Ancient Settlement in the Zammar Region

Excavations by the British Archaeological Expedition to Iraq in the Saddam Dam Salvage Project, 1985-1986

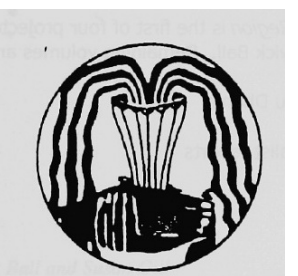
Volume Two

Excavations at Tell Abu Dhahir

St John Simpson

Edited and with foreword by

Warwick Ball



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FOREWORD

by Warwick Ball

This volume forms the second of four projected volumes on the results of the British excavations carried out at seven sites between September 1985 and June 1986 in the Zammar Region of the Eski Mosul Dam Salvage Project. The first volume, dealing with the first six excavated sites, has already appeared. The third volume, on the pottery, and the fourth, covering the small finds and specialist studies, are in preparation. The background to the project and the general results are given in the Foreword, the Introduction and the Overview to the first volume.[1]

Right from the beginning the overall strategy of this project was not to treat the excavated sites as seven independent excavations, but to treat them as one: an excavation, as it were, of a single entire area rather than of seven separate sites, representing most periods from the Neolithic to the present. Hence, the excavation reports are to be treated as seven excavated areas within a whole, rather than as seven isolated sites, much as separate excavated areas within one site are treated. Material was therefore treated as a single corpus to reflect a broad regional stratification, as well as sub-stratigraphies for individual sites (and, indeed, for individual excavation areas within each site). Of course, given the very severe constraints of a rescue project, the full picture was not possible, in particular the very detailed landscape and contextual investigations such as were subsequently carried out on the North Jazira Project. Nevertheless, an overall settlement sequence for the region as a whole was recorded, and the Overview in Volume One is an attempt to summarise this.

For this reason, the present excavation report on Tell Abu Dhahir belongs with the other six, published in the first volume, and the results of Tell Abu Dhahir must be considered along with those. It is published, however, separately from the other six partly because of its length, but mainly because Tell Abu Dhahir formed the 'steering excavations' for the project: it was the largest in the region, most periods were represented, and excavations continued without interruption for virtually the full time that the project was in the field. It is thus the type site for our region and one of the largest and most important sites in the entire Eski Mosul Dam Project.

Its importance was demonstrated right in the beginning of the sequence with the establishment of a large Hassuna period settlement measuring some 150 metres from east to west, making it one of the largest sites for this period in northern Iraq. Subsequent periods would see both expansion and contraction, with particular peaks in settlement size in the Ubaid, Later Uruk and Akkadian periods, reaching its maximum extent during the latter. However, the largest depth of deposit – some 3.5 metres – was from the Ubaid period. The Ubaid settlement, therefore, seems to have been both a fairly large one and existed for a long time, with excavations revealing sophisticated ceramics and specialised industrial activity and storage facilities. Other periods would see the focus shift to elsewhere in the region, but the obvious advantages of Abu Dhahir dominating the alluvial plain ensured major settlement usually returned.

These earlier periods are naturally significant, but in some ways it is the study of the latest period, the Early Modern, which has produced some of the more interesting results, here presented in detail. For the abandonment of the modern village of Abu Dhahir provided a rare opportunity for ethno-archaeological investigations of an entire settlement: both external fixtures and areas and – more importantly – internal areas normally closed to an investigator in an otherwise occupied village. Thus, not only was it possible to observe structures, fixtures and objects with important parallels for the past, it was also possible to observe the process of their abandonment. In the words of the excavator: 'It was instructive to see some of the processes and effects of abandonment of the village at Abu Dhahir. The cumulative effect was to transform many areas of the village at Abu Dhahir into the imagined scene of a sudden and violent sack following a period of squatter occupation. The study of the early modern village thus forms a useful test of theories for earlier periods.'

The current author, St John Simpson, worked under extremely trying conditions on the site, for the most part entirely unassisted, for very long hours, over a very long period. The number of workmen available fluctuated between 23 and nil, temperatures fluctuated even greater between extreme heat and extreme cold, and falling logistical support and rising floodwaters were ever present threats. Despite such constraints, the excavating and recording was meticulous and scrupulous throughout. A huge and

[1] Ball *et.al.* 2003.

important body of data has thus been recovered, and is presented here with an impressive grasp and breadth of understanding of the field. The excavations of Tell Abu Dhahir will thus form the basis of the project as a whole.

ACKNOWLEDGEMENTS

The author would like to record his personal gratitude to the following individuals and institutions for their assistance and support during the excavations and during the subsequent preparation of this report: the British School of Archaeology in Iraq for assistance, advice, encouragement and travel grants in 1985/86 and 1986/87; Warwick Ball for his generous invitation to join the Saddam Dam team and for his patient encouragement ever since; our representative Moslem Mohammed for his keen interest and encouragement throughout the excavation; the Abu Dhahir team for their great work throughout trying times, and particularly Fatteh and Khalaf for their constant care; Farouk al-Rawi and the late Jeremy Black for kindly translating the preliminary reports published by the University of Mosul, and Ali Yaseen and Saadi al-Timimi for producing the Arabic summary; Robert Killick for his generous permission to consult his final report on Tell Rubeidheh prior to its publication; Robert and Janie Miller for kindly allowing me to use their flat while using libraries in Cambridge; all those typists who struggled with early drafts before we all got computers; the photographers who were given the task of transforming dig negatives into the prints used here; Robert Read for inking the field drawings; Warwick Ball and Rajka Makjanić for scanning and cleaning up the illustrations and seeing the volume through press; Andrew Meadows for his identification of the Hellenistic coin; my parents for fostering my love of archaeology and the Middle East, and Susan Gill for her report on the village that forms the basis of the last chapter and the deep support she has given me throughout, from Abu Dhahir until now.

NOTE ON RECORDING SYSTEM AND PERIODISATION

A special system of annotation was developed for the Project (based on a system that was used at Siraf) to label all units, finds and excavation records. This consisted of a triangle, square, circle and diamond, denoting site, trench or excavation area, excavation unit, and small find catalogue number respectively. For the sake of consistency and brevity, this system is retained in publication, being translated into print as /_\, [ ], ( ) and < > respectively.

An overall periodisation for the Zammar region as a whole has been adopted, and the following table tentatively postulated. Several points, however, must be kept in mind. The first is that such a table is meant simply as a convenient framework to label the data and tie it all together; the individual headings used are nothing more than abbreviations that perhaps mean slightly more to the reader than a more cautious, purely alpha-numeric system. They do not necessarily entail all the cultural ramifications that such names ideally imply, and are not meant as any statement on cultural sequence for the North; the more cautious reader may imagine them in inverted commas. Most important, it must be remembered that the terms are meant more as ceramic names, rather than cultural.

Period	Ceramic name	Approximate dates
1	Hassuna	7th millennium
2	Halaf	6th millennium
3	Northern Ubaid	5th millennium
4	Earlier Uruk	1st half of 4th mill
5	Later Uruk	2nd half of 4th mill
6	Ninevite 5	1st half of 3rd mill
7	Akkadian	2nd half of 3rd mill
8	Khabur	early 2nd mill
9	Mitannian	mid 2nd mill
10	Middle Assyrian	late 2nd mill
11	Late Assyrian	early 1st mill
12	Post-Assyrian	mid 1st mill
13	Hellenistic	late 1st mill
14	Partho/Roman	early 1st mill AD
15	Sasano/Byzantine	mid 1st mill AD
16	Early Islamic	late 1st mill AD
17	Middle Islamic	mid 2nd mill AD
18	Late Islamic, late	2nd mill AD
19	Recent	20th century

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CHAPTER 1

INTRODUCTION

DESCRIPTION OF THE SITE

Tell Abu Dhahir (alternative spelling Tall Abu Zahir; 36° 50' N, 42° 26' E), lies in Ninawa *muhafadhah*, some 85 kilometres northwest of Mosul.[1] It is situated at the junction of the river Tigris and the Wadi Suwaidiya, a minor perennial tributary draining from the west *(Fig. 1)*. It also lies a short distance north of the junction of the Tigris and Wadi Bardiyya which flows from the south. Abu Dhahir is, therefore, located at a potentially strategic position in terms of access to or from this section of river valley and different parts of the north Jazira. At the time of excavation, the main bed of the Tigris lay about 1 kilometre to the east of Abu Dhahir whereas a side channel ran directly along the north edge of the mound *(Pl. 1)*. Abu Dhahir stood on the edge of the slightly higher ground of the first river terrace of the flood plain which left the banks of the Tigris about 1 kilometre upstream from Abu Dhahir at Seh Qubba *(Fig. 2)*. At times of high water in the winter and spring months, the side channel and the Wadi Suwaidiya inundated the intervening river flats. It is possible that in the past the main channel of the Tigris ran directly past Abu Dhahir, hence eroding the mound which is very steep on this side before shifting to its present position. The river was crossed by a ford at this point, seen in sporadic use during the course of excavation; this was said to be the northernmost in present-day Iraq[2] although given regular shifts of river channels of this nature such a ford may not have existed in antiquity; indeed a further ford existed at the time of this project at Göz Giran.[3]

The site consisted of a large mound rising about 20 metres above the flood plain and measuring some 350 metres north/south by 500 metres east/west *(Fig. 3; Pl. 1)*. The mound was most heavily eroded on the northwest side, next to the junction of the Wadi Suwaidiya and Tigris.[4] The river terrace on which it stood consisted of conglomerate with an overlying natural deposit of compacted slightly reddish-brown clay flecked with calcium, possibly representing a leached soil.[5] The south slopes of the mound and part of the adjoining plain were covered by a large, modern mud-brick village; the extensive cemetery of over 600 visible graves that covered much of the remaining area of the mound belonged to this period *(Pl. 2)*.

[1] Abbreviated to ADH as the site code and used in the site records and to designate finds and samples from the excavations. The origin of the name is not known.
[2] Stein 1985: vol. 1, 128-29; Oates 1968: 77.
[3] Ball *et al.* 2003: 174.
[4] Adil 1981: 82.
[5] Cf. Braidwood and Howe *et al.* 1960: 40.

PREVIOUS RECORDS OF THE SITE

The strategic importance of Abu Dhahir was recognised in recent times when, at the division of Mesopotamia at the end of the Ottoman period, it formed a pivotal point of a proposed international boundary.[6] It was marked shortly afterwards on a Government road map of the country and since then its co-ordinates have been listed in several gazetteers of key sites in Iraq.[7]

The area near Abu Dhahir was visited by Aurel Stein in May 1937 during his aerial survey of the Roman frontier, occasioning comment on the large village, good agricultural land, a 'much frequented ferrying place', and an anonymous *castellum*, or square enclosure of uncertain date approximately 2 miles (3.2 km) away, and 7 miles (11.2 km) east/southeast of another so-called *castellum* at Gir Lawand.[8] Abu Dhahir was first declared an archaeological site in 1947 when it was listed as 'Assyrian'.[9] It was visited by David Oates in the 1950s, who noted its connection with the nearby ford and the site of the Roman fortress of Castra Maurorum.[10] The site was later listed as producing painted and incised Ninevite 5 potsherds[11] and was variously recorded by the Directorate General of Antiquities.[12] The site is also listed in Ellis' bibliography of archaeological sites.[13] The Eski Mosul Dam Salvage Project map of archaeological sites distributed to participants of the Project listed it as Site 98, with Old Assyrian, Middle Assyrian and Islamic material being recorded as present.

Abu Dhahir was first excavated by the University of Mosul College of Arts, under the general direction of Dr Adil Najim Abbu in the first season, followed by Dr Amir Sulaiman. These excavations were conducted over a period of eleven months spread over three seasons from 21 February-21 June 1977, 12 February-12 June 1978 and 1 March-13 June 1979. This was partly a training excavation, the finds being divided between the

[6] Lloyd 1926: 106, map.
[7] Guest *et al.* 1966: 52; Defence Mapping Agency 1990: 434.
[8] Stein 1942: 156-57; Stein 1985: part i, 111-12. The latter is accompanied by a misleading map which erroneously equates the apparently rubble and mortar enclosure with the site of Abu Dhahir itself (Stein 1985: part ii, 456); this enclosure should lie somewhere near the present village of Bardiyya, and may correspond with the site of Bardiyya 9 (Ball, Simpson and Tucker 2003: 173).
[9] Adil 1981: 81.
[10] Oates 1968: 77; for alternative identifications of Castra Maurorum see Campbell 1986: 120, n. 20; Ball 1989; Ball 2000: 18; Ball and Gill 2003b: 80-81.
[11] Al-Soof 1964: 43, site 1126; al-Soof 1968: 78; al-Soof 1985: 100.
[12] As Site 844 in the official list of Archaeological Sites in Iraq (Directorate General 1970: 256), Site 19 in their Atlas (Directorate General 1972: map 126) or as Site 212 in the State Organisation of Antiquities and Heritage file no. 844/35 (Ibrahim 1986: 74, pl. 12).
[13] Ellis 1972: 22.

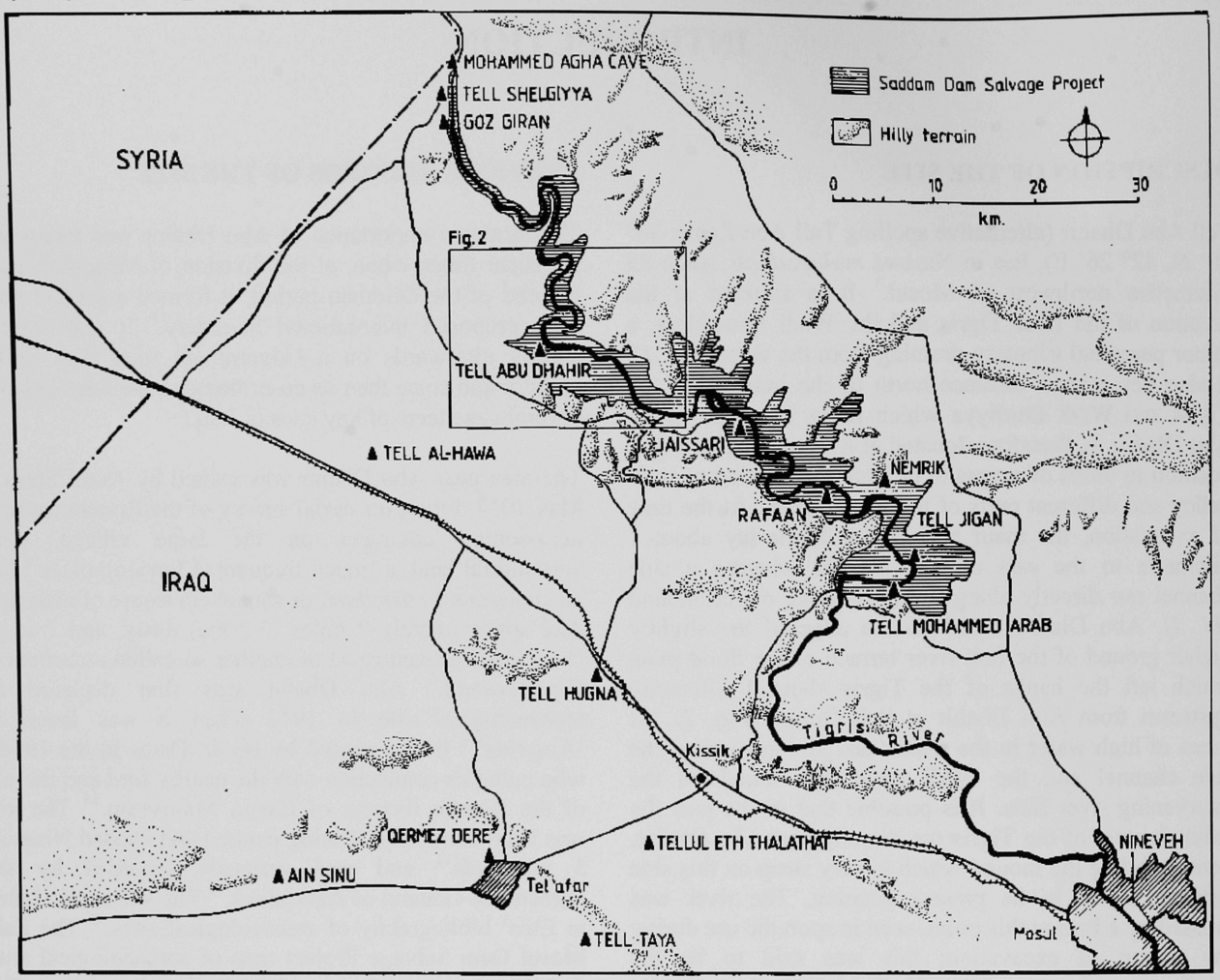

Fig 1 Northern Iraq showing location of Abu Dhahir

University of Mosul teaching collection and the Iraq Museum.[14] Their results are summarised below in discussions of each period of occupation at Abu Dhahir.[15] Prior to the present excavations, preliminary visits to the site were made by various members of the British Archaeological Expedition to Iraq on several occasions, with selective sherding by Charles Burney, Geoffrey Summers, Michael Roaf, Warwick Ball and the author. Diagnostic pottery of the following periods was collected on these occasions: 1, 3, 5, 6, 7, 8, 13, 19; a single Period 17 sherd was found in fields on the west side of the site.[16]

THE CURRENT INVESTIGATIONS

Objectives

Abu Dhahir was one of the largest sites excavated in the Eski Mosul Dam Salvage Project and was occupied during most periods from the Hassuna period to the Hellenistic period. Abu Dhahir was therefore the main type site for this area of the Tigris river valley and potentially one of the most important sites for the region as a whole. With these factors in mind, it was decided to concentrate the main efforts of the 1985/86 season at Abu Dhahir with the following specific objectives:

1. To produce a stratified sequence of pottery from as many of the periods of occupation as possible by means of a step trench down the side of the mound.
2. To demonstrate the limits and any possible shifts in the ancient settlement by means of a series of soundings near the edges of the mounded area.
3. To investigate any specific places of interest, particularly where remains were visible on or close to the surface.
4. To test the reliability of earlier site data.

Some preliminary reports and notes have been published on the results of the excavations.[17]

[14] Adil 1981; Yunis 1981. Two pottery vessels from these investigations were circulated by the Iraq Museum as missing after the end of the second Gulf War.

[15] Cf. Nashef 1987: 230, pls. 4-5.

[16] Following the site periodisation given in Table 1 in Ball *et al.* 2003: 5. For convenience this is reprinted in the Preface of this volume.

[17] Ball 1987a; Ball 1987b; Ball and Black 1987: 234; Ball and Wilkinson 2003; Ball 2003.

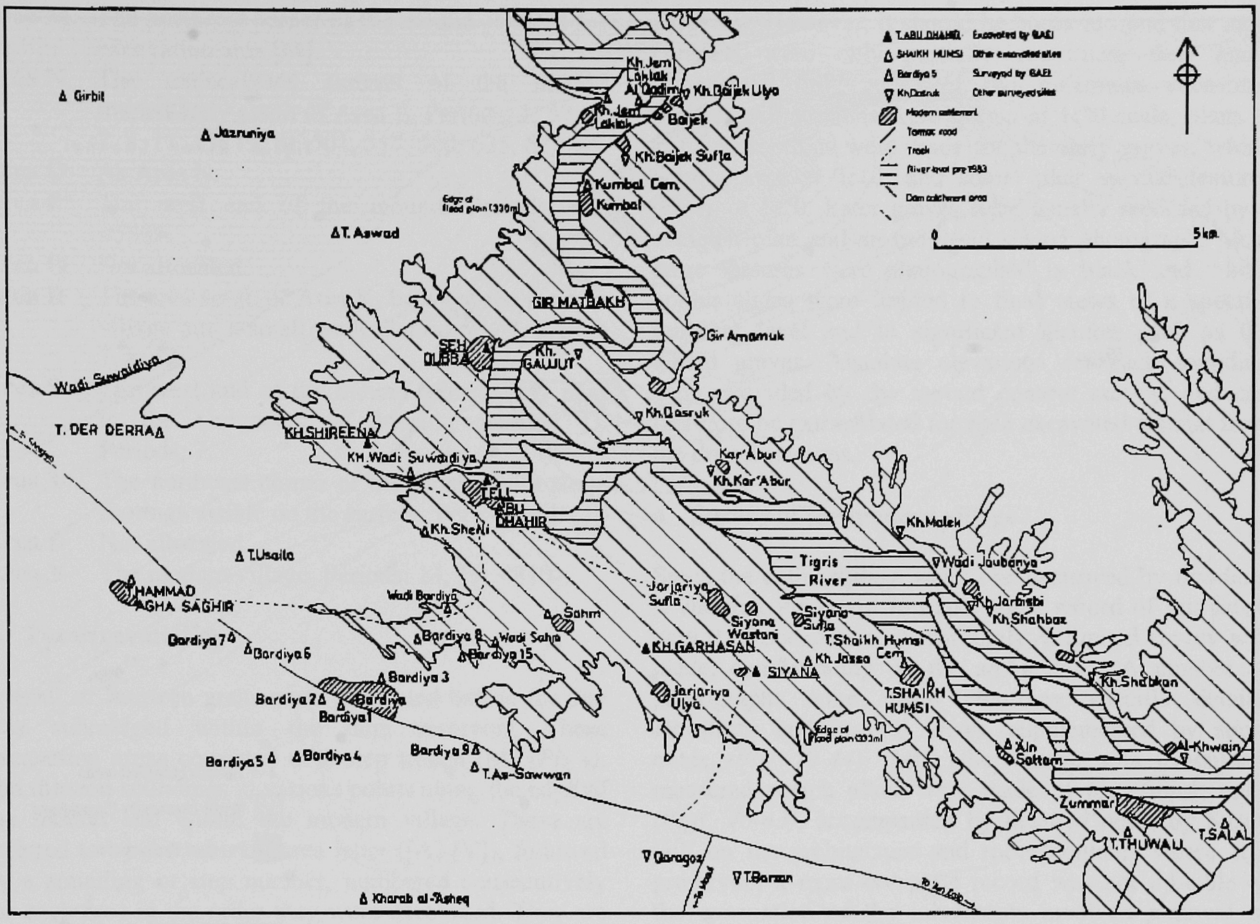

Fig 2 The area around Abu Dhahir showing other sites investigated during the project

Abu Dhahir was submerged within the reservoir of the Eski Mosul Dam *(Pl. 3)*; a photograph of the site in the process of being submerged was published by Gibson and it was expected that this was the last to be seen of it.[18] However, two decades later the eroded remains of the mound have partially re-emerged from the dam reservoir *(Pl. 46)*, the northern portion of which appears from satellite pictures to be heavily sedimenting, presumably because the Tigris is shedding a major portion of its sediment load as the main channel reaches the standing water in the reservoir. The implication of this for the longevity of the dam or sedimentation rates in lower Iraq are unknown.

General strategy and methodology

Full-time investigations supervised by the author were carried out between 16 October 1985 and 10 March 1986, totalling some 90 working days after deducting losses caused by heavy rain, lack of transport, rotation of workmen to other sites and public holidays. Timothy Clayden acted as an assistant supervisor from 17 November to 2 December. The excavations were carried out by a locally recruited work force, varying in number from five to eighteen and supplemented initially by up to five Sherqati pickmen. The archaeological investigations at Abu Dhahir consisted of the following four operations:

1. The contour survey *(Fig. 3)*

A full contour plan of the site at 1:500 scale at 1 metre intervals was made by Stuart Campbell, Caroline Davies and Bronwen Campbell. This marks the mound, the south edge of the Wadi Suwaidiya, most of the modern village and the excavated areas.

2. The surface sherding *(Fig. 3)*

During the first week of excavation, an extensive collection of pottery was made from the surface, slopes and disturbed areas of the site. For this purpose a series of letters [A-V] was used to designate different areas on the site, each area being defined by topographical features of the site itself rather than a grid system. These areas are described below and marked on the plan of the site. This system was considered more appropriate to the nature of the site, particularly when describing vertical erosion faces or rather irregular general zones such as the modern village. It was only possible to give minimal supervision to most of the collecting, with workmen being instructed to collect all visible sherds in a specific area. Bulk sorting

[18] Gibson 1987: 19.

