g 165: Large pedestal vase in fragments (MB).

5 g 166: Carinated bowl, flat base.

5 g 168: Juglet with pointed base, in fragments.

5 g 169: Fragments of various dishes.

5 g 170: Pedestal vase, neck missing (MB).

5 g 171: Piriform juglet with button base, in fragments (MB).

5 g 172: Fragments.

5 g 174: Juglet, double handle.

5 g 179: Pedestal vase (MB).

5 g 180: Pedestal vase in fragments (MB).

5 g 181: Juglet in fragments.

5 g 182: Piriform juglet with button base, in fragments (MB).

5 g 183: Base of pedestal vase, in fragments (MB).

5 g 184: Pedestal vase, in fragments (MB).

5 g 186: Pedestal vase (MB).

7.2.5 Tomb 5 Scarabs

17 scarabs were found in Tomb 5, all of which Garstang illustrated and described (Garstang 1933, 28-9 and pl.XXVI). 13 of them were dated to the Hyksos period, and probably belong to the Middle Bronze Age use of the tomb. One was dated to the 18th Dynasty, and the date of another was uncertain. There were two royal scarabs of Hatshepsut and Tuthmosis III. These would have belonged to the Late Bronze Age use of the tomb.

The scarabs of Hatshepsut (1504-1483/1479-1458 B.C., cf Alden 1981, 47) and Tuthmosis III (1504-1450/1479-1425 B.C., ibid.45) originally helped to mislead Garstang into believing that Tomb 5 dated to MBII-LBI. Gibeon Tomb 10B, dating to LBIIa, also contained a scarab of Tuthmosis III, but the excavator suggested that it was an heirloom or a copy (Pritchard 1963, 17). The same may be true of the two Jericho scarabs.

7.2.6 Middle Bronze Age deposit - Date

The 'Hyksos' scarabs are not particularly useful for dating purposes (see Kirkbride in Kenyon 1965, 580). The pottery is characteristic of the MBII period. Apart from the relative quantities of piriform and cylindrical juglets there is nothing to give a more precise indication of date (cf Chapter 3.2). There were 80 piriform juglets and 26 cylindrical juglets. The MBII deposit in Tomb 5 therefore seems to date to the earlier part of the MBII period.

7.2.7 Late Bronze Age deposit - Pottery discussion and Date

Cypriot imports - Tomb 5 contained seven Cypriot Base-Ring (BR) I jugs (some of which may in fact have been made by Cypriot potters working at Jericho, cf Chapter 8.1.2), and two BR spindle bottles, one an import, one a local copy. This type of BRI jug first appeared in Palestine at the start of LBI, but was more common in the latter part of the period, 'post-Tuthmosis III' (Gittlen 1977, 119; Gittlen's 'post-Tuthmosis III' dates are dependent upon Megiddo Stratum IX having been destroyed by Tuthmosis III, cf ibid.41 n.79. Megiddo Stratum IX is thus dated LBIA, and the following period is LBIB. However, there is no evidence that Megiddo was destroyed after its capture by Tuthmosis III, cf Drower 1973, 450, so assigning any destruction levels to Tuthmosis III is extremely speculative. Nevertheless, since there may be some general stratigraphic validity in Gittlen's analysis, ignoring the connections with Tuthmosis III, we can still provisionally accept Megiddo Str.IX as LBIA and the following period as LBIB). Most of the BRI jugs were found in LBIIa contexts in Palestine, although they were overshadowed by the BRII vessels (Gittlen 1977, 119). Cypriot spindle bottles appeared in Palestine in LBI, but were more common in LBIIa (ibid.124; cf also Merrillees 1962, 194-5). BRI imports probably ceased in mid-LBIIa, c.1350 B.C. (Gittlen 1977, 143ff.).

Imitation Cypriot - This consisted of eight Imitation BRII jugs and an Imitation BR tankard, as well as the spindle bottle mentioned above. BRII jugs were the most popular pottery type for imitation by Palestinian potters. Cypriot BRII first appeared in Palestine during LBIB and continued till the start of LBIIb (ibid.; also Gittlen 1981, 50-1).

"The imitations differ from their prototypes mainly in that they are wheel-made, following native Canaanite custom, instead of hand-made, like all Cypriote vessels. This is the main reason for the different shape of the local imitations, since a vessel thrown on a wheel is bound to be

much more symmetrical than a hand-made vessel. The imitation products differ also in the quality of the clay and the firing" (Amiran 1970, 182).

The handles of the imitations are applied to the wall of the pot rather than inserted through it.

Kenyon thought that none of the Jericho specimens illustrated in Garstang 1933 pl.XI appeared to be true BR ware (Kenyon 1951, 136). She noted that evidence for the chronology of BR imitations was lacking, and to a great extent this is still true, although Tufnell suggested that imitations of true BR wares became common once the imports had ceased. She thought that the change took place "no earlier than the reign of Amenhotep III" (Tufnell 1958, 210), although she accepted that there were some earlier imitations. Since BRII pottery continued to be imported at least till the end of LBIIa, and there is a great deal of Imitation BR ware in LBIIa, Tufnell's view is no longer tenable. BRII jugs reached a peak import rate in LBIIa and ceased at the end of that period (Gittlen 1977, 518). LBIIa seems to have been the peak period for imitations. As regards the typology of the Imitation BR jugs, Saller described the situation adequately:

"The common characteristic of the decoration of all these jugs is the use of lines in a variety of combinations; the arrangement of these lines is never exactly the same..." (Saller 1964, 137).

It is difficult, and probably irrelevant, to find exact parallels for Imitation BRII jugs, as the basic decorative elements were "enlivened by the craftsman's own fancy" (Tufnell 1958, 211).

Cypriot BR tankards did not appear in Palestine before LBIIa (Gittlen 1977, 124). The Tomb 5 imitation cannot therefore predate that. Cypriot BR spindle bottles and their imitations have often been called 'Syrian jugs' because of their wide distribution throughout the Levant as well as in Cyprus (cf Amiran

1970, pl.52). Gittlen quite convincingly shows that they belong firmly in the Cypriot repertoire (Gittlen 1977, 189-90; see also 151, pl.6). The imitations probably date mostly to LBIIa, when the originals were most popular.

Decorated two-handled jugs - 25 of these were found in Tomb 5, although some were not decorated. Oren has traced the development of this type (Oren 1973, 79-81). He sees its origin in Anatolia and Cilicia, where it was extremely popular throughout the Late Bronze Age and can be traced back to the Middle Bronze Age if not earlier. The decoration on the Palestinian jugs is, however, characteristic of the local Middle and Late Bronze Age repertoire.

Oren notes two distinctive groups in Palestine:

1) An earlier graceful and well-proportioned type, dating to the 15th century B.C., best illustrated at Bethshan and Tell el-Far'ah (N).

2) A later and more common version, dating to the 14th and perhaps 13th centuries B.C., as at Jerusalem and Jericho. This type

> "has lost the original elegant outline, its neck is much shorter (about a third of the total height), and it is provided with a disc, rather than a ring base; also, the handles are much larger for the size of the vessel. Similarly, the decoration is careless and predominantly in one colour" (ibid.80).

The decoration on the Jericho examples is fairly standard, though varying in detail. There are many similarities with the jugs from Jerusalem (Saller 1964, 27-9). Oren describes the Jericho jugs as of "degenerated shape and decoration" (Oren 1973, 81), and dates them to the 14th century B.C., perhaps even after 1350 B.C.

Platter Bowls - This type of plain bowl was fairly common throughout the Late Bronze Age, for instance at Megiddo Stratum IX (Loud 1948, pl.54:14, 16), Lachish Temples I-III (Tufnell 1940, pl.XXXVII:7), and Tell Beit Mirsim Stratum C2 (Albright 1932, pl.47:5). Dever found it at Gezer Field II Stratum 13, which he dated to LBIIb. However, his parallels for these bowls are not very convincing (Dever et al 1974, pl.24:18-27, with parallels on p.49 n.10). He could have found far better examples from LBIIa, at Hazor Stratum 1B (eg Yadin 1960, pl.CXXVIII:18, 20-24) or at Gibeon Tombs 10A and B (Pritchard 1963, figs.7-10). His parallels from Lachish omit the earlier Temple II examples on the same plate (Tufnell 1940, pl.XL:78, 81). Dever notes: "Albright long ago observed that these bowls attain their greatest popularity toward the end of the LB period..." (Dever et al 1974, 49 n.10). This is questionable, since they seem to be very common in LBIIa, at least at Gibeon and Jericho, and possibly at Hazor and Lachish. In fact, the distinctive bulbous rims on the platter bowls seem to start in LBI at Ashdod (Dothan 1971, fig.31:4).

Date - The Cypriot pottery points to a late LBI/early LBIIa date for the Tomb 5 Late Bronze Age deposit (finishing c.1350 B.C.? - it is significant that Jericho Tombs 4 and 13 have no BRI pottery, and seem to date from the second half of LBIIa). The imitation Cypriot pottery, the decorated two-handled jugs and the platter bowls are all LBIIa (possibly early). The other local pottery shows some LBI parallels in most types, particularly the dipper juglets. However, there are also secure parallels with LBIIa deposits from Gibeon, Jerusalem, Hazor and elsewhere. With the pedestal bowls, it is difficult to differentiate between the three phases of the LBA (cf Amiran 1970, 129; Oren 1973, 70). There is a noticeable lack of Mycenaean imports or copies (compared with Tombs 4 and 13). The pottery, therefore, suggests a late LBI/first half of LBIIa date (c.1425-1350 B.C. or slightly later).

7.3 Tomb 4

7.3.1 Description

Tomb 4 was a large shaft tomb situated to the west of the Western Cemetery (Garstang 1933, pl.I; also 21-7, pls.VIII-XVII). The tomb was relatively undisturbed and fairly intact (ibid.23). As already noted, Garstang's precise layers are largely meaningless, although there is a general trend for the Late Bronze Age objects to be in the upper layers and the Middle Bronze Age objects in the lower layers. Nevertheless, even the 'intact burial' in 'sub-layer c' (ibid. and pl.IX) has a mixture of Middle and Late Bronze Age pottery.

A total of 225 pottery vessels was found in Tomb 4. 121 were located during the course of this study and examined in detail. A further 20 which were not located had been published previously by Garstang (1933) or his original drawings of them still existed among his records. Of these 141 pots, 71 date to the MBA and 70 to the LBA.

84 pots which had not been published previously, and drawings of which do not exist, were not located. From the descriptions in Garstang's Tomb 4 catalogue, 5 are likely to be LB, and 23 MB. Of the 23 MB pots, 4 are cylindrical juglets and 1 is a piriform juglet. The remainder of the unlocated catalogue entries cannot be dated merely from the descriptions.

7.3.2 The Middle Bronze Age Pottery

WARE IA1

BOWLS

1) 4 c 7bis. Type A1d, fragments. L AO 25459.

Colour: core light red, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

2) 4 c 6 (Garstang 1933, pl.XIV:2). Type A3a. B 0.1170.

Colour: core unknown, interior surface brownish grey, exterior surface brownish grey to very light red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

3) 4 c 33. Type A3a. LUSA JG.32.4.

d. of m. 245mm.

Colour: core unknown, interior surface dark greyish brown, exterior surface brownish yellow.

Hardness: medium. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 3mm.

grog common, up to 3mm.

4) 4 d 30. Type A3b. B 0.1177.

d. of m. c.275mm.

Colour: core unknown, interior surface brownish grey, exterior surface brownish grey to yellowish brown.

Hardness: medium. Feel: soapy. Fracture: unknown.

Inclusions: limestone, flint and grog, quantities unknown.

5) 4 b 25. Type B2f. B 0.1181.

d. of m. 262mm.

Colour: core and interior surface brownish grey, exterior surface brownish grey to yellowish brown.

Hardness: medium. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

6) 4 c 69 (Garstang 1933, pl.XV:9). Type D4a. HMG D 1932.32.

Colour: core pale brown, surface brownish grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint sparse, up to 1mm.

grog sparse, up to 1mm.

7) 4 c 71. Type F2a. HMG D 1932.29.

d. of m. 227mm.

Colour: core and exterior surface yellowish brown, interior surface yellowish brown to light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

8) 4 c 79 (Garstang 1933, pl.XIV:16). Type K2. B 0.1184.

Colour: core unknown, interior surface light red, exterior surface light red to light reddish brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

PEDESTAL VASES

9) 4 e 9. Type A2, wide neck, relatively shallow. B 0.1078.

h. 127mm, d. of m. 125mm.

