# EXCAVATIONS AT KHIRBET <br> KHATUNIYEH 

JOHN CURTIS<br>and<br>ANTHONY GREEN

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# SADDAM DAM <br> REPORT 11 



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## JOHN CURTIS AND ANTHONY GREEN

WITH CONTRIBUTIONS BY
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## Foreword

The publication of the excavations at Khirbet Khatuniyeh is a good example of the international co-operation between the Department of Antiquities and Heritage and foreign archaeological institutions which has resulted in the obtaining of a remarkable amount of information about the various historical periods in the area around the Upper Tigris between Mosul and the Turkish-Iraq border.

The salvage excavations at the Saddam (Eski Mosul) Dam in northern Iraq will no doubt be a source of reference for studies and research which will keep archaeologists in museums and universities busy for years to come.

The contribution of John Curtis and Anthony Green at the site of Khirbet Khatuniyeh is one of these important works which completes the picture of the Assyrian period outside the main Assyrian cities. In this work they are able to add substantial information to that already obtained at Khirbet Qasrij, enriching our knowledge of the historical role of the Assyrians in this region.

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## المقومـة






 في خربة تصرج وإلى معلومات جوهرية في حركة المنطقة الآشورية عبر التاريخ.

## د. مؤيد سعيد دميرجي

مدير عام داترة الآتار والتراث
بغذاد

## Acknowledgements

A project of this type is usually dependent on the help and collaboration of many people, and the excavation at Khirbet Khatuniyeh is no exception. All those who participated in the excavation and who facilitated our work and the processing of the finds in Iraq are thanked elsewhere in this volume, so here it is our pleasant duty to record our thanks to those who have helped in the production of this book. The text was put onto disk by Molly Hunter, Margaret Massey and, especially, Bernadette Heaney. Particularly in the case of the pottery catalogue, this was a laborious and time-consuming task. The drawings and arrangements of the illustrations are mostly the work of Ann Searight, but Tessa Rickard drew the rhytons from Khatuniyeh and Nimrud. Photographic work in the British Museum was done by Barbara Winter and Lisa Baylis. Dr Lamia al-Gailani Werr translated the summary into Arabic and the foreword into English. The book was skilfully copy-edited by Colin Grant, and Joanna Champness of British Museum Press has overseen its production. Best thanks are due to her.

## Abbreviations

Numbers in bold refer to items of the pottery catalogue, numbers in italics to items of the small finds catalogue.

```
approx. approximately
    BM British Museum
    b.s. below surface
    cm centimetre(s)
    diam. diameter
    ext. extant
    extr. exterior
    frag. fragment
            g gramme(s)
            H. height
            IM Iraq Museum (Baghdad)
            intr. interior
            kg kilogramme(s)
            L. length
            m metre(s)
                            MM Mosul Museum
            W. width
            wt. weight
```


## CHAPTER I

## Introduction

The important Late Assyrian site of Khirbet Khatuniyeh is on the east bank of the River Tigris some 30 km to the north-west of Mosul and about 1.5 km to the west of the village of Babneet (Figs 1, 2). It was one of the sites scheduled to be flooded through the construction of the Eski Mosul Dam, and was dug as part of the Eski Mosul Dam Salvage Project. It was marked as site no. 7 on the map of 'Archaeological sites at the Mosul Dam Reservoir' produced by the Iraq State Organization of Antiquities and Heritage, where it was ascribed to period XI (i.e. 'Kassite and Old Assyrian, 1600-911 BC'). The name Khirbet Khatuniyeh means 'ruins of the khatun'. A khatun is usually a wealthy and influential woman. Who this woman might have been is not now known, but she was possibly a local landowner or in some other way associated with the area. An alternative theory proposed by our representative Abd-el Salaam is that an extended family called alKhawātne owned land in the area and the name Khatuniyeh derives from them, with the ending 'iyeh' indicating ownership. The site is on a low grassy promontory overlooking the River Tigris and opposite Babneet Island (Figs 2-4; $\mathrm{Pls} \mathrm{Ib}, \mathrm{IIa}, \mathrm{b})$. This promontory itself is about $250-300 \mathrm{~m}$ across, and is bounded on the east by a dried-up wadi represented by an exposed strip of bedrock known as the 'mêdàn Allah' and on the west side by Wadi Khatkhun. ${ }^{1}$ Khirbet Khatuniyeh is on the east side of this promontory and apparently occupies a relatively small area but the true extent of the occupation was not established. Remains were observed covering an area approximately 75 m east-west and 55 m north-south.

The British Museum excavations at Khirbet Khatuniyeh took place in 1984-5. Best thanks are due to the Iraqi State Organisation for Antiquities and Heritage who organised the Eski Mosul Dam Salvage Project and encouraged the participation of foreign teams. In particular, mention should be made of the President of the SOAH, Dr Mu‘ayyad Sa'id, and successive directors of the Northern Region, Dr Behnam Abu as-Soof and Sd Hazim an Najjafi.

The history of the involvement of the British Museum expedition with Khirbet Khatuniyeh is as follows. In the spring of 1983, John Curtis stayed for a month (28

[^0]February-1 April) with the British Archaeological Expedition to Iraq at its headquarters in the village of Babneet. This was at the kind invitation of Dr Michael Roaf, then Director of the British Archaeological Expedition, who was excavating at the nearby site of Tell Mohammed Arab. The purpose of the visit was to select a site or sites for a possible British Museum excavation. In pursuance of this aim, trial trenches were dug at the Halaf period site of Kharabeh Shattani, later to be excavated by the University of Edinburgh (Watkins and Campbell 1986; Baird, Campbell and Watkins 1995), and at the Assyrian or post-Assyrian sites of Qasrij Cliff and Khirbet Qasrij (Curtis 1989). At the same time a number of sites were visited in the area, but none of them looked very promising for a British Museum excavation. The local hajji was consulted about a suitable place to excavate, and he said that in his view the most interesting archaeological site in the area was Khatuniyeh. So, on 14 March a group consisting of John Curtis, Michael Roaf, the Iraqi representative Mohammed Zekki, and Geoffrey and Françoise Summers visited the site believed to be Khirbet Khatuniyeh. This was a rocky hillock surmounted by a police-post in the form of a tent surrounded by an earth rampart. During the construction of these earthworks two Middle/Late Assyrian pottery vessels had been found. Some ancient deposit was still left inside the circular earth perimeter wall, but the policemen said that while archaeologists were welcome to dig on the sides of the mound they could not do so within the wall. There had also apparently been archaeological deposits on the top of the hill immediately to the east but the top of this hill had been levelled off with a bulldozer to improve the view from the police-post. It later transpired that this site was Tell Khatuniyeh, on the two peaks of the hill immediately to the east of Khirbet Khatuniyeh (Fig. 3; Roaf 1983: map on p. 69, site no. 4).

On their return to Babneet, the group told the hajji that Khatuniyeh had not lived up to expectations and that the site was not nearly so interesting as he had led them to believe. He expressed astonishment that they had not found the stone foundations interesting. This was puzzling, and further questioning suggested that the hajji might be talking about another site altogether. So, he volunteered to come and point out the spot, and the group all drove out again, beyond the police post and down to the banks of the Tigris. There, on a slope overlooking the river was a site marked by stone wall foundations clearly visible on the surface. Amongst the potsherds on the

## Excavations at Khirbet Khatuniyeh

site were some with dog-tooth decoration, indicating a date in the Hellenistic or Parthian period. There was at that time no indication, or anything to suggest, that there might be a Late Assyrian level; the implications were that the Hellenistic or Parthian dog-tooth sherds belonged with the stone foundations visible on the surface and that there was little depth of deposit.

Although the site looked unpromising for a study of Late Assyrian civilisation, which was of particular interest to the British Museum expedition, work at nearby Khirbet Qasrij in 1984 provided the opportunity for a test excavation at Khirbet Khatuniyeh. The team in that year comprised John Curtis, Dominique Collon and Ken Uprichard. The Iraqi representative was Abd al-Salaam. The digging at Khatuniyeh was between 17 and 31 March 1984, but several days were lost through bad weather and there was one public holiday in this period. There was a maximum of eleven local workmen (nine from the village of Babira and two from Babneet) and two Sherqatis (Hussein and Abu Jasim). The work was mainly supervised by Dr Collon. Two trenches (A and B) were positioned across the surface structures in order to investigate them further (Fig. 4). Trench B ( $5 \times 2 \mathrm{~m}$ ) was taken down only a little distance beneath the bottom of the surface structure, at $c .30-45 \mathrm{~cm}$ below the surface. By contrast, in the L-shaped trench A (maximum $6 \times 7 \mathrm{~m}$ ) digging to the north of the surface structure revealed a substantial stone wall of Level 2 date (Pl. III). A sondage (max. $1.25 \times 1.10 \mathrm{~m}$ ) on the west side of this wall was dug down to a stone pavement, probably belonging to Level 4 , at $c .1 .80 \mathrm{~m}$ below the surface (Fig. 15a). Trench C, measuring $4 \times 4 \mathrm{~m}$, was situated between trenches A and B. Here, remains of stone wall footings and cobble pavements, probably belonging to Level 2 , were encountered just below the surface (Fig. 14c; Pl. IVa). Lastly, a $4 \times 4 \mathrm{~m}$ trench (D1) was laid out about 30 m to the east of trench A and not far from the wadi bed to the east of the site. In this trench remains of stone wall footings(?) or a pavement(?) belonging to Level 2 were found in the north-west corner, and a substantial Level 3 wall was found in the south part of the trench. The most exciting discovery, however, was in a small sounding, measuring just $60 \times 95 \mathrm{~cm}$, in the east part of the trench just to the north of the large Level 3 wall. At a depth of $150-155 \mathrm{~cm}$ below the surface a rich deposit of pottery was encountered (Pl. Va). There were two complete vessels, a polychrome glazed jar (161) and another jar (168) and remains of at least two more pots which had been smashed in situ. This pottery was lying in a deposit that contained a good deal of ash, flecks of carbon and bricky debris. This was clear evidence of a Late Assyrian destruction level that held out the promise of rich and interesting finds. It was tempting to dig further into the Level 4 deposit at the time, but the season was drawing to a close and we already had more material than we could deal with. Reluctantly, therefore, we backfilled the sounding, and determined to return the next year. Also in 1984 a contour plan of the site was made by Susan Roaf and Françoise Summers (Fig. 4).

In the spring 1985 season the British Museum team dug only at Khirbet Khatuniyeh. The SOAH representative was Abd al-Salaam, and the work was conducted under the auspices of the British Archaeological Expedition to Iraq. Thanks are due to Michael Roaf for facilitating this. We lived for the first part of the season in the BAEI headquarters at Babneet, and for the second part of the season in the Nineveh dig-house at Mosul. John Curtis, Anthony Green, Marian Melnyczek and Kirsty Norman were present throughout and were in northern Iraq from 11 February until 10 April. We were joined for shorter periods by Wendy Knight (11 February-15 March), Ann Searight (11 March-2 April) and Terence Mitchell (11-20 March) (Pl. Ia). Until 5 March there was a maximum of sixteen workmen, thirteen from Babira, two from Babneet and one Sherqati (Abu Jasim). After that date the Babira workmen failed to appear; they were said to be busy building new houses for themselves to replace those that would be flooded. They had apparently been told that if they did not start building their houses soon they would not get compensation money. From 6 March onwards we had instead a maximum of eleven workmen from Abd-el Salaam's excavation at Rownak (from the villages of Tell Addis and Kharabeh Shattani as well as Rownak itself), supplemented by two workmen from Babneet and two Sherqatis (Abu Jasim and Abu Mujbil).

In the 1985 season operations concentrated around trench D1 where evidence had been found for an Assyrian destruction level. A grid system was laid out based on trench D1, with trenches $4 \times 4 \mathrm{~m}$ square separated by baulks 1 m wide. A site datum-point was established on a rocky outcrop overlooking the wadi to the south-east of these trenches. It was at about 275 m above sea level, and all site levels were related to this datum. In trench D1 itself the Late Assyrian destruction level was exposed everywhere down to the Level 4 floor. A great many smashed pots were found on the floor (Pl. VI), and a very substantial wall of pisé blocks which was in fact the dividing wall between two rooms of a very substantial building (Fig. 5). A sondage was also dug in this trench to investigate the pre-Level 4 deposits at the site (Pl. IXa). This sondage was in the eastern part of trench D1, 2 m east-west by $2.25-2.80 \mathrm{~m}$ north-south, as restricted in the south by the angle of the northern face of the Level 4 wall. Although these investigations could not involve any substantial horizontal exposure, they seemed worthwhile as a general check on the periods of occupation present, especially as we knew that the sherds of pottery collected from the surface of the site did not provide a very representative sample of the phases exposed by excavation, probably because Level 4 was largely sealed by the metre and a half of mud-brick collapse, mostly undisturbed subsequently. Nevertheless, the subsoil ('Level 2') had yielded a single sherd of painted Nuzi type (457), which suggested the possibility that this ceramic phase might be represented. In the event, no clear Mitannian occupation was encountered,
although a second Nuzi-style painted sherd was found in Level $5(\mathbf{1 0 0})$. Indeed, owing to the sudden and unexpected termination of the excavations due to flooding, virgin soil was not reached, although the sondage was dug to a depth of 3.80 m b.s., 4.88 m below the site datum. However, our limited examination of earlier levels did provide a few results. Given the restricted area exposed the precise nature of each phase in the sequence was unclear, but the deposits preceding the Level 4 destruction can most conveniently be considered as four further 'levels'. ${ }^{2}$ Level 5 was associated with an earlier and original phase of the Level 4 wall and had a bricky but otherwise clean fill above a floor. Level 6 similarly consisted of a depth of rubble above a floor. Level 7 was a further deposit largely of rubble, above a floor. The term 'Level 8 ' was used for the series of bands of deposits, without floors or associated structures or tumble, that were sealed by Level 7. The limit of excavation was arbitrary. From the pottery and fragments of glazed brick, Levels 7-5 appear to be Late Assyrian, while Level 8 might possibly be wholly or partly Middle Assyrian in date.

In the trench immediately to the south, D2, the destructionlevel floor was again reached over most of the trench. With regard to the upper levels, there were remains of scrappy stone walls dating from the Level 2 occupation in the north and south-west parts of the trench, the latter probably of slightly later date (Fig. 9). There was a tannur, or bread-oven, in the eastern part of the trench, while the Level 2 deposit in the southern part was disturbed by a large pit. This was also a problem in Level 3, where the same pit had destroyed a walljunction (Fig. 8). The walls in this level were better built and more substantial than the Level 2 walls and were preserved to a height of 2-3 courses. There was a north-south wall which apparently formed a T-shaped junction with an east-west wall. A large grinding-stone and a mortar were features of this level. In Level 4 part of the trench was paved, and on this pavement stood a rectangular stone-lined bin, a stone basin and an oven (Fig. 5; Pl. VIIb). As in trench D1, there was again smashed pottery on the Level 4 floor testifying to the intensity of the destruction of the Late Assyrian settlement.

To the west of trench D1 the Level 4 floor was also reached in trench D4. The upper levels in this trench (Pl. IVb ) were disturbed by a large soakaway filled with pebbles and stones; this feature was apparently the result of subsidence caused by the digging of a pit into the destruction level. Level 2 was represented by a substantial north-south wall along the western edge of the trench (Fig. 9), and Level 3 by another substantial wall but this time oriented east-west (Fig. 8). There was again a great deal of broken pottery from the destruction level (Pl. Vb), and standing in front of a blocked doorway was a terracotta coffin (Fig. 5; Pl. XIa).

The Late Assyrian destruction level was also excavated in trench D6, the western half $(4 \times 2 \mathrm{~m})$ of which was opened

[^1]to find the eastern wall of Room 1 of the Late Assyrian building, and in the D1-D2, D1-D4, D1-D6 and D1-D8 baulks (Fig. 5).

In trench D3, a mass of stones was encountered in the uppermost levels which when articulated proved to be a continuation of the north-south wall in trench D4 with an extension to the east, the latter apparently a later addition. Two tannurs were also identified as belonging to Level 2 (Fig. 9). Beneath, there were practically no Level 3 structures, but a beaten earth floor was observed on top of the bricky debris deriving from the Level 4 destruction. Unfortunately, there was no time to investigate the destruction level itself in D3.

The $4 \times 4 \mathrm{~m}$ trench D7 was opened at a distance of 11 m to the west of the main block of D trenches, and about halfway between trench A and D4 (Fig. 4). The purpose was to investigate the relationship between the Level 4 building in trenches D1-D4 and the possibly Level 4 pavement in trench A. However, after a surface collection of pottery and removal of the topsoil down to a depth of $c .15 \mathrm{~cm}$, the trench was abandoned to concentrate on other priorities because of the rising water.

Lastly, in the spring 1985 season a $4 \times 4 \mathrm{~m}$ trench (D5) was marked out 11 m to the east of D1, only the western half of which ( $4 \times 2 \mathrm{~m}$ ) was excavated (Fig. 4). A massive stone wall and associated cobble pavements apparently belonged to Level 2 (Fig. 14a), while a well-laid pavement at the bottom of the trench, at $1.80-1.90 \mathrm{~m}$ below surface, immediately above the brickwork, was probably of Level 4 date.

The actual excavations at Khatuniyeh commenced on 13 February 1985 and continued until 3 April. ${ }^{3}$ During this period, however, a lot of time was lost through inclement weather conditions. Firstly, there was a very cold spell between Saturday 23 February and Friday 1 March. ${ }^{4}$ This bitterly cold weather made working very difficult, as in the mornings the ground was so hard-frozen it was practically impossible to drive a pick-axe into the earth. It also made life very unpleasant for members of the team. One member of the expedition suffered badly from chilblains on the hands brought on by the extreme cold. Secondly, we were much troubled by dramatic and unexpected rises in the level of the River Tigris as it backed up behind the new dam. During the night of the 17-18 February there was a sharp rise in the level of the Tigris, but not the 7 m predicted by the Chief of Police from Warna who had visited us the previous day to give warning of the impending high water, caused by floods in Turkey. Nevertheless, the river level rose sufficiently to cover both Babneet Island and

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## Excavations at Khirbet Khatuniyeh

Batit Island, and for water to lap at the foot of Khirbet Wadi Khatkhun. Then, on 21 March ( No -Ruz) , the river started to rise dramatically, allegedly because of melting snow in Turkey. On the next day a further rise in river level, compounded by heavy rain, resulted in the flooding of our low-est-lying trench at Khatuniyeh (D5) and part of the expedition headquarters in Babneet village. The latter prompted a decision to move the base-camp to the Nineveh dig-house in Mosul. Thereafter the water level dropped, and it was possible to resume work at Khatuniyeh, with the team commuting from Mosul, on the 26 March.

Unfortunately, however, this reprieve was short-lived. Just over a week later, on 3 April, disaster struck. On that day, after collecting the workmen from Tell Addis and Rownak, John Curtis and Anthony Green arrived at Khatuniyeh in the early morning. All the previous day it had been raining heavily and the Tigris was high, but it was still well below the previous high-water mark. We started work without getting too nervous about the rising water, even when it passed the previous high point and D5 was flooded. By midday it began to appear that the problem was more serious than before, but it was still difficult to believe the main trenches would be flooded. Green continued to draw one of the sections of the sondage, while Curtis lifted pottery from D4. At $1.30 \mathrm{p} . \mathrm{m}$. there was an exciting discovery: while digging along the south side of the wall at the north end of D2, one of the workmen discovered a pottery rhyton (Pls XV-XVI). He was told to leave it in situ until it could be properly recorded and photographed. Before they left at 2.00 p.m., the workmen built up a bank of earth to the east of trench D1 that was intended to keep the water out (Pl. IXb ). In the event these flood defences proved to be quite useless. The rise in water level continued unabated, and shortly afterwards the water burst into the main part of the excavation ( $\mathrm{Pl} . \mathrm{Xb}$ ). First the sondage was filled up and then water started to flow into D1 and D4. The rhyton had been left as we thought that D2 would be flooded last. It now became a matter of urgency to retrieve it. Only a few of the pieces had been carefully lifted when water started to break in under the wall. We were now obliged to throw caution to the winds and we frantically shovelled the bits of the rhyton into a basket with our bare hands. Water was by now pouring into the trench, and we had to feel around for more bits underwater. One of the largest pieces was actually fished out when the water was about 25 cm deep! We were now forced to leave the trench, as there was a real danger that the wall would collapse. Elsewhere, baulks and walls were crumbling and falling into the water. Having left the trenches, we took the opportunity to do some last-minute planning before the water got too deep. This involved probing underwater with a ranging-rod for wall-junctions and other features. The next six days, prior to departing for Baghdad, were spent sorting, drawing and photographing material in the
${ }^{5}$ During this time the rhyton was kindly drawn by Tessa Rickards.

Nineveh dig-house and preparing, together with Abd elSalaam, a register of small finds. ${ }^{5}$

This is not quite the end of the story. Having heard that during the course of the summer the waters had retreated, leaving Khirbet Khatuniyeh high and dry, and having received assurances that the water would not be allowed to back up behind the dam in the immediate future, we returned to Iraq in autumn of the same year (1985) with the expectation of being able to do at least one more season at the site. The team was largely the same as in the preceding spring, again comprising John Curtis, Anthony Green, Marian Melnyczek and Wendy Knight, but now with the addition of Ruth Goldstraw (conservator) and Susan Thorpe (surveyor and illustrator). We arrived in Baghdad at the end of September, only to discover, to our great consternation that Warwick Ball, Assistant Director of the BSAI, had visited the area the previous week and found the site again underwater. ${ }^{6}$ Further work at the site was therefore quite impossible, and we were faced with the choice of either returning to Britain, and thereby writing off the expenditure on airfares and equipment, or diverting our attention to another site or sites within the project. In the end we decided to stay in Iraq, and in the autumn 1985 season worked at the Hellenistic sites of Tell Deir Situn and Grai Darki, and started work on clearing the church at Khirbet Deir Situn. ${ }^{7}$ Concurrent with this work, processing continued, under the supervision of Anthony Green, of the great deal of material found at Khirbet Khatuniyeh and in particular of the large numbers of potsherds. During this period, until late November, we stayed at the Nineveh dig-house, which for part of the time we shared with a German-Italian expedition, led by Professors Gernot Wilhelm and Carlo Zaccagnini, who were working at Tell Karana 3. We owe them a debt of gratitude for their camaraderie and for their forbearance in putting up with the Khatuniyeh potsherds laid out over the whole of the front garden of the Nineveh dig-house. Best thanks are also due to our representative from the SOAH, Sd Mahmun Ghanim (Abu Ahmed), who did everything in his power to be helpful, and to Sd Mohammed Subhi who was at that time in charge of the Directorate General of Northern Antiquities and Museums. After the end of the autumn 1985 season Anthony Green returned to Mosul and spent another two months working on the Khatuniyeh material (December 1985-January 1986), with the assistance for part of this time of Marian Melnyczek. More work was done in the following June, again in the Nineveh dig-house, by Anthony Green, Wendy Knight, Heather Baker and Tessa Rickards.

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## CHAPTER 2

## The Excavation of the Site

## Level 8

This 'level', excavated in the sondage in square D1, represents the earliest deposits at Khirbet Khatuniyeh encountered in the excavations, lying between 4.55 m and the limit of excavation at 4.92 m below the site datum. At the bottom of the sondage, in the centre of the trench, were two 'outcrops' of very irregular limestone. These appeared more like the top of the bedrock than rubble or any kind of structure, although the occupational fill seemed to continue down on either side. Nevertheless, the presence of these natural(?) rocks might be an indication that the bedrock lay not far below the limit of excavation. The Level 8 deposits, not associated with any sort of structures, were characterised by a series of ash and clay lenses of differing colours, sloping quite steeply downwards to the east and moderately downwards to the south, at the bottom of the sondage (Fig. 12). No floors were identified within the deposit, and the various strata are not representative of an occupational phase; they are grouped together simply for the sake of convenience. Furthermore, the limit of excavation was entirely arbitrary. A certain amount of pottery came from this level, mostly undiagnostic but including a few sherds with painted horizontal stripes, possibly indicating a date in the mid-second millennium BC. No small finds were unearthed in this level.

## Level 7

Level 7 was excavated in the D1 sondage at between 4.24 m and 4.72 m below the site datum. This deposit, again, was not associated with a standing building or structure but it was certainly an occupational level, comprising black and grey deposits representing decayed organic material and ash that had accumulated above a beaten earth floor; above this was some 36 cm of mud-brick tumble deriving from the collapse of walls, showing that the level was originally associated with a structure (Fig. 12). The floor was thicker in the east and south and thus levelled up the Level 8 remains onto the horizontal. In the south-east of the trench, on this floor, was a very ill-defined circle of soft black soil, with fragments of a soft orange clay mixed in. Probably this was the site of a small fire or oven. Its surviving depth was a mere $3-5 \mathrm{~cm}$ and it contained no other material. The meagre amount of Level 7 pottery was mostly undiagnostic but included some forms that were apparently of Middle or more probably Late Assyrian date. Again there were no small finds.

## Level 6

Level 6, lying at between 3.70 m and 4.36 m below the site datum, was comparable to Level 7 in that it consisted of a thin layer of dark grey deposit beneath a dark brown deposit of mud-brick tumble, also with large stones, overlying a floor (Fig. 12). A mass of large stones, never more than one 'course', lay in the south-west, and a few more, also a single 'course', at a slightly higher level in the north-west. The Level 6 floor (or, in places, small series of floors) was of dark-grey and light-yellow clay. The stones in the southwest of the trench rested directly on this surface, but it was otherwise completely clean, without objects, sherds or even stones (although in the north-east one large stone was sunk into it, or perhaps the floor was originally laid over this stone, which appears in section in Fig. 12). There was material, however, in the fill just above the floor. Late Assyrian forms in the pottery and a fragment of glazed brick (1) apparently indicate a Late Assyrian date for the level.

Above the mud-brick tumble fairly clean bands of ash and yellow and orange deposits may represent levelling material laid by the builders of Level 5. We have included these in Level 6 because any material from them presumably derives from the earlier occupation; the Level 5 wall was built subsequently.

## Level 5

Level 5, at between 2.84 and 3.88 m below the site datum, was the earliest phase associated with standing architectural remains. In the south of the trench were substantial stone foundations of a northeast-southwest wall, some $60-80 \mathrm{~cm}$ in height (Pl. IXa). Two courses of very large stones (or in the extreme west of the sounding a single course, one huge stone standing to the height of the two courses elsewhere) lay beneath three courses of increasingly smaller stones, taking the wall up to the Level 4 floor. The Level 5 floor deposit was a thin (maximum 1 cm ) band of black ash overlying a 2 cm -thick layer of hard, clean, light or darker-grey ash. The floor material ran up to the wall, meeting it about 2 cm above the base of the lowest course of stones (Fig. 12). The floor was very clean, with little material sitting on it. The fill was very deliberately a homogeneous very soft and clean soil, with light sherdage (although with some large sherds), rather than the usual levelling material with large stones and brick fragments; indeed, there was no brick and

## Excavations at Khirbet Khatuniyeh

even pebbles were scarce. There was little pottery from this level, but some of the diagnostic sherds were clear Late Assyrian types. These and the presence of a fragment of glazed brick (3) suggest again a Late Assyrian date for the level. Other small finds were a fragment of iron socket, possibly from a spear (2) and a blue faience bead (4).

## Level 4

This Late Assyrian level was the best preserved and most extensively represented building and occupation level encountered at the site. Evidence for this level was found in trenches D1, D2, D4, D6, D8 and possibly in trenches A and D5. The main exposure was in trenches D1, D2 and D4, where part of a substantial building was found which had been destroyed in a fierce fire (Fig. 5). It was represented by walls built of large pisé blocks, resting on stone footings, still standing to a maximum overall height of 1.34 m . Two large rectangular rooms were partly excavated, one measuring $10.20 \times 3.25 \mathrm{~m}$; the other room was the same width and probably the same length. The two rooms were separated by a substantial wall (3 and 4), 1.35 m thick, in the western part of which was a doorway which had been blocked. Access to the northern room, Room 1, was through a doorway at the west end of the room and there was another doorway in the southern wall of Room 2.

## Room 1

The northern room was excavated in its entirety, except for small areas in the north-east and north-west corners. Also in the north-west corner the deposit had been disturbed by the large 'post-destruction pit' dug from the top of the collapsed debris (see below). In the doorway at the west end of the room only the southern door jamb (Wall 2) was articulated. On the plan the width of the doorway is estimated by comparison with the doorway in the southern wall (3-4), where both jambs were defined, and which measured 1.36 m . Over most of the room there was a simple beaten earth floor (at between 2.68 and 2.88 m below the site datum) but in the centre of the room running in a south-east to north-west direction there was an irregular pavement of stones and some baked bricks (Pl. VIIa). ${ }^{1}$ It had a maximum width of $c$. 1.35 m . The stones were more-or-less flat and of roughly hewn whitish limestone. They varied in size from no more than 5 cm square up to $86.6 \times 46.6 \mathrm{~cm}$. The pavement contained four visible baked bricks, one of them beneath a stone and not shown on the plan. That adjoining wall 4 was set on edge. All the bricks were complete and measured 35 $\mathrm{x} 26 \times 8 \mathrm{~cm}$. The pavement stretched from wall to wall, but its purpose is obscure. There is no doubt that this room was roofed over, so the floor is unlikely to have become muddy.

[^4]It seems most probable that there was subsidence in this area and the stones were placed here to combat this.

The only other stones found in the room were a line of irregular stones, of the same type as in the pavement, reaching south from the western part of the north wall (1). One of these was a mortar, c. $35 \times 25 \mathrm{~cm}$, and it seems likely that the others were in some way associated, as support for the mortar or as a working surface. A fragment of a pestle was found very close-by to the south-east (82). Another probable pestle was found on the stone pavement in the centre of the room (81).

Everywhere there was evidence of the fierce fire which had enveloped the room. For up to 65 cm above the floor there were thick deposits of ash, mostly grey, in places black, orange or, where the fire had been most intense, white. Above this was up to 1.16 m of collapsed debris, comprising mud-brick tumble, blocks of burnt and fallen pisé and carbonised timber beams. A series of massive fallen pisé blocks, each measuring $c .70 \mathrm{~cm}$ in length by 65 cm in width and 40 cm in height, could be articulated at 2.0 m below the site datum in the south-west corner of the room, in front of the blocked south doorway (Figs 13a, b; Pl. VIIIa). There were many fallen burnt beams, the largest encountered, on the floor in the eastern part of the room, measuring 1.27 m long by 15 cm in diameter.

As we have noted, the wall between the rooms east of the doorway (Wall 4), the only stretch of wall excavated for its entire breadth, was 1.5 m thick, and the pisé wall on stone footings stood to a maximum surviving height of 1.34 m . The stone footings stood a maximum of four courses and up to 52 cm above the level of the floor, although in the highest surviving stretch of wall there were only two courses of stones standing 40 cm above the floor. It is uncertain whether all the walls were built on stone footings. They were not observed for the northernmost wall (1) or for the walls ( 2 and 3 ) in the south-west corner of Room 1, but here the stones may have been a little recessed; in any case they would not have been visible in the north or west walls ( 1 and 2), where the plaster facing was well preserved, albeit severely burnt (cf. Figs 10, 13). It is also unclear whether the stone footings in every case continued down below the floor level as foundation stones. In the only case where we excavated beneath the Level 4 floor, in the D1 sondage, the courses of stone did continue downwards, but this was because the Level 4 wall had been built on top of a stone wall belonging to the earlier Level 5 occupation (Fig. 12). Whether the Level 4 building was in its entirety a rebuild of a Level 5 structure is unknown. The technique observed at Khatuniyeh of using pisé blocks to construct the walls is both interesting and unusual. At the major Assyrian cities such as Nimrud the standard method of construction was with large square mud-bricks, but the use of pisé blocks was also noted at the nearby site of Rownak, also of Late Assyrian date. This may reflect a difference in building practices between metropolitan Assyria and outlying

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districts, or it may simply be a tradition local to the Eski Mosul area.

The dominant feature in Room 1 was the large quantity of pots, complete or smashed, mostly lying on or a little above the floor (Pls V-VI). The positions of intact and reconstructed vessels on the floors of the building are shown in Fig. 7. Where the sherds of a large vessel had a wide distribution, the item has been marked at the findspot of its base (not necessarily the original location, since vessels might fall in various ways). ${ }^{2}$ It can be seen that by far the greater share of vessels was found in Room 1, although it must be remembered that this chamber was much more thoroughly excavated than Room 2, which may have had a greater concentration of vessels outside the area cleared. Neither room, it should be kept in mind, was completely excavated everywhere down to the floor.

The pottery in Room 1 covered most of the floor area. A few small vessels were complete and intact (108, 158, 160-62, 168), while other small vessels were broken but complete and in one place (e.g. 159; Pl. VIb). The positions of these are shown on Fig. 6. Fragments of many of the larger vessels were widely distributed across the room. Hardly any vessel had escaped serious blackening from the fire, and many had become smooth and glossy on the exterior surface due to the intensity of the heat. Many of the larger pots had joining sherds of very different surface colours, due to differential burning after breakage.

From on or just above the floor in Room 1 we recovered forty-seven more-or-less complete vessels (intact or reconstructed) $(108,157-80,183-4,185+6,187,189,191$, $195-8,199+200,203-5,211,213,221,224-7,309)^{3}$ and a further nine substantially complete upper parts of vessels (192, 201, 207, 209, 214-15, 217-18, 222), with five substantially complete lower parts (208, 210, 229, 266, 228). In addition we found on or close to the floor sixty-four rim sherds representing a maximum of fifty-nine vessels (joins were made of a group of five sherds and another pair of sherds).

There was a preponderance of jars, especially large storage jars, while open forms were comparatively scarce, although bowls were not totally absent as had been our initial impression (Curtis \& Green 1987: 76). ${ }^{4}$ Of the fifty-six nearly complete vessels and upper parts of vessels found on or near to the floor (including two set slightly into the recess of the blocked south doorway), there was just one small (108) and one very large bowl (157), eight very small jars (158-65), thirteen small jars (166-71, 218, 221, 222, 224-6, 309) including a cooking ware vessel, fourteen mediumsized jars (172-80, 183, 185+6, 187, 195, 227) including an

[^5]unusual 'crater' (227), eighteen medium- to large-sized 'storage' jars (189, 191-2, 196-8, 199+200, 201, 203-5, $\mathbf{2 0 7}+8,209,211,213-15,217)$ and one vessel stand (184). Of the up to fifty-nine vessels represented by rim sherds, twenty-four were bowls, the remaining thirty-five jars.

There is no very obvious pattern to the spatial distribution of the vessels within the rooms. The majority of all types was found close to the walls, but many, large and small, were found in the middle of the rooms. In view of the fact that the pottery near the floor in Room 1 was found in two distinct layers, one almost directly on the floor, the other some $10-20 \mathrm{~cm}$ above and sitting on a deposit of ash and other burnt debris, it is possible that some of the vessels in that room had fallen from shelves or had originally been on the roof, which had collapsed into the room space. A few of the vessels were reconstructed from fragments found both on the upper and on the lower layers of floor deposits, but it is quite likely that during the violence of the collapse some sherds would be tossed up and others forced downwards into the deposits below.

The positions of the finds from Room 1 are shown in Fig. 6. We have mentioned the mortar and pestles. There was also a large number of spherical loomweights of unbaked clay (22-7, 38-72). A group of at least twenty-seven loomweights was tucked into the south-west corner of the room (38-64), and there was a further group of seven close to the western jamb of the doorway in the south wall (66-72). Elsewhere on the floor of the room there were six isolated examples $(22-7)$ and another was found higher up in the fallen debris (65). Probably the two discrete groups of loomweights, and particularly that in the south-west corner of the room, represent the remains of collapsed looms. This impression was reinforced by the carbonised remains in the south-west corner of a wooden framework that might have been a loom. It was not possible, in the available time, to articulate properly this structure, because it was both burnt and collapsed. Some other items, also in the south-west of the room, were probably associated. As well as a weaver's 'beater-in' of bone (77), there was a wooden item which may have been a weaver's shuttle (76). The presence of the looms and associated material probably indicates that weaving was taking place in this room. Spherical clay loomweights were also found in Room 2 (see below).

On the floor in the eastern part of the room were a small stone incense burner (84), a fragment of a basalt saddlequern (83), a fragment of iron blade, probably a sickle (9), part of an iron implement, probably a spade (10), and a fragment of iron rod (16). Another object of iron, a ferrule, possibly from the end of a spear (12), was found in the southwest of the room stuck into the top of a pise block from a fallen section of wall (Fig. 13). This may have been on the side of the wall that was originally in Room 2. Other finds on the floor of Room 1 were a glass bead (75), a pottery disc (74), a clay sealing (6), two bronze rings (13-14) and a worked fragment of fallow deer antler, perhaps part of the
haft of a tool (see Ch. 8). Then, an iron knife (11) was found inside jar 180. The sealing was discovered during wet-sieving of a soil sample, so its exact position is not known, although it certainly came from the western part of the room (i.e. in D4). On the reverse of the sealing was a fine impression, perhaps from string. Probably it was used to seal either a vessel or a door. The pottery disc also might have been used to seal the mouth of a jar (as on a complete Halafperiod jar from Arpachiyah: Mallowan and Rose 1935: fig. 49/23).

Other small finds from Room 1, but recovered from the mud-brick tumble above the floor rather than lying on the floor itself, included a fragment of glazed brick (18), part of a terracotta animal figurine (19), a pottery disc (73), a fragment of bronze (15) and an iron chisel (7).

In front of the doorway leading through to Room 2 and resting on the floor was a baked clay coffin (21) of standard Late Assyrian type (Curtis 1983; Zorn 1993). It had high sides, rounded at one end and squared-off at the other, and a pair of vertical handles at either end. The coffin had been smashed, presumably when the walls of the building collapsed (Pl. XIa). It did not contain a body, but at the bottom of the coffin were an iron sickle (8) and a whetstone (80). On the ground next to the coffin on its north side were a large number of carbonised seeds. This grain has been identified by Dr M.P. Charles as hordeum sativum, cultivated barley, probably of the six-row variety. Although no grain was retrieved from the fill of the coffin itself, ${ }^{5}$ it seems clear that this coffin was used for storing grain and that some was spilt in the course of putting it in or taking it out of the coffin. The sickle and whetstone were obviously used in the harvest. This is a curious usage of what was undoubtedly a coffin, but this example was much distorted in the firing process and may have been considered unsuitable for burial purposes. Alternatively, such receptacles might always have had other uses. There is some other evidence for agricultural activity, in that, as we have mentioned, a fragment of another sickle and probably a spade were also found in Room 1. Also found in the coffin were small amounts of animal bone representing sheep or goat and fallow deer (see Ch. 8).

## Doorway between Rooms 1 and 2

As we have said, originally there had been a doorway between the two rooms, 1.36 m wide. At some stage this had been blocked up and the terracotta coffin placed in front of the door space within Room 1. On this northern side, the doorway had been blocked at $c .40 \mathrm{~cm}$ into the door space, allowing the coffin to be recessed slightly beyond the line of the wall. On the southern side, within Room 2, the doorway was unexcavated. Even on the north side the doorway was not investigated in any detail, but the nature of the blocking

[^6]can be appreciated to some extent from what was visible in the section on the south side of D4 and D1-D4, since the grid-line cut obliquely across the door opening (Fig. 10; Pl. VIIIb). A screen was constructed of courses of rough stone blocks, baked bricks and mud-bricks. Behind this screen, within the doorway, were very heavily burnt ash deposits with unusually large amounts of charcoal, suggesting that timber had also been used in the screen, or that a wooden structure had collapsed into the door space behind the screen, or that there had been a wooden door - sealed with the clay sealing 6 ? - behind the screen. The reason for the blocking of the doorway between Rooms 1 and 2 is not clear. One possibility, however, is that Room 2 was partly open to the sky (see below) and blocking the doorway would have given protection from the elements.

During clearance around the coffin and in cutting back to the line of the south section of D4, a small area of the doorway in front of the blocking screen was excavated on the Room 1 side. Two vessels were found in this area, at the south-east corner of the coffin. No. 226 is a virtually complete small jar. Its mouth was sealed with a clay bung. No. 162 is a tiny 'toilet' bottle.

## Room 2

The southern room was only partly excavated, in trenches D2 and D1-D2. The width of the room, 3.40 m , effectively the same as Room 1, is certain, but on the plan the length is estimated by comparison with Room 1. There was a doorway in the northern wall, originally giving access to Room 1 but later blocked, and a doorway in the corresponding place in the south wall of the room. The east jamb of this doorway was excavated, but not the west jamb, so on the plan the width of the doorway is estimated. In the doorway there were roughly rectangular threshold stones, of whitish limestone, rising to between 12 and 15 cm above floor level. Inside the room the edges of two and part of a third were articulated. It is unknown whether there was a doorway at the west end of Room 2, as in Room 1.

There had also been a fire in this room, although the burning was not so great or extensive as in Room 1. There were ashy deposits on the floor to a depth of $20-30 \mathrm{~cm}$ and above these was collapsed bricky debris from the walls.
In the central part of the room, covering an area roughly 2.75 m square, there was a pavement of irregular shape. The stones were whitish limestone up to a maximum size of 40 x $32 \mathrm{~cm} .{ }^{6}$ Built on top of this pavement and abutting the southern wall of the room was a rectangular bin measuring $1.40 \times 0.55 \mathrm{~m}$. The three sides were formed by stones set on

[^7]edge and roughly covered with mud plaster and the pavement itself acted as the interior base of the bin. The sides stood to a maximum height of 44 cm above the surrounding pavement. Close to the north-east corner of this bin was a circular oven, 36 cm in diameter and standing to about the same height as the bin (Pl. VIIb). It had a thin clay lining, with the interior belling out southwards at the bottom. It was filled with a soft ash with carbon flecks, but otherwise contained nothing. To the west of the bin, at a distance of just over 1.0 m , was a rectangular basin made from a single block of stone. It measured 52 cm long by 42 cm wide by $15-20 \mathrm{~cm}$ high. The interior was hollowed out to a depth of between 10 and 15 cm . One corner was broken off and missing. Probably the oven was for baking bread, in which case the bin might well have been used for storing grain, although apart from a few body sherds, it was quite empty when found. The use of the stone basin is uncertain.

In what was excavated of Room 2 there were on the floor six more-or-less complete vessels - 171a, 190, 212, 269, 221 and the ram's head rhyton (20) - and one substantially reconstructed upper half of a vessel (220). ${ }^{7}$ The complete vessel 188 was found at 80 cm above the level of the stone paving, and so may have been on a shelf. In addition, we recovered from on or just above the floor at least six nonjoining rim sherds, all from jars. ${ }^{8}$ Most of the vessels in Room 2 were found on the stone pavement and surrounding the bin. Nearly all the vessels were large or medium-sized storage jars. The small beaker 269 may have been a scoop for 190, underneath which it was found. It is curious that a vessel of fine quality such as the ram's headed rhyton should have been in this room. It was found in isolation, close to the north wall, not in any obvious association with anything else.

As in Room 1, there was a group of loomweights. Nine were retrieved (29-37), and others could be seen in the nearby D2-D3 baulk. Another (28) came from mud-brick tumble. Also lying on the floor beside these loomweights, just to the east, were three small river pebbles, perhaps also used as weights. However, there were no traces of burnt wood in this area which might have been the framework of a loom.

Other finds in Room 2, all recovered from the mud-brick tumble, comprise a stone stamp seal (5), two fragments of obsidian blade (78-79), and a fragment of lead rod (17).

The lesser degree of burning compared with Room 1 may indicate that the chamber was partly or completely open to the sky, which may also be supported by the more extensive area of stone paving, by the presence of an oven in the room and by the comparative scarcity of vessels and other items.

[^8]The localised nature of the pavement, however, may indicate that only a part of the room was unroofed.

## Level 4 elsewhere on the site

Apart from this burnt building, it is possible that Level 4 was reached elsewhere on the site, in trenches A and D5. A sounding in trench A reached a pavement of rough whitish limestone blocks at 1.63 m b.s. (Fig. 15). Above this pavement was a deposit of soft brown earth, over which ran a deposit of hard-packed, greyish brown, bricky fill, with a thin line of ash on top. Apart from this ash striation there was no burning, but it seems likely that the pavement belongs to Level 4 and the deposits above represent respectively the floor deposits and collapsed building material of this level. Perhaps the absence of burning here was because this was a paved courtyard area. We had hoped to have some indication of the relationship between this stone paving in trench A and the main area of exposure of Level 4 by means of trench D7, sited roughly midway between the two, but Level 4 was not reached in this trench.

In trench D5 a stone pavement built directly on bedrock, at 3.06 m below the site datum (see below), may also have belonged to Level 4 and probably represented an area exterior to the main settlement.

## Dating

There is no doubt that the pottery corpus dates from the Late Assyrian period, and this is not contradicted by a carbon-14 analysis undertaken in the British Museum Research Laboratory (BM-2293R; Bowman, Ambers and Leese 1990). The sample was of burnt wood from trench D1, c. 1.32 m b.s. It gave the result $2610 \pm 140 \mathrm{BP}$ which calibrates to $920-520 \mathrm{BC}$ at $68 \%$ confidence and $1100-350 \mathrm{BC}$ at $95 \%$ confidence on the curve of Pearson and Stuiver (1986). The site was destroyed presumably at the end of the Late Assyrian period, in $c .612 \mathrm{BC}$, when Assyrian capital cities are known to have been sacked by the Medes and the Babylonians. Nineveh is recorded as having fallen in that year in the Babylonian Chronicle (Gadd 1923; Wiseman 1956) and there are destruction levels at, for example, Nimrud (Oates, D., 1961: 8-11; Mallowan 1966 II: 388-91; Curtis et al. 1993: 8), Nineveh (Thompson and Hutchinson 1929a: 106-7; 1929b: 137; Stronach and Lumsden 1992: 231-2) and Balawat (Curtis 1982b: 119). However, in the case of provincial settlements such as Khirbet Khatuniyeh it is not certain whether the destruction occurred in 612 BC or in the following years. This is because little is known about the Median-Babylonian conquest of Assyria and its aftermath (cf. Curtis 1989: 52-4).

The Level 4 building was obviously substantial, but precise interpretation is hampered by the limited nature of the excavation. Most of the material points to domestic activity: an array of pots, including small bottles that may have con-

## Excavations at Khirbet Khatuniyeh

tained toiletries or condiments, small to medium-sized jars, bowls, drinking cups, and large 'storage' and water jars; a coffin in use as a grain storage bin; pestles and mortars; a stone bin, basin (broken and so probably in secondary use) and bread oven; and items connected with weaving. A few of the finds suggest agricultural activity. Clearly, however, the rooms belong to a building very much more substantial than a normal village house or farmstead. It would not be unreasonable to suggest that the building either had some administrative function, or was the residence of an important official, perhaps a local governor. If so, Khatuniyeh might have been a place of some importance, in spite of its apparently small size. If this was the case, it might not be entirely fruitless to search for the ancient name of the site in contemporary Assyrian sources.

## Post-Destruction Pit

This pit was encountered in the north-west of trench D4, where it cut through the north-west corner of Level 4 Room 1 (Fig. 5, and see above). It was at least 1.5 m in diameter and c. 2.3 m deep. This pit was dug down into the ruins of the Level 4 building after it had collapsed. It cut through the standing walls, mud-brick tumble and ash deposits, reaching the Level 4 floor. Since it was dug before the construction of Level 3, which itself demonstrates no great break in occupation with Level 4 (see below), this pit must have been dug almost immediately after the destruction of Level 4, presumably in an attempt to retrieve lost items of value. The pottery broadly resembles that of Level 4 and a loomweight found in the pit (85) is similar to those found in Levels 4 and 3.

## Level 3

The Level 3 occupation at Khirbet Khatuniyeh was encountered in trenches D1 to D4 and possibly in trenches A and D5. The main area of exposure was in D1 to D4 (Fig. 8; Pl. $\mathrm{IVb})$. Here, the tops of the Level 4 pisé walls and the tumble and other debris filling the rooms had been roughly levelled off to produce a beaten earth floor, on top of which were constructed substantial walls (or rather, the footings for walls) of rough whitish limestone blocks. The stones varied from small river pebbles to large blocks of up to $c .60 \times 40 \times$ 30 cm , and stood to a maximum of two courses or 43 cm in height. The walls were built directly on the floors, without any foundation course below floor level, although the occasional larger stone block had been partly sunk below floor level. The best-preserved walls were between 67 and 78 cm in width. Intrusive features were the large pit in the south of D2, which also cut Level 2 (see below) and three clay ovens which had apparently been sunk from Level 2 (see below).

In the eastern part of the area we exposed three sides of a large room, bounded on the north by Wall 9, on the west by Wall 10 and on the south by Wall 12 . Save for some disturbance, the western limit of the room was exposed for its
entire length, some 6 m externally and c. 4.40 m inside the room. This Wall 10 , running north-west to south-east, was a substantial wall, standing two courses high, 43 cm at its highest point, 72 cm wide, with a probable doorway at the northern end. Here, the stones were more regular and squared-off than usual, creating a straight edge. A stone $28 \times 28 \mathrm{~cm}$ hollowed out in the centre and presumably a pivot-stone - was found on the floor inside the room close to the northern wall; probably it had been associated with a doorway here. At its southern extremity Wall 10 was cut away by the large pit, but it is clear that it originally joined the east-west Wall 11/12 at right angles. In the south-west corner of the room, abutting the western wall, there was a small cobble pavement, 30 cm wide and preserved for 50 cm in length, but quite likely also disturbed by the pit. The southern wall of the room (12) was preserved for a single course of stones, 67 cm wide. On the north side of the room Wall 9 , though substantial, was much disturbed at the west end by the Level 2 oven. At its east end the wall stood one course high and was 80 cm wide. Directly on the floor inside the room, in the north-east corner of D2, was a mortar stone with a maximum width of 44 cm .

The remaining walls cannot be said to define obvious rooms. In the south of D2, after the disturbance of the pit where it would have formed an angle with Wall 10, Wall 12 continued beyond the limit of the eastern room as Wall 11. Either it became significantly wider here - at least 88 cm , which would make it the widest Level 3 wall encountered or, more likely, we have here a southern return, on a similar alignment to Wall 10 but some two metres further west. In that case Walls 11 and 12 must have been the northern wall of a second room to the south. Another stretch of wall (7) was uncovered in D4. It was on a similar alignment to Walls 9 and $11 / 12$. The return, Wall 8 , in the south-west corner of D4, suggests that these walls once enclosed a large room or courtyard in the centre of our excavated area; however, no southern continuation of Wall 8 was picked up in our excavations in square D3. Wall 7 was 78 cm wide and stood to a maximum of 43 cm in height, in two courses. Wall 8 , whose original width was not preserved, was a single course and stood to a maximum height of 20 cm . Close to the angle of Walls 7 and 8, next to Wall 7, was another socket stone measuring $35 \times 36 \mathrm{~cm}$. There was also a baked brick with hollowed-out centre, probably another door socket, measuring $28 \times 22 \mathrm{~cm}$, built into the north edge of Wall 7. In the corner formed by the angle of Walls 10 and 11 , in D 2 , was a large grinding stone, $0.90-1.00$ m in diameter, with a central depression 22 cm in diameter and $c .5-6 \mathrm{~cm}$ in depth. Close to its western edge it had a hole for a handle $c .11 \mathrm{~cm}$ in diameter and $c .4 \mathrm{~cm}$ deep.

In square D 3 , where we were expecting to find the continuation from D4 of Wall 8 and possibly from D2 of Wall 11, the only feature attributable to Level 3 was a semi-circle of stones set on the floor in the south-east corner of the square. South of D3 was unexcavated, so the exact form of this feature is unknown.

In the north-west corner of D4, north of Wall 7, there was a large depression in the floor filled with clean silt. This was certainly due to subsidence in this area as a result of the 'post-destruction pit' dug into the ruins of the Level 4 building. The lack of stability in the area over the pit, in contrast to the solid foundations of the Level 4 pisé walls and collapsed debris elsewhere, had caused the floor level to sink. The silting was most probably due to the consequent accumulation of mud and slush in this lower area.

Level 3 deposits were also found in the northern and eastern extensions of square D1, the 'baulks' D1-D8 and D1-D6, and into D6 itself. In both cases, however, the purpose of excavation, in the last hours before the site was permanently flooded, was to find the limits of the Level 4 room. Consequently the exposure in these areas was very limited, and we only excavated later levels in the area necessary to reveal the edges of the Level 4 walls, on the alignments of the already partly excavated Walls 1 and 4 . Within these limits, the Level 3 floor was traced, but there were no other features. The presumed eastward extension of Wall 9 into D1-D6 and D6 was not articulated, since this lay in the unexcavated area beyond the southern limit of the Level 4 room.

Over some of trench D4, but not elsewhere, there was a second Level 3 floor at some 40 cm above the original floor level, apparently still in association with the original walls. This re-use was probably an attempt to combat subsidence due to the deep post-Level 4 pit in the north-west of D4.

If our tentative interpretation should be correct, in D5 Level 3 was represented by a fine deposit of decayed mudbrick at between c. 1.40 and 1.50 m b.s. (see below).

In the sounding in trench A, Level 3 was probably represented by a deposit of reddish yellow hard-packed earth with stones lying at between 1.06 and 1.62 m b.s. and above the fill associated with the supposed Level 4 pavement. There is a possibility, however, that this deposit represents tumble from the Level 4 walls and that the wall and associated deposits attributed by us here to Level 2 belong rather to Level 3 (see below).

The small finds from this level included a collection of seven spindle whorls or loomweights of both baked and unbaked clay, all found in the same deposit in trench D3, on or near the Level 3 floor (90-91, 93-7). Another came from a Level 3 floor deposit in D2 (92). Their presence in this level indicates that the spinning and weaving of wool were taking place at this time. It is possibly significant that a bronze needle (87) was also found in the vicinity. Also from Level 3 were an iron tool (80), the foot of an elaborate pottery vessel (98) and two stone discs (100-101). In addition, there were two fragments of terracotta figurines, one the hindquarters of an animal, probably a sheep, and the other only an animal leg (88-9).

As we have already remarked, the Level 3 walls were constructed immediately on top of the ruins of the Level 4 building, without any obvious gap in occupation. The small
finds from Level 3 are not helpful for dating this level, but the pottery appears to belong in the post-Assyrian period. Since we believe that the Level 4 building was destroyed in or soon after 612 BC , it is probable that the Level 3 walls were constructed shortly thereafter. Of course, we cannot say for sure how much time elapsed between the digging of the post-destruction pit to rescue possessions and the construction of the new buildings. What is certain is that there was no attempt to rebuild the Level 4 building, and the Level 3 structures are on a different alignment and very much more modest. However, there is unlikely to have been more than a few years between the destruction of Level 4 and the Level 3 construction.

## Level 2

Deposits attributed to this level were excavated in trenches D1 to D5 and trenches A and C (Fig. 9; Pl. IV). These deposits were either immediately beneath the surface structures that were observed in various parts of the site or else just below the topsoil. In trenches D3 and D4 there was a substantial north-south wall (13/14) running along the west side of both trenches. It was made of stones, probably the base for a mud-brick wall that did not survive. It was about 95 cm wide and was standing to a maximum height of 20 cm , represented by a single course of stones. At right angles to this in the northern part of D3 was a short stub of wall, length 1.17 m , that appeared to have been added at a later date. It certainly belonged to a later phase of occupation but was clearly built when the main wall was still in use. Of similarly later date than the main occupation was a narrow stone partition in the south-west corner of trench D2. This was formed of a double row of small stones and was no more than a single course high. Belonging to the original Level 2 occupation, however, were a stone wall or pavement in the north-west corner of D1 (15), which extended into the baulk D1-D4, and some scattered wall or paving stones that were found in the D1-D2 baulk and areas either side of it (16). Also attributed to Level 2 in this area were four ovens. These were simple circular structures, originally of bee-hive shape, varying in diameter from 40 to 60 cm , and consisting of shells of burnt clay sunk through the floor level. In the southern part of trench D2 the floor was broken by a large oval pit, measuring $2.10 \times 1.15 \mathrm{~m}$, cutting not only this level but also Level 3. It was filled with animal remains, mostly burnt, including an equid skull (see Ch. 8). Then, in the north-west corner of D4 there was a large soakaway filled with small stones and potsherds. There was subsidence in this area because of the large pit dug into the ruins of Level 4 shortly after the destruction of the building.

In D5 at $c .0 .90 \mathrm{~m}$ b.s. there was a cobble pavement over much of the trench which is thought to belong to this level (Figs 14a-b). It was associated with a massive east-west wall at the south side of the trench, consisting of stones standing to a height of 60 cm above the pavement.

Another large stone wall, running in a north-south direction, was found in trench A immediately to the north of the Level 1 structure (Fig. 15a). It was standing to a height of $c$. 60 cm and was 1.25 m wide. A stretch of 1.82 m was exposed.

Lastly, in trench C we unearthed a mass of stones just beneath the surface, which are thought to belong to Level 2 (Fig. 14c; Pl. IVa). Across the middle of the trench was a wide stone-paved strip, apparently a pavement or pathway. To the north was a room, 2.65 m wide, defined on three sides by stone walls. On the south side of the trench was the edge of another east-west stone wall.
There are only a few small finds attributed to this level, namely a pair of bronze tweezers (102), a couple of spindlewhorls (103, 105), a centrally pierced stone disc (106) and an interesting faience amulet of Egyptian type (104).

The pottery found in Level 2 contained many forms distinctive of the Hellenistic period. After the battle of Gaugamela in 331 bc northern Iraq fell under Hellenistic control, and following the death of Alexander in 323 BC it eventually became part of the Seleucid empire. It remained so until the area was overrun by the Parthians in the second century BC . The presence of characteristic Hellenistic pottery at Khatuniyeh therefore indicates a date of the third to second century bc for our Level 2 . This would fit with the date of the Egyptian amulet which is estimated as 500-200 вс.

## Trench D5

The purpose of this trench was to establish the nature of the occupation on the flat area to the east of D1 and at a lower level to it. Consequently, a $4 \times 4 \mathrm{~m}$ trench was laid out 11 m to the east of D1 and on the same alignment; in the event, only the western half ( $4 \times 2 \mathrm{~m}$ ) was excavated (Fig. 4). The uppermost levels in this area consisted of a fine, light-brown deposit that was clearly a mixture of topsoil and wash from further up the slope. This deposit extended to a depth of $90-95 \mathrm{~cm}$ b.s. except in the extreme southern part of the trench where a wall made of massive stones was encountered at a depth of $c .35 \mathrm{~cm}$ b.s. This was running approximately in an east-west direction and was partly obscured by the southern edge of D5 (Fig. 14a). Some of the massive stone blocks in this wall were up to 60 cm across, and the wall was preserved to a maximum height of two courses of stonework (c. 60 cm .). Associated with this wall was a cobble pavement, consisting of small stones densely packed into a hard surface, that extended over the entire trench. This pavement was at a depth $90-95 \mathrm{~cm}$ b.s. (i.e. immediately beneath the fine, light-brown wash of the upper deposits); the wall did not go down beneath it. Below the cobble pavement was a layer of fine, broken-down mudbrick, that may again be wash; a number of large stones in this deposit, obviously completely out of context, may support this view. Found in this deposit, at 1.30 cm b.s., was a
baked clay spindle whorl, at 55 cm from the west baulk and 1.30 cm from the north baulk. The deposit of fine, brokendown mud-brick extended to a depth of $c .1 .40-1.50 \mathrm{~m}$ b.s. and then gave way to a layer of mud-brick tumble that varied in thickness between $c .18 \mathrm{~cm}$ and 35 cm . Beneath this, in the southern part of the trench, was a rich dark-brown deposit, $c .10-15 \mathrm{~cm}$ in thickness, that was covering a welllaid stone pavement at a depth of $1.80-1.90 \mathrm{~m}$ b.s. This pavement must have been laid on top of the bedrock, as in the northern part of the trench bedrock consisting of clay mixed with pebbles was found just below the pavement level at a depth of $1.80-1.90 \mathrm{~m}$ b.s.

The deposits in D5 were treated as seven different units (nos. 200-206) that corresponded to stratigraphical divisions, but unfortunately it is clear that the pottery from these units became mixed at the time of excavation; this was because the operation was minimally supervised, being in the way of a sondage to determine the limit of occupation and in particular the extent of the Level 4 building. Consequently, the pottery is treated here as a mixed collection. This is not as unfortunate as it might be, as clearly much of the deposit in this trench is wash from the higher ground to the west. In the pottery from D5, a selection of which is published (Figs 65-6), there is nothing that is obviously earlier than the Late Assyrian period, and the Hellenistic period is particularly well represented. It seems possible, then, that the well-laid stone pavement at the bottom of the trench and immediately above the bedrock, and covered by mud-brick tumble, belongs to the Level 4 settlement. The Level 3 occupation would be represented by the fine, bricky deposit, and the Level 2 (Hellenistic) settlement by the massive stone wall and associated cobble pavement. The presence of the Level 4 (?) stone pavement and the Level 2 (?) cobble pavement suggests that this area was generally unroofed and therefore probably outside the limit of major settlement.

## Level 1

As we have already remarked, there were the remains of a number of stone-built structures visible on the surface at Khirbet Khatuniyeh (Fig. 4; Pl. III). Four of them were clearly identifiable. There were two small circular structures, with outside diameters varying between 3.0 and 3.75 m , and two larger buildings. The first of these had a long rectangular form with a right-angled extension at the west end, measuring overall 20.5 m in length and $3.0-6.0 \mathrm{~m}$ in width. Internally, this structure was divided into three sections by partition walls. Secondly, there was a rectangular structure with rounded ends and a single partition wall, with a length of 8.5 m and a maximum width of 3.25 m . Generally these structures were represented by a couple of courses of stone with sometimes the addition of pieces of mud-brick or red clay. There were no doorways as such but the structure in trench A (Fig. 15a) had a gap in the south
wall of the eastern extension which was closed with a large flat stone set vertically.

The purpose and date of these structures is obscure. The sort of pottery that was found in and around them had the same characteristics as that found elsewhere on the surface of the mound and is therefore not helpful for dating purposes. It did not include any very obviously modern pottery but this in itself is not an indication that the structures are ancient. They were all on the surface of the mound, and there was very little silting up around and over the stones such as would be expected if they were of any antiquity. Therefore, it seems most probable that the structures are modern and date from the last century or so. This impression was reinforced by the workmen employed at Khirbet Khatuniyeh in 1984, who maintained they were sheep pens of recent date, less than 150 years old, which belonged to a semi-nomadic tribe which had moved away to the Sinjar
district. This cannot be entirely true, as in the trench B structure a tannur (oven) was found in association with the structure itself. It is worth recording here that in 1983 similar stone foundations were noted near a black tent in the vicinity of the village of Sehmuhla, about 3 km south of Babneet. This tent belonged to a family who in the winter had permanent quarters in the village of Sehmuhla and moved into a black tent in the spring. The tent was actually divided into three parts, with sheep in compartments at either end and with the family in the centre. Such black tents usually have stone foundations, so it seems likely that the stones at Khatuniyeh were for this purpose. If so, they might have been used in part as sheep pens, which would account for the workmen's story. It would also account for the appearance of the eastern extension of the Trench A structure which had an entrance closed by a slab of stone such as might have been used for an animal pen.

# CHAPTER 3 

## Small Finds

## Level 6

1. (Fig. 16) Fragment of baked brick, $4.8 \times 3.7 \mathrm{~cm}$, thickness 2.4 cm , with glazed surface, 10 YR $8 / 8$ yellow.
D1, unit 38, just above floor.
For a commentary on glazed bricks, see under 18 .

## Level 5

2. (KK 85/9; Fig. 16) Fragment of iron socket, possibly from a spear, extant L. 7.9 cm , diam. c. 2.0 cm .
D1, unit 33, fill, $2.60 \mathrm{~m} \rightarrow \mathrm{~W}, 3.90 \mathrm{~m} \rightarrow \mathrm{~S}, 3.27 \mathrm{~m}$ below datum.
3. (Fig 16) Edge fragment of baked brick, $5.7 \times 5.1 \mathrm{~cm}$, thickness 3.1 cm , with glazed surface, 10YR $8 / 8$ yellow at top and 10YR $8 / 1$ white at bottom.
D1, unit 33, fill.
For a commentary on glazed bricks, see under 18 .
4. (KK 85/26; Fig. 16) Small barrel-shaped fluted bead made from blue faience, L. 0.75 cm , max. diam. 0.55 cm . D1, unit 44, just above floor, $2.00 \mathrm{~m} \rightarrow \mathrm{~W}, 4.00 \mathrm{~m} \rightarrow \mathrm{~S}, 3.59$ m below datum.

## Level 4

5. (KK 85/5; Pl. XIIIb, Fig. 16; Curtis and Green 1987: pl. 6) Stamp seal in white stone with lightly incised design probably of a stylised tree, scarabaeoid-shaped, not pierced, part of back chipped away. L. 1.7 cm ., W. 1.1 cm , max. H. 0.8 cm .

D2, unit 62, Room 2 mud-brick tumble, $3.05 \mathrm{~m} \rightarrow \mathrm{~W}, 2.11$ $\mathrm{m} \rightarrow \mathrm{S}, 1.80 \mathrm{~m}$ below datum.

Stamp seals with similar designs are well attested in the first millennium вс. Thus, there are two examples from Babylon in the Vorderasiatisches Museum (Jakob-Rost 1975: nos 456-7), an unprovenanced example in the Ashmolean Museum, Oxford (Buchanan and Moorey 1988: pl. xiv/434), and an impression of such a seal on a tablet from Gezer (Herbordt 1992: pl. 12/7). ${ }^{1}$
6. (Pl. XIIIc, Fig. 16) Clay sealing with oval impression showing two symbols of unknown significance. Possibilities include two pick-axes or, viewed the other way up, two stylised gods standing in crescents. No obvious parallels have been noted. Unbaked clay but burnt in fire. Fine string(?) impression on reverse. $2.35 \times 2.0 \mathrm{~cm}$, thickness 0.7 cm . D4, unit 181, Room 1 floor, recovered during wet-sieving.
7. (KK 85/37; Fig. 16) Heavy iron chisel with wood impressions at one end deriving from haft. Square in section in middle, $1.8-2.0 \mathrm{~cm}$, tapering to a blade of $W .1 .8 \mathrm{~cm}$. Overall L. 21.6 cm .
D1-D8 baulk, unit 456, Room 1 mud-brick tumble, 0-0.13 $\mathrm{m} \rightarrow \mathrm{W}, 0.19-0.29 \mathrm{~m} \rightarrow \mathrm{~S}, 1.43 \mathrm{~m}$ below datum.
8. (KK 85/24; Pl. XIIIa, Fig. 16) Iron sickle, blade complete but part of haft probably missing. Overall L. 15.7 cm , max. W. 2.1 cm , thickness 0.4 cm .

D4, unit 184, at bottom of coffin, $3.40 \mathrm{~m}-3.51 \mathrm{~m} \rightarrow \mathrm{~W}$, $0.29-0.37 \mathrm{~m} \rightarrow \mathrm{~S}$. For position, see Fig. 6 .

From Late Assyrian levels at Nimrud there are a number of iron sickle-blades, of which two have been published (Stronach 1958: pl. xxxv/8; Curtis et al. 1979: fig. 16). Another example is known from Khorsabad (Loud and Altman 1938: pl. 62/195).
9. (KK 85/4; Fig. 16) Fragment of curved iron blade, probably a sickle, L. 8.8 cm , max. W. 2.5 cm , thickness 0.6 cm . D1, unit 15 , Room 1 floor, $1.7 \mathrm{~m} \rightarrow \mathrm{~W}, 2.84 \mathrm{~m} \rightarrow \mathrm{~S}, 3.05 \mathrm{~m}$ below datum. For position, see Fig. 6.
10. (KK $85 / 3$; Fig. 16) Part of an iron implement, probably a spade, with curved blade and groove along the top edge. One rivet through groove and possibly remains of another. H. c 15.0 cm , max. W. 4.9 cm , max. thickness 2.4 cm .

D1, unit 15 , Room 1 floor, $3.28 \mathrm{~m} \rightarrow \mathrm{~W}, 1.40 \mathrm{~m} \rightarrow \mathrm{~S}, 2.79$ m below datum. For position, see Fig. 6.

If this object is correctly identified as a spade, it would have fitted on to a blade of another material, probably wood. It would have formed the cutting edge, and should more properly be called a spade sheath. Hitherto spades have not been identified on Late Assyrian sites, but they are carried by workmen on the Assyrian relief showing the quarrying and

[^9]transport of a colossal winged bull (Layard 1853: pl. 12). Here, though, the spades have pointed blades and are therefore of a different shape to the Khatuniyeh example. However, there is a well-preserved iron spade comparable to the Khatuniyeh example from the nearly contemporary site of Sippar in Babylonia (Walker and Collon 1980: 109, no. 126, pl. 29). In later periods spades of this shape are quite common, and are often found for example in Roman contexts (Manning 1985: 44-7, figs 10-11, pl. 19).
11. (KK 85/11; Fig. 17) Iron blade, possibly a knife, fractured at both ends, with possible wood impressions at one end deriving from haft. Extant L. 14.2 cm , max. W. 2.3 cm , max. thickness 0.4 cm .
D4, unit 182 , inside jar 180, on Room 1 floor.
12. (KK 85/10; Fig. 17) An iron ferrule, possibly from the end of a spear. L. 6.7 cm , max. diam. 1.7 cm .
D4, unit 177 , Room 1 mud-brick tumble, $3.87 \mathrm{~m} \rightarrow \mathrm{~W}, 1.18$ $\mathrm{m} \rightarrow \mathrm{S}, 1.99 \mathrm{~m}$ below datum. For position, see Fig. 13a.
13. (KK 85/29; Fig. 17) Part of thin copper alloy ring made from a twisted length of metal, square in section. Max. diam. 2.65 cm , max. thickness 0.2 cm .
D 4 , unit 181 , Room 1 floor, $c .2 .70 \mathrm{~m} \rightarrow \mathrm{~W}, c \cdot 2.70 \mathrm{~m} \rightarrow \mathrm{~S}$. For position, see Fig. 6.
14. (KK 85/8; Fig. 17) Copper alloy ring, complete. Diam. 2.3 cm , thickness 0.55 cm .

D1, unit 15, Room 1 floor, $3.15 \mathrm{~m} \rightarrow \mathrm{~W}, 3.88 \mathrm{~m} \rightarrow \mathrm{~S}, 2.81$ $m$ below datum.
15. (Fig. 17) Roll of copper alloy sheet, L. 2.1 cm , max. W. 0.9 cm .

D1, unit 27, Room 1 mud-brick tumble, $1.42 \mathrm{~m} \rightarrow \mathrm{~W}, 2.38$ $\mathrm{m} \rightarrow \mathrm{S}, 2.82 \mathrm{~m}$ below datum.
16. (Fig. 17) Fragment of iron rod, L. 6.5 cm , max. diam. 1.0 cm .

D1, unit 28, Room 1 floor, $1.53 \mathrm{~m} \rightarrow \mathrm{~W}, 1.66 \mathrm{~m} \rightarrow \mathrm{~S}, 2.93$ m below datum. For position, see Fig. 6 .
17. (Fig. 17) Fragment of lead rod, pointed at one end, L. 4.5 cm , max. diam. 0.4 cm .

D2, unit 62 , Room 2 mud-brick tumble, $2.76 \mathrm{~m} \rightarrow \mathrm{~W}, 3.08$ $\mathrm{m} \rightarrow \mathrm{S}, 2.44 \mathrm{~m}$ below datum.
18. (Fig. 17) Fragment of baked brick, $5.1 \times 4.3 \mathrm{~cm}$, thickness 3.0 cm , with glazed surface, $10 \mathrm{YR} 8 / 8$ yellow at top and $10 \mathrm{YR} 8 / 1$ white at bottom.
D1-D6 baulk, unit 302, Room 1 mud-brick tumble.
Three fragments of coloured glazed brick were found at Khatuniyeh, in Levels $6(1), 5(3)$ and, in this case, 4 . Two of them ( 3 and 18 ) have bands of yellow and white decoration,
the third (1) only yellow. It is possible that they come from the same monument, or even that they are fragments of the same brick, but this is speculative. If so, however, the fragments from Levels 4 and 5 would then be residual from the earlier Level 6. The evidence for polychrome glazed bricks and tiles in Assyria has been reviewed by both Moorey (1985a: 171-5) and Nunn (1988: 165-85). There are textual references to glazed bricks or tiles in the reigns of Adadnirari I (1305-1274 BC) and Tiglath-pileser I (1114-1076 BC ), but actual examples (of tiles) are not attested until the reign of Tukulti-Ninurta II ( $890-884 \mathrm{BC}$ ), from the AnuAdad Temple at Ashur. From the reign of Ashurnasirpal II ( $883-859 \mathrm{BC}$ ) onwards glazed bricks are quite common and are known from most of the major Assyrian sites. Generally these bricks were assembled in decorative panels and set up above doorways or on important facades. The colours mostly used were white, yellow, green, blue and black, and the bricks bear a wide range of geometric, floral and figural designs. Particularly notable examples of glazed brick panels have been found at Nimrud, Ashur and Khorsabad. Thus, there is a large panel from Fort Shalmaneser at Nimrud dating from the reign of Shalmaneser III ( $858-824$ BC), which shows two royal figures beneath a winged disc surmounted by a cuneiform inscription and antithetical bulls on either side of a tree (Reade 1963). A panel of glazed bricks found at Ashur, with an inscription of Tiglath-pileser III (744-727 BC ), shows horses and chariots passing through mountainous country (Andrae 1923: 25, pl. 6). Panels at Khorsabad from the reign of Sargon ( $721-705$ BC) show birds, bulls, stylised trees, ploughs, lions and winged genies (Place 1867-70: III, pls 24-31). Recently, glazed bricks have been found in Room T20 in Fort Shalmaneser at Nimrud with an interesting range of fitters' marks on the flat upper surfaces of the bricks (Curtis et al. 1993: 21-30, figs 21-6). Unfortunately, the fragments from Khatuniyeh are too small for any conclusions to be drawn about their original context. We may reasonably deduce, however, that they are unlikely to be earlier than the reign of Ashurnasirpal II.
19. (KK $85 / 23$; Fig. 17) Part of animal figurine in baked clay consisting of a head with pricked ears and probably a mane. Overall dimensions $6.1 \mathrm{~cm} \times 4.8 \mathrm{~cm}$, fabric 5 Y $8 / 2$ white, grit temper.
D1-D6 baulk, unit 302, Room 1 mud-brick tumble, 0.60 m $\rightarrow \mathrm{W}, 3.49 \mathrm{~m} \rightarrow \mathrm{~S}, 2.46 \mathrm{~m}$ below datum.
20. (KK 85/41, IM 102682; Pls XVb, XVIa-c, Fig. 18; Curtis 1986: pl. on p. 15; Curtis and Green 1987: pl. 4; Curtis 1987a: fig. 133; Curtis 1992: Fig. 2; Fales and Postgate 1992: pl. on p. 204). Pottery rhyton ending in a ram's head with long elaborately curled horns. The horns are decorated with incised strokes, and the fleece is indicated by impressed circles. The eyes are shown by concentric circles. The body of the rhyton tapers towards the head and has a flared rim. There are three bands of paint behind
the head and three at the mouth, all 2.5YR $4 / 6$ red. This rhyton is made of pottery with a fine grit temper; the fabric is $2.5 \mathrm{Y} 8 / 4$ pale yellow. In manufacture, the body has been shaved lengthways. The vessel has been restored from fragments and several pieces are missing, including the rim. Max. L. as preserved 27.6 cm , max. diam. 10.1 cm . D1-D2 baulk, unit 553, Room 2 floor, $1.40-1.60 \mathrm{~m} \rightarrow \mathrm{~W}$, c. $0.80 \mathrm{~m} \rightarrow \mathrm{~S}$. For position, see Figs 6-7, Pl. XVa.