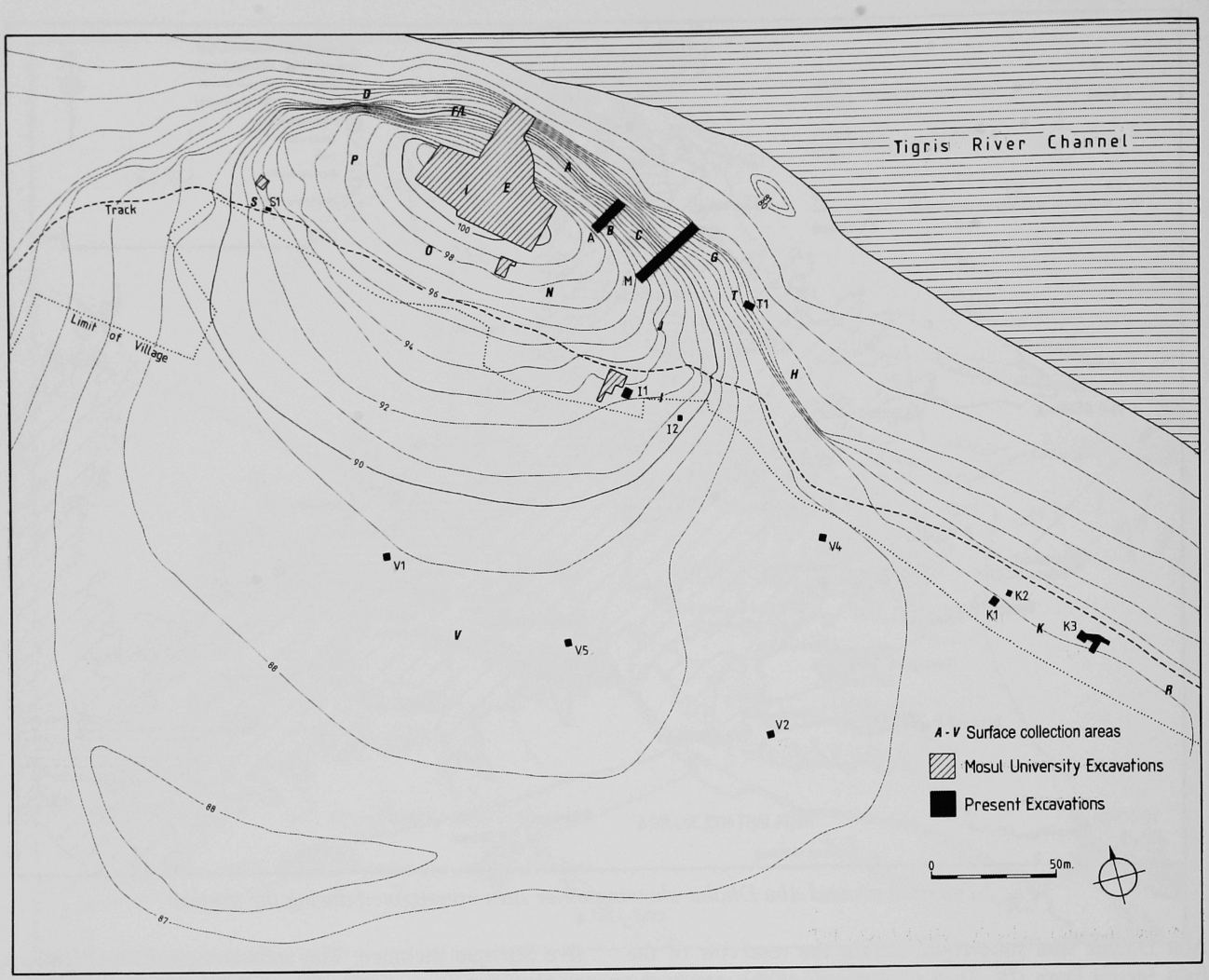

Fig 3 Contour plan, marking areas excavated by the BAEI and University of Mosul, and the surface collection areas

of the material (which also produced a few small finds)[19] was done on site due to the quantity of material involved; all diagnostics (rims, bases, handles, decorated sherds, or otherwise distinctive pieces) were retained for washing and closer study. Further, more selective, collections of diagnostics were subsequently carried out by the author in each area and in subsequent new or newly subdivided areas.

Area A The area along the north slopes of the mound facing the Tigris, covered with slope-wash and dumps from the University of Mosul excavations. Periods: 7, 13.

Area B A vertical eroded cliff-like section on the north side of the mound between Areas A and M. Periods: 3, 5, 6?, 7, 8?, 11, 13.

Area C The north slopes of the mound between Areas E and G. Periods: 1, 2?, 5, 8, 13; <692>.

Area D A vertical eroded cliff-like section at the northwest corner of the mound above the junction of the river Suwaidiya with the Tigris channel. Periods: 1, 3, 5, 6, 7, 8, 13; <603>, <690>.

Area E The principal University of Mosul excavation area (their excavation area A) on the summit of the mound. Periods: 1, 3, 5, 7, 11, 13; <523>, <741>.

Area F The north slopes of the mound between Areas D and E. Periods: 1, 3, 5, 7, 8, 11, 13, 19; <604>.

Area G The northeast corner of the mound characterised by a series of shallow scoops between Areas M and T. Periods: 3, 5.

Area H The east end of the mound between Areas J/T and K with a level terraced area used for drying dung-fuel and straw. Periods: 7, 8, 13.

Area I The southeast side of the mound close to the University of Mosul sounding C. Periods: 11, 19.

Area J The east side of the mound. Periods: 5?, 8?, 19.

Area K The southeast side of the mound between Areas H/I, R and V. Periods: 8, 13.

Area L As Area F.

[19] Denoted by the symbol <>; for an explanation of this and other symbols see Preface.

Area M The northeast corner of the mound selected for excavation area [M].

Area N The unexcavated summit of the mound immediately south of Area E. Periods: 1, 5?, 6, 7, 8, 11, 13, 19; SF 501, 517, 560, 635, 822.

Area O As Area N.

Area P The west end of the mound. Periods: nil; <558>.

Area Q Not allocated.

Area R The area south of Area K, between the modern village and a small wadi. Periods: 1, 3, 5?, 6?, 7, 8, 13.

Area S The west end of the mound immediately next to the University of Mosul sounding D. Periods: 7.

Area T The northeast corner of the mound with stone footings visible on the surface. Periods: nil.

Area U Not allocated.

Area V The modern village. Periods: 13, 19; <810>.

3. The excavations

A total of fourteen areas were excavated before the site was submerged within the dam reservoir. These excavation areas consisted of a step trench [M] *(Pl. 4)*, and thirteen soundings at various points along the edge of the mound and within the modern village. These are referred to by the relevant area letter ([A]-[V]), followed by a sounding or step number, numbered consecutively for each area in the order they were excavated. They are marked on the accompanying contour plan of the site *(Fig. 3)* and are summarised below.[20]

Each period was subdivided into phases and sub-phases (if applicable). Although the numbers for each period conform to the overall periodisation for the Zammar area given in the Preface (Periods 1 to 19), numbers for phases and sub-phases are for each individual sounding only: i.e. Sub-phase 13.2 in, for instance, Trench [M] does not necessarily correspond to Sub-phase 13.2 in Trench [I1], although both belong to Period 13.

Unless otherwise stated, all excavated contexts accord approximately with 'natural' deposition layers; spits were rarely used, apart from when speed and ease were desirable for large featureless deposits, when 10 or 20 cm spits were usually used. Dimensions and orientations are given for all contexts where possible, and unless otherwise stated, all dimensions are north/south x east/west. However, it should be borne in mind that most contexts were only partially excavated, thus many dimensions only represent the maximum excavated context. All sections were drawn at 1:20 scale, plans at 1:50. Exceptions were made for the early graves, which were drawn at 1:10, and some other special features drawn at 1:20. Later graves were usually recorded by a skeleton plan and an overhead scaled photograph. Most large features were photographed in black and white; colour slides were limited to final views of a specific building level and to significant features such as the Ubaid graves. Absolute elevations for each sounding were provided by the mound contour survey, and can therefore be extrapolated for each excavated context from the drawn sections.

4. Survey of the modern village

Since the entire village was to be destroyed by flooding, it was felt important to make some record of this latest period of occupation. Accordingly, a limited survey was made, concentrating on the architecture. A number of photographs were taken recording specific details, elevations and general views, supplemented by some notes *(Pls. 29-44)*. After the village was evacuated, measured sketch plans were made of four house units *(Figs. 40-43)*, accompanied by detailed notes by Susan Gill on the architecture and room contents where still preserved; a more complete record was not possible as the evacuation of the inhabitants involved removal of most of their possessions and it was not possible to interview the original owners. A report on this village is included here as part of Chapter 12.

THE EXCAVATIONS

Trench summaries

[A1-A4]

This was the first area to be excavated. It was situated approximately 23 m west of the north end of Trench [M] *(Fig. 3)*. It consisted of a trench measuring 15 x 4 m laid out at right angles to the slope of the mound. A maximum depth of 1.5 m was reached below the then dry sandy bed of the river channel. The edge of the conglomerate river terrace on which the site stands was partly exposed. All excavated contexts were mixed, and ranged in date from the Hassuna to modern periods. It was concluded that the upper layers of the tell slopes here probably consisted of dump from the earlier University of Mosul excavations to the west: rather than continue through these dump layers it was decided to transfer excavations to Area [M], further away from the earlier excavations. The finds included some basalt grinders <748>, <773>, <774>, <786>, <787> and <806> and some other objects <610>, <770> and <814>.

[20] This report was originally written by excavation sounding but then partially rearranged according to periods, commencing with Period 1: Hassuna (the earliest found) etc. Although the pottery of Periods 1-8 (Hassuna-Khabur) could be easily distinguished, some later attributions – especially for the later 2nd and earlier 1st millennia strata – may be subject to re-interpretation after the completion of the pottery studies. This is particularly the case where there was little direct dating evidence or where there were larger quantities of residual material. The correlation of different soundings that are not stratigraphically linked is therefore less secure and these period attributions are more tentative. Where a single period is represented in more than one excavated area, the latter are arranged in alphabetical order.

Area [I]

This was located due south of [M] on the north edge of the modern village. Two areas were investigated here.

[I1] *(Figs. 28-32, 46-51, 54, 63; Pls. 24, 28).* In the interests of excavating in another place on the main mound closer to the modern village, with the hope of producing more material comparable, or additional, to the later periods represented in the main trench [M], a small sounding was opened in Area [I] between the 92 and 93 m contours, ca 42 m southwest of [M] *(Fig. 3). In situ* fired bricks were partly visible on the surface here as were a number of stone wall footings of uncertain date nearby; a small complete pot <606> had also been discovered by one of the workmen in an adjacent rubbish pit section. A limited operation was therefore undertaken in an attempt to recover possibly complete or restorable vessels associated with the architecture for a relatively cheap expenditure of time and effort. An area of 2.5 x 3 m was initially laid out around the bricks visible on the surface; this was subsequently extended to 3.5 x 4 m, and continued to a minimum depth of 1.5 m. Below this, excavation was limited to the west part of the sounding over an area of 3.5 x 1.6 m, and continued to a minimum depth of 3.25 m below the surface, or an approximate elevation of 89 m. Natural soil was not reached; this may have been a further 2.5 m or so deeper judging from the evidence of [M4] and [V2] where natural soil was reached.

Periods: 7, 10, 11, 12, 13, 18, 19.

[I2] *(Fig. 52; Pl. 25).* Approximately halfway along but close to the edge of the south slopes of the main mound, immediately to the south of [I1], was a large modern house compound. Stone wall footings and a number of other features were visible on the surface inside. A plan of these was made at 1:50 although how many of these features – if any – were contemporary is uncertain. One feature was partially excavated, namely the sunken firebox of a pottery kiln. All pottery diagnostics were collected from the surface. This included a semi-complete jar <673> buried up to its rim.

Periods: 11, 12, 19.

Area [K]

Area [K] was defined as a long narrow area on the southeast side of the mound, limited by the modern village to the south and east, a small gully to the west, and the river channel to the north. Three soundings were located here.[21]

[K1] *(Figs. 40-41)* was situated over 60 m southeast of the mound, above the 86 m contour, on a former track between the nearest mud-brick houses and an abrupt drop down the river terrace to the mud flats. It measured 3 x 3 m, and reached natural soil at a depth of 3.7 m below the surface.

Periods: 8, 19.

[K2] *(Fig. 33).* This was located approximately 3.5 m to the east of [K1]. It was intended as a rapid indicator of the depth of cultural deposits during the course of excavation of [K1], by cutting back the edge of the river terrace. Its final size was 1.8 x 2 m, and natural soil was reached at a depth of 1.5 m. This consisted of a highly compacted slightly reddish-brown clay mottled with white flecks and slightly sandy in texture. This was overlain by a deposit of compact brown clay some 60 cm thick, that was probably also of natural origin.

Periods: 8, 19.

[K3] *(Figs. 34-35, 42; Pls. 17, 20).* This was located approximately 30 m southeast of [K2]. It was commenced after the [K1] and [K2] excavations had been completed, in order to investigate large numbers of Akkadian and Khabur potsherds eroding from the edges of the river terrace near some large reddish sandstones. The latter proved to be structural, with the pottery lying upon a series of clay surfaces. As the overburden was minimal and the recovery rate highly cost-effective in terms of time and labour, the excavation area was extended on several occasions to an eventual size of 7.70 x 11.85 m. It was limited on the north, east and west sides where later activity and erosion had removed all archaeological deposits and on the south side by a greater depth of modern deposits.

Periods: 7, 8, 19.

[M]: the step trench *(Figs. 4-27, 36, 43-45, 53, 61-62; Pls. 4-14, 16, 18, 21-23, 26, 45)*

This 4 m wide trench was located just over 40 m east of the main area excavated by the University of Mosul. It was sited as close to the summit of the mound as possible but away from late graves visible on the surface and earlier excavation spoil heaps. The trench was commenced at the top of the mound and gradually extended down-slope as excavations continued; efforts were made to excavate according to phase over as much of the trench as possible within the constraints of time and available workforce. A final horizontal length of 30 m was excavated, and natural subsoil reached at a distance of 15 m from the south end of the trench, at a depth of 8.8 m from the southeast corner of the trench. The northernmost 15 m of [M] consisted purely of slope-wash, slumped over a 23 m high vertical face cut by the adjacent river side channel, and visible further west in Areas B and D. Contexts were numbered consecutively from (1) onwards within each of the five excavated steps and are distinguished by their step numbers, i.e. [M1] (1), [M2] (1), etc. As this trench was intended to be the main excavation at Abu Dhahir, it was excavated on all available days, was the most closely supervised, and excavated using the most careful workmen. Dry sieving using 5 mm wire mesh was employed for the upper Ubaid

[21] The first two were excavated under the supervision of Timothy Clayden.

and some of the Later Uruk phases but was largely abandoned for other – earlier – levels as it absorbed workmen required elsewhere.[22]

Periods: 1, 3, 5, 6, 7, 8, 11, 12, 13, 18, 19.

[S1] *(Fig. 37)*

Following heavy rain in the late winter and early spring, a number of exposed sections around the mound suffered partial collapse. One of these areas was at the far west end of the site, at an elevation of between 92 and 93 m. Akkadian pottery was seen in section here, resting on a surface and covered by burnt mud-brick collapse. An area measuring 4.65 x 1 m was briefly cleared in order to examine the relationship of this pottery with some possible stone wall footings exposed on the surface nearby.

Periods: 7, 18, 19.

[T1] *(Fig. 38-39; Pl. 19)*

On the east side of the mound, near the 89 m contour and 34 m southeast of Trench [M], the edges of several large flat limestones were observed, apparently *in situ*. Some large body sherds a short distance down the slope may originally have been associated with these stones. A small area was initially excavated to determine the nature and date of these remains; this was later extended to an area of 2 x 4 m to obtain a greater sample of pottery.

Periods: 7, 13.

[V]: the village soundings *(Fig. 3)*

Near the end of the season, five soundings were excavated in the modern village. Each area measured 2.5 m square. These were intended to test the depth of archaeological deposits near the edge of and beyond the main mound. Major features such as large pits were excavated separately but the remainder of the deposits were excavated in daily spits of between 20 and 40 cm depth. These excavations were largely unsupervised, but were cleaned and examined at the start or end of each day's work.

[V1] was situated on the southwest slope of the visible mound, near the 89 m contour, within the courtyard of a mud-brick house. Natural soil was not reached at a maximum excavated depth of 1.45 m below the surface.

Period: 19.

[V2] was situated just over 140 m south of [I1], off the visible mound, between the 87 and 88 m contours, and in the courtyard of a mud-brick house. Possible natural soil was reached at a depth of 20 cm, and confirmed at a depth of 1 m.

Period: 19.

[V3] was located 120 m southwest of [K] on the far side of a small wadi cutting back into the village, in an open area recently used as a track. The ground level was slightly raised here and this sounding was specifically aimed at defining the limits of occupation known from Areas [K] and [R]. Natural soil was reached at 50 cm below the surface.

Period: 19.

[V4] was located just above the 87 m contour, approximately 60 m south of the visible mound, midway between [I2], [K1] and [V2], and within the courtyard of a standing mud-brick house. Natural soil was not reached at a maximum excavated depth of 1.95 m.

Period: 19.

[V5] was situated between the 88 and 89 m contours, midway between [V1] and [V2], and in the centre of a large compound belonging to a standing mud-brick house. A line of stone wall footings, probably recent in date, were visible on the surface nearby. Due to a pressing need for workmen elsewhere, this sounding was discontinued after reaching a depth of only 20 cm. Natural deposits were not reached.

Period: 19.

NOTES FOR THE USER

This report has been written as fully as possible from the excavation records, which it effectively supersedes. This report should be considered the more accurate, in any case where it may apparently contradict notes or points made in the original records, be they context sheets, day notebooks, drawn sections and plans, or the preliminary (unpublished) report of May 1986. Statements made in the original excavation records concerning, for example, relationships, were simply working notes that were usually made when the top of a context was reached but which were not always updated when it was later excavated and/or corresponding sections examined.

As the 1985/86 excavations at Abu Dhahir were relatively careful and the sample limited by the small size of the area investigated, an attempt has been made to maximise on the information recovered at the possible risk of over-interpretation. To counter this, the arrangement of this report has been deliberately laid out to facilitate checking of the stratigraphic evidence. All contexts are described individually as far as possible. They are arranged in chronological order from the earliest to the latest, and subdivided according to period, phase and sub-phase. Use was usually made of building levels to determine a phase but some phases are characterised by activities that were not associated with architecture in the excavation area. All contexts are marked on the

[22] It was also found, on testing, that the workmen employed in [M] did not miss even the smallest fragments of animal-bone or flint debitage that could have been caught using this mesh size. Care was naturally taken to keep this team in [M] although the workforce was occasionally rotated between different areas according to logistical needs or preferences.

stratigraphic matrices which will appear in the next volume. These are simplified so as to illustrate the key stratigraphic relationships of each context but omit any secondary relationships despite the relevance of these in determining possible sources of contamination for a context. For the main excavation area – [M] – the stratigraphic matrix is divided for convenience into a series of inter-linked matrices, with a matrix accompanying each period or phase. Following the descriptions of most contexts in this report, there is an accompanying section – of varying length – that is interpretative. The validity of some of these interpretations may be tested in future excavations at other sites. Artefacts are briefly noted according to context and within a separate concordance so as to provide contextual information for the more detailed forthcoming analyses of the pottery and other finds; it is hoped that this contextual approach to the stratigraphy and finds will be of interest within the context of other studies of the micro-stratigraphy, function and assemblage variability of Near Eastern sites and artefacts.

The main text of this report was completed in Iraq in 1986 but has been supplemented and edited by the author at intervals thereafter.

Plate 1 View of Abu Dhahir from the east with the river in the foreground

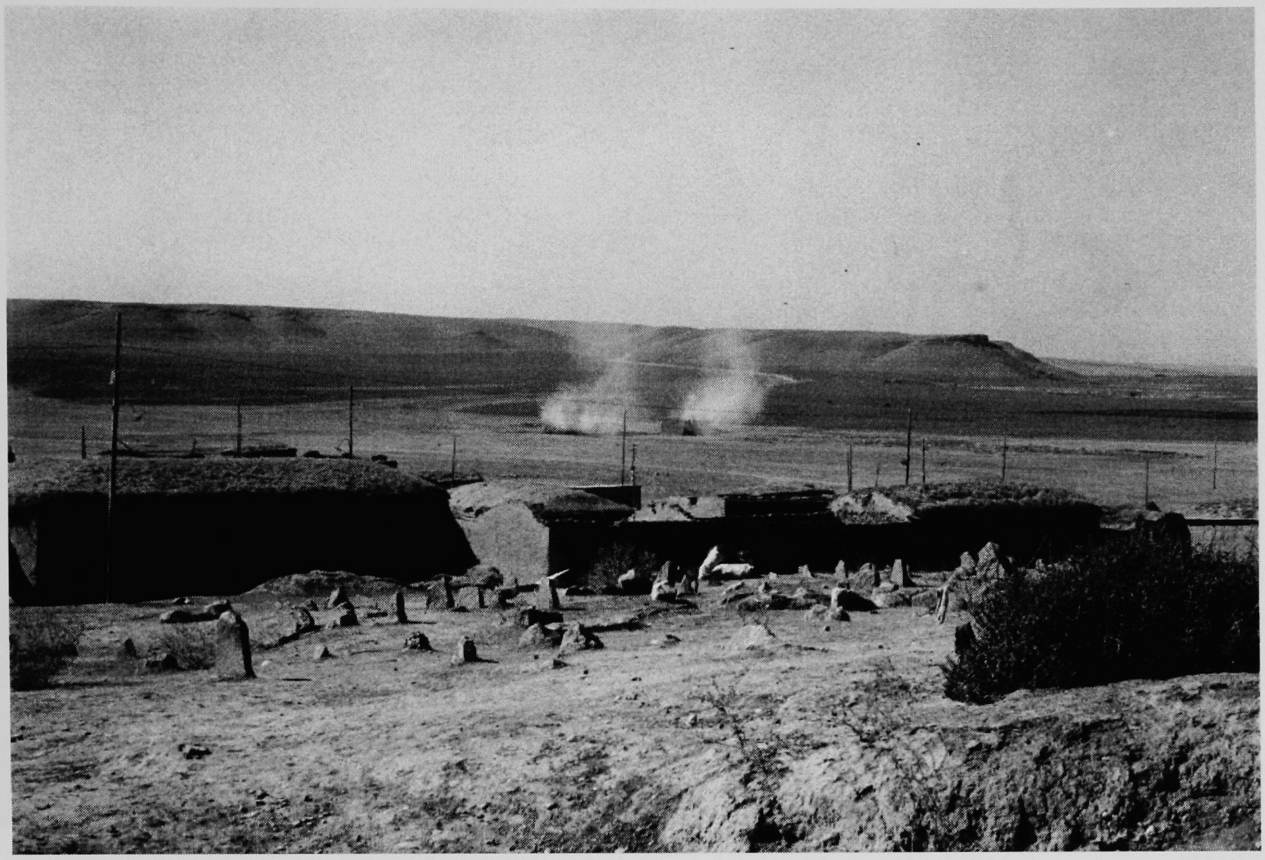

Plate 2 The top of the mound with the cemetery and modern village in the foreground, towards the escarpment to the south

Plate 3 The mound being submerged, from the top of the escarpment

Plate 4 The step trench [M] at completion

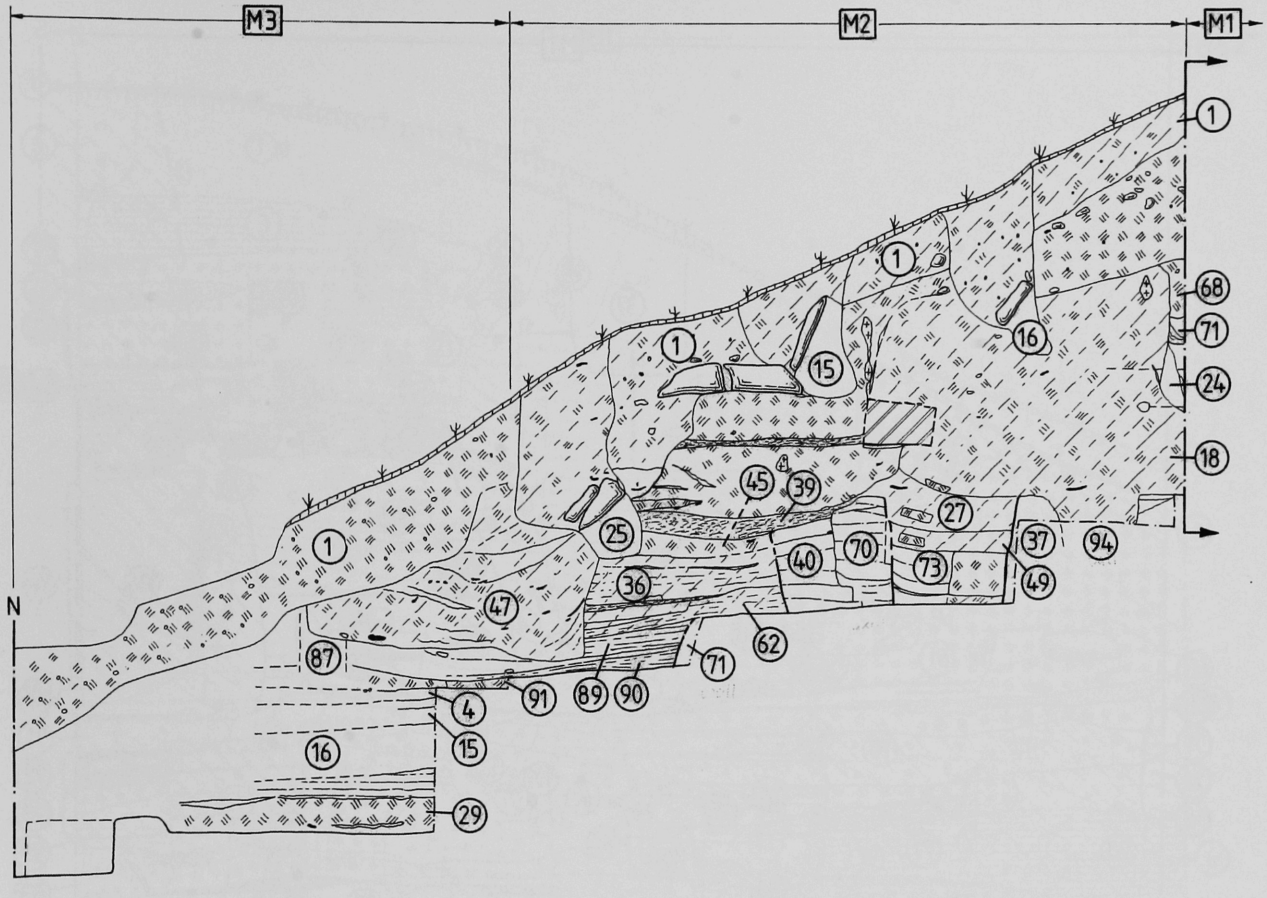

Fig 4 Main east section in [M2] – [M3] (see Fig. 7 for key)