Colour: core unknown, surface pale brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

PIRIFORM JUGLETS

10) 4 e 14. Fragments of base. EBAF.

Colour: core greyish brown, surface reddish grey.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

LAMPS

11) 4 e 16. Type B1a. HMG D 1932.24.

d. 115mm.

Colour: core unknown, interior surface brownish grey, exterior surface yellowish brown.

Hardness: soft. Feel: soapy/rough. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

12) 4 d 37. Type B1a. B 0.1185.

d. 114mm.

Colour: core unknown, interior surface light brownish red, exterior surface yellowish brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.
flint sparse, up to 2mm.
grog sparse, up to 2mm.

13) 4 e 17. Type B2b. L A0 15687.

d. 123mm.

Colour: core light yellowish brown, surface reddish yellow.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint abundant, up to 4mm.
grog sparse, up to 3mm.

Manufacture: clear shaving marks on base.

14) 4 c 83 (Garstang 1933, pl.XIV:11). Type G1a. R 32.1084.

Colour: core light yellowish brown, surface light yellowish brown to light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
flint moderate, up to 2mm.
grog sparse, up to 2mm.

15) 4 d 37bis. Type G1a. L A0 15684.

d. 138 X 143mm.

Colour: core and surface yellowish red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

16) 4 c 7 (Garstang 1933, pl.XIV:12). Type G1b. R 32.1070.

Colour: core and interior surface light yellowish brown, exterior surface light yellowish brown to light red.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 4mm.

grog sparse, up to 3mm.

17) 4 d 29 (Garstang 1933, pl.XVII:11). Type J1, slight folding at nozzle. L A0 15688.

Colour: core brownish yellow, surface very pale brown.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 4mm.

grog sparse, up to 2mm.

Manufacture: crudely string-cut base.

STORAGE JARS

18) 4 b 32 (Garstang 1933, pl.XIII:3). Type A3a. EBAF.

Colour: core dark grey, interior margin light brownish grey, exterior margin light red, surface very pale brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

flint sparse, up to 3mm.

grog sparse, up to 2mm.

19) 4 b 34. Type A, rim broken, two handles. R 32.1067.

Colour: core and surface very pale brown.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

WARE IA2

BOWLS

20) 4 c 15. Type B6a. HMG D 1932.28.

d. of m. 170mm.

Colour: core and surface yellowish brown.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

21) 4 c 24 (Garstang 1933, pl.XIV:1). Type F3a. R 32.1073.

Colour: core unknown, interior surface light red, exterior surface reddish yellow.

Hardness: soft. Feel: soapy/rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 2mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 7/4.

Lustre: matt.

PEDESTAL VASES

22) 4 c 30bis. Type B2a. L AO 15674.

h. 152mm.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 3mm.

grog sparse, up to 3mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

JUGS

23) 4 c 3. Type A2b. R 32.1069.

h. c.220mm.

Colour: core reddish yellow, interior surface light red, exterior surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

DIPPER JUGLETS

24) 4 e 2. Type D1a. AMO 1932.729.

h. 200mm.

Colour: core light reddish brown, interior surface very pale brown, exterior surface pale brown.

Hardness: hard. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 2mm.

grog sparse, up to 2mm.

Slip: light grey 10YR 7/2; one side has patch of reddish yellow 7.5YR 6/6.

Lustre: matt.

25) 4 c 29. Type D2b, top only. Slight ridge below neck. HMG D 1932.41.

Colour: core and surface yellowish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

WARE IA3

BOWLS

26) 4 b 30. Type A3a. MCM 35.64.6.

d. of m. 266mm.

Colour: core reddish yellow, surface yellowish red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Slip: very dark greyish brown 10YR 3/2.

Lustre: matt.

Manufacture: ring base cut out of pot.

WARE IA4

BOWLS

27) 4 c 61 (Garstang 1933, pl.XVI:10). Type H2k. R 32.1081.

Colour: core unknown, interior surface very pale brown, exterior surface pink.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone, flint and grog, quantities unknown.

Slip: reddish yellow 7.5YR 7/6, burnished.

Lustre: medium.

Decoration: dark red 10R 3/6, complex pattern of horizontal bands and triangles on upper part of vessel with three vertical lines with dots in between; reminiscent of Khabur ware (cf Amiran 1970, pl.35).

Manufacture: base added separately.

JUGS

28) 4 c 5. Type D3a. HMG D 1932.38.

h. 271mm.

Colour: core pale brown, surface reddish brown.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
flint common, up to 3mm.
grog sparse, up to 2mm.

Slip: dark red 10R 3/6, burnished.

Lustre: low.

WARE IB1

LAMPS

29) 4 d 33. Type B1a. HMG D 1932.25.

d. 115mm.

Colour: core unknown, surface brownish grey to pale yellow.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone and grog, quantities unknown.

Manufacture: colour and slight flaking of fabric suggest overfiring.

30) 4 d 25. Type B1a. B 0.1094.

d. 115mm.

Colour: core unknown, surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

31) 4 c 68. Type B2b. BCM Unaccessioned.

d. 117mm.

Colour: core pink, interior surface light reddish brown, exterior surface light red to very pale brown.

Hardness: soft. Feel: harsh/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

WARE IB2

BOWLS

32) 4 b 27 (Garstang 1933, pl.X:9). Type D2e. HMG D 1932.33.

Colour: core unknown, surface light red to very pale green.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 2mm.

Slip: brown 10YR 5/3 to very pale brown 10YR 3/4 to pink 5YR 7/4.

Lustre: matt.

Manufacture: potter's mark on base - X

33) 4 d 5 (Garstang 1933, pl.XVII:9). Type K2, flat, thick base. L AO 25454.

Colour: core red, surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/4, inside and outside.

Lustre: matt.

Manufacture: badly string-cut base.

PEDESTAL VASES

34) 4 c 19. Type C1a. HMG D 1932.35.

h. 141mm.

Colour: core and surface reddish brown.

Hardness: soft. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

35) 4 c 18. Type C1a. HMG 1932.34.

h. 142mm.

Colour: core yellowish red, surface light reddish brown.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

PIRIFORM JUGLETS

36) 4 e 13. Fragments. EBAF.

Colour: core and surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly/friable.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

WARE IB2a

PEDESTAL VASES

37) 4 c 36. Type C1a. B 0.1172.

h. 120mm, d. of m. 64mm.

Colour: core unknown, interior surface pale brown, exterior surface pale brown to very light red.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 1mm.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: low.

38) 4 c 27. Type C1a. BCM Unaccessioned.

h. 135mm.

Colour: core very pale brown, surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/4, originally burnished.

Lustre: matt.

39) 4 c 10 (Garstang 1933, pl.XVI:12). Type C2a. B 0.1169.

Colour: core and surface yellowish brown.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: medium.

CYLINDRICAL JUGLETS

40) 4 e 12. Type B2b. B 0.1174.

h. 130mm.

Colour: core unknown, surface reddish brown.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 1mm.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: low.

WARE IB5

STORAGE JARS

41) 4 b 1 (Garstang 1933, pl.XIII:4). Type A2a. R 32.1062.

Colour: core and surface grey.

Hardness: very hard. Feel: harsh. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.

grog moderate, up to 2mm.

Manufacture: large dent in shoulder - possibly from carrying pot while leather hard on shoulder. Traces of coils, but also wheel marks, so possibly coil-made and finished on wheel.

WARE IB5b

PIRIFORM JUGLETS

42) 4 c 25. Type F1c. B 0.1175.

h. 163mm.

Colour: core unknown, interior surface greyish brown, exterior surface greyish brown to grey to light brown.

Hardness: soft. Feel: soapy/rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 2mm.

Slip: dark grey 10YR 4/1, burnished.

Lustre: low.

CYLINDRICAL JUGLETS

43) 4 d 28 (Garstang 1933, pl.XVII:3). Type A2, single handle with button. R 32.1090.

Colour: core unknown, surface very dark grey.

Hardness: medium. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone and grog, quantities unknown.

Slip: black 10YR 2/1 to dark brown 10YR 3/3, burnished.

Lustre: medium.

44) 4 d 24. Type B2b. B 0.1173.

h. 124mm.

Colour: core unknown, interior surface brownish grey, exterior surface brownish grey to light red.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

Slip: dark greyish brown 10YR 4/2, burnished.

Lustre: low.

WARE IB5c

PIRIFORM JUGLETS

45) 4 d 31 (Garstang 1933, pl.XVII:5). Type H2a. L A0 15676.

Colour: interior margin very dark grey, exterior margin dark greyish brown, interior surface dark grey, exterior surface dark grey to dark greyish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 3mm.

Slip: dark red 2.5YR 3/6, burnished (except on incised decoration).

Lustre: low.

Decoration: incised parallel lines and herringbone pattern.

WARE IC1

BOWLS

46) 4 d 18 (Garstang 1933, pl.XVII:13). Type C4a. BCM 472'36.

Colour: core and exterior surface very pale brown, interior surface greyish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.
flint common, up to 4mm.

WARE IC2

PIRIFORM JUGLETS

47) 4 d 27. Type F1c. R 32.1089.

h. c.175mm.

Colour: core and surface dark greyish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

Slip: very dark grey 10YR 3/1 to dark brown 10YR 3/3, burnished.

Lustre: high.

Manufacture: parts of fabric are yellowy-green, and the limestone inclusions are grey and chalky, which suggests overfiring.

WARE IE2

BOWLS

48) 4 c 54 (Garstang 1933, pl.XII:7). Type F2a. R 32.1079.

Colour: core unknown, interior surface reddish yellow, exterior surface pink to reddish yellow.

Hardness: soft. Feel: soapy/smooth. Fracture: hackly.

Inclusions: flint sparse, up to 3mm.
grog sparse, up to 7mm.

Slip: white 10YR 8/2, burnished.

Lustre: medium.

Decoration: incised herringbone pattern on shoulder.

GENERAL WARE I

CYLINDRICAL JUGLETS

49) 4 c 30 (Garstang 1933, pl.XVI:3). Type B1a. R 32.1074.

Colour: core light red, interior surface light grey, exterior surface light grey to dark grey.

Hardness: soft/medium. Feel: rough/smooth. Fracture: unknown.

Inclusions: unknown.

Slip: strong brown 7.5YR 5/6, burnished.

Lustre: medium.

50) 4 e 1 (Garstang 1933, pl.XVII:2). Type B1b. L A0 15680.

Colour: core unknown, surface unknown (covered by slip).

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: light grey 5YR 6/1, burnished.

Lustre: low.

51) 4 d 16bis (Garstang 1933, pl.XVII:1). Type B1c. R 32.1088.

Colour: core black, surface very dark grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: unknown.

WARE IIA2

BOWLS

52) 4 c 39 (Garstang 1933, pl.XV:11). Type D2c. R 32.1075.

Colour: core reddish brown, surface strong brown.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 0.5mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/4.

Lustre: matt.

WARE IIB2a

PEDESTAL VASES

53) 4 c 62 (Garstang 1933, pl.XVI:11). Type C2a. R 32.1082.

Colour: core and interior surface light red, exterior surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/4, burnished.

Lustre: low.

WARE IIIA1

DIPPER JUGLETS

54) 4 c 9 (Garstang 1933, pl.XVI:6). Type B1c. R 32.1071.

Colour: core and surface light yellowish brown.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone moderate, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

55) 4 c 47. Type B2b, head missing. R 32.1077.

Colour: core and surface light yellowish brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

WARE IIIB4

CYLINDRICAL JUGLETS

56) 4 c 2 (Garstang 1933, pl.XVI:2). Type B1a. HMG D 1932.40.

Colour: core and surface brownish grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Slip: dark greyish brown 10YR 4/2, burnished.

Lustre: low.

UNLOCATED POTTERY

57) 4 c 58 (Garstang 1933, pl.XV:7). Bowl, type A2, rim thickened and rounded internally. IA 10 258.

58) 4 c 76 (Garstang 1933, pl.XII:8). Bowl, type B2e.

59) 4 d 18bis (Garstang 1933, pl.XVII:12). Bowl, type D4c.

60) 4 c 71bis (Garstang 1933, pl.XIV:4). Bowl, type F2a.

61) 4 c 22 (Garstang 1933, pl.XIV:7). Bowl, type F2a.

62) 4 b 28 (Garstang 1933, pl.XII:4). Pedestal vase, type B1a.

63) 4 c 26 (Garstang 1933, pl.XVI:1). Jug, type A3a.

64) 4 c 63 (Garstang 1933, pl.XVI:9). Piriform juglet, type E1d.