Technically, vessels such as the Khatuniyeh example should not be called rhytons, as in Greek this term is reserved for a drinking cup or horn with a small hole at the bottom. However, in the archaeological literature animal-headed drinking-cups of the type under discussion here are often referred to as rhytons, and the term rhyton has come to be used indiscriminately for any kind of animal-headed drinking vessel.

Animal-headed drinking cups have a long history in the Ancient Near East, going back at least to the beginning of the second millennium $B C$ when there are examples in pottery from Kültepe and Alishar Hüyük in Central Anatolia (e.g. Özgüç 1986: pls 115-17; Von der Osten 1937: figs 208-14). In the Old Babylonian period, texts from Mari refer to animal-headed cups in gold and silver being manufactured at Mari itself as well as being delivered to Mari from other places (Dunham 1989). They were sent as diplomatic gifts, and were obviously highly esteemed. From the later second millennium BC animal-headed cups in metal, pottery and faience are widely distributed, particularly in the western part of the Ancient Near East and in the Aegean. The evidence has been conveniently summarised by Muscarella (1974: nos 123-4; 1988: 25-26). A particularly fine example of a faience ram's head rhyton comes from the Late Bronze Age shipwreck off Ulu Burun in Southern Turkey (Bass et al. 1989: fig. 12).

Dating from the Late Assyrian period, and broadly contemporary with the Khatuniyeh rhyton, there are animalshaped drinking cups in pottery from a number of Assyrian sites. There is a particularly fine example from Nimrud that also ends in a ram's head, but the cup is shorter and more flared than in the Khatuniyeh example and the head itself is more naturalistically modelled (Fig. 19; PI. XVIIa; Mallowan 1952: 4; 1966: I, 190-91, fig. 124). ${ }^{2}$ The horns are very elaborately curled, and there is a band of rosette decoration at the junction of head and cup. It is unpainted, and is said to be made of fine green palace ware. This rhyton was found in a tomb beneath the floor of one of the houses ${ }^{3}$ abutting the town wall in the north-east corner of the citadel. A fragment of another pottery rhyton found by Mallowan at Nimrud (Pls XVIIb, c), previously unpub-

[^10]lished, is also apparently in the form of a ram's head. ${ }^{4}$ It is made of red clay with a grey core. It was not found in a stratified context, but was associated with material from the Burnt Palace. Also from Nimrud, a 'pottery rhyton with a horse terminal' is said to have been found in the Nabu Temple during the recent excavations there by the Iraq State Organisation for Antiquities and Heritage (Killick and Roaf 1983: 217).

From Ashur there are fragments of no less than seven ram-headed rhytons now in the Vorderasiatisches Museum in Berlin (Klengel-Brandt 1978: nos 644-50). In two cases the heads are well preserved and show rams with elaborately curled horns. The larger example (Tuchelt 1962: pl. 7/1-2; Klengel-Brandt 1978: pl. 20/644) is made of grey clay, while the smaller piece, from tomb 40 , is of greenish clay (Haller 1954: pl. 26d). Both are finely made. There is also a fragment of a pottery ram-headed rhyton from Campbell-Thompson's excavations at Nineveh, now in the British Museum. ${ }^{5}$ Part of another ram-headed vessel has recently been found in the outer town at Nineveh by the expedition from the University of California, Berkeley. ${ }^{6}$ Lastly, from a Late Assyrian period deposit at the large site of Tell al-Hawa some 50 km to the west of Khatuniyeh on the other side of the River Tigris is a fragment of another ram-headed cup (Ball 1990: 83-4, fig. 8, pl. 28/4).

Further afield, there are fragments of three ram-headed beakers from the site of Sincirli which came under strong Assyrian influence from the ninth century BC onwards (Von Luschan and Andrae 1943: 150-51, pl. 20 a-b, d).

In the Late Assyrian period animal-headed drinking vessels or buckets, to which they are closely related, also existed in bronze. Thus, a bronze ram-headed drinking cup was found in a tomb at Khirbet ed-Diniyeh on the River Euphrates in the Haditha region (Kepinski and Lecomte 1985: fig. on p. 55; Killick and Roaf 1983: 210). A bronze cup in the form of an antelope's head, now in the National Museum of Denmark and allegedly from Kafr Kenna in northern Israel, is probably also of Assyrian origin. The form of this head and the presentation scene around the top of the cup are clearly Assyrian in style (Curtis 1988: 89, pl. 88), and the cuneiform inscription on the rim apparently gives a name (Lipušu) that is likely to be of Assyrian origin (Calmeyer 1979: 196). It is also possible that the splendid lion-headed and ram-headed buckets from Gordion in Anatolia (Young 1958) could be Assyrian products, but this remains unresolved. ${ }^{7}$ A bronze situla apparently ending in a

[^11]bull's head that was found in the Heraion at Samos is sometimes thought to be Assyrian (Jantzen 1972: 71, pl. 73), but the poor condition of this piece does not allow for a detailed stylistic analysis. ${ }^{8}$

On the Assyrian reliefs both cups and buckets with lion's heads are shown together on reliefs of Sargon (Botta 1849-50: I, pls 16, 30, 64-6, 76; if, pls 103, 112-13). They are being carried or used by Assyrian courtiers, suggesting they are Assyrian products. Buckets, but with bull's heads, are also shown on the reliefs at Arslan-Tash (ThureauDangin et al. 1931: pl. xim/2). In the Assyrian texts, there are references to cups and buckets with lion's heads (Deller 1985). ${ }^{9}$

There is, then, a considerable body of evidence for ani-mal-headed cups in the Late Assyrian period, and it is in the context of this evidence that the Khatuniyeh rhyton should be considered. There are also examples of zoomorphic cups from neighbouring parts of the Ancient Near East. Thus, from the Urartian site of Bastam there is a pottery cup with a gazelle(?) head (Calmeyer 1979: pls $45 / 1,46$ ). And from period IV at Hasanlu there are apparently animal-headed cups in both bronze and pottery. The five examples in bronze include one with a bull's head, two with ram's heads and one with a horse's head (Muscarella 1988: 24-6; Porada 1965: pl. 32). ${ }^{10}$ Then, the detailed incised decoration on a bronze bowl from the tomb at Arjan, near Behbehan in Iran, showing much Assyrian influence, includes a pot-stand with two ram-headed beakers supported on the cross-bar beneath two large jars (Fig. 20b; Majidzadeh 1992: fig. 1). A number of other bronze and silver ram-headed vessels are reported to come from Iran but they are not from archaeological contexts (Wilkinson 1962).

Although animal-headed cups continued into the Achaemenid period, 'bent-rhytons' (with an animal protome at right-angles to the cup) and 'horn rhytons' (horn-shaped vessels with an animal form at the base) now became more popular (Moorey 1985b: 34). There are good examples of pottery horn rhytons terminating in goats' heads from Deve Hüyük in Syria (Moorey 1980: nos 66-7).
21. (Pls XIb, XIIa-b, Fig. 21; Curtis 1986: pl. on p. 17; Curtis and Green 1987: pl. 3). Baked clay coffin, rounded at one end and squared-off at the other, with two bands of applied cable ornament running around it at top and bottom. Originally two handles at each end, but one handle at front and part of one handle at rear missing. Bars at base of

[^12]handles are thickened at the end and simulate metal prototypes. Section of rim missing at front, as are parts of wall from here and elsewhere. Small drain-plug at front bottom, diam. 1.5 cm . This coffin was severely distorted at the sides, undoubtedly during firing, and was probably a waster. This might explain its secondary usage as a grain-bin. Max. L. at top (reconstructed) $103-4 \mathrm{~cm}$, max. H. 52.0 cm , max. W. at top 62.0 cm . Coarse fabric, 5 Y 7.2 light grey, mostly vegetable inclusions but with some large white grits.
D4, unit 184, Room 1, on floor blocking doorway. For position, see Figs 5-7, 10a, Pls Vb, XIa.

Although the Khatuniyeh example did not contain a body, there is no doubt that such items were coffins. They are sometimes called 'bath-tubs' but it is unlikely that receptacles of this shape were ever used for bathing in the Ancient Near East as they were in Western Europe in the nineteenth and early twentieth centuries. Coffins of this general shape, rounded at one end and squared off at the other, with high sides, are known in German as Hockersarkophage. In a seminal article Strommenger (1964) has shown that such coffins are known from Ashur in the Middle and Late Assyrian periods. From Assyria the form spread to Babylonia, and such coffins are found at Babylon in contexts dating between the eighth and fourth centuries вс. More recently the evidence for this type of coffin has been reviewed by Heather Baker (1995: 213-15).

Plain coffins of this general type are, then, widely distributed, both geographically and chronologically, but coffins like the Khatuniyeh example are less common and can be more precisely dated. They have two handles at the squaredoff end and either one or two handles at the rounded end, and usually a band of rope decoration below the rim. Such coffins are known for example from Ashur (Haller 1954: 55, figs 66-7) and Sincirli (Von Luschan and Andrae 1943: 139, figs 192-3), where they date from the eighth to the seventh centuries BC. Two examples from Isin are said by Hrouda to be spätbabylonisch (Hrouda 1981: 41, nos 44-44a), i.e. 612-539 вс.

These terracotta coffins with handles are closely related to examples in bronze from Ur, Sincirli and allegedly from Ziwiye. In an article about these bronze coffins Curtis (1983) suggested that on the basis of the incised decoration on them they should be dated to the late eighth century BC. Since the appearance of that article, some further bronze coffins have come to light, most notably at Nimrud. There were three examples in the royal tomb discovered in the summer of 1989 in Room 57 in the North-West Palace of Ashurnasirpal (Curtis, Collon and Herrmann 1989: 26). They were in the brick-built antechamber, on either side of an arched doorway leading to the main tomb chamber. Two coffins were on top of each other on the right of the entrance and there was another on the left. In the coffins were badly preserved bones and a rich collection of grave goods that included gold objects weighing 23 kg . Secondly, there was a

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bronze coffin of this type in the tomb discovered at Behbehan in south-west Iran (Alizadeh 1985). Lastly, two of these coffins are now in the Museum of Anatolian Civilizations in Ankara; ${ }^{11}$ they are said to have been confiscated from thieves in eastern Turkey and to have come originally from the Erzincan area. Like the Ur examples, the central strips on the side have incised decoration. ${ }^{12}$

Terracotta coffins of this kind have also been found in Palestine, where they are usually thought to be indicative of Assyrian influence. The evidence for them has been collected together by Zorn, while discussing a fragment of a coffin from Tell en-Nasbeh in Israel (Zorn 1993). There are particularly good examples from Tell el Mazar (Yassine 1984: 7, 29, figs 2, 24) ${ }^{13}$ and from Tell Fara (Chambon 1984: pl. 47/10-12). There is at least one coffin of this type from the tomb of Adoni Nur in Amman, dating from around 650 вс (Harding 1953: 59-60, pl. vi/47). A coffin from Shechem, found in an Achaemenid period burial (Stern 1980: fig. 5), is related but slightly different in that it has four handles at the squared-off end.
22. (Fig. 22) Unbaked clay loomweight of flattened spherical shape with large centrally positioned hole. Dark brown clay with grit inclusions. H. 4.7 cm , diam. 6.0 cm , wt. 126.6 g . D1, unit 15, Room 1 floor, $1.83 \mathrm{~m} \rightarrow \mathrm{~W}, 1.38 \mathrm{~m} \rightarrow \mathrm{~S}, 2.91$ m below datum. For position, see Fig. 6 .

In Level 4 at least 51 unbaked clay loomweights (22-72) were found. They are spherical in shape, slightly flattened, and have a hole in the centre. Because of this, they are sometimes described as doughnut-shaped. The complete and well-preserved examples vary in diameter from about 6.0 to 7.2 cm ., and in height from about 4.0 to 6.3 cm . The central hole is generally between 1.3 and 1.8 cm in diameter. There was considerable variation in weight, with figures of between 126 and 218 g being recorded for complete examples; one specimen (no. 28) appeared to weigh as little as 46 g , but this was exceptional. Of the Level 4 loomweights, most were found in Room 1. There was a group of at least twenty-seven examples (38-64) in the south-west corner of the room (Fig. 6) together with remains of carbonised wood that probably represented the remains of a collapsed loom. Another substantial group of loomweights was noted in Room 2, in the south part of the room close to the doorway. Nine examples were recovered

[^13](29-37) and it was observed that there were more pieces in the unexcavated baulk nearby. As well as the Level 4 loomweights, there was another in the post-destruction pit (85) and another five examples in Level 3 (93-7).

In a short but very informative article, Sheffer (1981) has convincingly demonstrated that these unbaked clay, dough-nut-shaped objects were used as loomweights on warpweighted vertical looms. The weights were tied to bunches of warp threads to keep them taut during weaving. Such looms would basically have consisted of two upright posts and a crossbar from which the warp threads were suspended. They are clearly represented on Greek vases, for example on a fourth-century bc Boeotian skyphos in the Ashmolean Museum, Oxford (Hoffmann 1974: fig. 125). Gal has suggested (1989) that the large number of comparable objects found at the tenth-ninth-century BC fortress of Khirbet Rosh Zayit in Galilee should be identified as stoppers for wine jars, but this seems highly unlikely. There is no reason to doubt their identification as loomweights.

Doughnut-shaped loomweights have been found in large quantities at Iron Age sites, particularly in the Levant. For example, at Tell es-Sa'idiyeh in the Jordan valley, Pritchard found a row of seventy-two loomweights which he supposed were lying as they had fallen from the threads fixed to a horizontal beam (Pritchard 1964: 6-7). In Israel, Sheffer (1981) refers to examples from Gezer, Tell Beit Mirsim, Lachish, Jericho, Samaria, Tell Qasileh, Tell Beer Sheva and Tell Taanach. ${ }^{14}$

In Anatolia doughnut-shaped loomweights occur as early as the third millennium BC . At Troy, in a house belonging to phase IIg, Blegen found three or four rows of clay loomweights together with evidence for the loom itself (Blegen 1963: 71-2). They are also found in the Iron Age, for example at Gordion. Here, more than 500 of them were found in one room (Young 1962: 165). The excavators rejected 'out of hand' their identification as loomweights, but not apparently for any good reason. In Iran more than 150 of these unbaked clay loomweights were found in Median levels at Nush-i Jan (Curtis 1984: 38-40).

In Mesopotamia itself a large number of these loomweights were found at Tell Abu Su'ud in the Hamrin in a building thought to date to the Achaemenid period (Mohammed Ali 1979: 545, fig. 3). They are also known from the French excavations on the island of Failaka at the head of the Gulf (Chavane 1990: 294-7, fig. 14).
23. (Fig. 22) Another. Dark brown to black clay. H. 4.5 cm , diam. 7.2 cm ., wt. 218.0 g .
D1, unit 15 , Room 1 floor, $2.73 \mathrm{~m} \rightarrow \mathrm{~W}, 2.26 \mathrm{~m} \rightarrow \mathrm{~S}, 2.91$ $m$ below datum. For position, see Fig. 6 .

[^14]24. (Fig. 22) Another. Dark brown clay with large grit inclusions. Part crumbled away. H. 5.2 cm , diam. 6.5 cm , wt. 157.9 g .

D1, unit 15 , Room 1 floor, $2.30 \mathrm{~m} \rightarrow \mathrm{~W}, 3.07 \mathrm{~m} \rightarrow \mathrm{~S}, 2.91$ $m$ below datum. For position, see Fig. 6 .
25. (Fig. 22) Another. Reddish-brown clay partially burnt to black in fire with grit inclusions. H. 5.0 cm , diam. 6.6 cm , wt. 157.2 g .
D1, unit 30, Room 1 floor, $0.09 \mathrm{~m} \rightarrow \mathrm{~W}, 1.09 \mathrm{~m} \rightarrow \mathrm{~S}, 2.51$ m below datum. For position, see Fig. 6, PI. VIa.
26. Another. Orange clay partially burnt to black in fire with coarse grit inclusions. Large fragments missing top and bottom. H. 4.5 cm , max. diam. 7.0 cm , diam. of central hole 1.8 cm , wt. 106.0 g .
D1, unit 28, Room 1 floor, $0.13 \mathrm{~m} \rightarrow \mathrm{~W}, 1.73 \mathrm{~m} \rightarrow \mathrm{~S}, 2.75$ m below datum. For position, see Fig. 6 .
27. Another. Fragments only.

D1, unit 28, Room 1 floor, $0.57 \mathrm{~m} \rightarrow \mathrm{~W}, 2.10 \mathrm{~m} \rightarrow \mathrm{~S}, 2.84$ m below datum. For position, see Fig. 6 .
28. Another, probably originally flattened spherical but now distorted. Clay 7.5YR $6 / 4$ light brown, partially burnt in fire. H. 3.1 cm , diam. $3.6-4.0 \mathrm{~cm}$, wt. 45.9 g .
D1-D2, unit 552, Room 2 mud-brick tumble, $1.00 \mathrm{~m} \rightarrow \mathrm{~W}$, $0.96 \mathrm{~m} \rightarrow \mathrm{~S}, 1.57 \mathrm{~m}$ below datum.
29. (Fig. 22) Another. Orange-brown clay with coarse grit inclusions. Fragments missing from top and bottom. H .4 .0 cm , max. diam. 6.4 cm , diam. of central hole $1.3 \mathrm{~cm}, \mathrm{wt} .143 .4 \mathrm{~g}$. D 2 , unit 67 , Room 2 floor, $0.41 \mathrm{~m} \rightarrow \mathrm{~W}, 1.48 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64$ m below datum. For position of nos 29-37, see Fig. 6 .
30. Another. In fragments with some missing. H. c. 6.35 cm , max. diam. c. 7.1 cm .
D2, unit 67, Room 2 floor, $0.26 \mathrm{~m} \rightarrow \mathrm{~W}, 1.50 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64$ m below datum.
31. Another. Fragments only.

D2, unit 67, Room 2 floor, $0.48 \mathrm{~m} \rightarrow \mathrm{~W}, 1.36 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64$ m below datum.
32. (Fig. 22) Another. Orange-brown clay with coarse grit inclusions. Much missing from centre. H. 4.5 cm , max. diam. 6.2 cm , diam. of central hole 1.5 cm , wt. 126.7 g .
D 2 , unit 67 , Room 2 floor, $0.23 \mathrm{~m} \rightarrow \mathrm{~W}, 1.52 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64$ $m$ below datum.
33. Another. Orange-brown clay with coarse grit inclusions. Large fragment missing from side. H .4 .5 cm , max. diam. 6.7 cm , diam. of central hole 1.7 cm , wt. 161.3 g . D 2 , unit 67 , room 2 floor, $0.17 \mathrm{~m} \rightarrow \mathrm{~W}, 1.53 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64 \mathrm{~m}$ below datum.
34. Another. Orange-brown clay with coarse grit inclusions. Large fragments missing from one side. H. 4.6 cm , max. diam. 6.3 cm , diam. of central hole 1.4 cm , wt. 161.5 g .
D 2 , unit 67 , room 2 floor, $0.15 \mathrm{~m} \rightarrow \mathrm{~W}, 1.48 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64 \mathrm{~m}$ below datum.
35. Another. Fragments only.

D2, unit 67, Room 2 floor, $0.14 \mathrm{~m} \rightarrow \mathrm{~W}, 1.68 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64$ $m$ below datum.
36. Another. In fragments. H. c. 4.25 cm , diam. c. 6.65 cm . D2, unit 67, Room 2 floor, $0.10 \mathrm{~m} \rightarrow \mathrm{~W}, 1.56 \mathrm{~m} \rightarrow \mathrm{~S}, 2.64$ $m$ below datum.
37. Another. Fragments only.

D2, unit 67, Room 2 floor, $0.12 \mathrm{~m}-\mathrm{W}, 1.69 \mathrm{~m}-\mathrm{S}, 2.64 \mathrm{~m}$ below datum.

38-64. Group of at least twenty-seven loomweights of same type. This collection of loomweights was found on the last day of excavation, shortly before the site was flooded. They were in poor condition and very friable. They were not recovered and no further information is available about them.
D3-D4, unit 600 , Room 1 floor, $0.53-1.51 \mathrm{~m} \rightarrow \mathrm{~W}$, $0.72-1.00 \mathrm{~m} \rightarrow \mathrm{~S}$. For position, see Fig. 6 .
65. (Fig. 22). Another. Brownish buff clay with grit inclusions. About one-fifth broken away. H .3 .5 cm , diam. 5.7 $\mathrm{cm}, \mathrm{wt} .66 .7 \mathrm{~g}$.
D4, unit 180 , Room 1 mud-brick tumble, $1.78 \mathrm{~m} \rightarrow \mathrm{~W}, 1.55$ $\mathrm{m} \rightarrow \mathrm{S}, 1.81 \mathrm{~m}$ below datum.

66-72. Collection of seven fragmentary loomweights of same type.
D4, unit 181 , Room 1 floor, $2.67-2.91 \mathrm{~m} \rightarrow \mathrm{~W}, 0.15-0.43 \mathrm{~m}$ $\rightarrow$ S. For position, see Fig. 6, Pl. Vb.
73. (Fig. 22) Circular pottery disc, ground down from a sherd. diam. 3.0 cm , thickness 0.5 cm . Fabric 5YR 6/4 light reddish brown, grit temper.
D1, unit 26, Room 1 mud-brick tumble, $1.21 \mathrm{~m} \rightarrow \mathrm{~W}, 3.49$ $\mathrm{m} \rightarrow \mathrm{S}, 2.03 \mathrm{~m}$ below datum.

Three pottery discs were found at Khatuniyeh, two in Level 4 (73-4) and one on the surface (110). Roughly circular discs made from discarded pieces of pottery have been found on many sites in the Ancient Near East dating from various periods. There is, for example, a large collection of them from Abu Salabikh, which, it is suggested, are counters for use in commercial transactions (Green 1993: 125-7, figs $5 / 1-2$ ).
74. (Fig. 22) Another. Diam. 3.3-4.2 cm, thickness 0.9 cm . Fabric 10YR $6 / 3$ pale brown, vegetable temper.

## Excavations at Khirbet Khatuniyeh

D1, unit 28, on top of sherds of jar 176 on Room 1 floor, $1.51 \mathrm{~m} \rightarrow \mathrm{~W}, 2.57 \mathrm{~m} \rightarrow \mathrm{~S}, 2.95 \mathrm{~m}$ below datum. For position, see Fig. 6.

For a commentary on pottery discs, see under 73 .
75. (KK 85/6; Fig. 23) Cylindrical glass bead, longtitudinally pierced, L. 2.5 cm , diam. 1.1 cm . Original colours comparatively well preserved. Pale greenish-cream body with two light-brown marvered bands.
D1, unit 28 , Room 1 floor, $0.50 \mathrm{~m} \rightarrow \mathrm{~W}, 2.25 \mathrm{~m} \rightarrow \mathrm{~S}, 2.80$ m below datum. For position, see Fig. 6.

A very similar glass bead was found at the nearby site of Qasrij Cliff (Curtis 1989: 11, no. QCI, fig. 6b).
76. (Fig. 23) Fragmentary wooden object, tapering to a point at one end, broken away at the other, slightly curved. Two small rectangular holes near pointed end. L. as preserved $c .6 .1 \mathrm{~cm}$, max. W. c. 2.0 cm , max. thickness $c .0 .8$ cm . Possibly a weaver's shuttle, as suggested by Kirsty Norman.
D4, unit 184 , on top of mud-brick debris in bottom of coffin, $3.60 \mathrm{~m} \rightarrow \mathrm{~W}, 0.30 \mathrm{~m} \rightarrow \mathrm{~S}, 2.10 \mathrm{~m}$ below datum. For position, see Fig. 6.
77. (KK 85/30; Fig. 23) Flat bone spatula, polished on both sides, pointed at one end and broken away at the other. Burnt. Extant L. 7.7 cm , max. W. 2.3 cm .
D4, unit 186, Room 1 floor, $3.80 \mathrm{~m} \rightarrow \mathrm{~W}, 1.37 \mathrm{~m} \rightarrow \mathrm{~S}$. For position, see Fig. 6.

Highly polished bone implements of this kind have been found in large numbers at many sites in the Ancient Near East, particularly in Iron Age contexts. Complete examples are usually flat or slightly convex, about 2 mm thick, and are pointed at one end and rounded at the other. Many of these bone spatulae have been excavated at Nimrud, both by the British School expedition between 1949 and 1963 (unpublished) and more recently by the Iraq Department of Antiquities in one of the wells in the North-West Palace (Safer and al-Iraqi 1987: fig. 119). There are also large numbers of them from Sincirli (Von Luschan and Andrae 1943: 122, pls 59-60). More examples have been referred to by Curtis in the publication of a group of such implements from the Median site of Nush-i Jan in Iran (Curtis 1984: 45, fig. 13). Therein, it is suggested that these spatulae were used in weaving for the process of 'beating-in', that is pressing down the weft thread after it has been threaded through the warp threads. They are known as 'beaters-in', and variant forms of this tool are still used in modern times. The identification of the Khatuniyeh spatula as a 'beater-in' is entirely appropriate considering that there is extensive evidence for weaving in the room in which it was found. Lastly, we should note that Gus and Ora Van Beek have
recently suggested (1990) that these bone spatulae were ophthalmic instruments, used for removing foreign objects from the eyes, but this is a far-fetched idea which carries little conviction. Their identification as weaving tools is far more plausible.
78. (KK 85/28; Fig. 23) Medial fragment of obsidian blade with secondary scalar removals, broken at both ends. ${ }^{15}$ L. 1.65 cm , max. W. 0.63 cm , max. thickness 0.35 cm .

D2, unit 62, Room 2 mud-brick tumble, $3.35 \mathrm{~m} \rightarrow \mathrm{~W}, 3.07$ $\mathrm{m} \rightarrow \mathrm{S}, 1.83 \mathrm{~m}$ below datum.
79. (KK 85/27; Fig. 23) Medial fragment of obsidian blade, unmodified, broken at both ends. L. 2.85 cm , max. W. 1.35 cm , thickness 0.45 cm .
D2, unit 68 , Room 2 mud-brick tumble, $1.64 \mathrm{~m} \rightarrow \mathrm{~W}, 0.99$ $\mathrm{m} \rightarrow \mathrm{S}, 1.56 \mathrm{~m}$ below datum.
80. (Pl. XIIIa, Fig. 23) Whetstone in very smooth brownishgrey stone, broken off at one end, L. 10.6 cm , max. thickness 2.3 cm .
D4, unit 184 , lying on bottom of coffin, $3.64 \mathrm{~m} \rightarrow \mathrm{~W}, 0.40$ $\mathrm{m} \rightarrow$ S. For position, see Fig. 6 .
81. (Fig. 23) Large cylindrical piece of stone, rounded at one end and broken off at the other, split into two pieces when found. Smooth light grey stone. Extant L. 19.0 cm, max. diam. 6.8 cm . Probably a pestle.
D1, unit 28 , Room 1 floor, $0.11 \mathrm{~m} \rightarrow \mathrm{~W}, 2.06 \mathrm{~m} \rightarrow \mathrm{~S}, 2.82$ m below datum. For position, see Fig. 6 .
82. (Fig. 23) Base fragment of cylindrical stone pestle, pale brownish-white stone. Extant L. 7.2 cm , max. diam. 6.8 cm . D4, unit 180 , Room 1 mud-brick tumble, $2.05 \mathrm{~m} \rightarrow \mathrm{~W}, 2.60$ $\mathrm{m} \rightarrow \mathrm{S}, c .0 .7 \mathrm{~m}$ above floor.
83. (Fig. 24) Fragment from a saddle-quern, basalt, $28.0 \times$ 31.0 cm , max. thickness 7.4 cm .

D1, unit 30 , Room 1 floor, $1.35 \mathrm{~m} \rightarrow \mathrm{~W}, 1.25 \mathrm{~m} \rightarrow \mathrm{~S}, 2.25$ m below datum. For position, see Fig. 6 .
84. (KK 85/1; Pls XIVa-b, Fig. 24; Curtis 1986: pl. on p. 17; Curtis and Green 1987: pl. 7) Carved limestone incense burner, square at top and bottom and circular in the middle, with two steps at base, petals or leaves in low relief in the middle, and a square holder (mostly broken away) at the top. No traces of burning were noted inside the holder. On the bottom there is a circular projection, apparently roughly finished rather than broken and covered with bitumen(?) probably for attachment. H. 15.0 cm , max. W. at top 10.2 cm . D1, unit 15 , Room 1 floor, $1.95 \mathrm{~m} \rightarrow \mathrm{~W}, 2.78 \mathrm{~m} \rightarrow \mathrm{~S}, 2.99$ m below datum. For position, see Fig. 6 .

[^15]In spite of the fact that no traces of burning were noted, the shape and size of the hollowed-out space at the top of this object suggest that it was an incense-burner. It is related to the so-called 'incense altars' of Iron Age II date that have been found at sites in Palestine (Gitin 1989; 1992). These are generally made of stone, and usually have four horns at the corners of the square basin at the top. The basins are supported on a plain shaft that is carved in one piece with the basin. There are good examples of such 'incense altars' from Tell Miqne-Ekron (Gitin 1989; 1992) and from Megiddo (e.g. May 1935: 21). None of these pieces are very close in form to the Khatuniyeh example, but there is from Schumacher's excavations at Megiddo a polychrome glazed 'incense stand' that has a basin at the top supported by a shaft that is decorated with what are apparently lotus leaves (May 1935: 21, fig. 6). Clearly the inspiration for this stand (and possibly also for the Khatuniyeh object) came ultimately from Egypt.

These 'incense altars' were superseded by cuboid or chest-shaped objects standing on four short legs that have been collected together by Shea (1983). ${ }^{16}$ These are made of stone or clay, and usually have incised decoration on the sides. There are examples from Mesopotamia, the Levant, Egypt and Arabia. Most of them date from the NeoBabylonian and Persian periods although some earlier examples do seem to be attested. Shea has convincingly demonstrated, on the basis of inscriptions, traces of burning in the hollow basin at the top, and pictorial representations, that such objects are incense burners. They would have had a domestic function, for example to fumigate houses, and we may suppose that the incense burner from Khatuniyeh served a similar purpose.

## Post-destruction pit

85. (Fig. 24) Loomweight in unbaked clay, spherical with central hole, some parts broken away. H. 2.7 cm , max. diam. 3.6 cm .
D4, unit $185,1.32 \mathrm{~m} \rightarrow \mathrm{~W}, 2.28 \mathrm{~m} \rightarrow \mathrm{~S}$.

## Level 3

86. (KK 85/25; Fig. 25) Iron tool of uncertain type, L. 17.0 cm , max. W. 2.1 cm , max. thickness 0.9 cm .
D1-D4, unit $501,0.03 \mathrm{~m} \rightarrow \mathrm{~W}, 3.82 \mathrm{~m} \rightarrow \mathrm{~S}, 1.19 \mathrm{~m}$ below datum.
87. (KK 85/7; Fig. 25) Copper alloy needle with fine shank and relatively small eye. Now bent in middle. L. 7.5 cm , max. diam. of shank 0.15 cm , L. of eye 0.25 cm .
D 2 , unit 60 , on floor beneath large grinding-stone, 0.48 m $\rightarrow \mathrm{W}, 2.39 \mathrm{~m} \rightarrow \mathrm{~S}, 1.32 \mathrm{~m}$ below datum.

[^16]88. (Fig. 25) Rear part of animal figurine with tail and top parts of hind legs surviving, probably a sheep. Extant L. 4.6 cm , extant H. 3.2 cm . Baked clay, 5 Y $8 / 4$ pale yellow.
D 2 , unit $55,3.65 \mathrm{~m} \rightarrow \mathrm{~W}, 1.86 \mathrm{~m} \rightarrow \mathrm{~S}, 1.14 \mathrm{~m}$ below datum.
89. (Fig. 25) Fragment of baked(?) clay, possibly a leg from an animal figurine, L. 2.2 cm .
A , unit A3.
90. (Fig. 25) Spindle-whorl of biconical shape, H. 2.5 cm , diam. 4.15 cm , wt. 31.0 g . Baked clay, mixed vegetable and grit temper. Fabric 5 YR $6 / 1$ light grey, firing in places to 5YR 7/4 pink.
D3, unit $110,2.69 \mathrm{~m} \rightarrow \mathrm{~W}, 1.45 \mathrm{~m} \rightarrow \mathrm{~S}, 0.97 \mathrm{~m}$ below datum.
91. (Fig. 25) Spindle-whorl of biconical shape, parts of surface missing and chipped around edge. H. 2.2 cm , diam. 4.9 cm , wt. 41.0 g . Baked clay, coarse grit temper with sparse vegetable inclusions. Fabric 5YR $7 / 6$ reddish yellow. D 3 , unit $110,2.36 \mathrm{~m} \rightarrow \mathrm{~W}, 1.43 \mathrm{~m} \rightarrow \mathrm{~S}, 1.00 \mathrm{~m}$ below datum.
92. (Fig. 25) Spindle-whorl or loomweight of conical shape. H. 2.3 cm , diam. 5.0 cm , wt. 49.1 g . Crudely made, unbaked clay, buff fabric.
D 2 , unit $55,2.47 \mathrm{~m} \rightarrow \mathrm{~W}, 3.07 \mathrm{~m} \rightarrow \mathrm{~S}, 1.08 \mathrm{~m}$ below datum.
93. (Fig. 25) Unbaked clay loomweight of flattened spherical shape with large centrally positioned hole. Orange brown clay with coarse grit inclusions and some vegetable temper. Small fragments missing. H. 3.1 cm , max. diam. 5.4 cm , diam. of central hole 0.8 cm , wt. 67.8 g .
D 3 , unit $110,3.44 \mathrm{~m} \rightarrow \mathrm{~W}, 3.46 \mathrm{~m} \rightarrow \mathrm{~S}, 1.08 \mathrm{~m}$ below datum.
94. Another. In poor condition and incomplete. H. c. 3.5 cm , max. diam. 5.2 cm .
D3, unit $110,3.81 \mathrm{~m} \rightarrow \mathrm{~W}, 3.42 \mathrm{~m} \rightarrow \mathrm{~S}, 1.05 \mathrm{~m}$ below datum.
95. Another. Fragments only.

D3, unit $110,3.28 \mathrm{~m} \rightarrow \mathrm{~W}, 0.44 \mathrm{~m} \rightarrow \mathrm{~S}, 1.08 \mathrm{~m}$ below datum, on top of one of the large stones forming the wall of the southern feature.
96. (Fig. 25) Another. Parts missing. H. 3.8 cm , max. diam. 5.0 cm , wt. 78.1 g .

D 3 , unit $110,2.99 \mathrm{~m} \rightarrow \mathrm{~W}, 3.49 \mathrm{~m} \rightarrow \mathrm{~S}, 1.44 \mathrm{~m}$ below datum.
97. Another. Fragments only.

D 3 , unit $110,3.05 \mathrm{~m} \rightarrow \mathrm{~W}, 3.43 \mathrm{~m} \rightarrow \mathrm{~S}, 1.44 \mathrm{~m}$ below datum.
98. (KK 85/2; Pl. XXf, Fig. 26) Leg(?) of baked clay, slightly curved, goblet-shaped in outline, broken perhaps
from a pottery vessel or offering-table. There is incised decoration in the form of vertical lines fanning out to fill broader, upper part of surface and there is notched decoration around the edge. The surface is slightly curved. H. 6.2 cm , W. (at base) 4.5 cm , (at top) 9.3 cm , thickness (at base) 1.85 cm , (at top) 2.5 cm . Fabric $7.5 \mathrm{YR} 7 / 4$ pink firing to 10YR $8 / 3$ very pale brown, grit temper.
D 4 , unit $167,0.40 \mathrm{~m} \rightarrow \mathrm{~W}, 3.70 \mathrm{~m} \rightarrow \mathrm{~S}, 1.36 \mathrm{~m}$ below datum.
99. (Fig. 26) Small fragment of stone, possibly from a sad-dle-quern, grey basalt, $5.4 \times 4.8 \mathrm{~cm}$, max. thickness 4.0 cm . D 2 , unit $60,1.29 \mathrm{~m} \rightarrow \mathrm{~W}, 1.97 \mathrm{~m} \rightarrow \mathrm{~S}, 0.80 \mathrm{~m}$ below surface.
100. (Fig. 26) Fragment of stone disc with highly polished surface. Fine-grained, dark grey basalt. $4.7 \mathrm{~cm} \times 6.55 \mathrm{~cm}$, max. thickness 1.1 cm .
D1, unit 24.
101. (Fig. 26) Small circular stone disc with some ground edges, possibly a gaming-piece. Light buff, with darker, reddish-brown patches on one side. Diam. 2.2-2.3 cm, thickness 0.6 cm .
D 2 , unit $56,0.14 \mathrm{~m} \rightarrow \mathrm{~W}, 2.83 \mathrm{~m} \rightarrow \mathrm{~S}, 0.97 \mathrm{~m}$ below datum.

## Level 2

102. (KK $85 / 31$; Fig. 26) Pair of copper alloy tweezers formed from strip of metal bent double and slightly looped in centre. The arms of the tweezers are broad and flattened at the ends and taper towards the middle. There is a coil of wire around the loop. Max. L. of tweezers 6.2 cm , max. W. 2.2. cm.
D1-D6-D8 baulk, unit 458, on Level 2 floor, $0.27 \mathrm{~m} \rightarrow \mathrm{~S}$, $0.04 \mathrm{~m} \rightarrow \mathrm{~W}, 1.54 \mathrm{~m}$ below datum.

Tweezers made from a thin strip of bronze bent into a hairpin shape are particularly common in the Achaemenid and later periods. Examples may be noted from the cemeteries at Deve Hüyük (Moorey 1980: fig. 14/384) and Kamid elLoz (Poppa 1978: pl. 19, grave 61, no. 3).
103. (Fig. 26) Spindle-whorl or loomweight of unbaked clay, spherical shape, centrally pierced. Max. diam. 3.8 cm , H. 2.5 cm .

D 2 , unit $52,3.10 \mathrm{~m} \rightarrow \mathrm{~W}, 3.62 \mathrm{~m} \rightarrow \mathrm{~S}, 0.67 \mathrm{~m}$ below datum.
104. (KK 84/1; Sulaimaniya Museum; Pls XXa-d, Fig. 26) Egyptian amulet, max. H. 1.97 cm , W. 1.4 cm , max. diam. $1.25 \mathrm{~cm} .{ }^{17}$ Made of white composition and covered with a dark red glaze which survives in incised lines and undercut areas. The amulet is broken, apparently along the line of a

[^17]horizontal perforation for a string-hole, and the upper part is missing. Two figures are depicted standing side by side. On the left is a man wearing a kilt, bare-chested and bearded, and there are traces of the left-hand lappet of his wig. He is shown striding, his left leg forward, with his arms by his side. Beside him stands a woman in an ankle-length, closefitting robe. Her feet are together and her left arm hangs by her side. The right arm is missing, probably broken away. The heads of both figures are missing. The couple are a god and goddess, probably Nefertum and the lion-headed goddess Sekhmet. They stand on a base, which was probably rectangular but one corner is worn away, and rest against a dorsal plaque on the back of which are incised hieroglyphic signs. At the top only traces remain, while in the middle there is a neb sign. Below this there is an ankh sign, with a was-sceptre on the left and probably another was-sceptre on the right. This would mean 'possessor of life and dominion'.
A , unit $\mathrm{A} 2,1.50 \mathrm{~m} \rightarrow \mathrm{E}, 2.15 \mathrm{~m} \rightarrow \mathrm{~N}, c .0 .60 \mathrm{~m}$ below surface.

This amulet may be compared with a blue-green glazed composition amulet in the British Museum also showing Nefertum and Sekhmet, but here the figures are seated (Andrews 1994: fig. 13, fourth from left). Such amulets date from the Late Dynastic to the Ptolemaic period, c. 500-200 вс.
105. (KK 85/43; Fig. 26) Centrally pierced conical disc, probably a spindle-whorl or a bead. Dark grey stone. H. 0.8 cm , max. diam. 1.8 cm .
D4, unit $152,1.93 \mathrm{~m} \rightarrow \mathrm{~W}, 1.84 \mathrm{~m} \rightarrow \mathrm{~S}$.
106. (Fig. 26) Centrally pierced, flat stone disc. Max. diam. 7.4 cm ., max. thickness 1.3 cm .

D4, unit $153,1.60 \mathrm{~m} \rightarrow \mathrm{~W}, 1.60 \mathrm{~m} \rightarrow \mathrm{~S}$.

## Trench D5

107. (Fig. 26) Baked clay spindle-whorl, spherical in shape with hole in centre. Mainly grit temper, fabric 2.5 YR $6 / 6$ light red firing to 2.5 YR $6 / 4$ light reddish brown. Burnt on one side. H. 3.3 cm , max. diam. 3.5 cm .
D5, unit $203,0.55 \mathrm{~m} \rightarrow \mathrm{~W}, 1.30 \mathrm{~m} \rightarrow \mathrm{~N}, 1.30 \mathrm{~m}$ below surface.

## Level 1/Surface

108. (KK 84/31, MM for study 283; Fig. 27) Iron nail, L. 2.6 cm , with large circular head, diam. 2.45 cm , and squaresectioned shank $0.65 \mathrm{~cm} \times 0.65 \mathrm{~cm}$ at end, tip missing. B, unit B2, from tannur in Level 1 structure.
109. (KK 84/41, Sulaimaniya Museum for study; Pl. XXe, Fig. 27) Rectangular slab of baked(?) clay with rounded corners, $14.4 \times 11.5 \mathrm{~cm}$, max. thickness 3.55 cm , pierced

## Small Finds

with two holes, $1.75-2.0 \mathrm{~cm}$ in diameter. Purpose unknown, but possibly a weight. Large quantity of vegetable and some grit temper.
B, unit B1, built into wall of Level 1 structure.
110. (Fig. 27) Circular pottery disc, ground down from a sherd, irregular in outline. Max. diam. 3.5 cm , thickness 0.9 cm . Fabric 10YR $6 / 3$ pale brown, firing to 7.5 YR $7 / 4$ pink on exterior and 10 YR $7 / 2$ light grey on interior. Principally grit temper.
D6, unit 352 , slope wash.
For a commentary on pottery discs, see under 73 .
111. (Fig. 27) Cylindrical fragment of bone with roughly shaved sides, cut off at one end and broken away at the other, L. 4.4 cm , max. diam. 1.2 cm .
Surface find, $c .8 .50 \mathrm{~m}$ due W of SW corner of D4.
112. (KK 84/5; Pl. XIVc, Fig. 27) Fragment of door-socket capstone, intact along one edge and stepped up towards hole in centre. White limestone. $27.5 \times 20.0 \mathrm{~cm}$, max. H. 11.5 cm . Surface find near trench B.

Door-socket capstones with elaborate stepped decoration have been found at a number of Assyrian sites. They were positioned in front of doors, and have a semicircular shape cut out for the door-pole. Their purpose was to cover the socket or pivot-stone in which the door-pole revolved. The stepped decoration is around the central opening. At

Nimrud, capstones of this type occurred in both the NorthWest Palace (Meuszynski 1981: plan 2) and in Fort Shalmaneser (Mallowan 1966: II, pl. 347). There are also examples from Khorsabad (e.g. Loud and Altman 1938: pls 18C, 20A-C), from the North Palace of Ashurbanipal at Nineveh (Gadd 1936: nos 124942-4; Barnett 1976: pl. xxviI; Albenda 1978) and from Balawat (Curtis 1982b: fig. 85). As these stones are so well attested in Assyrian buildings, Julian Reade has suggested that they should be regarded as a hallmark of Assyrian architecture (Reade 1995: 40). Following on from this, he claims that the presence of two of them in the 'palace' at Tepe Giyan in western Iran (Contenau and Ghirshman 1935: pl. if/5) is an indication of 'an official building in an Assyrian province'. It may also be of interest that these capstones have been found at Tell Halaf in North-East Syria (Hrouda 1962: pls 41-2). Whether such capstones can actually be regarded as diagnostic of Assyrian 'official' buildings is doubtful, particularly as it is questionable whether a small place such as Khatuniyeh could have boasted an 'official' building, but what is certain is that these stepped capstones are widely distributed in the Late Assyrian period and have been found in a number of Assyrian buildings.
113. (Fig. 27) Fragment of stone block, originally probably square, with hole bored from top and bottom. Possibly a socket-stone reused upside down. $10.8 \mathrm{~cm} \times 9.0 \mathrm{~cm}$, H. 6.4 cm .
D1, found in association with Level 1 structure.

## CHAPTER 4

## Catalogue of Pottery

## Introduction

The catalogue of pottery from Khirbet Khatuniyeh has been presented in the form of a table, arranged by stratigraphic level ( $8-2$ ), with separate sections for mixed Levels 8 and 7, mixed Levels 3 and 2, sherds from trench D5 and material from surface clearance. Each item is categorised according to the following headings:

No. Only illustrated pieces are given a principal number; similar examples not illustrated are recorded beneath the numbered item ( $\mathrm{a}, \mathrm{b}, \mathrm{c}$, etc.). These were not always found in the same level as the illustrated example; material from mixed-level units or surface soil may be subsumed under other entries (the unit number provides the level). 'BM' refers to sherd samples exported and brought to the British Museum for analysis (see Ch. 7). 'KK' refers to registration numbers given in the field in 1984 and 1985 for material thereafter deposited in the Mosul Museum (MM); some items were subsequently moved to the Iraq Museum, Baghdad (IM).

UNIT The unit number is the designation given in the field for a particular context, or, alternatively, arbitrary division of excavated soil. Redefined in the light of later work, these designations provide the sole or major reference to provenance, especially for sherd material, which is retained in batches according to unit number. For definitions, see the list of unit numbers.
dimensions For rims 'L.' refers to the preserved length of a sherd (recorded as a guide to the reliability of the reconstructed drawing). The state of preservation of bases is given as a percentage. For reconstructed vessels the total number of sherds is given whenever it was recorded.

FABRIC COLOUR / SURFACE COLOUR References to colour are according to the Munsell soil colour charts (Munsell 1975), as read under conditions of natural light. Though having a degree of subjectivity, the use of such charts allows more subtle differentiation in tone and avoids the universal record of 'pinky buff'. When the fabric colour is not homogeneous, variations are described as exterior or interior, or as 'core' (i.e. the middle portion). For the record of the surface of pottery we have avoided such terms as 'slip' and 'wash', whose application has been contradicted by analysis in earlier work (Freestone and Hughes 1989: 73).

VEGETABLE INCLUSIONS / GRIT INCLUSIONS We have eschewed the term 'temper' so as to make no implication about the deliberate or accidental nature of fabric inclusions. For grit inclusions, we have recorded the type of grits visible ('calcareous' = white limestone). For the density of inclusions we use the following terms:

```
'very sparse' barely visible
'sparse' giving visual impression of <20% of fabric
    body
'medium' giving visual impression of 20-40% of fab-
    ric body
'dense' giving visual impression of > 40% of fabric
    body
```

NB A dash $(-)$ signifies 'not recorded'. Since all our material had to be 'processed' in the field, the near complete vessels then being taken to the museum and the broken vessels and sherd material (apart from samples for export) being discarded, a certain amount of basic data is wanting.

| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| LEVEL 8 |  |  |  |  |  |  |  |  |
| 1 | 254 | Rim diam. 19.0; <br> L. 6.4 | 5YR 7/6 reddish yellow | Extr. 10YR 7/3 very pale brown; intr. 10YR $8 / 4$ very pale brown | Sparse | Calcareous | Sparse |  |
| 1 a | 41 | Rim diam. 22.0; L. 1.0 (of intact rim; sherd $L$. 4.4) | 5YR 7/6 reddish yellow | Extr. 7.5YR $6 / 6$ reddish yellow; intr. 10YR $8 / 4$ very pale brown |  | Calcareous, micaceous | Sparse | Extr. rim horizontal burnish. |
| 2 | 255 | $\begin{aligned} & \text { Rim diam. } 24.0 \text {; } \\ & \text { L. } 4.8 \end{aligned}$ | 5Y 7/3 pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, grey | Medium | Pale reddish yellow very sparse grog inclusions. Rough extr./intr. surface texture; poorly prepared clay. |
| $\begin{aligned} & 3 \\ & \text { Sample BM } \\ & 1987-4-12,15 \\ & \hline \end{aligned}$ | 254 | Rim diam. 11.0; $\text { L. } 5.1$ | 2.5YR 6/6 light red | 10YR $8 / 4$ very pale brown | Sparse | Calcareous, grey | Sparse | Extr./intr. horizontal burnish. For scientific anaylsis, see Ch. 7. |
| 3 a | 255 | Rim diam. 10.0; $\text { L. } 3.8$ | 2.5YR 6/6 light red | 10YR $8 / 3$ very pale brown, extr. mottled 7.5YR $5 / 4$ brown | Very Sparse | Calcareous | Very sparse | Extr./intr. horizontal burnish. |
| 4 | 42 | $\begin{aligned} & \text { Rim diam. 27.0; } \\ & \text { L. } 5.8 \end{aligned}$ | 5YR $7 / 6$ reddish yellow | 2.5Y $8 / 2$ white, with painted bands 5YR 5/4 reddish brown (part of rim mottled 5YR 3/1 very dark grey) | Medium | Calcareous, <br> black, grey <br> (angular and <br> rounded) | Dense | Relatively hard-fired. Occasional vegetable impressions on extr./intr. surfaces. |
| $\begin{aligned} & \mathbf{5} \\ & \text { Sample BM } \\ & \text { 1987-4-12,33 } \\ & \hline \end{aligned}$ | 251 | $\begin{aligned} & \text { Rim diam. 7.0; } \\ & \text { L. } 3.0 \end{aligned}$ | 5Y $8 / 2$ white | 5Y $8 / 2$ white | Very sparse |  |  | For scientific analysis, see Ch. 7. |
| 6 | 255 | Rim diam. $13.5 ; \text { L. } 4.1$ | $2.5 \mathrm{Y}^{2 / 4} \text { pale }$ yellow | 2.5 Y $8 / 2$ white, with painted band on extr. rim 10YR 3/1 very dark grey | Medium |  |  | Dense vegetable impressions on intr. surface. |
| 7 | 254 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 5.5 \end{aligned}$ | 5 Y $7 / 4$ pale yellow | Extr. 10YR $8 / 2$ white; intr. $10 \mathrm{YR} 8 / 3$ very pale brown | Medium | Calcareous, micaceous | Sparse |  |
| 7a | 254 | $\begin{aligned} & \text { Rim diam. 10.0; } \\ & \text { L. } 2.8 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Rough intr. surface texture, irregular gritty clay. |
| 7b | 41 | Rim diam. 12.0; L. 4.5 (of intact rim; sherd L. 5.4) | 10YR $8 / 4$ very pale brown | 2.5Y $8 / 2$ white | Medium | Calcareous | Sparse | Exu/.intr. surfaces smooth but pitted with air-bubbles. |
| 7 c | 41 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 3.1 \end{aligned}$ | $\begin{aligned} & \text { 2.5YR } 6 / 6 \text { light } \\ & \text { red } \end{aligned}$ | 10YR $8 / 3$ very pale brown | Medium | Calcareous, black | Medium |  |
| 8 | 254 | $\begin{aligned} & \text { Rim diam. 28.0; } \\ & \text { L. } 6.1 \end{aligned}$ | Variations <br> between 2.5 Y <br> $8 / 2$ white and <br> $8 / 4$ pale yellow | 2.5Y $8 / 2$ white | Medium | Calcareous, grey | Very sparse | Sandy extr./intr. surface texture. Extr. combed beneath rim |
| 9 | 255 | Rim diam. 24 5; L. 7.3 | 5YR 6/4 light reddish brown | Extr. 10YR $8 / 4$ very pale brown; intr. encrusted and not visible |  | Micaceous, black, grey |  | Rough intr./extr. surface texture. |
| 9 a | 254 | $\begin{aligned} & \text { Rim diam. 23.0; } \\ & \text { L. } 6.0 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous, <br> black, grey | Medium |  |
| 9b | 255 | Rim diam. <br> c. 28.0 , L. 5.8 | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown |  | Mostly calcareous, with grey | Medium |  |
| 10 | 255 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 3.7 \end{aligned}$ | 7.5YR 5/4 brown | 7.5YR 7/4 pink, with painted band 5YR 6/4 light reddish brown |  | Mostly grey, with calcareous, black | Dense |  |
| 11 | 255 | Rim diam. 26.5; <br> L. 3.8 | 5Y 8/4 pale yellow | 2.5 Y $8 / 2$ white, extr. partly burned to between 10YR 5/1 grey and $6 / 2$ light brownish grey | Medium | Grey | Sparse | Pronounced intr. wheel marks. |
| 12 | 43 | Rim diam. <br> c. 50.0 ; <br> L. 16.0 | Approx. 2.5Y <br> 4/0 dark grey | 10YR $8 / 3$ very pale brown | Dense | Mostly calcareous, with micaceous and some reddish brown | Medium | Walls finger-impressed and slightly irregular in thickness (made from coils?). Dense. vegetable impressions on extr.fintr. surfaces. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 12a | 42 | Rim diam. indeterminate; L . - - | Approx. 2.5Y 4/0 dark grey | 10YR $8 / 3$ very pale brown | Dense | Calcareous | Medium | Possibly a fragment of the same vessel as 12 . |
| 13 | 43 | $\begin{aligned} & \text { Rim diam. } 10.5 \text {; } \\ & \text { L. } 3.4 \end{aligned}$ | $\begin{aligned} & \text { Core 5Y } 6 / 1 \\ & \text { grey; extr.I } \\ & \text { intr. } 7.5 \text { YR } 7 / 4 \\ & \text { pink } \end{aligned}$ | 10YR $8 / 4$ very pale brown, with painted bands 2.5YR 3/4 dark reddish brown | Dense | Mostly calcareous. with grey | Medium | Dense vegetable impressions on extr./intr. surfaces. Pronounced intr. wheel marks. |
| 14 | 255 | $6.4 \times 6.8 \times 0.9$ | 7.5YR $6 / 4$ light brown | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR $7 / 3$ very pale brown. Extr. painted bands 5YR $6 / 4$ light reddish brown | Dense | Calcareous, black, grey | Dense |  |
| 15 | 255 | $4.6 \times 4.3 \times 0.8$ | 7.5YR $7 / 4$ pink | Extr. 10YR $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown. Extr. painted bands $7 / 5 \mathrm{YR} 6 / 4$ light brown | Medium | Calcareous | Medium |  |
| 16 | 254 | $3.8 \times 2.7 \times 0.5$ | Extr. 7.5YR <br> 7/4 pink; intr. ranging between 5YR $7 / 6$ reddish yellow and 7.5YR 7/4 pink | Extr. 7.5YR $7 / 4$ pink; intr. 10YR $8 / 3$ very pale brown. Extr. painted bands 7.5YR 4/2 dark brown/brown | Sparse | Mostly calcareous, with grey | Medium |  |
| 17 | 255 | $3.2 \times 3.3 \times 0.4$ <br> ( 2 joining sherds) | 5Y $6 / 2$ light olive grey -7/2 light grey | 5Y 7/2 light grey. Extr. painted bands 2.5YR 3/0 very dark grey |  | Mostly grey, with calcareous | Sparse |  |
| 17a | 254 | $2.9 \times 4.2 \times 0.5$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 2$ white; intr. $7.5 \mathrm{YR} 8 / 4$ pink. Two extr. painted bands 5YR 5/4 reddish brown | Sparse | Calcareous, grey | Sparse | Pronounced intr. wheel marks. Some fine grit scratches on extr. |
| 17b | 42 | $2.5 \times 2.7 \times 0.5$ | 7.5YR $7 / 4$ pink | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 5YR $7 / 4$ pink. Single extr. painted band 5YR 3/1 very dark grey | Medium | Calcareous, grey | Medium | Extr. smooth; intr. exceptionally rough and irregular. |
| 17c | 254 | $3.0 \times 4.3 \times 1.0$ | $2.5 \mathrm{Y} 8 / 4$ pale yellow-7.5YR $6 / 4$ light brown | Extr. 10YR $8 / 3$ very pale brown; intr. 10 YR $7 / 3$ very pale brown. Single extr. painted band 5YR 6/4 light reddish brown | Sparse | Calcareous, micaceous, black, grey, reddish brown | Medium |  |
| 17d | 255 | $5.3 \times 7.0 \times 0.9$ | 10YR $8 / 4$ very pale brown | Extr. 2.5 Y $8 / 2$ white; intr. 10YR $8 / 2$ white. Single extr. painted band 10YR 3/1 very dark brown | Medium | Mostly calcareous, with micaceous, black, grey | Dense |  |
| 17e | 255 | $3.1 \times 3.1 \times 1.1$ | 5YR $6 / 4$ light reddish brown | Extr. 10YR $8 / 2$ white; intr. 7.5YR $7 / 2$ pinkish grey - $7 / 4$ pink. Single extr. painted band 5YR $5 / 3$ reddish brown and 2.5YR 4/6 red | Medium | Mostly calcareous, with grey | Dense |  |
| 18 | 254 | Base diam. 10.0; $35 \% \text { base }$ | Core 5Y 6/1 <br> grey; extr./intr. <br> 5YR 7/6 <br> reddish yellow | Mottled 5YR $7 / 4$ pink and 7.5YR $8 / 4$ pink | Sparse | Calcareous, micaceous | Sparse | Incision at junction of ring and underside. |
| 18a | 41 | Base diam. 7.5; $10 \%$ base | 2.5Y $6 / 2$ light brownish grey | Extr. 2.5Y $7 / 2$ light grey, partly burnt 2.5 Y 4/0 dark grey; intr. 10YR 7/2 light grey | Medium | Calcareous | Medium | Pronounced intr. wheel marks. |
| 18b | 254 | $\begin{aligned} & \text { Base diam. } 10.0 ; \\ & 20 \% \text { base } \\ & \hline \end{aligned}$ | 10YR 7/4 very pale brown | 10YR $8 / 2$ white | Medium | Calcareous, black, grey | Medium |  |
| 18c | 255 | $\begin{aligned} & \text { Base diam. } 10.0 \text {; } \\ & 20 \% \text { base } \end{aligned}$ | 7.5YR $6 / 4$ light brown | Extr. 7.5YR 6/2-7/2 pinkish grey: intr. 5YR $7 / 6$ reddish yellow | Medium | Calcareous, micaceous, grey, black | Medium | Slightly warped. Rough extr./intr. surface texture. |
| 18d | 49 | Base diam. 5.5; $100 \%$ base | Core 2.5YR <br> 5/0 grey: extr./intr. 7.5YR 7/6 reddish yellow | Extr. 10YR $7 / 4$ very pale brown, with area 5YR $6 / 6$ reddish yellow; intr. 5YR 7/6 reddish yellow | Medium | Calcareous, micaceous, black, grey | Medium | Smooth extr. surface texture; gritty intr. surface texture. Abraded, with crack at centre of base. |


| No. | UNIT | DIMENSIONS (cm) | $\begin{aligned} & \text { FABRIC } \\ & \text { COLOUR } \end{aligned}$ | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| LEVELS 8-7 |  |  |  |  |  |  |  |  |
| 19 | 41 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 5YR 6/3 light reddish brown | Extr. 7.5YR $8 / 2$ pinkish white; intr. 5YR 7/3 pink |  | Calcareous | Sparse | Extr./intr. horizontal burnish. |
| 20 | 41 | $\begin{aligned} & \text { Rim diam. 18.0; } \\ & \text { L. } 3.5 \end{aligned}$ | 7.5YR 7/6 reddish yellow | 10YR $7 / 4$ very pale brown |  | Calcareous | Very sparse | Rim/extr horizontal burnish. |
| 21 | 41 | $\begin{aligned} & \text { Rim diam. } 16.0 \text {; } \\ & \text { L. } 3.2 \end{aligned}$ | 5YR 7/67.5YR 7/6 reddish yellow | 10YR 8/4 very pale brown |  | Calcareous | Very sparse | Very sparse, light red grog inclusions. Rim/intr. horizontal light burnish. Extr. rather irregular, with ridges. |
| 22 <br> Sample BM <br> 1987-4-12,47 | 41 | Rim diam. 15.0; $\text { L. } 5.2$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse | Chalky extr./intr. surface texture, with fine vegetable impressions. For scientific analysis, see Ch. 7. |
| 23 | 41 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 2.5 \end{aligned}$ | 5YR $7 / 6$ <br> reddish yellow | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse |  |
| 24 | 41 | Rim diam. 13.0; <br> L. 3.2 | $\begin{aligned} & \text { 5YR 6/6 } \\ & \text { reddish yellow } \end{aligned}$ | 5YR $7 / 6$ reddish yellow | Sparse | Calcareous | Fine |  |
| 25 | 41 | Rim diam. 22.5; $\text { L. } 3.9$ | Core 10YR 5/1 <br> grey; extr./int. 5YR $7 / 6$ reddish yellow | 10YR 7/3 very pale brown | Medium | Calcareous | Sparse | Rough extr./intr. surface texture, pitted with airbubbles. Shallow incisions below rim on extr. |
| 26 <br> Sample BM <br> 1987-4-12,24 | 41 | Rim diam. 24.0; $\text { L. } 4.2$ | 2.5Y $8 / 4$ pale yellow | 2.5 Y $8 / 2$ white | Medium | Calcareous, occasional grey | Medium | Exceptionally smooth extr./intr. surface texture, occasionally pitted with air-bubbles and calcareous grits. Groove around extr. rim. <br> For scientific analysis, see Ch. 7. |
| 27 <br> Sample BM <br> 1987-4-12,5 | 41 | Rim diam. 26.0; $\text { L. } 4.6$ | Extr. 10YR 7/3 very pale brown; intr. 7.5YR 7/4 pink | Extr. $5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous, micaceous | Sparse | Vegetable impressions on extr/intr. surfaces. For scientific analysis, see Ch. 7. |
| 28 | 41 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 3.0 \\ & \hline \end{aligned}$ | 5YR 6/6 reddish yellow | 7.5YR 7/4 pink | Sparse | Calcareous | Sparse |  |
| 29 | 41 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 3.8 \end{aligned}$ | 7.5YR 7/4 pink | 7.5YR $7 / 4$ pink, with painted decoration 5YR $5 / 4$ reddish brown |  | Calcareous | Very sparse | Slight extr. groove ( 0.5 cm wide) at 0.4 cm beneath rim. |
| 30 | 41 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. 1.6 } \end{aligned}$ | 2.5YR 6/8 light <br> red | 2.5YR $6 / 6$ light red |  | Calcareous, micaceous | Very sparse | Extr. horizontal light burnish. |
| 31 | 41 | Rim diam. 14.0; <br> L. 6.4 | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown, with painted bands on extr./intr. of rim 2.5YR 5/6 red | Medium | Calcareous | Medium | Chalky, roughly finished, extr./intr. surface texture, with vegetable impressions. |
| 32 | 41 | Rim diam. 8.5; <br> L. 4.8 | $2.5 \mathrm{Y} 8 / 2$ white | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse | Extr./intr. surfaces pitted with air-bubbles and vegetable impressions. |
| 32a | 41 | Rim diam. 13.0; <br> L. 4.1 | 5Y $8 / 4$ pale yellow | 5Y $8 / 4$ pale yellow |  | - | - |  |
| 32b | 41 | $\begin{aligned} & \text { Rim diam. 16.0: } \\ & \text { L. } 2.9 \end{aligned}$ | 10YR 7/3 very pale brown | 10YR $8 / 4$ very pale brown | Dense | Mostly <br> calcareous. <br> with <br> micaceous. <br> black, grey | Medium | Dense vegetable impressions and calcareous grits on extr./intr. surfaces. |
| 33 | 41 | Rim diam. 16.5; <br> L. 2.4 | 10YR 8/4 very pale brown | 2.6Y $8 / 4$ pale yellow. Extr. paint 5YR 5/4 reddish brown, possibly originally extending over the now abraded rim | Medium | Calcareous | Medium | Extr. paint thickly and unevenly applied. |
| 34 | 41 | $\begin{aligned} & \text { Rim diam. } 50.0- \\ & 55.0 \text { - } \\ & \text { L. } 12.0 \end{aligned}$ | 5Y 7/3 pale yellow | $2.5 \mathrm{Y} 8 / 4$ pale yellow | Medium | Calcareous | Sparse | Sparse pink grog inclusions. Rough extr./intr. surface texture, pitted with airbubbles and vegetable impressions. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 35 | 41 | $\begin{aligned} & \text { Rim diam. 21.0; } \\ & \text { L. } 2.4 \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse |  |
| 35a | 41 | Rim diam. 18.0; Ls. 4.7, - (2 nonjoining sherds) | 7.5YR $7 / 6$ reddish yellow | 7.5YR 7/4 pink | Medium | Calcareous | Sparse |  |
| 36 | 41 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 2.1 \end{aligned}$ | 5YR 814 pink | 5YR $8 / 4$ pink; rim extr. painted 2.5YR 4/4 reddish brown |  | Calcareous | Medium |  |
| 37 | 41 | Button base diam. 1.2; 100\% base and lower body | 2.5Y $8 / 4$ pale yellow | Extr. 7.5YR $7 / 4$ pink, with patches of 10 YR $8 / 3$ very pale brown; intr. not visible |  | Calcareous | Very sparse | Thick bitumen coating. incl. lump 0.3 cm thick, on intr.; bitumen drips on extr. |
| 38 | 41 | $3.5 \times 4.5 \times 1.1$ | 2.5Y $8 / 4$ pale yellow | 2.5Y $8 / 2$ white. Extr. painted bands $2.5 \mathrm{Y} 3 / 0$ very dark grey (upper) and (lower) 10YR 3/1 very dark grey | Medium | Black, grey | Medium |  |
| 38a | 41 | $6.0 \times 4.2 \times 0.8$ | Core 7.5YR $6 / 2$ pinkish grey; extr./intr. 7.5YR 7/4 pink | Extr. approx. $2.5 \mathrm{Y} 8 / 2$ pale yellow; intr. 10YR $8 / 2$ white. Two extr. painted bands 7.5YR $4 / 2$ dark brown | Sparse | Calcareous, pale yellow, grey, sandy | Dense |  |
| 38b | 41 | $3.1 \times 3.5 \times 0.6$ | 5YR 7/6 reddish yellow | Extr. above band 5 YR $7 / 4$ pink; extr below band/intr. 10YR $8 / 3$ very pale brown. Single extr, painted band 2.5YR $6 / 6$ light red | Medium | Calcareous | Medium |  |
| 38c | 41 | $2.4 \times 3.3 \times 0.8$ | 10YR 7/3 very pale brown | 10YR $8 / 2$ white. Single extr. painted band 5YR 5/4 reddish brown | Sparse | Black, grey, micaceous | Sparse |  |
| 39 | 41 | $3.1 \times 2.3 \times 1.1$; diam. of perforation 0.4 | 10YR $8 / 3$ very pale brown | 10YR $8 / 2$ white | Medium | Calcareous, micaceous | Very sparse | Perforated from extr. to intr. |
| 40 | 41 | Rim diam. 25.0; L. 7.3 (2 joining sherds) | Core 2.5YR 2.5/0 black; extr./intr. <br> 7.5YR $6 / 4$ light brown-10YR $6 / 4$ light yellowish brown | 7.5YR 5/2 brown: upper rim burnt 2.5 YR 4/0 dark grey | Medium | Mostly grey (angular), with calcareous, micaceous | Medium | Medium density, grey/brown inclusions. Extr./intr. horizontal burnish. |
| LEVEL 7 |  |  |  |  |  |  |  |  |
| 41 <br> Sample BM <br> 1987-4-12,13 | 39 | $\begin{aligned} & \text { Rim diam. 18.0; } \\ & \text { L. } 5.0 \end{aligned}$ | Extr. core 5YR $7 / 6$ reddish yellow - 7.5 YR $7 / 4$ pink; intr. 2.5YR $6 / 6$ light red | 5YR $6 / 4$ light reddish brown | Sparse | Calcareous | Sparse | Rim/intr. horizontal burnish. <br> For scientific analysis, see Ch. 7. |
| 42 | 39 | Rim diam. 15.0; L. 4.6 (of intact rim; sherd L. 5.4) | 5YR 6/6 reddish yellow | 5YR $7 / 6$ reddish yellow | Sparse | Calcareous | Very sparse | Extr./intr. horizontal burnish. Incised horizontal line on extr. edge of rim. Exceptionally brittle fabric. |
| 43 Sample BM 1987-4-12,24 | 39 | Rim diam. 26.0; <br> L. 3.2 | Core 7.5YR 5/2 brown; extr./intr. 10YR 4/1 dark grey | Extr. mostly 10YR $7 / 3$ very pale brown; the rest and intr. 10YR 4/1 dark grey | Sparse | Calcareous | Very sparse | Pink, very sparse grog inclusions. Irregular extr./intr. surface texture, with sparse vegetable impressions. For scientific analysis, see Ch. 7. |
| 44 <br> Sample BM <br> 1987-4-12,4 | 39 | Rim diam. 27.5; <br> L. 5.2 | Core 5YR 7/6 reddish yellow; extr./intr. 10R $5 / 8$ red | 10YR $8 / 3$ very pale brown | Dense | Calcareous | Medium | Irregular extr./intr. surfaces. For scientific analysis, see Ch. 7. |
| 45 | 39 | Rim diam. 54.0; <br> L. 8.2 | 5YR $7 / 6$ reddish yellow | 7.5YR 8/6 reddish yellow | Medium | Calcareous | Medium | Irregular intermittent grooves on extr. below rim. |
| 46 | 39 | Rim diam. 12.0; Ls. 3.6, - (2 nonjoining sherds) | 7.5YR $6 / 6$ reddish yellow | 7.5YR 7/4 pink | Sparse | Mostly calcareous, with grey, buff | Dense | Extr./intr. surfaces abraded. |
| 46a | 41 | $\begin{aligned} & \text { Rim diam. } 43.0 \text {; } \\ & \text { L. } 11.6 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 2$ white | Medium | Calcareous | Sparse | Air-bubbles on extr./intr. surfaces. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 47 | 39 | $\begin{aligned} & \text { Rim diam. } 10.0 \text {; } \\ & \text { L. } 3.0 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown, partly lightly burnt 10YR $6 / 2$ light brownish grey | Medium | Calcareous, micaceous | Sparse |  |
| 47a | 48 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 3.4 \end{aligned}$ | 10YR $8 / 4$ very pale brown | 5Y $8 / 2$ white | Medium | Mostly <br> calcareous, <br> with black, <br> grey | Medium |  |
| 48 | 39 | $\begin{aligned} & \text { Base diam. } 8.0 \text {; } \\ & 10 \% \text { base } \end{aligned}$ | 10YR $8 / 3$ very pale brown | 10YR 7/2 light grey |  |  |  | No visible fabric inclusions. <br> Exceptionally smooth extr./intr. surface texture. |
| 48a | 39 | Base diam. 7.5; <br> $25 \%$ base | $5 \mathrm{Y} 8 / 3 \text { pale }$ yellow | 2.5Y $7 / 2$ light grey |  |  |  | Red mineral traces or grog inclusions. Incision on underside of base. |
| 48b | 39 | $\begin{aligned} & \text { Base diam. } 7.0 \text {; } \\ & 15 \% \text { base } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 4 \text { pale }$ yellow | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 2$ white | Medium | Calcareous, black | Sparse |  |
| 48c | 41 | Base diam. 16.0; $10 \% \text { base }$ | 5YR 6/6 reddish yellow | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 5YR 7/4 pink | Medium | Calcareous | Medium | Sparse pale greenish brown grog inclusions. Rough intr. surface texture. |