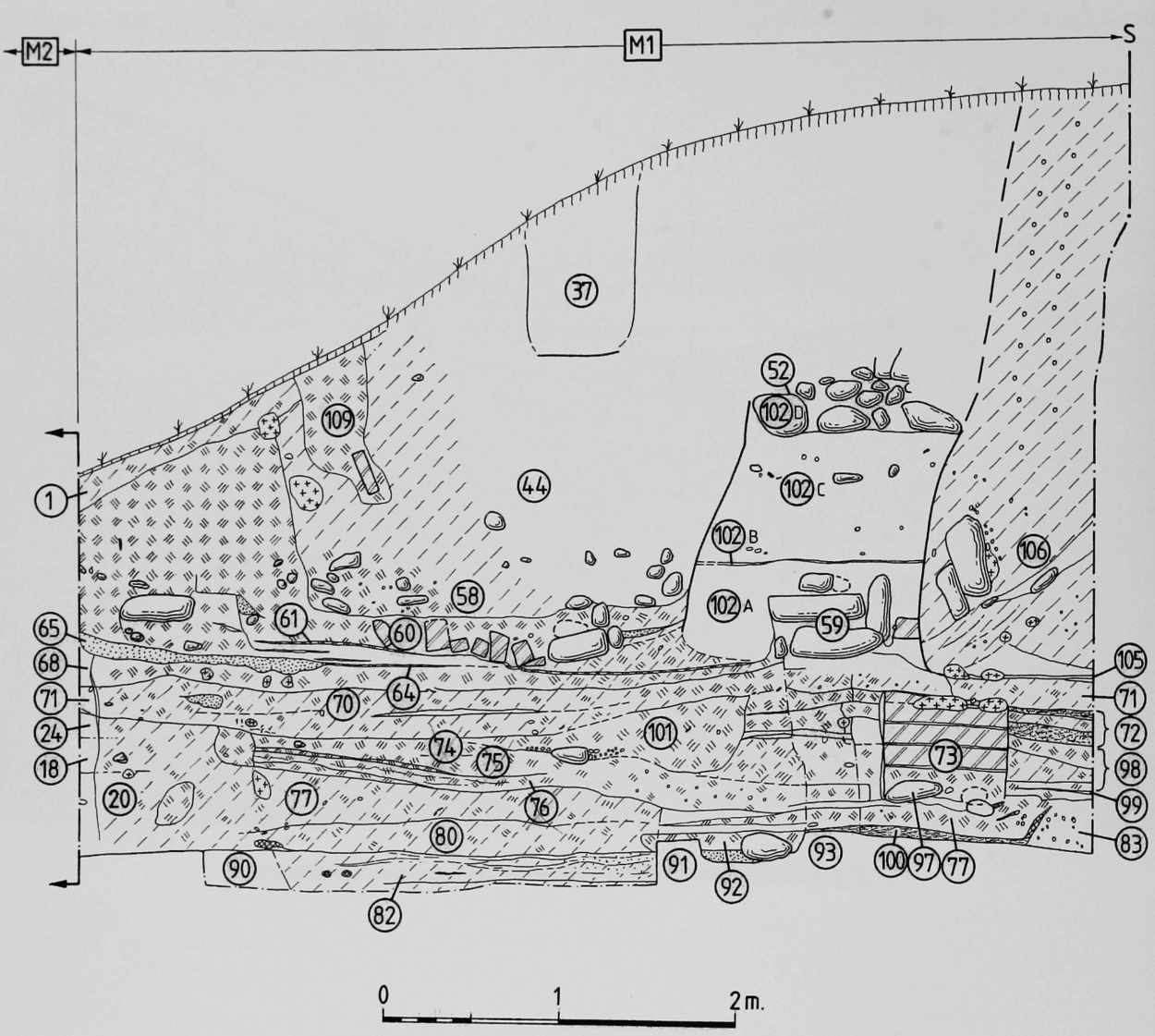

Fig 5 Main east section in [M1] (see Fig. 7 for key)
Note: The upper part of this section was not sufficiently clear to be recorded at the time of drawing and was heavily cut by Period 19 graves [M1] (18), (26).

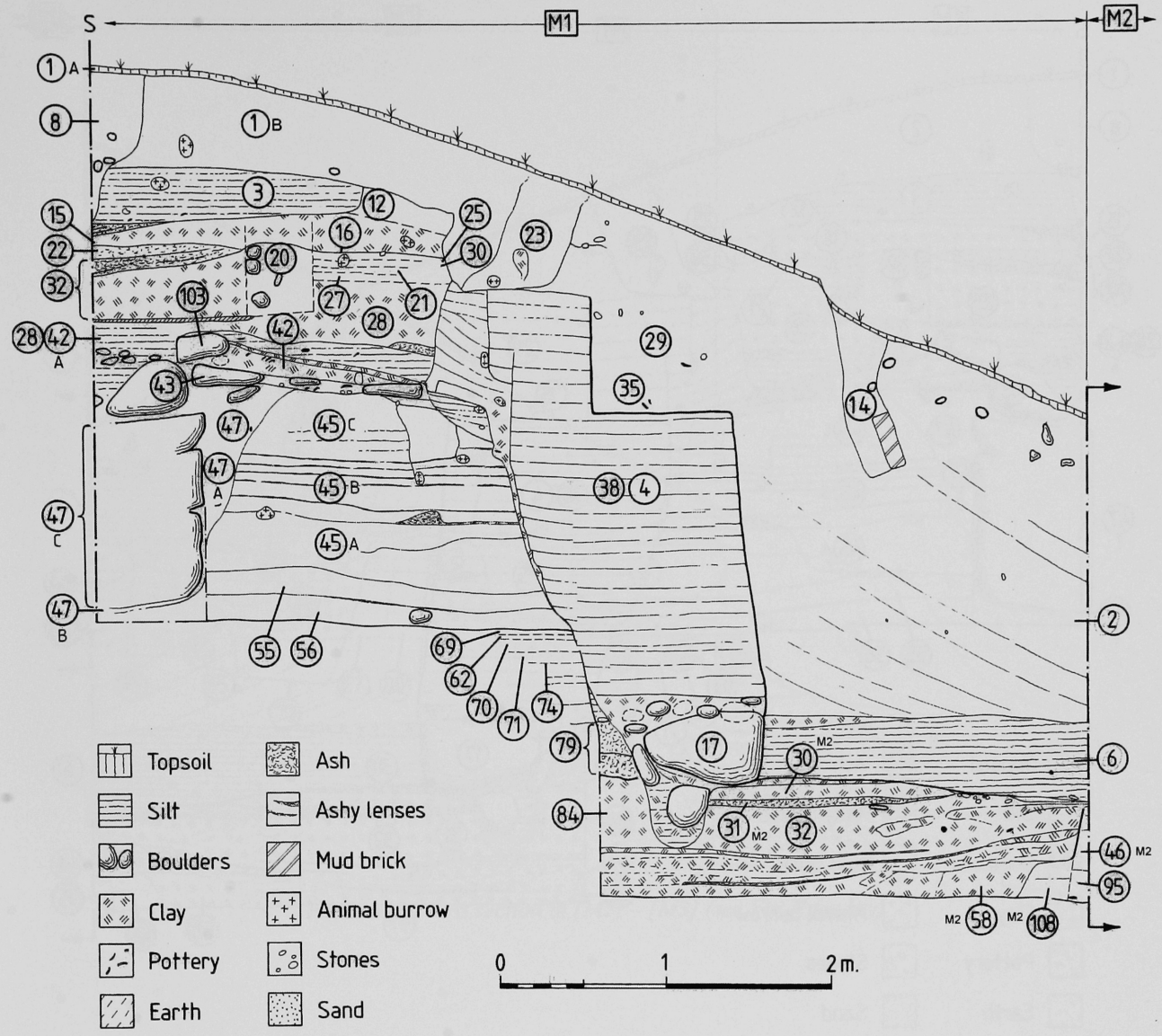

Fig 6 Main south section in [M1] (see Fig. 7 for key)

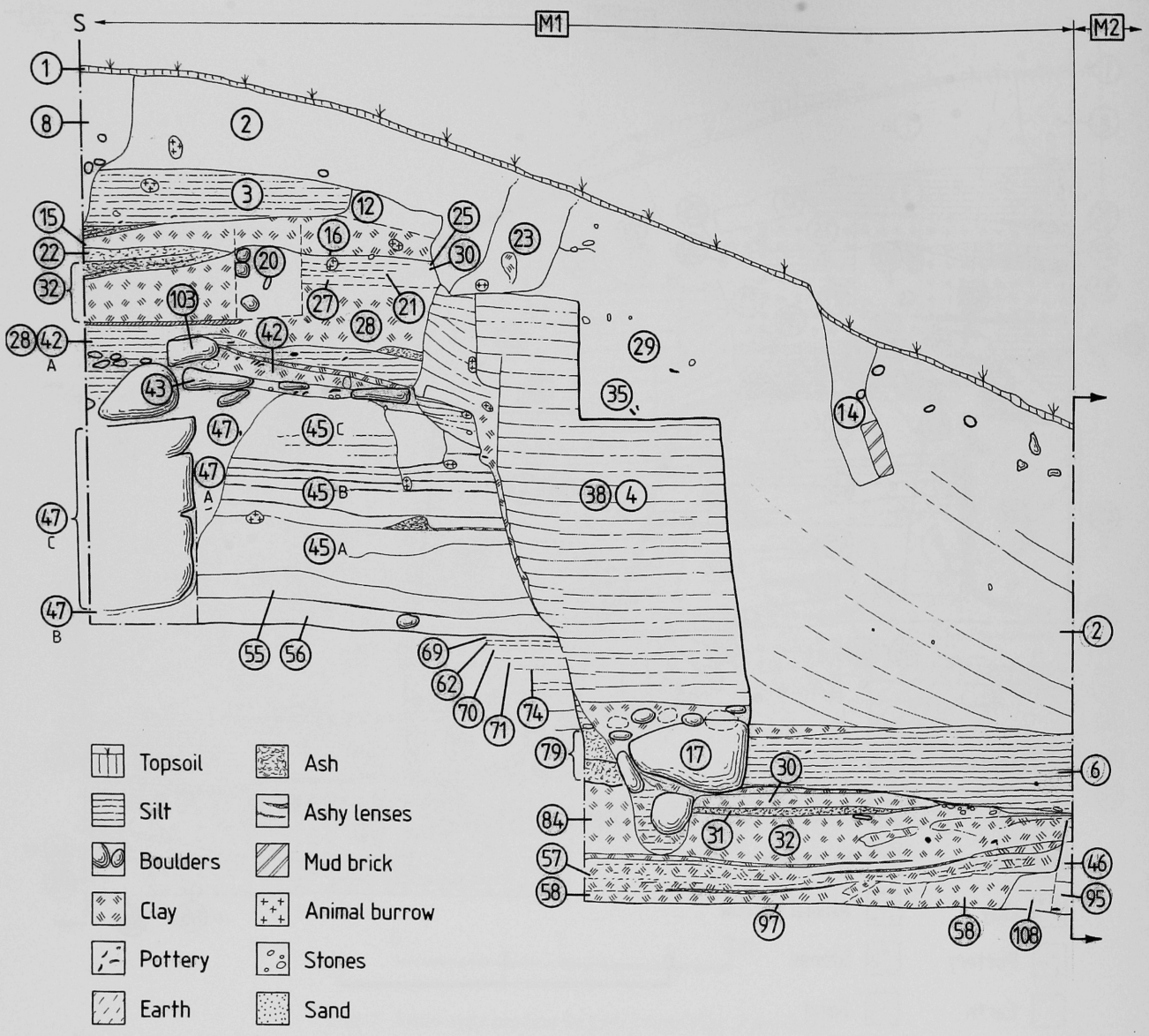

Fig 7 Main west section in [M1]

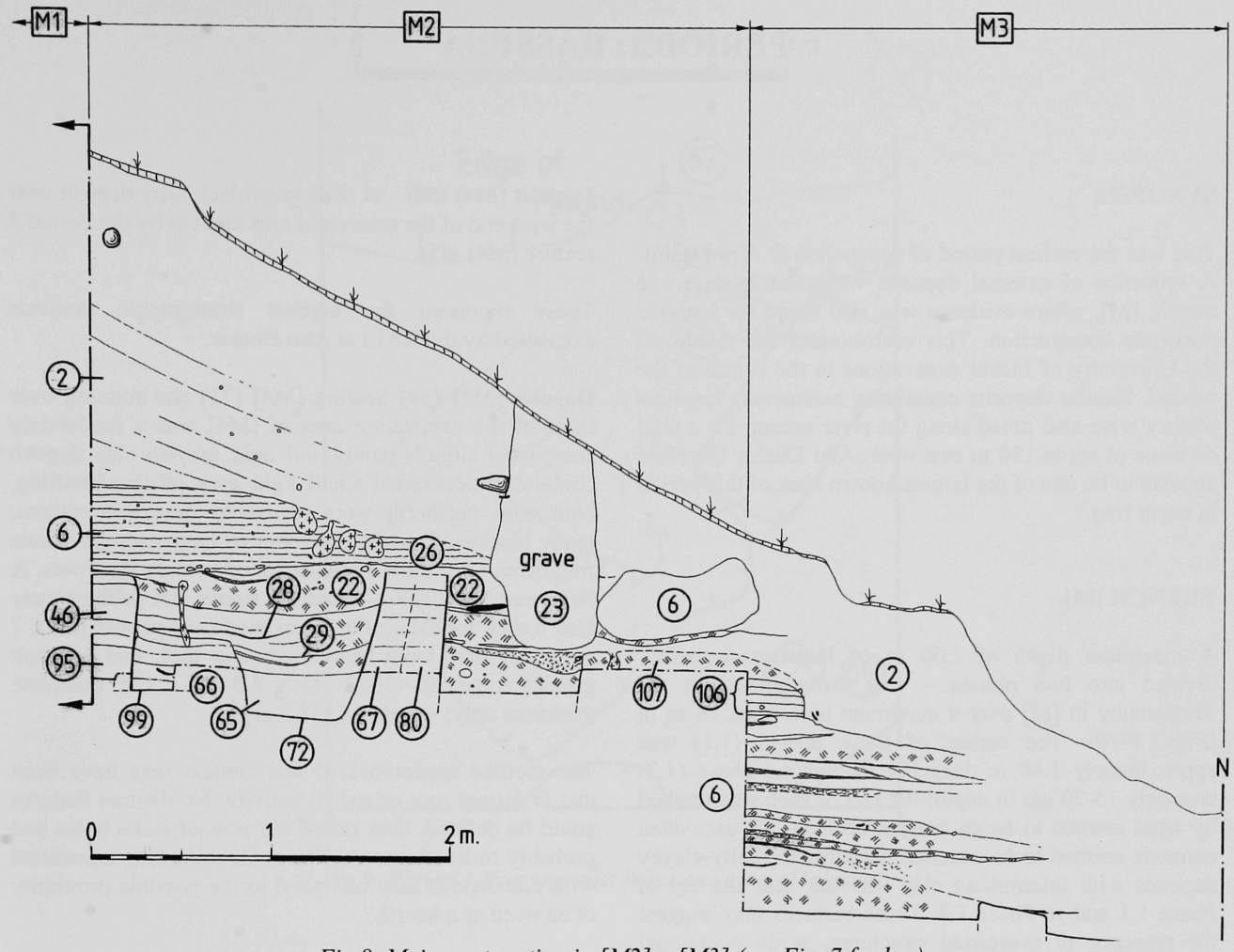

Fig 8 Main west section in [M2] – [M3] (see Fig. 7 for key)

CHAPTER 2

PERIOD 1: HASSUNA

SYNOPSIS

This was the earliest period of occupation at Abu Dhahir. A sequence of external deposits was excavated in one trench, [M], where evidence was also found for massive post-hole construction. This corroborates the results of the University of Mosul excavations in the centre of the mound. Similar deposits containing exclusively Hassuna pottery were also noted along the river section for a total distance of some 150 m east/west. Abu Dhahir therefore appears to be one of the largest known sites of this period in north Iraq.

TRENCH [M]

A maximum depth of 1.60 m of Hassuna deposit – divided into two phases – was distinguished in the stratigraphy in [M] over a maximum area of ca 18 sq m *(Figs. 9-10)*. The earlier of these phases (1.1) was approximately 1.40 m deep but the second phase (1.2) was only 15-20 cm in depth: the end of each was marked by what seemed to be an erosion horizon. All excavated contexts seemed to be external, largely ashy-silty-clayey deposits with intermittent clay surfaces near the top of Phase 1.1 and in Phase 1.2. These surfaces may suggest the presence of associated structures, as do occasional fragments of impressed daub although these may be intrusive from Period 3.

PHASE 1.1 EXTERNAL DEPOSITS AND FEATURES

Burnt surface [M4] (74) The top of natural soil [M4] (75) was burnt a reddish colour in the northeast corner of [M4]. This marks the earliest excavated feature on the site and was approximately contemporary with [M4] (71).

Deposits [M4] (72), (73) Directly overlying natural in the centre of [M4] was a 5-10 cm thick compacted light grey-brown clayey silty deposit containing occasional flecks of charcoal and lighter coloured clay, [M4] (72); contemporary deposits in the north portion of the excavated area were found to be sloping down to the north/north-west and excavated as one, [M4] (73); 10 stones measuring 15-20 cm across, were recovered from this area.

Burnt surface [M4] (71) The top of a dark brown burnt clay surface verging to reddish-brown/black in places was found in the east portion of [M4] but not fully excavated; it was sealed by [M4] (54).

Deposit [M4] (58) A dark grey/black ashy deposit near the west end of the excavated area and cut by the Period 3 feature [M4] (45).

These represent the earliest stratigraphic contexts excavated by the BAEI at Abu Dhahir.

Deposit [M4] (54) Sealing [M4] (71) and running over most of the excavation area of [M4] was a moderately compacted slightly sandy and light greyish clay deposit containing occasional small light grey patches/mottling. Numerous potsherds were recovered from this context, many blackened, while a number of large reddish-brown fragments were more reminiscent of *tannurs* than pots. A large number – 183 – of natural stones and pebbles were also found, including one blackened oval pebble (10 x 7 cm), that may have been used as a tool, and a basalt grinder fragment <3000> (5 x 4.5 x 3.5 cm; complete thickness only; weight ca 158.5 gr).[1]

The mottled appearance of this context may have been due to former root or rodent activity. No distinct features could be defined, thus ruling out post or stake holes and probably rodent burrows. The evident burning associated with this deposit may be linked to the possible proximity of an oven or a hearth.

Deposit [M4] (51) Above [M4] (54) in the west portion of the excavation area was a light bluish-grey silty clayey deposit including flecks of charcoal and light brown clay; some potsherds and 44 natural stones were also noted.

Deposits [M4] (73) Correlating in date/sub-phase to the contexts described above – especially [M4] (72), (71) – were a series of deposits near the north corner of [M4]. These were combined during excavation to create an artificial context: [M4] (73). These deposits varied from a light grey-brown silty clay with some lighter coloured clayey patches and burnt fragments to dark grey ashy lenses, all sloping down to the north/north-west; potsherds and 10 natural stones, 15-20 cm across, were recovered although there may be slight contamination from the interface of [M4] (73) with the overlying slope-wash.

In the east half of [M4] up to four features were found cutting the earlier deposits. From south to north these were as follows *(Fig. 9; Pl. 5)*:-

[1] Three samples of charcoal were retained for radiocarbon dating, two consisting of single lumps from the southeast corner of [M4], the third a composite sample.

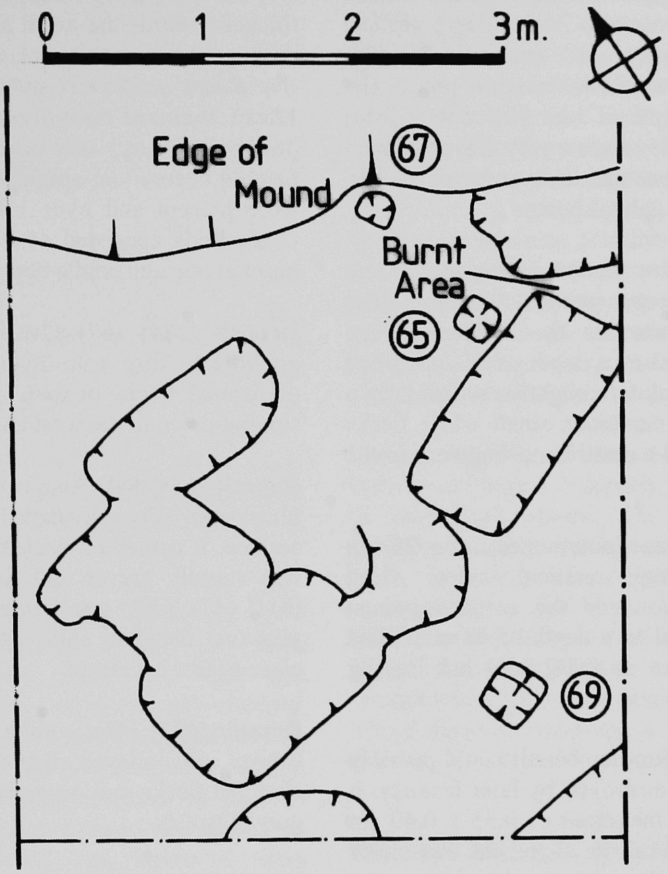

Fig 9 Period 1 Hassuna post holes and area of later graves

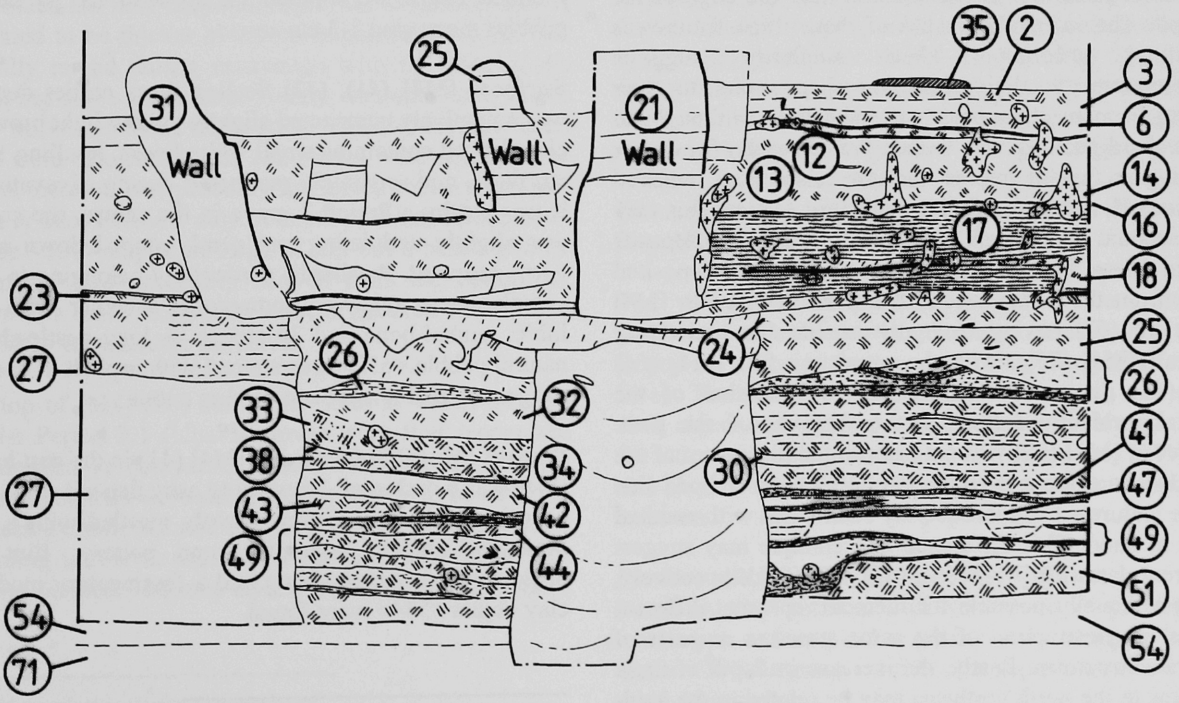

Fig 10 North-facing section showing Period 1 deposits and Period 3 construction at the interface of [M3] and [M4]

Post hole [M4] (69) Approximately square feature measuring 33 x 36 cm across and 34 cm deep; vertical sides with stepped profile on east side; sides approximately orientated towards the compass-points; flat bottom; cuts natural to a depth of 3 cm; filled with [M4] (70), a slightly moist fine grey-brown silty clayey deposit containing few inclusions but including some potsherds, flint and obsidian lithic and animal-bone.

Post hole [M4] (65) Square feature measuring 27 cm across and 41 cm deep; vertical sides; sides approximately orientated towards the compass-points; pointed bottom; cuts natural to a depth of 41 cm; filled with [M4] (66), a compacted dark slightly reddish-brown clayey deposit containing numerous small white flecks with a single rim-sherd and a small bone fragment in the upper portion.