65) 4 d 32 (Garstang 1933, pl.XVII:4). Piriform juglet, type H2a. Decorated with bands of punctuated chevrons.

66) 4 d 12 (Garstang 1933, pl.XVII:6). Dipper juglet, type D2a.

67) 4 c 53 (Garstang 1933, pl.XVI:13). Dipper juglet, mouth missing. Small, flattened base, slightly rounded body. Handmade.

68) 4 e 18 (Garstang 1933, pl.XVII:10). Lamp, type B2a.

69) 4 c 78 (Garstang 1933, pl.XIV:10). Lamp, type B3a.

70) 4 b 33 (Garstang 1933, pl.XIII:1). Storage jar, type A3a.

FAIENCE VESSELS

71) 4 e 23 (Garstang 1933, pl.XVII:8). Type A1a. Blue, decorated all over with black lines (cf Kenyon 1960b, fig.205:15). R 32.1093.

MISCELLANEOUS

72) 4 e 20 (Garstang 1933, pl.XVII:7). Vase of serpentine, very flat base; colour mottled green-black. "...recalls a well-known type found commonly in Egyptian tombs of the 12th-13th Dynasties, but not unknown in the 18th Dynasty" (Garstang 1933, 23). cf vase of alabaster and blue marble, 12th Dynasty, from Kahun in Egypt (Petrie 1937, pl.XXIX:669). R 32.1092.

7.3.3 The Late Bronze Age Pottery

WARE IVA1

LAMPS

73) 4 a 3 (Garstang 1933, pl.X:3). Type B, very pronounced folding. R 32.1058.

Colour: core unknown, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 3mm.

grog sparse, up to 2mm.

IMITATION BASE-RING II JUGS

74) 4 c 56 (Garstang 1933, pl.XI:8). Type B. R 32.1080.

Colour: core reddish brown, surface very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Decoration: six parallel painted bands of alternately very dark grey 10YR 3/0 and dusky red 10R 3/3 on shoulder.

Parallels

Jerusalem - Tomb (Amiran 1963, fig.3:40).

Megiddo - Str.VIII (Loud 1948, pl.59:2).

Str.VII (ibid. pl.71:6).

Lachish - Class B (Tufnell 1958, pl.76:725).

75) 4 b 7 (Garstang 1933, pl.XI:4). Type B. L AO 15672.

Colour: core reddish yellow, interior surface light reddish brown, exterior surface yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint moderate, up to 3mm.

grog sparse, up to 3mm.

Decoration: dark red 10R 3/6, slightly diagonal single painted line on neck, diagonal criss-crossing pairs of parallel lines framing wavy lines on body.

Parallel

Lachish - Class B (Tufnell 1958, pl.81:895).

WARE IVA2

PLATTERS

76) 4 a 18 (Garstang 1933, pl.XII:2). Type C. L AO 25511.

Colour: core light red, surface reddish yellow.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 15mm.

grog sparse, up to 3mm.

Slip: traces of creamy slip.

Lustre: matt.

WARE IVB1

PLATTERS

77) 4 b 37. Type C. L AO 25452.

d. of m. 204mm.

Colour: core unknown, interior surface light reddish brown, exterior surface pink.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 3mm.

Manufacture: slightly warped; poorly made base.

78) 4 b 6. Type C, concave disc base. MCM 35.64.

d. of m. 260mm.

Colour: core unknown, surface pale brown to yellowy green.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
grog sparse, up to 1mm.

CARINATED BOWLS

79) 4 b 20. Type E, flat base. B 0.1179.

d. of m. 173mm.

Colour: core unknown, interior surface reddish brown, exterior surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

80) 4 b 4 (Garstang 1933, pl.XII:5). Type F, concave disc base. R 32.1063.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
grog sparse, up to 2mm.

<u>Parallels</u>

Jerusalem - Dominus Flevit (Saller 1964, fig.10:9; fig.11:10; fig.12:4, 6-8).

KRATER

81) 4 b 21 (Garstang 1933, pl.XII:3). Two handles, concave rim, disc base. This type was made throughout the Middle and Late Bronze Ages and the Iron Age (see parallels below). L AO 15624.

Colour: core pink, surface very pale brown.

Hardness: medium. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 3mm.

Parallels

Jericho - Tomb 9 (Garstang 1932, pl.XXXV:7).

Megiddo - Str.IX: (Loud 1948, pl.55:1).

Tomb 1102 Upper (Guy and Engberg 1938, pl.9:4).

Hazor - LBI (Yadin 1958, pl.CXXXVII:3; pl.LXXXV:17; pl.XCVII:4).

Gibeon - Tomb 10B (Pritchard 1963, fig.13:77).

JUGS

82) 4 c 13 (Garstang 1933, pl.XII:9). Type B. L A0 15678.

Colour: core light red, surface light red to very dark greyish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

grog moderate, up to 3mm.

Decoration: alternate very dark greyish brown 10YR 3/2 and dark reddish brown 5YR 2.5/2, painted linear decoration - criss-cross pattern and stylised palm-tree motif.

Manufacture: poorly fired - discoloured all over.

Parallels

cf examples in Amiran 1970, pl.47 and p.147.

Hazor - Tomb 8144, one handle (Yadin 1960, pl.CXXXIV:11).

Str.1B (ibid. pl.CXX:20).

83) 4 b 29. Type B. R 32.1068.

h. c.370mm.

Colour: core very dark grey, interior surface light red, exterior surface light brownish grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

grog moderate, up to 3mm.

DIPPERS

84) 4 c 45 (Garstang 1933, pl.XVI:7). Type A. L AO 25460.

Colour: core light reddish brown, interior surface light yellowish brown, exterior surface light yellowish brown to light reddish brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Manufacture: finger-mark on pinched nozzle.

Parallels

Jerusalem - Tomb (Amiran 1963, fig.2:31).

Hazor - Tomb 8144 (Yadin 1960, pl.CXXXI:13, 17).

Megiddo - Str.VIII (Loud 1948, pl.58:8).

Tomb 73 (Guy and Engberg 1938, pl.65:23-7).

Lachish - Temple II (Tufnell 1940, pl.LII:308-310).

LAMPS

85) 4 c 60. Type C, broad flange. LCM D 535.1960.

d. 138mm.

Colour: core unknown, surface light grey to reddish yellow.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone common, up to 3mm.

grog sparse, up to 3mm.

86) 4 c 57. Type C, broad flange. L AO 15682.

d. 151 X 147mm.

Colour: core yellowish red, surface yellowish red to light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

grog sparse, up to 3mm.

87) 4 b 31. Type C, broad flange. HMG D 1932.27.

d. 143mm.

Colour: core and surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 4mm.

JARS

88) 4 b 3 (Garstang 1933, pl.X:6). Ridged neck, two handles, slightly flattened base. L AO 25451.

Colour: core light reddish brown, interior surface very pale brown, exterior surface very pale brown to reddish brown to red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.6:2, decorated).

Lachish - pre-Temple III (Tufnell 1958, pl.85:975 and p.218).

IMITATION BASE-RING II JUGS

89) 4 a 13 (fig.40:4). Type A, disc base. B 0.1092.

Colour: core unknown, interior surface pale brown, exterior surface pale brown to light red to grey.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Decoration: painted red 2.5YR 5/8 and brown 10YR 5/3 - horizontal red line above ridge at base of neck; pairs of diagonal red lines across body enclosing brown lines; below junction of handle with body are three short vertical red lines with two brown lines in between.

Note: Gittlen published this as a real BRII jug (Gittlen 1977, 213 no.117 or 118).

90) 4 c 21 (Garstang 1933, pl.XI:9). Type B. L AO 15670.

Colour: core red, interior surface reddish brown, exterior surface red to yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
grog common, up to 5mm.

Decoration: dark reddish brown 5YR 2.5/2, three concentric painted lines on body, one on shoulder; in between are vertical groups of three straight and two wavy lines.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.51:2).

Hazor - Tomb 8144 (Yadin 1960, pl.CXXXIII:13).

Megiddo - Str.VIII (Loud 1948, pl.57:2, similar decoration on different shape).

Lachish - Class B (Tufnell 1958, pl.74:687).

91) 4 b 36 (Garstang 1933, pl.XI:5). Type B. L AO 15671.

Colour: core light red, interior surface reddish yellow, exterior surface yellow.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.
grog moderate, up to 3mm.

Decoration: dark reddish brown 5YR 2.5/2, vertical and curving lines on body.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.50:6).

Lachish - Class B (Tufnell 1958, pl.80:844).

Beth-Shemesh - Tomb 1 (Grant 1929, 183:528-9).

WARE IVB2

PLATTERS

92) 4 b 22 (fig.40:1). Type C, slightly carinated wall, flat base. L AO 25456.

Colour: core red, interior surface reddish brown, exterior surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 3mm.

Slip: light grey 10YR 7/2, inside and outside.

Lustre: matt.

Parallels

Gibeon - Tomb 10B (Pritchard 1963, fig.9:15).

Megiddo - Tomb 877 B1 (Guy and Engberg 1938, pl.13:21).

CARINATED BOWLS

93) 4 c 66. Type F, ring base. L AO 25458.

d. of m. 181mm.

Colour: core unknown, interior surface light brown, exterior surface pink to light red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Slip: white 10YR 8/2, inside.

Lustre: matt.

Manufacture: base added separately.

WARE IVC1

CARINATED BOWLS

94) 4 c 85 (Garstang 1933, pl.XV:5). Type E, concave disc base.

BCM Unaccessioned.

Colour: core unknown, interior surface reddish brown, exterior surface reddish brown to yellowish red.

Hardness: soft. Feel: rough. Fracture: unknown.

Inclusions: limestone common, up to 2mm.
flint moderate, up to 3mm.

Parallel

Lachish - Temple III (Tufnell 1940, pl.XLII:144).

WARE IVD1

PLATTERS

95) 4 a 10 (Garstang 1933, pl.X:4). Type B, concave disc base. The interior painted cross is characteristic of the LBA but continues into the IA (Albright 1932, 39). Nevertheless, there are several MB examples (see below). R 32.1060.

Colour: core and exterior surface reddish yellow, interior surface light brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone moderate, up to 4mm.
flint sparse, up to 1mm.
straw common, up to 2mm.
grog sparse, up to 5mm.

Decoration: dusky red 10R 3/4, rim painted, cross on inside.

Parallels

For painted cross:

MBA

Tell Beit Mirsim - Str.F (Albright 1933, 105 pl.5:5).

Ras el-'Ain - Str.I (Ory 1937, 107 2B).

Shechem - MBIIa (Cole 1965, pl.XCI:q).

LBA

Jerusalem - Dominus Flevit (Saller 1964, fig.18:3).

Tomb (Amiran 1963, fig.3:37).

Gibeon - Tomb 10A-B (Pritchard 1963, fig.14:1).

Tell Beit Mirsim - Str.C (Albright 1932, pl.50:3).

Lachish - Temple III (Tufnell 1940, pl.XXXVII:26).

Megiddo - Tomb 73 (Guy and Engberg 1938, pl.64:2).

Hazor - Str.1B (Yadin 1960, pl.CXVIII:23, 34, chalices).

96) 4 a 7 (Garstang 1933, pl.XII:1). Type C, ring base. R 32.1059.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint sparse, up to 2mm.

straw moderate, up to 3mm.

grog sparse, up to 2mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.20:1).

Tell Abu Hawam - Cemetery (Anati 1959, fig.8:4).

CARINATED BOWLS

97) 4 b 9 (Garstang 1933, pl.XII:6). Type E, disc base. R 32.1064.

Colour: core unknown, interior surface reddish yellow, exterior surface strong brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 3mm.

straw sparse, up to 2mm.

grog sparse, up to 3mm.

Parallel

Jerusalem - Dominus Flevit (Saller 1964, fig.14:12).

98) 4 a 26. Type E, disc base. B 0.1178.

d. of m. 175mm.

Colour: core and surface brownish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.

flint moderate, up to 2mm.

straw voids abundant, up to 4mm.

grog sparse, up to 1mm.

MISCELLANEOUS BOWLS

99) 4 b 11 (Garstang 1933, pl.X:2). Bowl with three short legs, two horizontal loop handles, slightly everted rim. This example appears to be unique in Palestine. Similar feet on bowls were fairly popular in the Iron Age; note also examples from Troy III (Schaeffer 1948, fig.166:1-3) and Agha Evlan in Persia, dated to c.1450-1350 B.C. (ibid. fig.217:37). Yadin has suggested that horizontal handles imitate the handles on Mycenaean vessels (Yadin 1960, 146). Examples from the MBA which show some similarity come from Syria, at el-Hammam (Schaeffer 1948, fig.79:G, H) and Til Barsip (ibid. fig.81:20, 37, 61, 62). L AO 15656.