LEVEL 6

| 49 | 38 | Rim diam. 22.0; <br> L. 3.1 | Core 5YR 7/6 reddish yellow: extr/intr. 5YR $6 / 6$ reddish yellow | 5YR $6 / 4$ light reddish brown | Medium | Calcareous. micaceous, black, grey | Medium | Extr./intr. surfaces abraded. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | 38 | Rim diam. 21.0; | 10YR $8 / 4$ very pale brown | Extr. 10YR $7 / 3$ very pale brown; intr. 2.5 Y $8 / 4$ very pale yellow |  | Calcareous | Very sparse | Horizontal burnish. light on extr., heavy on intr. |
| 51 | 38 | $\begin{aligned} & \text { Rim diam. } 19.0 \text {; } \\ & \text { L. } 4.8 \end{aligned}$ | Core 5YR 7/4 pink; extr./intr. 7.5YR $7 / 4$ pink | 10YR 7/4 very pale brown | Very sparse | Calcareous | Very sparse | Very smooth extr./intr. surface texture. |
| 52 | 38 | $\begin{aligned} & \text { Rim diam. } 33.5 \text {; } \\ & \text { L. } 8.4 \end{aligned}$ | 5YR 7/67.5YR 7/6 reddish yellow | Extr. 10YR $7 / 3$ very pale brown; intr. 10 YR $8 / 4$ very pale brown. Upper rim edge 5YR $6 / 4$ light reddish brown | Medium | Calcareous | Medium | Irregular, uneven extr./intr. surfaces. Incision below rim. |
| 53 | 38 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 5.8 \end{aligned}$ | 5YR $8 / 4$ pink | Extr. 7.5 YR $8 / 4$ pink 10YR $7 / 3$ very pale brown; intr. 5YR 8/4 pink | Medium | Calcareous, black, grey, brown | Medium | Rough irregular clay lump on intr. rim. Irregular uneven extr./intr. surfaces. |
| 53a | 38 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 5YR 6/6 reddish yellow | 10YR 7/3 very pale brown | Medium | Calcareous, <br> black, grey, brown | Medium | Itregular uneven extr./intr. surfaces. Probably from same vessel as 53 . |
| 54 | 38 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 10YR 5/2 greyish brown | Extr. rim 7.5YR 7/4 pink; intr. below rim 5YR 7/4 pink - $7 / 6$ reddish yellow | Medium | Calcareous | Very sparse | Very sparse fine/medium light red grog inclusions. Light horizontal extr/intr. burnish. |
| 55 | 37 | $\begin{aligned} & \text { Rim diam. 27.0; } \\ & \text { L. } 3.0 \end{aligned}$ | Core 10YR 5/2 greyish brown; extr./intr. 10YR 4/1 dark grey | Extr. 10YR $7 / 2$ light grey: intr. 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse |  |
| 55a | 36 | $\begin{aligned} & \text { Rim diam. } 33.0 \text { : } \\ & \text { L. } 2.2 \end{aligned}$ | 7.5YR 7/6 reddish yellow | 5YR $6 / 4$ light reddish brown | Dense | Mostly black and grey, with calcareous, micaceous | Medium |  |
| 55b | 46 | $\begin{aligned} & \text { Rim diam. } 25.0 \text {; } \\ & \text { L. } 3.7 \end{aligned}$ | 7.5YR 7/6 reddish yellow | Most of extr. 5YR 7/4 pink; intr./upper extr. rim 7.5YR $7 / 4$ pink | Sparse | Calcareous. <br> black, grey | Sparse |  |
| 56 | 36 | $\begin{aligned} & \text { Rim diam. 21.0; } \\ & \text { L. } 4.3 \end{aligned}$ | Core 5YR 7/6 reddish yellow; extr./intr. 7.5YR $8 / 4$ pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous, micaceous | Sparse | Light horizontal burnish on extr. rim. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 57 | 38 | Rim diam. indeterminate; L . 4.1 | Extr. 2.5Y 4/2 <br> dark greyish brown; intr. 2.5Y $6 / 2$ light greyish brown | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Smooth, chalky extr./intr. surface texture. |
| 57a | 38 | Rim diam. 24.0; L. 4.3 (of intact rim; sherd L. 5.6) | Core 2.5Y 5/0 grey; extr./intr. 7.5YR $6 / 6$ reddish yellow | 7.5YR 7/4 pink | Sparse | Calcareous, black, grey | Sparse |  |
| 58 | 38 | Rim diam. 26.0; L. 3.0 (of intact rim; sherd L . 5.3) | 5YR $7 / 6$ reddish yellow | 10YR $8 / 3$ very pale brown | Sparse | Micaceous | Sparse | Sparse fine red-brown grog inclusions. Irregularity on rim edge from chipping and abrasion. |
| 58a | 38 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 2.8 \end{aligned}$ | Core 5YR 7/4 pink; extr./intr 7.5YR 7/4 pink | Extr. 10YR $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous, micaceous | Sparse | Extr. horizontal burnish on rim. |
| 58b | 38 | Rim diam. 25.0; <br> L. 3.4 | 2.5YR 6/8 light red | 7.5YR 8/4 pink | Medium | Calcareous | Medium |  |
| 58c | 37 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 2.6 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Extr./intr. horizontal burnish. Coarse grits occasionally protruding on extr./intr. surfaces. |
| 59 | 37 | Rim diam. $\text { c. } 24.0 \text {, L. } 1.1$ | 5YR 7/6 reddish yellow | 7.5YR 7/4 pink | Sparse | Calcareous | Sparse | Extr. light horizontal burnish on rim. |
| 59a | 38 | Rim diam. $c$. 18.0; L.1.9 | Core 10YR 7/4 <br> very pale <br> brown; <br> ext./intr. 5YR <br> $7 / 6$ reddish <br> yellow | 5YR 7/6 reddish yellow | Medium | Calcareous, black, grey | Sparse | Abraded. |
| 60 | 36 | $\begin{aligned} & \text { Rim diam. } 44.0 \text {; } \\ & \text { L. } 7.0 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Mostly calcareous, with grey | Medium dense |  |
| 61 | 37 | Rim diam. 14.0; $\text { L. } 3.0$ | 5Y $7 / 3$ pale yellow | $5 \mathrm{Y} 7 / 3$ pale yellow |  | Calcareous | Very sparse | Light horizontal burnish on upper rim edge. |
| 62 | 38 | Rim diam. 29.0; L. 6.4 (of intact rim; sherd L. 8.1) | Approx. 5YR $6 / 4$ light reddish brown | $2.5 \mathrm{Y} 8 / 2$ white | Sparse | Mostly <br> calcareous, <br> with <br> micaceous, <br> grey | Medium |  |
| 63 | 37 | Rim diam. indeterminate; L 2.0 | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Dense | Calcareous | Sparse | Chalky extr./intr. surface texture. Dense vegetable impressions on extr./intr. surfaces. |
| 63a | 38 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 2.8 \end{aligned}$ | 10YR 7/4 very pale brown | 10YR $8 / 3$ very pale brown | Medium |  |  | Chalky extr./intr. surface texture. |
| 64 | 38 | Rim diam. 33.0; <br> L. 4.3 | Core 7.5YR <br> 7/4 pink; extr./intr. <br> 2.5YR 6/6 light red | 5YR $6 / 4$ light reddish brown | Sparse | Calcareous, <br> black, grey | Medium |  |
| 64a | 37 | Rim diam. 24.5; <br> L. 3.4 | Extr. 5YR 7/6 reddish yellow; intr. $2.5 \mathrm{Y} 7 / 2$ light grey | 7.5YR $7 / 4$ pink | Medium | Mostly calcareous, with micaceous, grey | Medium |  |
| 65 | 38 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 2.8 \end{aligned}$ | 5 Y $8 / 3$ pale yellow | 5Y 7/2 light grey | Medium |  |  | Very sparse reddish brown grog inclusions. |
| 66 | 38 | Rim diam. 18.0; L. 4.7 | $5 \mathrm{Y} 6 / 3$ pale olive | $5 \mathrm{Y} 6 / 2$ light olive grey | Medium | Calcareous. grey, micaceous, reddish brown | Sparse | Overfired, to a very hard fabric. |
| 67 | 38 | Rim diam. indeterminate; L . 1.1 (of intact rim; sherd L. 2.4) | 10YR 7/3 very pale brown | 10YR $8 / 2$ white | Sparse | Calcareous | Sparse | Chalky extr./intr. surface texture. |
| 68 | 38 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 5.9 \end{aligned}$ | 7.5YR 7/8 reddish yellow | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Coarse grits occasionally protruding on extr./intr. surfaces. |
| 68a | 36 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 5.8 \end{aligned}$ | 5YR $8 / 4$ pink | 7.5YR $8 / 4$ pink | Medium | Calcareous, micaceous | Sparse |  |


| No. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 69 | 38 | $\begin{aligned} & \text { Rim diam. } 12.5 \text {; } \\ & \text { L. } 3.8 \end{aligned}$ | Core/intr. 5YR $7 / 6$ reddish yellow; extr. 2.5YR $6 / 6$ light red | Extr. 5YR $6 / 4$ light reddish brown, with patches of $10 \mathrm{YR} 8 / 2$ white; int. 7.5YR 7/4 pink | Medium | Calcareous, grey | Medium | Coarse calcareous grits occasionally protruding on extr./intr. surfaces. |
| 69a | 38 | Rim diam. 10.0; L. 1.2 (of intact rim; sherd L . 3.0) | Core 7.5YR <br> $7 / 4$ pink; <br> extr./intr. 2.5Y <br> $8 / 2$ white | 2.5 Y $8 / 2$ white | Medium | Calcareous | Sparse |  |
| 69b | 38 | $\begin{aligned} & \text { Rim diam. 10.0; } \\ & \text { L. } 4.6 \end{aligned}$ | Core 7.5YR $6 / 4$ light brown; extr/intr. 2.5Y $8 / 4$ pale yellow | 2.5 Y $8 / 2$ white | Medium | Calcareous | Sparse |  |
| 69, | 38 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 3.7 \end{aligned}$ | Core 5YR 7/6 reddish yellow; extr./intr. <br> 2.5YR 6/6 light red | Extr. 5YR $6 / 4$ light reddish brown - $7 / 4$ pink; intr. 7.5YR 7/4 pink | Sparse | Calcareous | Sparse |  |
| 69d | 36 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 3.7 \end{aligned}$ | 2.5Y $7 / 2$ light grey | $2.5 \mathrm{Y} 8 / 4$ pale yellow | Sparse | Calcareous | Sparse |  |
| 69e | 36 | Rim diam. 13.0; L. 4.0 (of intact rim; sherd L. 5.4) | Core 10YR 7/4 very pale brown; extr./intr. 5YR $7 / 6$ reddish yellow | 5YR 7/4 pink | Sparse | Calcareous, grey | Sparse |  |
| 70 | 36 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 7.7 \end{aligned}$ | 10YR $8 / 4$ very pale brown | 2.5Y $8 / 2$ white | Medium | Mostly calcareous, with grey | Sparse | Heavy vegetable impressions on extr./intr. surfaces. |
| 70a | 36 | $\begin{aligned} & \text { Rim diam. 14.5; } \\ & \text { L. } 6.7 \end{aligned}$ | 5YR $7 / 6$ reddish yellow | 5YR $7 / 4$ pink | Medium | Calcareous | Sparse |  |
| 70b | 36 | Rim diam. 11.0; L. - | - | - | - | - | - |  |
| 71 | 38 | Rim diam. 20.0: $\text { L. } 3.9$ | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey - } 8 / 4 \text { pale } \\ & \text { yellow } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 4$ pale yellow | Medium | Calcareous | Sparse | Sparse pink grog inclusions. |
| 71a | 38 | Rim diam. indeterminate; L . 1.8 (of intact rim; sherd L. 3.5) | Core 2.5YR $6 / 8$ light red; extr./intr. 10R $4 / 8$ red | 7.5YR 8/4 pink | Medium | Calcareous | Medium |  |
| 72 <br> Sample BM <br> 1987-4-12.18 | 38 | $\begin{aligned} & \text { Rim diam. 10.0; } \\ & \text { L. 5.1 } \end{aligned}$ | 5YR 7/4 pink $7 / 6$ reddish yellow | 10YR $8 / 4$ very pale brown | Very sparse | Mostly calcareous. with micaceous, black, reddish brown | Sparse | For scientific analysis. see Ch. 7. |
| 73 | 38 | Rim diam. 10.0; <br> L. 4.9 | Core 5YR 8/4 pink; extr./ints. 10YR 7/4 very pale brown | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Traces of bitumen on intr. Poorly prepared clay, with air-bubbles and interstices. |
| 74 | 37 | $\begin{aligned} & \text { Rim diam. } 10.0 \text {; } \\ & \text { L. } 4.0 \end{aligned}$ | Extr. 5 Y 7/3 pale yellow; intr. 7.5YR 7/2 pinkish grey | Extr. 10YR $6 / 2$ light brownish grey; intr. 10YR $7 / 3$ very pale brown | Medium | Calcareous | Medium | Extr./intr. surfaces pitted where grits have protruded and eroded. |
| 75 <br> Sample BM <br> 1987-4-12,53 | 37 | $3.1 \times 4.1 \times 0.3$ | 5Y $7 / 4$ pale yellow | Extr. $5 \mathrm{Y} 7 / 4$ pale yellow; intr. $5 \mathrm{Y} 7 / 3$ pale yellow |  | Calcareous | Very sparse | Fragment of dimpled beaker with finger impressions. <br> Horizontal grit scratches on extr. Overfired. <br> For scientific analysis. see Ch. 7. |
| $\begin{aligned} & 76 \\ & \text { Sample BM } \\ & \text { 1987-4-12.37 } \end{aligned}$ | 38 | $\begin{aligned} & \text { Base diam. 8.0; } \\ & 20 \% \text { base } \end{aligned}$ | 5YR 7/4 pink 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Very sparse | Calcareous | Sparse | Light burnish on base. Decorative vertical burnish marks on extr. For scientific analysis, see Ch. 7. |
| 77 | 38 | $\begin{aligned} & \text { Base diam. } 5.0 \text {; } \\ & 100 \% \text { base } \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $7 / 3$ very pale brown | Medium | Calcareous, micaceous | Medium | Intr. of base cracked where it has been pulled and twisted to form a point. |
| 78 | 38 | Base diam. 1.5; <br> . \% base | - | - | - | - | $\cdot$ |  |



| No. | UNIT | $\begin{aligned} & \text { DIMENSIONS } \\ & (\mathrm{cm}) \end{aligned}$ | $\begin{aligned} & \text { FABRIC } \\ & \text { COLOUR } \end{aligned}$ | SURFACECOLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 88 | 33 | $\begin{aligned} & \text { Rim diam. 26.0; } \\ & \text { L. } 8.2 \end{aligned}$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink - 10YR $8 / 3$ very pale brown | Medium | Calcareous, micaceous | Medium | Rough, irregular extr./intr. surface texture, with airbubbles and dense vegetable impressions and grits. |
| 89 | 33 | $\begin{aligned} & \text { Rim diam. 32.0; } \\ & \text { L. } 6.6 \end{aligned}$ | Core 7.5YR 7/4 pink; extr. 2.5YR $6 / 6$ light red; intr. 10YR $5 / 2$ greyish brown | 5YR 7/3 pink - 7/6 reddish yellow | Medium | Mostly <br> grey, with calcareous, micaceous | Medium |  |
| 89a | 33 | Rim diam. indeterminate: L . 2.5 | Core 5YR 7/4 pink, extr./intr. 10YR $8 / 3$ very pale brown | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Traces of bitumen on extr. |
| 90 <br> Sample BM <br> 1987-4-12, 25 | 34 | Rim diam. 39.5: L. 9.1 (2 joining sherds) | 5Y 7/3 pale yellow - $8 / 2$ white | Approx. 5 Y $8 / 2$ white | Sparse | Calcareous | Sparse | Sparse pink grog inclusions. For scientific anaylsis, see Ch. 7. |
| 91 | 44 | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. } 4.2 \end{aligned}$ | 2.5Y $8 / 4$ pale yellow | Slightly paler greenish version of $2.5 \mathrm{Y} 8 / 4$ pale yellow |  | Calcareous | Very sparse | Light horizontal burnish on intr. rim and upper edge. |
| 92 <br> Sample BM <br> 1987-4-12. 26 | 33 | Rim diam. 11.0, L. 9.3 (2 joining sherds; $50 \% \mathrm{rim}$ ) | 5YR 6/6 reddish yellow | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Dense vegetable impressions on extr./intr. surfaces. For scientific analysis, see Ch. 7. |
| 93 | 33 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 5.5 \end{aligned}$ | 10YR $7 / 4$ very pale brown | 10YR $8 / 3$ very pale brown | Dense | Calcareous, grey | Very sparse | Chalky extr./intr surface texture. |
| 94 | 33 | Rim diam. 21.0; L. 2.4 (of intact rim; sherd L . 4.6) | Variations on 10YR $8 / 3$ very pale brown | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, <br> black, grey | Medium |  |
| 95 | 33 | $\begin{aligned} & \text { Rim diam. } 26.0 \text {; } \\ & \text { L. } 5.5 \end{aligned}$ | 7.5YR $6 / 4$ light brown | 10YR $8 / 2$ white | Sparse | Calcareous | Sparse |  |
| 95a | 33 | $\begin{aligned} & \text { Rim diam. 23.5; } \\ & \text { L. } 2.4 \\ & \hline \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse |  |
| 96 | 33 | $\begin{aligned} & \text { Rim diam. 26.0; } \\ & \text { L. } 4.7 \end{aligned}$ | 10YR 7/3 very pale brown | 10YR 8/1 white, upper edge of rim painted 5 Y 2.5/1 black; extr. band painted 5YR 4/4 reddish brown | Sparse | Calcareous | Sparse | Intr. burnt. |
| 97 | 33 | Rim diam. 40.0; <br> L. 10.3 | 7.5YR 7/4 pink | 10YR $8 / 2$ white | Medium | Mostly calcareous, with black. grey | Medium | Sparse red-brown grog inclusions. |
| 98 | 33 | $\begin{aligned} & \text { Rim diam. 8.0; } \\ & \text { L. } 2.5 \end{aligned}$ | 10YR 6/1 light grey/grey | 10YR 6/1 light grey/grey |  | Calcareous | Sparse |  |
| 99 <br> Sample BM <br> 1987-4-12.19 | 34 | Rim diam. <br> c. 12.0; L. 0.9 (2 joining sherds; a third sherd is non-joining) | 5YR 7/4 pink | 7.5YR $8 / 4$ pink; int. striated 5YR $7 / 4$ pink | Very sparse | Calcareous | Very sparse | Deep extr. horizontal burnish. Extr./intr. wheel marks. For scientific analysis, see Ch. 7. |
| 100 | 34 | Rim diam. 9.0; <br> L. 3.2 (sherd 3.0 $\times 3.2 \times 0.3)$ | 7.5YR $7 / 4$ pink | Extr. 10YR $7 / 3$ very pale brown; intr. 2.5 Y $8 / 2$ white. Extr. painted band 5YR 5/3 reddish brown; spiral decoration 5YR 4/I dark grey |  | Mostly calcareous, with (sparse) black, grey | Medium |  |
| $\begin{aligned} & 101 \\ & \text { Sample BM } \\ & \text { 1987-4-12,34 } \end{aligned}$ | 33 | Sherd $3.3 \times 5.0 \times$ 0.7. Diam. at base of neck 8.0 | 10YR 7/4 very pale brown | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink. Extr. painted bands 2.5 YR $2.5 / 2$ very dusky red | Very sparse | Calcareous | Very sparse | Small ridges on intr For scientific analysis. see Ch. 7 . |
| 102 | 33 | $7.6 \times 6.6 \times 0.8$ | Core 5YR 6/6 reddish yellow, extr./intr. 5 YR $6 / 4$ light reddish brown | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink. Extr. painted bands 5YR 5/6 yellowish red | Sparse | Mostly calcareous. with grey | Dense | Sparse red grog inclusions. Intr. surface scratched. |
| 102a | 33 | $2.7 \times 4.1 \times 0.4$ | 7.5YR 6/4 light brown | 10YR $8 / 3$ very pale brown, with single extr. painted band 5YR 6/6 reddish yellow | Sparse | Calcareous | Very sparse |  |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 103 | 33 | Rim diam. <br> c. 28.0; L. 2.7 | 10YR $6 / 4$ light yellowish brown | Extr. 10YR $7 / 4$ very pale brown; intr. 10YR $7 / 3$ very pale brown | Medium | Mostly grey, with calcareous, black | Dense | Irregular extr./intr. surfaces. |
| 103a | 33 | Rim diam. <br> indeterminate; L . <br> 3.2 | 7.5YR 5/4 brown | Extr. 7.5YR $6 / 2$ pinkish grey - $6 / 4$ light brown; intr. 10YR 5/1 grey. Burnt | Medium | Mostly grey, with calcareous, black, very pale brown | Dense |  |
| 104 | 33 | $\begin{aligned} & \text { Base diam. 2.8; } \\ & 40 \% \text { base } \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown |  | Calcareous, micaceous, grey | Medium | Slightly irregular extr./intr. surface texture, with lumps and depressions. |
| 105 | 33 | Base diam. 15.0; $20 \%$ base | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 2$ white, intr. $7.5 \mathrm{YR} 7 / 4$ pink | Sparse | Calcareous | Sparse | Sparse grey-brown grog inclusions. Air-bubbles and bumps on extr./intr. surfaces. |
| 106 | 33 | Base diam. 9.0; $55 \%$ base | Core/intr. 5YR $7 / 6$ reddish yellow; extr. 7.5YR $7 / 4$ pink | Extr. 10YR $8 / 2$ white; intr. paler version of $10 \mathrm{YR} 7 / 3$ very pale brown | Medium | Mostly calcareous, with black, grey | Dense | Sparse reddish-brown grog inclusions. |
| 106a | 33 | $\begin{aligned} & \text { Base diam. } 10.0 \text {; } \\ & 20 \% \text { base } \end{aligned}$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink | Sparse | Calcareous, black, grey | Medium |  |
| 107 | 33 | Base diam. 12.5; $40 \%$ base | 5YR $7 / 6$ reddish yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Dense | Incision at junction of ring and underside of base. Smooth extr./intr. surface texture, but with dense large ( 0.5 cm diam.) air-bubbles. |

LEVEL 4

| $\begin{aligned} & 108 \\ & \text { KK 85/21 } \end{aligned}$ | 181 | H. 2.5; rim diam. 8.5; base diam. $4.0$ | 5Y $6 / 3$ pale olive | $5 \mathrm{Y} 6 / 3$ pale olive | Dense |  |  | For position, see Fig. 7. Curtis and Green 1987: fig. $3,5$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 109 | 177 | $\begin{aligned} & \text { Rim diam. } 17.0 \text {; } \\ & \text { L. } 4.9 \end{aligned}$ | 5Y $8 / 3$ pale yellow | 2.5Y $8 / 2$ white | Medium | Calcareous | Very sparse | Dense medium vegetable impressions on extr./intr. surfaces. |
| 110 | 3 | Rim diam. 22.0; Ls. 4.4, 3.5 (2 non-joining sherds) | 5YR 6/6 reddish yellow | 7.5YR 7/4 pink |  | Calcareous | Medium | Smooth intr. surface texture. |
| 110a | 181 | Rim diam. 20.0; <br> L. 3.1 | 5YR 7/6 reddish yellow - 2.5YR $6 / 6$ light red | 10YR 8/2 white | Medium | Mostly calcareous, occasional grey | Medium | Extr./intr. horizontal burnish. |
| 111 | 32 | Rim diam. 20.0; $\text { L. } 5.0$ | 5Y 7/3 pale yellow | $5 \mathrm{Y} 7 / 3$ pale yellow |  | Calcareous | Very sparse | Very smooth ext./intr. surface texture. |
| 112 <br> Sample BM 1987-4-12,30 | 16 | Rim diam. 13.0; Ls. 7.0, 2.4 (2 non-joining sherds) | $2.5 \mathrm{Y} 7 / 2$ light grey | 2.5Y $8 / 2$ white | Dense | Calcareous and micaceous | Sparse | For scientific analysis, see Ch. 7 . |
| 112a | 15 | Rim diam. 20.5; <br> L. 2.9 | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR 8/4 pink |  | Mostly calcareous with micaceous, black, grey | Dense |  |
| 113 | 552 | Rim diam. 12.0; $\text { L. } 3.6$ | 7.5YR 7/6 reddish yellow | 10YR $7 / 4$ very pale brown | Medium | Calcareous, micaceous | Sparse | Rough extr./intr. surface texture. Perforated with two holes $c .0 .4 \mathrm{~cm}$ in diam. |
| 114 | 31 | Rim diam. 18.0; <br> L. 4.0 | 10YR $6 / 4$ light yellowish brown | 5YR 6/4 light reddish brown - 7/4 pink | Medium | Calcareous, grey | Sparse | Chalky extr./intr. surface texture. Dense, vegetable impressions on surface. Poorly prepared clay, with large interstices. |
| 115 <br> Sample BM <br> 1987-4-12,50 | 510 | Rim diam. 22.0; <br> L. 4.3 | Core 10YR 6/2 light brownish grey; extr-/intr. 10YR 6/3 pale brown | 2.5 Y $8 / 2$ white | Medium |  |  | For scientific analysis, see Ch. 7. |
| 115a | 177 | Rim diam. $\text { c. } 32.0 ; \text { L. } 4.1$ | 5YR 7/6 reddish yellow | 10YR $8 / 4$ very pale brown | Medium | Calcareous | Sparse |  |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 115b | 177 | Rim diam. 18.5; <br> L. 4.4 | 7.5YR 7/4 pink | 10YR $8 / 4$ very pale brown | Sparse |  |  | Light horizontal extr./intr. burnish |
| 116 | 552 | $\begin{aligned} & \text { Rim diam. 28.0; } \\ & \text { L. } 3.5 \end{aligned}$ | 5YR $6 / 6$ reddish yellow | 7.5YR 7/4 pink |  | Mostly calcareous. occasional grey | Medium | Extr/intr. horizontal burnish. |
| 117 | 552 | $\begin{aligned} & \text { Rim diam. } 26.0 \text {; } \\ & \text { L. } 6.2 \end{aligned}$ | Core 2.5Y 7/2 <br> light grey; <br> extr./intr. <br> 7.5YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown | Medium | Mostly calcareous with black, grey | Medium | Chalky extr/intr. surface texture. |
| 117a | 3 | Rim diam. c. 20.0; L | 10YR $8 / 2$ white | 10YR $8 / 2$ white |  | - | - |  |
| 118 | 61 | Rim diam. 14.5; L. 2.6 | Extr. 10YR 6/3 pale brown; intr. 7.5YR 5/4 brown | Extr. 10YR $6 / 3$ pale brown; intr. 7.5YR 7/4 pink |  | Calcareous | Very sparse | Horizontal burnish on extr and rim. |
| 118a | 4 | Rim diam. 22.0; $\text { L. } 1.9$ | Extr. 10YR $6 / 3$ pale brown; intr. 10YR $6 / 4$ light yellowish brown | Extr. 10YR $7 / 4$ very pale brown; intr. 10YR $8 / 3$ very pale brown |  | Calcareous | Sparse | Extr./intr. horizontal burnish. |
| $\begin{aligned} & 119 \\ & \text { Sample BM } \\ & \text { 1987-4-12,51 } \end{aligned}$ | 16 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 2.7 \end{aligned}$ | 10YR $8 / 4$ very pale brown | 2.5Y $8 / 4$ pale yellow | Sparse |  |  | Extr./intr. horizontal burnish. <br> For scientific analysis, see Ch. 7. |
| 120 | 13 | Rim diam. 22.0; <br> L. 4.2 | 7.5YR 7/4 pink | 10YR $6 / 3$ pale brown $7 / 3$ very pale brown |  | Calcareous, <br> black, grey | Dense |  |
| 121 | 552 | Rim diam. 22.0; L. 6.2 | 7.5YR 7/4 pink | 5YR 7/4 pink - 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Long vegetable impressions on surface. |
| 121a | 61 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 2.8 \end{aligned}$ | 7.5YR 7/4 pink | Rim extr. 10YR $8 / 2$ white, extr. below rim 7.5YR $8 / 4$ pink; intr. 5YR 7/4 pink - $7 / 6$ reddish yellow | Dense | Calcareous | Sparse | Chalky extr./intr. surface texture. |
| 122 | 15 | Rim diam. 20.0; <br> L. 2.7 | 10YR 7/4 very pale brown | 5YR $7 / 4$ pink - $7 / 6$ reddish yellow | Very sparse | Calcareous, grey | Very sparse |  |
| 123 | 552 | Rim diam. 26.0; L. - | Core 5 Y 6/1 grey; extr./intr. 2.5YR $6 / 6$ light red | Extr. 5YR $7 / 4$ pink; intr. 7.5YR $8 / 4$ pink | Sparse | Calcareous | Sparse | Chalky extr/intr surface texture. |
| 123a | 177 | $\begin{aligned} & \text { Rim diam. - L. } \\ & 8.0 \end{aligned}$ | 7.5YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous, grey, black | Medium | Relatively crude; uneven fabric, pitted with air-bubbles. |
| 124 | 180 | Rim diam. 21.5; $\text { L. } 4.0$ | 7.5YR $7 / 4$ pink | 10YR 7/4 very pale brown | Medium | Calcareous, grey, red | Sparse | Angular horizontal burnish on extr. rim. |
| 124a | 180 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 10YR 7/4 very pale brown | 10YR $8 / 2$ white | Sparse | Calcareous, grey | Sparse | Intr. light horizontal burnish. |
| 124b | 32 | Rim diam. 28.0; <br> L. 4.2 | 2.5Y $6 / 2$ light brownish grey | Extr. 2.5 Y $8 / 2$ white: intr. $2.5 \mathrm{Y} 7 / 2$ light grey | Medium | Calcareous | Sparse |  |
| 124c | 62 | Rim diam. 36.0; <br> L. 3.3 | 5YR 7/4 pink | Extr. 2.5 Y $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous, grey | Sparse | Chalky extr./intr. surface texture. Dense vegetable impressions on surface. |
| 125 | 61 | Rim diam. 22.5; <br> L. 4.1 | Core 10YR 5/l grey; extr./intr 5YR 7/6 reddish yellow | 7.5YR 7/4 pink | Medium | Calcareous, grey | Medium |  |
| 126 | 27 | Rim diam. 24.0: <br> L. 4.2 | 10YR $6 / 2$ light brownish grey | Extr. 7.5YR 7/4 pink; intr. 5YR $7 / 4$ pink | Medium |  |  | Dense vegetable impressions on extr./intr. surfaces. |
| 127 | 4 | Rim diam. 17.0; <br> L. 4.6 | 10YR $6 / 4$ light yellowish brown | 5YR 7/6 reddish yellow | Medium | Calcareous, micaceous | Sparse | Chalky extr./intr. surface texture. Dense vegetable impressions on surface. |
| 127a | 552 | Rim diam. 28.0; <br> L. 4.5 | Core 7.5YR $7 / 4$ pink - 7/6 reddish yellow: extr./intr. 2.5YR $6 / 6$ light red - SYR 7/6 reddish yellow | Extr. rim 7.5YR 8/4 pink; extr. surface and intr. 2.5YR $6 / 6$ light red - 5YR 7/6 reddish yellow | Medium | Calcareous, micaceous | Sparse | Chalky extr./intr. surface texture. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 128 | 7 | Rim diam. 36.0; $\text { L. } 2.4$ | 10YR 8/4 very pale brown | 10YR $8 / 3$ very pale brown | Medium | Calcareous, grey | Sparse | Parallel incised grooves on upper body. |
| 128a | 31 | Rim diam. 30.5; <br> L. 5.0 | Core 7.5YR <br> 7/4 pink - 7/6 reddish yellow; extr./intr. <br> 2.5YR $6 / 6$ light red - 5YR 7/6 reddish yellow | 5YR 7/4 pink | Medium | Calcareous, micaceous | Medium | Dense vegetable impressions on intr. surface; coarse calcareous grits occasionally protruding from extr./intr. surfaces. |
| 128b | 177 | Rim diam. indeterminate; L . 3.2 | Core/intr. 10R $6 / 6$ light red; extr. 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Medium | Chalky extr/intr. surface texture. |
| 128c | 552 | Rim diam. 24.0; $\text { L. } 7.3$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse | Chalky extr./intr. surface texture. |
| 129 | 304 | Rim diam. 38.0; L. 3.3 | 5YR 7/6 reddish yellow | 2.5Y $8 / 2$ white; with fugitive paint on extr. rim 5YR 7/4 pink | Medium | Calcareous | Sparse | Rough extr./intr. surface texture, pitted with airbubbles and vegetable impressions. |
| 130 | 15 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 9.0 \end{aligned}$ | 7.5YR 7/4 pink | 2.5Y $8 / 2$ white | Sparse | Mostly calcareous, with grey | Very sparse |  |
| 131 | 302 | Rim diam. 26.0; L. 1.3 | Approx. 7.5YR $7 / 4$ pink | 10YR $7 / 3$ very pale brown |  | Calcareous, <br> black, grey | Medium dense |  |
| 131a | 62 | $\begin{aligned} & \text { Rim diam. 26.0; } \\ & \text { L. } 4.7 \end{aligned}$ | 7.5YR 6/4 light brown - $7 / 4$ light brown | 10YR $8 / 3$ very pale brown | Sparse | Calcareous, black, grey | Medium dense | Chalky extr./intr. surface texture, with protruding coarse grits. |
| 132 | 27 | Rim diam. indeterminate; L . 2.5 | 7.5YR 6/4 light brown | Extr. 7.5YR $7 / 4$ pink; intr. burnt 10YR 7/3 very pale brown | Sparse | Calcareous | Very sparse |  |
| 133 <br> Sample BM <br> 1987-4-12,46 | 552 | Rim diam. 27.0; <br> L. 3.8 | 5YR 6/6 reddish yellow | 7.5YR $7 / 4$ pink | Sparse | Calcareous, micaceous, grey | Sparse | Incised parallel grooves below rim. Pronounced intr. wheel marks. For scientific analysis, see Ch. 7. |
| 133a | 452 | Rim diam. indeterminate; L . 2.4 | 7.5YR 5/4 <br> brown-6/4 light brown | 7.5YR $7 / 4$ pink |  | Calcareous | Sparse |  |
| 133b | 180 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 2.4 \end{aligned}$ | 5YR $6 / 4$ light reddish brown | 10YR $8 / 3$ very pale brown | Medium sparse | Calcareous | Sparse |  |
| 134 | 3 | Rim diam. <br> c. 30.0 ; L. 4.0 | 2.5YR 6/8 light red | 7.5YR 7/6 reddish yellow, with extr. painted bands 7.5 YR 4/2 dark brown |  | - | - |  |
| 135 | 3 | Rim diam. 15.0; max. diam. 16.0 | Extr. 10YR 7/4 very pale brown; intr. 10YR 7/3 very pale brown | Extr. $2.5 \mathrm{Y} 8 / 2$ pale brown; intr. 10YR 7/3 very pale brown. Painted rim and extr. bands 2.5YR 4/8-5/6 red | Very sparse | Calcareous | Very sparse | Smooth extr./intr. surface texture. Dense fine clay. |
| 136 | 177 | Rim diam. 10.0; <br> L. 3.2 | 10YR $8 / 3$ very pale brown | 2.5 Y $8 / 2$ white. Three painted bands $2.5 \mathrm{Y} 2 / 0$ black |  | Calcareous, grey, (sparse) sandy | Medium dense | Smoothed but slightly gritty extr./intr. surface texture. Large airbubbles in fabric. |
| 137 | 4 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 10YR 3/1 very dark grey | 7.5YR $6 / 4$ light brown | Sparse | Calcareous | Very sparse |  |
| 137a | 62 | Rim diam. 16.0; <br> L. 3.7 | 2.5 Y $8 / 2$ white <br> -8/4 pale <br> yellow | 2.5 Y $8 / 2$ white | Medium | Calcareous | Sparse | Chalky extr./intr. surface texture. Incised horizontal lines. |
| 138 | 27 | Rim diam. 18.0; <br> Ls. 4.7, 6.7 (2 <br> non-joining <br> sherds) | Approx. 7.5YR $6 / 4$ light brown | 10YR $7 / 3$ very pale brown | Sparse | Mostly grey, with calcareous | Medium dense | Sparse light brown grog inclusions. Iregular, gritty, intr./extr. surface texture. |
| 139 | 62 | Rim diam. 22.0; <br> L. 4.2 | 10YR $8 / 4$ very pale brown | 10YR $8 / 2$ very pale brown | Very sparse | Calcareous | Sparse | Smooth chalky extr./intr. surface texture. |
| 139a | 62 | Rim diam. 24.0; <br> L. 3.0 | 5YR 7/6 reddish yellow | 7.5YR 7/4 pink. Fugitive, abraded, painted extr. band and upper rim edge 2.5 YR 3/4 dark reddish brown | Sparse | Calcareous | Sparse | Chalky extr./intr. surface texture. Possibly from same vessel as 139 |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 140 | 13 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 2.9 \end{aligned}$ | 10YR $7 / 3$ very pale brown | Extr. approx. 10YR 8/2 white; intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous, micaceous | Sparse | Light intr. horizontal burnish. |
| 141 | 27 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 2.5 \end{aligned}$ | 10YR $6 / 3$ pale brown | Extr. 10YR 7/3 very pale brown; intr. 10YR $8 / 2$ white | Sparse | Calcareous, grey | Sparse | Extr. burnish, with scratching. |
| 142 | 16 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 13.5 \end{aligned}$ | Core 7.5YR 7/2 pinkish grey; extr/intr 2.5 Y $8 / 2$ white | $2.5 \mathrm{Y} 8 / 2$ white | Medium -dense | Mostly calcareous. with grey | Sparse | Sparse reddish yellow grog inclusions. Extr. surface pitted with airbubbles and vegetable impressions. |
| 142a | 27 | $\begin{aligned} & \text { Rim diam. 29.5; } \\ & \text { L. } 7.4 \end{aligned}$ | Upper body: core 10YR 5/I grey; extr/intr 10YR 7/4 very pale brown. Lower body: core $2.5 \mathrm{Y} 6 / 2$ light brownish grey; extr./intr. 10YR $7 / 3$ very pale brown | 7.5YR $7 / 4$ pink - 10YR $7 / 3$ very pale brown | Sparse | Calcareous, micaceous | Sparse | Slight ridges of clay on extr. surface. |
| 143 | 552 | Rim diam. 26.0; L. 7.2 | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. $7.5 \mathrm{YR} 8 / 4$ pink | Medium -dense | Calcareous | Sparse | Dense vegetable impressions on extr./intr. surfaces |
| 143a | 358 | $\begin{aligned} & \text { Rim diam. 36.0; } \\ & \text { L. } 7.0 \end{aligned}$ | 5YR 6/6 reddish yellow | Burnt 10YR 7/2 light grey | Medium | Calcareous, grey | Sparse |  |
| 143b | 28 | Rim diam. 30.0; L. 4.1 | 10YR $6 / 4$ light yellowish brown | 7.5YR $7 / 4$ pink | Medium | Calcareous, grey | Very sparse | Chalky extr./intr. surface texture. Very pronounced intr. wheel marks. |
| 144 <br> Sample BM <br> 1987-4-12,39 | 62 | Rim diam. 30.0; L. 11.5 | 5Y $8 / 3$ pale yellow | $5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Very sparse | Chalky extr./intr. surface texture. Pitted with dense vegetable impressions on extr/intr. surfaces. For scientific analysis. see Ch. 7. |
| 144a | 61 | Rim diam. 20.0; <br> L. 4.4 | 7.5YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown | Medium -dense | Calcareous | Sparse | Chalky extr./intr. surface texture. Dense vegetable impressions on extr./intr. surfaces. |
| 144b | 61 | Rim diam. 23.0; <br> L. 4.7 | 2.5Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium -dense | Calcareous | Sparse | Sparse pink grog inclusions. Rough extr./intr. surface texture with dense vegetable impressions. |
| 144c | 61 | Rim diam. 26.0; <br> L. 6.2 | Core 5Y 8/2 white; extr./intr. 2.5 Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Very sparse | Chalky extr./intr. surface texture. Surface pitted with vegetable impressions. |
| 144d | 506 | Rim diam. 29.0; <br> L. 4.6 | 7.5YR 6/6 reddish yellow | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Very sparse |  |
| 145 | 62 | $\begin{aligned} & \text { Rim diam. 34.5; } \\ & \text { L. } 9.1 \end{aligned}$ | 10YR 8/4 very pale brown | Extr. 10YR $8 / 2$ white: intr. 5 Y $8 / 2$ white | Medium -dense | Mostly grey, with calcareous | Sparse | Rough intr. surface texture, gritty and with vegetable impressions. |
| 146 | 186 | $\begin{aligned} & \text { Rim diam. 36.0; } \\ & \text { L. } 4.3 \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | 2.5Y $8 / 2$ white | Medium -dense | Calcareous | Sparse | Dense vegetable impressions on surface. |
| 146a | 62 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 3.0 \end{aligned}$ | 10YR $7 / 4$ very pale brown | $2.5 \mathrm{Y} 8 / 2$ white | Sparse | Calcareous | Very sparse | Chalky extr/intr. surface texture. |
| 147 <br> Sample BM <br> 1987-4-12,59 | 16 | Rim diam. 15.5: <br> L. 11.0 | Upper body: 10YR 7/4 very pale brown; lower body: 5YR 7/3 pink | Exu. 2.5Y $8 / 2$ white: intr. and rim 10YR $8 / 3$ very pale brown | Sparse |  |  | Extr. horizontal burnish. <br> For scientific analysis, see Ch. 7 . |
| 148 | 195 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 5.0 \end{aligned}$ | 10YR 7/4 very pale brown | 10YR $8 / 4$ very pale brown | Medium | (Rounded) grey | Sparse | Chalky extr./intr. surface texture. Poorly prepared clay. |
| 148a | 4 | $\begin{aligned} & \text { Rim diam. } 25.0 \text {; } \\ & \text { L. } 2.8 \end{aligned}$ | 10YR $6 / 3$ pale brown | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Very sparse |  |
| 148b | 62 | $\begin{aligned} & \text { Rim diam. } 15.0 \text {, } \\ & \text { L. } 5.5 \end{aligned}$ | 5Y $8 / 3$ pale yellow | 5Y $8 / 2$ white | Medium |  |  | Sparse, light red grog inclusions. Chalky extr/intr. surface texture. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 149 <br> Sample BM <br> 1987-4-12,29 | 506 | $\begin{aligned} & \text { Rim diam. 25.0; } \\ & \text { L. } 3.9 \end{aligned}$ | 5YR $7 / 6$ reddish yellow | Extr. 10YR $7 / 4$ very pale brown; intr. 5 YR $6 / 4$ light reddish brown |  | Calcareous | Very sparse | Extr./intr. horizontal burnish. <br> For scientific analysis, see Ch. 7. |
| 150 <br> Sample BM <br> 1987-4-12,45 | 456 | Rim diam. 9.0; $\text { L. } 5.3$ | 5Y 5/1 grey | $5 Y 7 / 3$ pale yellow | Medium | Calcareous | Sparse | Overfired and warped For scientific analysis, see Ch. 7. |
| 151 | 184 | $\text { Rim diam. } 11.5$ $\text { L. } 1.4$ | Core 10YR 6/4 light yellowish brown; extr./intr. 2.5YR $6 / 6$ light red | 5YR $6 / 4$ light reddish brown | Sparse | Micaceous, grey | Very sparse |  |
| 151a | 303 | Rim diam. 18.0; L. 1.7 | 7.5YR $6 / 4$ light brown | 7.5YR 8/4 pink | Sparse | Calcareous, micaceous, grey | Sparse |  |
| 152 <br> Sample BM <br> 1987-4-12,44 | $\begin{aligned} & 15 \\ & + \\ & 16 \\ & +452 \end{aligned}$ | Rim diam. 17.0; L. 12.0 (2 joining sherds and 1 other) | 7.5YR 7/6 reddish yellow <br> - 10YR $6 / 4$ <br> light yellowish brown | 7.5YR 7/4 pink - 10YR <br> $8 / 4$ very pale brown | Medium | Mostly calcareous, with micaceous, grey | Very sparse | Fine wheel marks. For scientific analysis. see Ch. 7. |
| 152a | 27 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. 5.0 } \end{aligned}$ | 10YR $7 / 2$ light grey | 2.5Y $8 / 2$ white - $8 / 4$ pale yellow | Medium | Calcareous | Very sparse | Chalky extr./intr. surface texture. Dense vegetable impressions on extr./intr. surfaces. |
| 152b | 61 | Rim diam. 16.0; <br> L. 2.2 | 5YR 7/67.5YR 7/6 reddish yellow | Extr. 10YR $8 / 4$ very pale brown; intr. 7.5 YR $7 / 4$ pink |  | Calcareous | Very sparse | Extr. horizontal burnish. Irregular incision around rim. |
| 152c | 353 | Rim diam. 16.0; L. 3.2 | 10YR 5/3 brown | Extr. 10YR $6 / 3$ pale brown; intr. 10YR $6 / 2$ light brownish grey | Sparse | Calcareous, micaceous | Sparse | Grog (colour not recorded), very sparse. Chalky extr./intr. surface texture. Fine wheel marks. |
| 153 | 177 | Rim diam. $\text { c. } 32.0 ; \text { L. } 5.1$ | 5YR 6/6 reddish yellow - 7.5 YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Medium | Rough, gritty extr./intr. surface texture. |
| 154 | 552 | Rim diam. indeterminate (but large); L. 8.2 | 5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink | Dense | Calcareous | Medium |  |
| 155 | 61 | $\begin{aligned} & \text { Rim diam. 27.0; } \\ & \text { L. } 5.3 \end{aligned}$ | 5YR 6/6 reddish yellow | Extr. burnt to $7 / 3$ very pale brown; intr. approx. 5YR $7 / 4$ pink | Medium | Calcareous, grey | Sparse medium |  |
| 156 | 29 | $\begin{aligned} & \text { Rim diam. 30.0; } \\ & \text { L. } 6.2 \end{aligned}$ | Extr. 10YR 7/3 very pale brown; intr. $2.5 \mathrm{Y} 7 / 2$ light grey | 2.5 Y $8 / 2$ white | Medium | Calcareous, micaceous, sandy | Sparse | Very light extr. horizontal burnish |
| 157 | 15 | Base diam. <br> c. $90.0 ;$ c. $90 \%$ base, sherds. Part of large pithos, reconstructed from fragments | Core 2.5YR 5/4 reddish brown; extr. 2.5YR 6/8 light red; intr. 10YR $6 / 4$ light yellowish brown | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $5 / 2$ greyish brown - 7/4 pink | Dense | Calcareous | Sparse | Very rough intr./extr. surface texture. Poorly prepared clay. For position, see Fig. 7. |
| 158 <br> KK 85/19 <br> PI. XVIIIb | 15 | Complete and intact. <br> H. 14.2; rim diam. 2.8; max. diam. 4.9 | - | 5Y $8 / 3$ pale yellow; painted bands 2.5 YR $6 / 4$ light reddish brown | - | - | - | For position, see Figs. 6-7. <br> Curtis and Green 1987: <br> fig. 3, 3; Curtis 1992: <br> fig. 5. |
| $\begin{aligned} & 159 \\ & \text { KK } 85 / 15 \\ & \text { PI. XVIIIc } \end{aligned}$ | 28 | Complete. <br> H. 15.1; rim diam. 3.2; max. diam. 8.7 | 5 Y $6 / 3$ pale olive | $5 \mathrm{Y} 6 / 3$ pale olive, burnt on one side | - | - | - | Slightly warped from firing on one side. For position, see Pls. Vla-b, Figs. 6-7. Curtis and Green 1987: fig. 3, 4; Curtis 1992: fig. 5 . |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| $\begin{aligned} & 160 \\ & \text { KK } 85 / 16 \\ & \text { PI. XIXa } \end{aligned}$ | 32 | Complete and intact. <br> H. 17.8; rim diam. 7.4; max. diam. 10.4 | - | 5Y $6 / 4$ pale olive, burnt on one side | Dense |  |  | Dense vegetable inclusions present on extr./intr. surfaces. Distorted in firing on one side. <br> For position, see Figs. 6-7. <br> Curtis and Green 1987: <br> fig. 3, 8; Curtis 1992: <br> fig. 5 . |
| 161 <br> KK 84/2, IM <br> (MM 1526) <br> PI. XIXc | 5 | Complete and intact. <br> H. 10.4; rim diam. 3.9; max. diam. 6.9 |  | Overall extr. surface glaze of duck-egg blue; band of darker glaze approx. 10YR $6 / 4$ light yellowish brown (originally yellow?) with 'reserved' duck-egg blue patterning. Intr. surface fire-blackened | - |  | - | For position, see Figs. 6-7. <br> Curtis 1986: pl. on p. 17: Curtis and Green 1987: pl. 5; Curtis 1987a: fig. 132; Curtis 1992: fig. 5. |
| $\begin{aligned} & 162 \\ & \text { KK } 85 / 35 \end{aligned}$ | 195 | Complete and intact. H. 7.0; rim diam. 1.6; max. diam. 5.6 | - | 5Y $6 / 3$ pale olive | - | Calcareous | Dense | For position, see Figs. 6-7. <br> Curtis and Green 1987: fig. $3,6$. |
| $\begin{aligned} & 163 \\ & \text { KK } 85 / 42 \end{aligned}$ | 186 | H. 8.0; rim diam. 1.8; max. diam. 5.9. Complete but missing 85\% of neek and rim | 5 Y $6 / 3$ pale olive | 5 Y $6 / 3$ pale olive, fireblackened on one side |  | Calcareous | Dense | For position, see Figs. 6-7. <br> Curtis 1992: fig. 5. |
| 164 | 31 | $\begin{aligned} & \text { H. c. } 8.8(1 \\ & \text { sherd) } \end{aligned}$ | 5Y $8 / 3$ pale yellow | 5Y $8 / 3$ pale yellow | Medium | Calcareous | Sparse | Pronounced wheel marks on lower intr. Irregular ridges and lumps. For position, see Fig. 7. |
| 165 | 32 | Ext. H. 9.4; max. diam. 8.6 (1 piece). Complete and intact but for rim and shoulder, which are missing | 10YR $6 / 4$ light yellowish brown | Extr. 10YR 7/4 very pale brown, partly burnt $5 \mathrm{Y} 2.5 / 1$ black; intr. 10YR 7/2 light grey | Sparse | Calcareous, light blue | Sparse | Exceptionally rough surface texture (especially on intr.). Sparse, fine grog inclusions. For position, see Figs. 6-7. |
| $\begin{aligned} & 166 \\ & \text { KK 85/22 } \end{aligned}$ | 186 | H. 26.2; rim diam. 8.5; max. diam. 14.4. Restored from sherds | 2.5Y $6 / 2$ light brownish grey | $2.5 \mathrm{Y} 6 / 2$ light brownish grey | Dense | Calcareous | Sparse | For position, see Pl . Vb, Figs. 6-7. Curtis and Green 1987: fig. 3, 7. |
| $\begin{aligned} & 167 \\ & \text { KK 85/40 } \end{aligned}$ | $\begin{aligned} & 188 \\ & + \\ & 507 \end{aligned}$ | Ext. H. 21.2; <br> max. diam. 14.0. <br> Restored from sherds; complete but for 2 small frags. and the rim, which was probably broken in antiquity | 10YR $6 / 3$ pale brown | 10YR $6 / 3$ pale brown; half of extr. and most of intr. fire-blackened | Medium | Calcareous | Medium | For positon, see Figs. 67, 13b. |
| $\begin{aligned} & 168 \\ & \text { KK 85/18 } \end{aligned}$ | 5 | Complete and intact. H. 23.6; rim diam. 7.3; max. diam. 12.9 | - | 5Y $7 / 3$ pale yellow; half extr. fire-blackened | Dense |  |  | For positon, see PI. Va, Figs. 6-7. Curtis 1992: fig. 5. |
| $\begin{aligned} & 169 \\ & \text { KK } 85 / 20 \end{aligned}$ | $\begin{aligned} & 5 \\ & + \\ & 14 \end{aligned}$ | H. 21.7; rim diam. 10.5; max. diam. 16.0. Restored from sherds | 10YR $6 / 3$ pale brown | 10YR $6 / 3$ pale brown; half extr. fire-blackened | Dense |  |  | For position, see Fig. 7. Curtis and Green 1987: fig. 3, 10; Curtis 1992: fig. 5. |
| 169a | 196 | Frag. of rim, diam. 10.0; L. 3.2 | 2.5YR 6/6 light red | 10YR $8 / 3$ very pale brown | Sparse |  |  | Roughly finished, with finger impressions on intr. and extr. surfaces. Sparse very pale brown and light red grog inclusions. |
| 169b | 61 | Frag. of rim, diam. 13.0; L. 3.2 | 10YR 7/4 very pale brown; slightly greenish in core | Extr. 7.5YR $8 / 4$ pink: intr. 7.5 YR $7 / 4$ pink | Sparse | Calcareous, grey-brown | Sparse | Smooth extr., rough, gritty, intr. surface texture. |
| 169c | 177 | Frag of rim, diam. 12.0; L. 3.4 | 10YR 6/3 pale brown | Approx. 10YR 7/2 light grey | Sparse | Calcareous | Very sparse | Sparse grog inclusions (details unrecorded). Smooth extr./intr. surface texture. |


| NO. | UNIT | DIMENSIONS (cm) | $\begin{aligned} & \text { FABRIC } \\ & \text { COLOUR } \end{aligned}$ | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 170 | 193 | Ext. H. 26.4; rim diam. 8.8; max. diam. 16.0. Intact and 98\% complete. Partly restored from sherds; one side and base missing | 7.5YR 7/4 pink | 7/5YR 7/4 pink | Medium | Calcareous | Sparse | For position, see Fig. 7. |
| $\begin{aligned} & 171 \\ & \text { KK 85/39 } \end{aligned}$ | 32 | H. 29.7; rim diam. 10.0; max. diam. 21.1. Complete but for a few body frags. Restored from sherds | 10YR $6 / 3$ pale brown | 10YR $6 / 3$ pale brown; fire-blackened patches on extr. |  | Calcareous | Medium | For position, see Figs. 6-7. <br> Curtis and Green 1987: fig. $3,9$. |
| 171a | 553 | - | - | Pale yellowish brown | - | - | - | Large jar similar to 171 (although the form of the base was not apparent). Lost in the flooding of the site. For position, see Fig. 7. |
| $\begin{aligned} & 172 \\ & \text { KK } 85 / 14 \end{aligned}$ | $\begin{gathered} 14 \\ + \\ 15 \end{gathered}$ | Ext. H. 43.2; <br> Max. diam. 21.7. <br> Restored from sherds; rim missing | 10YR 7/3 very pale brown | 2.5Y $7 / 2$ light grey | Dense |  |  | Clear horizontal lines of working on intr., together with the pattern of breakage, may suggest construction by coil method. Small perforation in base. Sherds widely dispersed when found. For main position, see Fig. 7. |
| 173 | 5 | Ext. H. 40.0; max diam. 26.4. Single sherd; most of profile, rim and base missing | 7.5YR 7/4 pink, with slightly greener core in places | 7.5YR $7 / 4$ pink, fireblackened on parts of intr. and one side of extr. | Sparse | Calcareous | Medium | For position, see Fig. 7. |
| 174 | $\begin{gathered} 28 \\ + \\ 508 \end{gathered}$ | Ext. H. 35.2; <br> max diam. 20.6. Restored from 42 sherds; body complete on all sides, but rim and base missing | Core mostly underfired 10YR 5/l grey; rest of core and extr. 10YR 7/3 very pale brown; intr. 10YR 3/1 very dark grey | Extr. 10YR 5/2 greyish brown - $7 / 4$ very pale brown with variations; intr. 10YR 6/3 pale brown | Medium <br> (c. 20-30\%) | Calcareous | Sparse | Extr. surface smooth and glossy, apparently from heat of fire. <br> Pronounced intr. wheel marks close to rim and base (but not on middle body). <br> For position, see Figs. 7, 11. |
| 175 | $\begin{aligned} & 5 \\ & + \\ & 15 \end{aligned}$ | Ext. H. 37.2; <br> max. diam. 26.0. <br> Restored from 58 <br> sherds; complete but for rim and base | Core 5Y 5/I <br> grey $-6 / 1$ <br> grey/light grey; <br> extr./intr. <br> 10YR $6 / 3$ pale <br> brown-6/4 <br> light yellowish <br> brown | Extr. 10YR $8 / 4$ very pale brown; intr. 7.5YR 6/4 light brown; much of extr. and some of intr. burnt 10YR 3/1 very dark grey | Medium (c. $30 \%$ ) |  |  | Extr. surface smooth and glossy, apparently from heat of fire. Dense fine grog inclusions. Poorly prepared clay, with airbubbles and interstices. For position, see Fig. 7. |
| 176 | $\begin{gathered} 28 \\ + \\ 31 \end{gathered}$ | Ext. H. 41.2; <br> max. diam. 27.2. <br> Restored from 83 <br> sherds; rim missing | 10YR 7/1 light grey - $7 / 3$ very pale brown | Extr. 10YR $8 / 3$ very pale brown, largely burnt 5 Y 6/1 grey/ light grey - 7.5YR 4/0 dark grey. Intr. 5YR 7/4 pink | Medium <br> (c. 20\%) | Calcareous | Very sparse | Numerous very fine vegetable impressions on extr./intr. surfaces. Light wheel marks on intr. Sparse fine grog inclusions. <br> For position, see Fig. 7. |
| 177 | $\begin{gathered} 32 \\ + \\ 253 \end{gathered}$ | H. 61.3; rim diam. 15.9; max. diam. 31.7. <br> Profile of one side restored from 55 sherds | Extr. 5 Y $8 / 3$ pale yellow; intr. 5Y 7/2 light grey | Extr. 5 Y $7 / 3$ pale yellow, rim and shoulder largely burnt 10YR 7/4 very pale brown and variations on 7/1 light grey, with a patch burnt $2.5 \mathrm{Y} 2 / 0$ black; intr. 5 Y $7 / 2$ light grey (very little burnt) | Medium | Calcareous, grey | Medium | Parallel horizontal incised grooves on shoulder. Very pronounced wheel marks on intr. upper body. Poorly prepared clay, rough extr./intr. surface texture. Part of extr. surface burnt to a smooth gloss. <br> For position, see Fig. 7 |
| $178$ <br> Sample (frag. of rim) BM 1987-4-12.58 | $\begin{aligned} & 186 \\ & + \\ & 192 \end{aligned}$ | Ext. H. 36.2; rim diam. 11.7; max. diam. 23.8 . Restored from 72 sherds; base missing | Neck and rim: <br> 7.5YR 7/4 <br> pink; middle <br> body: core <br> 10YR 5/1 grey; <br> extr./intr. <br> 7.5YR 7/4 <br> pink; near base: <br> $5 \mathrm{Y} 4 / 1$ dark <br> grey | Extr. mostly burnt 10YR 7/4 very pale brown, with 10 YR 6/2 light brownish grey and patch burnt 5YR 5/1 grey; intr. 7.5YR 7/4 pink | Medium (c. 20\%) | Calcareous. grey | Sparse | Pronounced wheel marks on intr. upper shoulder. Smooth extr. rough and uneven intr. surface texture. Poorly prepared clay. <br> For scientific analysis, see Ch. 7. <br> For position, see Figs. 6-7. |


| No. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 179 <br> KK 85/45 <br> PL. XIXf | $\begin{gathered} 181 \\ + \\ 508 \\ + \\ 509 \\ + \\ 510 \end{gathered}$ | H. 45.4; rim diam. 12.3; max. diam. 27.0. Restored from 62 sherds; base missing | 5Y 6/2 light olive grey: int: below neck burnt 5YR 4/1 dark grey | 5 Y $8 / 3$ pale yellow; intr. below neck burnt 5 YR 4/1 dark grey; area of extr burnt 5YR 3/1 very dark grey | Medium |  |  | Severely warped on one side near base. The largely unburnt extr. and the heavily, fairly evenly, burnt intr. (going deep into the fabric) may suggest combustible contents. For position, see Fig. 7. |
| 180 | 181 | H. 45.9; rim diam. 11.9: max. diam. 30.1. Restored from sherds; rim complete; half of body (lengthwise) and base missing | 7.5YR 6/6 reddish yellow | 10YR $6 / 4$ light yellowish brown; large number of fragments fire-blackened | Medium | Calcareous | Sparse | Contained an iron blade (II). <br> For positon, see Figs. 6 7. <br> Curtis and Green 1987: fig. 3. 18. |
| 181 | 27 | $\begin{aligned} & \text { Rim diam. } 11.8 \text {, } \\ & 100 \% \text { rim ( } 5 \\ & \text { sherds) } \end{aligned}$ | Core/intr. 5 YR 3/1 very dark grey; extr. 5 YR $7 / 6$ reddish yellow | Extr. 10YR $8 / 4$ very pale brown: intr. burnt(?) to 10YR 5/2 greyish brown | Medium | Calcareous, grey | Sparse | Pronounced intr wheel marks. |
| 181a <br> Sample BM <br> 1987-4-12,9 | 31 | Ext. H. 4.2; rim diam. 11.0; L. 4.7 (rim sherd) | 2.5YR 6/8 light red | 5YR 7/4 pink | Sparse | Mostly calcareous, occasional grey | Sparse | Irregular bumpy intr. surface. <br> For scientific analysis, see Ch. 7. |
| 182 | 67 | $\begin{aligned} & \text { Rim diam. 11.2; } \\ & 100 \% \mathrm{rim} \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium |  |  | Pronounced intr. wheel marks. |
| 182a | $\begin{gathered} 15 \\ + \\ 28 \end{gathered}$ | Rim diam. 14.7: $90 \%$ rim ( 2 nonjoining sherds) | 2.5Y $8 / 4$ pale yellow - 7.5 YR 7/4 pink | Extr. $2.5 \mathrm{Y} 8 / 2$ white, with burnt patch 2.5 Y $3 / 0$ very dark grey; intr. 10YR $8 / 3$ very pale brown. | Medium |  |  | Two horizontal bands of extr. combing (5-6 pronged comb). Burnt material (clay?) adhering to extr., 5 YR 7/6 reddish yellow. |
| 183 | $\begin{aligned} & 28 \\ & + \\ & 31 \\ & + \\ & 508 \\ & + \\ & 509 \\ & + \\ & 510 \\ & \hline \end{aligned}$ | H. 48.2; rim diam. 11.9; max. diam. 28.4. Restored from 62 sherds; complete. except for a few body fragments | Core 5Y 6/2 light olive grey: extr. 5 Y $7 / 2$ light grey: intr. 5 Y $7 / 3$ pale yellow | Extr. 5 Y $7 / 3$ pale yellow, largely burnt 5YR $6 / 4$ light reddish brown - 10YR 5/I grey; intr. 5 Y $7 / 3$ pale yellow | Medium <br> (c. $30 \%$ ) | Calcareous, black | Very sparse | Warped in places. Sparse grog inclusions. This vessel may at the time of the destruction have been sitting in the nearby stand 184. For position, see Figs. 7, 11 . |
| 183a <br> Sample BM <br> 1987-4-12,10 | 13 | Rim diam. 18.0; <br> L. 3.3 | Core 10YR $7 / 4$ very pale brown; extr/intr. 10YR $8 / 3$ very pale brown | 10YR $8 / 4$ very pale brown | Medium | Calcareous. grey | Sparse | For scientific analysis, see Ch. 7. |
| 183b | 27 | Ext. H. 4.2; rim diam. 18.0; L 4.7 | 10R 6/8 light red | 10YR $8 / 4$ very pale brown | Medium | $\cdot$ | Medium |  |
| 183c | 186 | Ext. H. 3.5; rim diam. 11.0; $100 \% \mathrm{rim}$ | 10YR 5/1 grey | 2.5Y $7 / 2$ light grey | Medium | Grey | Sparse | Sparse reddish brown and reddish yellow grog inclusions. |
| 183d | 506 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. 9.4 } \end{aligned}$ | 5Y $6 / 3$ pale olive | $5 \times 7 / 3$ pale yellow | Medium | Calcareous, grey | Sparse | Calcareous grits protrude from extr./intr. surfaces. |
| 183e <br> Sample BM <br> 1987-4-12,48 | 552 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 3.5 \end{aligned}$ | Core 5YR 7/4 pink; extr./intr. 10YR 7/4 very pale brown | Extr. rim 7.5YR 7/4 pink; extr neck/intr. 2.5 Y $8 / 2$ white | Medium | Calcareous | Very sparse | Shallow finger-width depression on intr. rim. For scientific analysis, see Ch. 7. |
| $\begin{aligned} & 184 \\ & \text { KK } 85 / 32 \end{aligned}$ | $\begin{gathered} 28 \\ + \\ 32 \end{gathered}$ | H. 13.7; rim diam. 19.5; base diam. 21.7 . <br> Restored from sherds; complete but for 3 frags. | 7.5YR 4/0 dark grey | 5YR $7 / 6$ reddish yellow, fire-blackened on bottom surface and intr. base | Dense |  |  | For position, see Figs. 7, 11 Curtis and Green 1987: fig. 4, 16 |
| 185 | 186 | Ext. H. 18.0; rim diam. 8.6. $40 \%$ of rim; $20 \%$ of neck and shoulder | Core/intr. 10YR 5/1 grey: extr. 2.5 Y $6 / 2$ light brownish grey | Extr. mottled 2.5 Y $7 / 2$ light grey with $2.5 \mathrm{Y} 5 / 0$ grey | Medium | - |  | Possibly from same vessel as 186. <br> For position, see Fig. 7. |
| 185a <br> Sample BM <br> 1987-4-12,55 | 457 | $\begin{aligned} & \text { Rim diam. } 11.5 \text {; } \\ & 75 \% \mathrm{rim} \end{aligned}$ | Core/extr. 2.5Y $6 / 2$ light brownish grey; intr. 10YR 5/1 grey | Extr. 10YR $8 / 4$ very pale brown; intr. 5 YR $7 / 6$ reddish yellow 10YR 5/I grey | Medium | Calcareous, micaceous | Sparse | Sparse reddish brown grog inclusions. <br> For scientific analysis, see Ch. 7. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 186 | 186 | Max. ext. diam. 27.7; 100\% base | Extr. 10YR 5/3 brown; intr. 10YR 4/1 dark grey | Extr. 10YR 4/1 dark grey - $7 / 2$ light grey; intr. 10YR $5 / 1$ grey | Medium | Calcareous, micaceous, grey | Sparse | Pronounced, widely spaced, intr. wheel marks. Very smooth extr. Possibly from same vessel as 185 . For position, see Fig. 7. |
| 186a | 28 | Max. ext. diam. 23.4; 100\% base | 10YR $8 / 4$ very pale brown | Extr. 10YR $7 / 3$ very pale brown; intr. 10YR $7 / 2$ light grey; patches $2.5 \mathrm{Y} 3 / 0$ very dark grey on extr./intr. | Medium | Calcareous, micaceous | Sparse | Burnt material (c. 1.0 cm thick) adhering to bottom intr. of base. |
| 186b | 28 | Max. ext. diam. 10.3; 100\% base | Extr. 5 YR $7 / 6$ reddish yellow; intr. $2.5 \mathrm{Y} 5 / 2$ greyish brown | Extr. 7.5YR 4/0 dark grey - $7 / 4$ pink; intr. 2.5Y 5/2 greyish brown | Medium | Calcareous, micaceous | Sparse | Pronounced intr. wheel marks. Smooth extr. surface texture. |
| 186c | 28 | Max. ext. diam. 26.1:- \% base ( 9 sherds) | Core/extr. 5 Y 6/1 grey; intr. 5Y 5/1 grey | Extr. 5 Y $7 / 2$ light grey 7.5YR 5/0 grey; intr. 2.5Y 4/0 dark grey - $7 / 2$ light grey | Medium | Mostly grey, with calcareous, micaceous | Sparse | Slightly irregular extr. surface. |
| 186d | 192 | Max. ext. diam. 13.0; 100\% base | 7.5YR $6 / 6$ reddish yellow | Extr. 7.5YR $6 / 4$ light brown; intr. 5YR 7/6. 7.5YR $7 / 6$ reddish yellow | Sparse | Calcareous, micaceous, grey | Dense | Deep finger- moulded grooves from handmanufacture; wall thickness and surface texture vary considerably. |
| $\begin{aligned} & 187 \\ & \text { KK 85/44 } \end{aligned}$ | $\begin{aligned} & 192 \\ & + \\ & 195 \end{aligned}$ | H. 53.9; rim diam. 12.2; max. diam. 27.8; base perforation 2.0 2.5. Restored from 53 sherds; complete but for $20 \%$ of rim and a few frags. of upper body and shoulder | 10YR $5 / 2$ greyish brown | Extr. 10YR $7 / 3$ very pale brown, much burnt 5YR $5 / 3$ reddish brown 7.5YR 5/0 grey; intr. evenly (prob. when vessel intact) burnt 5YR $3 / 1$ very dark grey | Dense |  |  | Small hole at base, apparently pierced after firing. Burnt area on extr. smooth and glossy: elsewhere surface texture rough. Base slightly warped on one side. <br> For position, see Figs. 6-7, 10a. |
| 187a <br> Sample BM <br> 1987-4-12,11 | 192 | Single sherd. <br> Rim diam. 11.5; <br> L. 8.7 | Core/intr. 10YR 5/1 grey: extr. 5 YR $7 / 6$ reddish yellow | 7.5YR $7 / 4$ pink - 10YR <br> $7 / 3$ very pale brown | Sparse | Calcareous, micaceous, black, grey | Dense | Fine shallow finger impression and irregular ridges on intr. surface. Possibly a missing part of the rim of 187 , but non-joining. <br> For scientific analysis, see Ch. 7. |
| $\begin{aligned} & 188 \\ & \text { KK 85/13 } \end{aligned}$ | 64 | H. 55.8; rim diam. 11.8; max. diam. 20.0; button base $c$. 0 . 8 (high) x 4.4 (diam.). Restored from sherds | 7.5YR $7 / 4$ pink | 10YR $7 / 4$ very pale brown | Dense |  |  | Found at 80 cm above level of stone pavement. For position, see Figs. 6-7, 12. <br> Curtis and Green 1987: fig. 4, 14; Curtis 1992: fig. 4. |
| 189 | $\begin{gathered} 28 \\ + \\ 31 \\ + \\ 32 \\ + \\ 508 \\ + \\ 509 \\ + \\ 510 \\ \hline \end{gathered}$ | H. 62.2; rim diam. 16.0; max. diam. 31.5. Restored from 56 sherds; complete but for $50 \%$ of rim, base and some body frags. | 10YR 7/3 very pale brown, in thinner sections of wall core fired 5Y7/2 light grey; much burnt 5 Y $6 / 2$ light olive 5YR 4/I dark grey | Probably originally 10YR $8 / 3$ very pale brown, preserved on extr. rim/upper intr.; extr. mostly burnt 5 YR $6 / 6$ reddish yellow 5YR 2.5/l black; intr. largely burnt $5 \mathrm{Y} 6 / 2$ light olive - 10YR 4/1 dark grey | Medium |  |  | Sherds widely dispersed when found. Combing (2 parallel sets of 5 horizontal grooves) on extr. shoulder/neck. Intr. surface texture rough; extr. semivitrified to a smooth gloss finish from heat. For position, see Fig. 7. |
| $\begin{aligned} & 190 \\ & \text { KK } 85 / 36 \end{aligned}$ | 66 | H. 54.6; rim diam. 11.2; max. diam. 20.6; diam. of button base 6.2. <br> Restored from sherds; complete but for a number of (large) body frags. | 7.5YR 7/6 reddish yellow | 2.5Y $8 / 2$ white | Dense |  |  | Found overlying pot 269. For position, see PI. VIIb, Figs. 6-7. Curtis and Green 1987: pl. 8. fig. 4, 15. |
| $\begin{aligned} & 191 \\ & \text { KK 85/12 } \end{aligned}$ | 15 | Ext. H. 56.0; rim diam. 11.0; max. diam. 23.8. Restored from sherds; complete but for (button?) base | 2.5Y $7 / 2$ light grey | 2.5Y $7 / 2$ light grey, fire-blackened on one side | Dense |  |  | Breaks follow roughly horizontal lines. suggesting manufacture by coil methods. For position, see Fig. 7 |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 192 | 15 | $\begin{aligned} & \text { Rim diam. } 9.7 \text {; } \\ & 100 \% \mathrm{rim} \end{aligned}$ | 5Y $7 / 4$ pale yellow | Extr. 5Y $6 / 2$ light olive grey - $7 / 2$ light grey; intr. 5Y $7 / 4$ pale yellow, partly burnt 10YR 3/1 very dark grey | Medium | Calcareous | Sparse | Overfired and warped. Dense air-bubbles and interstices. <br> For position, see Fig. 7. |
| 192a | 181 | $\begin{aligned} & \text { Rim diam. 10.5; } \\ & 100 \% \mathrm{rim} \end{aligned}$ | 10YR $7 / 2$ light grey - $7 / 3$ very pale brown | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Very sparse | Pronounced groove on intr. rim. |
| 193 | 196 | $\begin{aligned} & \text { Rim diam. } 11.6 \text {; } \\ & 100 \% \mathrm{rim} \end{aligned}$ | Extr./core <br> 10YR 4/1 dark <br> grey; intr. <br> 7.5YR 7/4 pink | Extr. 10YR $7 / 4$ very pale brown, partly burnt 10YR 3/I very dark grey; intr. $7.5 \mathrm{YR} 7 / 4$ pink - 10YR 7/3 very pale brown | Medium | Calcareous | Sparse | Pronounced extr. wheel marks on upper shoulder. |
| 194 | 27 | $\begin{aligned} & \text { Rim diam. 9.0; } \\ & \text { L. } 7.6 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Two parallel incised grooves on neck (W. 0.35 and 0.4 cm ). Pronounced wheel marks on intr. upper shoulder. Sparse light red grog inclusions. |
| 194a | 14 | $\begin{aligned} & \text { Rim diam. 10.0; } \\ & \text { L. } 7.4 \end{aligned}$ | Core 7.5YR <br> $7 / 4$ pink; extr./intr. 2.5YR $6 / 6$ light red - 5YR 7/6 reddish yellow | 5YR 7/4 pink | Medium | Calcareous | Sparse | Surface covered in vegetable impressions. Crudely made, with horizontal finger impressions. |
| 195 | $\begin{gathered} 191 \\ + \\ 192 \end{gathered}$ | Ext. H. 37.4; <br> Max. diam. 22.4. Restored from 38 sherds; complete but for rim | 10YR 4/1 dark grey | 5Y $8 / 3$ pale yellow, a few small areas burnt 2.5 Y $7 / 2$ light grey 2.5YR 2.5/0 black | Medium | Mostly grey, black, with calcareous, micaceous | Sparse | Very brittle clay. Pronounced intr. wheel marks. Shallow finger impressions on extr. surface. <br> For position, see Figs. 6-7. |
| $\begin{aligned} & 196 \\ & \text { PI. XIXe } \end{aligned}$ | $\begin{gathered} 304 \\ + \\ 305 \\ + \\ 354 \end{gathered}$ | H. 86.2; rim diam. 10.9; max. diam. 40.8 . Restored from 159 sherds: complete but for $50 \%$ of rim and a few body frags. | 5YR $6 / 4$ light reddish brown | 5YR $6 / 4$ light reddish brown; extr. partly burnt 7.5 YR $4 / 2$ brown | Medium | Calcareous, <br> light grey | Medium | Very thin walled. Rough but even extr//intr. surface texture. <br> For position, see Fig. 7. Immediately beneath the sherds of this vessel was a collection of animal bones, including those from a joint of equid meat. |
| 196a | 181 | Ext. H. 23.6; max. ext. diam. 33.8: $100 \%$ base (only) | 10YR $6 / 3$ pale brown | 10YR $7 / 2$ light grey. with intr. patches burnt $2.5 \mathrm{Y} 4 / 0$ dark grey | Sparse | Mostly calcareous, micaceous, with grey, black | Dense | Gritty extr. surface texture, with dense vegetable impressions. Wheel marks on intr. surface. |
| 196b | 196 | Ext. H. 3.9; max. ext. diam. 5.3; $100 \%$ base (only) | $\begin{aligned} & 2.5 \mathrm{Y} 8 / 4 \text { pale } \\ & \text { yellow } \end{aligned}$ | 2.5 Y $8 / 2$ white | Sparse | Fabric of 'sandy' appearance. but individual grits not visible | ? | Chalky extr./intr. surface texture. |
| 197 | 192 | H. 82.2: rim diam. 11.7; max diam. 36.2. Restored from 120 sherds: complete but for some body frags. | $5 \mathrm{Y} 4 / 1$ dark grey - $4 / 2$ olive grey | Extr. 5YR 5/3 reddish brown, partly burnt 5 Y 4/1 dark grey; intr. 7.5YR 7/4 pink, mostly burnt 10YR 4/1 dark grey | Medium | Calcareous | Medium | Very thin walled. Rough but even extr./intr. surface texture. Splashes of thin bitumen(?) or paint(?) on shoulder, $7.5 \mathrm{YR} 2 / 0$ black. <br> For position, see Figs. 6-7. 10a. Curtis 1992: fig. 4. |
| 197a <br> Sample BM <br> 1987-4-12,8 | 16 | Ext. H. 6.2; rim diam. 12.0; L 5.2 (rim sherd) | 10YR 6/4 light yellowish brown | Extr. 10YR 7/3 very pale brown, intr. 7.5 YR $7 / 4$ pink | Medium | Calcareous, micaceous | Sparse | For scientific analysis, see Ch. 7. |
| 197b | 16 | Ext. H. 10.0; rim diam. 11.5; L. 8.0 (rim sherd) | 5YR 6/6 reddish yellow | 7.5YR $6 / 4$ light brown | Sparse | Mostly <br> calcareous, <br> with <br> micaceous, <br> grey, black | Medium | Very shallow fingerwide groove inside rim. Rough irregular clay (slurty?) on one part of upper rim. |
| 197c <br> Sample BM <br> 1987-4-12,56 | 14 | Ext. H. 7.6: rim diam. 10.5; L 8.0 (rim sherd) | 10YR 5/1 grey | 2.5Y $7 / 2$ light grey. Patchy burning | Medium | Calcareous | Sparse | For scientific analysis. see Ch. 7. |