Post hole [M4] (67) Square feature measuring 25 cm across and 48 cm deep; vertical sides; sides approximately orientated towards the compass-points; pointed bottom; cuts natural to a depth of 48 cm; filled with [M4] (68): appearance as [M4] (66) but lacking finds.

To these features, a fourth (un-numbered) could possibly be added, although largely destroyed by later features. It was approximately square, measured ca 0.35 x 0.40 cm and was partly cut into natural. Its alignment was closer to [M4] (69) than to (65)-(67) and it could be interpreted as part of the same structure.

Although [M4] (69) was probably sealed by [M4] (49), the stratigraphic position of the tops of [M4] (65) and (67) were uncertain due to erosion near the edge of the mound. The inter-relationship of these three features is therefore uncertain. Their similarity suggests contemporaneity; their style and shape point to their having been used as post and stake holes although no stone/sherd packing was found. The absence of a darker staining in the fill implies that the posts were removed and reused, rather than being left to rot *in situ*. This may also account for the lack of a stone packing. The deposits within these features appear to represent re-deposited earth from their excavation. The profiles point to [M4] (65) and (67) having been driven into the underlying natural ([M4] (75)), with the respective fills [M4] (66) and (68) distinguishable by the re-deposition of the natural, probably following the removal of the post. However, [M4] (69) was cut prior to the placement of the post as was evident from the flat bottom and stepped side of the feature – but subsequently back-filled with residual earth at hand. This difference in technique may suggest different dates for [M4] (65), (67), and (69) respectively, but it is equally possible for them to represent different stages of construction of the same structure or parts of separate structures. Lastly, the increase in depth of these features to the north/northeast may be related to the load-bearing capacity of the associated structure.

Deposit [M4] (49) Running over the excavation area but thicker towards the north and particularly the east was a dark grey-brown silty clay deposit containing charcoal flecks and occasional small stones; maximum thickness 12 cm. It almost certainly sealed the top of the [M4] (69) post hole. Pottery was abundant, with incised as well as painted decoration; animal-bone, flint and obsidian lithic were present and over 170 natural stones were noted. Other finds consisted of a possible stone pestle <650>, burnt at one end, and a bone tool <513>.[2]

Deposit [M4] (47) Overlying (49) was a thin dark grey/black silty ash layer, 1-5 cm thick, containing occasional flecks of dark reddish-brown burnt clay and sloping down to the west and north.

Deposit [M4] (44) Also running across [M4] was a light bluish-grey silty ashy deposit with an approximately level surface. It contained occasional fine charcoal flecks, and was slightly greyer and darker near the interface with [M4] (47), (49); small fragments of flint lithic debitage plus two obsidian chips appeared to be more abundant close to this interface.

Deposit [M4] (43) Sealing [M4] (44) was a dark grey-brown silty clayey deposit 5 cm thick, containing charcoal flecks and occasional small lenses of white/pale grey silty ash.

The finds from [M4] (44) and (43) were partly combined: small finds include a bone tool <652>, a basalt chip <3001> (5 x 3 cm), and two approximately spherical hammer-stones (?) or bola (?) weights <3002> (one weighing ca 257 gr). 91 probably water worn stones with rounded edges were noted, along with ca 20 smaller pebbles measuring 1-3 cm across.[3]

Surfaces [M4] (41), (42) Sealing these earlier deposits was a relatively compacted slightly yellow light brownish clay deposit containing small white flecks, totalling 10-15 cm thick, and separately numbered during excavation as it was cut by a Period 3 grave in the centre; the surface was slightly undulating and gently sloped down to the north and west. Potsherds, particularly belonging to large vessels, were relatively numerous, together with flint lithic, animal-bone and 39 stones. A long pestle-shaped natural pebble <532> was stained with asphalt at one end suggesting that it had been used as a tool.

Deposit [M4] (38) Overlying [M4] (41) in the east half of [M4] was a dark grey-brown silty ashy deposit containing occasional charcoal flecks, slightly mottled with a light brownish clayey material. Some pottery, flint and obsidian lithic, animal-bone and a fragmentary modelled clay object <534> were found.

[2] Two separate charcoal C14 samples were collected from a pocket of dark grey/black ash near the south section of [M4].

[3] A bone fragment was retained during excavations as a C14 sample.

Deposit [M4] (36) Contemporary with [M4] (38) but limited to the west portion of the excavated area was a dark grey/black ash deposit containing fine charcoal flecks, sloping down by ca 10 cm to the north, where it was thickest. It was cut at the north end by a later feature [M4] (40) but was sealed by [M4] (32). It contained some pottery, lithics (especially obsidian) and a small amount of animal-bone.[4]

Surface [M4] (34) Sealing [M4] (38) and again limited to the east portion of the excavated area was a light brownish clayey surface with an undulating surface sloping down slightly to the north; finds were bagged together with those from [M4] (33).

Deposit [M4] (33) Overlying [M4] (34) was a grey-brown clayey deposit, 5-10 cm thick; it included a higher number of pottery 'husking tray' fragments and a bone tool <539>.

Surface [M4] (32) Most of [M4] – specifically the top of (33) and (36) – was sealed by a relatively thick yellowish-brown clay deposit, 10-20 cm thick and containing occasional small charcoal flecks. The compact surface of this was found to be undulating and sloping down slightly to the north; when broken up this deposit had the consistency and internal structure of *tauf*. A number of old rodent burrows were found cutting the top of this context; when cleaned out, however, these contained no artefacts in their greyer siltier fills.[5]

Deposit [M4] (26) Covering [M4] (32) was a light grey-brown silty deposit, 10-20 cm thick and containing occasional small charcoal flecks and patches of dark grey/black ash near the south end of the excavated area. It appeared to be thicker in the north part of [M4] but was partially mixed during excavation with the edge of the overlying slope-wash here. Pottery was abundant; lithics were fairly common, while some animal-bone and small finds were also recovered; 132 stones were noted. Some of this material was probably intrusive, both from slope-wash or later Period 3 cuts. A small polished calcite bowl profile <550> appeared to be *in situ* but a basalt grinder fragment <832> probably derived from the Period 3.1 Grave 5; a bone tool <502> and an unbaked clay weight (?) <587> may also be intrusive.

The top of [M4] (26) marks the point at which the cuts for the Period 3.1 (Ubaid) graves were first recognised and defined in excavation. Those cuts that ran into the adjacent sections were subsequently shown to be cut from between Periods 1.2 and 3.2. This oversight is important regarding intrusive, and mixed residual, material for the three uppermost Hassuna layers, namely [M4] (25), (24), (23).

Surface [M4] (25) Running over [M4] (26) was a grey-brown clay surface with a moderately compacted and distinct undulating surface sloping down to the north. The top of this had evidently been partly disturbed by rodents – particularly in the centre of the excavated area – probably in the upper softer fill of the Period 3.2 Grave 6. Pottery was abundant, as were natural stones up to 10 cm across (ca 375 were counted). The latter included a piece of natural ironstone (reddish-brown, 4.6 x 3.25 x 2.25 cm; ca 45 gr weight). Five fragments of light brownish daub with stick impressions were also recovered, measuring up to 15 cm. across; other finds included a possible bone spatula fragment <536>, a possible stopper <514> and a baked clay lump <829>.

The top of [M4] (25) was very similar to that noted for the top of Phase 1.2 deposit [M4] (23) as both appeared to have been eroded. The large numbers of natural pebbles in this deposit was also noteworthy although some may derive from later (Period 3.1) grave fills unrecognised at this level; the same may apply to other artefacts from this context as a significant number of Ubaid sherds were recovered, leading to the initial interpretation during excavation that it was an *in situ* Ubaid deposit containing a high proportion of residual sherds.

PHASE 1.2 RE-OCCUPATION

A second phase was determined for Period 1 on the basis of a break in the stratigraphy marked by an eroded horizon at the top of [M4] (25).

Deposit [M4] (24) Covering the top of Phase 1.1 was a clayey deposit, varying from a loosely compacted grey-brown clayey deposit in the east half of [M4] to a moderately compacted lighter grey-brown silty clayey deposit in the remaining portion. Pottery was relatively common; other finds included a circular asphalt object <3003>, a perforated shell <508>, flint and obsidian lithic, some shell, vitrified clay and a thick-walled *tannur* fragment 20 x 30 cm across.

The variety in the deposits may have been due to undetected rodent burrowing but is more likely due to the Period 3.1 (Ubaid) features not being recognised at this level. The pottery included Ubaid material; the shell, shell object and vitrified clay are also probably intrusive; the latter were found in the area of a later grave [M4] (31) and shell was generally found to predominate in Ubaid contexts.

Surface [M4] (23) Sealing [M4] (24) was a light brownish clay surface. This was noted at the time of excavation as being rather patchy in appearance, largely due to the later grave cut fills; this deposit appeared to be worn and eroded.

[4] A C14 sample was chosen from the latter.

[5] Note: some potsherds, and a little bone and obsidian lithic, were found in the excavations of the north part of [M4] (32); these probably derived from the fill of later cut features, specifically [M4] (48).

This context marked a clear colour change in the stratigraphy from the more vivid Ubaid contexts to dingier Hassuna levels, a significant difference presumably related to varying uses of a given area and subsequent soil-processes through time.

GENERAL DISCUSSION

'Coarse unrefined pottery' with heavy chaff temper was found in the lowest layers of the University of Mosul excavations in the centre of the mound (our Area E) but no architectural remains were recognised.[6] Similar Hassuna coarse wares were also found eroding from deposits of similar physical appearance at various spots along the heavily eroded northern side of Abu Dhahir (Areas C, D, F, O and R). This suggests occupation of this period measuring at least 150 m across in an east/west direction: it is uncertain how far this was strictly contemporaneous as this may be the product of spiral stratigraphy through shifting occupation across the site. The overall size of the Hassuna occupation is therefore unclear but it appears to have been extensive. The apparent absence of any classic Hassuna fine or medium wares from deposits other than Phase 1.2 in [M] suggests that the settlement may have contracted in size after achieving maximum extent in a proto-Hassuna phase in Phase 1.1 but confirmation of this must await further analysis of the ceramics.

The three or four large regular post and stake holes found in Phase 1.1 provide rare evidence for wooden architecture in early Mesopotamia, as their size and depth suggest construction of a sizeable structure or palisade. No evidence for *tauf* or mud-brick architecture were noted in any of the exposed sections of Hassuna date along the north side of the site. Although this may simply be coincidental and/or reflective of a scattered distribution of structures across the site, the possibility remains that other structures were also built of wood. An alternative hypothesis that the lack of observed structural remains may reflect seasonal occupation of a site, as proposed at Tell Hassuna[7] but this is unconvincing in the case of Abu Dhahir, given the depth and internal variation of the archaeological deposits, the hints of structures and the quantities of artefacts.

Treated as a group, the Abu Dhahir Hassuna ceramics can be summarised as predominantly coarse, organic-tempered, and reddish-brown handmade wares decorated with a rather limited range of decorative motifs. These were mainly painted in a partially water-soluble dusky-red paint, the commonest type being a band along the interior and exterior of the rim. However, there were also some other painted motifs, including crude parallel radial zigzags and hatched triangles. Some pots were incised; combined painting and incision was rare. Relief decoration was infrequent, and apparently limited to knobs; burnishing was common. 'Husking-tray' fragments were frequent, with corrugated or circular-indented interior bases, and vertically scored interior walls. Some sherds of a much finer, harder, and more highly burnished type of pottery resembling 'Dark Faced Burnished Ware' may represent an imported high-quality cooking ware type. No complete Hassuna vessels were found at Abu Dhahir. Parallels for the Abu Dhahir assemblage are found at Yarim Tepe I.[8]

Lithics were predominantly flint/chert but included narrow obsidian blades with regular steep lamellar retouch along parallel edges, a type-fossil of this period that is found at Yarim-Tepe I, Tell Shemshara, and Hajji Firuz Tepe.[9] No chipped stone 'hoes' were found.

Small finds included a fragment of polished calcite bowl and some polished bone tool fragments. A pair of spherical stones with battered edges may have been hammer stones, or possibly hunting bolas. The latter use has been suggested for the baked clay sling stones found in quantities at Umm Dabaghiyah, as well as in Ubaid levels at Tell Abada.[10] The presence of a basalt chip in [M4] (43) suggests limited on-site reworking of imported ground stone, the nearest source for the basalt being outcrops in north-east Syria.

One final feature of the [M] Hassuna levels calls for comment. The large number of natural pebbles, generally up to 10 cm across, is in significant contrast to later occupation at the site: indeed, virtually none were found in the more extensively excavated Ubaid (Period 3) deposits. The reason for their abundance in the Period 1 deposits is uncertain. They were evidently not being selected for knapping purposes although use was occasionally made of relatively coarse-grained flint/chert. Their use as pot boilers (i.e. stones heated and added to cooking or boiling to help raise the necessary temperature) – as implied in the case of Tell Sabi Abyad II[11] – seems unlikely given their size (up to 15 cm in some instances) and lack of fire-cracking. A small number were blackened, possibly reflecting use as hearth-lining in order to retain the heat for longer.[12] It is possible that a number of the stones were used in construction, either 'as anchors and draught-proofing'[13] or to weigh down roofing, as suggested for structures at Tell Aswad on the Balikh.[14] However, the remainder of these stones were probably used as unmodified *ad hoc* tools such as pestles, pounders or cutting slabs. A similar usage has

[6] Yunis 1981: 105 = Level 15.
[7] Lloyd and Safar 1945: 262, 271-72.
[8] Bashilov, Bolshakov and Kouza 1980: 50-57; Merpert, Munchaev and Bader 1977: 73-81, pl. V.
[9] Merpert, Munchaev and Bader 1977: 81, pl. IX: 3; Mortenson *et al.* 1970: 43, figs. 36-37; Voigt *et al.* 1983: 236-37 and refs, fig. 111. n-o, pl. 33.
[10] Kirkbride 1973: 209, pl. LXXX.b; Jasim 1985: vol. I, 62, 83-84 and refs, vol. II, figs. 55, 87c.
[11] Verhoeven 1994: 11; cf. Ryder 1969.
[12] cf. Postgate and Watson 1979: 173-74.
[13] Oates 1977: 465.
[14] Mallowan 1946: 124.

been suggested by finds from Asiab, Karim Shahir, Tepe Ali Kosh, Chogha Sefid, Tell Shemshara and elsewhere.[15] Close examination for signs of artificial modification or use-wear was not conducted although some of the Abu Dhahir stones were clearly utilised as tools [see above: [M4] (54), (49), (41)]. The subsequent decline in the frequency of unmodified pebbles in the deposits excavated at Abu Dhahir therefore may reflect increasing alternative use of specially prepared ground stone implements or reused potsherds, both of which categories are indeed well represented in the subsequent Ubaid (and later) periods.

Abu Dhahir is one of three sites in the Project area where Hassuna (or proto-Hassuna) artefacts and *in situ* deposits were identified and excavated.[16] The others lay in the southern part of the Project area on the left bank of the Tigris. These sites form the earliest known settlements in this part of the Tigris valley, with the exception of a number of Palaeolithic sites and aceramic Neolithic occupation at Tell Der Hall and Nemrik.[17] Within the Eski Mosul Dam Project, Hassuna chipped stone and fragmentary plain, painted and incised ceramics were found associated with poorly preserved *tauf* architecture near the east edge of the mound of Tell Jigan; two Hassuna or Halaf graves were also excavated here. Samarran painted wares have also been reported from this location.[18] Samarran painted vessels, some found in graves, were also excavated at Tell Musaifna.[19] Closer to Abu Dhahir Hassuna pottery, lithics and a female figurine have been reported from Iraqi excavations at a site near Bardiyya, presumably Bardiyya 8 but this early dating is questionable.[20]

At the site of Kharabeh Shattani, approximately 4 km south of Tell Jigan, a University of Edinburgh expedition found the remains of stone wall footings associated with simple Hassuna coarse wares, but separated by ca 1 m. of natural soil beneath a level of Halaf occupation.[21] The latter suggests radical post-Hassuna soil erosion and localised environmental degradation that is also seen at Tell al-Khan;[22] the potential difficulties implied in successfully locating other Hassuna (or indeed other Neolithic) sites in this area of undulating topography are obvious, and warn against simplistic comparison of apparent settlement densities with those recorded from surface survey on the north Jazira.[23]

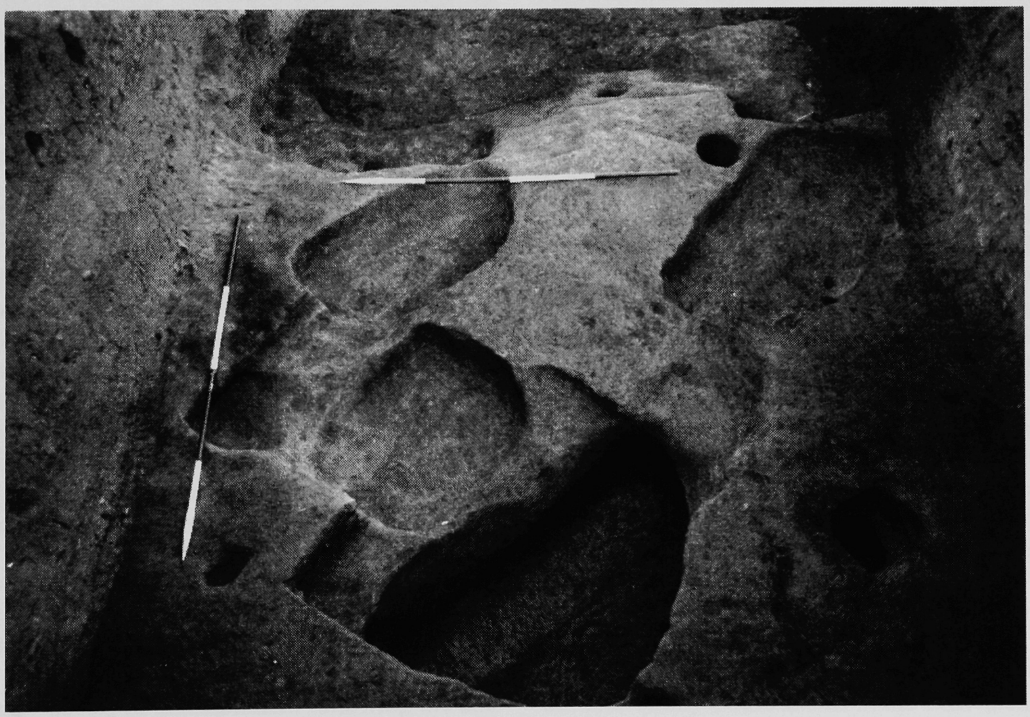

Plate 5 Hassuna features in [M4] (partially cut by later Ubaid features)

[15] Howe 1983: 51-54, 61, 115, 127; Hole *et al.* 1969: 192-203, pls. 32-33, 35; Hole *et al.* 1977: 196; Mortensen *et al.* 1970: 18-25.

[16] See Roaf's (1990: 43) map of 7th millennium ceramic cultures in the Near East. A series of crude stone tools and ceramics was accidentally discovered during geological work in the Wadi Anzeh, near the later site at Anzeh Cemetery, but the date of these finds is not specified (Killick and Black 1985: 227).

[17] Inizan 1984; Inizan 1985; Mazurowski 1987; Nashef 1987; Abe 1988; Matsumoto and Yagi 1987a: 56, 59, fig. 17, pl. 2: 6, 1987b: 182, fig. 97: 20-28; Ohnuma and Matsumoto 1988; Kozlowski 1989; Kozlowski and Kempisty 1990; Kozlowski and Szymcak 1987: 1989; cf. also Watkins, Baird and Betts 1989.

[18] Ii and Kawamata 1984/85: figs. 6-7, 12, pls. 9d, 21-2, 37; Ii and Kawamata 1987: 35-7, fig. 4: 1-12; Kawamata *et al.* 1987: 186, 188, fig. 103 – Area A; Killick and Black 1985: 231-32; cf. also Bashir 1987b.

[19] Nashef 1987; Yunis 1987 and pers. comm.

[20] Anon. 1987/88: 87; Ball, Simpson and Tucker 2003: 173.

[21] Baird 1995: 9.

[22] Braidwood and Howe *et al.* 1960: 25, 35.

[23] Wilkinson and Tucker 1995.

CHAPTER 3

PERIOD 2: HALAF

SYNOPSIS

A small number of possible Halaf sherds were identified from the site yet no *in situ* levels were identified. Both within [M] and the University of Mosul excavation in Area E, Ubaid occupation appeared to follow Hassuna deposits without an intervening period of occupation. These sherds may therefore represent strays from another site or imports used during early phases of the Period 3 occupation.

DISCUSSION

Archaeological evidence for Halaf occupation at Abu Dhahir is nebulous and limited to a small number of finds from secondary contexts, including a single sherd from a Period 5 context and a possible sherd from the surface in Area C. A single Halaf sherd was noted from [M] but from a secondary (Period 5) context [M1] (76). This fineware body sherd was decorated with rows of small circles in a reddish brown paint with a glossy surface.

In addition the lower portion of a well-modelled baked clay female figurine with fugitive traces of red/brown painted trousers or leggings <516> was found in slope-wash. Parallels for this so-called 'mother-goddess' type of figurine are usually dated to the Halaf period[1] yet comparable Ubaid examples are also reported.[2] Human figurines were found at Abu Dhahir by the University of Mosul in their so-called 'later Halaf' level 14 but this appears to be Ubaid period.[3] A later Ubaid date thus seems plausible for this piece.

Circular buildings measuring between 3 and 6 m across — presumed to be so-called *tholoi* — and a nearby circular two-stage updraught pottery kiln *(Pl. 15)* are reported from the University of Mosul excavations in the centre of the mound although the finds are unpublished.[4] However, part of a circular Ubaid structure was found within [M] and a later date is supported by artefacts noted from later section collapse in this area of the site (our Area [E]) which belonged exclusively to the Ubaid period (see below: chapter 4). A Halaf occupation therefore cannot be substantiated by excavated evidence.

Halaf pottery or other remains of this culture were excavated at eleven other sites in this Project. The largest excavated exposures of Halaf levels were at Tell Karrana 1 where a series of circular *tholoi* and other buildings are reported.[5] The stone footings of a *tholos* were traced within an area of poorly preserved architectural remains at Kharabeh Shattani[6] and part of a *tholos* with a projected diameter of 5 m., a rectangular building and a pebble-paved alley were excavated at Tell Der Hall by the Japanese Archaeological Expedition;[7] however, only traces of mud-brick walls and scattered potsherds were found at Tell Jigan.[8] Elsewhere, the evidence was even more limited. A single adult inhumation burial accompanied by a painted ceramic bowl, a bone object and several spindle whorls was excavated at Tell Kutan;[9] two possible Halaf graves, one containing a plain coarse ware ceramic bowl, were excavated at Tell Jigan and two further Halaf graves were excavated at Kharabeh Shattani[10] whereas unstratified potsherds were found at Tell Karrana 3[11] and Tell Shelgiyya.[12]

[1] Mallowan and Rose 1935: 79-87, incl. figs.; Mallowan 1936: 19-21, fig. 5: 1-11; Tobler 1950: 163-65, pls. lxxxi.a-c, 1-7, cliii.1-11; Merpert and Munchaev 1973: 112, pl. xliii.1-2.

[2] Perkins 1959: 32-33, 60-61; cf. also Tobler 1950: 165. My thanks to Dr Ellen McAdam for her comments on this and other figurines.

[3] Yunis 1981: 105, 110.

[4] Yunis 1981; the kiln is illustrated in Simpson 1997a: 39.

[5] anon. 1987/88: 88; Wilkinson and Matthews 1989: 256-57.

[6] Watkins 1987.

[7] Abe 1988; Ohnuma and Matsumoto 1988.

[8] Bashir 1987b; Kawamata *et al.* 1987: 186, 188.

[9] Bachelot 1987: 91; Forest 1987a: 88; Forest 1987b: 194.

[10] Watkins 1987.

[11] Rova 1993: 42.

[12] Ball and Pagan 2003. The state of research regarding the Halaf culture has been reviewed elsewhere: cf. Watson 1983b; Hours 1987; Hijara 1997.

CHAPTER 4

PERIOD 3: NORTHERN UBAID

SYNOPSIS

The site was reoccupied and grew to become a substantial settlement during the Ubaid period. Seven phases – ranging from a cemetery to a large scale storage complex replaced by five phases of alternating uses of space for domestic occupation and external areas – were excavated in the east part of the mound in [M]; a two-stage updraught kiln and other remains were discovered by the University of Mosul near the centre of the mound and traces of Ubaid occupation were noted along the river section for a distance of at least 100 m. Abu Dhahir thus appears to be one of the principal Ubaid sites to be investigated within the Eski Mosul Dam Salvage Project.

TRENCH [M]

A substantial and important sequence for this period was found in [M] with clear evidence for substantial changes in the use of space. A total of seven phases belonging to this period were found here. The first phase, sub-divided into two sub-phases, consisted of a cemetery with inhumation burials placed with a small number of grave goods inside deep shaft graves with undercut side-chambers. The second phase was marked by the construction of a cubicle building over this part of the site, the purpose of the cubicles being large scale storage. After repeated modification this complex was abandoned and reverted briefly to a courtyard area during the third phase. The fourth and fifth phases may have been equally short-lived and consisted of a domestic building followed by probable use of this area as a courtyard with possible baking facilities. A curvilinear stone construction marked the sixth phase, again with evidence of abandonment and erosion prior to re-occupation in the final phase with the construction of a sprawling series of interconnecting rooms with some additional evidence for craft activity.