Colour: core and surface brownish yellow.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 4mm.

straw common, up to 5mm.

grog sparse, up to 2mm.

Manufacture: handmade and finished on a wheel.

JUGS

100) 4 a 24 (Garstang 1933, pl.XIII:2). Type A, piriform body, slightly pinched lip, large button base. L AO 25450.

Colour: core unknown, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone, flint, straw and grog, quantities unknown.

Parallels

Gibeon - Tomb 10A (Pritchard 1963, fig.7:13).

Lachish - (Tufnell 1958, pl.75:702).

Megiddo - Tomb 989 C1 (Guy and Engberg 1938, pl.19:23).

LAMPS

101) 4 a 9. Type B, broad flange, very pronounced folding. AMO 1932.730.

d. 143mm.

Colour: core unknown, surface yellow.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

flint moderate, up to 3mm.

straw sparse, up to 2mm.

grog moderate, up to 3mm.

102) 4 a 8. Type C, broad flange. HMG D 1932.26.

d. 151mm.

Colour: core unknown, interior surface light reddish brown to brownish yellow, exterior surface yellowish brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 3mm.

straw voids common, up to 5mm.

grog sparse, up to 3mm.

WARE IVE1

MISCELLANEOUS LOCAL

103) 4 a 19 (Garstang 1933, pl.X:11). Jug with strainer spout, ring base. L AO 15673.

Colour: core light reddish brown, surface brownish yellow.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

straw common, up to 5mm.

grog moderate, up to 3mm.

Manufacture: probably handmade and finished on a wheel.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, 152c and pl.34:8).

Tomb (Amiran 1963, fig.3:49).

Gibeon - Tomb 10A (Pritchard 1963, fig.8:24).

Lachish - (Tufnell 1958, pl.86:999).

Megiddo - Str.VIIB (Loud 1948, pl.63:7).

Tel Zeror - (Ohata 1970, pl.XIV:8).

Bethshan - Str.VIII (Garstang 1933, pl.X:12, 13).

late LB/Iron I (Oren 1973, 107 and fig.42:21).

WARE IVF1

COOKING POTS

104) 4 b 8 (Garstang 1933, pl.X:10). Carinated, rounded base. L AO 15573.

Colour: core light red, surface reddish yellow.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

straw common, up to 5mm.

Parallels

Megiddo - Tomb 4 (Guy and Engberg 1938, pl.54:10).

Hazor - Tomb 8144 (Yadin 1960, pl.CXXX:3-5).

WARE IVG1

PLATTERS

105) 4 a 25. Type C, stands crookedly (cf Chapter 5.2 no.6). BCM 464'36.

d. of m. 209mm.

Colour: core unknown, interior surface reddish brown, exterior surface reddish brown to grey.

Hardness: soft. Feel: rough/soapy. Fracture: unknown.

Inclusions: flint moderate, up to 3mm.
straw abundant, up to 7mm.

WARE VA1

PLATTERS

106) 4 c 46 (Garstang 1933, pl.XV:13). Type B, ring base. L AO 25458.

Colour: core light red, surface light red to light reddish brown.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint moderate, up to 2mm.
grog sparse, up to 3mm.

Decoration: light red 10R 6/8 and dark grey 10YR 4/1 concentric circles painted inside.

Manufacture: base added separately.

Parallels

For decoration:

Lachish - Temple I (Tufnell 1940, pl.XXXVII:1).

Megiddo - Str.VIII (Loud 1948, pl.61:17).

PEDESTAL BOWLS

107) 4 c 65 (Garstang 1933, pl.XV:10). Type K. R 32.1083.

Colour: core light grey, interior surface light reddish brown, exterior surface pink.

Hardness: hard. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
flint sparse, up to 2mm.
grog moderate, up to 3mm.

JUGS

108) 4 b 14 (fig.40:2). Type A, round body and base, plain rim.

BCM Unaccessioned.

Colour: core and surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.
flint sparse, up to 2mm.
grog sparse, up to 4mm.

Parallels

Tell el-Far'ah (N) - Tomb G, MBII (de Vaux and Stève 1948, 576 fig.16:1).

Hazor - LBI (Yadin 1958, pl.CXXXV:17).

Megiddo - Tomb 26, LBII (Guy and Engberg 1938, pl.57:6).

Lachish - (Tufnell 1958, pl.82:938-9).

LAMPS

109) 4 c 41. Type B, broad flange, square fold at nozzle, rounded base.

L AO 15685.

d. 149mm X 145mm.

Colour: core light yellowish brown, surface light red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly/friable.

Inclusions: limestone abundant, up to 0.5mm.

flint sparse, up to 3mm.

grog sparse, up to 3mm.

110) 4 c 88. Type B, as above. R 32.1087.

d. 142mm.

Colour: core and surface light red.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 4mm.

WARE VB1

PLATTERS

111) 4 c 28 (Garstang 1933, pl.XIV:3). Type C, ring base. B 0.1171.

Colour: core unknown, surface light red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 3mm.

Parallels

Gibeon - Tomb 10B (Pritchard 1963, fig.10:22).

Jerusalem - Dominus Flevit (Saller 1964, fig.10:1).

Tomb (Amiran 1963, fig.3:41).

Hazor - Tomb 8144 (Yadin 1960, pl.CXXVIII:22-3).

Lachish - Temple III (Tufnell 1940, pl.XL:93).

Tell Abu Hawam - Cemetery (Anati 1959, fig.8:5, 8, 10).

112) 4 c 16 (Garstang 1933, pl.XIV:6). Type C, flat disc base, as above.

L AO 25455.

Colour: core pink, interior surface reddish yellow, exterior surface reddish yellow to red.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 3mm.

113) 4 c 51 (Garstang 1933, pl.XIV:5). Type C, ring base, as above.

HMG D 1932.30.

Colour: core unknown, interior surface light reddish brown to grey, exterior surface pale brown to light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

CARINATED BOWLS

114) 4 c 11 (Garstang 1933, pl.XV:3). Type E, flat base. Misshapen.

HMG D 1932.31.

Colour: core unknown, interior surface light yellowish brown, exterior surface light yellowish brown to light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

<u>Parallels</u>

Jerusalem - Dominus Flevit (Saller 1964, fig.14:4, 17).

Bethel - LBIIa (Albright and Kelso 1968, pl.52:17).

LBIIb (ibid. pl.53:2, 3, 5, 7; pl.54:8, 14).

LAMPS

115) 4 a 21. Type B. B 0.1180.

d. 142mm.

Colour: core unknown, interior surface light red, exterior surface light red to brownish grey.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

116) 4 a 22. Type B. BCM Unaccessioned.

d. 128mm.

Colour: core unknown, interior surface pale brown, exterior surface yellowish red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 4mm.

117) 4 a 28 (fig.40:3). Type C, pronounced fold at nozzle, knob base.

L A0 15686.

Colour: core light red, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Parallels

Hazor - Tomb 8144 (Yadin 1960, pl.CXXXV:12).

Tell Abu Hawam - Level VA (Hamilton 1935, 45 no.279).

Megiddo - Str.VII (Loud 1948, pl.72:6).

Note: Amiran thought that the flat, thickened base on lamps appeared only in LBIIb (Amiran 1970, 190), but the above example from Hazor is LBIIa, and there is also one from Str.X at Megiddo (Loud 1948, pl.47:6).

IMITATION BASE-RING II JUGS

118) 4 a 14 (Garstang 1933, pl.XI:1). Type A. R 32.1061.

Colour: core reddish brown, interior surface very pale brown, exterior surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Decoration: dusky red 10R 3/2 on pale brown 10YR 6/3, painted horizontal lines on neck, diagonal intersecting lines on body.

Parallel

Gibeon - Tomb 10A (Pritchard 1963, fig.8:21).

119) 4 c 55 (fig.40:5). Type A. Gittlen (1977, 212 no.20) thinks this is real BRII. B 0.1168.

Colour: core unknown, interior surface light reddish brown, exterior surface light reddish brown to pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Decoration: red 2.5YR 5/8, horizontal painted line just below ridge; groups of three diagonal lines on body, intersecting near base; handle painted with three vertical lines, with a curved line above at junction with neck.

Parallels

Lachish - Temple II (Tufnell 1940, pl.LI:279).

Class A (Tufnell 1958, pl.81:880, 885).

120) 4 b 2. Type A. Gittlen (1977, 213 no.119) thinks this is real BRII.

HMG D 1932.36.

h. 221mm.

Colour: core unknown, interior surface light reddish brown, exterior surface pale brown to dark red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

121) 4 b 12 (Garstang 1933, pl.XI:2). Type B. HMG D 1932.37.

Colour: core pale brown, surface light yellowish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Decoration: dark red 10R 3/6, horizontal painted lines on neck, vertical and diagonal lines on body; ladder design on handle.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.50:2).

Lachish - Class B (Tufnell 1958, pl.80:844, 846).

Megiddo - Tomb 8 (Guy and Engberg 1938, pl.56:8).

IMITATION MYCENAEAN

122) 4 a 4 (Garstang 1933, pl.X:1). Imitation Mycenaean pyxis, Furumark shape 94, dated LHIIIA2/IIIB. L AO 15679.

Colour: core light red, interior surface reddish yellow, exterior surface reddish yellow to light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Parallels

Gibeon - Tomb 10A (Pritchard 1963, fig.8:23).

Tomb 10B (ibid. fig.12:66).

Jerusalem - Tomb (Amiran 1963, fig.3:54).

Tell Beit Mirsim - Str.C (Albright 1932, pl.44:3).

Beth-Shemesh - Tomb I [11] (Grant 1929, 189:476).

Lachish - Temple III (Tufnell 1940, pl.LIV:344).

(Tufnell 1958, pl.82:914-930).

Megiddo - Str.VIIB (Loud 1948, pl.64:6).

Tomb 63E (Guy and Engberg 1938, pl.62:19).

WARE VB2

IMITATION BASE-RING II JUGS

123) 4 b 5 (Garstang 1933, pl.XI:3). Type B. AMO 1932.728.

Colour: core and surface red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog sparse, up to 3mm.

Slip: white 2.5Y 8/2.

Lustre: matt.

Decoration: dark red 3/6 and dark reddish grey 10R 3/1 - two groups of three horizontal lines on neck, alternately red and grey; rim painted red; three concentric lines on body with groups of three vertical streaks, alternately red and grey; handle decorated with alternate flicks of red and grey.

Parallel

Jerusalem - Dominus Flevit (Saller 1964, fig.50:1).

WARE VD1

IMITATION BASE-RING II JUGS

124) 4 c 44 (Garstang 1933, pl.XI:7). Type B. R 32.1076.

Colour: core and interior surface light red, exterior surface light red to very pale brown.

Hardness: hard. Feel: rough/smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

Decoration: dark red 10R 3/6, three horizontal lines on neck; curved lines on body sweeping down to base; flicks of paint on handle.

Parallels

Lachish - Class B (Tufnell 1958, pl.80:847).

Ugarit - Tomb XXXVII (Schaeffer 1949, fig.65:7).

WARE VIA1

LAMPS

125) 4 c 86 (Garstang 1933, pl.XIV:14). Type C. This example fits into Type F at Lachish, which dates to the 13th century B.C. there, although it was perhaps more common in the earlier part of the century (Tufnell 1958, 186). R 32.1085.

Colour: core very dark grey, surface weak red.

Hardness: hard. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone common, up to 3mm.
flint common, up to 3mm.
grog moderate, up to 3mm.

Parallel

Tell Beit Mirsim - Str.C (Albright 1932, pl.48:7).

WARE VIB1

CARINATED BOWLS

126) 4 c 87 (Garstang 1933, pl.XV:2). Type F, concave disc base. R 32.1086.

Colour: core unknown, interior surface very pale brown, exterior surface very pale brown to light red.

Hardness: hard. Feel: rough/harsh. Fracture: unknown.

Inclusions: limestone moderate, up to 2mm.
grog sparse, up to 2mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.10:1).

Gibeon - Tomb 10B (Pritchard 1963, fig.10:41).

127) 4 c 52. Type F, ring base. BCM Unaccessioned.

d. of m. 174mm.

Colour: core and interior surface light reddish brown, exterior surface pale brown to pink.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone moderate, up to 3mm.
grog sparse, up to 4mm.