| No. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 197d | 31 | Ext. H. 5.1; rim diam. 10.0; L. 4.0 (rim sherd) | Core 10YR 5/1 grey; extr./intr. 5YR 7/6 reddish yellow | 7.5YR 7/4 pink | Medium | Calcareous, micaceous, grey | Medium |  |
| 197e | 180 | Ext. H. 3.5; rim diam. 13.0; L . 4.1 (rim sherd) | Core 5Y 6/1 grey; extr./intr. 7.5YR 6/6 reddish yellow | 7.5YR 7/4 pink | Sparse | Mostly calcareous, with grey | Sparse | Chalky extr./intr. surface texture. |
| 1978 | 457 | Ext. H. 5.0; rim diam. 11.5; L 4.7 (rim sherd) | 10YR 3/1 very dark grey | 10YR $6 / 2$ light brownish grey | Medium | Calcareous, micaceous | Medium | Pronounced groove below intr. rim edge. |
| 197g | 506 | Ext. H. 5.2; rim diam. 12.0; L. 7.6 (rim sherd) | 5YR 7/6 reddish yellow -7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse |  |
| 197h | 508 | Ext. H. 4.7; rim diam. 10.0; L. (2 joining rim sherds) | - | - | - | $\cdot$ | - |  |
| 197i | 552 | Ext. H. 3.7; rim diam. 11.0; L . 5.3 (rim sherd) | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium | Calcareous, micaceous | Sparse | Sparse reddish brown grog inclusions. <br> Pronounced groove below intr. rim edge. |
| 198 | 5 | H. 81.5; rim diam. 11.0; max. diam. 37.8. Partly restored from 110 sherds; large body frags. missing | 10YR $4 / 2$ dark greyish brown | Extr. 10YR $7 / 4$ very pale brown; intr. fireblackened | Sparse | Calcareous | Medium | For position, see Fig. 7 Curtis and Green 1987: fig. 4, 19. |
| 199 | 457 | Ext. H. 29.9; rim diam. 10.8; max. ext. diam. 34.7. Complete and intact upper vessel | Extr. 5 Y $6 / 6$ reddish yellow; intr. 10YR $6 / 3$ pale brown | 10YR $7 / 3$ very pale brown | Very sparse | Calcareous, micaceous | Medium | Pronounced wheel marks on neck and upper shoulder. Very fine gritty surface texture. Possibly from same vessel as 200 . For position, see Fig. 7. |
| 200 | $\begin{gathered} 28 \\ + \\ 31 \end{gathered}$ | Ext. H. c. 45.0; max. ext. diam. c. 35.0. Restored from 109 sherds; most of base missing, but profile preserved on one side | Core/intr. 10YR 6/2 light brownish grey: extr. 2.5YR 5/6 red | Extr. one side 2.5YR 6/4 light reddish brown, burnt near base 2.5 YR 3/0 very dark grey; extr. other side 10YR 7/3 very pale brown; intr. 10YR 6/2 light brownish grey | Medium | Calcareous | Sparse (esp. visible in red extr. fabric) | Pronounced extr./intr. wheel marks close to base. Faint reed(?) impressions around centre of extr. surface. Possibly from same vessel as 199. <br> For position, see Fig. 7. |
| 201 | 186 | Rim diam. 10.8; max. ext. diam. 30.0; $65 \%$ rim. Restored from 21 sherds; parts of rim, neck and shoulder missing | Extr. 10YR 6/3 pale brown; intr. 2.5Y 5/0 grey | Extr. 10YR $6 / 3$ pale brown; intr. 2.5Y $6 / 2$ light brownish grey | Medium | Calcareous, micaceous, grey, (angular) quartz | Medium | Pronounced intr. wheel marks on neck and upper shoulder. Rough surface texture, with pronounced finger impressions; irregular lumps of clay (slurry?) on interior. $\qquad$ |
| 201a | 27 | Rim diam. 17.0; L. 2.6 (rim sherd) | 10YR 7/3 very pale brown | Extr. 10YR $8 / 3$ very pale brown; intr. 2.5 Y $8 / 2$ white | Medium | Calcareous, grey | Medium | Shallow extr incisions. |
| 202 | 186 | Rim diam. 10.5: L. 8.8 (rim sherd) | 7.5YR $6 / 2$ pinkish grey $6 / 4$ light brown | Extr. 2.5Y $7 / 2$ light grey; intr. 10YR $7 / 3$ very pale brown, largely burnt $2.5 \mathrm{Y} 2 / 0$ black $3 / 0$ very dark grey | Medium | Mostly grey, with calcareous | Sparse | Intr. surface heavily burnt and pitted. Pronounced irregular wheel marks especially on intr. |
| 203 | $\begin{gathered} 185 \\ + \\ 186 \end{gathered}$ | Ext. H. 56.0; rim diam. 10.9 (44 sherds) | Core/intr. <br> 7.4YR 4/0 dark <br> grey; extr. <br> 7.5YR $6 / 4$ light <br> brown | 10YR $7 / 3$ very pale brown; extr. partly burnt 5YR 4/1 dark grey | Medium | Calcareous, micaceous, light brown | Medium | 6 sherds from postdestruction pit. Rough extr./intr. surface texture, except where burnt on extr. For position, see Fig. 7. |
| 204 | 30 | H. 88.1; rim diam. 12.0; max. diam. 39.1 . Partly restored from 121 sherds, just over half preserved, in very poor condition | Core/intr. 2.5 Y $5 / 2$ greyish brown - 10YR 4/1 dark grey; extr. 10yR $6 / 3$ pale brown $6 / 4$ light yellowish brown | Extr. in places (and perhaps originally) 5 YR $7 / 4$ pink, now mottled due to varying degrees of burning 5YR $6 / 1$ light grey - 10YR $6 / 3$ pale brown; intr. entirely burnt 5YR 6/1 light grey | Medium | Calcareous. micaceous | Sparse | Friable fabric. Poorly prepared clay, with many interstices and large air-bubbles (up to 0.3 cm diam.). <br> Pronounced wheel marks on intr. middle body and shoulder/neck. For position, see Pl. Vla, Figs. 6-7. 11. Curtis and Green 1987 fig. 4, 17. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 204a <br> Sample BM <br> 1987-4-12,6 | 357 | Ext. H. 6.0; max. ext. diam. 10.0 ( $100 \%$ base) | 5YR 7/4 pink, largely burnt 7.5YR 5/2 brown | 7.5YR $6 / 4$ light brown $7 / 4$ pink, partly burnt 7.5YR 4/0 dark grey | Mcdium | Calcarcous, black | Very sparse | For scientific analysis, see Ch. 7. |
| 205 | 5 | H. 80.7; rim diam. 10.9; max. diam. 36,2. Partly restored from 116 sherds | 10YR $4 / 2$ dark greyish brown 5/1 grey | Mottled (from burning) 10YR 7/3 very pale brown-6/2 light brownish grey | Medium | Calcareous, micaceous | Medium | For position, see Fig. 7. Curtis 1992: fig. 4. |
| 206 | 180 | $\begin{aligned} & \text { Rim diam. } 11.5 \text {; } \\ & 100 \% \mathrm{rim} \end{aligned}$ | Core 10YR $6 / 2$ light brownish grey; extr./ints. 5YR $6 / 6$ reddish yellow | Extr. 5YR $7 / 4$ pink 10YR $7 / 3$ very pale brown; intr. 5 YR 7/6 reddish yellow | Medium | (Angular) calcareous, micaceous, grey | Medium | Pronounced intr. wheel marks on upper shoulder. Heavy horizontal vegetable impressions on extr. Calcareous grits protrude on intr. |
| 207 | 457 | Ext. H. 8.6; rim diam. 11.0; complete rim (3 joining sherds) | Core 10YR 5/3 brown; extr. 10YR $6 / 3$ pale brown-6/4 light yellowish brown; intr. 10YR 5/1 grey | Extr. 7.5YR $6 / 4$ light brown - $7 / 4$ pink; intr. burnt 10YR $6 / 3$ pale brown - 7/4 very pale brown | Medium | Calcareous, micaceous, grey | Sparse | Sparse reddish yellow grog inclusions. <br> Probably from same vessel as 208. <br> For position, see Fig. 7. |
| 208 | 457 | Ext. H. 16.9; max ext. diam. 26.7 (100\% base) | Core/intr. 2.5 Y 3/0 very dark grey - 4/0 dark grey; extr. 5YR $6 / 6$ reddish yellow | Extr. 7.5YR 5/4 brown - $6 / 4$ light brown; intr. $10 \mathrm{YR} 5 / 1$ grey | Medium | Calcareous, micaceous, grey | Medium | Pronounced intr wheel marks. Gritty extr./intr. surface texture. <br> Probably from same vessel as 207. <br> For position, see Figs. 6-7. |
| 208a | 27 | Ext. H. 1.6; base diam. 2.5; max ext. diam. 5.0 ( $100 \%$ base) | 5Y 7/3 pale yellow | 2.5 Y $8 / 2$ white |  | Calcareous | Very sparse | Base fragment. <br> Pronounced intr, wheel marks. Smooth extr. surface texture (from heat of destruction). |
| 208b | 28 | Ext. H. 12.3; max. ext. diam. 18.8 (100\% base). Base and lower body. restored from sherds | 10YR $8 / 3$ very pale brown, mostly burnt 10YR 3/1 very dark grey | Mottled $2.5 \mathrm{Y} 3 / 0$ very dark grey - $7 / 2$ light grey. Heavily burnt and fire-blackened | Medium | Calcareous, micaceous. grey | Very sparse | Pronounced intr, wheel marks. Smooth extr. surface texture (from heat of destruction). |
| 208c | 29 | Ext. H. 10.7: max. ext. diam. 16.9 (100\% base) | Core/intr. <br> $12.5 \mathrm{Y} 3 / 0$ very <br> dark grey - 4/0 <br> dark grey; extr. <br> 5YR $6 / 6$ <br> reddish yellow | Extr. 7.5YR $5 / 4$ brown - $6 / 4$ light brown; intr 10YR 5/1 grey | Medium | Calcareous. micaceous, grey | Medium | Pronounced (irregular) intr. wheel marks and finger impressions. Gritty extr/intr. surface texture. |
| 208d | 32 | Ext. H. 20.7; <br> max. ext. diam. <br> 25.5 (100\% <br> base). Base and <br> lower body <br> restored from <br> sherds | 10YR $6 / 2$ light brownish grey | 10YR 7/6 light grey, largely burnt $2.5 \mathrm{Y} 2 / 0$ black - $3 / 0$ very dark grey | Medium | Mostly calcareous, with micaceous, black, grey | Dense | Very irregular, rough intr. surface, with pronounced wheel marks and finger impressions. |
| 209 | $\begin{gathered} 509 \\ + \\ 510 \end{gathered}$ | Ext. H. 39.8; rim diam. 11.4; max. ext. diam. 37.2 ( 35 sherds) | Core/intr. <br> 7.5YR 3/0 very dark grey; extr. 7.5YR 7/4 pink | Extr. 10YR 5/3 brown; intr. $7.5 \mathrm{YR} 3 / 0$ very dark grey - 10YR 6/1 grey | Dense | Calcareous, micaceous | Sparse | Pronounced intr. wheel marks. <br> For position, see Figs. 7, 13b. |
| 210 | 186 | Ext. H. 32.1: max ext. diam. c. $3.4(70 \%$ lower body/base). Restored from 34 sherds | Core/intr. 10YR 5/1 grey; extr. 7.5 YR $7 / 4$ pink | Extr. 5YR $7 / 6$ reddish yellow - 7.5 YR $7 / 4$ pink; intr. 10YR 5/1 grey | Medium | Mostly calcareous, occasional micaceous | Mostly <br> sparse, locally dense | Warped on one side. Heavy intr. ribbing. more pronounced towards base. For position, see Fig. 7. |
| 210a | 353 | Ext. H. 2.6; base diam. 5.5 (30\% base) | 2.5Y $6 / 2$ light brownish grey | 2.5Y $7 / 2$ light grey; extr. partly burnt 2.5 YR 4/0 dark grey - 5/0 grey | Medium | Calcareous | Very sparse | Base fragment. |
| 211 | 61 + 62 + 64 + 66 + 67 | Ext. H. 78.2; rim diam. 10.8; max. diam. c. 39.0. Restored from 154 sherds, complete but for base and a few body fragments | Extr. 7.5YR 6/6-7/6 reddish yellow: intr. 7.5YR 4/0 dark grey | Mottled, $10 \mathrm{YR} 7 / 2$ light grey. $7 / 3$ very pale brown | Sparse | Calcareous, micaceous, occasional brown | Medium | Pronounced intr./extr. wheel marks, especially on neck. For position, see Figs. 6-7. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 211a | 15 | Frag. of rim, diam. 11.5; L. 9.5 | 10YR 3/l very dark grey | Extr. 10YR 3/1 very dark grey - $5 / 2$ greyish brown; intr. 10YR 4/1 dark grey | Medium | Calcareous, micaceous | Sparse | Pronounced intr. wheel marks on upper shoulder. |
| 212 | 64 | Ext. H. 64.1; <br> max. diam. 37.6. Restored from 57 sherds; rim, base and one side missing | $2.5 \mathrm{Y} 4 / 0 \text { dark }$ <br> grey | 7.5YR 5/6 strong brown | Dense | Calcareous | Sparse | Very poor fabric, full of interstices (up to 0.5 cm diam.). <br> For position, see Figs. 6-7. |
| 213 | 305 | Ext. H. 81.2; max. diam. 38.0. Restored from 94 sherds; $33 \%$ of vessel rim missing | Extr. 10YR 5/3 brown; intr. 7.5YR 5/0 grey | Extr. 5YR 5/3 reddish brown, with thin streaks burnt $2.5 \mathrm{Y} 3 / 0$ very dark grey; intr. 10YR $6 / 3$ pale brown, largely burnt in thin streaks 5 Y 3/1 very dark grey | Medium | Calcareous, occasional micaceous | Very sparse | Intr. wheel marks, becoming more pronounced towards base. <br> For position, see Figs. 7, 12. |
| 214 | 193 | Ext. H. 31.4; rim diam. 11.2; max. diam. 26.1. <br> Restored from 34 sherds; complete upper body and rim, but for large frag. of shoulder | Core/intr. 10R $6 / 4$ pale red; extr. 7.5YR 7/4 pink | Extr./intr. upper 13.5 cm 10YR 7/3-8/3 very pale brown; rest of intr. 5YR 7/4 pink | Medium | Calcareous | Very sparse | Most of intr. and extr. surface texture rough, but extr. of a few individual sherds smooth and glossy (from heat); therefore, this vessel broken early in the fire. Change of intr. surface texture 13.5 cm . down from rim may indicate either level of vessel contents at time of fire or that vessel made in two halves. <br> For position, see Fig. 7. |
| 215 | 457 | Ext. H. 28.7; rim diam. 13.5; max. ext. diam. 30.4. Restored from 19 sherds; complete rim and upper body; lower body lost in flooding of site | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | 2.5Y $7 / 2$ light grey | Medium |  |  | Very slightly warped in middle body. Extr. surface slightly smoother than intr., probably due to heat of destruction, but this vessel has escaped the heavy burning of most of the Level 4 deposits. For position, see Figs. 6-7. |
| 215a | 180 | Frag. of rim, diam. 14.0; L. 4.7 (of intact rim; sherd L. 7.2) | 5YR 6/6 reddish yellow | 7.5YR 7/4 pink | Medium | Calcareous | Sparse | Rough extr./intr. surface texture, with extr./intr. ridges from poor finishing. |
| 215b | 27 | Frag. of rim, diam. 16.5; L. 12.7 | Core 2.5Y 5/2 <br> greyish brown; extr./intr. <br> 7.5YR 6/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. 7.5YR 7/4 pink; some of extr./intr. (esp. extr. rim) burnt 7.5YR $5 / 0$ grey | Medium | Calcareous, grey | Sparse | Very smooth surface texture on extr. rim (from burning?) |
| 215c | 61 | Frag. of rim, diam. 12.0; L. 3.4 | 2.5 Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Fabric of 'sandy' appearance, but individual grits not visible | ? | Chalky extr./intr surface texture. |
| 216 | 196 | Ext. H. 12.7; rim diam. 11.5; max. ext. diam. 23.2. Restored from 16 sherds; complete rim and shoulder | Core 7.5YR <br> $7 / 4$ pink; extr./intr. 10YR 7/4 very pale brown; much of core/intr. burnt 10YR 5/2 greyish brown | 10YR $7 / 4$ very pale brown; much of intr. burnt $2.5 \mathrm{Y} 2 / 0$ black $3 / 0$ very dark grey | Medium | Calcareous | Very sparse | Smooth extr. surface texture (probably due to heat of destruction). rough intr. surface texture with irregular (added?) blobs of clay. |
| 217 | 181 | Ext. H. 35.7; rim diam. 11.6; max. diam. 15.8. <br> Restored from 23 sherds; complete rim and upper body | Extr. 7.5YR $7 / 4$ pink; intr. 7.5YR 6/4 light brown | Extr. $2.5 \mathrm{Y} 8 / 4$ pale yellow, with patches burnt 10YR 4/1 dark grey; intr. 10YR 7/3 very pale brown | Sparse | Calcareous | Very sparse | For position, see Figs. 6-7. |
| 218 | $\begin{aligned} & 5 \\ & + \\ & 15 \end{aligned}$ | Ext. H. 14.3; rim diam. 18.0; max. diam. 27.6 (3 joining sherds) | 7.5YR $6 / 6$ reddish yellow - 10YR $6 / 4$ light yellowish brown | Extr. 10YR $6 / 1$ grey $7 / 3$ very pale brown; intr. $7.5 \mathrm{YR} 7 / 4$ pink 10YR 4/I dark grey | Medium | Calcareous. micaceous | Medium | Intr. surface texture rough and gritty; extr. smooth (probably due to heat of destruction). For position, see Fig. 7; joining sherds fround in NE and SE of Room 1. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 219 | 186 | Rim diam. 18.5; max. diam. 25.1 Ls. 5.3, 8.5 (2 non-joining sherds) | 5Y 7/3 pale yellow | 2.5Y $7 / 2$ light grey, with patches burnt 2.5YR 3/0 very dark grey | Medium |  |  | For position, see Fig. 7. |
| 220 | 67 | Ext. H. 31.9; rim diam. 22.0; max. diam. 38.7. Restored from 47 sherds; almost complete rim and upper body | Core 5YR 7/4 pink; extr/intr. $2.5 \mathrm{Y} 7 / 2$ light grey - 10YR $7 / 3$ very pale brown | Extr. mottled 2.5Y $7 / 4$ pale yellow - 10YR 6/1 <br> grey; intr. 2.5 Y $8 / 2$ <br> white | Medium | Calcareous | Medium | Some smooth patches on extr. probably due to heat of destruction. Bitumen smears on extr. Folded rim leaves a gap (of 0.3 cm diam.) within core. <br> For position, see Figs. 6-7. |
| 221 | 186 | Ext. H. 28.2; rim diam. 19.0; max. diam. 27.8 <br> Restored from 33 sherds; <br> c. $66 \%$ complete | 5Y 7/3 pale yellow | $5 \mathrm{Y} 7 / 3$ pale yellow | Dense |  |  | Two large air-bubbles on extr. surface. For position, see Figs. 6-7. 10a. |
| 222 | 4 | Ext. H. 8.0; rim diam. 6.5; max. diam. 12.1 (24 sherds). $50 \%$ rim. Single large sherd | Extr. 5 Y $7 / 3$ pale yellow; intr. 7.5 YR $7 / 4$ pink | Extr. upper body 2.5 Y $8 / 2$ white; extr. lower body/intr. 10YR $8 / 3$ very pale brown | Medium | Mostly grey, with calcareous, black, brown | Medium | Smooth and glossy extr. surface texture (due to heat of destruction); rough intr. surface texture. Sparse reddish brown grog inclusions. For position, see Fig. 7. |
| 222a | 27 | Frag. of rim, diam. 20.5; L. 4.4 | 7.5YR $6 / 4$ light brown | 10YR $8 / 3$ very pale brown | Sparse | Calcareous, grey | Sparse | Smooth, chalky extr/intr. surface texture. |
| 223 | 177 | $\begin{aligned} & \text { Rim diam. 11.5; } \\ & \text { L. } 5.8 \end{aligned}$ | $5 \mathrm{Y} 7 / 4$ pale yellow | 5Y $7 / 4$ pale yellow | Medium |  |  | Dense vegetable impressions on extr./intr. surfaces. |
| $\begin{aligned} & 224 \\ & \text { KK 85/43 } \end{aligned}$ | 457 | H. 18.0; rim diam. 10.8; base diam. 7.3; max. diam. 15.4. <br> Restored from 23 sherds; complete but for c. $35 \%$ both of rim and ring-base | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | 2.5Y $7 / 2$ light grey, much of extr./ints. burnt 7.5YR $5 / 2$ brown | Medium | Calcareous | Very sparse | Added ring-base. Coarse vegetable impressions on surface. For position, see Fig. 7. |
| 225 <br> Sample (frag. of rim) BM 1987-4-12,2 | 28 | H. 17.6; rim diam. 10.8; base diam. 7.4; max. diam. 15.4. Partly restored from 29 sherds; some frags. of body and rim missing | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | 10YR $8 / 2$ white - $8 / 3$ very pale brown; extr. partly burnt 2.5 YR $4 / 0$ dark grey - $5 / 0$ grey | Medium -dense | Calcareous, <br> grey, black | Very sparse | Base is modelled from clay of vessel, not applied. Pronounced intr. wheel marks. Rough extr./intr. surface texture. <br> For scientific analysis, see Ch. 7. <br> For position, see Fig. 7. Curtis and Green 1987: fig. 3, 12. |
| 226 <br> KK 85/34 <br> PI. XIXd | 507 | H. 25.0; rim diam. 5.2; base diam. 7.0; max. diam. 15.1. Restored from sherds; complete but for large fragment of rim and neck | 5Y $6 / 3$ pale olive | Extr. $5 \mathrm{Y} 8 / 2$ white, with slight burning: intr. 5 Y 6/3 pale olive |  | Calcareous | Dense | Base modelled from clay of vessel, not applied. Mouth sealed with stopper of crudely made unbaked (firehardened) clay (H. 3.5 cm, max. diam 4.6 cm ; 7.5YR 7/6 reddish yellow, with dense coarse grit inclusions). For position, see Figs. 6-7. <br> Curtis and Green: 1987: fig. 3, 11. |
| 227 <br> KK 85/38 <br> PI. XVIIId | $\begin{gathered} 178 \\ + \\ 181 \\ + \\ 197 \end{gathered}$ | H. 33.8; rim diam. 26.5; base diam. 18.5; max. diam. 30.2. Restored from sherds; $c .25 \%$ of rim and neck missing and some large sections of body | 7.5YR $6 / 4$ light brown | Extr. 7.5 YR $8 / 4$ pink 10YR $7 / 3$ very pale brown; intr. 5YR 7/4 pink, with marks of burning | Medium | Calcareous | Sparse | Dense vegetable impressions on extr /intr. surfaces. Restored in antiquity with bitumen smeared around a vertical crack along the body and rim. For position, see Figs. 6-7. Two rim sherds from post-destruction pit. <br> Curtis 1986: pl. on p. 17; Curtis and Green 1987: fig. 4, 13. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 228 | 186 | Ext. H. 11.9; base diam. 6.3; max. ext. diam. 19.7; $80 \%$ base. Single large sherd (also some non-joining body fragments) | 5Y $7 / 2$ light grey | $2.5 \mathrm{Y} 7 / 2$ light grey, <br> largely burnt $2.5 \mathrm{Y} 3 / 0$ very dark grey | Sparse | Calcareous, grey | Sparse | Medium - rough intr. surface texture, very smooth and glossy extr. surface texture (probably due to heat of destruction). Base apparently applied. For position, see Figs. 6-7. |
| 229 | 17 | Ext. H. 18.5; base diam. 10.8; max. ext. diam. 27.4: $100 \%$ base. Single sherd | Extr. 5 Y $7 / 3$ pale yellow; intr. 5 Y $7 / 2$ light grey | Extr. 5 Y $8 / 2$ white; intr. 5 Y $6 / 2$ light olive grey | Medium |  |  | Sparse horizontal grit scratches on extr. For position, see Fig. 7. |
| 230 | 61 | Rim diam. 9.0; <br> L. 4.1 | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink |  | Calcareous | Sparse |  |
| 231 | 62 | Rim diam. 9.0; L. - | 2.5Y $7 / 2$ light grey | 5 Y $8 / 2$ white, with extr. painted bands and rim 2.5YR 2.5/0 black 10YR $3 / 1$ very dark grey | Very sparse | Calcareous | Very sparse | Very smooth extr. surface texture; intr. uneven, with light ridges. |
| 232 | 180 | $\begin{aligned} & \text { Rim diam. } 7.0 \text {; } \\ & \text { L. } 2.0 \end{aligned}$ | Core 7.5YR $6 / 2$ pinkish grey; extr./intr. 7.5YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown, with extr./intr. painted rim band 7.5YR $4 / 2$ brown |  |  |  | No visible fabric inclusions. Smooth extr/intr. surface texture. |
| 233 | 169 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. 3.6 } \end{aligned}$ | 7.5YR 7/4 pink - $7 / 6$ reddish yellow | 10YR $8 / 3$ very pale brown |  | Mostly grey, with calcareous, micaceous, black | Dense | Rough, gritty extr./intr. surfaces. Pronounced extr./intr. wheel marks. |
| 234 | 508 | Rim diam. 7.5; <br> L. 4.1 | 5YR 6/6 reddish yellow | 5YR 7/4 pink | Medium | Calcareous | Sparse |  |
| 235 | 186 | Rim diam. 7.0; 50\% rim; 100\% neck ( 9 sherds) | Core 2.5Y $2 / 0$ black; extr. 10YR $6 / 3$ pale brown; intr. 10YR $6 / 2$ light brownish grey | 10YR $6 / 2$ light brownish grey | Medium -dense | Calcareous, grey, black | Medium | Pronounced intr. wheel marks. Smooth extr. surface texture from burning. |
| 236 | 180 | Rim diam. 10.5; <br> L. 4.0 | Core 10YR $6 / 3$ pale brown; extr./intr. 7.5YR 7/4 pink | Extr. 10YR $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse | Smooth extr./intr. surface texture. |
| 236a | 61 | Rim diam. indeterminate; L . 5.1 | 7.5YR 7/4 pink | 10YR $8 / 2$ white | Medium | Calcareous | Medium |  |
| 237 <br> Sample BM <br> 1987-4-12.7 | 8 | $\begin{aligned} & \text { Rim diam. } \\ & \text { c. } 8.0 ; \text { L. } 5.5 \end{aligned}$ | Extr. 7.5YR $7 / 4$ pink; intr. 5YR 6/4 light reddish brown | 2.5Y $8 / 2$ white | Sparse | Calcareous micaceous, grey | Medium | Angular burnishing on extr. shoulder. Crudely made, with irregular intr. surface, with finger impressions. <br> For scientific analysis. see Ch. 7. |
| 238 | 192 | Rim diam. 12.5; <br> L. 6.5 | 2.5Y $7 / 2$ light grey | 2.5Y $7 / 2$ light grey | Medium | Mostly (angular) black, grey occasional calcareous | Medium | Sparse pink grog inclusions. Gritty extr./intr. surface texture. |
| 238a | 62 | Rim diam. 10.0; L. 1.6 | Core 10YR 6/3 pale brown; extr./intr. 10YR 7/4 very pale brown | 7.5YR 7/4 pink |  | Calcareous | Very sparse | Very smooth extr./intr. surface texture. |
| 238b | 506 | Rim diam. 12.5; <br> L. 4.3 | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium | Calcareous, micaceous, grey, black | Medium | Two shallow horizontal grooves on extr. rim. Gritty extr./intr. surface texture. |
| 238c | 62 | Rim diam. 14.5; <br> L. 2.8 | 7.5YR 7/6 reddish yellow | 7.5YR 7/4 pink | Medium | Calcareous, micaceous, black, grey | Dense |  |
| 238d | 62 | Rim diam. 17.5; <br> L. 3.2 | 2.5Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, micaceous, grey | Sparse | Incised horizontal groove on rim collar and intr. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | $\begin{aligned} & \text { FABRIC } \\ & \text { COLOUR } \end{aligned}$ | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 239 | 62 | Rim diam. 6.0; L. 1.6 | 7.5YR $8 / 4$ pink | Extr. 10YR $8 / 3$ very pale brown, with painted rim and extr. band 2.5YR $4 / 4$ reddish brown - $5 / 6$ red; intr. 7.5YR 8/4 pink |  | Calcareous | Very sparse |  |
| 240 | 3 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 2.5 \end{aligned}$ | 10YR $7 / 2$ light grey | 10YR $7 / 2$ light grey. with extr. painted rim band $2.5 \mathrm{Y} 5 / 0$ grey |  | - | Medium |  |
| 240a | 506 | $\begin{aligned} & \text { Rim diam. 12.5; } \\ & \text { L. } 4.0 \end{aligned}$ | 10YR 7/4 very pale brown | 2.5YR 6/6 light red |  | Calcareous | Sparse | Smooth extr/intr. surface texture. |
| 240b | 62 | $\begin{aligned} & \text { Rim diam. } 10.0 \text {; } \\ & \text { L. } 3.7 \end{aligned}$ | 5YR 6/6 reddish yellow | 5YR $7 / 4$ pink - $7 / 6$ reddish yellow |  | Calcareous | Sparse | Irregular surface, with occasional protruding coarse grits. |
| 240c | 177 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 2.1 \end{aligned}$ | 7.5YR $6 / 4$ light brown | $7.56 / 4$ light brown | Sparse | Micaceous | Sparse | Smooth extr/intr. surface texture, but pitted with air-bubbles. Light horizontal extr. burnish. |
| 240d | 169 | Rim diam. 14.0; L. 3.7 (of intact rim; sherd L. 5.6) | 7.5YR 7/6 reddish yellow | 7.5YR $8 / 4$ pink |  | Mostly black, with calcareous, micaceous, grey | Dense | Rough extr./intr. surface texture, with dense protruding fine (mostly black) grits. |
| 240e | 64 | $\begin{aligned} & \text { Rim diam. 15.0; } \\ & \text { L. } 4.5 \end{aligned}$ | 7.5YR $6 / 4$ light brown | 5YR 6/4 light reddish brown | Medium | Calcareous | Sparse | Chalky extr./intr. surface texture. |
| 241 | 61 | $\begin{aligned} & \text { Rim diam. } 16.0 \text {; } \\ & \text { L. } 2.3 \end{aligned}$ | 5YR 7/4 pink | Extr. 2.5 Y $8 / 2$ white; intr. 5YR 7/4 pink | Medium | Calcareous, grey | Sparse | Rough extr. surface texture, with finger impressions; intr. smooth. |
| 241a | 61 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 5.5 \end{aligned}$ | 5 Y $8 / 3$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse | Ridge on neck just below rim. Irregular extr./intr. surfaces, with finger impressions. |
| 241b | $\begin{gathered} 14 \\ + \\ 15 \end{gathered}$ | Rim diam. 12.0; L. 9.3 (2 joining sherds) | 10YR $6 / 3$ pale brown | 10YR $7 / 3$ very pale brown | Medium | Calcareous | Very sparse |  |
| 241c | 61 | $\begin{aligned} & \text { Rim diam. 25.0; } \\ & \text { L. } 4.7 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Medium |  |
| 241d | 61 | $\begin{aligned} & \text { Rim diam. 26.0; } \\ & \text { L. } 36.5 \end{aligned}$ | Core/intr. 5YR $7 / 4$ pink; extr. 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $7 / 4$ pink | Medium |  |  |  |
| 242 | 180 | Rim diam. 10.0; L. 4.4 | 5 Y $8 / 3$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium |  |  | Very sparse red-brown grog inclusions. Smooth extr./intr. surface texture. |
| 242a | $\begin{gathered} 28 \\ + \\ 31 \\ + \\ 32 \end{gathered}$ | Rim diam. 13.5; $100 \%$ rim ( 5 joining sherds) | Core 5Y 5/1- <br> $6 / 1$ grey; extr/intr <br> 7.5YR $7 / 4$ pink | Extr. 7.5YR $7 / 4$ pink; intr. 10YR $7 / 4$ very pale brown |  | Mostly grey, with calcareous, black | Dense | Chalky extr. surface texture; fabric and intr. surface poor, with airbubbles and protruding grits. |
| 242b | A4 | $\begin{aligned} & \text { Rim diam. } 11.0 \text {; } \\ & \text { L. } 4.0 \end{aligned}$ | 7.5YR 7/6 reddish yellow | 7.5YR $7 / 6$ reddish yellow | Medium | - | Medium |  |
| 242c | 31 | Rim diam. 11.0; <br> L. 4.2 | Core 7.5YR $7 / 4$ pink; extr./intr. 10YR 7/3 very pale brown | 10YR $8 / 2$ white | Medium | Calcareous | Sparse |  |
| 242d | 177 | Rim diam. 22.5; L. 4.3 | 7.5YR 7/4 pink | 10YR $8 / 4$ very pale brown | Medium | Calcareous | Sparse | Occasional coarse calcareous grits protruding on surface. |
| 242 e | 177 | $\begin{aligned} & \text { Rim diam. } 11.0 \text {; } \\ & \text { L. } 5.1 \end{aligned}$ | 5 Y $8 / 3$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium |  |  | Smooth extr./intr. surface texture. |
| 242 f | 177 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 2.8 \end{aligned}$ | 7.5YR $6 / 4$ light <br> brown - 7/4 <br> pink | 10YR $7 / 3$ very pale brown | Sparse | Calcareous, grey | Sparse | Poorly prepared fabric; air-bubbles. |
| 242g | 177 | Rim diam. 14.0; <br> L. 4.0 | $2.5 \mathrm{Y} 8 / 4$ pale yellow | 2.5Y $8 / 2$ white | Medium | Calcareous | Sparse |  |
| 242h | 186 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 4.2 \end{aligned}$ | 5Y $7 / 3$ pale yellow | 2.5Y $8 / 2$ white | Medium | Calcareous, grey | Sparse |  |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 243 | 27 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 7.5YR 6/2 pinkish grey | Extr./intr. glazed 5Y $8 / 1$ white shading to 7.5 YR $6 / 0$ grey on extr. rim | Medium | Calcareous | Sparse | Glazed on extr. and ints. surfaces. |
| 244 <br> Sample BM <br> 1987-4-12,14 | 452 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 5.2 \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown | Sparse | Mostly (angular) calcareous, with grey, black | Sparse | Coarse fabric, with airbubbles and interstices. For scientific analysis, see Ch. 7. |
| 244a | 61 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 2.5Y $7 / 2$ light grey | 10YR $7 / 2$ light grey. largely burnt $2.5 \mathrm{Y} 2 / 0$ black | Medium | Calcareous | Very sparse |  |
| 244b | 61 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 2.0 \end{aligned}$ | 5Y $7 / 3$ pale yellow | $2.5 \mathrm{Y} 8 / 4$ pale yellow |  | Mostly <br> grey, black, with calcareous, reddishbrown | Dense | Gritty extr./intr. surface texture. Pronounced intr. wheel marks. |
| 244c | 64 | Rim diam. 15.0; $\text { L. } 5.1$ | Core 5YR 6/4 light reddish brown; extr./intr. 10YR 7/4 very pale brown | 10YR $8 / 2$ white; intr. partly burnt greyish white |  |  |  |  |
| 244d | 16 | Rim diam. 13.0; <br> L. 7.2 | Core/intr. <br> 7.5YR 4/0 dark <br> grey; extr. 5YR <br> $6 / 6$ reddish <br> yellow | Extr. 5YR $6 / 4$ light reddish brown; intr. 7.5YR 6/4 light brown | Medium | Calcareous, micaceous | Sparse |  |
| 244e | 552 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 5.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, black | Sparse | Patches of bitumen on extr./intr. |
| 244f | 7 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 5.5 \end{aligned}$ | 7.5YR 7/6 reddish yellow | Extr. $7.5 \mathrm{YR} 7 / 4$ pink; intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous, micaceous, grey, black | Medium |  |
| 244g | 13 | $\begin{aligned} & \text { Rim diam. 11.5; } \\ & \text { L. } 3.7 \end{aligned}$ | 5Y 6/1 grey | Extr. 2.5Y $7 / 2$ light grey; intr. $5 \mathrm{Y} 7 / 2$ light grey; extr./intr. patches burnt $2.5 \mathrm{Y} 5 / 0$ very dark grey | Medium | Mostly <br> grey, with calcareous, black | Medium |  |
| 245 | 16 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 2.8 \\ & \hline \end{aligned}$ | 2.5Y $7 / 2$ light grey | 2.5Y $7 / 2$ light grey | Medium | Calcareous | Sparse |  |
| 245a | 64 | $\begin{aligned} & \text { Rim diam. 13.5; } \\ & \text { L. } 3.1 \end{aligned}$ | Corelextr. <br> 7.5YR 7/4 pink; intr. 2.5YR 6/6 light red | Extr. 10YR $8 / 2$ white; intr. $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse |  |
| 245b | 61 | $\begin{aligned} & \text { Rim diam. } 11.0 \text {; } \\ & \text { L. } 6.1 \end{aligned}$ | 5YR 6/6 reddish yellow | 7.5YR 7/4 pink - 10YR <br> $7 / 3$ very pale brown | Medium | Calcareous | Sparse |  |
| 245c | 64 | $\begin{aligned} & \text { Rim diam. } 11.0 \text {; } \\ & \text { L. } 1.8 \end{aligned}$ | 5Y $7 / 3$ pale yellow | Approx. 5Y 3/1 very dark grey | Medium | Grey, light red | Sparse |  |
| 246 | 28 | Rim diam. 20.0; $\text { L. } 6.5$ | Core/extr. <br> 7.5YR 4/0 dark <br> grey; intr. 2.5 Y <br> $6 / 2$ light <br> brownish grey | 10YR 6/3 pale brown | Medium | Calcareous | Sparse |  |
| 247 | 169 | $\begin{aligned} & \text { Rim diam. 8.0; } \\ & \text { L. } 4.3 \end{aligned}$ | 2.5Y $6 / 2$ light brownish grey | 2.5Y 5/2 greyish brown -5Y $6 / 1$ grey | Very sparse | Grey | Sparse |  |
| 247a | 61 | $\begin{aligned} & \text { Rim diam. } 7.0 \text {; } \\ & \text { L. } 2.1 \end{aligned}$ | 2.5YR $6 / 6$ light red | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Pronounced intr. wheel marks. |
| 247b | 177 | Rim diam. 9.5; L. 3.4 (of intact rim; sherd L. 4.6) | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Mostly black, with calcareous. micaceous, grey | Medium | Sparse reddish yellow grog inclusions. Slighly gritty extr./intr. surface texture. |
| 248 | 552 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 9.3 \end{aligned}$ | 5Y 7/3 pale yellow | Extr. $5 \mathrm{Y} 8 / 2$ white; intr. 2.5Y $8 / 2$ white | Sparse | Mostly grey, with calcareous. micaceous | Medium | Gritty extr./intr. surface texture. |


| No. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | $\begin{aligned} & \text { FABRIC } \\ & \text { COLOUR } \end{aligned}$ | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 249 | 180 | $\begin{aligned} & \text { Rim diam. 18.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 7.5YR $6 / 4$ light brown | 7.5YR $6 / 4$ light brown | Extr. 5 Y $8 / 2$ white; ints. 10YR $7 / 3$ very pale brown. Painted bands on upper rim edge and extr. 5 YR 3/l very dark grey | Medium | Calcareous, grey, black (slightly sandy) | Slightly overfired; rough extr./intr. surface texture. |
| 250 | 62 | Rim diam. 15.0; <br> L. 5.6 | Extr. 7.5YR $6 / 6$ reddish yellow; intr. 2.5Y $6 / 2$ light brownish grey | Extr. 10YR $7 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink. lrregular streaks of pigment on extr. 2.5YR $5 / 6 \mathrm{red}$ | Medium | Mostly grey, with calcareous, micaceous | Dense | Smooth surface texture, with irregular horizontal grit scratches on extr./intr. (burnishing?) |
| 250a | 62 | $\begin{aligned} & \text { Rim diam. } 13.5 \text {; } \\ & \text { L. } 3.0 \end{aligned}$ | 7.5YR $6 / 6$ reddish yellow | 10YR $7 / 3$ very pale brown | Sparse | Grey (angular) | Sparse |  |
| 250b | 62 | Rim diam. 13.5; <br> L. 3.5 | 10YR $6 / 4$ light yellowish brown | Extr. 5YR $6 / 4$ light reddish brown: intr. 7.5YR $8 / 4$ pink |  | Calcareous, grey | Medium |  |
| 251 | 189 | $\begin{aligned} & \text { Rim diam. 42.0; } \\ & \text { L. } 5.9 \end{aligned}$ | 2.5Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 4$ pale yellow. extr. partly burnt 2.5 Y 3/0 very dark grey | Dense |  |  | Chalky extr./intr. surface texture. |
| 251a | 177 | Rim diam. 17.0; L. 14.7 ( $50 \%$ rim) | 7.5YR 7/4 pink | 2.5 Y $8 / 2$ white | Medium | Micaceous | Sparse |  |
| 251b | 189 | Rim diam. $\text { c. } 4.0 ; \text { L. } 5.2$ | Burnt and mottled 10YR 4/1 dark grey $6 / 3$ pale brown | Extr./intr. burnt and mottled 10 YR $4 / 1$ dark grey $-8 / 3$ very pale brown | Medium | Calcareous | Medium | Very heavily burnt. |
| 251c | 452 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 3.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | Burnt approx. 2.5Y 7/2 light grey | Medium | Calcareous | Sparse |  |
| 252 | A4 | $\begin{aligned} & \text { Rim diam. } \\ & \text { c. } 9.0 ; \mathrm{L} \text {. } \\ & \hline \end{aligned}$ | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown | Medium | - | Medium |  |
| 252a | 7 | $\begin{aligned} & \text { Rim diam. 42.0; } \\ & \text { L. } 7.0 \end{aligned}$ | 5 Y $7 / 3$ pale yellow | Extr. 10YR $7 / 3$ very pale brown; ints. 5 Y $8 / 2$ white | Medium | Calcareous | Sparse |  |
| 252b | 552 | $\begin{aligned} & \text { Rim diam. } 42.0 \text {; } \\ & \text { L. } 8.6 \end{aligned}$ | 5Y 7/2 light grey | 2.5Y $8 / 2$ white | Dense | Calcareous, grey, black | Sparse | Smooth, chalky extr./intr. surface texture. |
| 252c | 456 | Rim diam. 18.0; <br> L. 5.3 | 10YR 7/3 very pale brown | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse |  |
| 253 <br> Sample BM <br> 1987-4-12,49 | 189 | Rim diam. 17.0; $\text { L. } 6.0$ | 10YR 8/4 very pale brown | Extr. 2.5 Y $8 / 2$ white: intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous, <br> grey <br> (slightly sandy) | Sparse | Thin bitumen coating and staining on extr. and upper intr. surfaces. For scientific analysis, see Ch. 7. |
| 254 | 552 | Rim diam. 22.0; <br> L. 4.0 | 7.5YR $6 / 4$ light brown | Extr. 10YR $8 / 3$ very pale brown; intr. approx. 7.5YR 7/4 pink | Medium | Calcareous, grey, black | Medium | Dense clay, with interstices. |
| 255 | 180 | Rim diam. c. 16.0; L. 1.1 (of intact rim: sherd L. 4.3) | Core/intr. <br> 7.5YR 7/4 <br> pink; extr. <br> $2.5 \mathrm{Y} 6 / 6$ light <br> red | 7.5YR 7/4 pink | Medium | Mostly calcareous. with grey. black | Dense | Irregular, gritty, extr/intr. surface texture. |
| 256 | 177 | Rim diam. 14.0; <br> L. 3.4 | 10 YR $7 / 3$ very pale brown | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 2$ white. Rim/extr. painted bands 5YR 4/3 reddish brown |  | Mostly calcareous. with grey. black | Sparse | Smooth extr./intr surface texture. |
| 257 | 62 | Rim diam. 14.0; <br> L. 2.2 | 10YR 7/4 very pale brown | Extr. $10 \mathrm{YR} 8 / 2$ white; intr. $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse | Air-bubbles in fabric. Rough, gritty extr/intr. surface texture. |
| 257a | 180 | Rim diam. 14.0; $\text { L. } 2.6$ | 7.5YR 7/4 pink | 10YR $8 / 2$ white | Sparse | Calcareous | Sparse |  |
| 257b | 180 | $\begin{aligned} & \text { Rim diam. } 15.0 \text {; } \\ & \text { L. } 9.2 \end{aligned}$ | 2.5 Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 4$ pale yellow | Calcareous |  |  |  |
| 258 | 177 | Rim diam. 18.0; L. 3.2 (of intact rim; sherd L . 5.0) | 7.5YR $7 / 4$ pink | 10YR 7/2 light grey. Painted band on top edge and extr. of rim 10R $4 / 2$ weak red | Medium | Calcareous | Sparse | Sparse red-brown grog inclusions. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | $\begin{aligned} & \text { FABRIC } \\ & \text { COLOUR } \end{aligned}$ | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 259 | 506 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { i. } 2.8 \end{aligned}$ | Extr. 10YR $6 / 2$ light brownish grey; intr. 7.5YR $6 / 4$ light brown | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. $7.5 \mathrm{YR} 8 / 4$ pink | Medium | Calcareous | Medium |  |
| 259a | 31 | $\begin{aligned} & \text { Rim diam. 25.0; } \\ & \text { L. } 4.6 \end{aligned}$ | 5YR 6/6 reddish yellow | Extr. $10 \mathrm{YR} 8 / 2$ white; intr. 5YR 7/4-7.5YR 7/4 pink | Medium | Calcareous | Sparse | Dense clay; occasional interstices. Slightly pronounced intr. wheel marks. |
| 260 <br> Sample BM <br> 1987-4-12,52 | 4 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 4.2 \end{aligned}$ | 10YR 5/1 grey | 10YR 5/1-6/1 grey. Top of rim with fugitive paint, approx. 7.5YR 5/4 brown |  | Micaceous | Very sparse | Smooth extr/intr. surface texture. <br> For scientific analysis, see Ch. 7. |
| 261 | 452 | Rim diam. 20.0; <br> Ls. 3.8, 4.2 (2 non-joining sherds) | Core 2.5YR $6 / 6$ light red; extr./intr. 7.5YR $7 / 4$ pink | Extr. 2.5Y $8 / 2$ white; intr. 7.5YR $8 / 4$ pink; rim painted on extr. and top $7.5 \mathrm{YR} 3 / 0$ very dark grey | Sparse | Calcareous | Sparse | Smooth extr./intr. surface texture. |
| 261a | 62 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 5.4 \end{aligned}$ | 5Y $7 / 3$ pale yellow | 2.5Y $8 / 2$ white | Medium |  |  |  |
| 261b | 302 | Rim diam. 21.5; <br> L. 4.3 | 5YR 5/4 reddish brown | 10YR $8 / 3$ very pale brown | Medium |  |  | Rather poor fabric, with air-bubbles and interstices. Smooth extr./intr. surface texture. |
| 261c | 353 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 3.8 \end{aligned}$ | 10YR $8 / 3$ very pale brown | Approx. 2.5Y $8 / 2$ white | Sparse | Calcareous, grey, black | Medium | Gritty extr./intr. surface texture. |
| 262 | 180 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 7.5YR 5/4 brown | 10YR $7 / 3$ very pale brown, with painted outer (not upper) rim and extr. band 5YR 5/4 reddish brown | Sparse | Micaceous, grey-brown | Sparse | Smooth extr./intr. surface texture. |
| 263 | 29 | $\begin{aligned} & \text { Rim diam. 48.0; } \\ & \text { L. } 9.0 \end{aligned}$ | 5Y 7/3 pale yellow | 5Y $8 / 3$ pale yellow | Medium | Calcareous, grey, (fine) micaceous | Medium | Sparse light red grog inclusions. |
| 263a | 177 | Rim diam. 40.0; Ls. 4.8, 4.5 (2 non-joining sherds) | 10YR 5/3 brown | 5Y $8 / 2$ white $-8 / 3$ pale yellow | Medium | Calcareous | Sparse |  |
| 263b | 177 | Rim diam. 23.0; <br> L. 4.3 | 10YR 7/3 very pale brown | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse | Smooth extr./intr. surface texture. |
| 263c | 177 | Rim diam. 15.0; <br> L. 6.2 | Core 10YR 7/4 <br> very pale brown; extr./intr. 10R $6 / 8$ light red | 5YR 7/4 pink - 7/6 reddish yellow | Medium <br> (mostly visible in core; sparse in extr./intr. fabric) | Mostly grey with calcareous, black, redbrown | Medium | Gritty extr./intr. surface texture. |
| 263d | 506 | Rim diam. 28.0; <br> L. 6.6 | 10YR $6 / 2$ light brownish grey | 2.5Y $7 / 2$ light grey | Medium | Calcareous, micaceous, grey, black | Medium | Smooth extr./intr. surface texture. |
| 264 | 4 | Rim diam. 24.0; <br> L. 5.5 | Core 10YR 6/2 pinkish grey; extr./intr. 5 YR $7 / 6$ reddish yellow | 7.5YR 8/4 pink | Sparse | Calcareous, grey, black | Dense | Slightly gritty extr./intr. surface texture. |
| 265 | 552 | $\begin{aligned} & \text { Rim diam. 15.0; } \\ & \text { L. } 5.5 \end{aligned}$ | Core/intr. 5YR $7 / 4$ pink; extr. 10YR $8 / 3$ very pale brown | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR 7/4 pink; top of rim painted 10YR $4 / 6$ red; narrow upper extr. band 7.5YR 4/4 brown; wide lower extr. band 7.5 YR $3 / 2$ dark brown | Sparse | Calcareous | Sparse | Smooth extr./intr. surface texture. Rather poor fabric, with airbubbles and interstices. |
| 266 | 4 | Ext. H. 5.4; base diam. 2.0; max. ext. diam. 6.0; $100 \%$ base ( 9 sherds) | 10YR $7 / 4$ very pale brown | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $6 / 4$ light brown | Sparse | Calcareous, grey | Dense | Pronounced intr, wheel marks. Smooth surface texture. <br> For position, see Fig. 7. |
| $\begin{aligned} & 267 \\ & \text { PI. XIXb } \end{aligned}$ | 181 | H. 8.9; rim diam. 7.9; c. $60 \%$ complete. | 5Y $7 / 3$ pale yellow | 5Y7/3 pale yellow |  |  |  | Palace ware dimpled beaker; very fine; no visible fabric inclusions. <br> For position, see Figs. 6-7. <br> Curtis and Green 1987 <br> fig. 3, 1; Curtis 1992: fig. 5 . |


| No. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 268 <br> Sample BM <br> 1987-4-12,54 | 3 | $5.6 \times 5.9 ; \max$ diam. c. 8.0 | Extr. 2.5 Y $8 / 4$ pale yellow; intr. $2.5 \mathrm{Y} 7 / 2$ light grey | Extr. 2.5 Y $8 / 4$ pale yellow; int. $5 \mathrm{Y} 8 / 2$ white |  | Calcareous | Very sparse | Single sherd of dimpled palace ware. Traces of burning. <br> For scientific analysis. see Ch. 7. |
| $\begin{aligned} & 269 \\ & \text { KK } 85 / 33 \end{aligned}$ | 66 | H. 8.25; rim diam. 6.3; max. diam 6.9; 75\% of neck and rim missing; otherwise complete and intact. | 5Y $6 / 3$ pale olive | 5Y 6/3 pale olive |  | Calcareous | Sparse | Found beneath pot 190 . For position, see Fig. 7. Curtis and Green 1987: fig. 3, 2; Curtis 1992: fig. 5. |
| 270 | 189 | Rim diam. 6.5; L. 6.6 (2 joining sherds) | 10YR $7 / 2$ light brownish grey | 5Y 7/1 light grey - 8/1 white |  | Calcareous, red-brown | Very sparse | Smooth, slightly chalky extr/intr surface texture. Pronounced extr, wheel marks. |
| 270a | 181 | Rim diam. 9.0; L. 1.7 | 7.5YR 7/4 pink | 7.5YR 8/4 pink | Very sparse | Calcareous | Very sparse | Recovered during sieving. |
| 270b | 181 | Rim diam. 8.5: <br> L. 4.5 | 10YR $8 / 3$ very pale brown | 2.5YR $8 / 2$ white |  | Calcareous | Sparse | Extr. surface texture smooth and chalky; intr uneven and chalky. |
| 270c | 67 | $\begin{aligned} & \text { Rim diam. 7.0; } \\ & \text { L. } 2.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5 \text { Y } 8 / 4 \text { pale } \\ & \text { yellow } \end{aligned}$ | 2.5Y $8 / 4$ pale yellow |  | Calcareous | Very sparse | Well prepared, smooth clay. |
| $\begin{aligned} & 271 \\ & \text { Sample BM } \\ & \text { 1987-4-12,20 } \\ & \hline \end{aligned}$ | 180 | Base diam. 2.1; $60 \%$ base and lower body | 10YR $7 / 4$ very pale brown | Extr. 10 YR $7 / 3-8 / 3$ very pale brown; intr. abraded | Medium | Calcareous, micaceous, grey | Sparse | For scientific analysis, see Ch. 7. |
| 272 | 62 | Base (button) diam. 2.1; 100\% 'button'; 20\% lower body | 10YR $8 / 3$ very pale brown | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse |  |
| 273 <br> Sample BM <br> 1987-4-12,22 | 302 | Base diam. 1.2; $100 \%$ base and lower body | Extr. 2.5Y 7/4 pale yellow; intr. 10YR $6 / 3$ pale brown | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $7 / 3$ very pale brown |  | Calcareous, micaceous | Sparse | Pronounced intr. wheel marks. Smooth extr./intr. surface texture, slightly chalky. For scientific analysis, $\operatorname{see}$ Ch. 7. |
| $274$ <br> Sample BM <br> 1987-4-12,16 | 196 | $\begin{aligned} & \text { Base diam. 1.5; } \\ & 100 \% \text { base } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 2$ white | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 2$ white |  | Red | Very sparse | Smooth extr, rough intr. surface texture. For scientific analysis, see Ch. 7. |
| 275 | 62 | Base diam. 2.1: $50 \%$ base (abraded) | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink |  | Calcareous. micaceous, grey | Medium - <br> dense | Gritty extr /intr. surface texture. |
| 276 | A4 | $1.9 \times 3.7 \times 0.6$ | 10YR $8 / 3$ very pale brown | Extr. 10YR $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown. Extr. painted bands 10YR 4/1 dark grey | - | - | - |  |
| 277 | 28 | $2.7 \times 3.8 \times 0.4$ | 10YR 7/4 very pale brown | 10YR $8 / 3$ very pale brown; extr. painted bands $2.5 \mathrm{YR} 4 / 8$ red, with over-painted decoration 10YR 8/1 white |  | Calcareous | Very sparse | Very smooth extr., fairly smooth intr. surface texture. |
| 278 | 177 | $3.5 \times 3.3 \times 0.4$ | $5 \mathrm{Y} 6 / 2$ light olive grey | Extr. 5 Y $7 / 2$ light grey; intr. $2.5 \mathrm{Y} 7 / 2$ light grey. Extr. painted bands 2.5YR 2.5/0 black | Sparse | Mostly grey, with calcareous, black | Dense | Smooth extr., uneven intr. surface texture. |
| 279 | 61 | $5.2 \times 4.7 \times 0.5$ | Extr. 5 YR 6/6 reddish yellow: intr. 10YR 7/4 very pale brown | Extr. 10YR $8 / 2$ white; intr. $2.5 \mathrm{Y} 8 / 2$ white. Extr. painted bands 2.5YR 4/4-5/4 reddish brown | Sparse | Calcareous | Sparse | Smooth extr. surface texture. |
| 280 | 64 | $6.9 \times 5.0 \times 0.8$ | 5YR 6/4 light reddish brown | 7.5YR 7/4 pink |  | Calcareous, grey | Dense | Pronounced irregular intr. wheel marks. Smooth extr. surface texture. |
| 281 | 252 | $4.9 \times 5.0 \times 0.9$ | 5YR $6 / 4$ light reddish brown | Extr. 10YR $8 / 3$ very pale brown; ints. 7.5YR $7 / 4$ pink. Extr. painted bands 5YR 2.5/2 dark reddish brown | Medium | Mostly grey, with calcareous | Medium | Smooth extr. surface texture. Intr. rough and uneven. |


| No. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 282 | 353 | $2.9 \times 4.3 \times 1.0$ | 2.5Y $6 / 2$ light brownish grey | 10YR 7/4 very pale brown. Extr. painted bands 7.5YR $5 / 4$ brown | Medium | Mostly (angular) grey, with calcareous, very pale brown | Dense | Very smooth extr. surface texture; intr. slightly gritty. |
| 283 | 353 | $4.6 \times 5.7 \times 1.0$ | 5YR 6/6 reddish yellow | 10YR $8 / 4$ very pale brown. Extr. painted bands 7.5YR $5 / 6$ strong brown | Sparse | Mostly calcareous, with grey | Medium | Smooth extr. surface texture; intr. slightly rough, scratched and irregular. |
| 284 | 61 | $4.0 \times 5.3 \times 0.8$ | 5 Y $8 / 3$ pale yellow | 2.5Y $8 / 2$ white. Extr. painted bands 10YR 3/1 very dark grey | Medium | Sandy | Sparse |  |
| 285 | 4 | $4.2 \times 4.5 \times 0.6$ | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown. Extr. painted bands 7.5YR 3/4 dark brown |  | Calcareous | $\cdot$ |  |
| 286 | 506 | $3.4 \times 3.9 \times 0.4$ | 2.5Y $7 / 2$ light grey | Extr. $5 \mathrm{Y} 7 / 2$ light grey; intr. 5 Y $8 / 3$ pale yellow. Extr. painted bands 2.5YR $3 / 0$ very dark grey | Very sparse | Mostly <br> grey, black, with calcareous | Sparse | Pronounced intr. wheel marks. Extr, burnt. |
| 287 | 196 | $2.6 \times 2.1 \times 0.3$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 2$ white; intr. $2.5 \mathrm{Y} 8 / 2$ white. Extr. painted bands 7.5YR 4/2 dark brown | Very sparse | Calcareous | Very sparse |  |
| 288 | 552 | $2.1 \times 3.5 \times 0.3$ | 5 Y $8 / 3$ pale yellow | 2.5 Y $8 / 2$ white. Extr. (fugitive) painted bands 5YR 5/3 reddish brown |  | Calcareous, grey | Very sparse | Smooth extr. surface texture, intr. surface gritty, with finger impressions and wheel marks. |
| 289 | 354 | $4.6 \times 6.4 \times 1.0$ | 7.5YR $6 / 4$ light brown | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 3$ very pale brown. Extr. painted bands 7.5YR $6 / 4$ light brown | Dense | Mostly calcareous, with grey, black | Dense |  |
| 290 | 61 | $3.9 \times 3.9 \times 0.5$ | 2.5 Y $8 / 4$ pale yellow | 2.5Y $8 / 2$ white. Extr. painted bands IOYR 3/1 very dark grey | Medium | Fabric of 'sandy' appearance but individual grits not visible | ? | Pronounced intr. wheel marks. Very fine gritty extr./intr. surface texture. |
| 291 | 193 | $4.0 \times 4.6 \times 0.6$ | Core/intr. <br> 10YR 4/1 dark <br> grey; extr. <br> 10YR 6/3 pale brown | Extr. 10YR 7/2 light grey; intr. 10YR 7/3 very pale brown; extr./intr. partly burnt 10YR 4/l dark grey. Extr. painted bands 7.5YR $4 / 2$ dark brown | Sparse | Calcareous. micaceous, grey, black | Medium | Pronounced intr, wheel marks. Smooth extr. surface texture. |
| 292 | 27 | $2.9 \times 4.6 \times 0.5$ | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 4$ very pale brown; intr. 7.5 YR $8 / 4$ pink. Extr. painted bands 2.5YR 4/8 red | Sparse | Mostly calcareous. with grey, black | Medium | Sparse greyish brown grog inclusions. Smooth extr. surface texture; intr. surface very uneven, with airbubbles. |
| 293 | 64 | $3.1 \times 3.1 \times 0.5$ | 10YR 7/2 light grey | 2.5Y $8 / 2$ white. Extr painted bands (thick wide band) 2.5YR 2.5/0 black, (two thin narrow bands) $10 \mathrm{YR} 4 / 2$ dark greyish brown | Sparse | Calcareous, grey | Sparse | Smooth extr./intr surface texture. |
| 294 | 67 | $2.6 \times 3.8 \times 0.7$ | Core/extr. 5YR 4/3 reddish brown-7.5YR $6 / 4$ light brown; intr. 2.5YR 6/6 light red | Extr. 10YR $7 / 2$ light grey; intr. 7.5YR 8/4 pink. Extr. painted bands $10 \mathrm{YR} 3 / 1$ very dark grey | Sparse | Calcareous, grey, black | Sparse | Lumpy extr./intr. surface texture. |
| 295 | 62 | $3.1 \times 2.7 \times 0.4$ | Core/intr. <br> 10YR 6/4 light <br> yellowish <br> brown; extr. <br> 5YR 6/6 <br> reddish yellow | Extr. 5 YR $7 / 4$ pink $7 / 6$ reddish yellow; intr. 10YR 7/4 very pale brown. Extr. painted bands 2.5YR $4 / 8$ red | Medium | Calcareous, micaceous, grey, black | Sparse | Pronounced intr. wheel marks. |
| 296 | 61 | $2.1 \times 2.4 \times 0.5$ | 5YR $6 / 4$ light reddish brown | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink. Extr. painted bands 5YR 5/4 reddish brown | Medium | Calcareous | Medium |  |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 297 | 61 | $2.1 \times 3.3 \times 0.3$ | 2.5 Y $8 / 4$ pale yellow | 2.5Y $8 / 2$ white. Extr. painted bands 2.5 Y 2.5/0 black | Very sparse | Dark grey | Very sparse | Smooth extr./intr. surface texture |
| 298 | 353 | $2.4 \times 2.2 \times 0.5$ | 5YR $6 / 4$ light reddish brown | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR $8 / 2$ white. Extr. painted bands dark brown/black | Sparse | Calcareous, grey | Dense | Smooth extr. surface texture. Intr. surface rough and irregular, with finger impressions. |
| 299 | 61 | $2.5 \times 3.1 \times 0.4$ | $\begin{aligned} & \text { 5YR 7/6 } \\ & \text { reddish yellow } \\ & -7.5 \mathrm{YR} 7 / 4 \\ & \text { pink } \end{aligned}$ | 7.5YR $8 / 4$ pink. Extr. painted bands 5YR 3/1 very dark grey | Very sparse | Calcareous | Very sparse | Pronounced intr. wheel marks. Smooth extr./intr. surface texture. |
| 300 | 31 | $2.0 \times 2.3 \times 0.4$ | 10YR 7/4 very pale brown | Extr. 10YR $8 / 3$ very pale brown; ints. 7.5YR $8 / 4$ pink. Extr. painted bands 5YR $6 / 6$ reddish yellow |  |  |  | No visible fabric inclusions. Smooth extr./intr. surface texture. |
| 301 | 552 | $2.4 \times 1.9 \times 0.4$ | 5YR 7/6 reddish yellow | 7.5YR $7 / 4$ pink. Extr. painted bands 2.5 YR $5 / 6$ red | Sparse | Calcareous | Sparse | Smooth extr./intr. surface texture |
| 302 | 4 | $3.0 \times 3.6 \times 0.6$ | Corefintr. <br> 2.5YR $6 / 6$ light red; extr. 10YR <br> $7 / 3$ very pale <br> brown | Extr. 10YR $8 / 2$ white; intr. 5YR 7/4 pink. Extr. painted bands 5YR 5/4 reddish brown | Very sparse | Mostly calcareous, with grey | Sparse | Smooth extr. surface texture. |
| 302a | 4 | $4.7 \times 4.0 \times 0.6$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. 5 YR 7/6 reddish yellow. Single extr. painted band 10R 4/8 red |  | Calcareous | - |  |
| 302b | 31 | $3.5 \times 3.5 \times 0.6$ | 5YR 7/6 reddish yellow | Extr. 10 YR $8 / 2$ white; intr. 7.5 YR $7 / 4$ pink. Single extr. painted band 2.5YR $4 / 6$ red | Medium | Mostly calcareous. with grey | Medium | Smooth extr. surface texture; intr. surface uneven. |
| 302 c | 61 | $4.0 \times 4.3 \times 0.6$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown. Single extr. thinly painted band 7.5YR 4/2 dark brown |  | Mostly calcareous, with grey, black | Medium | Pronounced intr. wheel marks. Smooth extr. surface texture. |
| 302d | 61 | $4.0 \times 3.4 \times 1.2$ | 7.5YR 7/4 pink | Approx. 10YR $8 / 2$ white. Single extr. painted band 7.5YR 3/0 very dark grey | Medium | Mostly calcareous, with grey, black, redbrown | Medium | Smooth extr. surface texture; int. surface pitted and slightly gritty. |
| 302 e | 61 | $4.5 \times 3.7 \times 1.0$ | 10YR 7/4 very pale brown | 10YR $8 / 3$ very pale brown. Single extr. painted band 5YR 5/4 reddish brown | Medium | Mostly calcareous. with grey | Sparse | Pronounced intr. wheel marks. Smooth extr. surface texture. |
| 302 f | 61 | $6.2 \times 4.8 \times 1.2$ | Core 7.5YR <br> 7/2 pinkish grey; extr./intr. 2.5Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white. Single extr. painted band, dark brown | Medium | Calcareous | Sparse | Smooth extr./chalky intr. surface texture. |
| 302g | 62 | $4.9 \times 4.6 \times 0.6$ | 10YR $8 / 4$ very pale brown | 10YR $8 / 2$ white. Single extr. painted band 10YR 4/I dark grey | Medium | Calcareous | Sparse | Fabric with a sandy feel. Smooth extr. surface texture; int. slightly gritty. |
| 302h | 62 | $3.5 \times 4.7 \times 0.7$ | 10YR $8 / 4$ very pale brown | Extr. $2.5 \mathrm{Y} 8 / 4$ pale yellow; intr. 10YR $8 / 2$ white. Single extr. painted band 5YR 5/3 reddish brown | Medium | Calcareous, grey, black | Medium |  |
| 302i | 180 | $4.8 \times 4.9 \times 0.8$ | 10YR 7/3 very pale brown | 10YR $8 / 3$ very pale brown. Single extr. painted band 5YR 5/4 reddish brown | Medium | Calcareous | Medium | 3 parallel horizontal incisions, perhaps combing. Smooth extr./intr. surface texture. |
| 302j | 181 | $1.3 \times 1.1 \times 0.4$ | 5Y 6/1 grey | Extr. $5 \mathrm{Y} 8 / 2$ white; intr. 2.5Y $7 / 2$ light grey. Single extr. painted band 2.5YR 2.5/0 black | Very sparse | Calcareous, grey | Very sparse | Smooth extr. surface texture. |
| 302k | 186 | $3.7 \times 3.6 \times 0.4$ | 2.5Y7/2 <br> 10YR 7/2 light grey | $2.5 \mathrm{Y} 8 / 2$ white. Single extr. painted band 2.5YR 2.5/0 black | Sparse | Calcareous, grey | Medium | Pronounced intr. wheel marks. Smooth extr. surface texture. |
| 3021 | 189 | $1.7 \times 2.8 \times 0.4$ | 2.5Y $6 / 2$ light brownish grey | 5Y $7 / 2$ light grey Single extr. painted band 2.5YR 2.5/0 black | Medium | Calcareous | Very sparse |  |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 302m | 192 | $2.5 \times 3.3 \times 0.5$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown. Single extr. painted band 5YR 6/6 reddish yellow | Medium | Calcareous | Medium |  |
| 302n | 353 | $2.4 \times 3.0 \times 0.3$ | Extr. 7.5YR $7 / 4$ pink; intr. 5YR 6/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. 5YR 7/6 reddish yellow. Single extr. thinly painted band 5YR $6 / 4$ light reddish brown | Sparse | Mostly calcareous, with micaceous, grey | Dense | Rough, gritty extr/intr. surface texture. |
| 3020 | 353 | $5.3 \times 3.4 \times 0.9$ | 7.5YR $6 / 4$ light brown | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR $7 / 3$ very pale brown. Single extr. painted band 7.5YR $6 / 4$ light brown | Medium | Mostly calcareous, with grey, black | Dense | Pronounced irregular intr. wheel marks. Smooth extr., rough and gritty intr. surface texture. |
| 302p | 506 | $2.4 \times 2.5 \times 0.6$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink. Single extr. painted band 5YR 5/4 reddish brown | Sparse | Mostly calcareous, grey, with black | Dense | Uneven extr./intr. surfaces. |
| 302q | 508 | $2.2 \times 2.9 \times 0.6$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink. Single extr. painted band 5YR 6/6 reddish yellow | Medium | Mostly calcareous. with grey | Dense | Smooth extr., rough intr. surface texture. |
| 302r | 552 | $5.3 \times 6.4 \times 0.6$ | 7.5YR $6 / 6$ reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink. Single extr. painted band 5YR 2.5/2 dark reddish brown | Sparse | Mostly grey, with calcareous | Dense | Pronounced intr. wheel marks. Smooth extr./intr. surface texture. |
| 302s | 552 | $5.8 \times 5.8 \times 1.2$ | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. 5YR $6 / 6$ reddish yellow. Single extr. painted band 2.5YR 5/4 reddish brown | Medium | Mostly calcareous, with grey | Medium | Sparse greyish brown grog inclusions. Smooth extr., rough intr. surface texture. |
| 303 | 61 | $1.7 \times 2.4 \times 0.3-$ <br> 0.4; max. diam. <br> of perforation 0.5 | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse | Perforated. |
| 304 | 62 | $4.6 \times 7.1 \times 0.9$ | Core/intr. 5YR <br> 6/6 reddish <br> yellow; extr. <br> 7.5YR 7/6 <br> reddish yellow | Extr. 7.5YR $8 / 4$ pink: intr. 5YR $6 / 6$ reddish yellow |  | Mostly calcareous, with micaceous, grey | Dense | Smooth extr. surface texture. |
| 305 | 31 | $\begin{aligned} & 23.4 \times 22.3 \times 1.1 \\ & (8 \text { joining } \\ & \text { sherds) } \end{aligned}$ | Extr. 5YR 6/6 reddish yellow; intr. mottled 10YR 5/1-6/3 pale brown | Extr. mottled 7.5YR 6/2 pinkish grey - $6 / 4$ light brown; intr. 7.5YR $6 / 4$ light brown - $7 / 4$ pink | Medium | Calcareous, micaceous, grey | Dense |  |
| 306 | 186 | $12.5 \times 12.5 \mathrm{x}$ <br> 0.7 . From the same vessel came 5 more sherds (3 joining) with similar decoration, and probably 8 undecorated sherds (2 joining) of comparable fabric (3 from the postdestruction pit, unit 185). | Extr. 10YR 6/4 light yellowish brown; intr. 7.5YR 5/0 grey | Extr. 10YR $6 / 2$ light brownish grey; intr. 2.5 Y $6 / 2$ light brownish grey | Medium | Calcareous, micaceous. grey | Sparse | Impressed cable decoration. Smooth extr., rough and uneven intr. surface texture. |
| 307 | 353 | $13.9 \times 14.6 \times 2.2$ | Core 10YR 7/3 <br> very pale <br> brown; <br> extr./intr. <br> 7.5YR $7 / 4$ pink | Extr. mottled 7.5YR 7/2 pinkish grey - $7 / 4$ pink; intr. 10YR 7/3 very pale brown | Medium | Calcareous micaceous, grey, black | Dense | Large finger-impressed cabled rib. Intr. wheel turned, extr. uneven hand-smoothed surface. |
| 307a | 303 | $13.2 \times 12.5 \times 1.3$ | Core/extr. 5 Y <br> 5/1 grey; intr. <br> 5Y $6 / 2$ light <br> olive grey | Extr. mottled 10YR $6 / 1$ grey -7/2 light grey: ints. 10YR $7 / 2$ light grey | Dense | Micaceous, grey | Medium | Large finger-impressed cabled rib. |
| 307b | 508 | $9.4 \times 11.1 \times 2.2$ | 5Y $7 / 4$ pale yellow | Extr. $2.5 \mathrm{Y} 8 / 4$ pale yellow; intr. $2.5 \mathrm{Y} 8 / 2$ white | Dense | Calcareous, micaceous | Sparse | Large finger-impressed cabled rib. |


| No. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 307c | 64 | $5.2 \times 12.0 \times 2.4$ | Core 2.5YR 4/0 dark grey; extr./intr. 10YR 7/4 very pale brown | Extr. 5YR $7 / 6$ reddish yellow; ints. 5YR 7/4 pink | Dense | Calcareous, micaceous | Sparse | Large finger-impressed cabled rib. Chalky extr./intr. surface texture. |
| 307d | 14 | $17.8 \times 21.8 \times 2.0$ | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR 7/4-7.5YR 7/4 pink | Dense | Mostly calcareous, micaceous, with black | Medium | Large finger-impressed cabled rib. |
| 308 | 61 | Ext. H. 16.8; rim diam. 14.0; max diam. 19.5; L. 7.0 | Core 10YR $6 / 3$ pale brown; extr./intr. 5 YR $6 / 4$ light reddish brown | Extr. 7.5YR $7 / 2$ pinkish grey, partly burnt 7.5YR 2/0 black; intr. 5YR $6 / 6$ reddish yellow partly burnt 2.5YR 4/0 dark grey | Medium | Mostly grey <br> quartzite, <br> with <br> calcareous. micaceous, black, white quartzite | Dense (quartzite; other types sparse) | Cooking ware. Strap handle. Pronounced intr. wheel marks. Extr. surface roughly handsmoothed. |
| 308a | 62 | Rim diam. 21 5; <br> L. 4.6 | Core 2.5 Y 2.5/0 black; extr./intr. 5 YR 4/4 reddish brown | 10YR $5 / 2$ greyish brown | Medium | Mostly <br> (angular) <br> micaceous, <br> grey/trans- <br> lucent <br> quartzite. <br> with <br> calcareous | Dense (calcareous sparse) | Cooking ware. Strap handle, incomplete. |
| 309 | 193 | Rim diam. 18.0; max. diam. 21.9 ( 36 sherds) | Core 10YR 4/2 <br> dark greyish brown; extr./intr. 2.5YR 3/6 dark red | Extr. 5 YR $5 / 4$ reddish brown; intr. 5YR 5/3 reddish brown; partly burnt 7.5YR 4/0 dark grey - $2 / 0$ black | Medium | Mostly (angular) micaceous grey/translucent quartzite, with calcareous | Dense (calcareous sparse) | Cooking ware. Strap handle with central ridge. Spout. Extr./intr. surfaces cracked. <br> Smooth extr. surface texture. |
| 310 | 353 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. 5.7 } \end{aligned}$ | Core 2.5YR <br> 4/0 black; extr./intr. 10YR $6 / 4$ light yellowish brown | 7.5YR $7 / 4$ pink - 10YR $7 / 4$ very pale brown | Sparse | Mostly dark grey, with quartzite | Dense | Cooking ware. |
| 310a | 180 | Rim diam. indeterminate, L . 3.4 | Core 2.5Y $6 / 2$ light brownish grey; extr/intr. 7.5Y 6/4 light brown | 7.5YR 7/4 pink | Medium | Mostly (angular) light grey quartzite, with calcareous, micaceous, black | Dense (quartzite: other types sparse) | Cooking ware. Irregular, uneven extr./intr. surfaces. |
| 310b | 180 | Rim diam. <br> c. 12.0; L. 1.9 | Core 5YR 3/1 <br> very dark grey: extr/intr. 2.5YR 3/4 dark reddish brown | Extr. 2.5YR 2.5/4 dark reddish brown, largely burnt 2.5YR 2.5/0 black; intr. 2.5YR 3/4 dark reddish brown | Medium | Mostly <br> (angular) <br> micaceous, <br> black. <br> grey/trans- <br> lucent <br> quartzite. <br> with <br> calcareous | Dense <br> (calcareous sparse) | Cooking ware. Exur./intr. surfaces cracked. Smooth extr. surface texture. |
| 311 | 8 | Rim diam. $\text { c. } 30.0(?) ; \text { L. } 1.5$ | 7.5YR 7/4 <br> pink, partly <br> burnt 2.5 YR <br> 4/0 dark grey | 7.5YR 7/4 pink | Sparse | Calcareous, grey, pale brown | Dense | Cooking ware. Friable. |
| 312 | 4 | Rim diam. 24.5; <br> L. 3.7 | Core/intr. <br> 7.5YR 5/4 <br> brown; extr. <br> 10YR 6/4 light <br> yellowish <br> brown | 10YR 7/2 light grey; rim edge burnt 7.5 YR 4/0 dark grey | Sparse | Calcareous, grey quartzite | Medium | Cooking ware. Rough, gritty intr. surface texture. |
| 313 | 64 | Rim diam. 16.0; <br> L. 4.2 | Core/intr. <br> 7.5YR 2/0 <br> black; extr. 10YR $6 / 2$ light brownish grey | Extr. 5YR $6 / 4$ light reddish brown, largely burnt 10YR 5/l grey; intr. 10YR $6 / 3$ pale brown, largely burnt 7.5YR $2 / 0$ black | Medium | Mostly <br> (angular) <br> grey, with <br> (sparse <br> fine) <br> micaceous | Dense | Cooking ware. Rough surface texture, especially on intr. |
| 314 | 27 | Rim diam. 16.0; <br> L. 6.4 | 10YR 5/l grey <br> - 10R 5/1 <br> reddish grey | 10YR $6 / 2$ light brownish grey | Medium | Mostly <br> (angular) <br> grey quartzite, calcareous, micaceous | Dense | Cooking ware. Smooth extr. surface texture, with some burnishing. Intr. surface gritty and rough. |
| 315 | 61 | Rim diam. 16.0; $\text { L. } 2.7$ | $\begin{aligned} & 2.5 \mathrm{YR} 2.5 / 0 \\ & \text { black } \end{aligned}$ | 7.5YR 4/0 dark grey | Medium | Calcareous, <br> micaceous. <br> grey <br> quartzite | Dense | Cooking ware. |