PHASE 3.1 THE CEMETERY

After a lengthy period of abandonment following the end of the Hassuna occupation, a number of partly intersecting features were cut through the Period 1 deposits into the top of virgin soil. Most of these features can be assigned on stratigraphic and artefactual grounds to Period 3 although their uppermost edges were only defined in section or during post-excavation analysis. Some of these features lacked secure dating evidence and could conceivably belong to a late sub-phase of Period 1 but have been designated herewith as Period 3.1-1.

Sub-phase 3.1-1 Hassuna/Ubaid graves: Graves 1-2 *(Figs. 11-12; Pl. 6)*

Grave 1 [M4] (52) *(Fig. 12; Pl. 6)* An irregular cut feature measuring at least 40 cm deep, cutting the top of virgin soil and located in the east half of [M4]. The top of this grave was not detected during excavation: there are indications that it was cut from above Period 1.1 deposit [M4] (32) as a slightly darker patch was noted here. The original size of the grave is uncertain as it was cut to the west and east by Grave 6 and it was clipped by Grave 4. The north limits are likewise uncertain as this portion had been subsequently eroded and excavated together with slope-wash. However, the east end of this feature did appear to be associated with an ash-filled hollow, [M4] (52)B, that extended for an additional 50 cm to the north and also partially cut virgin soil.

The sides of the grave were vertical but slightly undercut along the south side: they were partially burnt to a dark reddish-brown appearance for a thickness of 3 cm. Lying on the floor of the south portion of the grave was the lower portion of a human skeleton, consisting of a pair of articulated legs and feet laid in a flexed position. The remainder of the skeleton – i.e. pelvis upwards – had been subsequently destroyed by Grave 6 yet sufficient survived to indicate that the body had been interred on its right side, orientated approximately east/west with head to the west. The bones were in poor condition, having been crushed presumably from the pressure of the overlying deposits. They were identified as belonging to an adult male.[1] No grave goods were found.

The lowermost fills [M4] (53) consisted of a primary deposit, a grey-brown silty clayey deposit mottled with flecks of light brownish clay (A), sealed by fine dark grey/black ash with charcoal flecks (B). The finds from these deposits were combined during excavation; all the pottery belonged to Period 1.

The date of this grave is uncertain. It was cut from or above the upper portion of the Period 1.1 deposits and the absence of any Ubaid sherds in the excavated fill – unlike the other Period 3 graves – may suggest a pre-Ubaid date. In this instance, an earlier date may explain the slightly different orientation and grave type compared to the other graves (particularly Graves 3-6).[2] Prior to excavation, this feature was assumed to be a sunken fire installation owing to the clear evidence of burning along its sides. If indeed the burial was associated with the burnt feature in which it was found – and there did not appear to be any

[1] Bolt, forthcoming.

[2] The very limited sample size should be stressed and there is no compelling reason for all of the Phase 3.2 burials to be of the same type.

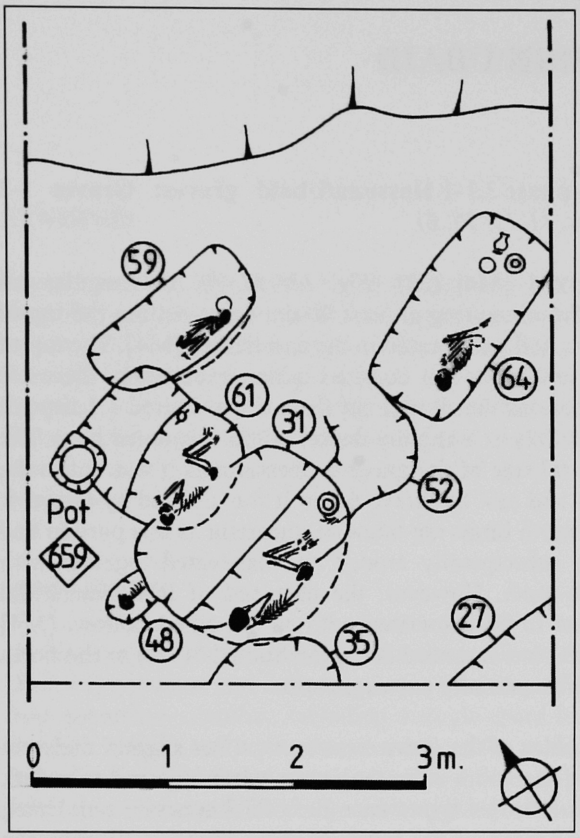

Fig 11 Plan of Ubaid graves

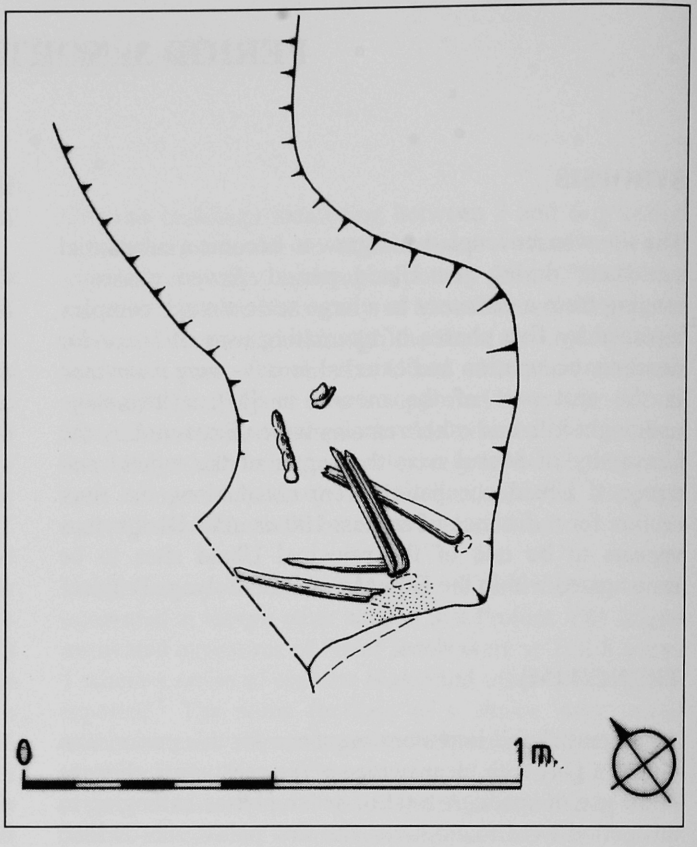

Fig 12 Ubaid Grave 1

secondary cut that would imply that the interment was later – it must be assumed that this individual was placed within a disused sunken fire installation, the cut being back-filled with material largely deriving from this; there are no indications from the bones that this was a cremation.[3]

Grave 2 [M4] (48) *(Fig. 13)* The remains of a small cut feature was found in the west part of [M4]; it was cut from above the Period 1.1 deposit [M4] (32) but the position of the top of this cut was uncertain.

It was orientated east/west; it was cut at the east end by Grave 6 and the north edge was cut by Cut Feature 2. The cranium and upper portion of the ribs and vertebrae of a human skeleton lay on the floor; the body lay on its left side, orientated approximately east/west with head to the west and facing approximately northwest. The remainder of the burial had presumably been destroyed by the later cuts to the north and east. The bones belonged to a young child but were heavily crushed.[4] No grave goods were

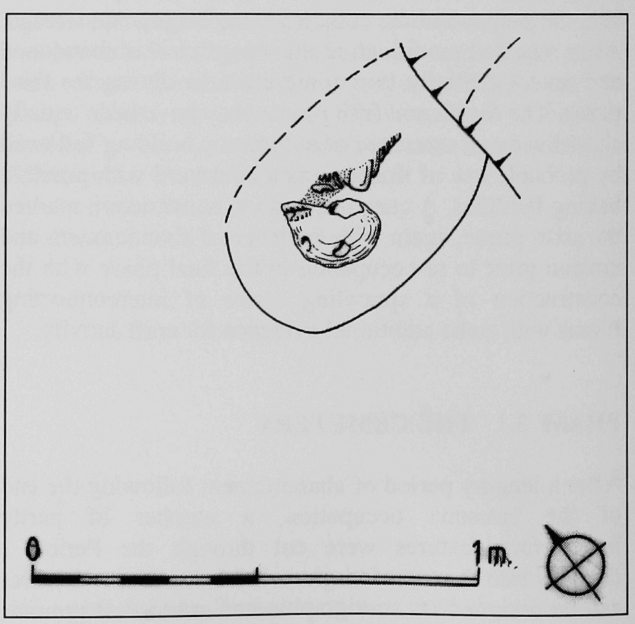

Fig 13 Ubaid Grave 2

[3] Halaf cremation burials are reported from Yarim Tepe II, including similar cases where the sides of the pit were burnt yet the body was not (Merpert, Munchaev and Bader 1978: 41); however, in another case the deceased had been interred with grave goods inside an oven (Merpert and Munchaev 1987: 26-27) although the excavators' interpretation of the associated pottery having been deliberately smashed is undermined by that from Tepe Gawra where a similar interpretation was later revised in favour of an explanation whereby the breakage was caused by collapse of the tomb roof (Tobler 1950: 82).

[4] Bolt, forthcoming.

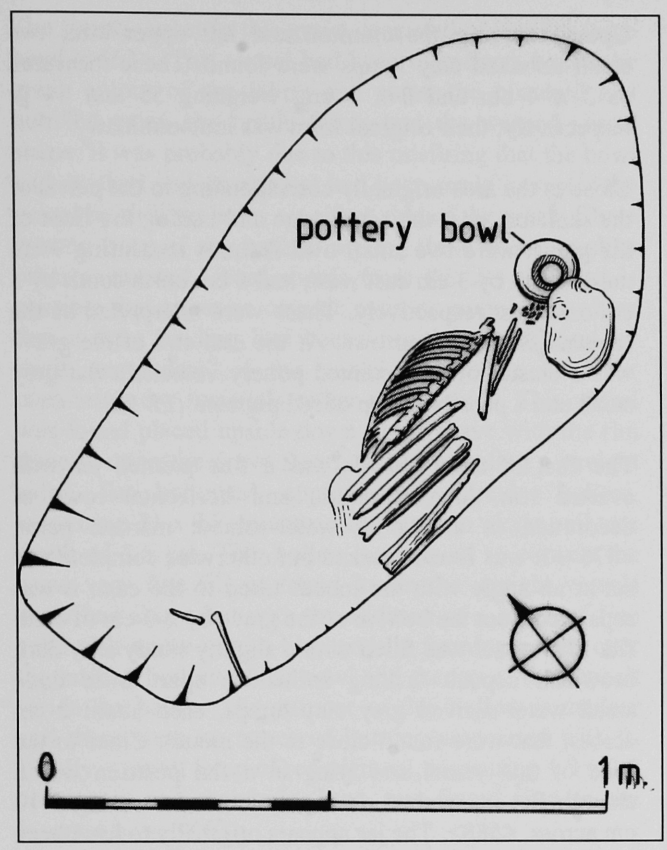

Fig 14 Ubaid Grave 3

found in the limited area preserved although a burial of this size may not have been equipped with any.[5]

Sub-phase 3.1-2 Graves 3-6 and other Cut Features *(Figs. 11, 14-17; Pls. 7-12)*

Grave 3 [M4] (59) *(Figs. 11, 14; Pl. 7)* An irregular east/west orientated grave, measuring 1.40 m east/west and at least 70 cm north/south and located in the northwest corner of [M4]. Its relatively flat bottom cut virgin soil to a depth of 31 cm; the remainder of the grave was lost due to subsequent erosion and excavation of slope-wash in [M5]. The southwest corner was cut by Grave 5.

A human skeleton was found in the southeast portion, placed immediately adjacent to the slightly undercut grave cut. The body was found on its left side, orientated approximately east/west, with head to the east. The legs were close together and tightly contracted, with knees drawn up to the chest. The arms were close together in a flexed position, with the hands placed near the throat or mouth. The orientation of the face was uncertain; it appeared during excavation as if the cranium had separated from the remainder of the skeleton but this may have been a false illusion resulting from total decomposition of the uppermost vertebrae. The bones generally were in poor condition having been largely crushed *in situ*; they belonged to an adult female.[6] A small shallow Ubaid pottery bowl/cup <680> with a cut-down rim and a painted band around the base was found placed upside-down partly beneath the cranium. This vessel was found to be empty and the earth immediately sealed beneath did not contain any visible organic material or appear different to the remainder of the lower grave fill [M4] (62).

The tight contraction of this articulated burial suggests that it may have been originally bound, possibly within an unlined mat or shroud, prior to being placed in the grave. The modification of the accompanying vessel presumably followed damage during use of the vessel prior to burial. The relatively large empty area (measuring ca 45 cm north/south and 35 cm east/west) below the feet of the skeleton may be compared with the area (measuring 75 cm square) below the feet of the skeleton in the slightly larger Grave 4. In the latter case, the centre of this area was marked by a cluster of pots and other artefacts. Likewise, a 50 cm square area at the foot of the skeleton in Grave 6 was occupied by a pair of pots and some articulated animal-bones. It is therefore suggested that this area in Grave 3 had been similarly intended for grave offerings, possibly of an organic nature which have not survived.[7]

Despite the loss of most of the upper portion of this grave, it seems likely that the body had been placed in a side-chamber immediately south of a presumably vertical shaft. This would account for the slight undercutting along the south edge of the grave and the restriction of the burial to this side of the grave cut: the so-called north edge of the grave therefore probably represents the edge of a low step down from the floor of the grave-shaft to the side-chamber: clearer instances of this can be seen in Graves 5-6.[8]

Grave 4 [M4] (64) *(Figs. 11, 15; Pls. 8-9)* An approximately 1.70 m long rectangular grave was found at the north edge of [M4], northeast of Grave 3 with one corner running into the main east section of [M4] and

[5] However, it is possible that the small broken turquoise (?) bead <535> found in [M4] (46) to the north originally derived from here; see Grave 5.

[6] Bolt, forthcoming.

[7] Organic remains are rarely recovered from early graves in Mesopotamia owing to poor conditions of preservation. Exceptions include a large number of wooden beads with an adult Ubaid inhumation at Tell Songor A (Kamada and Ohtsu 1981: 171), a possible wooden spatula in an Ubaid grave at Tepe Gawra (Tobler 1950: 115-16) and some carbonised wood in a grave at Tell Arpachiyah (Mallowan and Rose 1935: 41, no. 646). Elsewhere, remains of basketry have been found in a grave at Tepe Ali Kosh in the Deh Luran plain (Hole *et al.* 1969: 254-55) and graves at Çatal Hüyük on the Anatolian plateau were equipped with a variety of spectacular wooden vessels (although not ceramics) accidentally preserved owing to intense burning of the occupation immediately above (Mellaart 1967: 208-209, fig. 55, pls. 105-108).

[8] Note: the dotted lines on the accompanying general plan of the graves *(Fig. 8)*, indicate the probable position of such a grave-shaft, although no traces were recovered in excavation.

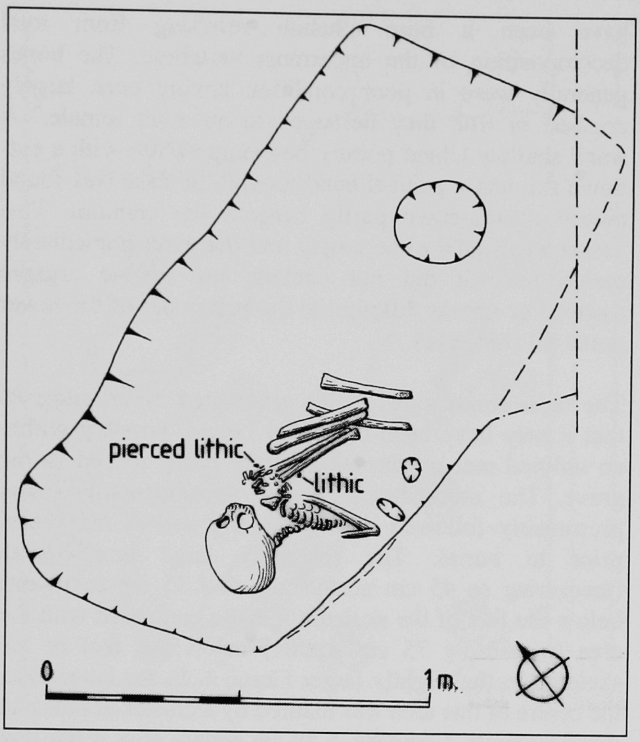

Fig 15 Ubaid Grave 4;
for position of pottery grave-goods see Fig 11,
Plates 8-9

clipping the east edge of Grave 1. Orientated approximately east/west with an approximately flat bottom, this was cut into virgin soil to a depth of 20 cm. The top of the cut is uncertain as it had been subsequently eroded and excavated with slope-wash [M5] (1). As preserved, the sides of this feature were vertical, except along the south where it was slightly undercut by 5 cm; the maximum preserved height of the south side was 27 cm.

A human skeleton was found in the southwest quarter of the grave. It was lying on its left side, orientated approximately east/west with head to the west and facing approximately northeast *(Pl. 8)*. The legs were tightly contracted with the left knee placed in front of the pelvic area and the right in front of the chest. The arms were flexed with the hands placed close together in front of the chest near the cranium. The bones were in a poor and heavily crushed state, the pelvis and vertebrae/ribs being in particularly poor condition. The body was that of an adult female.[9]

Two small translucent smoky-grey obsidian chips <505> and <801> were found near the hands. One of these fragments was perforated. These two fragments originally probably formed a single tear-shaped pendant: judging by the find-spot this may have originally been attached to a cuff or bracelet.

Upon removing the cranium and left upper arm, two small unbaked clay lumps were found. These measured ca 3 x 4 cm and 3 x 3 cm, weighing 53 and 14 gr respectively; their original form was indeterminate.[10]

Close to the area originally corresponding to the pelvis of the skeleton, near the south edge and cutting the floor of the grave, were two small oval features measuring 9 cm north/south by 3 cm east/west, and 6 cm north/south by 5 cm east/west respectively. These were interpreted as the remains of rodent burrows. At the east end of the grave was a cluster of four painted pottery vessels, a flat grey stone and a possible lump of red pigment *(Pl. 9)*.

The first of these vessels was a fine painted jar with everted rim, low carination and horizontal rows of decoration in a slightly water-soluble maroon paint, <676>. It was found cracked but otherwise complete and set at an angle with the mouth tilted to the east; it was separated from the bottom of the grave by 2-3 cm of earth fill. The vessel was filled with a slightly sandy silty dark brownish deposit lacking inclusions apart from three small water-derived grey clay lumps, each about 2 cm across, that were found close to the mouth. Close to the base of this vessel and lying in a flat position was a smooth flat un-worked dark grey stone measuring 9-10 cm across, <588>. The jar appears originally to have been placed on top of this stone but was presumably displaced during back-filling of the grave in antiquity; this stone fitted snugly on top of the jar and was originally presumably used as a lid.

Next to this jar was a bowl decorated around the rim on the interior and exterior with horizontal red bands in a partially water-soluble paint, <798>. This vessel was found placed upright on the grave floor, resting against and partially above an inverted bowl, <662>. The fill of bowl <798> was similar to jar <676> but lacked inclusions. A smaller red-painted bowl <678> was found placed upright in the centre of bowl <798>. The paint on this vessel was again partly water-soluble; it also had a white encrustation around the interior rim and upper half of the exterior. Its fill consisted of the same material as within jar <676> and bowl <798>. This second bowl was separated from the bottom of <798> by earth fill. This implies that either this earth had been deposited during the burial ceremony – which seems unlikely – or that the larger bowl had been covered with a flat organic lid, perhaps of wood or leather, upon which the smaller bowl had been placed. The progressive decay of such a lid would have allowed percolation of soil into part of the bowl before finally giving way under the weight of the smaller bowl above (perhaps also equipped with a similar lid); if this hypothesis is correct, this would contrast with the jar <676>.

[9] Bolt, forthcoming.

[10] These were initially interpreted as being deliberate inclusions but analogy with Period 19 graves suggests that these were simply the product of post-mortem water action in the undercut side-chamber (see below: Chapter 12, grave type 4).

The fourth vessel in this grave consisted of another large bowl, <662>. This vessel had been over-fired, hence the green colour of the fabric and paint, the blistered and bubbled paint, the brittle fabric and the warped vessel shape. It was probably due to this misfiring that the bowl had cracked and an attempt had been made to repair the vessel by drilling holes on either side of the crack. There was no trace of any asphalt sealing these holes – unlike other excavated Ubaid sherds from the site – and it is possible that either an organic resin or gum was used, or that a tight binding had been considered sufficient by itself, particularly if the vessel was to be used for containing dry materials rather than liquids. This vessel was found placed upside-down in the grave with the rim directly upon the grave floor, carefully sealing a straight sided, flat bottomed, approximately circular hollow, measuring 21 x 24 cm across and cut into virgin soil to a depth of 5.5 cm. This hollow was found to contain the same very fine fill as found inside the upright vessels described above but with the addition of a series of fine yellowish-white rootlet-like tendrils forming a web over the interior bottom of the bowl and the top of the deposit inside the hollow; the purpose of this hollow is unclear and there were no traces of burning associated with it. Finally, a small lump of red pigment, measuring 1.9 x 2.2 cm across and weighing 7 gr, was found next to the inverted bowl <662>.

The original shape and size of this grave are uncertain due to the loss of the upper portion. It is likely that the excavated south edge represents the bottom of an undercut side-chamber. Indeed, from the placement of the pots and through comparison with the better-preserved Graves 5-6, it is probable that the excavated portion of Grave 4 merely represents the deeper-cut side-chamber to the south of a grave-shaft. The type of main fill of this grave [M4] (63) was not recorded although it included a burnt fragment of daub and 18 natural stones.

Grave 5 [M4] (61) *(Figs. 11, 16; Pl. 10)* Grave 5 was found in the northwest portion of [M4]; the upper portion had been lost due to subsequent erosion along the north edge. The maximum excavated portion (i.e. at the bottom of the original grave) measured 1.30 m north/south x 1.25 m east/west. The grave consisted of an approximately rectangular shaft orientated east/west and measuring 0.50 x 1.10-1.25 m with an approximately level floor and a deeper side-chamber on the south side separated by a 15 cm deep cut step. The side-chamber was again orientated east/west, measured 0.80 m x 1.10 m, and was partially undercut. The floor of this side-chamber was found to be gently sloping down to the south and was divided into two by a second but lower step aligned east/west.

A human skeleton was found placed south of but partly overlapping this second step. It was placed on its left side, orientated east/west with head to the west and facing approximately northeast. Its legs were together and in a flexed position. The arms were flexed, with hands

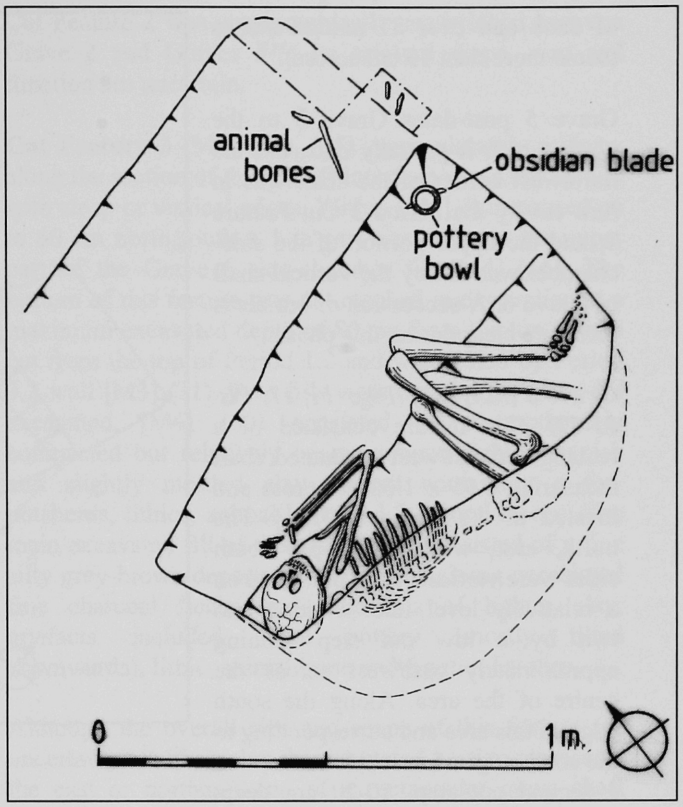

Fig 16 Ubaid Grave 5

together placed adjacent to and in front of the face. The bones were in fair-poor condition, being partially crushed. They belonged to an adult male.

In the northeast corner, within the side-chamber but partly overlapping the step between chamber and shaft, a complete plain pottery bowl was found in an upright position with the mouth slightly tilted to the south <679>. Directly underneath this vessel was a translucent dark bottle-green obsidian blade, measuring 8.2 cm long and placed ventral surface upwards <800>; no traces of hafting remained but some light use-wear along one edge suggests that it had been used prior to burial. The intended purpose of this blade is uncertain: chipped stone tools occur sporadically in Mesopotamian graves from the 6th millennium onwards and usually consist of single simple blades ('knives') but in some of these cases it is unclear whether these were deliberate grave goods or whether they were accidentally incorporated in the back-fill. Some articulated animal-bones were found lying on the floor of the east end of the grave shaft approximately 15 cm away from these artefacts. In addition, the remains of an animal scapula were found in the north corner.