PEDESTAL BOWLS

128) 4 c 52, as above (Garstang 1933, pl.XV:12). Type L. L AO 25453.

Colour: core greyish brown, margins reddish yellow, interior surface light reddish brown, exterior surface pink.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
grog moderate, up to 3mm.

Decoration: interior has two bands of dark reddish brown 5YR 3/3 paint with white 10YR 8/2 in between.

Parallel

Jerusalem - Dominus Flevit (Saller 1964, fig.17:3).

JUGS

129) 4 c 17 (Garstang 1933, pl.XVI:4). Type A, pinched mouth, high wide neck with collar, wide piriform body, slightly flattened base. R 32.1072.

Colour: core and surface reddish yellow.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 3mm.
grog moderate, up to 4mm.

Parallel

Gibeon - Tomb 10A (Pritchard 1963, fig.7:13).

LAMPS

130) 4 b 19. Type B, pronounced square fold at nozzle. B 0.1176.

d. 155mm.

Colour: core unknown, surface light red to grey.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 1mm.

131) 4 c 49 (Garstang 1933, pl.XIV:13). Type C, very pronounced folding.

L A0 15683.

Colour: core unknown, surface very pale brown to light red.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone common, up to 3mm.

grog sparse, up to 2mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.54:2, 4).

Tomb (Amiran 1963, fig.3:50-1).

Lachish - Class G (Tufnell 1958, pl.73:668).

Hazor - Tomb 8144 (Yadin 1960, pl.CXXXV:8).

WARE VIC1

CARINATED BOWLS

132) 4 c 50 (Garstang 1933, pl.XIV:15). Type H. B 0.1183.

Colour: core light red, interior surface pale brown, exterior surface pale brown to dark grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

Parallels

Jerusalem - Tomb (Amiran 1963, fig.3:43-4).

WARE VID1

DIPPERS

133) 4 a 15. Type B, rounded base. HMG D 1932.39.

h. c.260mm.

Colour: core and surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 4mm.

straw sparse, up to 4mm.

grog sparse, up to 4mm.

UNCATEGORISED POTTERY

JARS

134) 4 b 23 (Garstang 1933, pl.X:5). Jar, plump, narrow-necked, two handles on girth, flattened base. R 32.1065.

Colour: core unknown, surface very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: unknown.

Inclusions: unknown.

Parallel

Hazor - Tomb 8144 (Yadin 1960, pl.CXXXVIII:9).

UNLOCATED POTTERY

135) 4 c 43 (Garstang 1933, pl.XIV:8). Platter, type C, ring base.

136) 4 c 75 (Garstang 1933, pl.XIV:9). Platter, type C, ring base.

137) 4 c 1 (Garstang 1933, pl.XV:1). Carinated bowl, type F, disc base.

Parallels

Lachish - Temple I (Tufnell 1940, pl.XL:75-6).

Temple II (ibid. pl.XLI:111, 114).

138) 4 c 31 (Garstang 1933, pl.XV:4). Carinated bowl, type F, flat base.

Parallel

Jerusalem - Tomb (Amiran 1963, fig.3:37).

139) 4 c 42 (Garstang 1933, pl.XV:6). Carinated bowl, type F, ring base.

Parallel

Jerusalem - Dominus Flevit (Saller 1964, fig.10:8).

140) 4 c 72 (Garstang 1933, pl.XV:8). Carinated bowl, type F.

Parallel

Gibeon - Tomb 10A (Pritchard 1963, fig.7:8).

141) 4 c 12 (Garstang 1933, pl.XVI:5). Dipper, type B, cylindrical, pointed base.

Parallels

Lachish - Temple II (Tufnell 1940, pl.LII:305).

Temple III (ibid. pl.LII:317).

142) 4 c 59 (Garstang 1933, pl.XI:6). Imitation Base-Ring II jug, type B. Decorated in red paint: horizontal line at base of neck; pairs of curving lines enclosing wavy lines sweeping diagonally across body, interspersed with single straight lines.

Parallel

Lachish - Class B (Tufnell 1958, pl.81).

143) 4 c 48 (Garstang 1933, pl.XVI:8). Alabaster chalice. R 32.1078.

This type of stone vessel was found in the 900 cemetery at Tell Fara (S) with LBII pottery (Kenyon 1951, 138), eg in Tombs 975, 934, 981-982 (MacDonald, Starkey and Harding 1932, pls.XLVIII-LVI).

7.3.4 List of unlocated, unpublished and undrawn objects from Tomb 4

4 a 0: Jug, one handle, pinched lip, slightly pointed base. Handmade.

4 a 1: Platter, ring base, everted and thickened rim (LB).

4 a 2: Platter, ring base, thickened rim (LB).

4 a 5: Fragments of one-handled jug.

4 a 6: One-handled jug, elongated neck, small pedestal base.

4 a 12: Carinated bowl, everted rim, flat base.

4 a 16: Pedestal bowl, slightly everted rim (LB).

4 a 17: Bowl, flat concave base.

4 a 20: Carinated bowl, ring base.

4 a 23: Carinated bowl, flat concave base.

4 a 27: Lamp.

4 a 29: Lamp.

4 a 30: Lamp.

4 b 6: Bowl, slightly concave base.

4 b 10: Jug, one handle; tall, lop-sided, pedestal base; decoration in dull red lines spreading from base (LB).

4 b 13: Carinated bowl, flat concave base.

4 b 15: Lamp.

4 b 16: Lamp.

4 b 17: Pedestal bowl (LB).

4 b 18: Large jug, in fragments.

4 b 24: Carinated bowl, flattened base.

4 b 26: Bowl, ring base.

4 b 38: Lamp.

4 c 4: Fragment of bowl, everted rim, flattened base.

4 c 8: Fragments of platter, inverted rim, ring base (MB).

4 c 14: Platter, ring base.

4 c 20: Fragments of dish and jug.

4 c 22: Carinated bowl, concave base, cream slip (MB).

4 c 23: Fragment of lamp, inverted rim.

4 c 32: Pedestal vase (MB).

4 c 34: Pedestal vase (MB).

4 c 35: Pedestal vase (MB).

4 c 37: Fragments of bowl, inverted thickened rim, ring base (MB).

4 c 38: Jug, one handle, pointed base, pinched lip.

4 c 40: Lamp, rounded base.

4 c 64: Pedestal vase (MB).

4 c 67: Fragment of carinated bowl, ring base.

4 c 70: Dagger.

4 c 73: Platter, inverted rim, ring base (MB).

4 c 74: Platter, inverted rim (MB).

4 c 77: Fragments of bowl, flat base. IA 10 260.

4 c 80: Various fragments.

4 c 81: Bottom of carinated bowl, ring base.

4 c 82: Neck of one-handled jug, pinched lip.

4 c 84: Jug, one handle, pinched lip, rounded base.

4 d 1: Cylindrical juglet, convex base, black ware (MB).

4 d 2: Platter, inverted rim, ring base (MB).

4 d 3: Bowl, flat base; lop-sided.

4 d 4: Lamp, flattened base.

4 d 7: Bronze needle, point broken.

4 d 8: Two bronze needles, broken.

4 d 9: Rubbing stone.

4 d 10: Fragments of ostrich eggs.

4 d 11: Pedestal vase (MB).

4 d 13: Fragments of juglet, black ware (MB).

4 d 14: Fragments of lamp.

4 d 15: Pedestal cup.

4 d 16: Platter, inverted rim, ring base (MB).

4 d 17: Dishes in fragments.

4 d 19: Cylindrical juglet, convex base, twin handle with button, grey ware (MB).

4 d 20: Fragments of platter, inverted rim (MB).

4 d 21: Jug, one handle, pinched lip, pointed base.

4 d 22: Cylindrical juglet, convex base, twin handle with button (MB).

4 d 23: Fragments of lamp, flattened base, inverted rim.

4 d 26: Platter, ring base, inverted rim (MB).

4 d 34: Lamp, rounded base.

4 d 36: Various fragments.

4 d 38: Lamp, rounded base.

4 d 39: Lamp, flat base.

4 d 40: Platter, inverted rim, ring base (MB). IA 10 257.

4 d 41: Lamp, rounded base.

4 d 41bis: Fragments of small jug, painted decoration of lotus leaves in dark brown.

4 e 3: Fragments.

4 e 4: Fragments of juglet.

4 e 5: Platter, inverted rim (MB).

4 e 6: Juglet, broken.

4 e 7: Fragments.

4 e 8: Piriform juglet, button base, single handle with button; black ware and black burnished slip (MB).

4 e 11: Fragments of lamp, concave flattened base.

4 e 15: Fragments of lamp, flat base.

4 e 19: Lamp, flattened base.

4 e 21: Cylindrical juglet, flat base, single handle with button; black ware and black burnished slip.

4 e 22: Fragments.

4 e 24: Fragments.

4 e 25: Carinated vase with everted rim, cream slip (MB).

4 e 26: Fragments.

4 e 27: Fragments.

4 e 28: Lamp, flat base.

4 e 29: Fragments of carinated bowl.

7.3.5 Tomb 4 Scarabs

7.3.5.1 Middle Bronze Age

All of the MBA scarabs from Tomb 4 are typically 'Hyksos' and have been published (Garstang 1933, 22 and pl.XXVI, Tomb 4:1-6, 8, 10, 11). No.1 has a cartouche which was read as A.a.kha, who was presumed to be a local Hyksos ruler. However, the reading of these signs as A.a.kha can only be described as possible; on a similar scarab from Jericho Tomb 31 (ibid.9, fig.3:6 and p.12) Rowe reads Ka.- or Ra.a(a).kha instead of Garstang's A.a.kha (Rowe 1936, 40 no.150 and pl.IV:150). None of the standard works on the Second Intermediate Period in Egypt and the Hyksos list all of the kings (cf Ward 1976 and references there), but there is certainly no trace of an A.a.kha. Of course, he may well have been a minor local Hyksos ruler who is simply not attested elsewhere. On the other hand, the inscription on the scarab may be nonsense.

7.3.5.2 Late Bronze Age

The two LBA scarabs from Tomb 4 have been published (Garstang 1933, 22 and pl.XXVI, Tomb 4:7 and 9). They both have the cartouche of Amenophis III, Nebma'tre' (1401-1363/1382-1344, cf Chapter 2.2). Although two other kings had the prenomen Nebma'tre' (Ramesses VI and an obscure kinglet of the Second Intermediate Period), their names tended to be written differently, so the attribution to Amenophis III is not in doubt (cf Kitchen in Bienkowski 1982, 88).

7.3.6 Middle Bronze Age deposit - Date

The scarabs do not provide any reliable dating evidence, and can only be described generally as 'Hyksos'. As for the pottery, on Kenyon's criteria the material would fit into her MBII Groups III and IV. There are 8 piriform juglets and 11 cylindrical juglets, which would tend to place the deposit around the middle of MBII. None of the other vessels is particularly diagnostic chronologically within MBII. The Tomb 4 MB group may therefore be dated to mid-MBII.

7.3.7 Late Bronze Age deposit - Pottery discussion and Date

Imitation Mycenaean pyxis - This is a locally made copy rather than a real imported Mycenaean pyxis, despite its loop handles. It has been observed that genuine imported Mycenaean pyxides had loop handles, while the local copies had pierced lug handles (Pritchard 1963, 13). Nevertheless, on this example the handles are badly made, and it is clearly local.

Canaanite potters especially liked to copy the pyxis, and

> "copied it so frequently that it almost turned into part of the native ceramic repertoire...The pyxis continued to be made throughout the LBA and most of the Iron Age, until it finally disappeared in Iron IIC" (Amiran 1970, 186).

As for dating, Pritchard's comments are relevant:

> "It is noteworthy that no imitation pyxides were found in the Hazor Tomb 8144-45, although its base-ring ware seems to correspond to that of Tomb 10A and Tomb 10B (at Gibeon). If Yadin is correct in placing the lower limit of the use of this tomb at about the end of the fourteenth century, then it is quite possible that pyxides did not begin to be widely imitated until after the fourteenth century. The continuance of this form into the Iron I period without much modification and the

> restriction of pyxides to Structure III of the Fosse Temple at Lachish would suggest the dating of these vessels to the LBIIb period" (Pritchard 1963, 14).

Similarly Paul Lapp, in a review of Pritchard 1963, notes that: "pyxides...certainly do not predate the 13th century..." (Lapp 1965, 180).