| No. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 315a | 456 | $\begin{aligned} & \text { Rim diam. 18.5; } \\ & \text { L. } 3.8 \end{aligned}$ | Core 10YR 5/1 grey; extr./intr. $2.5 \mathrm{Y} 6 / 2$ light brownish grey 10YR $6 / 3$ light brown | 5YR $6 / 4$ light reddish brown | Medium | Mostly <br> (angular) <br> grey quartzite, with (fine) micaceous | Dense | Cooking ware. Rough, gritty extr./intr. surface texture. Scratched. |
| 316 | 354 | $\begin{aligned} & \text { Base diam. 8.0; } \\ & 25 \% \text { base } \end{aligned}$ | 7.5YR 5/4 brown | Extr. 7.5YR $7 / 4$ pink; intr. 10YR $8 / 3$ very pale brown | Sparse | Mostly (angular) grey, with (fine) calcareous, micaceous | Medium | Smooth extr. surface texture. |
| 316a | 4 | Base diam. 10.0; <br> 20\% base | 2.5Y $8 / 2$ white | 2.5Y $8 / 2$ white | Medium | - | Medium |  |
| 316b | 62 | Base diam. 13.0; <br> - \% base | Core/extr. 2.5Y 4/0 dark grey; intr. 7.5YR $6 / 6$ reddish yellow | Extr. 10YR 7/2 light grey; intr. 7.5YR 7/4 pink | Medium | Calcareous, micaceous | Very sparse | Hand-moulded (finger impressions). Chalky extr. surface texture. |
| 316c | 353 | $\begin{aligned} & \text { Base diam. } 15.0 \text {; } \\ & 25 \% \text { base } \end{aligned}$ | Core/intr. <br> 2.5YR 4/0 dark <br> grey; extr. <br> 7.5YR 7/6 <br> reddish yellow | Extr. 7.5YR $7 / 4$ pink; intr. 7.5YR $8 / 4$ pink | Medium | Calcareous, grey | Medium | Sparse reddish yellow grog inclusions. |
| 316d | 357 | $\begin{aligned} & \text { Base diam. 14.7; } \\ & 15 \% \text { base } \end{aligned}$ | $10 \mathrm{YR} 5 / 3$ brown | Extr. 10YR $6 / 2$ light brownish grey - 7/2 light grey; intr. 10YR $7 / 3$ very pale brown | Medium | Mostly grey, with calcareous, black | Medium | Smooth extr. surface texture. Underside of base covered in unusually dense vegetable impressions. |
| 317 | 506 | $\begin{aligned} & \text { Base diam. 9.0; } \\ & 25 \% \text { base } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Sparse | Calcareous, micaceous, grey, black, reddish brown | Dense | Pronounced intr. wheel marks. |
| 318 | 302 | $\begin{aligned} & \text { Base diam. } 14.0 \text {; } \\ & 15 \% \text { base } \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 4 \text { pale } \\ & \text { yellow } \end{aligned}$ | 10YR $8 / 3$ very pale brown | Medium | Calcareous, grey, black | Medium | Chalky extr./intr. surface texture. |
| 318a | 3 | $\begin{aligned} & \text { Base diam. 16.0; } \\ & \text { 15\% base } \end{aligned}$ | 10YR 7/2 light grey | Extr. 10YR $8 / 2$ white; intr. 10YR $7 / 2$ light grey |  | - | Medium |  |
| 318b | 62 | Base diam. 8.0; $10 \%$ base | 5YR 6/6 reddish yellow | Extr. very pale yellowish pink, centre of base burnt 5 Y 6/1 grey; intr. 7.5YR 7/4 pink | Sparse | Calcareous | Fine | Smooth extr./intr. surface texture. |
| 319 | 457 | $\begin{aligned} & \text { Base diam. } 9.5 \text {; } \\ & 45 \% \text { base } \end{aligned}$ | 7.5YR 6/6 yellow | Extr. 5YR $7 / 4$ pink; intr. 10YR $8 / 3$ very pale brown | Dense | Calcareous | Medium | Smooth extr./intr. surface texture. |
| 319a | 189 | $\begin{aligned} & \text { Base diam. } 11.0 \text {; } \\ & 35 \% \text { base } \end{aligned}$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Incision at junction of ring and underside. |
| 319b | 4 | Base diam. 11.0; $15 \%$ base | 10YR $6 / 2$ light brownish grey | Extr. 10YR 7/1 light grey; intr. 10YR 6/1 grey | Sparse | Grey | Medium | Smooth intr. surface texture. Incision at junction of ring and underside. |
| 319c | 61 | Base diam. 9.0; $20 \%$ base | 7.5YR 5/4 <br> brown | 5YR $7 / 4$ pink |  | Calcareous, micaceous | Very sparse | Slight incision at junction of ring and underside. |
| 319d | 31 | Base diam. 8.0; $100 \%$ base (abraded) | 7.5YR 7/4 pink | Extr. 10YR $8 / 4$ very pale brown; intr. 2.5 Y $7 / 2$ light grey | Medium | Calcareous, grey | Medium | Slight incision at junction of ring and underside. |
| 319e | 27 | $\begin{aligned} & \text { Base diam. } 10.0 \text {; } \\ & 15 \% \text { base } \end{aligned}$ | 10YR 7/1 grey | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, grey | Sparse |  |
| 320 | 506 | $\begin{aligned} & \text { Base diam. } 11.0 \text {; } \\ & 40 \% \text { base } \end{aligned}$ | 10YR 7/3 very pale brown | Extr. 10YR $7 / 2$ light grey; intr. 10YR 7/3 very pale brown | Sparse | Calcareous, micaceous, black | Sparse | Smooth extr./intr. surface texture. |
| 320a | 456 | Base diam. 14.0; <br> - \% base | 5Y 7/3 pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, grey, black | Sparse | Sparse red-brown grog(?) inclusions. Incision at junction of ring and underside. |
| 320b | 456 | $\begin{aligned} & \text { Base diam. } 11.0 \text {; } \\ & 20 \% \text { base } \end{aligned}$ | Core 7.5YR <br> 4/0 dark grey; <br> extr./intr. <br> 7.5YR $7 / 4$ pink | Extr. 10YR $8 / 3$ very pale brown; intr. 10 YR $8 / 2$ white | Medium | Mostly calcareous. with grey | Medium | Smooth, chalky extr. surface texture. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 320c | 16 | $\begin{aligned} & \text { Base diam. 9.0: } \\ & 25 \% \text { base } \end{aligned}$ | Core 10YR 5/2 <br> greyish brown; <br> extr./intr. <br> 7.5YR $6 / 4$ light <br> brown | Extr. 10YR $8 / 3$ very pale brown - 5YR 6/4 light reddish brown; intr. 10YR $6 / 3$ pale brown | Medium | Calcareous, micaceous | Very sparse | Incision at junction of ring and underside Smooth extr./intr. surface texture. Bitumen stained. |
| 320d | 61 | $\begin{aligned} & \text { Base diam. 12.0; } \\ & 20 \% \text { base } \\ & \hline \end{aligned}$ | $\begin{aligned} & 5 \text { Y } 7 / 3 \text { pale } \\ & \text { yellow } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Grey, black | Sparse | Ridge at junction of ring and underside. |
| 321 | 16 | Base diam. 7.8; $100 \%$ base | 10YR $8 / 4$ very pale brown | Extr. 10YR $8 / 2$ white: intr. 10YR $8 / 4$ very pale brown | Sparse | Calcareous, grey | Sparse | Large incision at junction of ring and underside. Smooth extr/intr. surface texture. |
| 321a | 177 | $\begin{aligned} & \text { Base diam. 9.0; } \\ & 15 \% \text { base } \end{aligned}$ | 2.5 Y $5 / 2$ <br> greyish brown - <br> 10YR $6 / 4$ light <br> yellowish <br> brown | Extr. 7.5YR $7 / 4$ pink, largely burnt 10YR 7/4 very pale brown; intr. burnt 10YR $6 / 2$ light brownish grey | Sparse | Calcareous | Very sparse | Smooth extr./intr. surface texture. Interstices and airbubbles in fabric section. |
| 321b | 177 | $\begin{aligned} & \text { Base diam. 10.0; } \\ & 15 \% \text { base } \end{aligned}$ | Core/intr. 7.5YR 7/4 pink; extr. 5YR 6/4 light reddish brown | 10YR $7 / 3$ very pale brown | Sparse | Calcareous, micaceous | Sparse | Smooth intr. surface texture. |
| 321c | 177 | $\begin{aligned} & \text { Base diam. 17.0; } \\ & 10 \% \text { base } \end{aligned}$ | Extr. 2.5Y $8 / 4$ yellow; intr. 10YR $8 / 3$ very pale brown | 10YR $8 / 2$ white | Medium | Calcareous. grey | Medium | Smooth extr./gritty intr. surface texture. Bitumen on extr. lower body and underside of base. |
| 321d | $\begin{aligned} & 179 \\ & (?) \end{aligned}$ | $\begin{aligned} & \text { Base diam. } 11.0 \text {; } \\ & 45 \% \text { base } \end{aligned}$ | 7.5YR 7/4 pink | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $7 / 3$ very pale brown | Medium | Calcareous. micaceous, grey | Medium | Rough intr./extr. surface texture. Incision at junction of ring and underside. |
| $\begin{aligned} & 322 \\ & \text { Sample BM } \\ & \text { 1987-4-12,57 } \end{aligned}$ | 452 | Base diam. 8.8; $80 \%$ base | Core 2.5YR 4/0 dark grey; extr. 7.5 YR $7 / 6$ reddish yellow | 10YR $8 / 4$ very pale brown | Medium | Micaceous | Sparse | Pronounced irregular intr. wheel marks. For scientific analysis, see Ch. 7. |
| 322a | 180 | Base diam. 7.0; <br> $50 \%$ base | Core 10YR 7/4 very pale brown; extr./intr. <br> 2.5YR $6 / 8$ light red | 10YR $8 / 3$ very pale brown | Medium | Calcareous, grey, black | Dense | Incision at junction of ring and underside. Smooth extr. surface texture; intr abraded. |
| 322b | 508 | $\begin{aligned} & \text { Base diam. 8.5; } \\ & 25 \% \text { base } \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 2$ white |  | Calcareous | Very sparse | Junction of ring and underside fingersmoothed. |
| 322c | 506 | Base diam. 6.0: $45 \%$ base | Core/intr. <br> 7.5YR 7/4 <br> pink; extr. 5YR <br> 6/6 reddish <br> yellow | 5YR 7/4 pink | Medium | Calcareous, micaceous | Sparse | Incision at junction of ring and underside. Chalky extr./intr. surface texture. |
| 322d | 62 | $\begin{aligned} & \text { Base diam. } 7.0 \text {; } \\ & 40 \% \text { base } \end{aligned}$ | 5YR 7/6 reddish yellow - 7.5 YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown |  | Calcareous | Very sparse | Incisions at foot of flared ring and at junction of ring and underside. Smooth extr. surface texture. |
| 323 | 180 | Base diam. 8.0; $10 \%$ base | Core mottled 7.5YR 4/0 dark grey - $5 / 0$ grey; extr./intr. <br> 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium | Calcareous. micaceous. grey | Sparse | Smooth extr. surface texture: light horizontal burnish. |
| 323a | 27 (?) | $\begin{aligned} & \text { Base diam. } 11.0 \text {; } \\ & 25 \% \text { base } \end{aligned}$ | 5YR $6 / 4$ light reddish brown | Extr. 5YR 7/4 pink: intr. $7.5 \mathrm{YR} 7 / 4$ pink | Sparse | Mostly calcareous, with grey | Dense | Smooth extr. surface texture. Intr. surface bitumen stained. |
| 323b | 3 | Base diam. 16.0; $8 \%$ base | 10YR 7/2 light grey | Extr. 10YR $8 / 2$ white; intr. 10YR $7 / 2$ light grey |  | - | Medium |  |
| 324 | 62 | Base diam. 5.0; $100 \%$ base (abraded) | 2.5Y $7 / 2$ light grey | $2.5 \mathrm{Y} 8 / 2$ white | Sparse | Calcareous, grey, black. red-brown | Dense | Pronounced wheel marks on extr. base. Gritty extr./intr. surface texture. |
| 325 <br> Sample BM <br> 1987-4-12,43 | 62 | Base diam. 2.7; $100 \%$ base (chipped) | 10YR $8 / 3$ very pale brown | 10YR $8 / 3$ very pale brown |  | Calcareous | Very sparse | Smooth extr. surface texture; int. surface rough and uneven. <br> For scientific analysis, see Ch. 7. |
| 326 | 3 | $\begin{aligned} & \text { Ext. H. } 5.7 \text {; diam } \\ & \text { c: } 16.0 \end{aligned}$ | 5YR 7/6 reddish yellow | 5YR $7 / 6$ reddish yellow |  | - | Medium |  |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| POST-DESTRUCTION PIT |  |  |  |  |  |  |  |  |
| 327 | 178 | Rim diam. 14.0; <br> L. 2.2 | 5YR 6/6 reddish yellow | Extr. 5YR 7/4 pink: intr. 5YR 7/6 reddish yellow. Extr. painted bands on upper edge of rim 2.5YR 5/6 red | Sparse | Calcareous | Sparse | Smooth extr./intr. surface texture. |
| 328 | 173 | $\begin{aligned} & \text { Rim diam. 21.0; } \\ & \text { L. } 6.6 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 7.5YR $8 / 2$ pinkish white; intr. 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse | Chalky extr./intr. surface texture. |
| 328a | 173 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 6.2 \end{aligned}$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Sparse | Extr. surface pitted where coarse grits have protruded and eroded. |
| 329 | 178 | Rim diam. indeterminate; $\mathbf{L}$. 1.8 | Core 5Y 4/2 olive grey, largely burnt $2.5 \mathrm{Y} 5 / 0$ grey: extr./intr. 5 Y $6 / 3$ pale olive | Extr. 2.5Y $7 / 2$ light grey; intr. 5 Y $7 / 3$ pale yellow | Medium | Calcareous, black | Sparse | Sparse pink grog inclusions. Over-fired and warped. |
| 330 | 178 | Rim diam. 27.0; <br> L. 6.3 | Core 10YR 5/1 grey; extr./intr. 5YR $7 / 6$ reddish yellow - 10R $5 / 8$ red | 5YR $7 / 6$ reddish yellow | Sparse | Calcareous | Sparse | Smooth extr./intr. surface texture. |
| 331 | 173 | Rim diam. indeterminate; L . 4.3 | 7.5YR $6 / 4$ light brown | 7.5YR 7/4 pink | Medium | Calcareous | Sparse | Fairly rough, chalky, extr./intr. surface texture. |
| 332 | 173 | Rim diam. 13.0; <br> L. 3.7 | Core 7.5YR 716 reddish : yellow; extr./intr. 5 Y Y $6 / 6$ reddish yellow | 5YR $7 / 4$ pink - $7 / 6$ reddish yellow |  | Calcareous, grey, black | Dense | Pronounced extr./intr. wheel marks. |
| 333 | 173 | Rim diam. 16.0; L. 5.2 (of intact rim; sherd L . 5.8) | 5YR 7/6 reddish yellow - 7.5 YR $7 / 4$ pink | Extr./intr. rim (upper $2.2 \mathrm{~cm})$ 10YR $8 / 3$ very pale brown; ints. 7.5 YR $7 / 4$ pink |  | Calcareous, micaceous | Medium | Smooth extr./intr. surface texture. Pronounced, slightly irregular, intr. wheel marks. |
| 334 | 173 | $\begin{aligned} & \text { Rim diam. 11.0: } \\ & \text { L. } 3.5 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr/intr. rim 10YR 8/2 white; intr. 7.5YR 7/4 pink | Very sparse | Calcareous | Sparse | Smooth extr./intr. surface texture. |
| 334a | 178 | Rim diam. 12.0; L. 6.7 (of intact rim; sherd L. 7.9) | $5 \mathrm{Y} 8 / 3$ pale yellow | Extr./intr. $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse | Sparse pink grog inclusions. Slightly gritty extr./intr. surface texture. |
| 335 | 178 | $\begin{aligned} & \text { Rim diam. 7.0; } \\ & \text { L. 5.1 } \\ & \hline \end{aligned}$ | 10YR 7/4 very pale brown | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Medium | Irregular, uneven extr./intr. surfaces |
| 336 | 178 | Rim diam. 12.0; <br> L. 4.5 | Core 7.5YR <br> 7/2 pinkish grey; extr./intr. <br> 2.5Y $7 / 2$ light grey | Extr./intr. 10YR $6 / 3$ pale brown, mostly burnt 5YR 3/1 very dark grey - 2.5 Y 2.0 black | Medium | Calcareous | Sparse | Thick black material adhering to extr./intr. surfaces. |
| 337 | 178 | Rim diam. 11.0 ; Ls. 7.4, 3.5 (2 non-joining sherds) | 7.5YR $6 / 4$ light brown | Extr. 10YR $6 / 3$ pale brown; intr. 10YR 5/2 greyish brown | Sparse | Mostly micaceous, grey, with calcareous | Dense | Rough, fine gritty extr/intr. surface texture. |
| 338 | 178 | Rim diam. 10.0; <br> L. 2.4 | 7.5YR $7 / 4$ pink | Extr. 10YR $8 / 2$ white; intr. 7.5YR $8 / 4$ pink | Medium | Calcareous, micaceous | Sparse | Rough extr./intr. surface texture, with airbubbles and protruding coarse calcareous gnits. |
| 339 <br> Sample BM <br> 1987-4-12,23 | 178 | $\begin{aligned} & \text { Rim diam. 25.0; } \\ & \text { L. } 7.5 \end{aligned}$ | 5Y 7/4 pale yellow | 2.5Y $8 / 4$ pale yellow | Medium | Calcareous | Sparse | Sparse pink grog inclusions. <br> For scientific analysis, see Ch. 7. |
| 340 | 178 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 5.2 \end{aligned}$ | 7.5YR 6/6 reddish yellow | Extr. 5YR 7/6 reddish yellow; intr. 5 YR 7/4 pink. Painted bands on extr. rim and body 2.5YR 6/6 light red | Sparse | Calcareous, grey | Sparse |  |
| 341 | 178 | Base diam. 1.4; $100 \%$ 'button' | 10YR 4/1 dark grey | Extr. 10YR $8 / 2$ white; intr. abraded | Sparse |  |  | Smooth extr. surface texture; intr. surface abraded. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 342 | 178 | $3.3 \times 3.8 \times 0.4$ | 5Y $8 / 4$ pale yellow | Extr. 5 Y $7 / 3$ pale yellow; intr. 10YR 7/3 very pale brown. Extr. painted bands $2.5 \mathrm{Y} 7 / 4$ pale yellow - 10YR $4 / 2$ dark greyish brown |  |  |  |  |
| LEVEL 3 |  |  |  |  |  |  |  |  |
| 343 | 178 | Base diam. 10.0; $80 \%$ base ( 5 joining sherds) | Core 10YR 3/1 very dark grey; extr.intr. 5 Y 4/1 dark grey | Extr. 7.5YR 4/0 dark grey; intr. $2.5 \mathrm{Y} 6 / 2$ light brownish grey | Medium | Calcareous | Medium | Cooking ware. Smooth extr. surface texture. |
| 344 | 158 | Rim diam. <br> c. 44.0 ; L. 5.5 | Core/extr. 2.5 Y 2.5/0 black: intr. 10YR $6 / 4$ light yellowish brown | Extr. 10YR 7/2 light grey; intr. 10YR 7/4 very pale brown, partly burnt 7.5YR 4/0 dark grey | Sparse | (Angular) <br> grey. <br> greyish <br> brown, <br> (lenticular) <br> translucent | Dense | Roughly handsmoothed extr./intr. surfaces. Angle of profile uncertain. |
| 345 | 12 | Rim diam. indeterminate; L . 9.7 | 7.5YR $8 / 4$ pink | 7.5YR $8 / 4$ pink | Medium | Calcareous | Very sparse |  |
| 346 | A3 | Rim diam. c. 30.0 ; L. 3.0 (2 joining sherds) | 5YR 7/6 reddish yellow | 5YR 7/6 reddish yellow |  | - | Medium |  |
| 346a | B1 | $\begin{aligned} & \text { Rim diam. 30.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 5YR 8/4 pink | 5YR 8/4 pink | - | $\cdot$ | - |  |
| 347 | 159 | $\begin{aligned} & \text { Rim diam. } 22.0 \text {; } \\ & \text { L. } 6.5 \end{aligned}$ | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown |  | - | Medium |  |
| 348 | 163 | $\begin{aligned} & \text { Rim diam. } 25.5 \text {; } \\ & \text { L. } 5.2 \\ & \hline \end{aligned}$ | 7.5YR 6/4 light brown | 5YR 7/4 pink | Medium | Calcareous, micaceous | Very sparse |  |
| 348a | 162 | $\begin{aligned} & \text { Rim diam. 25.0; } \\ & \text { L. } 5.0 \end{aligned}$ | 10YR 5/1 grey | Extr. 2.5Y $7 / 2$ light grey; intr. (rim edge) burnt 2.5Y 4/0 dark grey | Medium | Mostly grey, with calcareous | Sparse | Irregular extr./intr. surfaces. |
| 348b | 55 | $\begin{aligned} & \text { Rim diam. 34.0: } \\ & \text { L. } 5.0 \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Rough extr./intr. surface texture: dense vegetable impressions on extr./intr. surfaces. |
| 349 | 160 | Rim diam. 28.5; Ls. 15.7, 6.0 (2 non-joining sherds) | 5YR 6/6 reddish yellow | 10YR $8 / 3$ very pale brown | Medium | Mostly calcareous. occasional grey | Medium | Chalky extr./intr. surface texture. |
| 350 <br> Sample BM <br> 1987-4-12,40 | 104 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 5.5 \end{aligned}$ | Core 7.5YR <br> 7/4 pink - 7/6 reddish yellow | 5YR pink | Medium | Calcareous, micaceous | Sparse | For scientific analysis, see Ch. 7. |
| 351 <br> Sample BM <br> 1987-4-12,36 | 109 | Rim diam. 23.0: <br> L. 4.3 | Extr. 7.5YR <br> 6/4 light brown; intr. 7.5 YR 5/2 brown | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR 7/2 light grey | Medium | Calcareous. micaceous, grey | Sparse | Bitumen coated extr. rim. <br> For scientific analysis. see Ch. 7. |
| 352 | 504 | Rim diam. 52.0; <br> L. 12.5 | 10YR $7 / 3$ very pale brown | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Very sparse | Two incisions and ridges on shoulder. |
| 353 <br> Sample BM <br> 1987-4-12,31 | 55 | $\begin{aligned} & \text { Rim diam. } 110 \text { : } \\ & \text { L. } 2.8 \end{aligned}$ | 5YR 5/6 yellowish red | 5YR $7 / 4$ pink |  | Calcareous, <br> (fine) <br> micaceous. <br> grey | Medium | Slightly pronounced wheel marks on extr. neck. <br> For scientific analysis, see Ch. 7. |
| 354 | 55 | $\begin{aligned} & \text { Rim diam. } 15.0 \text {; } \\ & \text { L. } 3.2 \end{aligned}$ | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 4$ very pale brown; intr. 5YR $7 / 4$ pink | Sparse | Mostly calcareous. with grey | Medium | Rough intr horizontal burnish. |
| 354a | 168 | $\begin{aligned} & \text { Rim diam. 18.0; } \\ & \text { L. } 3.9 \end{aligned}$ | Core 7.5YR <br> $7 / 6$ reddish <br> yellow; <br> extr./intr. <br> 2.5YR 6/6 light <br> red | 7.5YR 7/4 pink | Sparse | Mostly grey, with calcareous, micaceous | Medium | Poorly prepared fabric, with air-bubbles. Heavily horizontally burnished extr./intr. surfaces. |
| 355 | 168 | Rim diam. 15.0; <br> L. 3.2 | 2.5YR 4/0 dark grey | 2.5YR 3/0 very dark grey | Very sparse | Calcareous. micaceous. grey | Sparse | Very smooth extr./intr. surface texture. Light extr./intr. horizontal burnish. |
| 356 | 301 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 6.0 \end{aligned}$ | Extr. 10R 6/6 light red; intr. 7.5YR 7/4 pink | 7.5YR 7/4 pink | Dense | Calcareous | Sparse | Smooth extr./intr. surface texture. Airbubbles and interstices in fabric section. |


| NO. | UNIT | $\begin{aligned} & \text { DIMENSIONS } \\ & (\mathrm{cm}) \end{aligned}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 357 | 163 | $\begin{aligned} & \text { Rim diam. } 27.0 \text {; } \\ & \text { L. } 4.9 \end{aligned}$ | Extr. 10YR 7/4 very pale brown; intr. 5YR $6 / 4$ light reddish brown | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR $7 / 3$ very pale brown |  | Mostly calcareous, with grey, black, redbrown | Dense | Slightly pronounced extr./intr. wheel marks. |
| 358 | 162 | Rim diam. 15.0; L. . | - | - | - |  | - |  |
| 359 | 175 | Rim diam. 27.0; $\text { L. } 7.5$ | $2.5 \mathrm{Y} 8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse |  |
| 359a | 162 | Rim diam. 25.0; $\text { L. } 4.7$ | 5YR 6/6 reddish yellow | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Slightly chalky extr./intr. surface texture. |
| 359b | 10 | Rim diam. $\text { c. } 22.0 ; \text { L. } 7.8$ | 7.5YR 7/6 reddish yellow | 7.5YR $7 / 6$ reddish yellow |  | - | Medium |  |
| 360 | 158 | Rim diam. 29.5; <br> L. 4.3 | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown | Sparse | Calcareous, grey | Sparse | Chalky extr./intr. surface texture. |
| 360a | 10 | $\begin{aligned} & \text { Rim diam. } 21.0 \text {; } \\ & \text { L. } 6.5 \end{aligned}$ | 7.5YR 7/6 reddish yellow | 10YR $8 / 4$ very pale brown | Sparse | Mostly calcareous. with micaceous, grey, black | Dense | Gritty extr./intr. surface texture. Poorly prepared clay, with large airbubbles. |
| 360b | 43 | $\begin{aligned} & \text { Rim diam. } 18.0 \text {; } \\ & \text { L. } 3.5 \end{aligned}$ | 10YR $8 / 2$ white | 10YR 8/2 white |  | - | Medium |  |
| 361 | 158 | $\begin{aligned} & \text { Rim diam. } 29.0 \text {; } \\ & \text { L. } 4.0 \end{aligned}$ | 7.5YR 7/4 pink | 10YR 8/2 white | Medium | Micaceous | Sparse |  |
| 362 | 160 | Rim diam. 31.0; <br> L. 8.0 | Core 10YR $8 / 3$ <br> very pale brown; extr./intr. 7.5YR 7/4 pink | Extr. 7.5YR $8 / 2$ pinkish white - 10YR $8 / 3$ very pale brown; intr. 7.5YR 7/4 pink | Sparse | Calcareous, micaceous, grey, black | Sparse | Dense fine clay. Bitumen stains on extr./intr. |
| 363 | 58 | Rim diam. 21.5; L. . | - | - | - | - | - |  |
| 364 | 504 | Rim diam. $\text { c. } 60.0 ; \text { L. } 10.7$ | Core 5YR 5/4 reddish brown; extr. 10YR $6 / 2$ light brownish grey; intr. 5YR $7 / 6$ reddish yellow | Mostly 10YR $8 / 3$ very pale brown, mottled $7 / 2$ light grey and $6 / 2$ light brownish grey | Medium | Calcareous, grey | Medium | Rough extr./intr. surface texture. Very poorly prepared fabric, with air-bubbles and interstices. Originally with circular applied feature (handle?), now missing. |
| 365 | 20 | Rim diam. 13.0; <br> L. 7.7 | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $8 / 4$ pink |  | Calcareous, black, redbrown | Dense | Pronounced intr. wheel marks on upper body. Poor clay preparation: air-bubbles and interstices. |
| 365a | 501 | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. } 6.3 \end{aligned}$ | Extr. 7.5YR $7 / 4$ pink; intr. 10YR $6 / 2$ light brownish grey | 7.5YR 7/4 pink | Sparse | Mostly grey, with calcareous, micaceous, grey, black. red-brown | Dense | Rough, gritty extr./intr. surface texture. |
| 365b | A3 | Rim diam. 12.0; L. . | 5Y 8/1 white | 5Y 8/1 white |  | - | Medium |  |
| 365c | 105 | Rim diam. 22.0; <br> L. 4.5 | $2.5 \mathrm{Y} 7 / 2 \text { light }$ grey | 2.5Y $7 / 2$ light grey |  | Grey | Medium | Smooth extr./intr. surface texture. |
| 366 | 163 | Rim diam. 12.0; <br> L. 2.7 | 5YR 6/6 reddish yellow | Extr. 7.5 YR $8 / 4$ pink; intr. 10YR $8 / 2$ white |  | Mostly calcareous, with (sparse) grey | Dense | Sparse very pale brown grog inclusions. |
| 366a | A3 | Rim diam. 22.0; <br> L. 4.5 | 7.5YR $8 / 4$ pink | - | - | - | - |  |
| 366b | A3 | Rim diam. indeterminate; L . 0.5 | 2.5YR $6 / 4$ light reddish brown | 10YR $8 / 2$ white | - | - | - |  |
| 366c | 104 | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. } 4.0 \end{aligned}$ | Extr. 7.5YR $7 / 4$ pink; intr. 5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse |  |
| 366d | 55 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 10YR $6 / 3$ pale brown | $2.5 \mathrm{Y} 8 / 2$ white |  | Mostly grey, with calcareous | Medium | Gritty extr./intr. surface texture. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 367 <br> Sample BM <br> 1987-4-12,3 | 104 | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. 5.6 } \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $8 / 4$ very pale brown |  | Calcareous, grey, black | Medium | Pronounced intr. wheel marks. Gritty extr./intr. surface texture, but well finished. <br> For scientific analysis, see Ch. 7. |
| $368$ <br> Sample BM <br> 1987-4-12.12 | 502 | $\begin{aligned} & \text { Rim diam. } 11.0 \text {; } \\ & \text { L. } 7.6 \end{aligned}$ | 7.5YR 7/4 pink | 2.5Y $8 / 2$ white - 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Sparse reddish-brown grog inclusions. Pronounced intr, wheel marks on upper shoulder. Smooth extr., rough, gritty intr. surface texture. For scientific analysis. see Ch. 7. |
| 369 | $\begin{aligned} & 104 / \\ & 194 \end{aligned}$ | Rim diam. 24.0; L. 14.0 (2 joining sherds) | Extr. 5YR 6/4 light reddish brown; intr. 10YR 5/1 grey | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR $5 / 1$ grey | Sparse | Calcareous. (fine) micaceous | Sparse | Dense fine chalky clay. Air-bubbles and interstices. |
| 369a | 104 | Rim diam. $\text { c. } 20.0 ; \text { L. - }$ | Extr. 5YR 6/4 light reddish brown; intr. 10YR 5/1 grey | 10YR $8 / 3$ very pale brown | Sparse | Calcareous, (fine) micaceous | Sparse | Smooth, chalky extr./intr. surface texture. Probably from same vessel as 369 . |
| 370 | 157 | $\begin{aligned} & \text { Rim diam. } 25.5 \text {; } \\ & \text { L. } 7.6 \end{aligned}$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $8 / 4$ pink |  | Mostly grey, with calcareous, black, very pale brown | Dense | Sparse reddish brown grog inclusions. |
| 371 | 157 | Rim diam. 23.0; <br> L. 10.0 | 5YR 8/4 pink | 5YR 8/4 pink |  | Calcareous, grey, black, red | Dense |  |
| 371a | 157 | Rim diam. 24.0; <br> L. 8.0 | 5YR 7/6 reddish yellow | Extr. 10YR $7 / 4$ very pale brown; intr. 5 YR $7 / 6$ reddish yellow |  | Calcareous, micaceous, black | Dense |  |
| 372 | 168 | Rim diam. 19.5; <br> L. 10.2 | 7.5YR $6 / 4$ light <br> brown - $7 / 4$ pink | 10YR $7 / 3$ very pale brown | Medium | Mostly calcareous. with micaceous, grey | Medium | Sparse pink grog inclusions. Occasional coarse calcareous grits protruding on intr. surface. |
| 372a | 505 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 4.5 \end{aligned}$ | 10YR 7/3 very pale brown | $\begin{aligned} & 2.5 \mathrm{Y} 8 / 2 \text { white }-10 \mathrm{YR} \\ & 8 / 2 \text { white } \end{aligned}$ | Medium | Mostly calcareous, with grey, black | Medium | Gritty extr./intr. surface texture. |
| 372b | 55 | Rim diam. 17.0; <br> L. 4.8 | 7.5YR 6/6 <br> reddish yellow | 7.5YR $7 / 4$ pink |  | Calcareous. micaceous, grey, black | Dense | Smooth extr./intr surface texture. |
| 372c | 160 | Rim diam. 13.0; $\text { L. } 6.8$ | 10YR 7/3 very pale brown | 10YR $8 / 2$ white | Very sparse | Micaceous, grey | Very sparse | Irregular ridge at base of neck. Smooth extr./intr. surface texture. |
| 373 | A3 | Rim diam. 23.0; $\text { L. } 4.0$ | 10YR 7/4 very pale brown | Extr. 10YR $8 / 2$ white; intr. 10YR $7 / 4$ very pale brown |  | - | Medium |  |
| 374 | 55 | Rim diam. 18.5; <br> L. 9.3 | 2.5YR $6 / 6$ light red | 5YR 7/4 pink | Sparse | Calcareous. grey | Sparse | Rough extr./intr. surface texture, covered with air-bubbles and with occasional protruding coarse grits. |
| 375 | 160 | Rim diam. c. $21.0 ;$ L. 4.0 (of rim; sherd $\mathbf{L}$. at collar 7.0) | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $7 / 4$ pink, with patches of $10 \mathrm{YR} 8 / 2$ white |  | Mostly calcareous, with grey. black | Dense | Poorly prepared clay. with very dense airbubbles and interstices in fabric section and on intr. surface. |
| 375a | 551 | Ext. H. 7.5; rim diam. 22.0; L. 4.0 | Core 10YR 6/4 <br> light yellowish brown; extr./intr. 7.5YR $6 / 6$ reddish yellow | 7.5YR 7/4 pink |  | Mostly grey, with calcareous, micaceous, black | Dense |  |
| 376 | 175 | Rim diam. <br> c. 26.0; L. 2.2 <br> (of fully preserved rim, 4.7 of pardy preserved rim) | Core/intr. 5YR $7 / 6$ reddish yellow; extr. 7.5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 5YR $7 / 6$ reddish yellow | Medium | Calcareous | Medium | Rough intr. surface. covered with airbubbles. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 377 | 55 | Rim diam. 13.0; <br> L. 7.8 | 5YR 6/6 reddish yellow | Extr. 10 Y R $8 / 2$ white; intr. 5YR $7 / 6$ reddish yellow | Sparse | Mostly calcareous, with micaceous, grey, black | Dense | Pronounced extr/intr. wheel marks. Slightly warped form. |
| 377a | 159 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 6.6 \end{aligned}$ | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown | Very sparse | Calcareous, grey, black | Dense | Poorly prepared clay. with air-bubbles in fabric sections and on extr./intr. surfaces. Gritty intr. surface texture. |
| 377b | 56 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 4.2 \end{aligned}$ | 5YR 6/6 reddish yellow | 10YR $8 / 2$ white |  | Calcareous, grey | Dense |  |
| 378 | 55 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 5.7 \end{aligned}$ | Extr. 7.5YR <br> $7 / 4$ pink; intr. 7.5YR $6 / 4$ light brown | 10YR $7 / 3$ very pale brown | Sparse | Mostly (angular) dark grey. with calcareous, micaceous | Dense | Gritty extr./intr. surface texture. |
| 379 | 161 | Rim diam. 20.0; <br> L. 4.0 | 7.5YR 6/6 reddish yellow | 7.5YR 7/4 pink | Sparse | Calcareous, grey | Medium | Gritty extr./intr. surface texture. |
| 380 | 157 | Rim diam. $\text { c. } 40.0 ; \text { L. } 4.7$ | Extr. 5 Y $8 / 3$ pale yellow; intr. 2.5 Y $8 / 4$ pale yellow | Extr. 5 Y $8 / 2$ white, partly burnt $2.5 \mathrm{Y} 5 / 0$ grey; intr. $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, micaceous, black, pink | Sparse | Sparse reddish yellow grog inclusions. |
| 380a | 505 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 5.5 \end{aligned}$ | Core 2.5Y $6 / 6$ light red; extr./intr. 5YR $7 / 6$ reddish yellow | 7.5YR 8/4 pink | Sparse | Calcareous | Sparse | Sparse grey-brown grog inclusions. |
| 380b | 56 | $\begin{aligned} & \text { Rim diam. } 25.0 \text {; } \\ & \text { L. } 4.0 \end{aligned}$ | 10YR 7/4 very pale brown | 10YR $8 / 4$ very pale brown | Medium | Calcareous, grey | Sparse | Smooth extr./intr. surface texture. |
| 381 | 505 | Rim diam. 6.0; <br> L. 2.4 | 7.5YR 7/4 pink | 10YR $8 / 3$ very pale brown. Extr./intr. of rim painted 5YR 5/4 reddish brown |  | Calcareous, grey | Sparse | Smooth extr./intr. surface texture. Very fine extr/fintr. horizontal ridges. |
| 381a | 301 | Rim diam. 11.0; Ls. 2.5, 2.6 (2 non-joining sherds) | 5YR 7/6 reddish yellow 7.5YR 7/4 pink | 7.5YR $7 / 4$ pink - 10YR $8 / 3$ very pale brown |  | Calcareous | Medium | Smooth, slightly chalky, extr./intr. surface texture. |
| 382 | 107 | $\begin{aligned} & \text { Rim diam. 8.5; } \\ & \text { L. } 3.9 \end{aligned}$ | 7.5YR $7 / 6$ reddish yellow | 10YR $8 / 3$ very pale brown |  | Calcareous | Medium | Probably from same vessel as 383-384 (see hypothetical reconstruction). |
| 383 | 157 | Estimated max. diam. 9.8; L. 7.2 | Core/intr. 10YR $6 / 3$ pale brown; extr. 5YR 7/4 pink | 10YR $8 / 2$ white | Sparse | Calcareous, micaceous. grey | Sparse | Air-bubbles in fabric sections. Pronounced intr. wheel marks. Smooth extr./intr. surface texture. Probably from same vessel as $\mathbf{3 8 2 , 3 8 4}$ (see hypothetical reconstruction). |
| 384 | 502 | Max. ext. diam. 6.6; button diam. $0.9 ; 100 \%$ base | Core 5YR 7/6 reddish yellow: extr./intr. 7.5YR 7/6 reddish yellow | Extr. 10YR $7 / 4$ very pale brown; intr. 10 YR $8 / 3$ very pale brown | Sparse | Calcareous, micaceous | Sparse | Pronounced intr. wheel marks. Smooth extr./chalky intr. surface texture. Probably from same vessel as $382-3$ (see hypothetical reconstruction). |
| 385 | 551 | $3.1 \times 3.6 \times 0.7$ | 7.5YR 7/4 pink | 2.5Y $8 / 2$ white. Extr. painted bands 7.5YR 4/2 dark brown | Medium | Calcareous | Medium | Smooth extr. surface texture. |
| 386 | 551 | $3.6 \times 3.7 \times 0.7$ | 7.5YR $7 / 4$ pink | 2.5Y $8 / 2$ white. Extr. painted bands (upper) 10YR 3/1 very dark grey and (lower) 7.5YR 5/4 brown | Medium | Calcareous, grey | Medium |  |
| 386a | 104 | $1.3 \times 2.4 \times 1.2$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 2$ white: intr. 10YR $7 / 3$ very pale brown. Two extr. painted bands 7.5 YR 5/4 brown | Medium | Mostly calcareous, with grey | Sparse |  |


| No. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 386b | 56 | $4.1 \times 3.8 \times 0.7$ | 10YR 6/2 light brownish grey | Extr. $5 \mathrm{Y} 7 / 2$ light grey: intr. $2.5 \mathrm{Y} 8 / 2$ white. Single extr. painted band $10 \mathrm{YR} 4 / 1$ dark grey | Sparse | Calcareous, grey, black | Sparse |  |
| 386c | 104 | $2.6 \times 2.0 \times 0.8$ | 5YR 7/6 reddish yellow | 7.5YR $7 / 4$ pink. Single extr. painted band 2.5YR 2.5/4 dark reddish brown | Sparse | Calcareous. grey | Sparse | Smooth, slightly gritty extr./intr. surface texture. |
| 386d | 157 | $5.5 \times 6.0 \times 0.6$ | 5 YR $6 / 4$ light reddish brown - $7 / 6$ reddish brown | Extr. 2.5 Y $8 / 2$ white; intr. 5YR 7/4-7.5YR $7 / 4$ pink. Single extr. thinly painted band 5YR 6/6 reddish yellow | Sparse | Mostly calcareous, with micaceous, grey, black | Dense | Gritty extr./intr. surface texture. |
| 386e | 158 | $3.6 \times 4.5 \times 0.6$ | 10YR $8 / 4$ very pale brown | 10YR $8 / 3$ very pale brown. Single extr. painted band 5YR 4/3 reddish brown | Medium | Mostly <br> grey, black, <br> with <br> calcareous, <br> (fine) <br> micaceous | Medium | Smooth extr, surface texture. |
| 387 | 159 | $7.4 \times 6.6 \times 1.6$ | 10YR $6 / 4$ light yellowish brown | Exur. $7.5 \mathrm{YR} 7 / 4$ pink 10YR $8 / 4$ very pale brown; intr. 10YR $7 / 4$ very pale brown | Sparse | Mostly <br> grey, black, with calcareous, micaceous, red-brown | Dense |  |
| 388 | 158 | $5.0 \times 6.0 \times 1.3$ | 2.5Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Micaceous, black | Sparse | Dense coarse vegetable impressions on surface. |
| 389 | 55 | $8.7 \times 10.6 \times 1.5$ | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown | Medium | Calcareous. micaceous, grey | Medium | Rough intr. surface with scratches. |
| 390 | 55 | $3.9 \times 3.5 \times 10.9$ | 10YR 7/3 very pale brown | 10YR $8 / 2$ white |  | Calcareous, grey, black, red-brown | Dense | Poorly prepared clay, with air-bubbles and interstices. |
| 391 | 158 | Rim diam. $\text { c. } 26.0 ; \text { L. } 4.5$ | 10YR $6 / 4$ light yellowish brown | 10YR $6 / 4$ light yellowish brown; extr. partly fire-blackened |  | Dense | Coarse/very coarse | Cooking ware. <br> Unusually heavy clay. |
| 391a | 454 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 4.5 \end{aligned}$ | Core 10YR $6 / 3$ pale brown; extr./intr. 10YR 4/1 dark grey | 10YR $7 / 3$ very pale brown; intr. partly burnt 10YR 5/1 grey | Sparse | Mostly grey, with calcareous | Dense | Cooking ware. Smooth extr., rough. gritty intr. surface texture. |
| 392 | 162 | $\begin{aligned} & \text { Rim diam. 15.5; } \\ & \text { L. } 5.2 \end{aligned}$ | 10YR $7 / 4$ very pale brown | Extr. 10YR $7 / 2$ light grey; intr. 7.5YR 7/4 pink | Medium | Mostly dark grey (angular) quartzite. with (lenticular) micaceous | Dense | Cooking ware. Rough and gritty intr. surface texture. |
| 392a | 551 | Rim diam. 16.5; <br> L. 5.0 | 2.5YR 4/0 dark grey | 7.5YR $7 / 2$ pinkish grey - $7 / 4$ pink | Medium | Calcareous, <br> micaceous, <br> grey <br> quartzite | Dense | Cooking ware. Rough, gritty intr. surface texture. Air-bubbles. |
| 392b | 56 | Rim diam. indeterminate; L . 3.2 | Core/intr 10YR $6 / 3$ pale brown; extr. 5YR 6/6 reddish yellow | Extr. 5YR $7 / 4$ pink; intr. 10YR 7/2 light grey | Medium | Mostly (angular) grey quartzite, with micaceous, grey, black | Dense | Cooking ware. Rough, irregular clay, with finger- impressions. Gritty intr. surface texture. |
| 392c | 159 | $\begin{aligned} & \text { Rim diam. } 30.0- \\ & 32.0 \text { : L. } 5.3 \end{aligned}$ | 7.5YR 6/6-7/6 reddish yellow | 10YR 7/4 very pale brown | , | Calcareous, micaceous, grey, black | Dense | Cooking ware. Intr. lower rim edge abraded. |
| 392d | 168 | Rim diam. $14.0-$ 19.0; L. 3.1 (of intact rim; sherd L. 6.5) | Mottled 5YR <br> 2.5/1 black - <br> 5YR 6/6 <br> reddish yellow | Mottled 5YR 3/I very dark grey - $6 / 6$ reddish yellow | Dense | Calcareous | Dense | Cooking ware. |
| 392e | 501 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 3.5 \end{aligned}$ | 10YR 6/4 light yellowish brown | 5YR 7/4-7.5YR 7/4 pink | Medium | Dark grey (angular) | Medium | Cooking ware. Dense air-bubbles in fabric sections. |
| 393 | 58 | Rim diam. 21.5; <br> L. 5.4 | Core/extr. 10YR 7/4 very pale brown; intr. 7.5YR 7/4 pink | Mottled 10YR $7 / 2$ light grey and 7/3-8/3 very pale brown | Medium | Mostly <br> (angular) <br> calcareous <br> and grey <br> quartzite. <br> with <br> micaceous, <br> black | Sparse | Cooking ware. Poorly prepared clay, laminated, with interstices. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 394 | 502 | Rim diam. 48.0; L. | 10YR $6 / 3$ pale brown | Extr. 10YR 7/3 very pale brown; intr. 5YR $7 / 4$ pink | Medium | Mostly calcareous, with grey | Medium | Cooking ware. Rough, gritty extr./intr. surface texture. |
| 395 | A3 | Max. diam. 6.4; $100 \%$ base | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown | Medium | - | Medium |  |
| 396 | 502 | Base diam. 2.7; 100\% base | 10YR $7 / 2$ light grey | 10YR $8 / 2$ white | Sparse | Calcareous | Sparse | Poorly prepared clay, with air-bubbles and interstices. Chalky extr./intr. surface texture. |
| 397 | A3 | Base diam. 5.0; $100 \%$ base | 5YR 6/6 reddish yellow | 5YR 8/2 pinkish white | - | - | - |  |
| 397a | 105 | $\begin{aligned} & \text { Base diam. } 12.0 \text {; } \\ & 25 \% \text { base } \end{aligned}$ | 10YR $6 / 4$ light yellowish brown | Extr. 10YR $7 / 3$ very pale brown; intr. 10YR 7/2 light grey |  | Mostly grey, with micaceous, black | Dense | Pronounced intr. wheel marks. Gritty intr. surface texture. |
| 397b | 163 | Base diam. 5.5; $80 \%$ base | 5YR $6 / 4$ light reddish brown $-7 / 4$ pink | Extr. 5YR $7 / 4$ pink; intr. 5YR $8 / 3$-7.5YR $7 / 4$ pink |  | Mostly calcareous, with grey | Dense | Smooth extr., gritty ints. surface texture. |
| $\begin{aligned} & 398 \\ & \text { Sample BM } \\ & \text { 1987-4-12,42 } \end{aligned}$ | 109 | Base diam. 8.0; $20 \%$ base | Core 5YR 6/6 reddish yellow: extr./intr. 5YR $6 / 4$ light reddish brown -7/6 reddish yellow | Extr. 7.5YR $7 / 4$ pink; intr. 7.5YR 7/4-8/4 pink |  | Mostly calcareous, with grey | Medium | Smooth extr. surface texture. Pronounced intr. wheel marks. Extr. surface stained (bitumen?). <br> For scientific analysis, see Ch. 7. |
| 398a | 110 | $\begin{aligned} & \text { Base diam. } 6.0 \text {; } \\ & 40 \% \text { base } \end{aligned}$ | 10YR $6 / 2$ light brownish grey 7/2 light grey | Extr. mottled 10YR 6/1 grey - $7 / 2$ light grey; intr. mottled 10YR $6 / 2$ light brownish grey $8 / 3$ very pale brown |  | Calcareous | Very sparse | Smooth extr. surface texture. Extr. surface stained (bitumen?). |
| 398b | 162 | Base diam. 11.5; $15 \%$ base | Core 7.5YR <br> $7 / 6$ reddish yellow; extr./intr. 7.5YR 6/6 reddish yellow | Extr. 10YR $8 / 4$ very pale brown; intr. encrusted and not visible | Medium | Mostly grey, with calcareous, black | Dense | Chalky and gritty extr. surface texture. |
| 398c | 157 | Base diam. 10.0; $10 \%$ base | Core/extr. <br> 10YR 4/2 dark brownish grey; intr. 10YR 3/1 very dark grey | Extr. mottled 10YR 6/2 brownish grey - 7/3 very pale brown; intr. 10YR 7/3 very pale brown |  | Micaceous, grey, redbrown | Sparse | Gritty, uneven extr./intr. surface texture. |
| 398d | 160 | Base diam. 8.0; $15 \%$ base | 7.5YR 5/4 brown | Extr. 5YR $6 / 4$ light reddish brown; intr. 5YR 7/4 pink - $7 / 6$ reddish yellow | Sparse | Mostly <br> micaceous, <br> grey, black, <br> with <br> calcareous | Dense | Smooth extr. surface texture. |
| 398e | 167 | $\begin{aligned} & \text { Base diam. } 10.0 \text {; } \\ & 20 \% \text { base } \end{aligned}$ | Extr. 2.5Y $8 / 4$ pale yellow; intr. $5 \mathrm{Y} 7 / 3$ pale yellow | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 2.5 Y $8 / 4$ pale yellow | Medium | Calcareous, grey | Sparse | Sparse pink grog inclusions. Pronounced intr. wheel marks. Smooth extr. surface texture. |
| 399 | 162 | $\begin{aligned} & \text { Base diam. 6.0; } \\ & 45 \% \text { base } \end{aligned}$ | Core/intr. 2.5Y $8 / 4$ pale yellow; extr. 5YR 6/6 reddish yellow | Extr. 5YR 7/4 pink; intr. 10YR $8 / 3$ very pale brown | Sparse | Calcareous | Medium | Smooth intr./rough, gritty extr. surface texture; underside of base especially rough. |
| 399a | 501 | Base diam. 9.0; $40 \%$ base (2 non-joining sherds) | 7.5YR 7/4 pink | Extr. 10YR $7 / 2$ light grey - 7/3 very pale brown; intr. 5YR 8/4 pink | Sparse | Calcareous, micaceous, grey, black | Dense |  |
| 399b | 551 | Base diam. 11.0; <br> $10 \%$ base | 2.5Y $7 / 2$ light grey | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, grey, black | Medium | Incision at junction of rim and underside. Gritty extr./intr. surface texture. |
| 400 | 55 | Base diam. 9.5;\% base | Core 5YR 6/4 light reddish brown; extr./intr. 10YR 7/4 very pale brown | 10YR 7/3 very pale brown | Medium | Calcareous | Medium | Smooth extr./intr. surface texture. Light extr. horizontal burnish. |
| 400a | A3 | $\begin{aligned} & \text { Base diam. } 10.0 ; \\ & 25 \% \text { base } \\ & \hline \end{aligned}$ | 7.5YR $8 / 4$ pink | 7.5YR 8/4 pink | Medium | - | Medium |  |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 400b | 56 | Base diam. <br> c. 14.0-16.0; <br> $25 \%$ base ( 2 <br> joining sherds) | $2.5 \mathrm{Y} 8 / 4 \text { pale }$ yellow | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 2$ white | Medium | Calcareous. grey | Sparse | Sparse light red grog inclusions. Poorly prepared clay, with airbubbles and interstices. |
| 400 c | 104 | $\begin{aligned} & \text { Base diam. } 9.0 \text {; } \\ & 10 \% \text { base } \end{aligned}$ | 5YR $7 / 6$ reddish yellow | 10YR $8 / 3$ very pale brown | Dense | Mostly calcareous, with grey | Medium | Chalky extr./intr. surface texture. Incision at junction of underside and ring. |
| 400d | 161 | $\begin{aligned} & \text { Base diam. } 8.5 \text {; } \\ & 20 \% \text { base } \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{Y} 8 / 4 \text { pale } \\ & \text { yellow } \end{aligned}$ | $5 \mathrm{Y} 8 / 1$ white |  | Mostly grey, black, with calcareous | Dense | Shiny extr./intr. surfaces. Series of extr. horizontal grooves. |
| 400e | 163 | Base diam. 6.5; <br> $50 \%$ base | Core 2.5Y 7/2 <br> light grey: <br> extr/intr. 5 YR <br> $7 / 4$ pink | 10YR $8 / 2$ white | Sparse |  |  | Chalky extr./intr. surface texture. Incision at junction of underside and ring. |
| 400 f | 167 | Base diam. 8.0; $5 \%$ base | 5Y $7 / 2$ light grey - $7 / 3$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white, intr. partly burnt 5Y 5/I grey | Medium | Mostly <br> grey, black with $\qquad$ | Medium | Overfired; vegetable inclusions clearly visible. |
| 400g | 167 | $\begin{aligned} & \text { Base diam. 9.0; } \\ & 20 \% \text { base } \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 5 YR $6 / 3$ light reddish brown - 10R $5 / 8$ red; intr. 7.5 YR $7 / 4$ pink | Medium | Calcareous, grey, black | Dense | Smooth extr., rough, gritty intr. surface texture. Finger impressions on intr. |
| 400h | 501 | $\begin{aligned} & \text { Base diam. } 4.7 \\ & 100 \% \text { base } \end{aligned}$ | 10YR 7/3 very pale brown | 10YR $8 / 2$ white | Dense | Micaceous | Very sparse | Abraded. |


| 401 | 2 | H. 4.3; rim diam. 20.5 , <br> L. | 5YR 7/4 pink | 5YR 7/4 pink |  |  | Sparse |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 402 | 72 | Rim diam. 22.5: <br> L. 9.0 | 7.5YR 7/6 reddish yellow | Extr./intr. painted 10 R $5 / 8$ red | Very sparse | Calcareous, (fine) micaceous | Sparse |  |
| 403 | 2 | $\begin{aligned} & \text { Rim diam. } 16.0 \text {; } \\ & \text { L. } 4.0 \\ & \hline \end{aligned}$ | 7.5YR 7/4 pink | 7.5YR 7/4 pink |  | - | Medium |  |
| 404 | 54 | Rim diam. 16.5; L. 4.8 ( 2 joining sherds) | 7.5YR 7/4 pink | -10YR $8 / 2$ white - $8 / 3$ very pale brown | Medium | Mostly grey, with calcareous, micaceous | Dense | Gritty extr/intr. surface texture. |
| 405 | 2 | Rim diam indeterminate; $L$. 1.0 | 7.5YR 7/4 pink | 7.5YR 7/4 pink |  | - | Medium |  |
| 406 | 72 | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. } 2.5 \end{aligned}$ | 5YR 6/6 reddish yellow | 7.5YR 7/4 pink; extr./intr. painted bands 2.5YR 5/6 red |  | Calcareous | Medium |  |
| 407 | 2 | Rim diam. 11.5; <br> L. 4.5 | 5YR 8/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $8 / 4$ pink |  | - | Medium |  |
| 408 | 2 | $\begin{aligned} & \text { Rim diam. 10.0; } \\ & \text { L. } 4.5 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $7 / 6$ reddish yellow |  | $\cdot$ | Medium |  |
| 409 | 2 | $\begin{aligned} & \text { Rim diam. } 25.0 \text {; } \\ & \text { L. } 2.0 \end{aligned}$ | 5YR 8/4 pink | Extr. 10YR $8 / 3$ very pale brown: intr. 5YR $8 / 4$ pink |  | - | Medium |  |
| 410 | 2 | Rim diam. 16.0; L. - | 5YR 8/4 pink | Extr. 2.5 Y $8 / 2$ white; intr. 5 YR $8 / 4$ pink |  | - | Medium |  |
| 411 | 2 | Max. diam. 11.0: <br> button diam. 2.2; <br> $100 \%$ base | 7.5YR 7/4 pink | Ext. 5 Y $8 / 2$ white; intr. coated with black deposit (bitumen?) and not visible |  | $\cdot$ | Medium |  |
| 412 | 2 | $\begin{aligned} & \text { Base diam. } 10.0 ; \\ & 50 \% \text { base } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 2.5Y } 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 2$ white |  | $\cdot$ | Medium |  |

LEVEL 2

| 413 | 52 | Rim diam. $c$. 13.0; L.4.0 | 7.5YR 5/4 <br> brown | 7.5YR 7/6 reddish yellow | - | Medium |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 414 <br> Sample BM <br> 1987-4-12,35 | 52 | Rim diam. 26.0; L. 3.7 | 10YR $8 / 4$ very pale brown | 10YR $8 / 4$ very pale brown; extr. painted bands 7.5YR 6/6-7/6 reddish yellow |  |  | No visible fabric inclusions. <br> For scientific analysis, see Ch. 7. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 414a | 54 | Rim diam. 23.0; L. - | - | - | - | - | - |  |
| 415 | 102 | $\begin{aligned} & \text { Rim diam. } 22.0 \text {; } \\ & \text { L. } 4.2 \end{aligned}$ | $\begin{aligned} & 2.5 \mathrm{Y} 7 / 2 \text { light } \\ & \text { grey } \end{aligned}$ | 2.5Y $8 / 2$ white | Medium | Calcareous | Very sparse | Slightly chalky extr./intr. surface texture. |
| 415a | A2 | Rim diam. indeterminate; L . | 5YR $8 / 4$ pink | 10YR $8 / 3$ very pale brown |  | - | - |  |
| 415b | A2 | Rim diam. indeterminate; L . 2.0 | 2.5YR $6 / 6$ light red | "Fire-blackened" |  | - | - |  |
| 415c | 151 | Rim diam. <br> c. 22.0 ; L. 4.0 | 5YR 7/4 pink | Extr. 7.5YR $8 / 2$ pinkish white; intr. 5YR 7/4 pink |  | Micaceous, black | Dense |  |
| 416 | 156 | Rim diam. $\text { c. } 22.0 ; \text { L. } 2.5$ | Core/extr. 7.5YR $6 / 4$ light brown; intr. 2.5YR $6 / 8$ red | 5YR 7/4 pink |  | Calcareous, black | - |  |
| 417 | 9 | $\begin{aligned} & \text { Rim diam. 2.5; } \\ & \text { L. } 6.2 \end{aligned}$ | 5YR 7/67.5YR 7/6 reddish yellow | 7.5YR $8 / 4$ pink. <br> Painted upper rim edge and extr. bands 2.5YR $5 / 6 \mathrm{red}$ | Medium | Mostly calcareous, with grey, black | Medium | Irregular extr. surface texture. Rough intr. wheel marks. |
| 418 | 52 | $\begin{aligned} & \text { Rim diam. 25.0; } \\ & \text { L. } 8.9 \end{aligned}$ | 5YR $6 / 6$ reddish yellow | Rim 10YR $8 / 3$ very pale brown; body below rim $7.5 \mathrm{YR} 7 / 6$ reddish yellow | Medium | Calcareous, grey, black, brown | Dense | Rather rough gritty extr./intr. surface texture. Irregular wall thickness from crude finishing. |
| 419 | 103 | $\begin{aligned} & \text { Rim diam. } 18.0 \text {; } \\ & \text { L. } 4.2 \end{aligned}$ | Extr. 5YR 6/6 reddish yellow; intr. 10YR 7/4 very pale brown | 5YR $6 / 4$ light reddish brown |  | Calcareous | Very sparse | Smooth extr./intr. surface texture. |
| 420 | 53 | Rim diam. 24.0; base diam. 9.0; rim L. 12.0; base L. 5.0 | Approx. 10YR $6 / 3$ pale brown | Extr. 10YR 7/4 very pale brown; intr. 10YR $8 / 4$ very pale brown | Medium | Calcareous, micaceous, grey | Medium |  |
| 421 | 108 | Rim diam. 18.0; L. . | - | Brown painted bands on upper edge and extr. rim | - | - | - |  |
| 422 | 152 | $\begin{aligned} & \text { Rim diam. 23.0; } \\ & \text { L. } 6.5 \end{aligned}$ | 7.5YR $6 / 6$ reddish yellow | Extr. apparently 10 YR $7 / 2$ light grey but heavily encrusted; intr 10YR $7 / 2$ light grey |  | Calcareous. grey, black | Dense | Gritty extr./intr. surface texture. |
| 423 | 52 | $\begin{aligned} & \text { Rim diam.17.0; } \\ & \text { L. } 2.7 \end{aligned}$ | 10YR 5/1 grey | Extr. 10YR 7/2 light grey; intr. $2.5 \mathrm{Y} 4 / 0$ dark grey | Very sparse | Calcareous, micaceous, grey | Sparse | Smooth extr. surface texture. |
| 424 | 108 | Rim diam. 22.0; <br> L. 4.3 | Core 5YR 4/2 <br> dark reddish grey; extr./intr. <br> 5YR 4/I dark grey | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. approx. IOYR 6/2 light brownish grey |  | Calcareous, micaceous. grey | Medium | Overfired. Dense airbubbles and interstices. |
| $\begin{aligned} & 425 \\ & \text { Sample BM } \\ & \text { 1987-4-12,38 } \end{aligned}$ | 51 | $\begin{aligned} & \text { Rim diam. } 26.0 \text {; } \\ & \text { L. 5.4 } \end{aligned}$ | 2.5 Y $8 / 4$ pale yellow | 2.5Y $8 / 2$ white | Medium | Calcareous | Sparse | Chalky extr./intr. surface texture. <br> For scientific analysis, see Ch. 7. |
| 425a | 52 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 2.5 \end{aligned}$ | 7.5YR 7/0 light grey | 10YR 5/1 grey |  | - | Medium |  |
| 425b | 350 | $\begin{aligned} & \text { Rim diam. } 25.0 \text {; } \\ & \text { L. } 3.8 \end{aligned}$ | 5YR 6/6 reddish yellow | Extr. $10 \mathrm{YR} 8 / 2$ white; intr. 5 YR $7 / 4$ pink - $7 / 6$ reddish yellow |  | Mostly calcareous. with grey | Dense | Gritty extr./intr. surface texture. |
| 426 | A2 | $\begin{aligned} & \text { Rim diam. 30.0; } \\ & \text { L. } 6.0 \end{aligned}$ | 10YR 7/1 light grey | 10YR 7/1 light grey |  | - | Medium |  |
| 427 | A2 | $\begin{aligned} & \text { Rim diam. 35.0; } \\ & \text { L. } 6.0 \end{aligned}$ | 5YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown | Medium | - | Medium |  |
| 428 | 52 | $\begin{aligned} & \text { Rim diam. } 25.0 \text {; } \\ & \text { L. } 6.9 \end{aligned}$ | 7.5YR 5/4 brown | 10YR $7 / 3$ very pale brown | Sparse | Mostly grey, with calcareous, black | Dense | Rough, gritty extr./intr. surface texture. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 428a | 300 | Rim diam. 21.5: <br> L. 4.3 | 2.5Y $8 / 4$ pale yellow | 10YR $8 / 2$ white; rim painted 5YR $3 / 1$ very dark grey |  | Fabric texture slightly 'sandy', but inclusions not visible. | ? | Smooth extr./intr. surface texture |
| 429 | A2 | $\begin{aligned} & \text { H. } 3.0 \text {; rim diam. } \\ & \text { 12.5; Ls. } 30.0 \text {. } \\ & \text { 10.5 (2 non- } \\ & \text { joining sherds) } \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. 5 YR $7 / 6$ reddish yellow |  | Calcareous, grey, black | Dense | Fairly smooth but irregular extr., rough and gritty intr. surface texture. |
| 430 | 102 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 7.5 \end{aligned}$ | Extr. 5YR 7/6 reddish yellow: intr. 5YR 6/6 reddish yellow | Extr. 2.5YR $2.5 / 4$ dark reddish brown - $5 / 6$ red: intr. 2.5YR 3/2 dusky red - 10R $5 / 8$ red | Sparse | Mostly <br> (rounded) <br> calcareous. <br> with grey, <br> red-brown | Medium | Prominent extr finger impressions. Itregular wall thickness. |
| 431 | 103 | Rim diam. 18.5; base diam. 6.5; L. 3.6 | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. 10YR $7 / 3$ very pale brown |  | Mostly calcareous, with grey, very pale brown | Dense | Pronounced intr. wheel marks. |
| 432 | 63 | $\begin{aligned} & \text { Rim diam. 8.0; } \\ & \text { L. } 3.5 \end{aligned}$ | 10YR 7/4 very pale brown | 10YR $8 / 3$ very pale brown |  | Calcareous, grey, brown | Sparse |  |
| 433 | 54 | Rim diam. 8.0; <br> L. 1.2 | 2.5YR 6/6 light red | 10YR $8 / 3$ very pale brown | Sparse | Calcareous, grey, black | Medium | Pronounced intr. wheel marks. |
| 434 | 52 | $\begin{aligned} & \text { Rim diam. } 15.0 \text {; } \\ & \text { L. } 3.7 \end{aligned}$ | 10YR $6 / 4$ light yellowish brown | Extr. 5 YR $7 / 4$ pink: intr. $7.5 \mathrm{YR} 7 / 4$ pink | Sparse | Mostly grey, with calcareous. black, redbrown | Medium | Gritty extr./intr. surface texture. |
| 434a | 102 | Rim diam. 14.0; <br> L. - | Approx. 5Y 7/2 light grey | 10YR $3 / 1$ very dark grey | Medium | 'Sandy' | Sparse | Abraded and encrusted. |
| 434b | 102 | $\begin{aligned} & \text { Rim diam. } 10.0 \text {; } \\ & \text { L. 5.4 } \\ & \hline \end{aligned}$ | 2.5Y $8 / 4$ pale yellow | 10YR 7/2 light grey | Very sparse | 'Sandy' | Medium |  |
| 434c | A2 | Rim diam. 18.0; <br> L. 2.5 | 5YR 7/6 reddish yellow | 5YR 7/6 reddish yellow |  | 'Sandy' | - |  |
| 435 | 156 | Rim diam. 12.5; <br> L. 4.1 | Core 7.5YR <br> $7 / 6$ reddish <br> yellow: <br> extr./intr. <br> 2.5YR $6 / 6$ light <br> red | Extr. encrusted; intr 5YR 7/4 pink | Sparse | Mostly calcareous. with grey | Dense |  |
| 436 | 154 | Rim diam. 10.0; <br> L. 4.4 | 2.5Y $7 / 4$ pale yellow, partly 7.5YR $6 / 4$ light brown | Extr/intr burnt 10 YR $7 / 3$ very pale brown. Very faint traces of extr. painted band perhaps originally 5YR 2.5/2 dark reddish brown |  | Mostly <br> (angular) <br> grey, black, <br> with <br> calcareous | Medium | Gritty extr./intr. surface texture. |
| 436a | 156 | Rim diam. 9.0; <br> L. 6.5 | 5Y $7 / 2$ light grey | 5Y $8 / 2$ white, partly burnt 10YR 5/1 grey |  | Mostly grey, with calcareous, black | Sparse | Smooth extr./intr. surface texture |
| 436b | 154 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 5.9 \end{aligned}$ | Core 10YR 7/4 <br> very pale <br> brown; <br> extr./intr. 5YR <br> $7 / 4$ pink | Extr. $7.5 \mathrm{YR} 7 / 4$ pink 10YR $8 / 3$ very pale brown; intr. 7.5YR 7/4 pink-10YR $8 / 2$ white |  | Mostly calcareous, with grey. black | Medium | Smooth extr., slightly gritty intr. surface texture. |
| 436c | 154 | Rim diam. 22.0; <br> L. 5.4 | Core 10YR 6/3 pale brown; extr./intr. 5YR $7 / 6$ reddish yellow | 10YR $8 / 4$ very pale brown | Sparse | Calcareous. (fine) micaceous, grey, black | Dense | Smooth extr., slightly gritty intr. surface texture. |
| 436d | B1 | Rim diam. 10.0; L. - | 10YR 7/3 very pale brown | - | - | - | - |  |
| 437 <br> Sample BM <br> 1987-4-12,41 | 52 | Rim diam. 12.0; <br> L. 4.4 | 7.5YR 7/6 reddish yellow | Rim/upper neck 10YR $8 / 3$ very pale brown; lower neck 7.5YR $8 / 4$ pink (extr./intr.) |  | Calcareous | Sparse | Gritty extr./intr. surface texture. <br> For scientific analysis, see Ch. 7 . |
| 437a | 352 | Rim diam. 8.0; <br> L. 3.8 | 10YR $6 / 4$ light yellowish brown | 10YR 7/2 light grey | Sparse | Mostly calcareous, with grey | Dense | Gritty extr.fintr. surface texture. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 438 | 103 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 2.2 \end{aligned}$ | Extr. 10YR $7 / 4$ <br> very pale brown; int. 5YR 7/6 reddish yellow | Extr. 2.5 Y $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown |  | Calcareous | Dense | Gritty extr./intr. sufface texture. |
| 438a | 151 | $\begin{aligned} & \text { Rim diam. } 10.0 \text {; } \\ & \text { L. } 5.0 \end{aligned}$ | 2.5YR 6/6 light red | Encrusted and not visible |  | Calcareous, micaceous, black, red | Dense |  |
| 438b | 300 | Rim diam. 14.0; $\text { L. } 3.5$ | 7.5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown |  | Mostly calcareous, with micaceous, grey, black | Dense |  |
| 439 | 52 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 3.2 \end{aligned}$ | 5 Y $5 / 2$ olive grey | 5Y 7/2 light grey |  | Calcareous, micaceous, grey, black | Medium | Pink and reddish brown grog inclusions. |
| 440 | A2 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 3.5 \end{aligned}$ | 5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $7 / 4$ pink | Medium | - | Medium |  |
| 440a | 150 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 5.0 \end{aligned}$ | 5YR 6/6 reddish yellow | 10YR $8 / 4$ very pale brown | Medium | Calcareous. grey | Sparse | Chalky extr./intr. surface texture, with protruding grits. Incision at base of rim. |
| 441 | 53 | $\begin{aligned} & \text { Rim diam.20.0; } \\ & \text { L. } 4.3 \end{aligned}$ | - | Extr. rim and upper neck 10YR $7 / 3$ very pale brown; extr. lower neck and shoulder 2.5 Y $8 / 5$ white; intr. 5 YR $7 / 4$ pink |  | Calcareous, grey, black. very pale brown | Dense |  |
| 442 | 156 | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. } 5.3 \end{aligned}$ | Core 5YR 7/6 reddish yellow; extr./intr. 2.5YR $6 / 6$ light red - 5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $7 / 6$ reddish yellow |  | Calcareous, micaceous, grey, black | Dense | Dense clay. Gritty extr./intr. surface texture. |
| 443 | 156 | Rim diam. 21.0; L. 11.9 | Extr. 5YR 7/6 reddish yellow: intr. 10YR 7/4 very pale brown | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $8 / 4$ pink | Sparse | Calcareous, micaceous, grey, black | Medium | Gritty extr./intr. surface texture. Some large airbubbles on rim. |
| 443a | 155 | $\begin{aligned} & \text { Rim diam. 27.0; } \\ & \text { L. } 6.4 \end{aligned}$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 4$ very pale brown; intr. 7.5YR $8 / 4$ pink | Sparse | Calcareous, micaceous, grey, black | Dense | Dense, heavy clay. |
| 443b | 156 | Rim diam. 32.0: <br> L. 7.0 | Core/extr. <br> 10YR $6 / 3$ pale <br> brown; intr. <br> 5YR 6/6 <br> reddish yellow | 7.5YR 7/4 pink | Sparse | Calcareous, micaceous, grey, black | Dense | Dense, heavy clay. Gritty intr. surface texture. |
| 443c | 63 | Rim diam. 26.4; L. 6.5 | Core 10YR 6/4 light yellowish brown; extr./intr. 7.5YR 6/6 reddish yellow | 7.5YR 7/4 pink | Sparse | Mostly grey, with calcareous, black | Dense | Gritty extr./intr. surface texture. |
| 444 | 156 | Rim diam. 13.5; L. 11.1 ( $50 \%$ rim) | 5Y $7 / 3$ pale yellow | $5 \mathrm{Y} 8 / 2$ white | Sparse | Mostly calcareous, with micaceous, grey, black | Dense | Dense air-bubbles. Gritty extr./intr. surface texture. |
| 445 | 156 | Rim diam. 18.0; <br> L. 10.3 | Core 10YR 7/3 <br> very pale <br> brown; <br> extr./intr. 5 YR <br> $7 / 6$ reddish <br> yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR 7/4 pink | Sparse | Calcareous, grey, black, pale brown | Dense | Smooth, chalky extr. surface texture. Airbubbles. |
| 446 | 152 | Rim diam. 27.5; L. 4.5 (of intact rim; sherd L. 6.7) | Core/intr. 10R 6/8 light red; extr. 2.5YR $6 / 4$ light reddish brown | Extr. apparently 2.5 YR $6 / 4$ light reddish brown; intr. 5YR 7/4 pink | Sparse | Mostly calcareous, with grey, (angular) black | Dense | Gritty intr. surface texture. |
| 446 a | 153 | Rim diam. 20.0; L. 7.8 (of intact rim; sherd L. 9.6) | 2.5YR $6 / 6$ light red | 5YR 7/4 pink. Traces of paint on top and outer edge of rim 2.5YR 6/6 light red |  | Calcareous, quartzite, grey. (angular) black | Dense | Smooth extr./intr. surface texture. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 446b | 52 | Rim diam. 18.0; <br> L. 4.1 | 12.5Y 5/2 <br> greyish brown | 10YR 7/2 light grey (extr. surface largely abraded) |  | Mostly grey, with calcareous, micaceous | Medium | Overfired. |
| 447 | 156 | $\begin{aligned} & \text { Rim diam. } 22.0 \text {; } \\ & \text { L. } 6.5 \end{aligned}$ | Core 5YR 7/4 pink; extr/intr. 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink |  | Calcareous, micaceous, grey, black | Medium | Gritty extr./intr. surface texture. |
| 447a | 100 | Rim diam. 20.0; <br> L. 3.3 | Core approx. <br> 7.5YR 5/2-5/4 <br> brown; <br> extr./intr. <br> 10YR 5/2 <br> greyish brown | 10YR $6 / 3$ pale brown $7 / 3$ very pale brown |  | Calcareous, grey, black | Medium | Rough, gritty extr/intr. surface texture. |
| 448 | A2 | $\begin{aligned} & \text { Rim diam. } \\ & \text { c. } 28.0 ; \text { L. } 2.0 \\ & \hline \end{aligned}$ | 5YR 7/6 reddish yellow | 7.5YR 8/2 pinkish white |  | - | Medium |  |
| 449 | 156 | Rim diam. 15.0; <br> L. 8.6 | Extr. 5YR 7/6 reddish yellow: intr. 10YR $6 / 3$ pale brown | 7.5YR 7/4 pink |  | Calcareous, micaceous, grey, black | Medium | Rough, gritty extr./intr. surface texture. Poorly prepared clay, with dense air-bubbles and interstices. |
| 449a | 151 | Rim diam. $\text { c. } 14.0 ; \text { L. } 4.2$ | 2.5Y $7 / 4$ pale yellow | Extr. 10YR $8 / 4$ very pale brown; intr. 10YR 7/2 light grey |  | Calcareous, micaceous, grey, black | Medium |  |
| 449b | 350 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 3.3 \\ & \hline \end{aligned}$ | 10YR $6 / 3$ pale brown | 10YR $7 / 2$ light grey $8 / 3$ very pale brown | Medium | Calcareous, grey, black | Dense | Gritty extr./intr. surface texture. |
| 450 | 156 | Rim diam. 13.0; L. 7.7 | Core/extr. 10YR $6 / 4$ light yellowish brown; intr. 5YR 7/6 reddish yellow | Extr. 7.5YR $7 / 4$ pink: intr. 5 YR $7 / 4$ pink - 7/6 reddish yellow |  | Calcareous, (fine) micaceous. black | Medium | Dense air-bubbles. |
| 450a | 52 | $\begin{aligned} & \text { Rim diam. } 11.0 \text {; } \\ & \text { L. } 3.8 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 5 YR $7 / 6$ reddish yellow | Sparse | Calcareous, (fine) micaceous | Dense | Rough, gritty extr./intr. surface texture. |
| 451 | A2 | Rim diam. 16.0; L. 2.5 | 7.5YR 7/4 pink | 7.5YR 7/4 pink |  | - | Medium |  |
| 452 | 102 | $\begin{aligned} & \text { Rim diam. 18.0; } \\ & \text { L. 5.0 } \end{aligned}$ | 2.5YR 6/6 light red | Extr. 10YR $8 / 2$ white; intr. 5YR 7/4 pink |  | Grey-buff 'sandy' | Dense | Pronounced, irregular wheel marks. Poorly prepared clay, with interstices. |
| 452a | 52 | Rim diam. <br> c. 30.0 : L. 5.5 (2 <br> joining sherds) | 5YR 6/6 reddish yellow | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 5 YR $7 / 4$ pink - $7 / 6$ reddish yellow | Sparse | Calcareous, <br> (fine) <br> micaceous, <br> grey, black | Dense |  |
| 453 | A2 | Rim diam. 24.0; <br> L. 7.0 | 5YR 7/6 reddish yellow | Extr/intr. rim 10YR 8/2 white; intr. below rim 5YR $7 / 5$ reddish yellow |  | - | Medium |  |
| 453a | 152 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 11.5 \end{aligned}$ | Core/extr. <br> 7.5YR 7/4 pink; intr. 5YR $6 / 4$ light reddish brown | Extr. mostly encrusted. upper rim 10YR $8 / 2$ white; intr. 10YR $7 / 3$ very pale brown |  | Calcareous, micaceous, grey, black | Dense |  |
| 453b | 153 | Rim diam. $\text { 11.0; L. } 4.1$ | Extr. 7.5 YR $6 / 4$ light brown; intr. 2.5Y $7 / 2$ light grey | Burnt $2.5 \mathrm{Y} 7 / 2$ light grey, 10YR 6/1 grey and $7 / 2$ light grey |  | Mostly <br> grey, black, with calcareous | Dense | Rough extr./intr. surface texture, with dense protruding fine, mostly black, grits. |
| 454 | 154 | Rim. diam. 19.0; L. | - | - | - | - | - |  |
| 455 | 153 | $\begin{aligned} & \text { Rim. diam. 21.0; } \\ & \text { L. } 4.9 \end{aligned}$ | Core 10YR 7/2 <br> light grey: extr./intr. <br> 7.5YR $6 / 4$ light brown | 7.5YR 7/4 pink; part of sherd burnt 2.5 Y 2/0 black | Sparse | Mostly <br> calcareous. <br> with <br> micaceous, <br> grey, black | Dense | Smooth extr./intr. surface texture. |
| 455a | 1 | Rim. diam. 14.0; <br> L. 3.0 | 5YR 8/4 pink | 5YR 8/4 pink |  |  | Medium |  |
| 456 | A2 | Rim. diam. 34.5; <br> L. 7.0 | $2.5 \mathrm{Y} 8 / 2$ white | 2.5Y $8 / 2$ white |  |  | Medium |  |
| 456a | 54 | Rim. diam. 30.0; <br> L. 3.0 | Approx. 2.5 Y $8 / 2$ white | $2.5 \mathrm{Y} 8 / 2$ white | Sparse | Mostly black, with calcareous, micaceous | Medium | Dense hard clay |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 456b | 54 | $\begin{aligned} & \text { Rim. diam. } 12.0 \text {; } \\ & \text { L. } 2.0 \end{aligned}$ | 2.5Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous | Sparse | Sparse reddish brown and pink grog inclusions. |
| 457 <br> Sample BM <br> 1987-4-12.1 | A2 | $4.4 \times 3.9 \times 0.5$ | 5Y $8 / 3$ pale yellow; partly 2.5Y $8 / 2$ white | Extr. including spiral decoration, $5 \mathrm{Y} 8 / 3$ pale yellow; ints. $2.5 \mathrm{Y} 8 / 4$ pale yellow. Extr. painted band 10YR 4/2 dark greyish brown |  |  |  | Very smooth, but not glossy, extr./intr. surface texture. For scientific analysis, see Ch. 7. |
| 458 | 52 | $2.8 \times 2.2 \times 0.6$ | 5Y $8 / 3$ pale yellow | 10YR $8 / 2$ white. Extr. painted bands 2.5 YR 2.5/0 black. 'Metallic' appearance to paint | Medium | Calcareous, grey | Very sparse |  |
| 459 | 54 | $3.0 \times 4.0 \times 0.9$ | 7.5YR $6 / 6$ reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink. Extr. painted bands 5YR 5/4 reddish brown | Medium | Mostly calcareous, with grey, black | Dense | Smooth extr./uneven intr. surface texture. |
| 460 | 156 | $8.0 \times 6.4 \times 0.7$ | 5YR 6/6 reddish yellow | 5YR 7/4 pink, with patches 10YR $8 / 3$ very pale brown. Extr. painted bands 10R 4/4 weak red | Sparse | Calcareous, grey, black | Dense | Gritty extr./intr. surface texture. |
| 460a | 156 | $\begin{aligned} & 3.9 \times 6.6 \times 0.6= \\ & 3.7 \times 3.3 \times 0.6(2 \\ & \text { non-joining } \\ & \text { sherds) } \end{aligned}$ | 5YR 6/6 reddish yellow | Extr. $7.5 \mathrm{YR} 8 / 4$ pink 10YR $8 / 3$ very pale brown; intr. 5YR 7/4 pink. Single extr. painted band 10R 5/6 red | Sparse | Mostly calcareous, with micaceous, grey, black, brown | Medium | Poorly prepared clay, with dense air-bubbles and interstices |
| 461 | 156 | $6.5 \times 5.9 \times 1.1$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink |  | Calcareous, micaceous, grey, black | Dense |  |
| 461a | 156 | $5.9 \times 6.5 \times 1.3$ (max. th. incl. cable 1.8) | Core 10YR 5/1 grey; extr./intr. 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR 7/2 light grey | Sparse | Mostly grey, with calcareous, micaceous | Dense | Rib with fingerimpressed cable decoration. Gritty intr. surface texture, pitted with air-bubbles. |
| 462 | 52 | $4.7 \times 2.4 \times 0.9$ | 5YR 6/6 reddish yellow | 7.5YR $8 / 4$ pink | Sparse | Mostly grey, with calcareous | Dense | Gritty extr./intr. surface texture. Deeply impressed triangles. |
| 463 | 153 | $6.4 \times 4.0 \times 0.7$ | Core 10YR 7/2 light grey; extr./intr. 5YR 7/6 reddish yellow | Extr. 10YR $7 / 3$ very pale brown - $8 / 4$ pink; intr. $7.5 \mathrm{YR} 7 / 4$ pink |  | Mostly grey, with calcareous, black | Dense | Gritty extr./intr. surface texture. Deeply impressed triangles. |
| 464 | 52 | $\begin{aligned} & 6.5 \times 6.0 \times 0.6 ; \\ & 6.7 \times 4.2 \times 0.6 ; \\ & 4.1 \times 4.6 \times 0.7(3 \\ & \text { non-joining } \\ & \text { sherds, } 2 \\ & \text { illustrated }) \end{aligned}$ | Extr. 7.5YR $7 / 4$ pink; intr. 2.5YR 6/6 light red | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 5YR 7/4-7.5YR $7 / 4$ pink | Medium | Calcareous, grey | Dense | Gritty extr./intr. surface texture. Deeply impressed triangles and crescents. A fourth sherd possibly from the same vessel had part of a broken strap handle. |
| 465 | 54 | $3.5 \times 1.2 \times$ L. 6.0 | Core 7.5YR <br> $7 / 6$ reddish yellow; extr/intr. 5YR $7 / 6$ reddish yellow | Mottled 5YR 7/6 reddish yellow - 10YR $8 / 3$ very pale brown |  | Calcareous, grey, black | Dense | Rough, gritty, uneven surface texture. Airbubbles. |
| 466 | 54 | Rim diam. 16.0; <br> $50 \%$ of vessel | Core 10YR 5/1 grey - $6 / 2$ light brownish grey; extr./intr. 7.5YR $7 / 4$ pink | Mottled 5YR 6/6 reddish yellow - 7.5 YR 6/2 pinkish grey. Rim burnt 7.5YR 3/0 very dark grey | Medium | Mostly white, (angular) grey quartzite, with calcareous | Dense | Cooking ware. Rough. gritty and cracked int. surface. |
| 467 | 54 | Rim diam.20.0; $\text { L. } 5.6$ | 2.5Y $6 / 2$ light brownish grey | Mottled 10YR $8 / 2$ <br> white, $7 / 4$ very pale brown, $7.5 \mathrm{YR} 2 / 0$ black (burnt) |  | Mostly (angular) grey, with calcareous. quartzite, black, brown | Dense | Cooking ware. |
| 468 | 102 | Rim diam. 19.0; <br> L. 5.4 | 10YR 5/1 grey | 7.5YR 7/4 pink | Medium | Calcareous | Sparse | Cooking ware. Medium density medium/coarse grey-brown and light red grog inclusions. |