The deposits [M4] (46)B (lower) and (46)A (upper) within Grave 5 consisted of a light grey-brown clayey silty deposit, partly mottled with light brownish clayey flecks. They included a small broken turquoise (?) bead <535>, pottery (including a number of Ubaid sherds), flint and obsidian lithics, some animal-bone, three lumps

of daub and over 87 natural stones (some more than 15 cm across).[11]

Grave 5 post-dates Grave 3 to the north which it partially cuts, but the northwest corner of the shaft was in turn cut by the Period 3 Cut Feature 1, and the upper portion of the side-chamber was cut by the vertical shaft of Grave 6. A succession of burials is therefore clear during this phase.

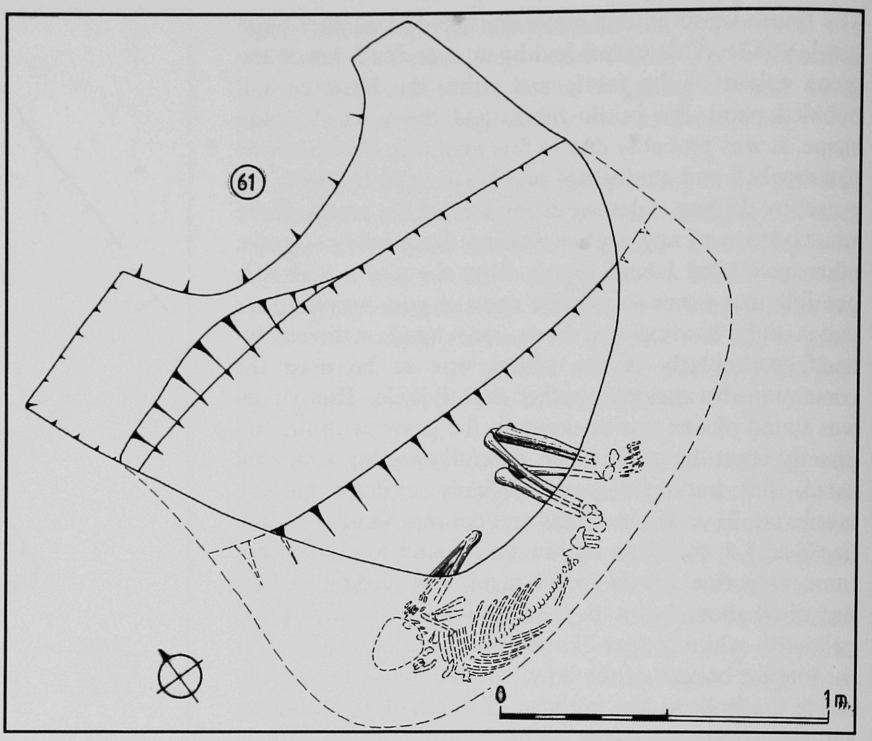

Fig 17 Ubaid Grave 6

Grave 6 [M4] (31) *(Figs. 11, 17; Pls. 11-12)* This feature consisted of a rectangular east/west orientated shaft measuring 0.95 x 1.60 m across and located in the centre of [M4]. The north, east, west and upper south sides were vertical. They bottomed on a relatively level floor divided into two by a low cut step running approximately east/west across the centre of the area. Along the south edge of this area and corresponding to the south edge of the shaft above, was a second cut step, 10-20 cm deep. This marked the north edge of an undercut side-chamber measuring 0.40-0.75 x 1.80 m. The floor of the side-chamber sloped down to the south.

Lying in the west two-thirds of this side-chamber was a human skeleton resting on its left side, orientated east/west, with the head to the west and possibly facing east/northeast. The legs were together and in a flexed position. The arms were tightly flexed with the hands placed together, adjacent to and probably in front of, the face. The bones belonged to an adult female but were in a fair-poor state of preservation having been partially crushed.

A large pottery ledge-rim jar was found placed upright some 20 cm from the feet of the skeleton, <658>. The upper exterior was decorated with a partially water-soluble red paint; the interior ledge-rim was perforated with four small equally spaced holes. Found resting *in situ* on top of and thereby sealing this vessel was an inverted plain pottery bowl with a small hole through the centre of the base <681>. When this bowl was removed the jar was found to be partially filled with a fine silty material that had evidently percolated in from the surrounding fill [M4] (56); no other contents or residues were visible. The jar was similar to although slightly smaller and finer than the jar <659> which was found in Cut Feature 1.

After burial, the side-chamber and bottom of the grave-shaft had been back-filled with a grey-brown silty deposit [M4] (56). This was sealed by a 90 cm thick compacted light yellowish-brown clay deposit [M4] (57), mottled with white flecks and containing some potsherds and ca 43 natural stones. Above this was a similar deposit [M4] (30) but distinguished by a browner and more mottled appearance. This deposit also contained a basalt grinder fragment <722>, a dark brown fired clay object fragment <795>, some pottery, lithic, a little animal-bone and shell, several fragments of burnt clay and 271 natural stones (including some possibly accidentally heated cobbles). The upper fills thus consisted mainly of re-deposited virgin soil plus a certain amount of residual Period 1 and presumably semi-contemporary Period 3 artefacts.[12]

Cut Feature 1 [M4] (45)A A vertical sided and probably originally circular feature in the northwest corner of

[11] A basalt grinder fragment <832> that was originally assigned during excavation to [M4] (26) Period 1.1 probably derives from the fill of Grave 5, judging by its recorded find-spot. The natural stones are residual from Period 1.

[12] The uppermost fill of Grave 6 was missed during excavation as it consisted of a mixed grey-brown clayey/silty fill [M4] (30)B; a concentration of white flecks was noted in this area during excavation of the Period 1.2 deposit [M4] (24) and shortly before the grave was recognised as an individual feature. Initially recorded as [M4] (24), a quantity of shell (typical of the Ubaid contexts at Abu Dhahir), vitrified clay and a pierced circular shell object <508>, probably derived from the uppermost fill of Grave 6. However, this does not exclude an earlier date for some of this material.

[M4], cutting the northwest corner of Grave 5 and observed in the main west section of [M] as a cut between [M4] (23) and [M4] (21). It measured ca 45 cm across. The north edge of this feature was removed in the excavation of slope-wash [M5] (1) when the edge of the pot <659> was first revealed.

A large complete Ubaid pottery ledge-rim jar with a perforated interior ledge-rim, <659>, decorated on the exterior with a partially water-soluble red paint and with large patches of asphalt on the surfaces, was found placed upside-down at the bottom of this cut. The vessel was filled with a very fine silty-clayey deposit that had percolated in through the cracks; it did not contain any bones, nor was any organic staining noted. The function of this jar is uncertain. It may represent a secondary offering to one of the earlier burials in this area, for instance [M4] (61), as it appears unlikely that the bones of even a foetus or new-born child could have completely disintegrated.

The fill of this cut feature consisted of a loosely compacted dark grey-brown silty clayey deposit containing occasional flecks of lighter material [M4] (45)B. It contained some potsherds, including one that had been chipped and ground into an artefact <654>, lithics, animal-bone and ca 45 small natural stones (measuring under 5 cm across, and mostly less than 2 cm); the lower portion of this feature was excavated without supervision. Its exact relationship with an approximately square cut feature, originally recorded as the bottom of [M4] (45)A, is therefore uncertain. As the respective alignments and shape did not exactly correspond, it is tempting to see this other feature as the remains of a large post hole of the same type and date as those assigned to Period 1.1 [see above: [M4] (65), (67) and particularly (69)].

Cut Feature 2 [M4] (40)/(37) A steep sided cut feature measuring over 60 cm east/west x 50 cm north/south x 50 cm deep was traced running across the northwest part of [M4] and cutting the north edge of Grave 2 as well as Period 1 deposits. Only part of the south edge and east end of this was traced; the remainder either lay beyond the excavated area to the west or had been subsequently eroded and destroyed to the north. In the centre, Graves 5-6 and Cut Feature 1 destroyed the stratigraphic link between [M4] (40) and (37) to the west and east; they were presumed to be part of the same feature. The top edge of this cut is uncertain but post-dated Period 1.1 deposits [M4] (36) and probably [M4] (32). It was filled with a slightly mottled light grey-brown silty clayey deposit containing occasional small white flecks, charcoal and reddish-orange burnt clay possibly deriving from a fire installation. During excavation, a similarity was noted between these deposits and [M4] (35) and the upper fill of a grave at the south end of [M4]. Finds included potsherds, lithics, animal-bone and at least 12 natural stones.

Cut Feature 2 was stratigraphically sandwiched between Grave 2 and Graves 5-6; its original shape, size and function are uncertain.

Cut Feature 3 [M4] (50), (35) Approximately midway along the section of the [M3/4] interface was a cut feature with steep or vertical edges. Within [M4], it measured up to 60 cm north/south x 1 m east/west and cut the upper part of the Grave 6 side-chamber fill [M4] (56). The bottom of this feature was not reached in excavation at a maximum excavated depth of 80 cm from the top. It was cut from the top of Period 1.2 and was sealed by Period 3.2 wall [M3] (21). Two fills were noted. The lower fill excavated [M4] (50) consisted of a moderately compacted but relatively coarse-grained light brownish and slightly mottled clay deposit containing a few potsherds, lithics, animal-bone and 3 natural stones. The main excavated fill of this cut feature consisted of a fine silty grey-brown deposit [M4] (35) containing occasional fine charcoal flecks and fragments of lighter clay; artefacts included some pottery (mostly tilted downwards), lithic, animal-bone and 6 natural stones.

Although the overall size and shape of this feature are uncertain, it is likely that the excavated portion represents the east or northeast end of a rectangular grave shaft running to the west/southwest. The lower fill probably represents re-deposited virgin soil containing some residual Period 1 material.

Cut Feature 4 [M4] (27) In the southeast corner of [M4], 1.35 m. south of the south edge of the shaft of Grave 6, the north edge of a vertical sided cut feature was found. This measured at least 25 cm x 1 m but the full extent is uncertain. It was cut from the top of Period 1.2 and was sealed by the Period 3.2 wall [M3] (9). The bottom of this cut feature was not reached at a depth of 1.10 m. from its top.

The excavated fill of the feature was very homogeneous and consisted of a compacted light brownish-yellow clayey deposit mottled with occasional small flecks of white and darker brown material. Artefacts were rare; 6 natural stones were noted. This deposit was evidently largely re-deposited virgin soil and was identical in appearance to the upper grave fill [M4] (30)A of Grave 6 and the fills of Features 5-6. It evidently forms the main fill of a Period 3.1-2 grave shaft largely situated to the south.

Cut Feature 5 [M4] (28) A patch of compacted light brownish-yellow mottled clay in the extreme west/southwest corner of [M4], 70 cm west of the edge of the shaft of Grave 6. This measured 75 x 35 cm but ran into the adjacent [M3/M4] interface and main west section. Although only recognised at the top of [M4] (26) and therefore the Period 3.1-2 features [M4] (31), (27) and possibly (29), it possibly represents part of the fill of a cut feature that was probably cut from above [M4] (23); it is therefore suggested to be of Period 3.1-2 date. The

depth and size of this feature is uncertain. The appearance of the fill suggests re-deposited virgin soil and was identical to the upper fill of Grave 6 and Cut Feature 6.

Cut Feature 6 [M4] (29) A compacted light brownish-yellow mottled clay deposit running into the main west section of [M4], 40 cm north of the north excavated limit of Cut Feature 5; the north edge of this seemed to have been cut by Grave 5 and Cut Feature 1; its relationship to Cut Feature 2 was uncertain. The appearance of this context was the same as Grave 6 and Cut Features 4-5 and was probably re-deposited virgin soil.

PHASE 3.2 THE CUBICLE BUILDING *(Figs. 18-19; Pl. 13)*

The Phase 3.2 deposits can be divided into those south and north of wall [M3] (21) that ran in an east/west direction across the excavated area. This wall formed the north exterior face of a building containing a series of small rooms or cubicles built in Phase 3.2-1 but rebuilt in Sub-phases 3.2-2 and 3.2-3. The corresponding area to the north appears to have remained an external area. The sequences for these two areas are described separately below.

The cubicle building contained a series of small regular rooms aligned two or more rows deep by at least four rows across. They were limited along the north side by an east/west wall, constructed in two abutting parts with a combined width of 55 cm, hence over twice that of the internal cubicle walls which averaged between 12-30 cm across. The south, east and west limits of this building are uncertain as they lay beyond the limits of excavation. All of the construction was in *tauf* rather than mud-brick, the wall faces being rendered with a thin coat of pale mud plaster.[13]

Three sub-phases were distinguished: Phases 3.2-1 – 3.2-3. Varying amounts of these sub-phases were excavated but, given the apparent regularity in plan of this building, the position of earlier walls has been tentatively reconstructed on the accompanying plan *(Fig. 18)*. The earliest stage (Phase 3.2-1) consisted of at least two adjacent rooms (Cubicles 3 and 4) measuring 1.10-1.20 x 0.80 m. across, constructed immediately south of the main exterior wall [M3] (21). After a period of time, these cubicles were deliberately in-filled in preparation for construction in Phase 3.2-2. During this phase the east wall of Cubicle 4 – wall [M3] (31)B – was rebuilt 10-15 cm further to the east, thus forming a step at the top of the earlier wall [M3] (31)A whereas the other walls remained in use. Scattered across the compacted top of the in-filling that formed the floor of this second phase were asphalt fragments (Cubicle 3) and joining potsherds (Cubicle 4). The end of the second phase was marked by further in-filling as part of Phase 3.2-3. This was also marked by further modifications to the original plan. Cubicles 3 and 4 were again enlarged by reconstruction of the south walls – [M4] (24) and (28) – thereby extending their size to 1.40-1.50 x 0.80-0.95 m. Asphalt fragments were found on the Phase 3.2-3 floors in two rooms (Cubicles 3, 8). The end of Phase 3.2-3 was marked by further in-filling. This possibly marks the end in use of the cubicle building although it is possible that the upper portion was truncated.

Sub-phase 3.2-1 Construction and use

The structures were constructed directly above the eroded upper surface of the Period 1.2 deposits and sealed the Period 3.1 Ubaid cemetery. All walls were constructed of well compacted dark grey-brown *tauf*, the faces having been rendered with a thin layer of pale mud plaster. The main wall of the complex was wall [M3] (21) running east/west and built in two abutting courses (A and B) with a combined width of 55-60 cm, and preserved to a maximum height of approximately 25 cm. The east end had been eroded away subsequent to the Period 3 occupation; the west end lay beyond the excavated area. To the north of wall [M3] (21) were a series of external deposits; the south face was abutted by a series of narrower walls. Wall [M4] (21) thus represented an external load-bearing wall of a structure situated to the south.

Cubicle 3 Cubicle 3 measured 1.10 x 0.80 m. but only the tops of the cut-down walls of this phase were exposed: walls [M3] (21), (22)A, (25)A and (37).

Cubicle 4 Cubicle 4 measured 1.10/1.20 x 0.80 m across with what appeared to be a thin floor [M3] (43) corresponding with the same absolute height as the base of the external wall [M3] (21); other contemporary walls were [M3] (25)B, (31)A and (39). Following further analysis it appears that this 'floor' was actually a thin primary fill of organic origin overlying a thin mud floor: although no charcoal or carbonised grain was noted here, the description of this deposit resembles primary fills noted in cut features usually interpreted as grain-silos (e.g. Period 12: [M1] (106)).

[13] The northeast part of the building at least – particularly the upper part – has probably been totally eroded away, as the excavated portion is close to the present northeast corner of the mound.

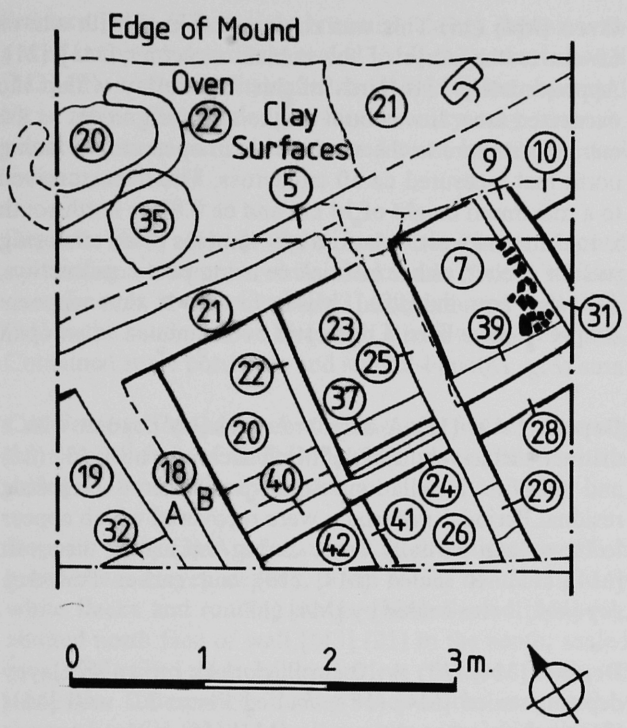

Fig 18 Ubaid Cubicle Building

Sub-phase 3.2-2 Modifications *(Fig. 18)*

The upper surfaces of deposits were reached inside each of the eight cubicles marked on the Phase 3.2-3 plan *(Fig. 18)* although only Cubicles 3 and 4 were fully excavated. The in-filling of both of these marked the beginning of Phase 3.2-2. This was followed by a slight alteration of the former plan through the demolition of the upper part of wall [M3] (31)A, followed by reconstruction slightly further to the east as wall [M3] (31)B. The other walls excavated at this level seem to have been either retained in total and/or heightened: walls [M3] (18), (21), (22)B, (25)B, (27), (37) and (39).

Cubicle 3 The Phase 3.2-1 construction was in-filled with a light grey brown clayey deposit [M3] (38). This deposit was largely excavated at speed on the final day of excavation yet was not bottomed; artefacts within this context were scarce and consisted of some potsherds, animal-bone, small asphalt fragments and vitrified clay. The well compacted surface of this deposit reflected its use as a floor during Phase 3.2-2. Numerous asphalt fragments with woven reed impressions measuring up to 20 cm across were found lying flat directly on top of this floor (although bagged as part of context [M3] (36) rather than being separately numbered as the interface).

Cubicle 4 Sealing Phase 3.2-1 floor [M3] (43) was a light brownish clayey deposit [M4] (7) containing occasional white flecks and excavated in two 10 cm spits; the general appearance and scarcity of artefacts in this context were similar to the main fills of the Phase 3.1-2 graves which largely consisted of re-deposited virgin soil. The top of this deposit was well compacted and represented a floor surface belonging to this phase. A scatter of joining sherds belonging to large open bowls with repair holes was found directly above this surface (although bagged as part of [M3] (30)A rather than being separately numbered as the interface) and sealed the top of the partly levelled Phase 3.2-1 wall [M3] (31)A. A small knob-shaped asphalt object with a possible hafting hole at one end <812> was found close to this sherd scatter.

Cubicle 5 The top of a light brownish clayey deposit [M4] (11) appeared to represent a compacted floor surface belonging to this sub-phase; it was sealed by Phase 3.2-3 deposit [M3] (33).

Sub-phase 3.2-3 Cubicle enlargement *(Fig. 18; Pl. 13)*

This was the latest and most completely excavated phase of the Phase 3.2 structure *(Fig. 18)*. It was marked by the demolition of the wall [M3] (37) dividing Cubicles 3 and 7, and of wall [M3] (39) dividing Cubicles 4 and 8, followed by the construction of new cross-walls [M3] (24) and (28) which allowed a slight enlargement of Cubicles 3 and 4. The following walls remained in use during this phase: [M3] (18), (21), (22), (25), (27), (31)B, (32), (40) and (41). The interiors of each of the cubicles were also partly levelled-up as part of this phase, the uniformity of the deposits suggesting a single event; these cubicle fills are described below. The tops of these deposits appear, as in earlier phases, to have functioned as floor surfaces.

Cubicle 1 This was in-filled with a moderately compacted homogeneous light brownish clayey deposit [M3] (19) containing pottery, lithic, small unidentifiable splinters of animal-bone, a single and probably intrusive snail shell and a fragment of ground stone <607>.

Cubicle 2 This cubicle was in-filled with a moderately compacted homogeneous slightly reddish-brown clay deposit [M3] (20) containing fragments of light brownish/yellow *tauf*, a few potsherds, some animal-bone and asphalt.

Cubicle 3 Sealing the Phase 3.2-2 floor [M3] (38) was a light brownish clayey deposit [M3] (36); excavated in two 10 cm. spits, this was sealed by [M3] (23), a moderately compacted reddish brown clayey deposit [M3] (23) containing some burnt fragments of reddish-orange clay particularly at the south end, a few small potsherds, flint lithics, animal-tooth and asphalt fragments. A patch of asphalt with matting impressions and measuring ca 25 x 30 cm across was found near the top of this deposit in the north half of the cubicle.

Cubicle 4 This was in-filled with a moderately compacted light brownish clayey deposit [M3] (30)B containing some white flecks in the north half, partly disturbed by rodent burrows. This 25 cm thick deposit was excavated in two 10 cm. spits; it sealed the sherds

lying on top of the Phase 3.2-2 floor [M4] (7) and the top of the Phase 3.2-2 wall [M3] (39).

Cubicle 5 This was in-filled with a compacted yet heavily dried-out and cracked slightly reddish-brown clayey deposit [M3] (33) containing some white flecks and sealing the earlier floor surface [M4] (11).

Cubicle 6 This was in-filled with a moderately compacted slightly reddish-brown clayey deposit [M3] (42) containing occasional fragments of light-brownish yellow *tauf.*

Cubicle 7 This was in-filled with a moderately compacted light grey-brown clayey deposit [M3] (26) containing some small patches of lighter brown clay.

Cubicle 8 This was in-filled with a moderately compacted light brownish clayey deposit [M3] (29) containing a few potsherds, flint and obsidian lithic, animal-bone and shell. Some asphalt fragments were found lying flat at the base of this fill, i.e. on top of the Phase 3.2-2 cubicle floor, and partly adhering to one end of a flat natural stone. Some burnt pottery and stone was also found with these asphalt fragments in the south portion of the cubicle. This cluster of artefacts should probably be assigned to the period of use of this cubicle rather than through infilling, owing to their distribution on top of the earlier deposit used as the cubicle floor in Phase 3.2-3 and the contrast with the other cubicles.

External deposits

The external deposits associated with, and abutting, the north face of Phase 3.2 wall [M3] (21) cannot be directly related to the phasing outlined above for the interior of the cubicle structure yet they were contemporary with its use.

Deposit [M4] (21) A light grey-brown coarse silty clayey deposit was found in the east half of the excavated area and overlying Period 1.2 deposit [M4] (23); it appeared to abut the Phase 3.2-1 walls. Some pottery, animal-bone and flint lithic (including a retouched flint blade) were recovered;[14] a semi-complete basalt grinder <735> was found lying with the working-surface upwards flush with the top of [M4] (21).

Deposit [M4] (19) A 15 cm thick light grey-brown clayey deposit located in the east half of the excavated area and containing occasional large grits and small stones, some potsherds, animal-bone and obsidian debitage. This directly overlay and corresponded in area to Period 1.2 deposit [M4] (21); it appeared to abut Phase 3.2-1 wall [M3] (21) and was overlaid by [M4] (18).

[14] Found near the excavated mouth of the Phase 3.3-1 feature [M4] (22) but included with the material from this context.

Oven [M4] (15) This was constructed level with and ca 65 cm to the north of the cubicle structure [M3] (21). Approximately two thirds of this feature lay within the excavated area. It was built on the same alignment as the cubicle structure to the south, with an open mouth facing north that measured ca 50 cm across. The oven survived to a maximum height of 14 cm and ca 0.80 m north/south x 1.45 m east/west. It lacked any remains of an enclosing wall or shelter, either of brick or using post construction, nor was any industrial waste found. It thus appears simply to have been a domestic oven situated in an open area *(Fig. 18)*.

Deposit [M4] (18) A dark brown clayey deposit with a distinct surface abutted the north face of wall [M3] (21) and the fire installation. Some potsherds – including residual Period 1 material – were recovered which appear to have been partially burnt during the use of the oven [M4] (15). It sealed [M4] (19) and earlier Period 1 deposits. It was sealed by [M4] (17).

Deposit [M4] (17) A 10 cm thick dark brownish clayey deposit; sealed [M4] (18); abutted Phase 3.2 wall [M3] (21) to the south and the oven [M4] (15) in the west part of [M4]; sealed by [M4] (16).

Deposit [M4] (16) A 2-3 cm thick dark brown ashy-silty deposit; sealed [M4] (17); abutted wall [M3] (21) to the south and the fire installation [M4] (15); sealed by [M4] (14). No artefacts were found in this oven rake-out.

Deposit [M4] (14) A 5-10 cm thick light brown-orange clayey deposit. Sealed [M4] (16); sealed by [M4] (13); abutted wall [M3] (21) to the south and the oven [M4] (15) in the west. The top of this context was more compacted, suggesting use as a working surface. Potsherds, animal-bone and a small perforated asphalt object <515> were found within this context, the top of which equates to the final use/in-filling of the fire installation [M4] (15): both were sealed by [M4] (13).

Deposit [M4] (20) Within the oven [M4] (15) and extending over the western part of [M4] was a ca 14 cm thick dark dusky-red burnt clayey deposit, possibly representing the destroyed and levelled upper portion of the oven. Some potsherds, flint lithic and a single animal-bone were recovered. The lack of any ashy primary deposit within the oven proves that it was swept out during use. The length of use of the oven is uncertain but sufficient for the accumulation of the associated deposits [M4] (18), (17), (16) and (14); it was sealed by [M4] (13).