Date - Other pottery types, such as Imitation BRII ware, platter bowls and two-handled jugs (one example, undecorated) have been considered in detail under Tomb 5 (section 7.2.7), and date to LBIIa. For all the pottery, the best and most frequent parallels are with Gibeon Tombs 10A and 10B, which date to the 14th century with a possible overlap into the 13th century B.C. (Pritchard 1963, 17). Other frequent comparisons are with Hazor Tomb 8144-5, dated to the 14th century B.C. (Yadin 1960, 153), and with the LBIIa deposits from Jerusalem (Amiran 1963, Saller 1964). There are occasional 13th century B.C. parallels, for instance with Lachish Temple III (Tufnell 1940) - broad flange lamps (eg nos.85-7) are said to have developed late in Temple III at Lachish (Pritchard 1963, 16). The imitation Mycenaean pyxis seems to date to LBIIb (see above). Significantly, there is no BRI pottery (unlike Tomb 5). BRI imports probably ceased in mid-LBIIa, c.1350 B.C. (cf section 7.2.7), although we should bear in mind the chronological problems of Cypriot potters possibly producing 'real' BRI pottery at Jericho (cf Chapter 8.1.2). The two scarabs of Amenophis III may provide a terminus post quem around the middle of the 14th century B.C.

There is a slight overlap with Tomb 5 in the Tomb 4 pottery corpus, with the Imitation BRII jugs, the platter bowls and other local pottery (although in Tomb 5 the type B bowl was more popular, while in Tombs 4 and 13 it is type C). There are also significant differences, specifically the lack of BRI pottery and decorated two-handled jugs, and the presence of a Mycenaean copy and other pots with 13th century B.C. parallels. We must be cautious with

dating, however, bearing in mind the blurred distinction between LBIIa and b local pottery (cf Chapter 2.2). Our knowledge of LBII pottery is still far from precise. Tomb 5 dates to late LBI/early LBIIa, c.1425-1350 B.C. On the comparative evidence available, assuming an overlap around the middle of the 14th century B.C., Tomb 4 would appear to date to mid-LBIIa/early LBIIb, c.1350-1275 B.C.

7.4 Tomb 13

7.4.1 Description

Tomb 13 was a fairly shallow open grave of irregular oval shape situated just to the north of Tomb 5 at the northern end of the Western Cemetery (Garstang 1933, pl.I; also 15-21 and pls.IV-VII). The tomb was excavated in three layers, although the lower two, b and c, were recognised as being "so close together that they were hardly separable as archaeological strata" (ibid.15). Study of the pottery from this tomb shows, in fact, that all three 'layers' have a mixture of Middle and Late Bronze Age pottery.

A total of 109 pottery vessels was found in Tomb 13. 99 were located during the course of this study and examined. A further five pots which were not located had been published previously by Garstang (1933). Of these 104 pots, 81 are MB, and 23 are LB.

Five pots (or fragments) which had not been published previously, or drawings of which do not exist, were not located. From the descriptions in Garstang's Tomb 13 Catalogue only one, a pedestal vase, can be dated to the MBA. The other four cannot be dated merely from the descriptions.

7.4.2 The Middle Bronze Age Pottery

WARE IA1

BOWLS

1) 13 c 24bis (Garstang 1933, pl.V:13). Type A3b. R 32.1667.

Colour: core unknown, surface reddish yellow.

Hardness: hard. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

2) 13 c 44. Base of bowl, type A3b. R 32.1688.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 0.5mm.

flint sparse, up to 1mm.

grog sparse, up to 0.5mm.

3) 13 c 4. Base of bowl, type A3b. R 32.1649.

Colour: core and surface very pale brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone moderate, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 1mm.

4) 13 c 5 (Garstang 1933, pl.V:11). Type E1a. R 32.1650.

Colour: core yellowish brown, surface very pale brown.

Hardness: hard. Feel: soapy. Fracture: smooth/hackly.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 3mm.

grog moderate, up to 1mm.

5) 13 c 29 (Garstang 1933, pl.V:8). Type J3a. R 32.1675.

Colour: core very pale brown, surface very pale brown to yellow.

Hardness: medium. Feel: soapy. Fracture: smooth.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 2mm.

grog common, up to 2mm.

6) 13 c 3 (Garstang 1933, pl.VII:19). Fragmentary bowl with handle, rather straight rim, rounded base. Unusual shape with no parallel, though compare general shape of a colander from Jericho (Kenyon 1960b, fig.116:7). R 32.1648.
Colour: core unknown, surface reddish yellow.
Hardness: soft. Feel: soapy. Fracture: hackly.
Inclusions: limestone common, up to 2mm.
flint moderate, up to 3mm.
grog moderate, up to 2mm.

7) 13 c 43. Flattened base of bowl, used as a lamp. R 32.1687.
Colour: core pink, interior surface reddish yellow, exterior surface light red.
Hardness: hard. Feel: rough. Fracture: hackly.
Inclusions: limestone abundant, up to 2mm.
flint sparse, up to 3mm.
grog sparse, up to 2mm.

JUGS

8) 13 b 12 (Garstang 1933, pl.VI:2). Type A3a. R 32.1618.
Colour: core and interior surface yellow, exterior surface yellow to reddish yellow.
Hardness: soft. Feel: soapy. Fracture: hackly.
Inclusions: limestone common, up to 2mm.
flint sparse, up to 2mm.
grog sparse, up to 2mm.
Manufacture: base added separately.

9) 13 b 14 (Garstang 1933, pl.VI:11). Type D3a. R 32.1620.
Colour: core and surface light red.
Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint abundant, up to 3mm.

grog sparse, up to 2mm.

CYLINDRICAL JUGLETS

10) 13 c 22 (Garstang 1933, pl.VII:3). Type B, flat shoulders, concave sides, twin handle. R 32.1664.

Colour: interior margin and interior surface grey, exterior margin and exterior surface light brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 0.5mm.

flint moderate, up to 1mm.

grog sparse, up to 1mm.

DIPPER JUGLETS

11) 13 b 15. Type D2a. R 32.1621.

h. c.190mm.

Colour: core and surface red.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 0.5mm.

flint sparse, up to 2mm.

grog abundant, up to 2mm.

LAMPS

12) 13 c 41. Type B1a. R 32.1685.

d. 116mm.

Colour: core reddish yellow, surface pink.

Hardness: soft. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone sparse, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

13) 13 b 36. Type B1a. R 32.1642.

d. 123mm.

Colour: core unknown, surface pink.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone sparse, up to 2mm.

flint moderate, up to 2mm.

grog sparse, up to 2mm.

14) 13 c 7. Type B1a. R 32.1652.

d. 131mm.

Colour: core and surface pink.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 3mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

15) 13 c 40. Type B2a. R 32.1684.

d. c.130mm.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone common, up to 1mm.

flint common, up to 2mm.

grog moderate, up to 1mm.

16) 13 c 42. Type B2b. R 32.1686.

d. 117mm.

Colour: core light reddish brown, surface pink.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.

flint moderate, up to 1mm.

grog sparse, up to 2mm.

17) 13 c 11. Type G1a. R 32.1655.

d. 135mm.

Colour: core and interior surface light red, exterior surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint moderate, up to 1mm.

grog sparse, up to 1mm.

18) 13 c 24c (Garstang 1933, pl.V:12). Type J2a. R 32.1668.

Colour: core reddish yellow, surface very pale brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint common, up to 2mm.

grog moderate, up to 2mm.

WARE IA2

BOWLS

19) 13 a 16 (Garstang 1933, pl.V:1). Type D2b. R 32.1605.

Colour: core light reddish brown, interior surface light red, exterior surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 2mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 8/4, also on base.

Lustre: matt.

JUGS

20) 13 b 25 (Garstang 1933, pl.VI:1). Type A3a. R 32.1631.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone moderate, up to 1mm.
flint common, up to 3mm.
grog moderate, up to 3mm.

Slip: white 10YR 8/2.

Lustre: matt.

Manufacture: base and neck added separately.

21) 13 b 8. Type D3a. R 32.1616.

h. c.390mm.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.
flint moderate, up to 2mm.
grog sparse, up to 3mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

PIRIFORM JUGLETS

22) 13 b 23 (Garstang 1933, pl.VII:10). Type F2d. R 32.1629.

Colour: core and interior surface reddish yellow, exterior surface reddish yellow to grey.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 2mm.
flint sparse, up to 2mm.
grog moderate, up to 2mm.

Slip: light grey 5YR 7/1.

Lustre: matt.

DIPPER JUGLETS

23) 13 b 26. Type B2a, rim missing. R 32.1632.

Colour: core and surface light red.

Hardness: hard. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint sparse, up to 2mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

24) 13 b 32. Type B2b. R 32.1638.

h. 187mm.

Colour: core and surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

flint sparse, up to 1mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

25) 13 a 6 (Garstang 1933, pl.IV:10). Type D1a. R 32.1596.

Colour: core and surface reddish yellow.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

WARE IA2a

BOWLS

26) 13 c 9. Type B3c. R 32.1654.

h. 110mm.

Colour: core and surface light red.

Hardness: soft. Feel: soapy/smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog moderate, up to 3mm.

Slip: white 2.5Y 8/2, burnished.

Lustre: low.

27) 13 c 6 (Garstang 1933, pl.V:2). Type D2c. R 32.1651.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 3mm.

grog sparse, up to 2mm.

Slip: white 10YR 8/2, burnished.

Lustre: low.

PEDESTAL VASES

28) 13 c 46 (Garstang 1933, pl.VI:7). Type C1a. R 32.1690.

Colour: core and surface very pale brown.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Slip: pink 7.5YR 8/4 to white 2.5Y 8/2, burnished.

Lustre: low.

CYLINDRICAL JUGLETS

29) 13 b 30 (Garstang 1933, pl.VII:5). Type B2c. R 32.1636.

Colour: core unknown, interior surface brownish yellow to very dark grey,
exterior surface yellow.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 3mm.

flint sparse, up to 2mm.

grog moderate, up to 2mm.

Slip: light yellowish brown 10YR 6/4, burnished.

Lustre: low.

WARE IA3a

CYLINDRICAL JUGLETS

30) 13 c 19 (labelled 13 c 18). Type B2c. R 32.1669.

Original h. c.110mm.

Colour: interior margin and interior surface grey, exterior margin reddish
yellow, exterior surface pink.

Hardness: soft. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 0.5mm.

flint sparse, up to 1mm.

grog sparse, up to 1mm.

Slip: dark brown 7.5YR 3/2, burnished.

Lustre: medium.

WARE IB1

BOWLS

31) 13 c 24 (Garstang 1933, pl.V:14). Type A2b. R 32.1666.

Colour: core unknown, surface pale yellow to light red.

Hardness: soft. Feel: rough/soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 2mm.

32) 13 a 14 (Garstang 1933, pl.V:4). Type B2e. R 32.1603.

Colour: core and surface light red.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 2mm.

PIRIFORM JUGLETS

33) 13 c 15 (Garstang 1933, pl.VII:16). Type E2b. R 32.1659.

Colour: core and interior surface reddish yellow, exterior surface reddish yellow to yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog sparse, up to 1mm.

34) 13 b 20 (Garstang 1933, pl.VII:8). Type F1b. R 32.1625.

Colour: core and surface light red.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 1mm.

35) 13 b 11 (Garstang 1933, pl.VII:15). Type F2. R 32.1644.

Colour: core and interior surface grey, exterior surface yellowish brown to very dark grey.

Hardness: hard. Feel: soapy. Fracture: hackly/smooth.

Inclusions: limestone common, up to 0.5mm.
grog sparse, up to 1mm.

WARE IB2

PEDESTAL VASES

36) 13 c 25 (Garstang 1933, pl.VI:8). Type A2, wide neck, relatively shallow. R 32.1671.

Colour: core and surface very pale brown.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 3mm.
grog moderate, up to 3mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

PIRIFORM JUGLETS

37) 13 b 13. Type E2b, with button. R 32.1619.

h. c.135mm.

Colour: core and interior surface dark grey, exterior surface dark grey to pale red.

Hardness: soft. Feel: soapy. Fracture: friable.

Inclusions: limestone common, up to 1mm.
grog sparse, up to 2mm.

Slip: white 10YR 8/2.

Lustre: matt.

CYLINDRICAL JUGLETS

38) 13 b 28 (Garstang 1933, pl.VII:8). Type B2a. R 32.1634.

Colour: core and surface light red.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 3mm.

grog sparse, up to 1mm.

Slip: light grey 10YR 7/2.

Lustre: matt.

WARE IB2a

PEDESTAL VASES

39) 13 c 38. Type A1a. R 32.1682.

h. 122mm.

Colour: core and surface light reddish brown.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone moderate, up to 1mm.

grog sparse, up to 0.5mm.