| No. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE <br> COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 468a | 102 | Rim diam. 22.0; L. 5.5 | 7.5YR $6 / 4$ light brown | 5YR 6/4 light reddish brown, partly burnt 2.5Y 3/0 very dark grey | Sparse | Mostly <br> (angular) <br> grey <br> quartzite, <br> with <br> calcareous | Dense | Cooking ware. Smooth, uneven, extr/intr. surface texture. |
| 468b | 102 | Rim diam. indeterminate; L . 2.1 | $\begin{aligned} & \text { 2.5YR 4/0 dark } \\ & \text { grey - } 5 \text { YR 4/1 } \\ & \text { dark grey } \end{aligned}$ | Approx. 10YR $6 / 2$ light brownish grey | Medium | Mostly micaceous. with calcareous, grey, pale brown | Dense | Cooking ware. Broken lug. Uneven, gritty surface, with finger impressions. |
| 468c | 102 | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 7.3 \end{aligned}$ | Core 10YR 5/1 grey; extr./intr. 10YR 6/3 |  |  | Mostly <br> (angular) <br> grey <br> quartzite, <br> with <br> calcareous | Dense | Cooking ware. Broken lug. Rough, gritty intr. surface texture. |
| 468d | 1 | Rim diam. 19.0; $\text { L. } 7.0$ | Burnt 2.5Y 7/2 light grey | Burnt 2.5Y $7 / 2$ light grey |  | - | Medium | Cooking ware. |
| 469 | A2 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 5YR 7/4 pink | 5YR $7 / 4$ pink; fireblackened rim |  | - | Medium | Cooking ware. |
| 470 | A2 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 5.5 \end{aligned}$ | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown |  | - | Medium | Cooking ware. |
| 471 <br> Sample BM <br> 1987-4-12,27 | 103 | Base diam. 4.0; <br> 100\% base | Extr. 10YR 6/4 light yellowish brown; intr. 10YR $6 / 3$ pale brown | 10YR $7 / 3$ very pale brown | Sparse | Calcareous, micaceous, grey | Medium | Gritty extr./intr. surface texture. Intr. of base cracked. <br> For scientific analysis. see Ch. 7. |
| 472 <br> Sample BM <br> 1987-4-12.28 | 152 | $\begin{aligned} & \text { Base diam. } 5.0 \text {; } \\ & 25 \% \text { base } \end{aligned}$ | 5YR $6 / 4$ light reddish brown | Extr. 5 YR $7 / 4$ pink; intr. 7.5YR $7 / 4$ pink |  | Calcareous, grey, black, red-brown | Medium | Smooth extr., rough, gritty intr. surface texture. <br> For scientific analysis, see Ch. 7. |
| 473 | 156 | Base diam. $c$. 8.0; $20 \%$ base | Core 7.5YR <br> $7 / 4$ pink; extr. 5YR 6/6 reddish yellow: intr. 10 YR $7 / 3$ very pale brown | Extr. 5 YR $7 / 4$ pink; intr. 10YR $7 / 3$ very pale brown | Sparse | Mostly grey, with calcareous, micaceous, black | Dense | Gritty extr./intr. surface texture. Dense airbubbles on intr. surface. |
| 473a | 54 | $\begin{aligned} & \text { Base diam. } 11.0 \text {; } \\ & 15 \% \text { base } \end{aligned}$ | Core 10YR 4/1 <br> dark grey; <br> extr./intr. 5 YR $6 / 4$ light reddish brown | 10YR $7 / 4$ very pale brown | Medium | Calcareous, grey, black, red-brown | Dense | Smooth extr., gritty intr. surface texture. |
| 473b | 156 | Base diam. $c$ : <br> $8.0 ; 10 \%$ base | 2.5YR $6 / 6$ light red | Extr. $10 \mathrm{YR} 8 / 3$ very pale brown; intr. 7.5YR $8 / 4$ pink | Medium | Calcareous | Medium |  |
| 473c | 9 | Base diam. $c$. 20.0; $50 \%$ base | 5YR 7/4 pink | 5YR 7/4 pink | Sparse | - | Medium | Only base itself extant; precise form unknown. |
| 473d | C1 | Base diam. 8.0; $30 \%$ base ( 2 non-joining sherds) | 2.5YR 6/6 light red | Extr. 7.5YR $8 / 2$ pinkish white; intr. $2.5 \mathrm{YR} 6 / 6$ light red |  | $\cdot$ | Medium |  |
| 474 | 154 | $\begin{aligned} & \text { Base diam. } 5.0 \text {; } \\ & 30 \% \text { base } \end{aligned}$ | 5YR 7/6 reddish yellow | Extr: $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Sparse | Mostly <br> calcareous, <br> with <br> micaceous, <br> grey | Dense | Gritty intr. surface texture. Poorly prepared clay, with interstices and airbubbles. |
| 474a | 102 | $\begin{aligned} & \text { Base diam. } 6.0 \text {; } \\ & 20 \% \text { base } \end{aligned}$ | Corelextr. <br> 7.5YR 6/6 reddish yellow: intr. $2.5 \mathrm{Y} 6 / 2$ light brownish grey | Extr. 10YR $7 / 3$ very pale brown; intr. 2.5 Y $7 / 4$ pale yellow |  | Mostly grey, with calcareous, micaceous, black | Dense | Rough, gritty and flaky intr. surface texture, with air-bubbles. |
| 474b | Cl | Base diam. 10.0; <br> $10 \%$ base | 5YR 7/4 pink | 5YR 7/4 pink |  | $\cdot$ | Medium |  |
| 475 | 153 | Base diam. 5.0; $100 \%$ base (of which $25 \%$ of ring undamaged) | Core/extr. 10YR 3/1 very dark grey; intr. 10YR $6 / 3$ pale brown | Extr. 10YR $6 / 3$ pale brown; intr. mostly encrusted, but apparently 10YR 7/3 very pale brown |  | Mostly grey, black. with calcareous, micaceous | Sparse | Pronounced intr. wheel marks. Smooth extr./intr. surface texture. Light extr. horizontal burnish. |
| 475a | 54 | Base diam. 5.4; $100 \%$ base | 5YR $6 / 4$ light reddish brown | 5YR 7/4 pink - 7/6 reddish yellow | Sparse | Calcareous, grey, black | Medium | Pronounced wheel marks on underside of base. Smooth intr. surface texture. |


| NO. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 475b | 152 | Base diam. 10.0; $20 \%$ base | $5 \mathrm{Y} 8 / 2$ white | Extr. $2.5 \mathrm{Y} 7 / 2$ light grey; intr. 2.5 Y $8 / 4$ pale yellow |  | Calcareous | Very sparse | Smooth extr./intr surface texture. <br> Bitumen drips on extr. |
| 475c | 63 | $\begin{aligned} & \text { Base diam. 8.0; } \\ & 25 \% \text { base } \end{aligned}$ | 7.5YR 7/4 pink | 10YR 7/2 light grey | Medium | Calcareous, grey, black, red-brown | Dense | Pronounced intr. wheel marks. Rough, gritty intr. surface texture. |
| 475d | 52 | $\begin{aligned} & \text { Base diam. 6.0; } \\ & 30 \% \text { base } \end{aligned}$ | Core 7.5YR <br> 7/6 reddish yellow; extr./intr. 5YR 6/6 reddish yellow | Extr. 5 YR $7 / 3$ pink; intr. 5YR $7 / 6$ reddish yellow | Sparse | Calcareous, micaceous, grey | Sparse | Smooth extr. surface texture. |
| 475e | A2 | $\begin{aligned} & \text { Base diam. } 5.5 \text { : } \\ & 90 \% \text { base } \end{aligned}$ | 5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 5YR $7 / 4$ pink | Medium | - | Medium |  |
| 475 f | A2 | $\begin{aligned} & \text { Base diam. 9.0: } \\ & 25 \% \text { base } \end{aligned}$ | Core/extr. 5YR <br> $7 / 6$ reddish yellow; ints. 5YR $6 / 6$ reddish yellow | 5YR 7/6 reddish yellow. Extr. paint drips 2.5YR 5/6 red |  | Calcareous, grey, black | Dense | Very smooth extr./intr. surface texture. Dense air-bubbles. |
| 475g | B1 | $\begin{aligned} & \text { Base diam. } 8.0 \text {; } \\ & 40 \% \text { base } \end{aligned}$ | Extr. 7.5YR $7 / 6$ reddish yellow; intr. 10YR 7/3 very pale brown | Extr. 7.5YR 7/6 reddish yellow; intr. 10YR 7/3 very pale brown |  | - | Medium |  |
| 475h | 100 | $\begin{aligned} & \text { Base diam. 11.0; } \\ & 30 \% \text { base } \end{aligned}$ | 2.5YR 6/6 light red | Extr. 10YR 8/2 white; intr. 5YR 7/4 pink |  | Calcareous, micaceous, grey, black | Dense | Gritty extr./intr. surface texture. |
| 475i | Al | Base diam. $c$. 16.0; 10\% base | 10YR $8 / 3$ very pale brown | 10YR $8 / 3$ very pale brown | Medium |  |  |  |
| 475j | B1 | $\begin{aligned} & \text { Base diam. } 10.0 \text {; } \\ & 10 \% \text { base } \end{aligned}$ | 5YR 7/3 pink | Extr. 10YR $8 / 4$ very pale brown; intr. 5YR $7 / 3$ pink | Medium |  |  |  |
| 476 | 52 | $\begin{aligned} & \text { Base diam. 3.0; } \\ & 20 \% \text { base } \end{aligned}$ | 7.5YR 7/4 pink - 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 10 YR $8 / 2$ white. Intr. upper painted bands 2.5 YR $3 / 4$ dark reddish brown; intr. lowest painted band 5YR 3/1 very dark grey. | Sparse | Calcareous | Sparse | Smooth extr/fintr. surface texture. |
| 477 <br> Sample BM <br> 1987-4-12.17 | 103 | $\begin{aligned} & \text { Base diam. } 7.5 \text {; } \\ & 100 \% \text { base } \end{aligned}$ | 5YR $7 / 6$ reddish yellow | Extr. 7.5YR 7/4 pink, painted 2.5YR 5/4 reddish brown; intr. 5YR 7/6 reddish yellow, painted 10R 5/4 weak red |  | Calcareous, micaceous, grey, black | Dense | Smooth painted surfaces, with occasional bubbles. For scientific analysis, see Ch. 7. |
| 477a | 1 | Base diam. $c$. <br> 7.0; 10\% base | 7.5YR 7/4 pink | 7.5YR 7/4 pink | . | - | - |  |
| 477b | C1 | $\begin{aligned} & \text { Base diam. } 5.5 \text {; } \\ & 25 \% \text { base } \end{aligned}$ | 5YR 7/4 pink | 5YR 7/4 pink | - | - | - |  |
| TRENCH D5 |  |  |  |  |  |  |  |  |
| 478 | 204 | Rim diam. 13.0; <br> L. 3.2 | 7.5YR 7/4 pink | 10YR $8 / 2$ white; upper edge and intr. of rim painted 5YR 5/3 reddish brown; extr. painted band 5YR 6/6 reddish yellow |  | Calcareous | Sparse |  |
| 479 | 202 | Rim diam. 20.0; <br> Ls. 4.2, - (2 non-joining sherds) | 5YR 7/6 reddish yellow | Extr. 2.5Y $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown | Sparse | Mostly calcareous. with grey | Dense | Coarse calcareous grits protrude from extr./intr. surfaces. Originally painted? |
| 480 | 200 | Rim diam. 18.5; $\text { L. } 2.8$ | 7.5YR $7 / 4$ pink | Extr. 2.5 Y $8 / 2$ white; intr. 10YR 7/3 very pale brown. Painted extr./intr. 7.5YR $2 / 0$ black | Sparse | Calcareous, micaceous, black, grey | Medium |  |
| 481 | 204 | $\begin{aligned} & \text { Rim diam. 17.5; } \\ & \text { L. } 2.0 \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown, with extr. paint 2.5YR $4 / 4$ reddish brown | Medium | Calcareous | Sparse | Air-bubbles and interstices. |
| 481a | 203 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 4.2 \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $8 / 4$ very pale brown |  | Calcareous, micaceous, black, grey | Dense |  |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE inclusions (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 482 | 202 | $\begin{aligned} & \text { Rim diam. } 23.0 \text {; } \\ & \text { L. } 3.5 \end{aligned}$ | Core 5YR $6 / 6$ reddish yellow: extr./intr. 2.5YR 6/6 light red | 5YR 7/6 reddish yellow |  | Mostly calcareous, micaceous, with grey | Dense |  |
| 483 | 202 | $\begin{aligned} & \text { Rim diam. } 27.0 \text {; } \\ & \text { L. } 3.5 \end{aligned}$ | 5YR 6/6 reddish yellow | 10YR $8 / 2$ white | Medium | Calcareous, micaceous, black, grey | Medium | Light intr, heavy extr. horizontal burnish. |
| 483a | 204 | Rim diam. indeterminate: L . $2.0$ | 5YR 7/6 reddish yellow | 10YR $8 / 2$ white | Sparse | Calcareous, micaceous, black, grey | Medium | Gritty extr./intr: surface texture. |
| 484 | 203 | $\begin{aligned} & \text { Rim diam. } 22.0 \text {; } \\ & \text { L. } 4.0 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 7.5 YR $8 / 4$ pink: intr. 10YR $8 / 2$ white | Sparse | Mostly calcareous, with grey | Medium |  |
| 485 | 203 | $\begin{aligned} & \text { Rim diam. } c . \\ & 56.0 ; \text { L. } 7.2 \end{aligned}$ | 5YR 6/6 reddish yellow | 10YR $8 / 2$ white - $8 / 3$ very pale brown | Medium | Calcareous, micaceous, black, grey, pale brown | Dense | Rough, chalky extr./intr. surface texture with dense vegetable impressions and protruding grits. |
| 486 | $\begin{aligned} & 200 \\ & + \\ & 204 \end{aligned}$ | Rim diam. $c$. 22.0; Ls. 1.5; $2.5,1.5$ ( 2 nonjoining sherds) | 7.5YR 7/4 pink - $7 / 6$ reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink | Medium | Mostly calcareous, with micaceous | Medium | Poorly prepared clay. with air-bubbles and interstices. |
| 487 <br> Sample BM <br> 1987-4-12,21 | 205 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 7.0 \end{aligned}$ | 5YR $6 / 6$ pale yellow | $5 \mathrm{Y} 8 / 2$ white, partly fire-blackened | Medium | Calcareous | Very sparse | Very sparse red/pink grog inclusions. Smooth, chalky surface texture. <br> For scientific analysis, see Ch. 7. |
| 488 | 204 | $\begin{aligned} & \text { Rim diam. } 22.0 \text {; } \\ & \text { L. } 4.8 \\ & \hline \end{aligned}$ | 10YR 4/1 dark grey | 7.5YR 7/4 pink | Sparse | Calcareous, grey | Very sparse |  |
| 489 | 204 | $\text { Rim diam. } 34.0$ $\text { L. } 4.7$ | 7.5YR 7/4 pink | 7.5YR 8/4 pink | Very sparse | Calcareous | Very sparse | Smooth, chalky extr/intr. surface texture |
| 489a | 203 | $\begin{aligned} & \text { Rim diam. 9.0; } \\ & \text { L. } 3.0 \end{aligned}$ | ```Core 2.5Y 5/0 grey; extr./intr. 5Y 7/4 pale yellow``` | 5Y 7/3 pale yellow | Sparse | Calcareous | Sparse |  |
| 490 | 205 | Rim diam. indeterminate; L . 0.5 | 7.5YR $6 / 4$ light brown | 10YR $7 / 3$ very pale brown | Sparse |  |  |  |
| 491 | 202 | $\begin{aligned} & \text { Rim diam. } 16.0 \text { : } \\ & \text { L. } 3.3 \end{aligned}$ | Core/extr. 10YR 5/2 greyish brown; intr. 10YR 5/1 grey | 10YR $7 / 2$ light grey |  | Mostly <br> black, grey, with calcareous, micaceous | Dense |  |
| 491a | 202 | $\begin{aligned} & \text { Rim diam. 18.0; } \\ & \text { L. } 3.8 \end{aligned}$ | $\begin{aligned} & 2.5 \text { YR } 8 / 2 \\ & \text { white } \end{aligned}$ | 2.5YR $8 / 2$ white |  | Mostly <br> grey, with calcareous, red-brown 'sandy' | Medium |  |
| 492 | 200 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 9.1 \end{aligned}$ | Core 10YR $6 / 4$ light yellowish brown: extr./intr. 5 YR $7 / 6$ reddish yellow | $\begin{aligned} & \text { 5YR 7/4-7.5YR 7/4 } \\ & \text { pink } \end{aligned}$ | Sparse | Calcareous. micaceous | Sparse |  |
| 493 | 206 | $\begin{aligned} & \text { Rim diam. 9.0; } \\ & \text { L. } 1.6 \end{aligned}$ | 5Y $7 / 2$ light grey | $2.5 \mathrm{Y} 7 / 2$ light grey, with rim painted 10 YR 5/2 greyish brown |  | Calcareous | Sparse |  |
| 494 | 200 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 2.9 \end{aligned}$ | 7.5YR 7/4 pink | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5 YR $7 / 4$ pink. Single extr. painted band 5YR 5/6 yellowish red | Medium | Calcareous | Sparse | Extr. horizontal burnish. |
| 495 | 204 | Rim diam. 11.0; L. 4.5 | 5Y $8 / 3$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium |  |  |  |
| 495a | 203 | Rim diam. $c$. $\text { 13.0; L. } 2.5$ | $\begin{aligned} & 2.5 \mathrm{Y} 8 / 4 \text { pale } \\ & \text { yellow } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 2$ white | Sparse | Black, grey, brown | Medium | Rough intr. surface texture. |
| 496 | 203 | $\begin{aligned} & \text { Rim diam. 12.0: } \\ & \text { L. } 3.1 \end{aligned}$ | Core 5YR 7/4 <br> pink; extr./intr. <br> 5YR 7/6 reddish yellow | 10YR $8 / 2$ white |  | Calcareous, <br> black, grey. <br> brown <br> (slightly <br> angular) | Dense |  |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 4963 | 200 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. 5.0 } \end{aligned}$ | 5YR 6/6 reddish yellow | Extr. 5YR $7 / 4$ pink; intr. 5YR 7/6 reddish yellow | Sparse | Mostly calcareous, with black, grey, brown | Dense | Rough, gritty extr./intr. surface texture. |
| 497 | 201 | Rim diam. $c$. 10.0; L. 5.7 (3 joining sherds) | 7.5YR $7 / 6$ reddish yellow | 7.5YR 7/6 reddish yellow | Sparse | Mostly grey, with calcareous, black | Dense | Rather poorly prepared clay, with air-bubbles and interstices. |
| 497a | 203 | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. } 4.0 \end{aligned}$ | Extr. 10YR 7/3 very pale brown; intr. 7.5YR 7/4 pink | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 10YR $8 / 3$ pale brown |  | Calcareous, grey, black | Dense |  |
| 498 | 203 | Rim diam. 16.0; L. 7.3 | 5YR 6/6 reddish yellow | 7.5YR 7/4 pink | Sparse | Mostly grey, with calcareous, micaceous, black | Dense |  |
| 498a | 203 | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 3.7 \end{aligned}$ | Approx. 7.5YR $6 / 6$ reddish yellow | Extr. 10YR $8 / 4$ very pale brown; intr. not visible |  | Mostly micaceous, black, grey. with calcareous | Dense | Intr. bitumen coated. |
| 499 | 202 | $\begin{aligned} & \text { Rim diam. } 12.0 \text {; } \\ & \text { L. } 6.0 \end{aligned}$ | 5YR 7/4 pink | Extr. $2.5 \mathrm{Y} 8 / 2$ white: intr. 10YR $8 / 2$ white |  | Mostly black, grey. with calcareous, micaceous | Dense | Pronounced wheel marks. Very rough, gritty intr. surface texture. |
| 500 | 200 | Rim diam. 10.0; <br> L. 5.0 | 7.5YR 7/4 pink | Extr. 10YR $8 / 2$ white: intr. 7.5YR $8 / 4$ pink |  | Mostly calcareous, grey, with red-brown | Medium | Extr./intr. surface pitted with small air-bubbles and abraded. |
| 500a | 201 | Rim diam. 17.0; L. - | Core/intr. <br> 7.5YR 7/6 reddish yellow; extr. 5 YR $7 / 6$ reddish yellow | 5YR 7/6 reddish yellow | Very sparse | Calcareous, micaceous, black, grey | Dense |  |
| 500b | 205 | Rim diam. 16.0; <br> L. 6.2 | 5YR 7/6 reddish yellow | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 7.5YR 7/4 pink |  | Mostly grey, with calcareous, micaceous, black | Dense |  |
| 500c | 201 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 6.0 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. approx. 7.5YR 7/4 pink |  | Mostly calcareous, with micaceous, grey | Medium |  |
| 500d | 200 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 5.0 \end{aligned}$ | 5YR 7/6 reddish yellow | 10YR $8 / 3$ very pale brown |  | Calcareous, micaceous, grey | Dense | Intr. surface pitted from displaced grits. |
| 500e | 200 | Rim diam. 18.0; <br> L. 5.2 | 5YR 6/6 reddish yellow | Extr. 7.5YR $8 / 4$ pink 10YR $8 / 3$ very pale brown; intr. 5YR 7/6 reddish yellow |  | Mostly grey, with calcareous, micaceous | Dense | Rough intr. surface texture, gritty and pitted. |
| $500 f$ | 200 | Rim diam. 13.0; L. - | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 4$ very pale brown; intr. 7.5YR 7/4 pink |  | Mostly grey, with calcareous, micaceous, black | Medium |  |
| 500g | 202 | $\begin{aligned} & \text { Rim diam. 19.5; } \\ & \text { L. } 5.5 \end{aligned}$ | Core/extr. <br> 7.5YR 7/6 reddish yellow; intr. 10YR $6 / 4$ light yellowish brown | Extr. 10YR $8 / 4$ very pale brown; intr. 10YR $8 / 3$ very pale brown | Sparse | Mostly grey, black, with calcareous, micaceous | Dense | Patchy intr. bitumen coating. |
| 500h | 205 | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 5.8 \end{aligned}$ | Core 10YR $6 / 3$ <br> pale brown; <br> extr./intr. <br> 2.5YR $6 / 6$ light red | Extr. 10YR $8 / 3$ very pale brown; intr. 2.5YR $6 / 6$ light red - 5YR 7/4 pink |  | Mostly calcareous. with micaceous, grey | Dense |  |
| 501 | 200 | $\begin{aligned} & \text { Rim diam. } 20.0 \text {; } \\ & \text { L. } 4.4 \end{aligned}$ | 5YR $6 / 6$ light reddish brown | Extr. $5 \mathrm{Y} 8 / 2$ white; intr. not visible |  | Mostly grey, with calcareous | Dense |  |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ | $\underset{\text { colour }}{\text { FABRIC }}$ | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 502 | 203 | Rim diam. 18.0; <br> L. 9.0 | Core 10YR 7/3 very pale brown; extr. 5YR 6/6 reddish brown; intr. 7/5YR 7/6 reddish yellow | Extr. 5 YR $7 / 4$ pink, mottled 10YR $8 / 3$ very pale brown: intr. 7.5 YR $7 / 4$ pink | Sparse | Mostly grey, with calcareous, micaceous black | Dense |  |
| 503 | 205 | $\begin{aligned} & \text { Rim diam. 24.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 2$ white: intr. 7.5YR $7 / 4$ pink | Medium | Mostly calcareous, micaceous, black, grey | Medium | Smooth extr./gritty intr. surface texture. |
| 504 | 205 | $\begin{aligned} & \text { Rim diam. 21.5; } \\ & \text { L. } 7.2 \end{aligned}$ | Core 2.5Y 5/2 greyish brown: extr./intr. <br> 7.5YR 4/0 dark grey | 2.5Y $7 / 2$ light grey |  | Calcareous, micaceous, grey | Sparse | Grey-brown and green grog inclusions. Overfired and warped: smooth extr/intr. surface texture. |
| 505 | 203 | $3.4 \times 3.8 \times 1.0$ | Core 7.5YR $7 / 6$ reddish yellow; extr./intr. 5 YR $6 / 6$ reddish yellow | 5YR 7/4 pink - 7/6 reddish yellow | Medium | Mostly calcareous, with micaceous, grey | Medium |  |
| 506 | 203 | $3.7 \times 5.5 \times 1.3$ | 10YR $8 / 4$ very pale brown | Extr. 2.5 Y $8 / 2$ white: intr. 2.5 Y $8 / 4$ pale yellow | Sparse | Calcareous. grey | Medium |  |
| 507 | 203 | $5.1 \times 6.8 \times 1.6$ | - | . | - | - | - | - |
| 508 | 201 | $6.3 \times 4.5 \times 1.1$ | 2.5Y $6 / 2$ light brownish grey | Extr. 10YR $7 / 3$ pale brown; intr. 10YR $7 / 2$ light grey | Sparse | Mostly grey, with calcareous, micaceous, grey | Dense |  |
| 508a | 200 | $3.6 \times 5.0 \times 1.0$ | - | - | - | - | - | Sherd with impressed dog-tooth design. |
| 508b | 205 | $3.9 \times 3.8 \times 0.6$ | - | - | - | - | - | Sherd with impressed dog-tooth design. |
| 509 | 202 | $5.9 \times 8.3 \times 1.3$ | 10YR 7/3 very pale brown | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. $10 \mathrm{YR} 7 / 2$ light grey | Sparse | Calcareous, grey | Dense | Impressed dog-tooth design and bosses pushed into an extr. mould from intr. with finger. |
| 510 | 203 | $3.1 \times 3.7 \times 0.7$ | - | - | - | - | - |  |
| 511 <br> Sample BM <br> 1987-4-12,61 | 200 | $\begin{aligned} & \text { Base diam. 8.0; } \\ & 15 \% \text { base } \end{aligned}$ | $2.5 \mathrm{Y} 8 / 2$ white | Extr. 2.5 Y $8 / 2$ white; intr. 2.5 Y $8 / 4$ pale yellow |  | Calcareous, grey | Very sparse | Sparse red-brown grog inclusions. Pronounced intr, wheel marks and rough surface texture. For scientific analysis. see Ch. 7. |
| SURFACE ClEARANCE |  |  |  |  |  |  |  |  |
| 512 | 1 | Rim diam. 10.0; $\text { L. } 2.0$ | 7.5YR 7/2 pinkish grey | 7.5YR $8 / 2$ pinkish white | - | - | - | $\cdot$ |
| 513 | C1 | Rim diam. 24.0; $\text { L. } 7.0$ | 5YR 7/6 reddish yellow | 10YR $8 / 2$ white | - | - | $\cdot$ | - |
| 514 | C1 | Rim diam. 26.0; <br> L. 5.5 | 5YR 6/6 reddish yellow | Extr. 2.5YR $3 / 2$ dusky red - $4 / 2$ weak red; intr. 5YR 4/3 reddish brown $-6 / 6$ reddish yellow |  | Calcareous, micaceous | Sparse | Incised horizontal grooves. Curvilinear decoration on extr. incised after firing. |
| 515 | 151 | $\begin{aligned} & \text { Rim diam.. 13.0; } \\ & \text { L. } 3.3 \end{aligned}$ | 2.5Y 5/2 greyish brown 10YR 4/1 dark grey | Extr. 5 YR $7 / 4$ pink; intr. burnt 5YR 4/1 dark grey |  | Calcareous. micaceous, grey, black | Dense | Rough, gritty extr./intr. surface texture. |
| 516 | 300 | Rim diam. 18.0; L. 1.7 | 10YR $8 / 4$ very pale brown | 10YR $8 / 4$ very pale brown |  | Calcareous. micaceous | Very sparse | Sparse red-brown grog inclusions. Smooth. chalky extr./intr. surface texture. |
| 517 | B2 | Rim diam. 21.0; <br> L. 4.0 | 5YR 8/4 pink | 10YR $8 / 2$ white |  | - | Medium |  |
| 518 | 1 | Rim diam. 12.0; <br> L. 3.5 | 5YR 8/4 pink | Extr. $2.5 \mathrm{Y} 8 / 5$ pale yellow; intr. 5YR 8/4 pink | Medium |  |  |  |
| 519 | B1 | Rim diam. 14.0; L. - | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown | - | - | - |  |


| No. | UNIT | DIMENSIONS (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 520 | Cl | Rim diam. indeterminate: L . 2.0 | 5Y 7/4 pink | 7.5YR 8/4 pink | Medium | - | Medium |  |
| 521 | 1 | Rim diam. large but indeterminate; L . 6.0 | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown | Medium |  |  |  |
| 522 | 350 | $\begin{aligned} & \text { Rim diam. 13.0; } \\ & \text { L. } 3.5 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $8 / 4$ pink | Medium | Calcareous | Very sparse |  |
| 523 | 1 | Rim diam. indeterminate; $L$. | 5YR 7/6 reddish yellow | 5YR 7/6 reddish yellow |  | - | Medium |  |
| 524 | 51 | Rim diam. 11.0; <br> L. 7.1 | 7.5YR 7/6 reddish yellow | 7.5YR 7/4 pink |  | Mostly grey, with calcareous, micaceous, black | Dense | Gritty extr./intr. surface texture. |
| 525 | 151 | $\begin{aligned} & \text { Rim diam. } 16.0 \text {; } \\ & \text { L. 4.4 } \end{aligned}$ | Extr. 10YR 5/2 greyish brown; intr. 10YR $6 / 3$ pale brown | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink |  | Mostly grey, with calcareous. micaceous, black | Dense | Very sparse reddish brown grog inclusions. |
| 526 | 1 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 6.0 \end{aligned}$ | 7.5YR $8 / 4$ pink | $2.5 \mathrm{Y} 8 / 2$ white |  | - | Medium |  |
| 527 | C1 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 6.0 \end{aligned}$ | 7.5YR 8/2 pinkish white | 5Y $8 / 2$ white |  | - | Medium |  |
| 527a | 352 | Rim diam. 26.0; $\text { L. } 6.4$ | Extr. 10YR 7/4 very pale brown; intr. $2.5 \mathrm{Y} 6 / 2$ light brownish grey | 10YR $8 / 3$ very pale brown |  | Mostly grey, with calcareous, micaceous, black | Dense |  |
| 528 | B1 | Rim diam. 14.0; <br> L. - | 5YR 7/8 reddish yellow | 5YR 7/8 reddish yellow |  | - | Medium |  |
| 528a | B1 | Rim diam. 26.0; <br> L. 5.0 | 5YR $7 / 4$ pink | 5YR 7/4 pink |  | - | Medium |  |
| 528b | A1 | $\begin{aligned} & \text { Rim diam. 26.0; } \\ & \text { L. } 8.0 \end{aligned}$ | 7.5YR 8/2 pinkish white | 7.5YR 8/2 pinkish white |  | - | Medium |  |
| 529 | C1 | $\begin{aligned} & \text { Rim diam. 12.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 10YR 7/3 very pale brown | 10YR $7 / 3$ very pale brown |  | - | Medium |  |
| 529a | B1 | Rim diam. $c$. $\text { 32.0; L. } 9.0$ | 2.5YR 6/6 light red | 2.5YR $6 / 6$ light red |  | - | Medium |  |
| 529b | Cl | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 2.0 \end{aligned}$ | 2.5YR $6 / 4$ light reddish brown | 2.5YR $6 / 4$ light reddish brown |  | - | Medium |  |
| 530 | 151 | Rim diam. 13.0; <br> L. 8.1 | 5YR 6/6 reddish yellow | Extr. 10YR $8 / 3$ very pale brown; intr. 7.5YR $7 / 4$ pink |  | Calcareous, micaceous. grey | Dense |  |
| 530a | 151 | Rim diam. 11.8; L. 4.7 | 5YR 7/6 reddish yellow | 10YR $8 / 4$ very pale brown |  | Calcareous, micaceous, grey | Dense | Gritty extr./intr. surface texture. |
| 530b | 151 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 3.5 \end{aligned}$ | 5YR 7/4 pink | Extr. $7.5 \mathrm{YR} 8 / 0$ white: intr. 5YR 7/4 pink |  | Micaceous, black |  |  |
| 530c | 300 | Rim diam. 29.5; <br> L. - | Extr. 10YR $7 / 4$ very pale brown; intr. 2.5 Y $6 / 2$ light brownish grey | Extr. 10YR $8 / 4$ very pale brown; intr. 10 YR $7 / 2$ light grey |  | Mostly grey, with calcareous, micaceous, black | Dense |  |
| 530d | 350 | $\begin{aligned} & \text { Rim diam. } 16.0 \text {; } \\ & \text { L. } 2.8 \end{aligned}$ | 5YR 6/6 reddish yellow | 7.5YR $8 / 4$ pink | Sparse | Mostly calcareous, with micaceous, grey | Dense | Gritty extr./intr. surface texture. |
| 530e | Cl | Rim diam. 18.0; L. 4.5 | 5YR 7/6 reddish yellow | 7.5YR $8 / 2$ pinkish white |  | - | Medium |  |
| 530 f | C1 | $\begin{aligned} & \text { Rim diam. } c \text {. } \\ & \text { 16.0; L. } 3.0 \end{aligned}$ | 5YR 7/6 reddish yellow | 5YR 7/6 reddish yellow | - | - | - |  |
| 530 g | Cl | $\begin{aligned} & \text { Rim diam. 11.0; } \\ & \text { L. } 7.0 \end{aligned}$ | 10YR 7/2 light grey | 10YR 7/2 light grey |  | - | Medium | - |
| 531 | Cl | $\begin{aligned} & \text { Rim diam. 19.0; } \\ & \text { L. } 11.0 \end{aligned}$ | 7.5YR 7/6 <br> reddish yellow | 10 YR $8 / 2$ white |  | - | - |  |


| No. | UNIT | $\begin{gathered} \text { DIMENSIONS } \\ (\mathrm{cm}) \end{gathered}$ | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 531a | Al | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 5.0 \end{aligned}$ | 2.5YR 6/8 light red | Extr./rim 10YR 8/3 very pale brown; intr 2.5YR $6 / 8$ light red | - | - | Medium |  |
| 531b | AI | Rim diam. 22.0; L. 11.0 | 2.5YR $6 / 4$ light reddish brown | Extr./rim 10YR 8/3 very pale brown; intr. 2.5YR $6 / 4$ light reddish brown | $\cdot$ | $\cdot$ | Medium |  |
| 531c | B1 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 5.0 \end{aligned}$ | 7.5YR 7/4 pink | 7.5YR 7/4 pink | - | $\cdot$ | Medium |  |
| 531d | 300 | $\begin{aligned} & \text { Rim diam. 11.9; } \\ & \text { L. } 6.5 \end{aligned}$ | 10YR 7/3 very pale brown | 10YR $8 / 2$ white |  | Calcareous, grey, black | Dense |  |
| 532 | B1 | Rim diam. $c$. $28.0 ; \text { L. } 4.0$ | 2.5YR $6 / 8$ light red | Extr./top of rim 10YR $8 / 3$ very pale brown; intr. 2.5YR $6 / 8$ light red |  | - | Medium |  |
| 533 | Cl | $\begin{aligned} & \text { Rim diam. 30.0; } \\ & \text { L. } 4.5 \end{aligned}$ | 5 YR $6 / 4$ light reddish brown | 10YR $8 / 3$ very pale brown |  | - | Medium |  |
| 533a | 350 | $\begin{aligned} & \text { Rim diam. 18.0; } \\ & \text { L. } 2.6 \end{aligned}$ | Extr. 5YR 7/6 reddish yellow; intr. 10YR $6 / 3$ pale brown | 7.5YR 7/4 pink | Sparse | Calcareous, micaceous, grey, black | Dense |  |
| 533b | Cl | $\begin{aligned} & \text { Rim diam. 17.0; } \\ & \text { L. } 2.5 \end{aligned}$ | 7.5YR 8/4 pink | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. $7.5 \mathrm{YR} 8 / 4$ pink |  | - | Medium |  |
| 533c | Cl | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 5.0 \end{aligned}$ | 10YR $7 / 2$ light grey | Extr. 10YR $8 / 3$ very pale brown; intr. 10YR $7 / 2$ light grey |  | - | Medium |  |
| 534 | 100 | Rim diam. 25.5; <br> L. 4.5 | 10YR 4/1 dark grey | Extr. $2.5 \mathrm{Y} 8 / 2$ white; intr. 5 YR $8 / 4$ pink | Medium | Mostly calcareous, with (angular) grey | Medium |  |
| 535 | B1 | Rim diam. 27.0; <br> L. 5.0 | 10YR $8 / 4$ very pale brown | 10YR $8 / 4$ very pale brown | Dense |  |  |  |
| 535a | Cl | Rim diam. 11.0; <br> L. 4.5 | 5YR 7/4 pink | 10YR 8/4 very pale brown |  | - | Medium |  |
| 535b | 151 | Rim diam. 48.0; <br> L. 12.3 | 7.5YR $7 / 4$ pink | 10YR $8 / 3$ very pale brown | Medium | Calcareous | Sparse | Smooth extr./intr. surface texture, but pitted with vegetable impressions. |
| 535c | 300 | $\begin{aligned} & \text { Rim diam. 26.0; } \\ & \text { L. } 4.6 \\ & \hline \end{aligned}$ | 7.5YR 7/4 pink | 10YR $7 / 3$ very pale brown | Medium | Calcareous, micaceous | Sparse | Smooth extr./intr. surface texture. |
| 535d | 300 | $\begin{aligned} & \text { Rim diam. } 9.5 \text {; } \\ & \text { L. } 4.1 \end{aligned}$ | Extr. 7.5YR <br> $7 / 6$ reddish yellow; intr. <br> 5YR 7/6 <br> reddish yellow | 10YR $8 / 4$ very pale brown | Sparse |  |  | Chalky extr./intr. surface texture. |
| 536 | 1 | $\begin{aligned} & \text { Rim diam. } c \text {. } \\ & \text { 46.0; L. } 8.5 \end{aligned}$ | 5YR $7 / 6$ reddish yellow | 10YR $8 / 2$ white |  | - |  |  |
| 537 | 151 | $\begin{aligned} & \text { Rim diam. } c \text {. } \\ & \text { 11.0; L. } 6.3 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. $10 \mathrm{YR} 8 / 2$ white; intr. 5YR 7/4 pink |  | Mostly calcareous. with micaceous. grey, black | Dense |  |
| 537a | A1 | Rim diam. 13.0; <br> L. 3.5 | 2.5Y $8 / 2$ white | 2.5Y $8 / 2$ white |  | - | Medium |  |
| 537b | C1 | Rim diam. 16.0; L. 2.5 ( 2 joining sherds) | 7.5YR 7/4 pink | 7.5YR $8 / 2$ pinkish white |  | $\cdot$ | Medium |  |
| 538 <br> Sample BM <br> 1987-4-12,60 | 500 | $\begin{aligned} & \text { Rim diam. 9.0; } \\ & \text { L. } 7.3 \end{aligned}$ | 5YR 7/6 reddish yellow | Extr. 10YR $8 / 2$ white; intr. 10YR $8 / 3$ very pale brown |  | Calcareous, grey | Medium | Rough, gritty, uneven extr./intr. surface texture. <br> For scientific analysis, see Ch. 7. |
| 538a | 500 | Rim diam. 12.0; <br> L. 3.4 | 10YR $8 / 3$ very pale brown | 10YR $8 / 2$ white $-8 / 3$ very pale brown |  | Calcareous, grey, black | Dense | Poorly prepared clay, with dense air-bubbles and interstices. |
| 539 | B1 | $4.7 \times 6.0 \times 0.8$ | 10YR 7/3 very pale brown | Extr. 10YR $8 / 2$ white; intr. 10YR $7 / 3$ very pale brown |  | - | Dense | Incised lines. |
| 540 | 351 | $3.3 \times 3.3 \times 0.8$ | 2.5Y $8 / 4$ pale yellow | $2.5 \mathrm{Y} 8 / 2$ white | Medium | Calcareous, micaceous | Medium | Extr. moulded decoration. |


| NO. | UNIT | $\underset{(\mathrm{cm})}{\text { DIMENSIONS }}$ (cm) | FABRIC COLOUR | SURFACE COLOUR | VEGETABLE INCLUSIONS (DENSITY) | GRIT INCLUSIONS |  | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | TYPE | DENSITY |  |
| 541 | - | $5.9 \times 7.9 \times 1.1$ | Core/intr. <br> 2.5YR 5/6 red - <br> $6 / 8$ light red; extr. 5YR 7/6 reddish yellow | Extr. 2.5 Y $8 / 2$ white; intr. 2.5YR 6/4-5 YR $6 / 4$ light reddish brown | Sparse | Mostly calcareous, with micaceous, grey, black | Dense | Deeply impressed extr. triangular and crescentic decoration. Gritty extr./intr. surface texture. |
| 542 | A1 | $9.1 \times 9.8 \times 1.8$ | Core/intr. 5 Y 5/l grey; extr. 10YR $7 / 4$ very pale brown | Extr. 10YR $8 / 3$ very pale brown; intr. 2.5 Y $7 / 2$ light grey | Sparse | Mostly <br> grey, black, with calcareous, micaceous | Dense | Deeply impressed triangles. Irregular wall thickness, with intr. finger impressions. |
| 543 | 300 | $\begin{aligned} & \text { Rim diam. } 23.0 \text {; } \\ & \text { L. } 2.1 \end{aligned}$ | 7.5YR $6 / 4$ light brown | 7.5YR 7/4 pink | Sparse | Mostly calcareous, grey, with micaceous | Dense | Smooth extr./rough intr. surface texture |
| 544 | Cl | $\begin{aligned} & \text { Rim diam. 14.0; } \\ & \text { L. } 5.0 \\ & \hline \end{aligned}$ | Burnt 7.5YR <br> $5 / 2$ brown | Burnt 7.5YR 5/2 brown |  | - | Dense | Cooking ware. |
| 544a | C1 | $\begin{aligned} & \text { Rim diam. 16.0; } \\ & \text { L. } 4.0 \end{aligned}$ | 7.5YR 7/4 pink | 7.5YR 7/4 pink |  | - | Dense | Cooking ware. |
| 544b | C1 | $\begin{aligned} & \text { Rim diam. 22.0; } \\ & \text { L. } 5.0 \\ & \hline \end{aligned}$ | 5YR 7/6 reddish brown | 7.5YR $8 / 2$ reddish white |  | - | Medium | Cooking ware. |
| 544c | 1 | Rim diam. 18.0; $\text { L. } 4.5$ | 7.5YR $8 / 4$ pink, partly burnt 7.5 YR 7/2 pinkish grey | 7.5YR $7 / 4$ pink, partly burnt 7.5YR 7/2 pinkish grey |  | - | Medium | Cooking ware. |
| 544d | 151 | $\begin{aligned} & \text { Rim diam. 20.0; } \\ & \text { L. } 6.0 \end{aligned}$ | Core 2.5YR $5 / 2$ weak red; extr./intr. 2.5YR 6/8 light red |  |  | Calcareous micaceous, grey | Medium | Cooking ware. |
| 545 | C1 | $\begin{aligned} & \text { Base diam. } 7.5 \text {; } \\ & 25 \% \text { base } \end{aligned}$ | 2.5YR $6 / 6$ light red | Extr. 7.5YR $8 / 2$ pinkish white; intr. 2.5YR 6/6 light red |  | - | Medium |  |
| 546 | 151 | Base diam. 9.0; $30 \% \text { base }$ | Extr. 10YR 7/4 <br> very pale brown; intr. 5YR $7 / 4$ pink | Extr. (upper) 10YR 8/2 white; (lower) 10YR $7 / 3$ very pale brown; intr. 5 YR $7 / 4$ pink |  | Calcareous, micaceous, grey, black | Dense | Probably made by coil method, as indicated by successive bands of intr. finger impressions. |
| 547 | AI | $\begin{aligned} & \text { Base diam. c. } \\ & 50.0 ; \text { L. } c \text {. } 14.0 \\ & \text { (2 joining } \\ & \text { sherds) } \end{aligned}$ | 10YR $8 / 3$ very pale brown | $2.5 \mathrm{Y} 8 / 2$ white |  | - | Dense | Pithos fragments. |

## CHAPTER 5

## The Sherd Count

A11 sherds were counted, diagnostic fragments, pieces of restored vessels and body sherds, in all totalling 15,645 . This does not include the body sherds from the limited excavations in 1984, which were not counted or recorded.

For each excavated unit the sherds were recorded by their fabric colour and inclusions ('temper'). These have been grouped into tables for each level at the site (Table 1a-h, excluding sherds from units that represented surface clearance or were unstratified or of mixed level). Within each level, each colour or inclusions group can be represented as a percentage of the sample for that level (Tables 2-3, Figs $27 \mathrm{a}, \mathrm{b}$ ). It must be remembered that the samples for Levels $8-5$ in the sondage were comparatively small and may not be statistically valid.

## Fabric Colour

The importance of recording the colour of Mesopotamian sherd samples as a general indication of firing temperatures has been stressed and explained by Matson (1971). He uses five general groups (ibid., 66f.), which lend themselves quite well to the pottery from Khirbet Khatuniyeh, except for his 'white', which has no clear counterpart, and his 'white skin on pink body', since the surface 'skins' on our sherds were of varying colours. We also wished to separate a distinctive bright red fabric colour from the pink or buff. Our division of the sample is into four groups, which we refer to as buff, yellow/green, grey (including the occasional black) and red. 'Buff' corresponds to Matson's 'pale brown to pink', 'yellow/green' to his 'pale yellow' ('at times even olive'), and 'grey' to his 'black to grey' category. The following are the corresponding Munsell (1975) ranges of our groups:
buff: 5 YR $4 / 6,5 / 6,6 / 3,6 / 4,6 / 6,7 / 4,7 / 6,8 / 4 ; 7.5 Y R ~ 5 / 2$, 5/4, 6/2, 6/4, 6/6, 7/2, 7/4, 7/6, 8/4; 10YR 5/3, 6/3, 6/4, 7/3, $7 / 4,8 / 2,8 / 3,8 / 4$.
yellow/green: $2.5 \mathrm{Y} 8 / 2,8 / 4 ; 5 \mathrm{Y} 5 / 2,6 / 2,6 / 3,6 / 4,7 / 3,7 / 4$, 8/1, 8/2, 8/3, 8/4.
grey: 2.5 YR $4 / 0 ; 5$ YR $4 / 1,4 / 2 ; 10$ YR $3 / 1,4 / 1,4 / 2,5 / 1,5 / 2$, 6/1, 6/2, 7/2; 2.5Y 4/0, 4/2, 5/2, 6/2, 7/2; 5Y 4/1, 6/1,7/2.
red: $2.5 \mathrm{YR} 3 / 4,6 / 4,6 / 6,6 / 8 ; 5 \mathrm{YR} 4 / 3,4 / 4,5 / 4 ; 10 \mathrm{R} 5 / 8$, 6/4, 6/8.

At Khirbet Khatuniyeh there is a fairly even distribution of the pottery fabric colours throughout the levels (Fig. 27a). In most periods the majority of the sherds were buff or red, while yellow/green and red were less common. This was doubtless influenced by where we set the 'boundaries' in our definition of the range for each 'colour', and different ranges would have produced a different picture. Two things, however, stand out as significant. Firstly, the comparatively high quantity of grey sherds in Level 4 . This was probably due to secondary discoloration due to burning in the destruction of the building, and does not represent the original colour fired to. Secondly, while buff sherds were the largest colour group in most of the levels (in part probably due to the comparatively wide Munsell range of our definition), red was in the majority in Levels 7 and 6 and by a significant margin in Level 2. It is not clear whether this is significant for the small samples from early levels, but surely it is significant for Level 2, where it may represent a higher level of oxidisation from higher firing temperatures due to improved technology in the Hellenistic period (cf. Matson 1971: 66).

## Fabric Inclusions

Without attempting to distinguish between naturally occurring and added material ('temper'), we also recorded the inclusions in the fabric of the clays, in the three general categories of principally vegetable, principally grit and roughly equal proportions of the two (Table 3; Fig. 27b). After Level 4 there is a sharp decline in visible vegetable inclusions and a corresponding marked increase in visible grit inclusions. Whatever may be the reason for this change, if it should prove to be a true chronological indicator it would be particularly useful for distinguishing Late Assyrian from post-Assyrian pottery. Such a distinction can be recognised between the Late Assyrian ceramics of Qasrij Cliff and the probably post-Assyrian ceramics of Khirbet Qasrij (Curtis 1989: 16,46) and a similar distinction is clear at Khirbet Khatuniyeh between the pottery from the Late Assyrian Level 4 and the probably post-Assyrian Level 3, despite close similarities in vessel form.

Table 1a Level 8 Sherd Count

| Level 8 | Mainly <br> vegetable <br> inclusions | Mainly <br> grit <br> inclusions | Mixed vegetable <br> and grit <br> inclusions | No visible <br> inclusions | Inclusions <br> not recorded | Totals |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mainly buff | 37 | 12 | 19 | 0 | 0 | $\mathbf{6 8}$ |
| Mainly yellow/green | 36 | 2 | 8 | 0 | 0 | $\mathbf{4 6}$ |
| Mainly grey | 10 | 1 | 6 | 0 | $\mathbf{1 7}$ |  |
| Mainly red | 24 | 17 | 11 | 0 | $\mathbf{0}$ | $\mathbf{0}$ |
| Colour not recorded | 0 | 0 | 0 | 0 | $\mathbf{5 2}$ | $\mathbf{3}$ |
| Totals | $\mathbf{1 0 7}$ | $\mathbf{3 2}$ | $\mathbf{4 4}$ | $\mathbf{0}$ | $\mathbf{3}$ | $\mathbf{1 8 6}$ |
| Cooking ware | 0 | 6 | 0 | 0 | $\mathbf{6}$ |  |
|  |  |  |  | $\mathbf{1 9 2}$ |  |  |

Table 1b Level 7 Sherd Count

| Level 7 | Mainly <br> vegetable <br> inclusions | Mainly <br> grit <br> inclusions | Mixed vegetable <br> and grit <br> inclusions | No visible <br> inclusions | Inclusions <br> not recorded | Totals |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$|$| nainly buff |
| :--- |

Table 1c Level 6 Sherd Count

| Level 6 | Mainly <br> vegetable <br> inclusions | Mainly <br> grit <br> inclusions | Mixed vegetable <br> and grit <br> inclusions | No visible <br> inclusions | Inclusions <br> not recorded | Totals |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mainly buff | 117 | 7 | 25 | 1 | 0 | $\mathbf{1 5 0}$ |
| Mainly yellow/green | 96 | 5 | 3 | 1 | 0 | $\mathbf{1 0 5}$ |
| Mainly grey | 30 | 2 | 6 | 0 | 1 | 0 |
| Mainly red | 115 | 5 | 45 | 0 | $\mathbf{3 8}$ |  |
| Colour not recorded | 0 | 0 | 0 | $\mathbf{3}$ | $\mathbf{1 5}$ | $\mathbf{1 6 6}$ |
| Totals | $\mathbf{3 5 8}$ | $\mathbf{1 9}$ | $\mathbf{7 9}$ | $\mathbf{2}$ | $\mathbf{2}$ |  |
| Cooking ware | 1 | 3 | 0 | $\mathbf{4 6 1}$ |  |  |
|  |  |  | $\mathbf{4}$ | $\mathbf{4}$ |  |  |

Table 1d Level 5 Sherd Count

| Level 5 | Mainly vegetable inclusions | Mainly grit inclusions | Mixed vegetable and grit inclusions | No visible inclusions | Inclusions not recorded | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mainly buff | 41 | 8 | 24 | 1 | 0 | 74 |
| Mainly yellow/green | 40 | 1 | 2 | 0 | 0 | 43 |
| Mainly grey | 5 | 1 | 1 | 1 | 0 | 8 |
| Mainly red | 23 | 5 | 16 | 1 | 0 | 45 |
| Colour not recorded | 0 | 0 | 0 | 0 | 1 | 1 |
| Totals | 109 | 15 | 43 | 3 | 1 | 171 |
| Cooking ware | 0 | 5 | 0 | 0 | 0 | 5 |
| Total 176 |  |  |  |  |  |  |

Table 1e Level 4 Sherd Count

| Level 4 | Mainly <br> vegetable <br> inclusions | Mainly <br> grit <br> inclusions | Mixed vegetable <br> and grit <br> inclusions | No visible <br> inclusions | Inclusions <br> not recorded | Totals |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mainly buff | 2035 | 583 | 714 | 5 | 0 | $\mathbf{3 3 3 7}$ |
| Mainly yellow/green | 720 | 75 | 254 | 1 | 2 | $\mathbf{1 0 5 2}$ |
| Mainly grey | 2254 | 249 | 264 | 2 | 0 | $\mathbf{2 7 6 9}$ |
| Mainly red | 601 | 546 | 288 | 0 | 0 | $\mathbf{0}$ |
| Colour not recorded | 0 | 0 | 0 | $\mathbf{8}$ | $\mathbf{2 0 3}$ | $\mathbf{2 0 5}$ |
| Totals | $\mathbf{5 6 1 0}$ | $\mathbf{1 4 5 3}$ | $\mathbf{1 5 2 0}$ | 0 | $\mathbf{8 7 9 6}$ |  |
| Cooking ware | 0 | 71 | 4 |  | $\mathbf{7 6}$ | $\mathbf{8 8 7 2}$ |
|  |  |  |  |  | Total | $\mathbf{8 8 7 2}$ |

Table 1f Post-Destruction Pit Sherd Count

| Post-Destruction Pit | Mainly <br> vegetable <br> inclusions | Mainly <br> grit <br> inclusions | Mixed vegetable <br> and grit <br> inclusions | No visible <br> inclusions | Inclusions <br> not recorded | Totals |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Table 1g Level 3 Sherd Count

| Level 3 | Mainly <br> vegetable <br> inclusions | Mainly <br> grit <br> inclusions | Mixed vegetable <br> and grit <br> inclusions | No visible <br> inclusions | Inclusions <br> not recorded | Totals |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$|$| (12 |
| :--- |

Table 1h Level 2 Sherd Count

| Level 2 | Mainly vegetable inclusions | Mainly grit inclusions | Mixed vegetable and grit inclusions | No visible inclusions | Inclusions not recorded | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mainly buff | 29 | 109 | 46 | 1 | 0 | 185 |
| Mainly yellow/green | 59 | 21 | 19 | 0 | 0 | 99 |
| Mainly grey | 38 | 27 | 20 | 0 | 0 | 85 |
| Mainly red | 61 | 230 | 73 | 0 | 0 | 364 |
| Colour not recorded | 4 | 143 | 23 | 0 | 4 | 174 |
| Totals | 191 | 530 | 181 | 1 | 4 | 907 |
| Cooking ware | 2 | 18 | 0 | 0 | 2 | 22 |
| Total |  |  |  |  |  | 929 |

## Table 2 Sherd Count: Fabric Colour

|  | Mainly buff | Mainly yellow/green | Mainly grey | Mainly red | Sample size* | Colour not recorded | Cooking ware | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Level 8 | $\begin{array}{r} 68 \\ (37.16 \%) \end{array}$ | $\begin{array}{r} 46 \\ (25.15 \%) \end{array}$ | $\begin{array}{r} 17 \\ (9.29 \%) \end{array}$ | $\begin{array}{r} 52 \\ (28.4 \%) \end{array}$ | 183 | 3 | 6 | 192 |
| Levels 8/7 | 84 | 71 | 24 | 136 | 315 | 0 | 1 | 316 |
| Level 7 | $\begin{array}{r} 39 \\ (38.24 \%) \end{array}$ | $\begin{array}{r} 14 \\ (13.72 \%) \end{array}$ | $\begin{array}{r} 7 \\ (6.86 \%) \end{array}$ | $\begin{array}{r} 42 \\ (41.18 \%) \end{array}$ | 102 | 1 | 0 | 103 |
| Level 6 | $\begin{array}{r} 150 \\ (32.68 \%) \end{array}$ | $\begin{array}{r} 105 \\ (22.88 \%) \end{array}$ | $\begin{array}{r} 38 \\ (8.28 \%) \end{array}$ | $\begin{array}{r} 166 \\ (36.16 \%) \end{array}$ | 459 | 2 | 4 | 465 |
| Level 5 | $\begin{array}{r} 74 \\ (43.53 \%) \end{array}$ | $\begin{array}{r} 43 \\ (25.29 \%) \end{array}$ | $\begin{array}{r} 8 \\ (4.71 \%) \end{array}$ | $\begin{array}{r} 45 \\ (26.47 \%) \end{array}$ | 170 | 1 | 5 | 176 |
| Level 4 | $\begin{array}{r} 3337 \\ (38.84 \%) \end{array}$ | $\begin{array}{r} 1052 \\ (12.24 \%) \end{array}$ | $\begin{array}{r} 2769 \\ (32.22 \%) \end{array}$ | $\begin{array}{r} 1435 \\ (16.70 \%) \end{array}$ | 8593 | 203 | 76 | 8872 |
| Postdestruction pit | $\begin{array}{r} 68 \\ (26.98 \%) \end{array}$ | $\begin{array}{r} 18 \\ (7.14 \%) \end{array}$ | $\begin{array}{r} 63 \\ (25.00 \%) \end{array}$ | $\begin{array}{r} 103 \\ (40.88 \%) \end{array}$ | 252 | 0 | 2 | 254 |
| Post-destruction pit/Level 3 | 15 | 3 | 2 | 4 | 24 | 67 | 1 | 92 |
| Levels 4/3 | 81 | 51 | 35 | 51 | 218 | 291 | 0 | 509 |
| Level 3 | $\begin{array}{r} 353 \\ (31.46 \%) \end{array}$ | $\begin{array}{r} 125 \\ (11.14 \%) \end{array}$ | $\begin{array}{r} 151 \\ (13.46 \%) \end{array}$ | $\begin{array}{r} 493 \\ (43.94 \%) \end{array}$ | 1122 | 23 | 32 | 1177 |
| Levels 3/2 | 20 | 3 | 5 | 24 | 52 | 0 | 0 | 52 |
| Level 2 | $\begin{array}{r} 185 \\ (25.24 \%) \end{array}$ | $\begin{array}{r} 99 \\ (13.51 \%) \end{array}$ | $\begin{array}{r} 85 \\ (11.60 \%) \end{array}$ | $\begin{array}{r} 364 \\ (49.65 \%) \end{array}$ | 733 | 174 | 22 | 929 |
| D5 | $\begin{array}{r} 250 \\ (22.03 \%) \end{array}$ | $\begin{array}{r} 60 \\ (5.29 \%) \end{array}$ | $\begin{array}{r} 96 \\ (8.45 \%) \end{array}$ | $\begin{array}{r} 729 \\ (64.23 \%) \end{array}$ | 1135 | 186 | 74 | 1395 |
| Surface/ unstratified | 197 | 97 | 94 | 506 | 894 | 161 | 18 | 1073 |
| Unit no. lost: context unknown | 9 | 2 | 0 | 1 | 12 | 27 | 1 | 40 |
| Totals | 4930 | 1789 | 3394 | 4151 | 14264 | 1139 | 242 | 15645 |

[^18]Table 3 Sherd Count: Fabric Inclusions

|  | Mainly vegetable inclusions | $\begin{aligned} & \text { Mainly } \\ & \text { grit } \\ & \text { inclusions } \end{aligned}$ | Mixed vegetable and grit inclusions | No visible inclusions | Sample size* | Inclusions not recorded | Cooking ware | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Level 8 | $\begin{array}{r} 107 \\ (58.47 \%) \end{array}$ | $\begin{array}{r} 32 \\ (17.49 \%) \end{array}$ | $\begin{array}{r} 44 \\ (24.04 \%) \end{array}$ | 0 | 183 | 3 | 6 | 192 |
| Levels 8/7 | 220 | 18 | 76 | 1 | 315 | 0 | 1 | 316 |
| Level 7 | $\begin{array}{r} 78 \\ (75.73 \%) \end{array}$ | $\begin{array}{r} 2 \\ (1.94 \%) \end{array}$ | $\begin{array}{r} 19 \\ (18.45 \%) \end{array}$ | $\begin{array}{r} 4 \\ (3.88 \%) \end{array}$ | 103 | 0 | 0 | 103 |
| Level 6 | $\begin{array}{r} 358 \\ (77.99 \%) \end{array}$ | $\begin{array}{r} 19 \\ (4.15 \%) \end{array}$ | $\begin{array}{r} 79 \\ (17.21 \%) \end{array}$ | $\begin{array}{r} 3 \\ (0.65 \%) \end{array}$ | 459 | 2 | 4 | 465 |
| Level 5 | $\begin{array}{r} 109 \\ (64.13 \%) \end{array}$ | $\begin{array}{r} 15 \\ (8.82 \%) \end{array}$ | $\begin{array}{r} 43 \\ (25.29 \%) \end{array}$ | $\begin{array}{r} 3 \\ (1.76 \%) \end{array}$ | 170 | 1 | 5 | 176 |
| Level 4 | $\begin{array}{r} 5610 \\ (65.30 \%) \end{array}$ | $\begin{array}{r} 1453 \\ (16.92 \%) \end{array}$ | $\begin{array}{r} 1520 \\ (17.69 \%) \end{array}$ | $\begin{array}{r} 8 \\ (0.09 \%) \end{array}$ | 8591 | 205 | 76 | 8872 |
| Postdestruction pit | $\begin{array}{r} 118 \\ (46.82 \%) \end{array}$ | $\begin{array}{r} 63 \\ (25.00 \%) \end{array}$ | $\begin{array}{r} 71 \\ (28.18 \%) \end{array}$ | 0 | 252 | 0 | 2 | 254 |
| Post-destruction pit/Level 3 | 12 | 5 | 7 | 0 | 24 | 67 | 1 | 92 |
| Levels 4/3 | 50 | 87 | 75 | 0 | 212 | 297 | 0 | 509 |
| Level 3 | $\begin{array}{r} 283 \\ (25.29 \%) \end{array}$ | $\begin{array}{r} 543 \\ (48.53 \%) \end{array}$ | $\begin{array}{r} 291 \\ (26.00 \%) \end{array}$ | $\begin{array}{r} 2 \\ (0.18 \%) \end{array}$ | 1119 | 26 | 32 | 1177 |
| Levels 3/2 | 2 | 46 | 3 | 0 | 51 | 1 | 0 | 52 |
| Level 2 | $\begin{array}{r} 191 \\ (21.15 \%) \end{array}$ | $\begin{array}{r} 530 \\ (58.69 \%) \end{array}$ | $\begin{array}{r} 181 \\ (20.05 \%) \end{array}$ | $\begin{array}{r} 1 \\ (0.11 \%) \end{array}$ | 903 | 4 | 22 | 929 |
| D5 | $\begin{array}{r} 234 \\ (17.88 \%) \end{array}$ | $\begin{array}{r} 899 \\ (68.68 \%) \end{array}$ | $\begin{array}{r} 175 \\ (13.36 \%) \end{array}$ | $\begin{array}{r} 1 \\ (0.08 \%) \end{array}$ | 1309 | 12 | 74 | 1395 |
| Surface/ unstratified | 196 | 478 | 211 | 2 | 887 | 168 | 18 | 1073 |
| Unit no. lost: context unknown | 4 | 5 | 1 | 1 | 11 | 28 | 1 | 40 |
| Totals | 7572 | 4195 | 2796 | 26 | 14589 | 814 | 242 | 15645 |

[^19]
## CHAPTER 6

## Discussion of Pottery

## Level 8 (Figs 28-9)

The earliest securely dated pottery from Khirbet Khatuniyeh are two sherds of painted 'Nuzi Ware', the last phase of whose use at Nuzi is dated by a tablet to $c .1500 / 1475$ BC (Starr 1937-38: I, 122). ${ }^{1}$ Neither sherd from Khatuniyeh was found in Level 8 ( $\mathbf{1 0 0}$ from Level 5 and $\mathbf{4 5 7}$ from Level 2), but their presence nevertheless indicates that there was occupation at the site in the mid-second millennium bc. Since it seems likely that the Level 8 deposits at the bottom of the sondage were just above bedrock (see above), it must be one of the earliest levels on the site and could thus date from the 'Nuzi period' or earlier. Probably the most distinctive sherds from Level 8 are the fine painted sherds 13-17. They bear exterior painted horizontal bands in shades of brown or grey. The best-known painted pottery of the second millennium BC is actually 'Habur Ware', first named by Mallowan following his discoveries at Chagar Bazar (Mallowan 1937: 102-4). ${ }^{2}$ It is generally dated to the first quarter of the second millennium вс. However, with our small number of fragmentary pieces it is impossible to say whether we are dealing with Habur Ware or with a later variety of painted pottery. In the mid-second millennium BC, roughly contemporary with 'Nuzi Ware', painted pottery is known, for example, from Tell al-Rimah (David Oates 1972: pl. xxxia-b), from Tell Billa (Speiser 1933: pls Lx, LxII) and at Nuzi itself (Stein 1984: 23). Such pottery is sometimes known as 'later Khabur/early Nuzi', and also occurs at Chagar Bazar (Curtis 1982a: 84-5, fig. 64). In conclusion, therefore, it seems safest to reserve judgement about the precise dating of the Level 8 pottery at Khirbet Khatuniyeh, but the evidence does not preclude a date in the mid-second millennium BC .