Deposit [M4] (13) A ca 5 cm thick clayey deposit varying from a hard dried-out patch of light clay in the southwest corner to a light brownish-orange clay area close to wall [M3] (21). The top of the underlying oven fill [M4] (20) was noted during excavation of this context as a light reddish-brown burnt patch. Sealed [M4] (14), (20); abutted [M3] (21) to the south; sealed by [M4] (12).

Surface [M4] (12) A light brownish clayey deposit with a well compacted surface; sealed [M4] (13); abutted wall [M3] (21) to the south; sealed by [M4] (6) but separated by a thin fine dark grey-brown silty-ashy deposit, possibly sweep-out from a second oven located beyond the excavated area.

Deposit [M4] (6) A light brownish clayey deposit containing occasional white flecks was found running over the area north of wall [M3] (22); abutted wall [M3] (21) to the south; sealed by [M4] (3) and cut by [M4] (4). Contained some potsherds and animal-bone.

Cut Feature [M4] (4) A shallow cut feature abutting the exterior face of wall [M3] (21); it was filled with a dark grey-brown clayey deposit.

Deposit [M4] (3) A relatively dark and slightly reddish grey-brown clayey deposit, 5 cm thick, containing rare white flecks and running across [M4]. Sealed [M4] (6); abutted north face of wall [M3] (21) to the south; sealed by [M4] (2); relationship to cut feature [M4] (4) uncertain. Interpreted during excavation as possibly decayed *tauf* in which case it may be associated with the Phase 3.2-3 modifications to the cubicle complex immediately to the south although no certain stratigraphic correlation was established.

Deposit [M4] (2) A light brownish-orange clayey deposit, 2-3 cm thick and containing some pottery. Abutted wall [M3] (22); matting-impressed asphalt feature [M3] (35) set into the top of this deposit; sealed by [M3] (34). It probably represents an external fill/surface associated with Phase 3.2-3 of the cubicle complex.

Asphalt [M3] (35) A roughly oval area of asphalt measuring 75-80 x 70 cm across and 4-5 cm thick, set into the top of [M4] (2); sealed by [M3] (34). It had an irregular bubbly lower surface where it had appeared to have settled in a hot state into [M4] (2) and immediately prior to being impressed with a woven mat on the top. The purpose of such an asphalt-lined mat in an external area is unclear.

Deposit [M3] (34) A dark reddish-brown clayey deposit containing some white flecks. Sealed [M4] (2) and [M3] (35) and abutted the exterior face of wall [M3] (21). It was stratigraphically earlier than [M3] (16) although this relationship was largely destroyed by later erosion. It contained some pottery and flint lithic, including chunks of a coarse-grained grey flint probably from the same core. These contrasted in size and relative frequency to the rare fragments excavated in Phase 3.2 cubicle fills, possibly indicating that the latter were residual pieces within the deliberate deposits and incorporated accidentally into the *tauf* which seems to make up most of the cubicle fills, whereas the chunks from [M3] (34) derive from contemporary knapping activities. This deposit appears to mark the latest in the sequence of external fills to the north of the cubicle complex.

PHASE 3.3 EXTERNAL DEPOSITS AND FEATURES *(Fig. 19)*

The Phase 3.2 remains were sealed by Phase 3.3 deposits. These throw no light on the nature of the end of Phase 3.2 and it is possible that the upper portion of the Phase 3.2 complex had been truncated prior to the Phase 3.3 deposits. This may explain the level top of the Phase 3.2 deposits – particularly the walls – and the lack of an erosion horizon.

Surface [M3] (16) Covering the south half of [M3] was a light brown clayey deposit containing sandy inclusions. The moderately compacted surface of this deposit sloped down slightly to the east/southeast; this deposit appeared to be an external surface. It sealed Phase 3.2, was sealed by [M3] (14) and cut by [M3] (17)A; the north edge was eroded. Some pottery and a small quantity of animal-bone was recovered but mixed during excavation with material from slope-wash; some asphalt fragments were also recovered, some of which belonged to a slightly warped but otherwise flat object (ca 1 cm. thick), possibly a lid; a complete stone pestle was found in the southeast corner of [M3]. Two small circular features were found cutting the top of this surface in the southeast corner of the trench, described below.

Cut feature [M3] (17)A A circular cut feature, ca 10 cm deep and 25 cm across at the top; the south edge was 55 cm north of [M2] and located a short distance west of Cut Feature [M3] (17)B. The base and conical sides were lined with compacted small rounded Ubaid potsherds and a single flint set in a yellow sandy matrix. The feature was filled with a clean light brownish clayey silt deposit.

Cut feature [M3] (17)B A circular cut feature, ca 10 cm. deep and 25 cm across at the top. The edge was 1 m west of the [M3] east section, close to but east of Cut Feature [M3] (17)A. The shape and fill closely resembled that within [M3] (17)A and a third feature excavated in a Phase 3.4 context, [M2] (103).

Deposit [M3] (14) A moderately compacted light yellowish brown clayey deposit covered the excavated area; a tiny white shell bead <526> was found near the centre of the trench. A bone tool <519>, a grinding stone <540> and a sherd disc <839> were also recovered from this context. This context was sealed by Phase 3.4-1 deposits.

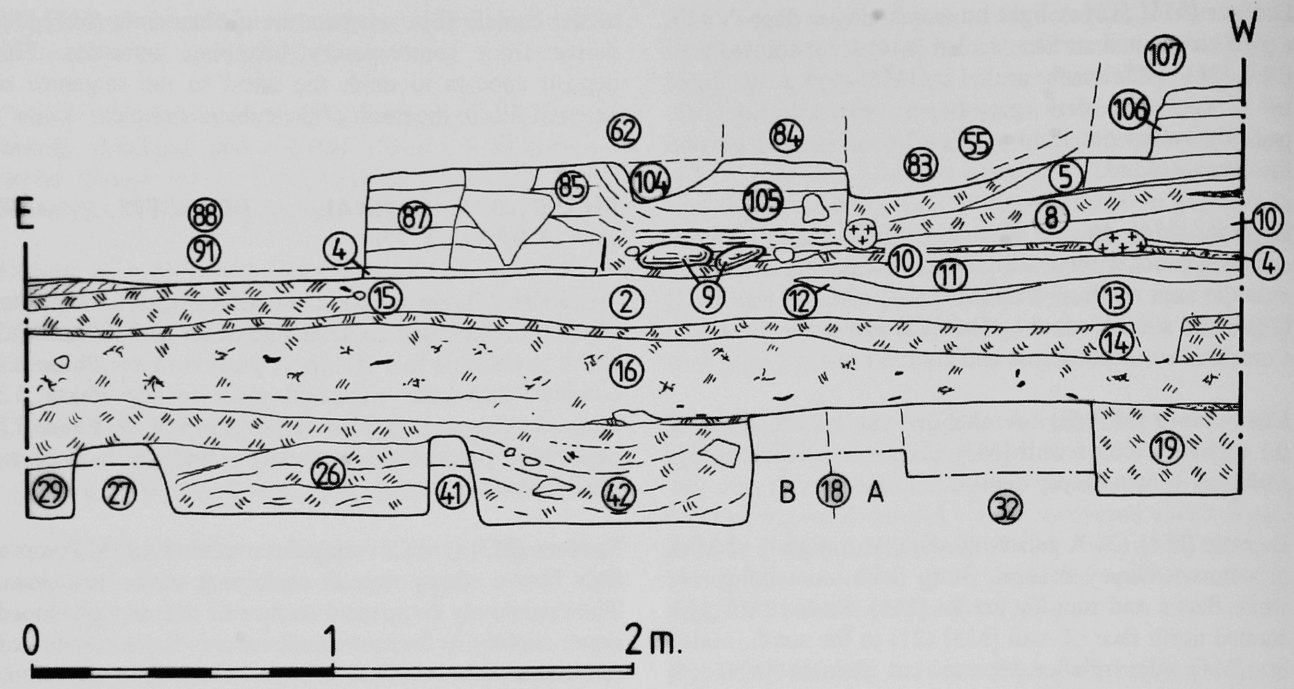

Fig 19 North-facing section through Period 3.2 – 3.7 deposits and structures at the interface of {M3] and [M4]

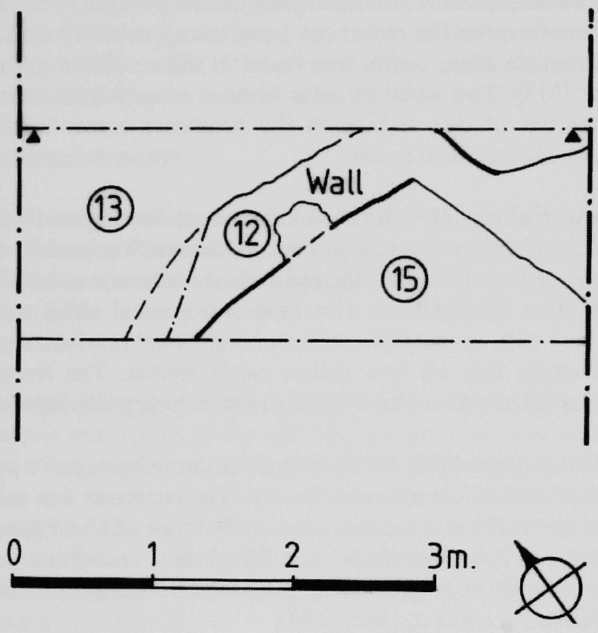

Fig 20 Period 3.4 Ubaid wall M3] (12)

PHASE 3.4 DOMESTIC ARCHITECTURE *(Figs. 19-20)*

Wall [M3] (12) A slightly curvilinear line of compacted reddish-brown clay with a return close to the north edge of the trench, measuring 45 cm across but only preserved to a maximum height of 4 cm, represented the remains of a heavily cut-down *tauf* wall. The building of this structure marks a new but short-lived sub-phase. These scanty remains were constructed on top of the Phase 3.3 deposit [M3] (14) but were sealed by a further deposit [M3] (11).

Deposit [M3] (13) Abutting the west side of wall [M3] (12) was a dried-out and moderately compacted slightly reddish-brown clayey deposit, up to 5 cm thick and including a small quantity of pottery, some flint lithic, a single piece of obsidian and a small number of fragmented animal-bones.

Deposit [M3] (15) Abutting the east side of wall [M3] (12) was a light yellowish-brown clayey deposit, up to 5 cm thick and including a small quantity of pottery, some flint lithic, shell, vitrified clay and a small number of animal-bones.

PHASE 3.5 EXTERNAL DEPOSITS *(Fig. 19)*

This phase appears to represent a break with the preceding phase with a reversion in use to an external area, possibly with an oven located immediately beyond the limited area excavated within [M].

Deposit [M3] (11) This dried-out and rather homogeneous reddish-brown clayey deposit covered the excavated area and sealed the Phase 3.4-1 deposits; finds were scarce but included some pottery and vitrified clay. The top of this deposit was marked by a compacted surface on which a concentration of oven fragments lay close to the main west section.

Deposit [M3] (10) Sealing this earlier surface was a second, rather similar, deposit of slightly reddish-brown clayey material, 10 cm thick. A small white bead <597> and a spindle whorl <591> were recovered from this deposit.

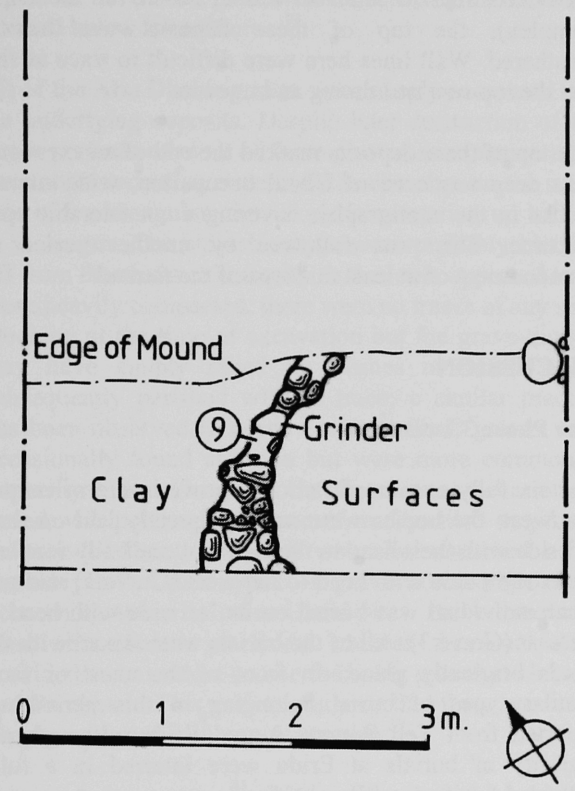

Fig 21 Period 3 Ubaid wall [M3] (12)

PHASE 3.6 DOMESTIC ARCHITECTURE *(Figs. 19, 21)*

Footings [M3] (9) A curving line of stone wall footings was found constructed directly above [M3] (10). Measuring between 25-50 cm across (one-three courses) and orientated northeast/southwest, these were constructed of limestones but also incorporated a reused basalt grinding stone <765>. The footings were only 5 cm (one course) high and no traces of the superstructure survived.

These footings superficially resemble the plan of part of a so-called *tholos* but this appearance is fortuitous. Circular footings were found at the Ubaid site of Khanjdal East in the north Jazira, in an Early Uruk context at Tell Brak and a Mitannian level at Tell Bderi; similar structures are used as grain-silos in modern villages in northeast Syria.[15]

Deposit [M3] (8) A moderately compacted but dried-out brown clayey deposit, 10 cm thick, covered the excavated area; a tiny white shell bead <524> was found near the west corner of the trench.

PHASE 3.7 DOMESTIC STRUCTURES *(Fig. 19, 22; Pl. 14)*

Following this break in occupation a number of *tauf* walls were constructed in [M2] and [M3], forming a series of tiny rooms arranged around a larger room measuring some 2 x 3 m across. This room included a small D-shaped clay fire installation measuring 55 x 80 cm, and contained large numbers of joining flint lithics suggesting *in situ* flint-knapping waste; freshly broken pottery fragments lay on and just above the floor.

The rooms around this area varied in size from as little as 1.50 x 1.25 m to at some 0.75 x 0.55 m across. At least two of these rooms were entered via true doorways, 0.40 – 0.65 m across at ground level, with flat stone thresholds. Entry to the other, partially excavated rooms may have been in a similar fashion but from the unexcavated adjacent areas, or alternatively over a high step, the lower portions of which were interpreted during excavation as walls owing to their relatively low height of preservation. Two of the excavated rooms contained further clay fire installations measuring from 0.30 x 0.30 to 0.60 x 0.90 m (maximum) in size. The latter was the better preserved, and consisted of a rectangular box with interior walls curving inwards at the top – as if for a domed roof – with access probably from one of the long sides.

Additional building features noted include an arrangement of three small cut features in the floor of one room – possibly the remains of some installation – and a low offset bench against one external wall face.

Room fills varied from fine dark grey/black ashy soil, with charcoal fragments and artefacts, to an almost barren silty clay. This may indicate differential room use.

Small finds included a varied ground stone industry: celts <566> <633>; a whetstone (?) <600>; an axe or polisher <656>; a fragment of a fine limestone bowl <617>; burnishing pebbles <613> <815>; a scraping pebble <616>; and basalt grinder fragments <809> <733> <771> <772> <776>. Other finds included: a baked clay animal figurine fragment <825>; and chipped sherd scrapers <527> <569> <583>. One particular room fill was especially noted for reed impressed bitumen fragments, and part of some bitumen basket lining <797> was found in another.

This complex underwent at least three phases of reconstruction, but on the whole gave the impression of piecemeal alterations over an unknown length of time. The excavated area to the west seems to have been external, with successive compact clay surfaces.

[15] Wilkinson, Monahan and Tucker 1996; D. Oates 1987: 177, pl. XXXIb; Pfälzner 1986/87: 295, fig. 7; Seeden 1985: 295.

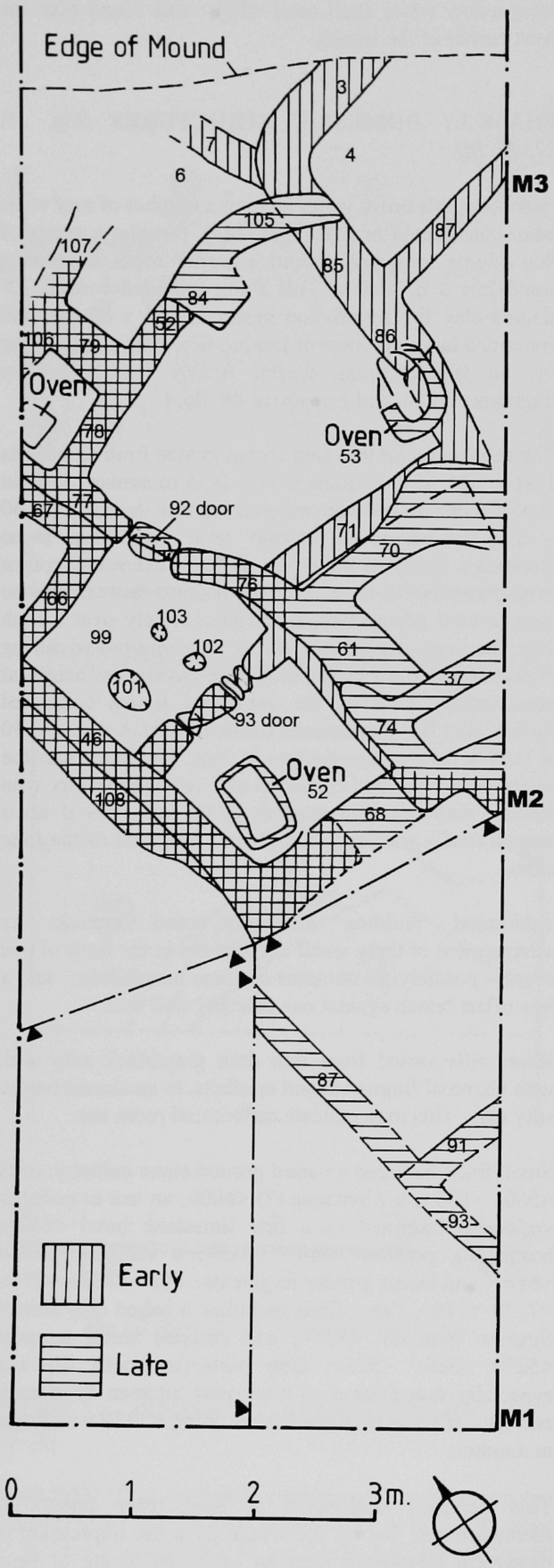

Fig 22 Period 3.7 Ubaid structures

Much of the upper portion of this final Ubaid occupation – in at least this area of the site – was subsequently damaged by Later Uruk refuse-pits and by a large scale terracing operation in the Late Assyrian period. Where still preserved, however, in the southern part of the excavated area (a total of 4 x 11.50 m for the entire complex), the top of these deposits was heavily weathered. Wall lines here were difficult to trace at first and the top was undulating and uneven.

The top of these deposits marked the end of an excavated 3 m deep sequence of Ubaid occupation, with internal breaks in the stratigraphy, covering a considerable span of time. This was followed by another period of abandonment of at least this area of the mound.

DISCUSSION

The Phase 3.1 cemetery

The six fully excavated Period 3 graves were orientated east/west: the bodies were most frequently laid on their left side with their head to the west but one body was laid on its right side with head to the west (Grave 1) and one other individual was buried on its left side with head to the east (Grave 3). All of the burials were flexed with the hands originally placed in front of the chest or face. Similar types of burial belonging to this period are reported from Tell Songor A and Eridu, although the majority of burials at Eridu were interred in a fully extended position on their backs.[16]

There was no evidence for differentiation of orientation or burial type according to age or gender and the discovery of graves belonging to three women, two men and one young child implies that there was no segregation at Abu Dhahir. The remains of five further graves in this limited area of the site were indicated by grave shafts in section: it is therefore likely that this area was part of a more extensive cemetery rather than simply being a family plot. The closeness and intersection of the graves suggests a prolonged period of interments within a defined open space. It is uncertain whether this cemetery was associated with occupation elsewhere on the site, possibly close to the centre of the mound, or whether a deserted spot had been selected for burial. Ubaid cemeteries have been discovered on the outskirts of a number of settlement sites in Mesopotamia, including Arpachiyah, Eridu, Tell Songor A and Ur[17] whereas contemporary western Iranian highland cemeteries at Hakalan and Parchinah appear to have belonged to transhumant communities;[18] a cemetery consisting of eighteen adult graves was discovered at Tell Bustan and

[16] Kamada and Ohtsu 1991: 222-23; Safar, Mustafa and Lloyd *et al.* 1981: 115-41.
[17] Mallowan and Rose 1935: 34-42; Safar, Mustafa and Lloyd *et al.* 1981: 115-41; Kamada and Ohtsu 1982; Kamada and Ohtsu 1991; Woolley 1955: 87-102.
[18] Haerinck and Overlaet 1996.

thought to represent the place of burial associated with the settlement at Tell Madhhur, some 4 km. away.[19] As with Samarran and Halaf cultures, the interment of adults away from the residential area contrasted with the normal practice of burial for children and infants who generally appear to have been placed inside reused pots that were interred below house floors.[20]

All of the Abu Dhahir graves were simply excavated into the underlying deposits. Despite later destruction of the upper portions of most of these graves, most appeared to have consisted of an undercut side-chamber on the south side of a rectangular vertical shaft measuring up to 1.80 m in length. The side-chambers were probably blocked off from the shafts in antiquity as the latter appeared to be more heavily compacted: there were no traces of any such blocking at the time of excavation but the grave-diggers may have simply relied on bushes or wood which subsequently perished without trace; a similar practice has been observed in north Arabia.[21] Shaft graves were occasionally found at Eridu but were more common at Arpachiyah and Ur where the floors were occasionally paved with potsherds; the use of re-deposited virgin soil to back-fill the grave shaft was also remarked on at Arpachiyah.[22] Other types of grave construction have been encountered at other Ubaid sites. Brick-lined cists were characteristic at Eridu whereas the local stone provided a convenient source for lining graves at Hakalan and Parchinah. This variety suggests that there was not a simple evolution in funerary practice.[23]

Grave goods accompanied four of the Period 3 burials at Abu Dhahir. These were generally situated close to the body of the deceased and/or within the side-chamber where identified. In one case a bowl was placed as a pillow directly below the cranium of one individual; in another case a pottery vessel was placed at the mouth of the side-chamber whereas one or more pots were placed near the feet in two other graves. Pottery vessels were indeed the most frequent type of grave good, varying in number from one to four per grave. Pottery shapes included a painted hole-mouth ledge-rim jar, painted bowls and a plain perforated lid, bowls of different sizes being the most common type. Two of the vessels had been modified or repaired in antiquity, implying that they had been interred after a period of domestic use rather than having a specifically funerary function; repaired vessels were likewise found in two Ubaid graves at Arpachiyah.[24] One jar appears to have had a stone used as a lid: similar *ad hoc* lids are thought to have been employed at Banahilk or are used in villages today;[25] an early 3rd millennium parallel for this custom was observed in a Ninevite 5 grave at Tell Mohammed Arab (grave 50T:172). The implication is that this jar was empty when buried, suggesting that pottery in graves need not have contained actual 'food and water' in order to have fulfilled a symbolic function as receptacles for the afterlife. The provision of up to four pottery vessels in an Ubaid grave appears to have been customary although pottery grave goods are commoner at the southern Ubaid sites of Eridu, Tell al-Ubaid and Ur. The position of these grave goods also varies. The majority of pottery vessels found in Ubaid graves at Tell Aqab, Tell Bustan, Hakalan and Parchinah were placed close to the heads of the deceased whereas they were generally found clustered near the feet at Eridu, Tepe Gawra, Tell Songor A and Ur.

A small lump of red pigment was found next to one of the bowls. It is unlikely that this was an accidental inclusion in the grave fill. Red ochre or haematite is occasionally found scattered over the bones in Neolithic graves in the Near East. In some cases, the cranium received special treatment: cinnabar (mercury oxide), azurite and possibly malachite were used at Çatal Hüyük.[26] It is uncertain to what extent the staining in these cases derives from the direct application of the pigment on the flesh or bones, or from the colouring of associated wrappings or garments: an Ubaid burial at Eridu was found wrapped in ochre-stained matting and remains of a red textile were apparently found in grave 1013 at Djaffarabad;[27] the tradition appears to have survived into the Late Assyrian and Hellenistic periods judging by textual references to red shrouds and excavated funerary remains at Tell al-Rimah.[28] Isolated lumps of red pigment are less frequent in graves but it seems likely that they represent the remains of cosmetic sets, a frequent feature of later Mesopotamian graves. The use of personal make-up in the Mesopotamian Neolithic is suggested by facial markings on figurines.