Slip: very pale brown 10YR 8/4, burnished.

Lustre: low.

40) 13 c 26. Type A1a. R 32.1672.

h. c.130mm.

Colour: core and surface pink.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 1mm.

Slip: very pale brown 10YR 7/3, burnished.

Lustre: low.

41) 13 b 35 (Garstang 1933, pl.VI:3). Type C1a. R 32.1641.

Colour: core and surface red.

Hardness: soft. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

grog moderate, up to 1mm.

Slip: white 10YR 8/2, burnished.

Lustre: low.

DIPPER JUGLETS

42) 13 b 33 (Garstang 1933, pl.IV:11). Type B2b. R 32.1639.

Colour: core grey, surface reddish yellow.

Hardness: hard. Feel: smooth. Fracture: smooth.

Inclusions: limestone moderate, up to 1mm.

grog sparse, up to 1mm.

Slip: white 10YR 8/2 to grey 10YR 6/1, burnished.

Lustre: low.

WARE IB3a

PIRIFORM JUGLETS

43) 13 c 28 (Garstang 1933, pl.VII:12). Type F1d. R 32.1674.

Colour: core unknown, surface grey to red.

Hardness: hard. Feel: smooth/soapy. Fracture: unknown.

Inclusions: limestone sparse, up to 1mm.

grog abundant, up to 1mm.

Slip: very dark grey 5YR 3/1, burnished.

Lustre: low.

WARE IB5b

PIRIFORM JUGLETS

44) Tomb 13. Fragments of piriform juglet. R 32.1698.

Colour: core and surface grey.

Hardness: hard. Feel: smooth. Fracture: smooth.

Inclusions: limestone abundant, up to 0.5mm.
grog common, up to 1mm.

Slip: dark grey 10YR 4/1 to brown 10YR 5/3, burnished.

Lustre: medium.

Decoration: incised herringbone pattern between parallel lines.

CYLINDRICAL JUGLETS

45) 13 a 15 (Garstang 1933, pl.VII:1). Type B2c. R 32.1604.

Colour: core reddish grey, surface dark grey.

Hardness: soft. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
grog sparse, up to 2mm.

Slip: very dark greyish brown 10YR 3/2, burnished.

Lustre: medium/high.

WARE IC1

BOWLS

46) 13 c 2 (Garstang 1933, pl.V:10). Type A5a. R 32.1647. See also Hazor Cistern 9024 Str.5 (Yadin 1958, pl.CXIV:6-7 and p.131) where this type is called 'exceptional' and continues into LBI.

Colour: core and surface very pale brown.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 2mm.
flint moderate, up to 3mm.

LAMPS

47) 13 c 8 (Garstang 1933, pl.VI:6). Type G1a. R 32.1653.

Colour: core unknown, surface very pale brown.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 2mm.

WARE ID1

PIRIFORM JUGLETS

48) 13 c 10. Type H, top missing. R 32.1694.

Colour: core very pale brown, interior surface light grey, exterior surface light yellowish brown to dark grey.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

Decoration: incised dots in herringbone pattern, filled in with white.

WARE ID2

PIRIFORM JUGLETS

49) 13 c 1. Type E1d. R 32.1646.

h. 145mm.

Colour: core and surface yellowish brown.

Hardness: medium. Feel: soapy/smooth. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

Slip: very dark grey 10YR 3/1, burnished.

Lustre: medium.

WARE ID3

PIRIFORM JUGLETS

50) 13 c 23 (Garstang 1933, pl.VII:17). Type G1a. R 32.1665.

Colour: core dark grey, surface grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: limestone abundant, up to 0.5mm.

Slip: light yellowish brown 10YR 6/4 to very dark grey 10YR 3/1, burnished.

Lustre: medium.

51) 13 c 12. Top of piriform juglet, single handle with button. R 32.1656.

Colour: core and surface dark grey.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 0.5mm.

Slip: black 10YR 2/1, burnished.

Lustre: medium.

WARE IE1

LAMPS

52) 13 c 27. Type B1a. R 32.1673.

d. c.135mm.

Colour: core and surface light brown.

Hardness: medium. Feel: soapy. Fracture: unknown.

Inclusions: flint common, up to 2mm.

grog common, up to 2mm.

WARE IF1

LAMPS

53) 13 b 21. Type B2b. R 32.1626.

d. 118mm.

Colour: core pinkish grey, surface light red.

Hardness: soft. Feel: soapy. Fracture: unknown.

Inclusions: grog common, up to 3mm.

WARE IH1

LAMPS

54) 13 b 21bis. Type F1b. R 32.1627.

d. 122mm.

Colour: core light red, interior surface grey to black, exterior surface grey.

Hardness: soft. Feel: rough. Fracture: friable.

Inclusions: limestone abundant, up to 2mm.
flint moderate, up to 2mm.
quartz sparse, up to 2mm.
grog abundant, up to 3mm.

GENERAL WARE I

PIRIFORM JUGLETS

55) 13 c 47. Type E2b. R 32.1691.

h. 160mm.

Colour: core pinkish grey, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone and others, quantities unknown.

Slip: light red 10R 6/6, burnished.

Lustre: medium.

56) 13 c 31 (Garstang 1933, pl.VII:11). Type F2c. R 32.1677.

Colour: core unknown, surface grey.

Hardness: hard. Feel: smooth/soapy. Fracture: unknown.

Inclusions: unknown.

Slip: very dark grey 5YR 3/1, burnished.

Lustre: low.

WARE IIA2

LAMPS

57) 13 c 20. Type J2a. R 32.1662.

d. 140mm.

Colour: core and interior surface red, exterior surface light red.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint common, up to 3mm.

grog sparse, up to 3mm.

Slip: pinkish white 7.5YR 8/2.

Lustre: matt.

WARE IIB1

LAMPS

58) 13 b 2 (Garstang 1933, pl.VI:5). Type B1a. R 32.1612.

Colour: core and interior surface light red, exterior surface reddish yellow.

Hardness: medium. Feel: soapy. Fracture: friable.

Inclusions: limestone abundant, up to 2mm.

grog moderate, up to 3mm.

WARE IIB2

PEDESTAL VASES

59) 13 a 7. Type C1a. R 32.1597.

h. 141mm.

Colour: core and surface brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 3mm.

Slip: very pale brown 10YR 7/3.

Lustre: matt.

60) 13 c 13. Base and lower part of pedestal vase. R 32.1657.

Colour: interior margin light red, exterior margin light red to light grey, surface pink.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 2mm.

Slip: white 10YR 8/2.

Lustre: matt.

DIPPER JUGLETS

61) 13 c 39 (Garstang 1933, pl.VI:10). Type D2b. R 32.1683.

Colour: core red, surface reddish brown.

Hardness: medium, Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 0.5mm.

Slip: very pale brown 10YR 8/3.

Lustre: matt.

WARE IIB2a

PEDESTAL VASES

62) 13 c 21. Type A1a. R 32.1663.

h. 140mm.

Colour: core and surface light brown.

Hardness: medium. Feel: smooth/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 0.5mm.

Slip: white 10YR 8/2, burnished.

Lustre: medium.

63) 13 b 37. Type C1a. R 32.1643.

h. 135mm.

Colour: core and surface reddish yellow.

Hardness: medium. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Slip: very pale brown 10YR 8/3, burnished.

Lustre: low.

64) 13 b 9. Type C1a. R 32.1617.

h. 138mm.

Colour: core and surface light red.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

Slip: very pale brown 10YR 8/3, burnished.

Lustre: medium.

65) 13 c 34. Fragments of lower part of pedestal vase. R 32.1693.

Colour: interior margin red, exterior margin very dark grey, surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 2mm.

Slip: very pale brown 10YR 8/3, burnished.

Lustre: medium.

WARE IIB3

CYLINDRICAL JUGLETS

66) 13 b 29. Type B1c. R 32.1635.

h. c.130mm.

Colour: core and surface light red.

Hardness: medium. Feel: smooth. Fracture: hackly/friable.

Inclusions: limestone abundant, up to 2mm.
grog moderate, up to 3mm.

Slip: brown 10YR 4/3 to very dark grey 10YR 3/1, burnished.

Lustre: medium/high.

67) 13 b 3. Type B2c. R 32.1613.

h. c.110mm.

Colour: core light red, surface dark grey.

Hardness: soft. Feel: smooth/soapy. Fracture: friable.

Inclusions: limestone abundant, up to 0.5mm.
grog moderate, up to 3mm.

Slip: brown 10YR 4/3 to very dark grey 10YR 3/1, burnished.

Lustre: high.

WARE IIB4

PEDESTAL VASES

68) 13 b 24. Type A1a. R 32.1630.

h. 142mm.

Colour: core very dark grey, surface light reddish brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.
grog sparse, up to 2mm.

Slip: pink 7.5YR 7/4 to very pale brown 10YR 8/4, burnished.

Lustre: low.

WARE IIB5

PIRIFORM JUGLETS

69) 13 c 30 (Garstang 1933, pl.VII:14). Type E2, twin handle with button.

R 32.1676.

Colour: core and surface grey.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 1mm.

WARE IIB5a

PIRIFORM JUGLETS

70) 13 c 16 (Garstang 1933, pl.VII:9). Type F1d. R 32.1660.

Colour: core and surface grey.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Slip: dark grey 5YR 4/1, burnished.

Lustre: medium.

CYLINDRICAL JUGLETS

71) 13 c 37 (Garstang 1933, pl.VII:4). Type A2a. R 32.1681.

Colour: core grey, surface greyish brown.

Hardness: hard. Feel: rough. Fracture: unknown.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 0.5mm.

Slip: very dark greyish brown 10YR 3/2, burnished.

Lustre: medium.

72) 13 b 5 (Garstang 1933, pl.VII:6). Type B2d. R 32.1615.

Colour: core and surface very dark grey.

Hardness: medium. Feel: smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 0.5mm.

grog moderate, up to 3mm.

Slip: black 7.5YR 2/0, burnished.

Lustre: medium.

WARE IIC1

BOWLS

73) 13 c 33 (Garstang 1933, pl.V:5). Type B6b. R 32.1678.

Colour: core light red, surface reddish yellow.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint common, up to 1mm.

WARE IID1

LAMPS

74) 13 c 35. Type B1a. R 32.1679.

d. 125mm.

Colour: core and interior surface red, exterior surface light red.

Hardness: hard. Feel: rough. Fracture: smooth.

Inclusions: limestone abundant, up to 0.5mm.

WARE IID2

PIRIFORM JUGLETS

75) 13 c 36. Type F1b. R 32.1680.

h. 147mm.

Colour: core and surface dark grey.

Hardness: soft. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

Slip: black 10YR 2/1, burnished.

Lustre: low.

GENERAL WARE II

CYLINDRICAL JUGLETS

76) 13 b 4 (Garstang 1933, pl.VII:7). Type C3a, with button. R 32.1614.

Colour: core unknown, surface very dark grey.

Hardness: hard. Feel: smooth/soapy. Fracture: unknown.

Inclusions: unknown.

Slip: black 2.5YR 2.5/0, burnished.

Lustre: low.

UNCATEGORISED POTTERY

PIRIFORM JUGLETS

77) 13 c 17 (Garstang 1933, pl.VII:13). Type E2a. R 32.1661.

Colour: core unknown, surface dark grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: light yellowish brown 10YR 6/4 to very dark grey 10YR 3/1, burnished.

Lustre: medium.

CYLINDRICAL JUGLETS

78) 13 b 27 (Garstang 1933, pl.VII:2). Type B1b. R 32.1633.

Colour: core unknown, surface grey.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: very dark grey 7.5YR 3/0, burnished.

Lustre: medium.

DIPPER JUGLETS

79) 13 c 14 (Garstang 1933, pl.VI:9). Type D2b. R 32.1658.

Colour: core and interior surface grey, exterior surface grey to red.

Hardness: hard. Feel: smooth. Fracture: unknown.

Inclusions: unknown.

Slip: very dark grey 7.5YR 3/0, burnished.

Lustre: low.

UNLOCATED POTTERY

80) 13 b 31 (Garstang 1933, pl.V:7). Bowl, type B7a. IA 10 473.

81) 13 c 45 (Garstang 1933, pl.VI:4). Lamp, type B2b.

7.4.3 The Late Bronze Age Pottery

WARE IVA1

PLATTER BOWLS

82) 13 a 22. Ring base of bowl. R 32.1611.

Colour: core and surface light brown.

Hardness: hard. Feel: harsh. Fracture: hackly/friable.