There was certainly also pottery from this level in unit 41, which includes deposits of Level 8 as well as some from above, and is therefore presented here as mixed Levels 8 and 7 (19-40).

## Level 7 (Figs 29-30)

The size of the sample in Level 7 is very small - in fact the smallest of any of our levels - so it would be rash to draw

[^20]any firm conclusions. Nevertheless, it is worth noting that already present are bowls with inverted and thickened rim (43-4, and 27 from the mixed Levels 8-7 material) which also occur in Levels 6-3. The implication, then, is that the Level 7 pottery has Assyrian affinities, but whether it is of Middle or Late Assyrian date is not clear. Button-based beakers or vases such as $\mathbf{3 7}$ are known both from Middle Assyrian (e.g., Haller 1954: pl. 2aq) and from Late Assyrian contexts (Curtis 1989: fig. 10/42). There are no obvious connections with Middle Assyrian pottery from Tell Mohammed 'Arab (Roaf 1983: fig. 5), Tell Billa (Speiser 1933 : pl. Lxv) or Ashur (Haller 1954: pl. 2), but, again because of our small sample, this should not be seen as too significant.

## Level 6 (Figs 31-2)

Amongst the bowls in Level 6, the dominant form is those with inverted and thickened rims (52-9). Such bowls also occur in Level 4 (especially 124-9), which undoubtedly is Late Assyrian and they are even present in Level 3 ( $\mathbf{3 5 0} \mathbf{- 5 1 ) \text { , }}$ which is probably post-Assyrian. There are also large numbers of them from the Assyrian or post-Assyrian site of Khirbet Qasrij (Curtis 1989: figs 28-9/79-100). There are, however, only a few of the carinated bowls of distinctive Late Assyrian type (62-3). Nevertheless, there are other sherds with good Late Assyrian parallels, for example 75, a sherd of dimpled 'palace ware' (cf. Joan Oates 1959: pl. xxxvi/60-67; and 267 from Level 4), 77, the pointed base of a beaker (cf. ibid.: pl. xxxvi/49), and 78, the bottom of a beaker with button-base, similar to an example from Qasrij Cliff (Curtis 1989: fig. 10/42). On balance, therefore, the pottery from Level 6 appears to be of Late Assyrian date.

## Level 5 (Figs 33-4)

The pottery of Level 5 has much in common with that of Level 6, with examples of bowls with inverted and thickened rims ( $\mathbf{8 6}-7$ ) and carinated bowls ( $\mathbf{8 9 - 9 0}$ ). There were also parts of fine ware 'istikans' or drinking cups, such as occurred at Nimrud (Joan Oates 1959: pl. xxxviI/37-40) and Khirbet Qasrij (Curtis 1989: fig. 31/116-122). The parallels to the pottery of this level therefore again point to a date in the Late Assyrian period, and the painted Nuzi Ware sherd $\mathbf{1 0 0}$ must be a survival from an earlier occupation.

## Level 4 (Figs 35-53)

Without doubt the primary contribution of the excavations at Khirbet Khatuniyeh is the large body of well-preserved pottery from the rooms of the Level 4 building, destroyed, we believe, in about $612 \mathrm{BC} .{ }^{3}$ It has a particular interest in coming from a single and, apart from the pit in the northwest corner of Room 1, sealed context - two large rooms covered by a metre and a half of mud-brick collapse. On the other hand, the limited extent of exposure of the building makes interpretation of its function difficult and the collection of pottery is not a balanced or, perhaps, very typical one. There is a preponderance of jars, especially large storage jars, while open forms are comparatively scarce, although bowls were not totally absent as was our initial impression (Curtis and Green 1987: 76). ${ }^{4}$

The positions of intact and reconstructed vessels on the floors of the building are shown in Fig. 7 and have been discussed above.

Very few of the vessels could stand upright unaided. A few vessels had ring-bases (224-6, 228-9, 274-5, 316-22), one a flat base (266), one a rounded but somewhat flattened base which allowed it to stand (159), and the 'crater' 227 had a stand incorporated in its design. For the rest we have impossibly rounded or, more commonly, more-or-less pointed bases. The large vessels with rounded bases may often have been stored lying on their sides, only to be stood upright when in use. We identified only one pot-stand (184); it was lying on the paved area and might originally have supported 179 or 183 , which were found nearby. It would also have been possible to stand the round-based vessels in slight hollows in the floor or with their bases supported by bricks or rocks. The large vessels with sharply pointed bases (196-200, 204-5, 208, 210, perhaps 213) were doubtless stood upright by inserting the base into a small hole in the ground. We know that supporting frames or stands were also used to hold pots, and there may have been wooden ones in these rooms. Such stands are sometimes shown in Late Assyrian art, as on a palace relief of Ashurnasirpal II (Pl. XXIa; Layard 1849: pl. 30) or on cylinder seals (e.g. Parker 1955: pl. xiv/1; 1962: pls IX/3, 5; xviI/9; xxiI/5 = p. 39, fig. 12). A similar stand is also shown on the Assyrian-type bronze bowl found at Arjan in Iran (Fig. 20b; Majidzadeh 1992: fig. 1). In discussing one such depiction, on a cylinder seal, Barbara Parker has remarked that the jar has an unusually wide neck, and it may be that it is really an ordinary Assyrian water jar with a dipper placed on top' (Parker 1955: 102, sub ND 2152). In this regard, it is interesting to note at Khirbet Khatuniyeh the small open-top cups found in the vicinity of very large vessels (especially 108, 165,

[^21]266, 267, 269); it may be that in some cases these were the associated scoops. Little bottles with constricted necks (158-9, 161-3), however, were more likely for perfume or other toilet accessories (see below).

## Bowls

## Small bowl with flat base (108)

This little bowl is of a quite common Late Assyrian type. A rather similar example comes from an apparently Middle Assyrian burial at the nearby site of Tell Mohammed 'Arab (Roaf 1984: fig. 6/15). An example virtually identical in form to $\mathbf{1 0 8}$ was found in the excavations at the West Gate at Ashur (Bashir 1979: 343, fig. 1, top left). ${ }^{5}$ Other parallels come from a Late Assyrian grave at Ashur (Haller 1954: pl. $6 t$ ) and from the south-east building of stratum 1 at Tell Billa (Speiser 1933: pl. Lxvi/5), which is dated to the NeoBabylonian period (ibid.: 261f.). ${ }^{6}$ Two similar vessels were also found at Tell Halaf (Hrouda 1962: pl. 56/25, 30). Small bowls with flat bases are also known from Nimrud (Joan Oates 1954: pl. xxxvi/6; 1959: pl. xxxv/1) and Khirbet Qasrij (Curtis 1989: fig. 23/9-10).

## Bowls with inverted and thickened rim (122-9)

This was a common type at Khirbet Khatuniyeh, as at Khirbet Qasrij and elsewhere (Curtis 1989: 47, with discussion of the type at other sites). It has been thought to be a post-Assyrian type (loc. cit.), but its common occurrence in Level 4 at Khirbet Khatuniyeh proves that it is also a Late Assyrian type, despite its curious absence among the published pottery from Nimrud and Ashur. This form was apparently common at the Late Assyrian site of Sur Ju'reh in the Haditha region ${ }^{7}$, but the pottery from this site is not yet published. This bowl-type is also known from the Late Assyrian tombs at Humaidat (Ibrahim and Agha 1983: fig. 18).

## Painted bowls (134-6)

At Nimrud painted decoration is said to be rare in the Late Assyrian period (Joan Oates 1959: 137) and this is generally true of other Late Assyrian sites. However, painted jars and bottles are quite well attested, for example at Nimrud (Joan Oates 1959: pl. xxxviII/90-91), Khirbet Qasrij (Curtis 1989: fig. 40/271-6) and indeed in Level 4 at Khatuniyeh (nos 158, 231-2, 239-40, 249, 256, 258, 261-2, 265). Most of the painted sherds from Khatuniyeh (nos 276-302) are

[^22]also probably from jars or bottles. By contrast painted bowls are much more unusual, which raises the question of whether nos 134-6 are actually Late Assyrian products rather than imports or survivors from an earlier level.

## Carinated bowls with everted rim (138-52)

Carinated bowls are the most typical Late Assyrian form, being attested at all the major Late Assyrian sites, so it is no surprise to find them well-represented in Level 4 at Khatuniyeh. There are many variations in the form of these bowls, but all combine a carinated shape with an everted rim. Examples may be noted at Nimrud (Joan Oates 1954: pl. xxxvi/4-5, 10; 1959: 132, pls xxxv-xxxvi; McDonald 1995: nos 126-7), Ashur (Haller 1954: pl. 6, passim), Qasrij Cliff (Curtis 1989: figs 7-10) and Khirbet Qasrij (Curtis 1989: figs 24-5). None of the Khatuniyeh examples is complete so the form of the base is unknown, but generally such carinated bowls have a ring-base. However, flat bases are occasionally attested, for example at Nimrud (Joan Oates 1959: pl. xxxv/26) and Tell Sheikh Hamad in Syria (Kühne 1984: 174, fig. 67/1-3).

## Jars

## Small carrot-shaped bottle with painted horizontal bands (158)

Small carrot-shaped bottles with painted bands have been found at Nimrud (Joan Oates 1959: pl. xxxviII/90) and Nineveh (Thompson and Mallowan 1933: pl. Lxxiv/19). ${ }^{8}$ The latter was found in debris which has been attributed to about the seventh century вс (ibid:: 175). Another parallel with flattened base and wider body, also with a series of horizontal painted bands, comes from Khirbet Qasrij (Curtis 1989: fig. 40/276). An unpublished example also with painted horizontal lines was found at Ur and probably belongs to the period of Assyrian occupation (BM 138319). In Fort Shalmaneser at Nimrud a number of painted bottles, including the example cited above, were found in Corridor E of the Residency. Joan Oates suggests they may have been toilet articles belonging to Shamurtu, a woman official who seems to have had her quarters here (Joan Oates 1959: 134). She describes the carrot-shaped example as a 'perfume bottle'.

[^23]
## Small bottle with constricted neck, angular shoulders and rounded base (159) ${ }^{9}$

Bottles of approximately similar shape are known from Fort Shalmaneser at Nimrud (Joan Oates 1959: pl. xxxviII/86 = McDonald 1995: no. 140), from Late Assyrian burials at Ashur (Haller 1954: pl. $4 k, l$ ) and from the SH building and the Adad Gate excavations at Nineveh (Thompson and Mallowan 1933: pl. LXXIv/18 ${ }^{10}$; Suleiman 1971: fig. opp. p. 96, no. 5).

## Beaker with flared rim and nipple base (160)

Comparable beakers have been found at Nimrud (Joan Oates 1959: pl. xxxvi/78; McDonald 1995: no. 130) in Late Assyrian graves at Ashur (Haller 1954: pl. 5/l, $1_{1}, \mathrm{y}, \mathrm{z}$, aa), at Nineveh (Thompson and Mallowan 1933: pl. Lxxiv/17) and at Tell Halaf (Hrouda 1962: pl. 59/85-6). Another similar vessel is from Phase 2 of Building $F$ at Tell Sheikh Hamad (Kühne 1984: fig. 67/7), although in that case the base is more flat and compressed. This beaker can be compared to no. 269 in general appearance, although it is much larger and more elongated in body and neck.

## Small polychrome glazed bottle (161)

Glazed pottery was very rare in this level. Apart from 161 all that was recovered were a small rim sherd (243) and two tiny body sherds. At Nimrud, glazed pottery was similarly unusual. The collection included a large jar with chevron decoration from a grave in the Nabu Temple (Oates and Oates 1958: pl. xxvii/ 15 ) and, apart from pieces of a larger jar with a cuneiform inscription, only 'a few fragments' of glazed ware were found in Fort Shalmaneser (Oates 1959: 138). A large polychrome glazed jar similar to the Nimrud example was found at Khirbet Qasrij (Curtis 1989: fig. $45 / 351)^{11}$. Large glazed jars, sometimes decorated with kneeling bulls, have been found in Late Assyrian levels at, for example, Ashur (Andrae 1923: pls 17, 20; Haller 1954: pl. 3d), Tell Halaf (Hrouda 1962: pl. 59/94) and Tell Sheikh Hamad (Kühne 1984: fig. 67/16), but one is still left with the impression that glazed wares are uncommon in Late Assyrian contexts.

The small polychrome glazed flask or bottle from Khatuniyeh (161) has a colour scheme that incorporates blue, yellow and white and it is decorated with a petal design around the shoulder. The best parallels come from Ashur, where a number of similar glazed bottles have been found, usually in graves (Andrae 1923: pls 17 c -d, 18 a-b; Haller 1954: pl. 3 as-ay; McDonald 1995: nos 141-2). Further

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## Excavations at Khirbet Khatuniyeh

afield, polychrome glazed jars of similar but not necessarily identical shape and design may be noted at Kish (Matsumoto 1991: fig. 29/12, pl. 7h ${ }^{12}$, Babylon (Strommenger 1964: fig. 7/4) and Lachish (Magrill 1989-90). A particularly close parallel to the Khatuniyeh example is an unprovenanced glazed polychrome jar with petalled design in the Ishiguro collection (Ishiguro 1976: no. 134), 9.3 cm in height and 6.8 cm in diameter. It is attributed to 'Ziwiye', but even if that provenance is correct, it might well be of Assyrian manufacture.

## Small globular bottles with narrow necks (162-3)

These are closely paralleled in size and form by a vessel in 'palace ware' from Fort Shalmaneser at Nimrud (Joan Oates 1959: pl. xxxvii/81). The Khatuniyeh examples, however, are not of 'palace ware' but of heavily grit-tempered clay. Nevertheless, as with 158, these little bottles may have been containers for perfume or toiletries. Bottles of similar shape, but usually rather larger, come from Late Assyrian burials at Ashur (Haller 1954: pls 3an, 4m, $n$; Jero 1986: 47, fig. 11, bottom right) and from the site of Tell Half (Hrouda 1962: pl. 59/109; see also pl. 56/28 with nipple base). A miniature jar from Khirbet Qasrij (Curtis 1989: fig. 40/264) has a wider mouth.

## Vases (166-71)

It seems reasonable to group together these medium-sized jars with everted rims and rounded bodies that taper towards the base. They vary in height from 21.7 to 29.7 cm . The Khatuniyeh examples are sometimes quite long in the neck (especially 168). An illustrated example from Fort Shalmaneser at Nimrud has a flattened base (Joan Oates 1959: pl. xxxvin/97), to which our 166-8 are tending, but the majority from Khatuniyeh have rounded bases. Since at Nimrud this was 'a common type' 'that was found frequently' (Joan Oates 1959: 134, 145), there was most likely a range of variations as at Khatuniyeh. A similar range is recorded from Late Assyrian graves at Ashur (Haller 1954: pl. $3 g, h_{I}, m, o, r, r_{l}$, with flattened bases; pl. $3 k_{l}, k_{2}$, with rounded bases; pls $3 c, e, l, n, p, 5 q$, with pointed bases; pl. $5 w$, with long neck; see also photographs of vessels within this range from one tomb in Sürenhagen and Renger 1982: figs 12, 16/ac, ad). An example from Khirbet Qasrij has a rounded base (Curtis 1989: fig. 40/269), while jars from Late Assyrian graves at Humaidat and one from a Late Assyrian grave at Mohra have flattened bases (Ibrahim and Agha 1983: 164, fig. 14:1/4; Jakob-Rost et al. 1982: 103, fig. 8, 105, fig. 5). The base is missing on an example from Tell Sheikh Hamad (Kühne 1984: fig. 67/11). Some examples from Late Assyrian burials at Ashur have knob-bases (Haller

[^25]1954, pl. 3h,i) of the type that at Khatuniyeh are found only on the large straight-sided storage vessels $(\mathbf{1 8 8}, \mathbf{1 9 0})$.

## Large and medium-sized 'storage jars'(172-221)

These storage vessels come in a variety of forms, including jars with rounded bodies and rounded or pointed bases (172-87), tall straight-sided jars with knob-shaped bases (188-91), large-diameter jars with pointed bases (196-8) and tall medium-diameter jars with tapering bases (199-213). These jars are paralleled at Nimrud (Joan Oates 1954: pl. xxxix) and in Area JA Level 1 at Kish (Matsumoto 1991: pl. 7c). ${ }^{13}$ Large storage jars were also found in Late Assyrian tombs at Humaidat (Ibrahim and Agha 1983: pls 5 , 10). A relief from the palace of Ashurbanipal at Nineveh shows a servant carrying a large jar of this type (Pl. xxb; Barnett 1976: pl. LXIV). ${ }^{14}$

## Jar-stand (184)

Such stands, of differing sizes, are well known from Nimrud (Joan Oates 1959: pl. xxxix/110-14), Ashur (Haller 1954: pl. 5ab-ag; Sürenhagen and Renger 1982: fig. 12) and other Assyrian sites.

## Ring-based jars with everted rims (224-6)

The squat version (224-5) is closely paralleled at Nimrud (Joan Oates 1959: pl. xxxviII/93), where it is described as 'the commonest and most easily recognised late Assyrian jar' (ibid.: 134). It is also known at Nineveh (Thompson and Mallowan 1933: pl. Lxxiv/10) ${ }^{15}$ and there is an example from Khirbet Qasrij (Curtis 1989: fig. 32/147). Our 226 is not precisely paralleled, although similarly tall versions, but with wider necks, were illustrated from Nimrud (ibid:: pl. xxxvII/98-9) and are said to be common (ibid.: 134-5).

## Crater (227)

This rather unusual vessel was made in two parts, with the stand having been fitted before firing. Parallels are few. There are footed bowls of comparable shape from the Middle Assyrian stratum 2 at Tell Billa (Speiser 1933: pl. Lxv/7) and from a Late Assyrian context at Nineveh (Thompson and Mallowan 1933: pl. Lxxiv/14), but both are much smaller than our example. ${ }^{16}$ Large cauldrons with

[^26]conical bases are shown on Assyrian reliefs, for example being removed from captured Chaldaean settlements (Layard 1853: pl. 35; Reade 1983: pl. 61), and in banquet scenes (Botta 1849-50 I: pl. 76; Barnett 1976: pl. Lxiv), but these are appreciably bigger than our crater and it is not clear whether they are made of bronze or pottery.

## Beakers (267-75)

Beakers of the shape represented by 267 and 269 are well known in Assyrian contexts, and there are many examples from Nimrud. They occur both in 'palace ware', generally with dimpled bodies (Joan Oates 1959: pl. xxxvi//60-67), and in more common fabric (Joan Oates 1959: pl. xxxviI/79). The nipple-bases 271-5 are probably from coarse-ware beakers such as an example found at Qasrij Cliff (Curtis 1989: fig. 10/42, with commentary on p. 17).

## Post-Destruction Pit (Fig. 54)

The pit dug into the debris of Level 4 provided a relatively small amount of pottery and nothing that is particularly diagnostic. Nevertheless, some of the forms are comparable to Level 4 pottery. For example, the bowls with inverted and thickened rims 328-9 are like 124-9, the carinated bowl 331 like 138-49. The jar forms do not lend themselves to exact comparisons, but there is nothing here that would be out of place in a Late Assyrian assemblage. Therefore, there is nothing in the pottery to indicate there was any lengthy gap between the destruction of the Late Assyrian level and the digging of the pit.

## Level 3 (Figs 55-9)

Amongst the bowls from Level 3 there are a number of distinctive types. The bowls with inverted and thickened rim ( $\mathbf{3 5 0 - 5 1}$ ) were also attested in Level 4 (124-9). They are particularly well represented at Khirbet Qasrij (Curtis 1989: figs 28-9/79-100; cf. p. 47, where it is argued that the form might be post-Assyrian). The fine ware bowl 353 can be compared with fine ware bowls from Khirbet Qasrij (ibid.: fig. 31/140, commentary p. 48) and Nimrud (Joan Oates 1959: pl. xxxvi/59), although the rim is not so flared. The series of carinated bowls ( $\mathbf{3 5 8} \mathbf{- 6 3}$ ) may again be compared with examples from Level 4 (138-49) and with the extensive series both from Qasrij Cliff and Khirbet Qasrij (Curtis 1989: figs 7-10/3-31, figs 24-6/20-55). In Fort Shalmaneser at Nimrud 'the ring-based bowl with an everted lip and a carinated shoulder' is said to be 'by far the most common type' (Joan Oates 1959: 132).
The jars from Level 3 at Khirbet Khatuniyeh are not particularly distinctive, and there are no complete examples. The button-based beaker 382-4, however, is similar to examples from Qasrij Cliff (Curtis 1989: fig. 10/42) and Nimrud (Joan Oates 1959: pl. xxxvi/esp. 62), although
the Nimrud examples are generally of dimpled 'palace ware'.

It is clear then that the pottery from Level 3 has much in common with pottery not only from Level 4 but from other Late Assyrian and post-Assyrian sites, such as Nimrud, Qasrij Cliff and Khirbet Qasrij. There are no identifiable Hellenistic types and the pottery gives the strong impression of not being very far removed in date from the Level 4 material. We have argued elsewhere that Level 4 was destroyed in 612 BC or shortly thereafter, in which case the Level 3 pottery would fit into the post-Assyrian horizon. There are close parallels with Khirbet Qasrij, which it is suggested might be a post-Assyrian site (Curtis 1989: 51-4).

## Level 2 (Figs 59-64)

## Leah McKenzie

Most of the Hellenistic material recovered at Khirbet Khatuniyeh was found in Level 2, but some Hellenistic pottery is also present in the mixed Level $3 / 2$ deposits, amongst the material from Trench D5 and amongst the surface collections. Where appropriate, therefore, Hellenistic material from these other deposits is referred to here in the discussion of the Level 2 pottery. The material from Level 3 is post-Assyrian in date, so Khirbet Khatuniyeh is quite interesting typologically for it gives us a stratigraphic sequence of ceramics from the late Neo-Assyrian through to the middle Hellenistic period. The disappointments are that due to rising flood waters the sample is small and the Achaemenid period is probably not represented. The Hellenistic pottery found at Khirbet Katuniyeh like other northern sites is mostly of local manufacture. It is usually of a red slipped, well-levigated, orange-red ware. The shapes are very similar to those found on Hellenistic sites in the Levant, Syria and the North Jazira. The forms found at Khirbet Khatuniyeh are similar to the reportoire found at other sites along the upper Tigris such as Tell Deir Situn (Curtis et al. 1987-8: fig. 3), Grai Darki and Tell Mohammad 'Arab (Roaf 1983: fig. 6; 1984: fig. 3).

## Fishplate (477)

The fishplate with its down-turned rim and depressed centre is one of the most identifiable Hellenistic shapes. It has been found throughout the Hellenistic world as each region adopted the shape. It was a popular shape in the Levant and on other northern Iraqi sites. Examples may be noted from Antioch on-the-Orontes (Waagé 1948: pl. I/10a, f, k, p, 12a, f, k), Hama (Christensen and Johansen 1971: figs 1/1-20, 19/175), northern Syria (Kenrick 1981: fig. 241/4, 6-7, 45, 47), Samaria (Crowfoot, J., et al. 1957: figs 37/1-6, 43/1-2, 54/1-13, 15, 17, 20), Pella (McNicoll et al. 1982: pls 128/3, 129/12, 130/4; McNicoll et al. 1992: pls 75/1-5, 77/7-9, 11, 81/8) and Ashdod (Dothan 1971: figs 8/1-2, 5-6, 8-10, $9 / 12-14,10 / 2,16,14 / 22-27,15 / 1,3,78 / 8,98 / 10-17)$.

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Almost every Hellenistic site surveyed or excavated in the upper Tigris is recorded as having fishplates and Khirbet Khatuniyeh is no different. Examples may be noted at other sites in the Eski Mosul Dam Salvage Project such as Tell Deir Situn and Grak Darki (unpublished) and Tell Mohammed 'Arab (Roaf 1983: fig. 6/41-2). Elsewhere in northern Iraq it has been found at Nimrud (Oates and Oates 1958: pls xxim/3-4, 33, xxiv/1, 14, 31) and Nineveh (Thompson and Hutchinson 1929a: pl. Li/149-150, 155, 165; Thompson and Hamilton 1932: pl. Lu/3; Thompson and Mallowan 1933: pl. Lxxvi/7-8). The one example from Level 2 found at Khirbet Khatuniyeh is very similar in shape development to those from Tell Deir Situn Grai Darki and Tell Mohammed 'Arab which tend to be small with a ridge around the central depression, the wall sloping out to a shallow down-turned rim . The earliest occurrence of fishplates in northern Iraq is at Nimrud in Level 6 dated to the third quarter of the third century BC (Oates and Oates 1958: pl. xxiII/3). It was manufactured until the middle of the first century BC.

## Plates with rolled rims $(\mathbf{4 0 2}, 419)$

The plate with a rolled rim was another popular Hellenistic shape in Iraq. Dating from the fourth century to the early first centuries BC, it also had a wide distribution, being found in both Greece and the Near East. There are examples from Athens (Rotroff 1983: fig. 6/8-9; Thompson 1934: fig. 116/A70, C1, E1), Corinth (Edwards 1975: 37, nos 101-6; Pemberton 1989: no. 471), Tarsus (Goldman 1950: 155-6, fig. 179/34, 36-9), Antioch on-the-Orontes (Waagé 1948: pl. I/14u, 16a, k, 17a, f, k, n), Hama (Christensen and Johansen 1971: fig. 4/21-9, 31), northern Syria (Kenrick 1981: group IV, fig. 241/15-16), Samaria (Crowfood, J., et al.1957: fig. 37/8-10), Ashdod (Dothan 1971: figs $8 / 20,14 / 28,15 / 2$ ) and Nimrud (Oates and Oates 1958: pl. xxii/ $/ 5-6$ ). The basic shape was a plate with a ring base, the walls flaring diagonally, without change of direction, to a thickened or rolled rim. Most of the sites along the upper Tigris with Hellenistic deposits have recorded examples of the plate with rolled rim. There are examples from the nearby sites of Tell Deir Situn (Curtis et al. 1987-8: fig. 3/4-5) and Tell Mohammed 'Arab (Roaf 1984: fig. 3c). The two examples found at Khirbet Khatuniyeh demonstrate two different variants of the shape found in northern Iraq. No. 402 from level $3 / 2$ features a small knob-rim which was very popular in the Levant and northern Iraq. It appears to be an early variant of the shape. The other piece, $\mathbf{4 1 9}$, with its flattened rim is a later local development of the shape.

## Bowls with out-turned rims (430, 431, 490, 512-13)

The bowl with out-turned rim has been found on Hellenistic sites from North Africa to Afghanistan. It, together with the
fishplate and the bowl with in-turned rim, is characteristic of the Hellenistic repertoire. For example, there are bowls of this kind from Athens (Thompson 1934: nos A9, A71), ${ }^{17}$ Corinth (Edwards 1975: nos 72-94; Pemberton 1989: nos 90, 449-52), Tarsus (Goldman 1950: figs 121/42, 178/2), Antioch on-the-Orontes (Waagé 1948: pl. if/40-45), Hama (Christensen and Johansen 1971: figs 4/40-43), Samaria (Crowfoot, J., et al. 1957: 223, figs 37/14-16, 43/4-5, 48/1-8), Pella (McNicoll et al. 1982: pl. 128/1-2; McNicoll et al. 1992: pl. 81/5), Ashdod (Dothan and Freedman 1967: fig. 10/5; Dothan 1971: fig. 14/11-12) and Nimrud (Oates and Oates 1958: pl. xxim/8-11). The basic shape is a bowl with a ring-base, the walls curving out to an out-turned rim. Unlike the Levant where black glaze examples dominate the ceramic repertoire, locally made slipped wares are common in northern Iraq. The examples found at Khirbet Khatuniyeh are similar to forms found on other upper Tigris sites such as Tell Deir Situn (Curtis et al. 1987-8: fig. 3/9) and Tell Mohammed 'Arab (Roaf 1984: fig. 3a). The variant with a rolled rim (512-13) is the most common form found in the upper Tigris. The other variant with the angular profile (431) has a wide distribution but has only been recorded in isolated examples. There is insufficient evidence to determine whether the different variants on each site indicate a chronological sequence in occupation, but this appears unlikely.

## Bowl with profile rim (482)

The bowl with profile rim is a development of a NeoAssyrian shape. It is unknown in Greece and uncommon in the Levant, but appears in great numbers in Hellenistic Mesopotamia, particularly in northern Iraq. The walls of the bowl curve out and then upwards and inwards to a thickened rolled out-turned rim. The rim appears in profile to be offset. It has been found in the Levant at Antioch on-the-Orontes (Waagé 1948: pl. $\mathrm{I} / \mathrm{H} 12$ ) ${ }^{18}$ and in Iraq at Nimrud (Oates and Oates 1958: pl. xxiI/22) in local wares only. The bowl with profile rim was a local development of the Neo-Assyrian bowl with folded rim (Joan Oates 1959: pl. xxxv/3, 5, 11; Curtis 1989: fig. 10/29-31), but by the Hellenistic period the shape had changed substantially. Four variations of the shape can be observed in northern Iraq. The variations include grooves on the top of the rim, a thickened roll on the outside wall below the rim of the vessel and a flattened rim. While only the flattened rim type was found in the North Jazira, all variants were found in the sites along the upper Tigris, which suggests that this was where the shape developed. The piece found at Khirbet Khatuniyeh features a flattened rim.

[^27]
## Bowls with in-turned rims $(\mathbf{4 0 3 - 4 , 4 1 8}, 479,515)$

This was the most popular shape in the Hellenistic world, with a distribution from Spain to Afghanistan. It was made in many different wares, glazes and slips. The shape appears to have originated in Athens in the fourth century and lasted until the end of the second century bс (Sparkes and Talcott 1970: 131-2). ${ }^{19}$ However, its heyday was the third and second centuries вс. when it was popular throughout the Hellenistic world. Examples may be noted at Tarsus (Goldman 1950: 156, fig. 180/50-80), Antioch on-theOrontes (Waagé 1948: pls $/$ /H17-H20, ш/70-77, II/78-80), Hama (Christensen and Johansen 1971: figs 4/44-50, 6/51-9), Samaria (Crowfoot, J., et al. 1957: figs 38/1-10, 49/1-15, 56/7-11), Pella (McNicoll et al. 1982: pls 128/7-10, 129/5-6, 10, 130/5, 9; McNicoll et al. 1992: pls 75/11, 14, 77/4-5, 81/7, 82/6), Ashdod (Dothan and Freedman 1967: figs $4 / 1,5 / 3-5,7,10 / 1-4$; Dothan 1971: figs $8 / 4,11-16,10 / 3$, $11-14,14 / 16,15 / 20-21,23-4,16 / 2-8,60 / 18-19,24-34$, 78/9-12, 98/1-9, 99/7-8), Dura Europos (Cox 1949: 4-5, group 4), and Nimrud (Oates and Oates 1958: pls xxmi/14-16, 20, 29-31, xxvm/12). The bowl with in-turned rim is deceptively simple in shape, yet has many different variants in the ancient world. The general form is a bowl with ring-base, whose walls slope out and up before returning to an in-turned rim. The bowl with in-turned rim was extremely popular in the upper Tigris region. It was the most common fine ware type. All sites in the region have recorded examples of this type, including Tell Deir Situn (Curtis et al. 1987-8: fig. 3/7, 10, 13), Grai Darki (unpublished) and Tell Mohammed 'Arab (Roaf 1983: fig. 6/06; 1984: fig. 3b). There are a number of variant types from Khirbet Khatuniyeh. Several have the gently rounded rim $(\mathbf{4 7 9}, 515)$, one example has a marked rolled rim (403) while another has an angular profile (404). The variants may reflect a chronological change but could also reflect the popularity of the shape and could indicate the production of a number of potters. This variation is echoed at other sites in northern Iraq such as Tell Mohammed 'Arab, Grai Darki and Tell Deir Situn.

## Hemispherical bowls $(\mathbf{4 0 1}, 514)$

The hemispherical bowl has a wide distribution with finds at sites located from Spain to Iran. There is considerable literature concerning this shape (e.g. Strong 1966: 108-9; Fleming 1989; Rotroff 1982). There are examples of these bowls from Tarsus (Goldman 1950: 160, no. 114), Sultantepe (Lloyd 1954: local slip fig. I/52-3, black glaze fig. I/56), Antioch-on-the-Orontes (Waagé 1948: 12, no. 55, pl. n/55 b-g), ${ }^{20}$ Hama (Christensen and Johansen 1971: 117-18, form 18A),

[^28]northern Syria (Kenrick 1981: 456, fig. 241/10), Samaria (Crowfoot, J., et al. 1957: figs 53/5; 80/15-22), Ashdod (Dothan 1971: fig. 99/1-2), Tell Halaf (Hrouda 1962: 98, nos 116-17, pl. 73), Dura Europos (Cox 1949: nos 25, 46), and Nimrud (Oates and Oates 1958: pl. xxim/17, 23, 25, xxiv/9-10). In the neighbourhood of Khirbet Khatuniyeh, examples may be cited from Tell Deir Situn (Curtis et al. 1987-8: fig. 3/11, 14) and Tell Mohammed 'Arab (Roaf 1983: fig. 6/08; 1984: fig. 3d). In the west it appeared in the second century BC, but it was known from the late Achaemenid period and lasted into the Parthian period in the east. Generally, the bowl has a rounded base, and the walls of the bowl slope out to a simple pointed rim. Sometimes the base is indented. It is often decorated on the interior with either incision, moulded rim or painted motifs. Incised grooves run around the interior of the bowl below the rim. The rim is sometimes decorated with internal moulding. It has also been found with painted decoration of garlands similar to the west slope or Hadra wares. Two examples were found at Khirbet Khatuniyeh. One example (401) was a simple open bowl. The plain open bowl made in eggshell ware was very popular in central and southern Iraq but comparatively rare in northern Iraq. Generally most of the northern examples were decorated as in the second example found at Khirbet Khatuniyeh (514). It was decorated on the interior with a band of incised wavy lines between incised horizontal lines. The wavy lines are possibly an imitation of garlands. These are very similar to the black glaze hemispherical bowls found at Antioch-on-the-Orontes, dated to the early Hellenistic period by Waagé (1948: fig. 3/5-6).

## Storage vessels (408, 410, 432, 434, 436, 437, 439-56, 468-9, 508-9, 541-2)

The majority of the storage vessels found were jars. The term jar covers the many closed shapes with no handles. The form can have either a rounded or a flat base. Generally the jar has a large elongated body with a narrow neck and flaring rim. The most identifiable part of the jar is the rim form. There is currently no indication that one form of rim succeeded another. However, one form, the collar rim, may have evolved over time. It is likely that the short collar rims date to the early Hellenistic period and by the end of the Hellenistic period the rim had become elongated and exaggerated in shape. A number of different rim forms were recorded at Khirbet Khatuniyeh. They include the triangular, rounded, squared, flared and short collar rims. Generally storage jars were thick walled and not slipped. However many jars in northern Iraq were decorated with impressed designs and those from Khirbet Khatuniyeh are no exception. Examples of dog-tooth ( $\mathbf{4 6 2 - 4 , 5 0 9}, \mathbf{5 4 1 - 2}$ ), semi-circles $(\mathbf{4 6 4}, \mathbf{5 4 1})^{21}$ and moulded rope bands (462) have been

[^29]found. Generally these are on the body of the vessel. Painted bands also decorated storage vessels but are usually found on storage bowls (417).

## Trench D5 (Figs 65-6)

As we have explained when reviewing the excavations in Chapter 2, the pottery units from trench D5 are contaminated and unreliable. Therefore, all the pottery from this trench is treated together. It ranges in date from the Late Assyrian to the Hellenistic period. Amongst the Late Assyrian types are two bowls (483-4) which may be compared to 124-8 from Level 4. Probably of Hellenistic date are sherds with impressed dog-tooth decoration and, in one case, impressed 'sun-burst' designs. Sherds with dog-tooth decoration were also found in Level 2 (462-4) and in the surface deposits (541-2). Such decoration is well-attested in

Hellenistic levels at Nimrud (Oates and Oates 1958: pls xxI/17-18, 20, xxiv/8).

## Level 1 (Surface Clearance) (Figs 67-8)

Most of the identifiable potsherds found on or immediately beneath the surface in the excavated areas at Khirbet Khatuniyeh were of Hellenistic type. Reference has already been made in the discussion of the Level 2 (Hellenistic) pottery above to 512-13 (bowls with out-turned rims), 514 (hemispherical bowl with incised decoration possibly imitating garlands), 515 (bowl with in-turned rim) and 541-2 (sherds with dog-tooth decoration and impressed semicircles). However, mixed with these Hellenistic forms are, as one would expect, sherds that are representative of earlier levels at Khatuniyeh. Thus, the bowl 517 and some of the jar forms are probably of Assyrian or post-Assyrian date.

## CHAPTER 7

# Neutron Activation and Petrographic Analysis of Pottery 

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## Introduction

Following the earlier study of pottery from Khirbet Qasrij and Qasrij Cliff (Freestone and Hughes 1989), some sixty sherds of pottery from Khirbet Khatuniyeh were subjected to analysis for trace elements by neutron activation and for petrography by polarised light microscopy. In addition to the ceramics, a number of clays collected in the field were available for comparison.

## Neutron Activation Analysis

Neutron activation analysis was carried out using the standard technique employed in the British Museum, described in the earlier report (Freestone and Hughes 1989). Twentythree elements were measured, and full results are presented in Table 1. Multivariate statistical analysis (Orton 1980; Baxter 1994) was carried out on all of the data from both Khatuniyeh and Qasrij. The data were initially log-centred on the basis of eight particularly well-measured elements ( $\mathrm{Cs}, \mathrm{Sc}, \mathrm{Fe}, \mathrm{La}, \mathrm{Ce}, \mathrm{Eu}, \mathrm{Hf}, \mathrm{Th}$ ) using the method of Leese et al. (1989) in order to remove the effects of variable amounts of compositionally inert diluting material on the clay composition. In the present case, such diluents are likely to have been either calcite or quartz. The petrography (see below) suggests that the amounts of these components varied naturally in the clays and, probably in the great majority of cases, were not the result of deliberate temper addition by the potters. The net effect of the log-centring technique is to identify which ceramics and clays are closest to one another in their clay compositions, without interference from the diluents.

## Neutron Activation Analysis Results

A combined dataset, consisting of the Khatuniyeh analyses and the previous results on Khirbet Qasrij and Qasrij Cliff ceramics, was subjected to a series of multivariate statistical tests. The initial tests identified three samples which were so different in composition from the rest that they were excluded from the remaining statistical analyses. Catalogue
nos. QC81 (Qasrij Cliff) and KQ340 (Khirbet Qasrij) were identified as distinctive outliers by both NAA and petrography in the earlier study, and the addition of the Khatuniyeh analyses does not change this. A fine ware from Khatuniyeh (KK72) is also a NAA outlier but the fabric is too fine to show distinctive petrographic features.

Cluster analysis (Everitt 1993) was applied to the logcentred data for the remaining sherds, and the optimum number of clusters was fifteen. At fewer clusters than this, merging of clusters of samples with noticeably different compositions began. These fifteen clusters were in three broad groups, termed A-C. Detailed membership of the clusters is given in Table 1. A number of samples were significantly different from all clusters, and they are also indicated in the Table. In summary, the membership of groups A-C is as follows:

Group A Seven clusters containing thirty-one sherds and three local clay samples, plus three 'associated outlier' sherds, which do not belong to any cluster, but are relatively close to this group. One cluster is composed predominantly of Qasrij samples, the remainder are from Khatuniyeh plus local clays.

Group B Five clusters containing thirty sherds and one clay sample with four associated outliers. Nineteen of the sherds are from Qasrij and fifteen from Khatuniyeh, and there is considerable overlap between sherds from the two sites within the clusters. The Qasrij samples in this group are equivalent to groups 3-6 inclusive of the earlier study, which were concluded to be the local products.
Group C Four clusters containing twenty-six sherds, of which eight are from Qasrij and eighteen from Khatuniyeh, with four associated outliers from Khatuniyeh. Cluster 7 of this group (Table 1) contains the four Qasrij sherds from cluster 7 of the previous work, a group of sherds which were at that time interpreted as non-local. The present work confirms that these sherds are unlikely to have been produced in Qasrij, as they group with

## Excavations at Khirbet Khatuniyeh

ceramics from Khatuniyeh, but their compositions are characteristic of the area and they are unlikely to have been derived from a long distance.

Principal components analysis indicated which elements separated groups A, B and C. Group A tends to have lower rare earth elements (REE) and higher alkalis (potassium, rubidium and caesium); group B tends to have higher calcium, hafnium and REE and lower iron, scandium and chromium; group C tends to have higher chromium.

Group A is composed predominantly of Khatuniyeh ceramics, as is group $C$ which, given the previously assigned 'non-Qasrij' origin of cluster 7, contains very few ceramics that might have a Qasrij origin. Group B, however, is composed of ceramics from both Qasrij and Khatuniyeh.

## Petrography

The sherds were examined under the binocular microscope to identify gross characteristics, such as vegetal temper. A slice was then removed and prepared as a thin section, which was examined by polarised light microscopy.

The petrographies of the majority of the sherds were similar. Typically, they comprise a fine calcareous clay with varying amounts of silt-grade quartz and mica. Inclusions of sand grade quartz or calcite are rare to sparse in most of the samples. The petrographies were subdivided into two groups: 'fine fabrics' that contain very little material coarser than silt or very fine sand grade, and 'coarse fabrics' that contain significant amounts of sand.

## Fine fabrics

Forty sherds fell into this category. Rare to sparse quartzose or calcareous inclusions are present but these are geologically undiagnostic. None of these fine pastes have been tempered with sandy material and they represent the clay as dug, with or without the addition of vegetal temper.

The fine fabrics are similar to those characteristics of the bulk of the pottery previously examined from Khatuniyeh Qasrij and Qasrij Cliff. In the present case, an attempt was made to further subdivide them on the basis of textural characteristics such as the relative amounts of quartz silt and very fine sand, the presence/absence of fine mica and discrete calcite grains. Eight categories were drawn up on this basis and the fabrics grouped accordingly. In fact, no significance was observed with respect to excavation context and it is likely that the groups represent natural variations within the clay at a single locality and variations in firing conditions. The only significant variation noted within the fine group was in the presence of vegetal tempering, which, although present in nineteen of the forty sherds examined, was not present in the finest subgroup, suggesting that the potters were conscious of the properties of the finest clays and used them especially for fine wares which were not tempered.

## Coarse fabrics

Sherds with significant sand-grade inclusions were separated into a 'coarse' category. This is a relative term, as most of the fabrics under discussion are rather fine within the spectrum of ancient pottery as a whole. Typically, these sherds contain common poorly sorted silt- and fine-to-medium-grade quartzose sand, with variable amounts of calcite. Additionally, minor chert, altered feldspar and mica are commonly present, with chert rising to a major component of the sands in several sherds. However, these components, in the concentrations present, are not geologically diagnostic; furthermore, we were unable to form apparently meaningful groupings based upon the petrography. On the whole, the distribution of silt and sand grains in the sherds was not obviously bimodal, suggesting that they were included naturally in the clays. Although the sample of pottery from the post-destruction pit and Levels 2 and 3 was small (fifteen sherds), the results are consistent with the results of the sherd count in that sandier fabrics are more common and vegetal tempering less common in these later periods (post-Assyrian and Hellenistic).

## Discussion and Conclusions

Qasrij and Khatuniyeh are separated by only a few kilometres, hence it is not surprising that the elemental compositions of the ceramics of the two sites are very similar. The clays utilised are likely to have been the alluvial clays of the River Tigris, so diagnostic mineral inclusions were also not expected.

While there are no detailed correspondences between tentatively established petrographic groups and those produced by cluster analysis of the NAA data, there are some general similarities. In particular, it is observed from Table 1 that the petrographically coarse fabrics appear to be concentrated in a small number of clusters, notably 10 and 12 (group A) and 7, 13 and 14 (group C). Variations in silt and sand content of an alluvial clay can occur over very short distances and it is therefore possible that some of the variation in elemental composition observed represents natural variations of grain size within a single clay source. On the other hand, this grouping of the petrographically coarser fabrics by NAA could indicate differences between clay sources. This phenomenon illustrates the difficulties involved in interpreting the archaeological meaning of the fine structure of ceramic compositional data which are, in reality, very similar. We are therefore unable to be sure that the two groups which include most of the Khatuniyeh ceramics, groups A and C , represent two clay sources or if they represent variations within a single clay source.

It will be observed that the membership of the clusters in Table 1 differs from that obtained in the earlier report, when only ceramics from Qasrij were considered. This is a normal feature of cluster analysis and, in the present case, reflects
the general similarity of ceramics from Qasrij and Khatuniyeh. However, the broad conclusions remain the same. For example, it was concluded previously that the sherds then assigned to cluster 7 were 'non-Qasrij' products. These are now grouped with Khatuniyeh rather than Qasrij wares. Two of the sherds previously classified as outliers, QC 81 and KQ 340, remain so, while an outlier from the previous work KQ 114 does not group with any of the present clusters, although it is relatively close to cluster 1 of group A. Only one outlier of the previous study is pulled in to one of the current groups, and that is KQ 92, which is now grouped mainly with Khatuniyeh sherds in the present cluster 6 .

Turning to the relationship of the analytical groups with the type and context of the ceramics, at first sight the results are rather disappointing. Most of the clusters are formed by sherds of very different type, for example, cluster 15 in group A comprises a Level 4 dimpled beaker (KK 268) and two replicate analyses of a Level 2 painted bowl (KK 414). However, there are occasional meaningful links. Thus, there are two bowls with inverted rims from Level 3 (KK 350 and KK 351) in cluster 12 (group A), and two very similar bowls from Level 4 (KK 115 and KK 119) are in cluster 7 in group C. Certainly, in the case of KK 350 and KK 351, the elemental analyses are sufficiently similar to suggest that the sherds could be from the same vessel. However, a petrographic comparison suggests that this is unlikely, as the fabric of KK 351 is significantly coarser than that of KK 350 .

On a slightly more speculative note, it is worth noting that four button bases, probably from beakers with flared rims, are included in cluster 3 in group B and its outliers. Two come from Khatuniyeh (KK 271, KK 274) and two from Khirbet Qasrij (KQ 275a, KQ 311). Then, cluster 14 and its outliers in group C comprise four large jars from

Level 4 at Khatuniyeh (KK 187a, KK 197a, KK 197c, KK 204a), three of them of very similar form. Four large jars from Level 4 at Khatuniyeh are also included in cluster 6 of group B (KK 178, KK 185, KK 253, KK 260), but they are not of the same form. Apart from these cases, however, it is difficult to detect any meaningful patterns in the clusters.

While there are no published NAA data for ceramics of comparable date from this region, much earlier material from Gawra, Arpachiyeh and Nineveh has been analysed by Rothman and Blackman (1990). While these ceramics show certain compositional features in common with the Qasrij and Khatuniyeh wares, there are systematic differences in certain elements, notably chromium, scandium and iron, which are 20-50 per cent lower in the earlier pottery. This suggests that marked differences in ceramic composition in this region may occur over distances of around 50 kilometres.

To sum up, the results of the present work are consistent with those of the earlier study on pottery from Khirbet and Qasrij Cliff, confirming the same non-Qasrij group and outliers. There are compositional differences between Qasrij and Khatuniyeh, indicating the exploitation of different clay sources. However, there is substantial compositional overlap between the pottery from the two sites. A few correspondences between analytical group and ceramic type are present, but these are very limited. Petrography is inadequate to differentiate between such closely associated alluvial clays but has confirmed some outliers and shows a limited correlation with the variation in elemental composition. On an optimistic note, these results suggest that it should be possible to use NAA to answer ceramic problems on a relatively fine scale in this region, but to do so would require extremely tight control of the ceramic sample in terms of chronology and typology.
Table 4 Neutron activation analyses of ceramics from Khirbet Qasrij, Qasrij Cliff and Khirbet Khatuniyeh, arranged according to cluster.

|  | FABRIC | Na | K | Rb | Cs | Ca | Sc | Fe | Cr | Co | La | Ce | Eu | Sm | Lu | Yb | Hf | Th | U | Tb | Ta | Ba | As | Sb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cluster I |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| QC7 | fine | 0.70 | 1.11 | 112 | 4.57 | 12.9 | 20.3 | 5.57 | 412 | 37.3 | 21.3 | 51.7 | 1.15 | 4.50 | 0.392 | 2.10 | 3.60 | 8.02 | 1.65 | 0.92 | 0.70 | 529 | 5.4 | 0.64 |
| KQ 27 | fine | 0.29 | 1.85 | 96 | 4.68 | 8.4 | 20.9 | 5.84 | 339 | 34.2 | 22.5 | 54.0 | 1.20 | 5.21 | 0.382 | 2.29 | 3.82 | 8.04 | 1.57 | 0.94 | 0.67 | 800 | 12.2 | 0.65 |
| KQ 339 | fine | 0.67 | 2.11 | 93 | 4.65 | 8.8 | 21.6 | 5.81 | 459 | 36.8 | 24.2 | 56.7 | 1.22 | 5.13 | 0.376 | 2.42 | 4.25 | 8.43 | 1.54 | 0.97 | 0.73 | 770 | 7.7 | 0.58 |
| KQ 351 | fine | 0.83 | 1.30 | 83 | 5.17 | 9.2 | 20.1 | 5.55 | 429 | 34.2 | 23.7 | 51.5 | 1.21 | 4.92 | 0.368 | 2.19 | 3.75 | 7.98 | 1.59 | 0.92 | 0.72 | 440 | 9.5 | 2.13 |
| QC 72 | fine | 0.95 | 1.45 | 67 | 4.73 | 15.1 | 18.4 | 4.94 | 378 | 29.8 | 22.8 | 45.0 | 1.16 | 4.99 | 0.356 | 2.12 | 3.72 | 7.75 | 1.56 | 0.64 | 0.69 | 709 | 8.0 | 0.52 |
| QC 29 | fine | 1.29 | 1.29 | 76 | 4.26 | 13.5 | 19.1 | 5.31 | 437 | 32.0 | 23.5 | 50.7 | 1.17 | 5.32 | 0.336 | 2.09 | 4.17 | 7.99 | 1.95 | 0.86 | 0.68 | 403 | 26.4 | 0.76 |
| KK 90 | fine | 0.47 | 1.86 | 81 | 4.65 | 13.9 | 19.0 | 5.48 | 413 | 34.7 | 22.6 | 47.1 | 1.19 | 3.66 | 0.379 | 2.00 | 3.73 | 8.22 | 1.59 | 0.77 | 0.72 | 424 | 3.8 | 0.78 |
| Close to Cluster 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KQ 114 | fine | 0.22 | 1.33 | 71 | 4.12 | 10.7 | 15.3 | 4.96 | 291 | 170.2 | 17.6 | 45.3 | 1 | 3.25 | 0.251 | 1.6 | 3.17 | 7.33 |  | 4.59 | 0.61 | 324 | 7.6 | 0.41 |
| Cluster 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KQ 143 | fine | 0.36 | 2.27 | 102 | 5.59 | 7.9 | 21.7 | 5.87 | 427 | 36.3 | 22.4 | 48.3 | 1.10 | 4.69 | 0.352 | 2.16 | 3.48 | 8.33 | 1.93 | 0.77 | 0.65 | 738 | 5.7 | 0.63 |
| KK 27 | fine | 0.85 | 2.28 | 94 | 5.35 | 11.7 | 19.5 | 5.36 | 423 | 32.5 | 22.5 | 48.7 | 1.08 | 4.51 | 0.374 | 2.08 | 3.53 | 7.89 | 2.18 | 0.75 | 0.62 | 328 | 4.8 | 1.36 |
| KK 44 | fine | 0.62 | 3.34 | 99 | 5.24 | 9.1 | 17.6 | 4.95 | 402 | 28.2 | 22.0 | 47.0 | 1.09 | 3.33 | 0.394 | 1.98 | 3.81 | 8.10 | 2.05 | 0.85 | 0.66 | 390 | 8.1 | 0.95 |
| KK 99 | fine | 0.39 | 2.27 | 79 | 4.78 | 12.5 | 20.6 | 5.66 | 406 | 34.0 | 22.4 | 48.8 | 1.17 | 3.57 | 0.389 | 1.94 | 4.06 | 8.41 | 1.81 | 0.95 | 0.66 |  | 6.3 | 0.93 |
| KK 183e | fine | 0.98 | 2.42 | 94 | 6.01 | 14.1 | 19.3 | 5.31 | 435 | 31.5 | 24.0 | 46.5 | 1.10 | 5.10 | 0.394 | 2.52 | 3.97 | 8.39 | 2.69 | 0.83 | 0.68 | 406 | 4.8 | 0.79 |
| KK 76 | fine | 0.41 | 3.21 | 85 | 5.49 | 18.0 | 17.4 | 4.91 | 364 | 32.8 | 20.5 | 43.1 | 1.03 | 4.34 | 0.364 | 1.87 | 3.48 | 7.77 | 1.99 | 0.90 | 0.69 | 494 | 7.5 | 0.62 |
| KK 5 | fine | 0.51 | 2.80 | 97 | 5.07 | 16.5 | 19.2 | 5.36 | 380 | 30.4 | 22.2 | 47.5 | 1.17 | 4.59 | 0.373 | 1.88 | 3.96 | 8.51 | 1.72 | 0.93 | 0.65 | 419 | 5.2 | 0.75 |
| Cluster 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KK 477 | coarse | 0.80 | 2.17 | 82 | 3.31 | 8.6 | 19.0 | 5.19 | 561 | 37.7 | 20.9 | 39.5 | 1.05 | 3.22 | 0.371 | 1.95 | 3.72 | 6.55 | 1.65 | 0.64 | 0.61 | 636 | 4.3 | 0.61 |
| KK 353 | coarse | 0.89 | 2.21 | 82 | 4.23 | 6.9 | 19.5 | 5.35 | 600 | 39.2 | 21.1 | 42.1 | 1.11 | 4.26 | 0.371 | 2.16 | 3.85 | 6.69 | 1.92 | 0.68 | 0.55 | 584 | 3.6 | 1.00 |
| KK 181a | fine | 0.70 | 2.84 | 69 | 3.69 | 10.3 | 20.3 | 5.48 | 646 | 40.5 | 18.8 | 37.9 | 1.02 | 3.91 | 0.330 | 1.91 | 3.12 | 6.08 | 1.77 | 0.46 | 0.61 | 377 | 7.0 | 0.54 |
| KK 538 | coarse | 0.91 | 2.20 | 73 | 3.96 | 10.7 | 19.4 | 5.40 | 634 | 37.5 | 20.1 | 41.5 | 1.14 | 4.14 | 0.352 | 1.97 | 3.42 | 6.84 | 1.65 | 0.61 | 0.60 | 773 | 2.9 | 0.56 |
| Close to Cluster 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KQ 132b | fine | 0.67 | 1.08 | 88 | 4.59 | 14.6 | 21.6 | 5.91 | 482 | 40.3 | 20.4 | 42.0 | 1.15 | 4.66 | 0.355 | 2.04 | 3.57 | 7.45 | 1.50 | 0.81 | 0.60 | 344 | 2.6 | 0.72 |
| Cluster 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KC 1 |  | 0.48 | 2.00 | 98 | 5.43 | 17.5 | 16.6 | 4.63 | 390 | 26.2 | 19.2 | 39.8 | 1.03 | 4.17 | 0.310 | 1.88 | 3.50 | 7.04 | 2.02 | 0.65 | 0.53 | 178 | 4.8 | 0.57 |
| KC 5 |  | 0.61 | 2.67 | 102 | 5.62 | 15.8 | 18.5 | 4.64 | 493 | 40.4 | 21.0 | 44.0 | 1.08 | 4.44 | 0.298 | 1.87 | 3.46 | 7.78 | 1.94 | 0.78 | 0.59 | 222 | 10.4 | 0.72 |
| KK 511 | fine | 0.35 | 2.71 | 129 | 6.66 | 13.9 | 18.9 | 5.27 | 370 | 29.7 | 20.1 | 43.7 | 1.04 | 3.80 | 0.294 | 1.83 | 3.28 | 8.06 | 2.04 | 0.93 | 0.63 | 404 | 4.1 | 0.80 |
| KK 183a | coarse | 0.36 | 2.90 | 50 | 3.41 | 16.6 | 14.2 | 3.81 | 320 | 26.1 | 17.6 | 36.7 | 0.82 | 3.47 | 0.284 | 1.53 | 3.22 | 6.31 | 1.88 | 0.47 | 0.52 | 502 | 10.6 | 0.58 |



Excavations at Khirbet Khatuniyeh


|  | FABRIC | Na | K | Rb | Cs | Ca | Sc | Fe | Cr | Co | La | Ce | Eu | Sm | Lu | Yb | Hf | Th | U | Tb | Ta | Ba | As | Sb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group C (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Close to Cluster 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KK 225 | fine | 0.42 | 1.95 | 38 | 2.36 | 15.3 | 11.7 | 3.13 | 426 | 21.6 | 14.2 | 29.1 | 0.76 | 2.96 | 0.232 | 1.56 | 2.37 | 4.53 | 1.49 | 0.54 | 0.45 | 303 | 3.8 | 0.42 |
| KK 133 | fine | 0.59 | 2.77 | 57 | 2.75 | 17.0 | 16.9 | 4.71 | 453 | 27.7 | 18.9 | 38.3 | 0.97 | 3.98 | 0.326 | 1.90 | 4.31 | 6.89 | 1.62 | 0.62 | 0.60 | 270 | 8.8 | 0.59 |
| Cluster 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KQ 205 | coarse | 0.63 | 2.02 | 92 | 4.14 | 10.8 | 17.1 | 5.05 | 600 | 36.0 | 24.0 | 47.5 | 1.28 | 5.13 | 0.397 | 2.34 | 4.70 | 7.89 | 1.92 | 0.84 | 0.72 | 739 | 4.9 | 0.85 |
| QC 63 | fine | 0.88 | 2.46 | 81 | 3.62 | 9.6 | 19.9 | 5.49 | 473 | 34.1 | 24.9 | 52.3 | 1.29 | 5.69 | 0.395 | 2.43 | 4.25 | 8.31 | 1.80 | 0.88 | 0.79 | 573 | 21.9 | 0.73 |
| KK 339 | coarse | 0.65 | 1.62 | 79 | 3.87 | 13.0 | 16.1 | 4.49 | 596 | 28.3 | 23.5 | 47.6 | 1.19 | 3.65 | 0.400 | 2.28 | 3.74 | 7.74 | 1.74 | 0.94 | 0.69 | 405 | 4.0 | 0.78 |
| KK 3 | fine | 0.64 | 2.47 | 82 | 3.84 | 12.5 | 18.2 | 4.92 | 441 | 33.3 | 21.5 | 44.7 | 1.15 | 3.17 | 0.410 | 2.02 | 3.59 | 7.48 | 1.94 | 0.60 | 0.61 | 267 | 9.4 | 0.94 |
| KK 41 | fine | 0.66 | 3.03 | 69 | 3.89 | 10.4 | 18.6 | 4.94 | 391 | 32.1 | 23.0 | 48.3 | 1.15 | 4.61 | 0.407 | 2.29 | 3.68 | 7.92 | 1.77 | 0.85 | 0.66 | 333 | 11.9 | 1.44 |
| KK 101 | fine | 0.59 | 2.21 | 60 | 4.10 | 10.1 | 18.2 | 5.05 | 603 | 31.8 | 24.6 | 51.7 | 1.16 | 4.92 | 0.389 | 2.26 | 4.02 | 7.92 | 1.79 | 0.82 | 0.75 | 734 | 7.5 | 0.77 |
| KK 273 | fine | 0.92 | 2.36 | 94 | 4.22 | 13.4 | 20.9 | 5.65 | 447 | 33.1 | 28.7 | 58.1 | 1.44 | 6.33 | 0.438 | 2.84 | 4.54 | 9.00 | 3.32 | 0.95 | 0.91 | 676 | 17.9 | 0.78 |
| KK 92 | fine | 0.77 | 3.27 | 76 | 3.57 | 12.1 | 17.2 | 4.72 | 430 | 29.6 | 22.9 | 45.2 | 1.12 | 4.77 | 0.402 | 2.48 | 4.49 | 7.38 | 1.90 | 0.83 | 0.75 | 470 | 9.7 | 0.76 |
| KK 112 | fine | 0.66 | 2.03 | 70 | 4.03 | 16.3 | 17.2 | 4.76 | 395 | 28.7 | 23.3 | 47.7 | 1.17 | 4.91 | 0.365 | 2.28 | 3.81 | 7.72 | 1.87 | 0.80 | 0.73 | 366 | 7.8 | 0.73 |
| KK 144 | fine | 0.74 | 2.08 | 86 | 4.18 | 17.5 | 18.4 | 4.99 | 377 | 30.5 | 22.5 | 47.7 | 1.11 | 5.00 | 0.377 | 2.23 | 3.76 | 8.07 | 2.11 | 0.80 | 0.76 | 705 | 15.9 | 1.00 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KK 437 | coarse | 0.67 | 1.97 | 52 | 2.64 | 12.9 | 16.8 | 4.60 | 428 | 31.0 | 19.4 | 38.6 | 1.08 | 4.02 | 0.334 | 1.70 | 3.36 | 5.88 | 1.67 | 0.74 | 0.62 | 776 | 8.1 | 0.85 |
| KK 322 | coarse | 0.70 | 2.32 | 43 | 2.18 | 9.0 | 19.1 | 5.19 | 515 | 37.0 | 17.4 | 39.8 | 0.98 | 3.86 | 0.299 | 1.70 | 3.16 | 5.67 | 1.20 | 0.58 | 0.58 | 378 | 8.4 | 0.54 |
| KK 152 | fine | 0.62 | 2.50 | 45 | 2.50 | 15.1 | 16.7 | 4.61 | 394 | 29.7 | 19.9 | 39.8 | 1.06 | 4.31 | 0.348 | 1.95 | 3.06 | 6.36 | 1.64 | 0.69 | 0.59 | 567 | 7.5 | 0.68 |
| KK 149 | fine | 0.63 | 2.03 | 45 | 3.07 | 19.2 | 18.8 | 5.04 | 433 | 35.2 | 18.3 | 40.7 | 1.10 | 4.07 | 0.319 | 1.89 | 2.71 | 5.97 | 1.50 | 0.60 | 0.58 | 397 | 7.8 | 0.64 |
| Cluster 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KK 187a | coarse | 1.10 | 1.67 | 55 | 2.53 | 10.6 | 16.6 | 4.35 | 261 | 21.4 | 18.1 | 38.2 | 1.04 | 3.10 | 0.396 | 2.12 | 3.71 | 6.64 | 1.24 | 0.56 | 0.69 | 283 | 11.2 | 0.92 |
|  | coarse | 1.13 | 2.14 | 52 | 2.72 | 12.9 | 20.8 | 5.13 | 352 | 30.0 | 23.5 | 47.9 | 1.27 | 5.45 | 0.421 | 2.63 | 4.33 | 7.85 | 1.87 | 0.80 | 0.89 | 325 | 8.1 | 0.62 |
| Close to Cluster 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KK 204a | coarse | 1.16 | 1.75 | 57 | 3.38 | 8.7 | 18.9 | 5.34 | 537 | 32.2 | 26.1 | 53.2 | 1.35 | 4.35 | 0.443 | 2.53 | 4.50 | 7.82 | 1.91 | 0.89 | 0.80 | 447 | 9.0 | 0.85 |
| KK 197c | coarse | 1.00 | 1.92 | 42 | 3.22 | 2.4 | 18.5 | 4.49 | 367 | 29.0 | 25.8 | 40.1 | 1.38 | 5.56 | 0.401 | 2.65 | 3.77 | 5.74 | 1.64 | 0.76 | 0.73 | 182 | 8.9 | 0.63 |
| Outliers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| QC 81 | coarse | 0.46 | 1.25 | 43 | 1.98 | 12.3 | 9.1 | 2.39 | 424 | 13.6 | 14.5 | 27.4 | 0.78 | 3.16 | 0.230 | 1.38 | 3.05 | 4.50 | 1.31 | 0.44 | 0.42 | 271 | 8.3 | 0.47 |
| KQ 34 | coarse | 0.20 | 1.82 | 90 | 5.32 | 2.3 | 22.8 | 7.14 | 191 | 34.3 | 65.0 | 134.8 | 2.84 | 12.64 | 0.739 | 4.59 | 12.77 | 19.01 | 3.36 | 3.07 | 1.65 | 358 | 12.3 | 0.49 |
| KK 72 | fine | 0.44 | 3.80 | 66 | 2.83 | 18.6 | 16.8 | 4.62 | 337 | 23.5 | 20.3 | 42.1 | 0.97 | 4.19 | 0.354 | 1.86 | 3.52 | 7.12 | 1.88 | 0.77 | 0.63 | 258 | 8.2 | 0.69 |

Key to element symbols: Na sodium, K potassium, Rb rubidium, Cs caesium, Ca calcium, Sc scandium, Fe iron, Cr chromium, Co cobalt, La lanthanum, Ce cerium, Sm samarium, Eu europium, Lu lutetium, Yb ytterbium, Hf hafnium, Th thorium, U uranium, Tb terbium, Ta tantalum, Ba barium, As arsenic, Sb antimony.
A missing value in the table indicates an element below detection limit.
Key to site codes: $\mathrm{QC}=$ Qasrij Cliff; $\mathrm{KQ}=$ Khirbet Qasrij; $\mathrm{KK}=$ Khirbet Khatuniyeh; $\mathrm{KC}=$ local clay sample.
*KK 414 was analysed twice, as a replicate.

# CHAPTER 8 

# Animal Bones 

Paul Croft

## Introduction

This report is based on the writer's brief examination, undertaken in the field and without reference to comparative material, of the animal remains from Khirbet Khatuniyeh. It is the case that the proportion of the material which has been identified and the degree of confidence which may be placed on some of the identifications are lower than would have been possible under ideal circumstances. Nothwithstanding these limitations, and the small size of the sample as a whole, the analysis provides some information on the range of animals exploited by the inhabitants of the successive settlements at the site, and possibly some indication of their relative importance.
The assemblage consisted of a total of just over 10 kg of faunal remains, which included 283 identifiable fragments, representing some 56 per cent by weight of the material. In fact, a salty encrustation on and within many of the bones has inflated the weight of the material somewhat, and this encrustation also exacerbated problems of identification. About half the identified fragments were of Late Assyrian date, while the post-Assyrian and Hellenistic levels were represented by much smaller amounts of material.
The overall results of the analysis are outlined in Tables $5-6$, in which numbers and weights of identified fragments

Table 5 Summary of fragment counts of identified animal bone from Khirbet Khatuniyeh

| Level* | L8 | L7 | L6 | L5 | L4 | PDP | L3 | L2 | n.d. total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| equid | 0 | 0 | 0 | 0 | 6 | 1 | 6 | 1 | 2 | $\mathbf{1 6}$ |
| cattle | 0 | 0 | 2 | 0 | 10 | 1 | 1 | 4 | 4 | $\mathbf{2 2}$ |
| pig | 0 | 0 | 1 | 6 | 13 | 5 | 16 | 8 | 11 | $\mathbf{6 0}$ |
| caprines | 1 | 2 | 10 | 8 | 82 | 8 | 31 | 11 | 19 | $\mathbf{1 7 2}$ |
| fallow deer | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 1 | 0 | $\mathbf{1 0}$ |
| gazelle | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | $\mathbf{2}$ |
| fox | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | $\mathbf{1}$ |
| total | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 2 0}$ | $\mathbf{1 5}$ | $\mathbf{5 6}$ | $\mathbf{2 6}$ | $\mathbf{3 6}$ | $\mathbf{2 8 3}$ |

are tabulated by taxon and period. Bone fragments which were not identifiable to taxon were sorted into two groups: those which apparently represented large animals of cattle/equid size, and those of smaller animals. These weight data for unidentifiable material are also included in Table 6.

Tables $7-8$ and $10-12$ present detailed summaries of numbers and weights of bone fragments by context for each major phase of occupation at Khirbet Khatuniyeh.

## Level 8 (mid-second millennium BC ?)

Of the handful of bone fragments which can safely be attributed to Level 8, possibly of mid-second millennium BC date, only a single piece, found in the lowest excavated stratum at the site (unit 255) can be identified, as bone from catthe (Table 7). Fragments of pig and sheep or goat were found in a unit (41) mixing Level 8 and Level 7 deposits (Table 16).

Table 6 Summary of weights (in grammes) of animal bone from Khirbet Khatuniyeh

| Level* | L8 | L7 | L6 | L5 | L4 | PDP | L3 | L2 | n.d. total |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| equid | 0 | 0 | 0 | 0 | 67 | 18 | 173 | 28 | 1225 | 1511 |
| cattle | 15 | 0 | 100 | 0 | 622 | 16 | 49 | 123 | 239 | 1164 |
| pig | 0 | 0 | 10 | 37 | 127 | 17 | 209 | 107 | 136 | $\mathbf{6 4 3}$ |
| caprines | 0 | 33 | 81 | 50 | 800 | 34 | 256 | 288 | 246 | $\mathbf{1 7 8 8}$ |
| fallow deer | 0 | 0 | 0 | 0 | 455 | 0 | 22 | 11 | 0 | $\mathbf{4 8 8}$ |
| gazelle | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 14 | 0 | 34 |
| fox | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | $\mathbf{6}$ |
| large unident. | 34 | 0 | 128 | 31 | 871 | 49 | 225 | 340 | 791 | $\mathbf{2 4 6 9}$ |
| small unident. | 21 | 22 | 228 | 64 | 704 | 91 | 435 | 161 | 260 | $\mathbf{1 9 8 6}$ |
| total | $\mathbf{7 0}$ | $\mathbf{5 5}$ | $\mathbf{5 4 7}$ | $\mathbf{1 8 2}$ | $\mathbf{3 6 6 6}$ | $\mathbf{2 2 5}$ | $\mathbf{1 3 7 5}$ | $\mathbf{1 0 7 2}$ | $\mathbf{2 8 9 7}$ | $\mathbf{1 0 0 8 9}$ |

[^30]Table 7 Numbers and weights in grammes (in brackets) of bone fragments from Level 8 (mid-second millennium BC)

| Unit | Context | equid | cattle | pig | sheep/goat | fallow deer | gazelle | fox | unidentified bone |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | large | small |
| 254 | Level 8, all |  |  |  |  |  |  |  | (34) | (1) |
| 255 | lowest stratum |  | 1 (15) |  |  |  |  |  |  | (20) |
| Total |  |  | 1 (15) |  |  |  |  |  | (34) | (21) |

## Levels 7-4 (Late Assyrian)

The animals represented among the 164 identified bone fragments from Late Assyrian contexts included caprines 110 ( 67 per cent), pig 25 ( 15 per cent), cattle 13 ( 8 per cent), fallow deer (Dama mesopotamica) 8 ( 5 per cent) and equid 7 ( 4 per cent) (Table 8 ). This material came from a variety of contexts throughout the Late Assyrian levels investigated, but about three quarters of it was found in association with the floors and collapse of the burnt building in Level 4.

The only group of material within the Late Assyrian sample which may be worthy of separate mention comprises the animal bones from the ashy floor deposits in Room 1 of the building (units marked with an asterisk in Table 8). Even allowing for the smaller area exposed, the floor deposits of the adjacent Room 2 yielded comparatively little bone material.

This subsample of 60 identifiable fragments includes predominantly caprine material ( $n=36$ ), with cattle ( $n=8$ ), pig ( $n=6$ ), equid ( $n=5$ ), fallow deer $(n=4)$ also present as well as a gazelle mandibular fragment. These counts include a small quantity of material found within the terracotta coffin which stood in the blocked doorway in the south wall of the room. The upper fill of this coffin (unit 184) contained an unerupted caprine lower molar tooth, a burnt first phalanx of fallow deer and several very small, unidentifiable scraps of animal bone. The lower fill (unit 187) yielded a caprine pelvic fragment.

Amongst the Late Assyrian caprine remains from Khirbet Khatuniyeh, eighteen items could be referred specifically to sheep or to goat. Attribution to genus was undertaken with reference to the criteria of Boessneck (1969). The fourteen items which were identified as sheep included a wide variety of skeletal elements, but the four items identified as goat included three horncores. All three of these fragmentary goat horncores were of the untwisted 'scimitar' variety, two of them being of substantial size and the third being relatively small. The most complete specimen, a large horncore of which the basal third is preserved, is estimated to have had an original length of about 50 cm . Untwisted, scimitarshaped horncores of this size and in this period must represent the wild goat (Capra aegagrus). The smaller specimen, although it also lacks the twisted shape which characterises the horncores of most domestic goats, could represent either a wild goat, possibly a female, or a straight-horned domestic individual. It thus seems that sheep, presumably domestic
stock, were considerably more numerous than goats in the Late Assyrian faunal assemblage at Kh. Khatuniyeh. Goats were certainly hunted, although domestic goats may also have been kept.

Despite the predominance of caprine remains, apparently mostly representing sheep, in Late Assyrian contexts, these remains still constitute too small a collection to provide very strong clues as to the nature of caprine husbandry. Such data on epiphysial fusion as could be abstracted from the material are presented in Table 9, and it must be stressed that an attempt to interpret such a small body of data is hazardous in the extreme. It will be clear, however, that a considerable proportion (thirteen out of thirty) of the bones is immature, suggesting a high incidence of pre-adult death.

Tentative interpretation of the fusion data at a more detailed level would indicate that slaughter during the first year of life was uncommon, but that caprines were generally culled during the second and third years of life. The present small sample provides no evidence that any caprine lived beyond 3-3.5 years of age. If the lower third deciduous premolar is replaced by the fourth permanent premolar at 21-24 months (Silver 1969: 297, Table E), then a ratio of 5 dp3s to 3 P 4 s amongst the caprine dental material accords with the epiphysial evidence in suggesting a substantial level of juvenile mortality.

A caprine mortality pattern of the type outlined above would be most compatible with meat production having been the primary objective of caprine husbandry (see Payne 1973: 282, fig. 1). Even if this were the case, however, secondary products (milk and wool) would doubtless have been of some importance.

Apart from caprines, the other animals are represented by too few specimens for any worthwhile suggestions to be made regarding their mortality patterns. However, it is worth drawing attention to certain points regarding the remains of some of these other animals.

Equid The equid remains include some items found in unit 306, located beneath the sherds of the large pottery 'storage' jar 196, in the burnt floor deposits (upper ash layer) of Room 1 of the Level 4 burnt building. They consist of the shaft and unfused distal end of a radius, accompanied by four carpal bones, and represent part of a wrist joint which must have been deposited in sufficiently fresh condition that it had not entirely disintegrated.

## Excavations at Khirbet Khatuniyeh

Table 8 Numbers and weights in grammes (in brackets) of bone fragments from levels 7-4 (Late Assyrian)

| Unit | Context | equid | cattle | pig | sheep/goat | fallow deer | gazelle | fox | unide | done |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | large | small |
| Level 7 (Late Assyrian) |  |  |  |  |  |  |  |  |  |  |
| 39 | tumble/floor |  |  |  | 2 (33) |  |  |  |  | (22) |
| Total |  |  |  |  | 2 (33) |  |  |  |  | (22) |
| Level 6 (Late Assyrian) |  |  |  |  |  |  |  |  |  |  |
| 36 | L. $6 / 5$, levelling fill |  |  |  | 3 (14) |  |  |  | (48) | (65) |
| 37 | L. 6, tumble |  | 1 (88) | 1 (10) | 2 (3) |  |  |  |  | (60) |
| 38 | L. 6, floor |  | 1 (12) |  | 5 (64) |  |  |  | (80) | (103) |
| Total |  |  | 2 (100) | 1 (10) | 10 (81) |  |  |  | (128) | (228) |
| Level 5 (Late Assyrian) |  |  |  |  |  |  |  |  |  |  |
| 33 | fill |  |  | 6 (37) | 8 (50) |  |  |  | (25) | (64) |
| 34 | floor |  |  |  |  |  |  |  | (6) |  |
| Total |  |  |  | 6 (37) | 8 (50) |  |  |  | (31) | (64) |
| Level 4 (Late Assyrian) |  |  |  |  |  |  |  |  |  |  |
| 4* | Rm 1, floor, lower ash |  |  |  |  |  |  |  | (21) | (2) |
| 7* | Rm 1, floor, ash |  |  |  |  |  |  |  |  | (2) |
| 11 | Rm 1 , wall face |  |  |  | 2 (31) |  |  |  | (4) |  |
| 14* | Rm 1, floor, upper ash |  |  | 1 (18) | 1 (18) |  |  |  | (67) |  |
| 15* | Rm 1, floor, upper ash |  | 3 (87) | 3 (175) | 1 (77) |  |  |  | (186) | (3) |
| 16* | Rm 1, floor, upper ash |  |  |  | 2 (45) |  |  |  |  | (5) |
| 27 | Rm 1, tumble |  | 1 (109) |  | 1 (6) |  |  |  | (11) | (33) |
| 28* | Rm 1, floor, upper ash |  |  | 1 (1) | 7 (52) |  |  |  | (44) | (29) |
| 31* | Rm 1, floor, upper ash |  |  | 2 (17) | 5 (57) | 1 (9) |  |  | (37) |  |
| 32* | Rm 1, paved floor |  | 1 (39) | 1 (28) | 3 (19) |  |  |  | (73) | (25) |
| 61 | Rm 2, tumble |  |  | 1 (7) | 1 (2) | 1 (7) |  |  |  | (32) |
| 62 | Rm 2, tumble |  |  | 1 (2) | 4 (15) | 1 (36) |  |  | (7) | (60) |
| 64 | Rm 2, paved floor |  |  |  |  |  |  |  |  | (2) |
| 66 | Rm 2, tumble/paved floor |  |  |  |  | 1 (212) |  |  |  | (5) |
| 67 | Rm 2, floor, paved floor |  |  |  | 2 (17) |  |  |  |  |  |
| 177 | Rm 1, tumble | 1 (36) | 1 (36) | 1 (10) | 15 (59) |  |  |  | (87) | (131) |
| 179/183 | Rm 1, tumble |  |  | 1 (4) |  |  |  |  |  |  |
| 180 | Rm 1, tumble |  |  | 3 (37) | 7 (47) |  |  |  | (29) | (102) |
| 181* | Rm 1, floor |  | 2 (251) | 1 (3) | 3 (11) |  |  |  | (68) | (98) |
| 183 | Rm 1, tumble |  | 1 (79) |  | 5 (15) | 1 (4) |  |  | (17) | (58) |
| 184* | Rm 1, coffin, upper fill |  |  |  | 1 (2) | 1 (5) |  |  | (12) | (3) |
| 186* | Rm 1, floor |  |  |  | 1 (7) |  |  |  | (8) | (6) |
| 187* | Rm 1, coffin, lower fill |  |  |  | 1 (2) |  |  |  |  |  |
| 195* | $\mathrm{Rm} 1, \mathrm{~S}$ door, floor |  | 1 (21) |  |  |  |  |  | (6) | (2) |
| 252* | Rm 1, floor |  |  |  | 1 (5) |  |  |  |  | (1) |
| 253* | Rm 1, paved floor |  |  |  |  |  | 1 (20) |  |  |  |
| 302 | Rm 1, tumble |  |  |  | 1 (7) |  |  |  | (48) | (16) |
| 304* | Rm 1, floor, upper ash |  |  |  |  |  |  |  |  | (11) |
| 306* | Rm 1, floor, lower ash | 5 (31) |  |  |  |  |  |  | (3) |  |
| 353 | Rm 1, tumble |  |  |  | 1 (4) |  |  |  |  | (5) |
| 354(*) | Rm 1, tumble/floor |  |  |  | 1 (2) |  |  |  |  | (3) |
| 452 | Rm 1, tumble |  |  |  | 1 (4) |  |  |  | (21) |  |
| 455 | Rm 1, tumble |  |  |  | 2 (117) |  |  |  |  |  |
| 456 | Rm 1, tumble |  |  |  |  |  |  |  | (12) |  |
| 457* | Rm 1, floor |  |  |  | 3 (38) |  |  |  | (10) | (15) |
| 506(*) | Rm 1, tumble/floor |  |  |  | 3 (23) |  |  |  | (66) | (25) |
| 508* | Rm 1, floor |  |  |  |  |  |  |  | (1) |  |
| 510* | Rm 1, floor |  |  |  |  |  |  |  | (27) | (5) |
| 552 | Rm 1, tumble |  |  |  | 5 (20) | 1 (105) |  |  | (9) | (22) |
| Total |  | 6 (67) | 10 (622) | 13 (127) | 82 (800) | 8 (455) | 1 (20) |  | (871) | (704) |

Table 8 cont.

| Unit | Context | equid | cattle | pig | sheep/goat | fallow deer | gazelle | fox | unidentified bone |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | large | small |
| Post-destruction pit (Late Assyrian) |  |  |  |  |  |  |  |  |  |  |
| 173 | pit fill |  | 1 (16) | 2 (7) | 2 (6) |  |  |  | (34) | (18) |
| 178 | pit fill |  |  | 1 (1) | 3 (13) |  |  |  | (15) | (36) |
| 185 | pit fill | 1 (18) |  | 2 (9) | 3 (15) |  |  |  |  | (37) |
| Total |  | 1 (18) | 1 (16) | 5 (17) | 8 (34) |  |  |  | (49) | (91) |

* Units marked with an asterisk represent the floor deposits of Room 1 of the Level 4 building.

Fallow deer All eight fallow deer bones from Late Assyrian contexts are associated with the Level 4 building. Five of these fragments are antler and three are first phalanges. The antler fragments comprise two beam fragments and three bases, and all three of the latter come from shed antlers, indicating that these pieces had been collected rather than having originated from the heads of hunted deer. That antler was deliberately collected and forms a majority of the fallow deer remains attests its importance as an industrial raw material. In fact, a burnt antler beam fragment from the Room 1 floor deposits (unit 31) displays clear evidence of having been worked: one end has been cut transversely and trimmed, giving it a faceted appearance, and it may well have been part of a tool-haft.

Fifteen pieces of identifiable animal bone were recovered from the post-destruction pit dug down into the ruins of the Level 4 building, probably soon after its destruction (units 173,178 and 185). The fill of the pit was probably deposits disturbed from within the Level 4 building. Caprine and pig remains, as in the Level 4 building, were well represented, and equid and cattle were also present. Of the eight pieces of caprine bone, two were specifically attributable to sheep and none to goat.

Table 9 Fusion data for Late Assyrian caprine bones

| Elements | Fusion | Fused | Unfused |
| :--- | :--- | :---: | :---: |
| p. radius, d. humerus, <br> d. scapula | by 10 months | 7 | 1 |
| d. tibia, d. metapodial, <br> phalanx 1 | $13-28$ months | 7 | 6 |
| p. femur, d. radius, p. ulna, <br> calcaneum | $2.5-3$ years | 3 | 4 |
| d. femur | $3-3.5$ years | 0 | 2 |

NB Fusion ages have been taken from Silver 1969: 285f., Table A.
p. = proximal articulation, d. = distal articulation

## Level 3 (Post-Assyrian)

A majority of the fifty-six identified bone fragments from Level 3 (post-Assyrian) contexts was caprine. Of the thirtyone caprine fragments, seven could be referred specifically to sheep and none to goat. Pig $(n=16)$, equid $(n=6)$ and cattle $(\mathrm{n}=1)$ were also present. Additionally, fallow deer is represented by an astragalus from the earlier phase floor (unit 170), and fox by a rudimentary mandible from the later phase (unit 501) (Table 10).

## Level 2 (Hellenistic)

Identifiable animal bone fragments from Level 2 amounted to only twenty-six in number. Caprine remains were most abundant, closely followed by those of pig, with cattle, equid, fallow deer and gazelle also represented (Table 11). One of eleven caprine bones was referred to sheep. The fragment from unit 103 belonged to a much fragmented skull of a lamb or kid. The single gazelle fragment, a distal humerus, came from a disturbed context (unit 152). The single fallow deer fragment is a fairly confidently identified distal portion of a calcaneum, from silting in a soakaway in the floor (unit 154).

Despite the small size of all three faunal samples, it may well be of significance for the nature of the regional animal economy to note the general similarity in composition of the Level 2 sample from Khirbet Khatuniyeh to that of two other broadly contemporary samples from that area. Faunal samples from both the Hellenistic sites of Grai Darki (sixtysix identified fragments) and Tell Deir Situn (forty-seven identified fragments) were caprine dominated, with significant proportions of cattle and pig remains. ${ }^{1}$

## Unstratified material

Details of the animal remains which could not with a reasonable degree of confidence be attributed to one of the eight levels distinguished on the site are given in Table 12.

[^31]
## Excavations at Khirbet Khatuniyeh

Table 10 Numbers and weights in grammes (in brackets) of bone fragments from Level 3 (Post-Assyrian)

| Unit | Context | equid | cattle | pig | sheep/goat | fallow deer | gazelle | $f o x$ | unidentified bone |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | large | small |
| 10 | fill |  |  |  | 1 (12) |  |  |  |  |  |
| 12 | fill |  | 1 (49) |  |  |  |  |  |  |  |
| 19 | fill |  |  |  | 1 (16) |  |  |  |  |  |
| 54 | fil/floor |  |  |  | 2 (26) |  |  |  |  | (2) |
| 55 | fill/floor | 4 (122) |  |  | 2 (6) |  |  |  | (23) | (99) |
| 56 | fill |  |  |  |  |  |  |  | (18) | (22) |
| 60 | floor | 1 (42) |  | 5 (24) | 1 (9) |  |  |  | (3) | (96) |
| 101 | fill |  |  |  | 2 (10) |  |  |  |  |  |
| 104 | fill |  |  | 1 (22) |  |  |  |  |  | (4) |
| 107 | fill |  |  |  | 2 (44) |  |  |  |  |  |
| 109 | fill |  |  | 2 (2) | 1 (1) |  |  |  | (6) | (2) |
| 110 | floor |  |  |  | 8 (50) |  |  |  | (5) | (20) |
| 157 | later phase fill |  |  | 1 (15) |  |  |  |  |  | (39) |
| 162 | earlier phase fill/ later phase floor |  |  | 1 (20) | 2 (24) |  |  |  | (39) | (18) |
| 162/163 | tumble/fill/floor |  |  | 1 (30) | 2 (12) |  |  |  | (26) | (30) |
| 167 | tumble |  |  |  | 1 (4) |  |  |  | (55) | (7) |
| 170 | earlier phase floor | 1 (9) |  |  | 3 (16) | 1 (22) |  |  |  | (34) |
| 175 | walls |  |  | 2 (7) |  |  |  |  | (13) | (19) |
| 194 | earlier phase fill |  |  | 1 (35) | 2 (11) |  |  |  | (18) | (13) |
| 301 | fill |  |  | 2 (54) |  |  |  |  | (19) |  |
| 501 | later phase fill/floor |  |  |  | 1 (15) |  |  | 1 (6) |  | (28) |
| 502 | earlier phase fill/floor |  |  |  |  |  |  |  |  | (2) |
| Total |  | 6 (173) | 1 (49) | 16 (209) | 31 (256) | 1 (22) |  | 1 (6) | (225) | (435) |

Table 11 Numbers and weights in grammes (in brackets) of bone fragments from Level 2 (Hellenistic)

| Unit | Context | equid | cattle | pig | sheep/goat | fallow deer | gazelle | fox | unidentified bone <br> small |
| :--- | :--- | :--- | :--- | :--- | :---: | :--- | :--- | :--- | :--- |
| large |  |  |  |  |  |  |  |  |  |

## Animal Bones

Table 12 Numbers and weights in grammes (in brackets) of bone fragments from mixed and unstratified contexts

| Unit | Context | equid | cattle | pig | sheep/goat | fallow deer | gazelle | fox | uniden <br> large | $d$ bone small |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | Levels 3 and 2, mixed |  |  |  | 1 (9) |  |  |  |  | (10) |
| 41 | Levels 8 and 7, mixed |  |  | 4 (20) | 2 (7) |  |  |  |  | (42) |
| 59 | pit from unknown level | 1 (1150) | 1 (50) | 3 (44) | 1 (13) |  |  |  | (281) | (15) |
| 100 | surface collection |  |  |  | 1 (5) |  |  |  |  |  |
| 151 | surface excavation | 1 (75) | 1 (20) | 1 (13) | 2 (55) |  |  |  | (135) | (49) |
| 172 | Levels 4 and 3, mixed |  |  |  | 1 (1) |  |  |  |  | (9) |
| 202 | mixed |  | 1 (40) | 1 (47) | 1 (9) |  |  |  |  | (38) |
| 203 | mixed |  |  | 1 (12) | 3 (58) |  |  |  | (292) | (57) |
| 205 | mixed |  | 1 (129) |  |  |  |  |  | (80) | (2) |
| 300 | surface excavation |  |  |  | 1 (9) |  |  |  |  | (20) |
| 350 | surface excavation |  |  |  |  |  |  |  | (3) | (4) |
| 351 | Level 3 and slope-wash |  |  |  | 1 (8) |  |  |  |  |  |
| 500 | surface excavation |  |  |  |  |  |  |  |  | (1) |
| 550 | surface excavation |  |  |  | 1 (49) |  |  |  |  |  |
| 551 | Levels 4 and 3, mixed |  |  |  | 4 (23) |  |  |  |  | (7) |
| ? | context unknown |  |  |  |  |  |  |  |  | (6) |
| Total |  | 2 (1225) | 4 (239) | 10 (136) | 19 (246) |  |  |  | (791) | (260) |

An undated pit (unit 59) which cut Levels 2 and 3 contained a considerable quantity of animal bone, all of which was burnt. Small amounts of cattle, pig and caprine bone were identified from amongst this material, but the bulk of the animal remains consisted of the very fragmented head (skull and mandibular fragments) of an equid.

Topsoil clearance in the 'baulk' between trenches D1 and D2 (unit 550) yielded the distal half of a goat horncore which, unlike those discussed above from Late Assyrian contexts, displayed a very pronounced twist. This indicates that domestic goats were kept for at least some of the time during the occupation of the site.

## Conclusions

Few conclusions may safely be drawn from such a small, chronologically heterogeneous, bone sample as that recov-
ered from these limited excavations. However, the indications are that caprines, and in particular sheep, may have constituted the mainstay of the pastoral economy throughout the known occupation of the site. There is some indication from the Late Assyrian period that ovine pastoralism may have been geared primarily to meat production, and that wild goats were hunted. Pigs and cattle appear also to have been kept from the Late Assyrian through to Hellenistic times, and remains were also represented, but the species involved could not be determined. The remains of fallow deer, in particular pieces of antler, occur sparsely in all three major periods (Late Assyrian, post-Assyrian, Hellenistic), and gazelle and fox are also represented as rare components of the site fauna. The presence of remains of the latter three creatures, and of shed antlers, indicates that hunting and gathering activities were of some, although possibly rather limited, significance throughout.

## CHAPTER 9

## Shells

David S. Reese

Table 13 Shells from Khirbet Khatuniyeh

| Level 8 / Level 7 <br> D1, unit 41 | Fragments of a unio |
| :---: | :---: |
| Level 4 |  |
| D1, unit 15 (Room 1 floor) | 1 complete and intact unio valve (found at $2.30 \mathrm{~m} \rightarrow \mathrm{~W}$, $3.37 \mathrm{~m} \rightarrow \mathrm{~S}, 2.90 \mathrm{~m}$ below datum); very small land snail fragments |
| D4, unit 181 (Room 1 floor) | 1 land snail fragment (helicid) |
| D4, unit 186 (Room 1 floor) | 1 land snail fragment. |
| D4, unit 184 (Room 1, in coffin) | 4 very small land snails; 1 burnt, slightly larger, shell fragment |
| D2, unit 65 (Room 2, in stone-lined bin) | Small land snail fragments |
| Post-destruction Pit |  |
| D4, unit 178 | Fragments of a complete unio valve |
| Level 3 |  |
| D1, unit 20 (floor) | Fragments of a unio |

## CHAPTER 10

# Some Notes on the Herpetology ${ }^{1}$ 

A. Searight

A mouse, out of the way of a mongoose, entered a snake's hole. He said, 'A snake-charmer sent me. Greetings!' (Lambert 1960: 217).

Although the month of March is not an ideal time to view herpetological fauna in the north of Iraq, lack of recent material from field studies in the area, and the certainty of inundation by the dam encouraged us to feel that the few specimens we encountered would be worth recording.

The site stands at 250 m above sea level and has a mean annual rainfall of 300 mm . The landscape, which is dissected by wadis, is rolling and consists of stony grassland with rocky outcrops. Bad weather conditions in Turkey and the imminent completion of the Eski Mosul Dam 10 km to the south caused extensive flooding of the River Tigris, forcing reptiles from their hibernation and stranding some in our trenches.

## Amphibia <br> Marsh Frog (Rana ridibunda)

This comes from a group known as Green Frogs, and an adult of the species may grow up to 15 cm . It is noisy and highly aquatic, and its distribution now extends as far west as the UK, where it may breed with the Pool Frog (Rana lessonae) to produce the hybrid Edible Frog (Arnold 1978: 85).

Four juvenile specimens were collected from the trenches, all with very different colouration and markings. This is typical of the species and could be accounted for by temperature, time of day or mood (pers. comm., Dr E.N. Arnold). They are described as follows:

1. Pale beige with white vertebral stripe from snout to vent and random dark brown spots on dorsal surface. Barring and spotting on back legs. Length 6 cm .

[^32]2. Pale grey with a vertebral white stripe from snout to vent and random dark grey spots on the back. Barring and spotting on back legs. Juvenile.
3. Medium brown, with a wide vertebral band of green and transverse rows of fairly regular dark brown spotting. Barring and spotting on back legs. Length: snout to vent 3.5 cm .
4. Dorsal surface dark brown all over with random black spots, and some barring on thighs. This specimen was inspected at sunset, hence the possibility of its developing cryptic colouration for night-time.

The Persian Hamdullah al-Qazwini writing his zoological treatise in the thirteenth century describes the mythology and medical attributes of 228 animals. Of the frog he says:

It can live both on land and in water. It is generated from foul water; and a great number of frogs above the usual in a country is a cause of the outbreak of plague, since plague results when putridity becomes excessive. It is good for dropsy. If its tongue be laid on the heart of a sleeping woman, she will tell whatever she may have done. If it is burnt in a fire of reeds and rubbed on any place where hair is growing, no more hair will grow. If its blood be rubbed on a person's face, everyone that sees him will be fond of him. If anyone rubs himself with its fat, cold weather will not affect him. Its heart and bile are deadly poisons, and its flesh is forbidden as food. The frog sometimes grows to a great size (Stephenson 1928: 59).

## Testudines

## Stripe-Necked Terrapin (Mauremys caspica)

This fresh-water species ranges west into the Iberian Peninsula and east to the Zagros Mountains of Iran. Unlike tortoises, they are mainly carnivorous, feeding on fish, amphibians and carrion. Three to sixteen hard shelled eggs are laid in soft ground, taking about three months to hatch (Arnold 1978: 90-93; Leviton et al. 1992: 133).

One adult specimen found by the team had a mediumgrey carapace (dorsal shell) and a brown plastron (ventral)
with cream margins. The neck had a conspicuous yellow stripe, with the soft parts of the body in general coloured dark olive, spotted and streaked in yellow. It is possible that this was an elderly specimen, since the keel on the carapace was absent except on the nuchal plate by the head, and probably male because of its relatively long tail.

## Spur-Thighed Tortoise (Testudo graeca)

This is a mainly herbivorous species which will also eat some carrion, faeces and invertebrates. It is distributed to the west through the Mediterranean to Spain and to the east as far as Iran. Up to twelve hard-shelled eggs are laid (cf. $M$. caspica) (Arnold 1978: 91).

Two specimens were collected, one adult and one juvenile, floating alive in the river amongst the flotsam and jetsam beside the bank. Typically the juvenile (carapace length 7 cm ) was strikingly coloured yellow with dark markings, while the adult (carapace length 20 cm ) was more sombrely coloured medium grey-brown with darker brown markings. Both had their supra-caudal plates undivided (distinguishing them from the sympatric Testudo hermanni).

This species has been reported in Iraq from areas 500 to 1750 m ASL, above the timberline (Leviton et al. 1992: 135). These two would therefore seem to be from a lower altitude than hitherto known but it is possible that they had been swept down river in the flood waters from the higher ground to the north.

Hamdullah al-Qazwini writes of the tortoise/terrapin:
Its flesh is forbidden. It lives both on land and in water, but in their properties the two are alike. At the time of mating [the male] takes some grass in its mouth and then becomes desirous of the female; and they call that muhr-giyah ['love-grass']; if the grass is then taken away from the animal, anyone who keeps it [i.e. the grass] about him increases thereby his own love. Whatever member of a man pains him, if the same member of a tortoise be applied to it, he will be cured. Its bile is beneficial in epilepsy and diptheria. If its foot be tied on one suffering from gout, it will allay the pain - the right foot on the right and the left on the left. Its eggs are useful in the cough of children. If its blood be rubbed several times on a place where hair grows, it will grow there no longer; and its effect lasts a long time. Its bile mixed with honey and used as an eye-ointment will give immunity from cataract and make the eye clear (Stephenson 1928: 17).

## Serpentes: Colubridae

## Tessellated Water Snake, or Dice Snake (nonvenomous) (Natrix tessellata)

The range of this snake is wide, from Italy in the west to China in the east. Its colour is very variable, and its diet
consists almost entirely of fish, with the occasional amphibian (Arnold 1978: 204; Leviton et al. 1992: 101). Latif mentions that it is oviparous, laying five to twelve eggs in late summer (Latifi 1991: 99).

One specimen was found by the team at the water's edge near the excavation site (Pl. XXIIIb). Behaviour was slug. gish. Basic dorsal coloration was white with striking darkgrey chequer-board markings, as its name suggests, and the ventral surface was grey with white margins. As a species its markings are very variable (Arnold and Burton 1978: 267). Khalaf (1959: 74-5) says it may attain a length of one metre, while Boulenger (1920: 25-6) was told that on warm days at Lake Hamar in the south their numbers can be so great that 'the shallow water edging the lake appears to be writhing with them'. The snake is also said to simulate vipers by flattening the head and hissing (pers. comm., Dr E.N. Arnold).

Bodenheimer (1935: 186) comments on the species as Tropidonotus tesselatus and on its adaptation to aquatic life: 'By spreading out its ribs, it flattens its body so that it forms an actual rowing plate. Its lungs serve as a hydrostatic apparatus. When they are filled with air, the snake rises to the surface, after expiration it sinks . . .,

Corkill (1932: 556) says that it is 'known to the Arabs of riverain Iraq as "Haiat al Mai" . . . [it] is one of the two commonest snakes in the country and may be seen in numbers almost anywhere . . . particularly after the annual floods ... swimming about vigorously and often with small fish in their mouths. They always assume a very aggressive attitude when approached.'

## Schmidt's Whipsnake (non-venomous) (Coluber schmidti)

This snake occurs from central Anatolia eastwards to northern Iran; according to Schätti (1988: 22-3) it has not been found in northern Iraq, but its general distribution would indicate that it is present. It grows to a length of 150 cm and is a member of the Coluber juglaris group of which it was once regarded as a subspecies; this is still debated (Latifi 1991: 101; Leviton et al. 1992: 90, 93).

One specimen was found near the site and brought to the team by the workmen (Pl. XXIIIa). Its length was approximately 150 cm . It had medium-brown dorsal colouration formed by numerous fine stripes and superimposed by lines of darker spots. The ventral surface was cream with brown barring.

Its biology is presumably like other members of the jugularis group, eating small vertebrates and laying five to twelve eggs in summer; its behaviour can be aggressive, and it may hiss and attempt to bite (Latifi 1991: 101).

It is worth mentioning that another member of the jugularis group, Coluber jugularis itself, is widespread in Iraq: it is the large black snake often commented on by travellers in the Middle East. Corkill (1932: 558) says that it is

## Some Notes on the Herpetology

known to the Arabs of Iraq as 'Arbid' or 'Abrid' i.e. the black snake. It presumably shares the name with the much rarer and smaller Naja morgani (Hoodless or Desert Cobra now known as Walterinnesia aegyptia). The 'Urbid' is much feared by the Arabs, possibly on account of its large size and fierceness when cornered, but also ... because it is unlikely to be distinguished from the uniformly black Naja morgani. Certainly the latter is not a 'biter' as far as records go but it belongs to a poisonous genus, accidents with it have probably occurred and any 'Urbid' or black snake thereafter would be feared.

He later summarises (1939: 46) that it
is fairly common in its melanotic form throughout classical Mesopotamia. It is the largest snake in the country, appears to prefer vegetation rather than more arid habitats, and can be very fierce if approached or handled. It may be jet black on the back with the belly mottled with bright red . . . it is of considerable folk-interest . . . .

## List of Unit Numbers

The excavations were conducted using a system of units. These units represent the division of excavated material in the field. Although there is usually an attempt to make them correspond to stratigraphic realities, as perceived at the time, they can be arbitrarily changed at any time to lessen the chances of contamination. For this reason different units often, in effect, represent the same archaeological context. Units which mix archaeological contexts also occur, either accidentally through unsuspected contamination or deliberately in non-stratigraphic operations, such as sectioncleaning. Throughout the season and subsequently, the archaeological definitions of individual units were continually revised in the light of new information and greater understanding of the stratigraphy. The importance of the units lies primarily in the allocation of contexts to the finds, especially the batches of pottery.

PDP $=$ Post-destruction pit (dug into Level 4 ), $\mathrm{S}=$ surface, $\mathrm{U}=$ unstratified

## Unit Trench Level Description

| A1 | A | S/1 | Surface soil in uncovering Level 1 walls. | 31 |
| :---: | :---: | :---: | :---: | :---: |
| A2 | A | 2 | Fill, below footings of Level 1 walls down to floor. | 32 |
| A3 | A | 3 | Fill (in sounding). | 33 |
| A4 | A | 4 | ?Tumble (in sounding). | 34 |
| A5 | A | 4 | Fill and floor deposits (in sounding). | 35 |
| B1 | B | S/1 | Surface soil in uncovering Level 1 walls. | 36 |
| B2 | B | 1 | Fill of Level 1 tannur. |  |
| C1 | C | S/1 | Surface soil in uncovering Level 1 feature. |  |
| 1 | D1 | S | Surface soil. | 37 |
| 2 | D1 | 3/2 | Mixed fill (in E). | 38 |
| 3 | D1 | 4 | Room 1, tumble (in E). | 39 |
| 4 | D1 | 4 | Room 1, lower ash layer above floor (in E). | 40 |
| 5 | D1 | 4 | Room 1, upper ash layer above floor (in E). |  |
| 6 | D1 | U | Section-cleaning and removal of 1984 backfill (in E). | 41 |
| 7 | D1 | 4 | Room 1, ash layer above floor (at 1984 level of excavation) (in E). | 42 43 |
| 8 | D1 | 4 | Room 1, north face of Wall 4 (in E). | 44 |
| 9 | D1 | 2 | In west section of eastern half. |  |
| 10 | D1 | 3 | Upper fill, in west section of eastern half. | 45 |
| 11 | D1 | 4 | Room 1, north face of Wall 4 (in E). |  |
| 12 | D1 | 3 | Lower fill, in west section of eastern half. | 46 |
| 13 | D1 | 4 | Room 1, tumble (in E). |  |
| 14 | D1 | 4 | Room 1, upper ash layer above floor (in E of E sector). | 47 |
| 15 | D1 | 4 | Room 1, upper ash layer above floor (in W of E sector). | 48 |
| 16 | D1 | 4 | Room 1, upper ash layer above floor (in E). |  |
| 17 | D1 | 4 | Room 1, upper ash layer above floor (in area in E beneath large fallen stone). | 49 |
| 18 | D1 | U | 1984 backfill (in W). | 50 |


| 19 | D1 | 3 | Fill, in area between Wall 9 and (Level 2) Wall 15. |
| :---: | :---: | :---: | :---: |
| 20 | D1 | 3 | Floor, in area between Wall 9 and (Level 2) Wall 15. |
| 21 | D1 | 3 | Floor, in area west of (Level 2) Wall 15. |
| 22 | D1 | 3 | Fill and floor, in area south ofWall 9. |
| 23 | D1 | 3 | Floor, in area east of (Level 2) Wall 15 (in W). |
| 24 | D1 | $3 / 2$ | Levelling deposits(?) immediately beneath Level 3 and 2 walls (in W). |
| 25 | D1 | 2 | Fill of tannur. |
| 26 | D1 | 4 | Room 1, upper tumble (in W). |
| 27 | D1 | 4 | Room 1, tumble (in W). |
| 28 | D1 | 4 | Room 1, upper ash layer above floor (in W). |
| 29 | D1 | 4 | Room 1, tumble, in area abutting north face of Wall 4 (in W). |
| 30 | D1 | 4 | Room 1, upper ash layer above floor, in area abutting north face of Wall 4 (in W). |
| 31 | D1 | 4 | Room 1, lower ash layer above floor (in W). |
| 32 | D1 | 4 | Room 1, (lower) ash layer immediately above stone paving in north-west. |
| 33 | D1 | 5 | Fill (in sondage). |
| 34 | D1 | 5 | Floor deposits (in sondage). |
| 35 | D1 | U | General section-cleaning. |
| 36 | D1 | $6 / 5$ | Levelling fill (?) above Level 6 tumble and immediately beneath Level 5 floor (in sondage). |
| 37 | D1 | 6 | Tumble (in sondage). |
| 38 | D1 | 6 | Floor deposits (in sondage). |
| 39 | D1 | 7 | Tumble and floor deposits (in sondage). |
| 40 | D1 | 7 | Circle of a localised fire(?) on floor (in sondage). |
| 41 | D1 | 8/7 | All strata of Level 8 and Level 7 floor deposits (in sondage). |
| 42 | D1 | 8 | Second stratum from top (in sondage). |
| 43 | D1 | 8 | Lowest excavated stratum (in sondage). |
| 44 | D1 | 5 | Floor deposits (in cutting back N section of sondage). |
| 45 | D1 | 6 | Tumble (in cutting back N section of sondage). |
| 46 | D1 | 6 | Floor deposits (in cutting back N section of sondage). |
| 47 | D1 | 8/7 | Uppermost stratum of Level 8 and Level 7 floor and tumble (in cutting back N section of sondage). |
| 48 | D1 | 8/7 | Uppermost stratum of Level 8 and Level 7 floor and tumble (in sondage). |
| 49 | D1 | 8 | Third and fourth strata from top (in sondage). |
| 50 | D2 | S | Surface collection. |


| 51 | D2 | S | Surface soil. | 159 | D4 | 3 | Silt overlying soakaway in floor. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 52 | D2 | 2 | Fill. | 160 | D4 | 3 | SW Room fill (i.e. in angle of Walls 7 and |
| 53 | D2 | 2 | SW of secondary wall, fill and floor deposits. | 161 | D4 | 3 | 8, W side). <br> N Room, fill and floor deposits (in SW). |
| 54 | D2 | 3 | Fill and floor (except in SW). | 162 | D4 | 3 | Later phase floor and earlier phase fill |
| 55 | D2 | 3 | NE Room (i.e. in angle of Walls 10 and 12), fill and floor deposits. | 163 | D4 | 3 | immediately beneath. <br> Tumble (in N ). |
| 56 | D2 | 3 | W Room (i.e in angle of Walls 10 and 11), fill. | 164 165 | $\begin{aligned} & \mathrm{D} 4 \\ & \mathrm{D} 4 \end{aligned}$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | Later phase floor and earlier phase fill (in S). Articulation and cleaning of Level 3 walls. |
| 57 | D2 | 2 | Fill of oven. | 166 | D4 | 3 | Earlier phase, stone levelling material. |
| 58 | D2 | 3 | Fill, in south-west (within limits of Level 2 secondary wall). | 167 168 | $\begin{aligned} & \mathrm{D} 4 \\ & \mathrm{D} 4 \end{aligned}$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | Tumble (in N ). <br> Earlier phase fill (in S). |
| 59 | D2 | U | Pit of unknown date cutting Levels 2 and 3 . | 169 | D4 | 4 | Room 1, tumble. |
| 60 | D2 | 3 | W Room (i.e. in angle of Walls 10 and 11), floor deposits (except in extreme NW beneath Level 2 Wall 16). | $\begin{aligned} & 170 \\ & 171 \\ & 172 \end{aligned}$ | $\begin{aligned} & \text { D4 } \\ & \text { D4 } \\ & \text { D4 } \end{aligned}$ | $\begin{aligned} & 3 \\ & \text { PDP } \\ & 3 / 4 \end{aligned}$ | Earlier phase, floor deposits (in S). <br> Pit fill. <br> Level 3 earlier phase floor and Level 4 |
| 61 | D2 | 4 | Room 2, tumble (in W). |  |  |  | upper mud-brick tumble. |
| 62 | D2 | 4 | Room 2, tumble (in E). | 173 | D4 | PDP | Pit fill. |
| 63 | D2 | 2 | Removal of Level 2 walls. | 174 | D4 | 3 | Stone levelling material on top of Level 4 |
| 64 | D2 | 4 | Room 2, floor deposits above stone pavement (in E). | 175 | D4 | 3 | tumble. <br> Removal of Walls 7 and 8. |
| 65 | D2 | 4 | Room 2, contents of stone bin. | 176 | D4 | 3 | Earlier phase floor deposits (in SW). |
| 66 | D2 | 4 | Room 2, tumble and floor deposits above stone pavement (in area beneath Level 3 Wall 10). | $\begin{aligned} & 177 \\ & 178 \\ & 179 \end{aligned}$ | $\begin{aligned} & \text { D4 } \\ & \text { D4 } \\ & \text { D4 } \end{aligned}$ | $\begin{aligned} & 4 \\ & \text { PDP } \end{aligned}$ | Room 1, upper tumble. <br> Pit fill. <br> Room 1, lower tumble (in E). |
| 67 | D2 | 4 | Room 2, floor deposits above stone pavement (in W). | $\begin{aligned} & 180 \\ & 181 \end{aligned}$ | $\begin{aligned} & \text { D4 } \\ & \text { D4 } \end{aligned}$ | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ | Room 1, upper tumble (in N ). Room 1, floor deposits. |
| 68 | D2 | 4 | Room 2, tumble (in area beneath Level 3 Wall 11). | $\begin{aligned} & 182 \\ & 183 \end{aligned}$ | $\begin{aligned} & \text { D4 } \\ & \text { D4 } \end{aligned}$ | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ | Contents of jar $\mathbf{1 8 0}$. <br> Room 1, lower tumble (in N ). |
| 69 | D2 | 4 | Room 2, floor deposits (all of square). | 184 | D4 | 4 | Room 1, baked clay coffin (21) and con- |
| 70 | D2 | 4 | Room 2, tumble (in area beneath Level 3 Wall 12). | 185 | D4 | PDP | tents. <br> Pit fill. |
| 71 | D2 | U | West section cleaning. | 186 | D4 | 4 | Room 1, floor deposits. |
| 72 | D2 | $3 / 2$ | Removal of Levels 3 and 2 walls (unit number assigned later). | 187 | D4 | 4 | Level 4, baked clay coffin (21), lower contents. |
| 100 | D3 | S | Surface collection. | 188 | D4 | 4 | Room 1, in doorway to Room 2, floor deposits. |
| 101 | D3 | 1 | Fill. | 189 | D4 | 4 | Room 1, floor deposits (in SW). |
| 102 | D3 | 2 | Fill and floor deposits. | 190 | D4 | 4 | Room 1, floor (reclean). |
| 103 | D3 | 2 | Fill and floor deposits. | 191 | D4 | 4 | Room 1, tumble (in SW corner). |
| 104 | D3 | 3 | Upper fill. |  | (\& D3 | D4) |  |
| 105 | D3 | 3 | Floor deposits. | 192 | D4 | 4 | Room 1, floor deposits (in SW corner). |
| 106 | D3 | 3 | Upper fill. |  | (\& D3 | D4) |  |
| 107 | D3 | 3 | Upper fill. | 193 | D4 | 4 | Room 1, floor deposits (in W centre). |
| 108 | D3 | 2 | Fill of north-east oven. | 194 | D4 | 3 | Earlier phase, fill. |
| 109 | D3 | 3 | Lower fill. | 195 | D4 | 4 | Room 1, in doorway to Room 2, floor |
| 110 | D3 | 3 | Floor deposits. |  |  |  | deposits. |
| 150 | D4 | S | Surface collection. | 196 | D4(?) | 4 | Room 1 (?), tumble [renumbered pottery batch; label damaged in severe weather |
| 151 | D4 | S | Surface soil. |  |  |  | conditions and original unit number illegi- |
| 152 | D4 | 2 | Disturbed deposits (in E). |  |  |  | ble (177?), but from description certainly |
| 153 | D4 | 2 | Disturbed deposits (in W). |  |  |  | from Level 4 tumble]. |
| 154 | D4 | 2 | Silt overlying soakaway in floor. | 197 | D4 | 4 | Room 1, floor deposits in vicinity of (and |
| 155 | D4 | 2 | Floor deposits. |  |  |  | excavated with) $\mathbf{2 2 7}$. |
| 156 | D4 | 2 | Packing for soakaway in floor (stone, pottery and bone). | 198 | D4 | U | E section cleaning, with disturbance of Level 4 in situ remains. |
| 157 | D4 | 3 | Later phase fill, with tumble and silt (in NW). | 200 | D5 | S | Surface soil. |
| 158 | D4 | 3 | Later phase fill, with tumble and silt (in SE). | 201 | D5 | S | Slope-wash and fill down to upper stone pavement at max. 90 cm b.s. |

## Excavations at Khirbet Khatuniyeh

| $\begin{aligned} & 202-6 \text { D5 } \\ & 207-49- \end{aligned}$ |  | U | Trench D5, mixed. [Not used] | 358 | D6 | 4 | Room 1, floor deposits (in N ). |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | - |  |  |  |  |  |
|  |  |  |  | 400 | D7 | S | Surface collection. |
| 250 | D1 | 8 | Third and fourth strata from top (in sondage). | 401 | D7 | S | Surface soil (in S). |
| 251 | D1 | 8 | Fourth stratum from top (in sondage). | 450 | D1-D8 | S | Surface soil. |
| 252 | D1 | 4 | Room 1, floor deposits (in SW). | 451 | D1-D8 | 3 | Fill and floor deposits. |
| 253 | D1 | 4 | Room 1, floor deposits on stone paving (in cleaning N section of sondage). | 452 | D1-D8 | 4 | Room 1, tumble (and some overexcavation into Wall 1). |
| 254 | D1 | 8 | All strata (in sondage). | 453 | D1-D8 | S | Surface soil (in S). |
| 255 | D1 | 8 | Lowest excavated stratum in north (in sondage). | $\begin{aligned} & 454 \\ & 455 \end{aligned}$ | $\begin{aligned} & \text { D1-D8 } \\ & \text { D1-D8 } \end{aligned}$ | $\begin{aligned} & 3 \\ & 4 \end{aligned}$ | Fill and floor (in S). <br> Room 1, upper tumble (in S). |
| 256 | D1 | 4 | Room 1, as unit 30 , rebatching of sherds lifted with 204. | $\begin{aligned} & 456 \\ & 457 \end{aligned}$ | $\begin{aligned} & \text { D1-D8 } \\ & \text { D1-D8 } \end{aligned}$ | 4 | Room 1, tumble (in S). <br> Room 1, floor deposits. |
| 257 | D1 | 4 | Room 1, as unit 32 , deposits around $\mathbf{1 6 0}$ and 165 (in N section). | 458 | D1-D6-D8 | $3 / 2$ | Fill and floor deposits. |
| 258 | D1 | 4 | General fill [renumbering of material with details lost] | 500 | D1-D4 | 3 | Surface soil. |
|  |  |  |  | 501 | D1-D4 | 3 | Later phase, fill and floor deposits. |
| 300 |  |  | Surface soil. | 502 | D1-D4 | 3 | S room, earlier phase, fill and floor deposits. |
| 301 |  |  | Fill. | 503 | D1-D4 | 3 | N room, earlier phase, fill and floor |
| 302 |  |  | Room 1, tumble. |  |  |  | deposits. |
| 303 |  |  | Room 1, ash layer above floor. | 504 | D1-D4 | 3 | Cleaning Wall 7. |
| 304 |  |  | Room 1, upper ash layer above floor. | 505 | D1-D4 | 2 | Cleaning Wall 15. |
| 305 |  |  | Room 1, interface of upper and lower ash | 506 | D1-D4 | 4 | Room 1, tumble and floor deposits. |
|  |  |  | layers above floor. | 507 | D1-D4 | 4 | Room 1, doorway to Room 2, floor |
| 306 |  |  | Room 1, lower ash layer with bone deposit above floor, immediately beneath 196. | 508 | D1-D4 | 4 | deposits. <br> Room 1, floor deposits (in centre). |
|  |  |  |  | 509 | D1-D4 | 4 | Room 1, floor deposits (in N). |
| 350 | D6 | S | Surface soil, mainly slope-wash. | 510 | D1-D4 | 4 | Room 1, floor deposits (in extreme N ). |
| 351 | D6 | U | Level 3 deposits and slope-wash. |  |  |  |  |
| 352 | D6 | S/U | Slope-wash (down E side of mound). | 550 | D1-D2 | S | Surface soil. |
| 353 | D6 | 4 | Room 1, tumble. | 551 | D1-D2 | 4/3 | Fill. |
| 354 | D6 | 4 | Room 1, tumble and some floor deposits. | 552 | D1-D2 | 4 | Room 2, tumble. |
| 355 | D6 | U | N section cleaning. | 553 | D1-D2 | 4 | Room 2, floor deposits. |
| 356 | D6 | 4 | Room 1, floor deposits. | 600 | D3-D4 | 4 | Room 1, floor deposits. |
| 357 | D6 | 4 | Room 1, floor deposits abutting Walls 4 |  |  |  |  |

## Concordance of KK registration numbers and small finds/pottery catalogue numbers

KK 84/1 - SF 104
KK $84 / 2$ - Pot $\mathbf{1 6 1}$
KK $84 / 3$ - SF 108
KK $84 / 4$ - SF 109
KK $84 / 5$ - SF 112
KK 85/1 - SF 84
KK 85/2 - SF 98
KK 85/3 - SF 10
KK 85/4 - SF 9
KK 85/5 - SF 5
KK 85/6 - SF 75
KK 85/7 - SF 87
KK 85/8 - SF 14
KK 85/9 - SF 2
KK 85/10 - SF 12
KK 85/11 - SF 11
KK 85/12 - Pot $\mathbf{1 9 1}$
KK 85/13 - Pot $\mathbf{1 8 8}$
KK 85/14 - Pot $\mathbf{1 7 2}$
KK 85/15 - Pot $\mathbf{1 5 9}$
KK 85/16 - Pot $\mathbf{1 6 0}$
KK 85/17 - Pot $\mathbf{2 6 7}$
KK 85/18 - Pot $\mathbf{1 6 8}$
KK 85/19 - Pot $\mathbf{1 5 8}$
KK 85/20 - Pot $\mathbf{1 6 9}$
KK 85/21 - Pot $\mathbf{1 0 8}$

| KK 85/22 | - Pot 166 |
| :---: | :---: |
| KK 85/23 | - SF 19 |
| KK 85/24 | - SF 8 |
| KK 85/25 | - SF 86 |
| KK 85/26 | - SF 4 |
| KK 85/27 | - SF 79 |
| KK 85/28 | - SF 78 |
| KK 85/29 | - SF 13 |
| KK 85/30 | - SF 77 |
| KK 85/31 | - SF 102 |
| KK 85/32 | - Pot 184 |
| KK 85/33 | - Pot 269 |
| KK 85/34 | - Pot 226 |
| KK 85/35 | - Pot 162 |
| KK 85/36 | - Pot 190 |
| KK 85/37 | - SF 7 |
| KK 85/38 | - Pot 227 |
| KK 85/39 | - Pot 171 |
| KK 85/40 | - Pot 167 |
| KK 85/41 | - SF 20 |
| KK 85/42 | - Pot 163 |
| KK 85/43 | - SF 105 |
| KK 85/43 bis | - Pot 224 |
| KK 85/44 | - Pot 187 |
| KK 85/45 | - Pot 179 |

# Concordance of BM sample numbers and pottery catalogue numbers 

## Sample number

BM 1987-4-12,1
457
BM 1987-4-12,2
225
BM 1987-2-12,3
367
BM 1987-4-12,4
44
BM 1987-4-12,5
BM 1987-4-12,6
27

## BM 1987-4-12,7 <br> 237

## BM 1987-4-12,8 <br> 197a

## BM 1987-4-12,9 <br> 181a

BM 1987-4-12,10 183a
BM 1987-4-12,11 187a
BM 1987-4-12,12
368
BM 1987-4-12,13
41

## BM 1987-4-12,14 <br> 244

BM 1987-4-12,15
3

## BM 1987-4-12,16 <br> 274

BM 1987-4-12,17
477

## BM 1987-4-12,18 <br> 72

BM 1987-4-12,19 99
BM 1987-4-12,20
271
BM 1987-4-12,21 487
BM 1987-4-12,22 273
BM 1987-4-12,23 339
BM 1987-4-12,24 43
BM 1987-4-12,25 90
BM 1987-4-12,26 92
BM 1987-4-12,27 471
BM 1987-4-12,28 472
BM 1987-4-12,29 $\mathbf{1 4 9}$
BM 1987-4-12,30 112
BM 1987-4-12,31 353

## Sample number

BM 1987-4-12,32
BM 1987-4-12,33
BM 1987-4-12,34
BM 1987-4-12,35
BM 1987-4-12,36
Pottery catalogue

BM 1987-4-12,37
BM 1987-4-12,38
BM 1987-4-12,39
BM 1987-4-12,40
350
BM 1987-4-12,41 437
BM 1987-4-12,42 398
BM 1987-4-12,43 $\mathbf{3 2 5}$
BM 1987-4-12,44 152
BM 1987-4-12,45 150
BM 1987-4-12,46 $\mathbf{1 3 3}$
BM 1987-4-12,47 22
BM 1987-4-12,48 183d
BM 1987-4-12,49 253
BM 1987-4-12,50 $\mathbf{1 1 5}$
BM 1987-4-12,51 $\mathbf{1 1 9}$
BM 1987-4-12,52 260
BM 1987-4-12,53 75
BM 1987-4-12,54 268
BM 1987-4-12,55 185a
BM 1987-4-12,56 197c
BM 1987-4-12,57 322
BM 1987-4-12,58 $\mathbf{1 7 8}$
BM 1987-4-12,59 $\mathbf{1 4 7}$
BM 1987-4-12,60 $\mathbf{5 3 8}$
BM 1987-4-12,61 511
BM 1987-4-12,62 not included

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Fig. 1 Map of Iraq.




Fig. 4 Contour plan of Khirbet Khatuniyeh showing surface features and excavated areas.







Fig. 9 Plan of Level 2 structures


Fig. 12 Section V-W. Scale 1:40.




Fig. 14a Plan of trench D5 showing massive stone wall and cobble pavement, probably of Level 2. Scale 1:50


Fig. 14b West section of trench D5. Scale 1:50.


Fig. 14c Plan of trench $C$ showing stones after surface clearance, probably Level 2. Scale 1:50.
(

A2 compacted greyish
A3 $\begin{aligned} & \text { yellow deposit } \\ & \text { compacteod redilish } \\ & \text { yellow deposit }\end{aligned}$
A3 compacted reddisi
yellow deposit
A5 mud.brick
Mumble

5


$\qquad$


Fig. 16 Small finds from Level 6 (1), Level $5(2-4)$ and Level 4 (5-10).


Fig. 17 Small finds from Level 4 (11-19).


Fig. 18 Terracotta rhyton (20) from Level 4. Scale 1:2.


Fig. 19 Terracotta rhyton from Nimrud (ND 1273). Scale 1:2.


Fig. 20a Detail of a relief of Sargon II showing courtiers holding rhytons. From Botta 1849-50: I, pl. 65.


Fig. 20b Detail from a bronze bowl found in a tomb at Arjan in south-west Iran, showing a stand for rhytons and large pottery vessels. After Majidzadeh 1992: fig. 1.


Back view


Section $A-B$


Side view


Section C-D


Section E-F


Fig. 21 Terracotta coffin (21) from Level 4. Scale 1:10.


Fig. 22 Small finds from Level 4 (22-5, 29, 32, 65, 73-4). Scale 1:2.

$\underbrace{0} .5 \mathrm{~cm}$
$0,1,2 \mathrm{~cm}$


Fig. 23 Small finds from Level 4 (75-82).


Fig. 24 Small finds from Level $4(83-4)$ and the post-destruction pit (85).


92


0 5 cm

Fig. 25 Small finds from Level 3 (86-93, 96).


Fig. 26 Small finds from Level 3 (98-101), Level 2 (102-6) and trench D5 (107).


Fig. 27 Small finds from Level 1 and surface soil (108-13).


Fig. 27a Sherd count: macroscopic analysis of fabric colour by level.


Fig. 27b Sherd count: macroscopic analysis of fabric inclusions by level.


Fig. 28 Pottery from Level $8(\mathbf{1} \mathbf{- 1 8})$. Scale 1:3, except 12 at $1: 6$


Fig. 29 Pottery from Levels 8-7 (19-40). Scale 1:3, except $\mathbf{3 4}$ at $1 \cdot 6$


Fig. 30 Pottery from Level 7 (41-8). Scale 1:3.


Fig. 31 Pottery from Level 6 (49-60). Scale 1:3.

)




Fig. 33 Pottery from Level 5 (84-90). Scale 1:3.


103


Fig. 34 Pottery from Level 5 (91-107). Scale 1:3.


Fig. 35 Pottery from Level 4 (108-29). Scale 1:3.


Fig. 36 Pottery from Level $4(\mathbf{1 3 0}-\mathbf{4 6})$. Scale 1:3.


O $\qquad$

Fig. 37 Pottery from Level 4 (147-57). Scale 1:3, except 157 at 1:6.


Fig. 38 Pottery from Level 4 (158-65). Scale 1:3.


Fig. 39 Pottery from Level 4 (166-71). Scale 1:3.


Fig. 40 Pottery from Level 4 (172-7). Scale 1:6.




Fig. 41 Pottery from Level 4 (178-87). Scale 1:6.

192



194



Fig. 42 Pottery from Level 4 (188-95). Scale 1:6.


Fig. 43 Pottery from Level 4 (196-8). Scale 1:6.
$\qquad$

Fig. 44 Pottery from Level 4 (199-204). Scale 1:6.


Fig. 45 Pottery from Level 4 (205-10). Scale 1:6.


Fig. 46 Pottery from Level 4 (211-13). Scale 1:6.


Fig. 47 Pottery from Level 4 (214-21). Scale 1:6.


Fig. 48 Pottery from Level 4 (222-6). Scale 1:3.


Fig. 49 Pottery from Level 4 (227-9). Scale 1:3.


Fig. 50 Pottery from Level 4 (230-52). Scale 1:3, except 251 at 1:6.


270

271
272

$\qquad$ 5 cm

Fig. 51 Pottery from Level 4 (253-75). Scale 1:3.
276
282 M

295


283


296 $\square$


284


298 $299 \sim \sim$
292

$300 \sim$


280


285



281

$301 \square$




5 cm
Fig. 52 Pottery from Level $4(\mathbf{2 7 6}-307)$


Fig. 53 Pottery from Level 4 (308-26). Scale 1:3.



334





341

$\qquad$ 5 cm
Fig. 54 Pottery from the post-destruction pit (327-33). Scale 1:3.



364

$\circ$




Fig. 56 Pottery from Level $3(\mathbf{3 5 8}-68)$. Scale 1:3, except 364 at 1:6.

376
377

379
$\qquad$


Fig. 57 Pottery from Level 3 (369-80). Scale 1:3.

## 381 <br> $\square$



hypothetical reconstruction


389


390

391


392


안 $\qquad$ 5 cm


393





Fig. 58 Pottery from Level $3(\mathbf{3 8 1}-\mathbf{4 0 0})$. Scale 1:3, except 394 at 1:6.


Fig. 59 Pottery from Levels 3-2 (401-12). Scale 1:3.


431

Fig. 60 Pottery from Level 2 (413-31). Scale 1:3.


Fig. 61 Pottery from Level 2 (432-41). Scale 1:3


443


445


446


447


448

Fig. 62 Pottery from Level 2 (442-8). Scale 1:3.


454


460




Fig. 63 Pottery from Level 2 (449-65). Scale 1:3.


Fig. 64 Pottery from Level 2 (466-77). Scale 1:3



Fig. 66 Pottery from trench D5 (493-511). Scale 1:3.

5


515




Fig. 67 Pottery from surface clearance (512-32). Scale 1:3.


Fig. 68 Pottery from surface clearance ( $\mathbf{5 3 3} \mathbf{- 4 7}$ ). Scale 1:3.
电

## PLATE I


a The excavation team in spring 1985. From left to right: Wendy Knight, Ann Searight, Kirsty Norman, John Curtis, Marian Melnyczek, Terence Mitchell and Anthony Green. In the background are the ruins of a nineteenth-century qasr at Babneet.

b Khirbet Khatuniyeh in spring 1984, looking west.

a Excavations in progress at Khirbet Khatuniyeh in spring 1984, looking west.

b High water at Khirbet Khatuniyeh in spring 1985, looking west.

a Level 1 stone structure in trench A, looking west.

b Level 1 stone structure in trench A, with Level 2 wall and sounding on left, looking east.

a Stone structures probably belonging to Level 2 in trench C, looking east, with police post on the site of Tell Khatuniyeh in background.


a Smashed pottery of Level 4 in 1984 sondage in trench D1, south-east of Room 1, looking west. On left, pot $\mathbf{1 6 8}$

b Level 4 remains in trench D4, in front of west jamb of blocked doorway in south of Room 1, looking south. Left to right: terracotta coffin 21, pot 166 and clay loomweights 66-72

a Level 4 deposit in south-west corner of trench D1 (Room 1) with smashed pots 204 and $\mathbf{1 5 9}$ and clay loomweight 25


a Level 4 pavement in north-west corner of trench D1 (Room 1).

b Level 4 pavement in south part of trench D2 (Room 2), with bin, oven, stone basin and smashed jar 190.

a Section through fallen pisé blocks in Level 4, east part of trench D4 (Room 2).

b Blocked Level 4 doorway in south wall of Room 1 (trench D4) after removal of coffin

a Stone foundations of Level 4 wall overlying Level 5 wall, and sondage down to Level 6 floor in trench D1.



The main area of excavation at Khirbet Khatuniyeh before flooding, looking east,

a Terracotta coffin (21) in front of blocked doorway in south part of Room 1 (trench D4, Level 4).

b Terracotta coffin (21), side view.

b Detail of handle of coffin (21)

a Terracotta coffin (21), end view.


0 $\qquad$ 5 cm
a Whetstone (80), seeds and sickle (8) from inside coffin (21).

b Stone stamp seal (5), with modern impression. H. 1.7 cm .

c Clay sealing (6). H. 2.35 cm .

d A selection of unbaked clay loomweights from the Level 4 building.

a-b Two views of stone incense burner (84).

c Fragment of elaborate stone door-socket (112).

a Terracotta rhyton as found, lying close to north wall of Room 2 (Level 4).

b Terracotta rhyton (20) before restoration.


a Head of terracotta rhyton (20) before restoration.

a Terracotta rhyton from Nimrud (ND 1273), now in Mosul Museum.

b-c Two views of pottery rhyton from Nimrud (ND 4033) before and after restoration (courtesy of the Metropolitan Museum of Art, Rogers Fund, 57.27.20).

a Selection of pottery vessels from Level 4.

b Painted pottery bottle (158). H. 14.2 cm .

d Pottery bowl with tall base (227). H. 33.8 cm .

a Small pottery jar ( $\mathbf{1 6 0}$ ). H. 17.8 cm .
d Pottery jar with clay stopper (226). H. 25.0 cm .
b Fragment of dimpled beaker in Assyrian 'palace ware' (267). H. 8.9 cm .

c Polychrome glazed jar (161).
H. 10.4 cm .

e Large pottery 'storage jar' (196). H. 86.2 cm .

f Pottery jar (179). H. 45.4 cm .


a-d Four views of faience amulet of Egyptian type (104) from Level 2. H. 1.97 cm .

f Pottery foot(?) with incised decoration (98) from Level 3. W. 9.3 cm .
e Clay object pierced with two holes (109) from Level 1. L. 14.4 cm .

a Detail of relief of Ashurnasirpal II (BM 124548) showing part of an Assyrian camp with pots in a stand.

b Detail of relief of Ashurbanipal (BM 124916) showing a servant carrying a large jar.





Snake charmer from the Sinjar area 1971: above, with Coluber schmidti attached to his nose and, below, holding Vipera lebetina, probably fangless but certainly inhibited by the beads and coins attached to its head (photos: J. E. Curtis).




 401). وهناك جرار مزخرفة بحزوز تنبه "أسنان الكلاب" ونصف دوائر مختومة (2-541 ، 509 ، 4-462) ، وأجمالاً، فان هذه المجموعـة ، 4 ، 4 ، الكبيرة ذات دلاثل علمية للفخار الولنستي. الطبقة الأولى :
إن بقايا أبنية حجرية تبدو على سطح خربة الخاتونية (الشكلان 15a ، 4)، و هناك بناءان صغيران دائريا الشكل تطر هما يتراوح بين





 السوداء التي تنصب فوق منل هذا النو ع من الحجر . الخاتـة
 Reese تَربة الفخار" (بقلم M.J. Hughes, C. Freestone \& M.S. Humphrey) حيث وصفوا تحلبل حوالي • 7 كسرة من خربة الخاتونية. وتد قام
 منشابهة في المواقع الثدلدثة، وأن الطين المسنَعل مصدره الطين الغريني لنهر دجلة ولا يحتوي على أية شو ائب من الأملاح المعدنية.

 الرابعة وذلك لإنقاذ بعض الحاجات المفقودة التي لها قيمة ثمينة. |الطبقة الثالثة :










كانت قائمة في هذه الفترة.








## الطبقة الثاثية :

عُر على بقايا هذه الطبقة عند التّتقب في الخنادق D1 و إلى D5 والخندقين A و C. وتّع هذه البقايا الأثرية إما تحت السطح مباثـرة

 وهناك جدار أو تبليط عشر عليه في الزاوية الشمالية الغربية من D1 يعود إلى الفترة السكنبة للطبقة الثانبة. وفي الجهة الجنوبية من الخندق تبدو الأرضية محفورة بشكل بيضوي ومملو عة ببقايا حيو انات محروقة ومن ضمنها جمجمة لحيوان من فصيلة الحصـان. و عند الز اويـة اللشمالية الغربية من D4 هناك منخفض ممتلى بالحجارة الصغيرة وكسر الفخار فوق الحفرة الكبيرة التي وجدت في خرائب الطبقة الرابعـة. والمعتقد أن الأرضية المرصوفة بالحصى التي عشر عليها على عمق حوالي •و سم من سـطح الموقـع في الخندق D5 تعود إلـى الطبقـة الثنانية (الشكل a-b 14). وهذا التبليط مرتبط بالجدار الضخم الممند من الشرق إلى الغرب فـي الجهـة الجنوبيـة مـن الخنـدق. وينكون هذا A الجدار من حجارة بارتفاع • 7 سم فوق المساحة المبلطة. وهناك جدار كبير آخر يمتا من الشمال إلى الجن شمال بناء الطبقة الاولى (الشُكل 15a) حيث بلغ ارتفاع ما تبقى مذه . 7 سم وعرضه من الصخر تحت السطح مباشرة تَعود حسب اعتقادنا إلى الطبقة الثانية (الشكل ع14)




منتظم الشُكل. وبني فوق هذا التبليط صندوق ملاصق للجدار الجنوبي بقياس • \&,



 عُرنا على إناء شرب من الفخار رائع الشكل مصنو ع على رأس كبش (ryhton) (الشـكل 18 واللوحـان XV-XVI)، و هـو مزيـن بثلالتـة







 المستوطن الرئيسي. هدمت الطبقة الر ابعة بحريق كبير في آخر العصر الآشوري حوالي بالي












 الطبقة الرابعة فهي جرار الخزن الكبيرة (221-172)، وهي أكبر مجموعة اكتشفت في أي من المو اقع الآشورية حتـى الآن، ممـا يزيـ مـن





 الملون كان معروفا في العصر الآشّوري المتأخر

جؤجؤية (90 ، 89) وأقداح صغيرة للشرب (إستكانات) (99 ، 98). أما اللقى الصغيرة فتحتوي على كسر من الفخار المزجج، وحقـة مـن
 الطبقة الرابعة :






 الشرقي وإلى الشمال الغربي كانت مبلطة بحجارة غير منتظمة وبعض الطابوق (اللوح VIIa). إن آنار الحريق الكبير ظاهرة في كـر كل مكا مكان







 الخزن بينما كانت الأواني الصغيرة أقل عددًا.
 ومجموعة من سبعة أثقال بالقرب من عضادة الباب الغربية في الجدار الجنوبي (الشككل T) . ولعل هاتين المجموعتين من أثقال النـول تمئل









 هو منجل من الحديد (الشكل 16/8) ومشحذ حجري (الشكل 23/80). وعلى الأرض بجوار النّابوت وإلى الجهة الشمالية منه وجـدت بعض
 والحبوب التي تتاثرت على الأرض فنتيجة وقوعها عند عملية الخزن. أما المنجل والمشحذ فمن الطبيعي أنهما اسنَعملا في الحصـاد.
 وترسبات رماد بعمق • • r- ب سم وفوق هذه الترسبات أنقاض من طابوق الجدران المتهمة. وفي وسط الغرفة مساحة مبلطة بالحجر الغير

## تنثقيات خرية الخاتونية




 المساعدات الأخرى.








 الخاتونية و هي موضوع البحث في هذا الكتاب. وسنبدأ ببحت أقدم الطبقات ووصنها أو لألا

## الطبقة الثامنة :

 سكثبة في هذه الطبقة التي تميزت بترسبات رماد وطين مختلف الألوان تتحدر قليلا نحو الشرق. إن بقايا الفغار (اللوحان 29-28) في هذه

 الطبةة.

## الطبقة السابعة :

نقبت هذه الطبقة في المربع الاختباري (D1) أيضنّا. ومرة أخرى لم يعثر على بقايا بناء، ولكن هناك دلاك دلاتل على أن الطبقة كانت سـكنية لوجود ترسبات سوداء ورمادية تَمثل مواد عضوبة ورماد
 تحديد هذه الفترة بين العهن الآشوري المتوسط أو الحديث. ولم يعثر على لقى صغيرة في الطبّة السابعة. الطبقة السادسة :




 الطبقة الخامسة :
لقد ظهرت الطبةة الخامسة في الخندق الاختباري (D1)، وهي أقدم طبقة يعثر فيها على بقايا أبنية قائمة. ففي القسم الجنوبي من الخندق



This volume contains a detailed account of the excavations carried out in 1984-5 at the site of Khirbet Khatuniyeh in the Saddam Dam Salvage Project in northern Iraq. The site was occupied from the mid-second millennium BC down to the Hellenistic period, but its chief importance lies in the well-preserved Late Assyrian level dating from the seventh century BC. Part of a substantial building was uncovered which had been destroyed in a fierce fire, trapping in the ruins a large number of pottery vessels and some significant objects. As well as contributing important information to our knowledge of Assyrian material culture, the excavations at Khatuniyeh help to build up a picture of Assyrian daily life outside the main capital cities. In addition to a full report on the excavations, the book contains specialist reports on the ceramics, bones, shells and modern animal life. There is also an Arabic summary.

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With 69 pages of line drawings and 24 pages of plates


[^0]:    ${ }^{1}$ To the west of Wadi Khatkhun is the site known as Khirbet Wadi Khatkhun, excavated by Mr Charles Burney of the University of Manchester in 1983-4. For the location, see the map in Roaf 1983: 69. where the site is marked as no. 2 .

[^1]:    ${ }^{2}$ Contra references in Curtis 1987a: 205 and Curtis and Green 1987: 77 to six levels in the sondage.

[^2]:    ${ }^{3}$ The total cost of the spring 1985 season at Khirbet Khatuniyeh was $£ 5371.34$. This does not include the cost of workmen, which was covered by the State Organisation of Antiquities and Heritage. The spring 1984 season, when we worked mainly at Khirbet Qasrij but also undertook some excavation at Khatuniyeh, cost $£ 3415.26$.
    ${ }^{4}$ It was again very cold on Sunday 3 March when in the early morning a temperature of $-15^{\circ} \mathrm{C}$ was recorded with $8-10 \mathrm{~cm}$ of groundfrost.

[^3]:    ${ }^{6}$ On 24 October 1985, according to information received from a waterengineer from the German-Italian Mosul Dam Construction Company (GIMOD), the water level in the lake was 276.10 m and rising at a rate of $7-8 \mathrm{~cm}$ per day.
    ${ }^{7}$ For reports on these sites, see Curtis 1987b; Curtis, Green and Knight 1987-8; and Curtis 1997.

[^4]:    ${ }^{1}$ In some baked brick pavements at Khorsabad 'stone was incorporated where it was handy' (Loud 1936: 63).

[^5]:    ${ }^{2}$ Since we did not identify its base, 218 has been indicated in two separate places.
    ${ }^{3} 309$ is not shown on Fig. 7 because it was retrieved from the general pottery batch and its exact location is unknown.
    ${ }^{4}$ In spite of the fact that the 'small dish' $\mathbf{1 0 8}$ was included in this preliminary report (p. 75, fig. 3/5).

[^6]:    ${ }^{5}$ Contrary to what we erroneously state in Curtis \& Green 1987: 75.

[^7]:    ${ }^{6}$ On the plan, Fig. 5, three of the stones of this pavement are shown as unarticulated. This is because, until the day the site went under water, vessel 190 was lying in situ on top of them, and although the sherds were lifted, there was no time to investigate the precise configuration of the stones beneath.

[^8]:    ${ }^{7}$ The part-profiles 223 and $\mathbf{3 0 8}$, which are single sherds, come from debris well above the floor.
    ${ }^{8}$ The low number of sherds that can be assigned to the floor deposits, as compared with Room 1, is in part due to a failure in our excavations here always to distinguish, by change of unit number, between pottery from the floor deposits and that from the mud-brick collapse.

[^9]:    ${ }^{1}$ We are grateful to Dominique Collon for these references.

[^10]:    ${ }^{2}$ ND 1273. Now in Mosul Museum. L. 22.5 cm ., max. diam. at rim 14.0 cm .
    ${ }^{3}$ Beneath room 34 of house no. 5 . For location of this room, see Mallowan 1966: I, fig. 120.

[^11]:    ${ }^{4}$ ND 4033, now in the Metropolitan Museum of Art, New York (MMA 57.27.20). For supplying photographs and giving permission to publish this piece, we are grateful to Dr Prudence O. Harper.
    ${ }^{5}$ BM 138404/1932-12-12,937. We are grateful to Dr St. J. Simpson for bringing this piece to our attention. There is also a fragment of a faience rhyton from Nineveh in the British Museum, no. 138466/1932-12-12,999. ${ }^{6}$ A photograph of this rhyton is not yet published, but it is referred to in Stronach 1995: 182.
    ${ }^{7}$ For a discussion of this question, see Curtis 1994: 17.

[^12]:    ${ }^{8}$ For further observations, see Curtis 1994: 17. Another bronze rhyton, said to be double lion-headed and possibly Assyrian, was found by H. Kyrieleis in the Heraion at Samos in 1983 (Catling 1983-4: 59) but is apparently not yet published.
    ${ }^{9}$ For further references to animal-headed vessels in the Assyrian texts, see Curtis 1988: 90.
    ${ }^{10}$ The possibility should be considered that some of the Hasanlu pieces are furniture terminals, as are the bronze gazelle heads from Khorsabad wrongly identified as cups by Muscarella (1988: 24).

[^13]:    ${ }^{11}$ Museum of Anatolian Civilizations: Museum News no. 6 (July 1995).
    ${ }^{12}$ We are grateful to Dr D. Collon for this information.
    ${ }^{13}$ Most of the graves in cemetery A at Tell el Mazar are thought to belong to the Persian period (Yassine 1984: 5) but some of the material from the graves, particularly pottery, looks as if it could be Late Assyrian in date (e.g. Yassine 1984: figs 3/1-2, 6-8). Zorn suggests (1993: 221-2) that the Tell en-Nasbeh coffin fragment should be dated to the Late Babylonian period, but as the piece is unstratified and as Tell en-Nasbeh was intensively occupied earlier in the Iron Age there seems to be no good reason to accept this proposal.

[^14]:    ${ }^{14}$ To this list should now be added Tell Fara (Chambon 1984: pl. 76/1-8), Tell Qiri (Avissar et al. 1987: fig. 56/1) and Tell el-Hammeh (Cahill et al. 1989: fig. on p. 37).

[^15]:    ${ }^{15}$ We are grateful to Jill Cook of the Department of Prehistoric and Romano-British Antiquities at the British Museum for checking these descriptions.

[^16]:    ${ }^{16}$ See also Millard 1984 and Shea 1986.

[^17]:    ${ }^{17}$ For information about this amulet we are grateful to Carol Andrews of the Department of Egyptian Antiquities, British Museum.

[^18]:    * i.e. total sherds excluding cooking ware and those with unrecorded colour.

[^19]:    * i.e. total sherds excluding cooking ware and those with unrecorded inclusions.

[^20]:    ${ }^{1}$ For Nuzi Ware, see Hrouda 1957; Cecchini 1965; Stein 1984.
    ${ }^{2}$ For Habur Ware, see Hrouda 1957; Stein 1984.

[^21]:    ${ }^{3}$ Useful, though presently unpublished, reviews of Late Assyrian pottery are Gatti 1987 and Hausleiter 1991. Helen MacDonald is currently preparing a volume of Late Assyrian pottery from the 1949-63 excavations at Nimrud.
    ${ }^{4}$ The 'small dish' $\mathbf{1 0 8}$ was included in this preliminary report (p. 75, fig. 3/5)

[^22]:    ${ }^{5}$ No scale is given to Bashir's drawings, but comparison with the other vessels shown in Fig. 1 suggests that this bowl is similar in size to 108. For a summary of SOAH excavations at the West Gate, see Madhlum 1979.
    ${ }^{6}$ For the architecture and plan of this level, see. Bache 1935. Room 'V7' in Speiser 1933: 281, sub pl. LXVI/5, is an error for 'W7'.

[^23]:    ${ }^{7}$ Pers. comm., R.G. Killick. For further information about Sur Jur'eh, see Killick and Roaf 1983: 221.
    ${ }^{8}$ This is apparently at $1: 3$, not $1: 6$. From what can be checked against extant vessels now housed in the Department of Western Asiatic Antiquities of the British Museum, it would seem that the scales given for the Assyrian and post-Assyrian pots in this article (pls LXXIV-LXXVI) should be halved, so that this drawing is not at $1: 6$ but $1: 3$, and the vessel is therefore similar in size to our 158 .

[^24]:    ${ }^{9}$ For this type of botttle cf. Stern 1982: 125-7, type C.
    ${ }^{10}$ Apparently at $1: 6$; not $1: 12$.
    ${ }^{11}$ Simpson (1990: 129) comments that the small amount of glazed ware from Khirbet Qasrij illustrates 'the rarity and probably relatively high value of these objects, a point also noted at Hasanlu'

[^25]:    ${ }^{12}$ From Level 1 of Area JA at Kish. This has already been likened to Khirbet Khatuniyeh $\mathbf{1 6 1}$ (Matsumoto 1991: 286), but it is nearly twice the size.

[^26]:    ${ }^{13}$ The statement in Curtis and Green 1987: 77 that the straight-sided storage jars 'are not familiar from Late Assyrian contexts' is therefore erroneous.
    ${ }^{14}$ Although this is not the place for the 'systematic comparisons with containers depicted in Late Assyrian and Achaemenid art' rightly called for by Simpson 1990: 128.
    ${ }^{15}$ BM 137257 . H. 14.5 cm .
    ${ }^{16}$ If the published drawing of the Nineveh vessel is at $1: 3$ rather than $1: 6$, as seemes likely (see above, n. 8), then it is only c. 8.4 cm high.

[^27]:    ${ }^{17}$ For late forms from Athens, see Thompson 1934: nos E34-44, and for examples from the Egyptian Cistern at Athens see Rotroff 1983: nos 91-4. ${ }^{18}$ This example from Tabbat al-Hamman is thought to be imitating pl. 1/H10 (Waagé 1948: 10).

[^28]:    ${ }^{19}$ For early forms from Athens see Sparkes and Talcott 1970: fig. 8/825-42; Thompson 1934: A14-23, B15; Miller 1974: fig. 4/30; Rotroff 1983: nos 32-5. For later forms see Thompson 1934: D8-9.
    ${ }^{20}$ These examples are dated on typological grounds from the fourth to the early second century вс.

[^29]:    ${ }^{21}$ For a good example of a jar with impressed semi-circle decoration, from Nimrud, see Oates and Oates 1958: pl. xxviI/4.

[^30]:    * Levels 7-4 (including PDP, Level 4 'post-destruction pit'): Late

    Assyrian; 3: post-Assyrian; 2: Hellenistic.

[^31]:    ${ }^{1}$ A full report on the British Museum Expedition's excavations at these two sites in autumn 1985 (cf. Curtis 1987a: 205f.; 1987b; Curtis, Green \& Knight 1987-8) is in preparation.

[^32]:    ${ }^{1}$ I am greatly indebted to Dr E.N. Arnold for his identification of the slides, and for his considerable help and advice in the preparation of these notes. I am also most grateful to John Curtis for his photographs and information on three of the specimens as found on site and the snake charmer on Plate XXIV.