Inclusions: limestone common, up to 3mm.

flint common, up to 3mm.

grog moderate, up to 3mm.

DIPPERS

83) 13 a 5 (Garstang 1933, pl.IV:13). Type B, handle rising above rim, slightly rounded base. R 32.1595.

Colour: core reddish yellow, surface reddish yellow to light red.

Hardness: hard. Feel: soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

flint moderate, up to 2mm.

grog moderate, up to 3mm.

Parallel

Lachish - Temple II (Tufnell 1940, pl.LII:309).

84) 13 a 17 (Garstang 1933, pl.IV:14). Type B, as above. R 32.1606.

Colour: core and interior surface light red, exterior surface light red to very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 5mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

LAMPS

85) 13 a 3 (Garstang 1933, pl.IV:8). Type B, pronounced square fold at nozzle, rounded base. R 32.1593.

Colour: core light reddish brown, surface very pale brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

flint sparse, up to 2mm.

grog sparse, up to 2mm.

Parallel

Lachish - Type G (Tufnell 1958, pl.73:668).

WARE IVA3

IMITATION MYCENAEAN

86) 13 a 19 (Garstang 1933, pl.IV:1). Piriform jar, three horizontal loop handles, everted rim, ring base (cf Furumark Shape 45). R 32.1608.

Colour: core very dark grey, surface light brown.

Hardness: soft. Feel: soapy. Fracture: hackly.

Inclusions: limestone common, up to 2mm.

flint sparse, up to 2mm.

grog moderate, up to 3mm.

Slip: red 10R 4/8, burnished, on body and base.

Lustre: low.

Parallels

Gibeon - Tomb 10B (Pritchard 1963, fig.12:76).

Jerusalem - Dominus Flevit (Saller 1964, fig.58:9).

Tomb (Amiran 1963, 37 fig.3:55).

Lachish - (Tufnell 1958, pl.82:940).

WARE IVB1

CARINATED BOWLS

87) 13 b 34 (Garstang 1933, pl.V:3). Type F, ring base. R 32.1640.

Colour: core unknown, interior surface light brownish grey to grey, exterior surface very pale brown to grey.

Hardness: hard. Feel: harsh. Fracture: unknown.

Inclusions: limestone common, up to 5mm.

grog common, up to 4mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, figs.10:3, 12:4, 6).

Bethel - LBIIa (Albright and Kelso 1968, pl.52:9).

Lachish - Class E (Tufnell 1958, pl.69:572).

Hazor - Str.1B (Yadin 1960, pl.CXVIII:13).

JUGS

88) 13 a 18 (Garstang 1933, pl.IV:4). Type B, two vertical handles, ring base. R 32.1607.

Colour: core and interior surface light red, exterior surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 2mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.6:7).

Lachish - Temple III (Tufnell 1940, pl.LIV:343).

DIPPERS

89) 13 a 9 (Garstang 1933, pl.IV:12). Type B. R 32.1598.

Colour: core and surface reddish yellow.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

grog sparse, up to 3mm.

Decoration: two concentric lines incised at base of neck.

Parallels

Lachish - Class B (Tufnell 1958, pl.78:790).

Hazor - Str.1B (Yadin 1960, pl.CXXXI:16).

WARE IVC1

COOKING POTS

90) 13 a 2 (fig.40:6). Cooking pot, everted, profiled rim; carinated; fairly rounded base. R 32.1592.

Colour: core unknown, surface dark red to black.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint abundant, up to 3mm.

Parallels

Gibeon - Tomb 10B (Pritchard 1963, fig.11:54).

Tell Beit Mirsim - Str.C (Albright 1932, pl.47:11).

Bethshan - Tomb 29A (Oren 1973, fig.40:2).

WARE IVD1

PLATTER BOWLS

91) 13 a 1 (Garstang 1933, pl.V:17). Type C, ring base. R 32.1591.

Colour: core dark grey, interior surface reddish yellow, exterior surface pink.

Hardness: medium. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

flint sparse, up to 3mm.

straw moderate, up to 3mm.

grog sparse, up to 2mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.20:1).

Bethel - LBIIa (Albright and Kelso 1968, pl.52:6, 8).

CARINATED BOWLS

92) 13 a 21 (Garstang 1933, pl.V:15). Type F, ring base. R 32.1610.

Colour: core and interior surface reddish yellow, exterior surface reddish yellow to very pale brown.

Hardness: medium. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.
flint sparse, up to 2mm.
straw moderate, up to 3mm.
grog sparse, up to 2mm.

WARE VB1

CARINATED BOWLS

93) 13 b 17 (Garstang 1933, pl.V:9). Type F, disc base. R 32.1622.

Colour: interior margin and interior surface light red, exterior margin weak red, exterior surface light red to very dark grey.

Hardness: soft. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 4mm.
grog moderate, up to 3mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.10:9).

Bethel - LBIIa (Albright and Kelso 1968, pl.52:17).

94) 13 b 18. Type F, ring base. R 32.1623.

d. 177mm.

Colour: core and interior surface reddish yellow, exterior surface reddish yellow to pinkish white.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog moderate, up to 0.5mm.

JUGS

95) 13 a 13 (Garstang 1933, pl.IV:6). Type B. R 32.1602.

Colour: core and interior surface light red, exterior surface light red to light yellowish brown.

Hardness: medium. Feel: rough/harsh. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 4mm.

Parallels

Jerusalem - Dominus Flevit (Saller 1964, fig.6:7).

Hazor - Str.1B (Yadin 1960, pl.CXX:20).

DIPPERS

96) 13 a 4. Type B. R 32.1594.

h. 167mm.

Colour: interior margin dark reddish grey, exterior margin reddish brown, surface reddish brown to dark grey.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 1mm.

grog sparse, up to 3mm.

WARE VG1

IMITATION MYCENAEAN

97) 13 a 10 (Garstang 1933, pl.IV:5). Pyxis (cf Furumark Shapes 85, alabastron, and 94, pyxis). R 32.1599.

Colour: core and surface pink.

Hardness: hard. Feel: rough/smooth. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 2mm.

Lustre: low (seems to be some burnish, perhaps just from smoothing).

Manufacture: coil-made - first base, then second coil added half-way up;

collar at base of neck added separately.

Parallels

Jerusalem - Tomb (Amiran 1963, 37 fig.3:54).

Gibeon - Tomb 10B (Pritchard 1963, fig.12:66).

Beth-Shemesh - Tomb I (Grant 1929, 189:508).

Lachish - (Tufnell 1958, pl.82:914-30).

WARE VIA1

COOKING POTS

98) 13 a 24 (Garstang 1933, pl.IV:3). Cooking pot, everted, elongated, triangular rim; carinated shoulder; rounded base. R 32.1645.

Colour: core very dark grey, interior surface red, exterior surface red to very dark grey.

Hardness: hard. Feel: rough/soapy. Fracture: hackly.

Inclusions: limestone abundant, up to 3mm.

flint abundant, up to 3mm.

grog sparse, up to 3mm.

Parallels

Bethel - LBII (Albright and Kelso 1968, pl.53:29).

Hazor - Str.1B (Yadin 1960, pl.CXIX:11-12).

WARE VIB2

PLATTER BOWLS

99) 13 b 22 (Garstang 1933, pl.V:16). Type B, slightly inverted rim; saucer-like; ring base. R 32.1628.

Colour: interior margin weak red, exterior margin very dark grey, surface red.

Hardness: medium. Feel: harsh. Fracture: hackly.

Inclusions: limestone moderate, up to 3mm.

grog moderate, up to 2mm.

Slip: yellowish red 5YR 5/6, burnished on inside.

Lustre: inside low, outside matt.

Parallel

Gibeon - Tomb 10A-B (Pritchard 1963, fig.14:1).

IMITATION BASE-RING II JUGS

100) 13 a 20 (Garstang 1933, pl.IV:15). Type A. Gittlen identified this as a true Cypriot pot (Gittlen 1977, 219 no.120). R 32.1609.

Colour: core and surface light reddish brown.

Hardness: hard. Feel: rough. Fracture: hackly.

Inclusions: limestone abundant, up to 2mm.

grog sparse, up to 3mm.

Slip: light red 10R 6/6.

Lustre: matt.

Decoration: dark grey 5YR 4/1, diagonal wavy lines criss-crossing on body.

Parallel

Lachish - Class A (Tufnell 1958, pl.81:876).

WARE VIC1

KRATER

101) 13 b 19 (Garstang 1933, pl.IV:7). Everted rim; two horizontal loop handles; ring base. Yadin suggests that the horizontal handles are influenced by Mycenaean traditions (Yadin 1960, 146). R 32.1624.

Colour: core light reddish brown, surface reddish yellow to light red.

Hardness: hard. Feel: harsh. Fracture: hackly.

Inclusions: limestone common, up to 1mm.

Parallels

Gibeon - Tomb 10B (Pritchard 1963, fig.12:75).

Tell el-Far'ah (N) - Tomb 11 (de Vaux 1951, 579 fig.9:14).

Tomb 12 (ibid.588 fig.14:15).

Hazor - Str.1B (Yadin 1960, pl.CXXXVIII:3).

Lachish - Temple I (Tufnell 1940, pl.XLIX:258).

Bethshan - Tomb 27 (Oren 1973, fig.36:1-2).

Beth-Shemesh - Tomb I(11) (Grant 1929, 189:475).

UNLOCATED POTTERY

102) 13 c 18 (Garstang 1933, pl.V:6). Carinated bowl, type F, ring base.

Parallel

Jerusalem - Dominus Flevit (Saller 1964, fig.12:7).

103) 13 a 12 (Garstang 1933, pl.IV:9). Jug, type A; handle to rim; collar at base of neck; ring base. Slipped and decorated in three brown concentric lines on body. The shape is reminiscent of Base-Ring jugs, although they usually have the handle below the rim (the Jerusalem parallel quoted below is exceptional). Amiran notes that the predominant type of jug in LBIIb had a loop handle springing from the rim to the shoulder (Amiran 1970, 146). IA 10 487.

Parallel

Jerusalem - Dominus Flevit (Saller 1964, fig.49:11).

104) 13 a 11 (Garstang 1933, pl.IV:2). Imitation Mycenaean piriform jar, similar to no.86. IA 10 451.

Parallel

Lachish - (Tufnell 1958, pl.82:943).

7.4.4 List of unlocated, unpublished and undrawn objects from Tomb 13

13 a 23: Skull.

13 b 1: Large jar.

13 b 6: Various fragments.

13 b 7: Pedestal vase (MB).

13 b 16: Various fragments.

13 c 24d: Fragment of alabaster jug.

13 c 32: One-handled jug, flat base.

7.4.5 Tomb 13 Scarabs

The six scarabs from Tomb 13 have all been illustrated and described (Garstang 1933, 21 and pl.XXVI). They are all typically 'Hyksos' and so probably belong to the Middle Bronze Age use of the tomb.

7.4.6 Middle Bronze Age deposit - Date

The scarabs do not provide any reliable dating evidence, and can be described only generally as 'Hyksos'. Most of the pottery was common throughout the whole of the Middle Bronze Age. Nevertheless, there are 17 piriform juglets and 11 cylindrical juglets. Assuming a general tendency for piriform juglets to be earlier and cylindrical juglets later (see Chapter 3.2), the MB deposit in Tomb 13 could be placed within the early part of MBII.

7.4.7 Late Bronze Age deposit - Pottery discussion and Date

The Tomb 13 LB pottery corpus included three imitation Mycenaean pieces. One, a pyxis, probably dates to LBIIb (cf section 7.3.7). The two piriform jars are imitations of Mycenaean originals which date to LHIIIA2/IIIB, so the copies should date to late LBIIa/early LBIIb (see Chapter 2.2; also Stubbings 1951, 65-6, who thought the Jericho jars were real Mycenaean imports). In addition, there were one Imitation BRII jug, one undecorated two-handled jug and one platter bowl. These date to LBIIa (see section 7.2.7). The best parallels for

the whole corpus are, like Tomb 4, with Gibeon Tombs 10A and B. Other frequent comparisons are with the LBIIa deposits from Jerusalem, Bethel and Hazor. As in Tomb 4, there is no BRI pottery (unlike Tomb 5). The differences between Tombs 4 and 13 - for instance the lack of pedestal bowls, the paucity of jugs, lamps and Imitation BRII vessels - can probably be explained by the small size of the Tomb 13 LB deposit (23 pots) compared with Tomb 4 (70 pots). Tomb 13 seems therefore to be of a similar date to Tomb 4, mid-LBIIa/early LBIIb, c.1350-1275 B.C.