The presence of the perforations through the interior ledge-rims of one of the jars imply the use of a cloth or skin lid held in place by a cord knotted through the holes. The discovery of the inverted bowl on top of the jar is interesting as bowls and jars are a common combination in Ubaid graves, notably at Eridu where they occur together in almost 80% of the excavated graves.[29] This combination is usually interpreted as evidence for 'food and water' being provided for the deceased[30] yet the perforated hole through the base of this bowl would have hindered its use for drinking and suggests an alternative function, perhaps to enable steam to escape the pot during cooking;[31] a similar perforated bowl was found in a Halaf context at Tell Songor.[32] Finally, close to the vessels on the west side of the grave was a small collection of

[19] Jasim 1985: vol. I, 163.
[20] e.g. Jasim 1985: vol. 1, 33-52, vol. 2, fig. 28; Fujii ed. 1981.
[21] Dickson 1949: 210.
[22] Mallowan and Rose 1935: 38-39.
[23] cf. Forest 1983c.
[24] Mallowan and Rose 1935: 40.
[25] Watson 1983a: 574, 577; Watson 1979: 267.
[26] Mellaart 1967: 207-208.
[27] Safar, Mustafa and Lloyd *et al.* 1981: 133; Dollfus 1975: 22.
[28] Oates 1967: 92.
[29] Safar, Mustafa and Lloyd *et al.* 1981: 125-41.
[30] e.g. Woolley 1955: 20.
[31] Cf. Ellison 1984: 64-66.
[32] Matsumoto 1981: fig. 48.5.

articulated animal-bones representing a deliberate 'food offering'.

Other identifiable grave goods were rare at Abu Dhahir and limited to an obsidian blade found in a man's grave and an obsidian pendant found in a woman's grave. Obsidian beads occur in small numbers in Ubaid graves at Eridu, Tepe Gawra, Tell Songor A, Telul eth-Thalathat II and al-Khor in Qatar.[33] Obsidian formed a considerable percentage of the total chipped stone at Tell Madhhur and Tell el-Oueili, yet only a single piece was recovered at Tell Abada.[34] This suggests a small amount of continuing trade in obsidian although an element of opportunistic recycling and/or superstitious curation is likely. The absence of other beads in the Abu Dhahir graves is slightly surprising but may reflect the limited sample size. The remainder of the necklaces may have been composed of beads of organic materials, a suggestion supported by the discovery of wooden beads in an Ubaid grave at Tell Songor A.[35]

The possible inclusion of organic materials as grave goods in Grave 3 has been suggested above. Such remains rarely survive in Mesopotamia owing to adverse burial conditions yet exceptional Ubaid finds include wooden beads found with an adult burial at Tell Songor A, a possible wooden spatula in a grave at Tepe Gawra and some unidentified wood in a grave at Arpachiyah.[36] Finally, attention should be drawn to the occurrence of articulated animal-bone food-offerings in two graves belonging to a woman and a man respectively. Animal-bone and/or fish offerings are also reported from Eridu and Tell Songor A.[37]

In short, the Ubaid graves excavated at Abu Dhahir offer a useful addition to the growing evidence for mortuary practices of this period across Mesopotamia.

The Phase 3.2 cubicle building

The means of access to the Abu Dhahir cubicles is uncertain, regardless of their function. No evidence for doorways or port-holes were found but the average height of the internal cubicle walls for the last sub-phase (Phase 3.2-3) was very low, and therefore possibly below threshold height.[38] The exact means of access would have been determined by the overall plan of this building. If these cubicles were part of a long row, or wing, of a structure, or were separated into pairs by transverse east/west running corridors, access would have been possible – either horizontally or vertically – from the north and south sides respectively whereas if they formed a continuous arrangement of cells, access from above would have been the most practicable. In the latter case, and depending partly on the depth of the cubicles, this may have been via a removable ladder. No cut niches that could have been served as foot holds were detected in the excavated wall faces. The original depth of the cubicles for any given phase is uncertain as the tops of each of the walls may have been reduced during modification. These cubicles could have been sealed off from above in a variety of ways. If they were free-standing bins, they could have been covered with matting and sealed with clay or asphalt when necessary whereas if they are considered to have been sub-floor features, access may have been via trapdoors placed flush with the floor above or they may even have been temporarily sealed by the floor itself, this being removed when necessary. However, what is clear is that the internal plastering of the cubicle walls continued down to the base of these walls. This renders unlikely an interpretation that these cubicles were simply constructed as sub-floor basements.

The exact function of this structure is problematic. This is partly due to the incomplete nature of the excavation of even that part of this building that lies within [M]. As the emphasis in excavation had been to obtain a pottery sequence by period and phase, and sherds were relatively more abundant in the external contexts north of this building, the excavation strategy was to obtain a plan of the uppermost phase of the cubicle structure (Phase 3.2-3) prior to concentrating on the excavation of another step – [M4] – to the north, the east corner of this complex therefore providing a stratigraphic link between the deposits. As a result only part of one cubicle (Cubicle 3) was bottomed revealing a primary fill that resembled grain. The absence of carbonised remains or impressions other than on asphalt within the cubicles – although small quantities of carbonised seeds were noted in most external contexts – probably simply reflects the lack of suitable carbonising conditions within most cubicles.

Some of the cubicles contained scatters of objects across the floors. This is interpreted as evidence of original function of these cubicles rather than casual inclusions within later in-filling, particularly because of the differences in the variety and densities of artefacts between cubicles. A partially burnt stone pestle (?) was found in Cubicle 3 and within Cubicle 4 there was a scatter of large joining sherds belonging to deep painted bowls with repair holes. The linear arrangement of these sherds along two walls suggests that these vessels may have originally been stored on wooden shelves, subsequently collapsed and disintegrated as in the Halaf workshop in Level TT6 at Arpachiyah.[39] A flat natural

[33] Safar, Mustafa and Lloyd *et al.* 1981: 128, 133; Tobler 1950: 120, pl. XC.b; Kamada and Ohtsu 1982: 171; Kamada and Ohtsu 1991: 230, 237, pl. 10; Furuyama 1981: 33, 59, pls. 24.3, 44.36-38; Midant-Reynes *et al.* 1985.

[34] Bewley 1985.

[35] Kamada and Ohtsu 1981: 171.

[36] Kamada and Ohtsu 1981: 171; Tobler 1950: 115-16; Mallowan and Rose 1935: 41.

[37] Safar, Mustafa and Lloyd *et al.* 1981: 125, 127-28, 133-34, 138; Kamada and Ohtsu 1991: 222.

[38] No evidence for horizontal access was found in those cubicles that were investigated further (i.e. deeper), but given that only internal wall faces were followed, it must remain a possibility that a blocked and plastered-over doorway/port-hole may have been overlooked.

[39] Mallowan and Rose 1935: 17, 106.

stone found on the surface of Cubicle 8, also marked by a scatter of asphalt fragments and burnt potsherds, may have originally served as a lid for a jar or other vessel; a similar type of lid was found in the Phase 3.1 Grave 4.

Quantities of matting-impressed asphalt were also recovered from Cubicles 2, 3 and 8, as well as from outside the building; it is uncertain if these derived from floor/wall-coverings, the dismantled roof, wrappings of stored materials or even storage in their own right as a recyclable material. Many of the excavated fragments appeared to belong to mats: in Khuzistan mats are used today to wrap dates, and cloth to wrap spices and dried herbs.[40] Matting-impressed asphalt is not reported from Ubaid levels at Tell Abada where a range of other uses of asphalt are documented yet numerous clay fragments with impressed matting were recovered, mostly thought to belong to roofing material. A number of other fragments at this site evidently derived from storage bins of a type used today for grain that were constructed of matting and sealed with clay. These were apparently limited at most to one per dwelling and were situated in the main central room of the house.[41] Similar bins used in the marshes of Iraq were sealed and roofed with dung-pats.[42] In the Fayyum province of Egypt large 'basket-granaries' were frequently stored on the house-roofs and were occasionally 'entirely covered with clay ... to keep the wind and dust from penetrating through the interstices'.[43]

The evidence of the fills and other stratigraphical indications thus appears to support the suggestion that these cubicles had been intended for use in storage. However, rows of cubicles do offer a variety of possibilities of function and overall plan. Four alternative hypotheses are discussed below.

1. Sub-floor basements

Firstly, it could be suggested that this structure was basically all contemporary, and was deliberately back-filled to form a level terraced base for further construction on top. The excavated cubicles would therefore have functioned as casemating, and not used as rooms in themselves. This has been suggested for arrangements of cells found directly beneath the floors of partly excavated Ubaid buildings at Tell el-Oueili and Tell Songor B.[44]

However, no floors or other traces of buildings were found directly above the tops of the Phase 3.2 cubicle walls. This lack of an associated upper building, together with the relatively horizontal tops of the Phase 3.2 deposits, could suggest that the top of these had been truncated prior to the deposition of the Phase 3.2 deposit [M3] (16). The reasons for this are obviously uncertain but may be related to terracing for further construction that lay outside the narrow area excavated. The possibility of Ubaid terracing raises implications as to the completeness of the excavated sequence and introduces a greater degree of artefact residuality. It also begs the question as to whether the Phase 3.2 building was itself terraced into earlier deposit to the south/southwest. The Phase 3.2 structure may be plausibly interpreted as close to the east edge of the Ubaid settlement. Given the known earlier occupation (Hassuna, earlier Ubaid) of the site, plus the suspected underlying natural hillock, it is reasonable to assume a greater amount of deposit to the west and south of [M3]. As only one cubicle was bottomed in excavation – and that being the nearest to the exterior north wall [M3] (21) – the relative depth of the cubicles in the initial phase(s) is uncertain. If it was terraced in this manner, the bottom of the cubicles would be level with the external surfaces to the north (as excavated), but well below the top of the deposit to the south or west.[45]

As there is no definite evidence for a structure associated with the top of these cubicles, any reconstructed plan of such a building is highly speculative; it could be tentatively suggested however, that the double-thickness exterior wall [M3] (21) would have also formed the exterior foundation wall of an hypothetical upper structure, as would walls [M3] (18)A-B.[46] Against the casemating hypothesis, the clear plastering of wall faces down to their bases in Phase 3.2-1, does not seem compatible with their being immediately back-filled after their construction. There is the additional question of the possible floor in Cubicle 4. The discovery of artefacts on surfaces apparently contemporary with the construction of Phase 3.2-2 wall [M3] (31)B, preceding further deposits that in turn predate the latest (top) cubicle plan and floor surfaces, points to intervals in the construction and use of this building rather than a simultaneous operation.

2. Sub-floor storage

An alternative suggestion is that these cubicles represent the sub-floor basements of a (since-destroyed) building above but that they were used simultaneously, with the former serving as storage-facilities for the latter. This utilisation of the cubicles would account for their internal plastering and the differential cubicle fills but raises the

[40] Wright, Miller and Redding 1980: 278.
[41] Jasim 1985: vol. 1, 29, 88-89, vol. 2, figs. 25, 93 a-c; cf. also p. 25; vol. 2, fig. 94a.
[42] Maxwell 1959: 52; cf. also un-numbered plate, 'a small grain store sealed over with pats of buffalo dung'.
[43] Blackman 1968: 158, fig. 85.
[44] Forest 1983a; Forest 1983b; Fujii ed. 1981: 182-84, figs. 41-44.
[45] Incidentally, if proven, the presence of Ubaid terracing in this area of the site would in turn suggest that [M3] was relatively close to at least the east (and north?) edge of the mound, having possible implications as to the shape and size of the mound in the Ubaid period.
[46] Incidentally, it is also possible that the matting-impressed asphalt fragments found in some of the cubicles (see above) may actually derive from this suggested upper level, as the remains of floor/roof-covering for instance.

question of the means of access to the cubicles from the level above. The evident internal modification of these features (i.e. rebuilding of walls, etc.) also implies the disturbance of the floors at least of such a hypothetical building. This seems unlikely. If the cubicles simply contained a series of consecutive floors and deposits it would be easier to imagine – although it would presumably have also affected their storage capacity – but the disturbance of the upper floors would possibly have been too great to also rebuild earlier cubicle walls.

3. Storage above sub-floor basements

A third possibility is that the cubicles were themselves built in two parts, with the lower (Phase 3.2-1) portion being a back-filled basement for the upper portion (Phases 3.2-2/3), and that there was no other level above. This implies the unlikely concept of cubicles being constructed as a means of merely supporting other cubicles that were probably used for storage. Access to the latter but not the former, would have been necessary. Although this hypothesis would explain the upper (excavated) cubicle-deposits, it does not account for the lower plastering and possible floor. Access would presumably dictate the arrangement of these features to no more than two rows deep, which could therefore be approached from two sides. The purpose of raising the floors of the upper – storage – cubicles above the level of the ground at least to the north, would help to keep the contents dry.

4. Storage bins

The fourth hypothesis is that Phase 3.2 represent the remains of a series of free-standing bins – intended presumably for storage. Parallel groups of these are published from Ubaid levels at Tell Abada, Tepe Gawra, Tell Madhhur and Yarim Tepe III.[47] However, although examples published from Tell Madhhur are of comparable dimensions (ca 90 x 80 cm) they were only about 5 cm deep and it was uncertain if all were strictly contemporary.

The Abu Dhahir cubicles could have been modified and heightened through time, as the surrounding deposits accumulated. If this interpretation is correct, it seems difficult to imagine how access to these features could have been obtained, unless they were limited to two rows in depth, to which they could have been approached from north and south respectively. If they were used for the storage of grain, they could have been covered with mats, weighed down and sealed in place with clay or asphalt. The latter would have helped to keep the contents of these cubicles dry; they may also provide a clue as to the discovery of matting-impressed asphalt fragments in some of the cubicles, in this case representing pieces of discarded mat following the disuse of the cubicles in at least the relevant phase.

However they are to be interpreted, the Phase 3.2 cubicles from Abu Dhahir add a small yet significant new element to the discussion of Ubaid architecture in Mesopotamia.

All contexts in the area excavated immediately north of this building were external and accumulated during the use of the Phase 3.2 cubicle structure: as these deposits abutted the north exterior wall face of this building they imply that these cubicles were free-standing rather than subterranean basements. Belonging to the first phase of construction was a roughly C-shaped fire installation measuring ca 0.80 x 1.45 m across. The mouth of this faced north and measured ca 50 cm across. This feature probably served as a domestic oven. This appears to be larger than and a different type to the three other fire installations excavated in Phase 3.7 Ubaid levels at the site. It also differs from Ubaid 'egg-shaped' ovens excavated at Tell Madhhur.[48] The length of use of this feature was sufficient for several clayey/ashy-silty deposits to accumulate nearby. Given the evident discrepancy in elevation between the working surface(s) associated with this oven, the foot of the cubicle complex on the north side and the presumed entrance to the top of the cubicles, this oven may not have been actually associated with the cubicle complex but could belong to a totally different area that simply backed onto the cubicle building.

In one external deposit an area of matting-impressed asphalt was found, measuring some 70 x 80 cm across. This may be an accidental feature actually deriving from fallen adjacent roofing but it appeared during excavation to be *in situ*: it is tempting to interpret this as the base of a vertical mat bin although these appear to have been only used inside buildings at Tell Abada.[49] A limited amount of flint lithic debitage that seemed to be from the same core was found in the latest of the exterior deposits. Whether the last excavated deposit corresponded to the end of the Phase 3.2 cubicle building is uncertain as the layers above this portion had been eroded away and there remains the possibility that the upper part of Phase 3.2 had been truncated prior to construction in Phase 3.3. Finally, it should be noted that artefacts appeared to be more abundant in the external deposits than within the cubicles but – apart from the possible mat mentioned above – asphalt fragments were less common and scatters of joining material were not found in external contexts. However, carbonised material was present in small quantities in most external deposits, again in contrast with the cubicle deposits. A single small find from these external contexts was a small perforated asphalt object <515>, possibly a weight or spindle whorl.[50]

[47] Jasim 1985: vol. 1, 24-25, vol. 2, fig. 22; Tobler 1950: 39, pl. xv-xvii; Roaf ed. 1984: 119, fig. 4; Bader, Merpert and Munchaev 1981: 56, 66: pl. III.

[48] Roaf ed. 1984: 118-19, 199: fig. 4, 123: fig. 7.

[49] cf. Jasim 1985: vol. 1, 22 ff.

[50] This may be compared with a small knob-shaped asphalt object with a possible hafting hole at one end <812> that was found in a cubicle fill if only to illustrate the variety of uses of asphalt made in this period.

Phases 3.4 - 3.6

The conical profile and shallow depth of the small cut features in Phase 3.4 suggest that they may have been sunken emplacements rather than post holes. Similar small sherd-lined pits are reported from Tell Madhhur where they were found quite frequently in the later Ubaid levels, sometimes in groups of two or three. On the basis of the smooth interiors it was suggested that something may have been rotated inside them or that they functioned as mortars although there were numerous fragments of grinding stones in the Ubaid layers which would have served the same purpose.[51]

Phase 3.5 was short-lived and characterised by a further change in the use of the area. The deposits appear to have been associated with an oven. The construction of a curvilinear wall in Phase 3.6 marks the beginning of another short-lived phase. The end of this appears to have been marked by a break with limited erosion, judging by the state of preservation of the stone wall-footings, weathered appearance of the associated deposits and the change in colour, consistency and character of the overlying deposits in Phase 3.7.

The Phase 3.7 domestic structures

The cramped room sizes and presumably dark interiors suggest that these may have been largely used for short-term storage with most daily activities being undertaken outdoors, as Hole suggested for Chagha Sefid;[52] a similar explanation may account for the tiny rooms at Beidha. The distribution of finds therefore possibly reflects patterns of discard rather than use.

The use of pivots for the lower door elements implies the use of solid doors secured at the top. Similar evidence in the form of stone door sockets has been found at Tell Abada.[53]

The bench along the exterior face of wall [M2] (108) recalls a characteristic feature of the Ubaid architecture at Tell Madhhur, which has also been recognised at Kheit Qasim, but at no other sites.[54]

The oven was presumably used for cooking rather than simply a source of warmth. A variety of fire installations were found at Tell Abada, including fireplaces and hearths in the form of shallow pits used for cooking and heating, larger circular ovens used for domestic purposes such as making bread, and segregated areas for two-stage updraught pottery kilns.[55]

[51] Roaf ed. 1984: 119-20, figs. 4-5.
[52] Hole *et al.* 1977: 87.
[53] Cf. Moholy-Nagy 1983: 296; Jasim 1985: vol. 1, 207.
[54] Roaf ed. 1984: 119.
[55] Jasim 1985: vol. 1, 53.

General discussion

Abu Dhahir is one of the few Ubaid sites to be identified within the Eski Mosul Dam Salvage Project. Its size and sequence suggests that it was an important local centre. The closest known site is the low mound of Bardiyya 3, located on the right side of a wadi draining into the Tigris below Abu Dhahir and some two hours walk distant.[56] The excavations at Abu Dhahir have yielded an important sequence for the Northern Ubaid in Mesopotamia despite the limited amount of architectural exposure. A very lengthy sequence was also retrieved during Soviet excavations at Tell Sheikh Humsi, several km. downstream of Abu Dhahir although few details have yet been published. Excavations at Tell Karana 1/2 revealed another Ubaid settlement and limited architectural remains were excavated at Hatara Saghir.[57]

The University of Mosul excavations in the centre of the mound revealed some remains of mud-brick construction and ashy deposits that were dated to the early/mid-4th millennium BC or late Ubaid period, plus some residual Ubaid painted pottery incorporated into a later terrace wall.[58] The *in situ* remains were found above a level with the lower portion of a two-stage updraught kiln and curvilinear walls, with painted pottery and figurines (not illustrated) that were attributed to the later Halaf period.[59] During the present investigations the adjacent sections suffered collapse but the diagnostic pottery found here was exclusively Ubaid, implying a redating of the earlier remains here. The grate was pierced with regular circular holes *(Pl. 15)*.[60] A second Ubaid two-stage updraught pottery kiln measuring 2.5 m across was excavated at Tell Sheikh Humsi and a cluster of kilns was identified from one area of the settlement at Tell Abada.[61] The discovery of similar kilns at most excavated Ubaid settlements suggests that most sedentary communities within Mesopotamia were largely self-sufficient in terms of pottery containers. This design of kiln appears to have remained typical in Mesopotamia underlining the early success and conservatism of the pottery tradition.

The re-interpreted sequence from this part of the mound supports the evidence from [M] for a lengthy Northern Ubaid occupation at Abu Dhahir, presumably spanning the Ubaid 3/4 phases of southern Iraq.[62] Ubaid pottery was also noted in some quantity on surface collections in Areas B, D, F, G and R. The concentration of graves excavated in [M] clearly formed part of a larger cemetery located at the east end of the settlement; the intersection of some of the grave cuts implies that the available space

[56] Ball, Simpson and Tucker 2003: 172.
[57] Bader 1987a; Bader 1987b; Wilkinson and Matthews 1989: 256-57; Fiorina 1997: 11-17; Fiorina 2001.
[58] Yunis 1981: 105 = Area A, Level 13, 110, pl. 6; see below: chapter 11.
[59] Yunis 1981: 105 = Level 14.
[60] Simpson 1997a: 39.
[61] Bader 1987a; Bader 1987b; Jasim 1985: vol. 1, 53, vol. 2, fig. 25.
[62] Cf. Oates 1983.

was restricted. The subsequent use of this area for construction suggests a change in priority in the use of this space but it is unknown whether this was reflected an increase in occupation at the site or whether a form of spiral stratigraphy was developing with regular shifts of occupation accompanied by changes in the use of space.

The architectural remains are also not without interest despite the severely limited exposures. Three distinct types of building were found in [M], namely part of a substantial planned cubicle building used for storage, part of a circular structure superficially reminiscent of a *tholos*, and an agglomerative residential area with associated evidence of craft activity. The function and architectural parallels of the cubicle building have been discussed at length above. The reliance throughout on *tauf* rather than mud-brick suggests a conservative local building tradition. The same practice was found at some other Ubaid sites, including Arpachiyah, Ras al-Amiya and Tell Songor.[63] The excavators found that there was a local evolution in building practice at Yarim Tepe with the *tauf* becoming increasingly standardised in shape and size through time and it was noted that at Umm Dabaghiyah some of the *tauf* slabs were so regular and angular as to suggest formation within wooden bands, though not a mould of fixed size'.[64] The large size of mud-bricks reported from other prehistoric sites – for instance up to a metre across at Tell Songor A – suggests that this use of shuttering may have evolved into a practice whereby walls were constructed course by course by moulding large bricks *in situ* rather than attempting to lift the bricks during construction. The development of regular mud-brick architecture thus may be seen as having evolved from *tauf* construction techniques.

No evidence was found for the typical tripartite-plan housing found at Ubaid settlements in the Hamrin basin and south Iraq.[65] In this respect, the use of *tauf* and small cramped rooms resembles Ubaid architecture excavated at Arpachiyah, Ras al-Amiya, Tell Songor C, Yarim Tepe III or Area G in level II at Tell Abada.[66] Nor was evidence found for the building technique considered 'characteristic of Ubaid architecture .... [whereby] the external wall steps in and out whenever it is met by an internal cross-wall'.[67] This may be due simply to the small size of the excavated area but exceptions to this pattern do exist, for instance at Tell Abada and Tell Songor B.[68]

No fired clay sickles, mullers, hoes, or 'sling bullets' were found although these are typical features of Ubaid material culture further south. Items of personal adornment were rare and limited to an obsidian pendant in a Period 3 grave and four beads, including two made of shell, that were found in Period 3 contexts: <524>, <526>, <531>, <597>. Evidence for figurines was likewise scarce and limited to a female figurine found in slope-wash (see chapter 2) and a single animal figurine <825>.

However, a number of other Ubaid artefacts were recovered. Two small polished stone celts were found in Period 3 contexts, <566>, <633>; these must originally have been fitted onto wooden hafts; other types of celt were found at Tell Abada.[69] A small banded limestone mace-head fragment was recovered from a Period 3 context <599>, and two stone bowl rims were also recovered: <552>, <617>. Four bone tools were also found, <509, <519>, <589>, <590>; bone points and other worked bone objects were common at Tell Abada but appear to have scarce at Ras al-Amiya and Yarim Tepe III.[70] A small number of plain or perforated sherd discs were recovered. These are a feature of Ubaid and later sites throughout the Near East. Their uses were probably many but may have included thinning-down of vessel walls or smoothing vessels during manufacture, processing of hides, stoppers or spindle whorls.[71] Several polished pebbles were probably also used as scrapers or burnishers: <568>, <613>, <616>, <815>.

Four chipped and polished black stone palettes were found at Abu Dhahir: <563>, <565>, <573>, <796>. Each had extensive fine scratch marks although all lacked traces of pigment. Similar traces of wear were found on palettes at Tell Abada but one of these also had remains of red paint; reddish-brown pigment was likewise noted on a palette excavated in Level XIV at Telul eth-Thalathat and suggested to be evidence for grinding of pigment for decorating pottery.[72] Similar palettes found in Ubaid contexts at Tepe Gawra were employed for grinding and mixing colours used for cosmetic purposes as well as for the painting of such delicate objects as pendants and amulets. Although no traces of pigment have remained on any of these examples, each specimen shows definite rubbing marks which make the identification a certainty; one example was also found in an Ubaid grave at this site.[73] A stone palette was also found in an Ubaid grave at Tell Songor A; others were found in domestic contexts at Yarim Tepe III.[74] Marble and limestone palettes were found associated with red ochre, stone tools and debitage in what was interpreted as a craft activity area at Yarim Tepe I.[75] The presence of palettes and red ochre-stained grinding stones at Tepe Ghabristan was likewise interpreted as evidence of a

[63] Mallowan and Rose 1935; Stronach 1961: 101; Fujii ed. 1981: 191.
[64] Merpert and Munchaev 1987: 7-8; Kirkbride 1972: 13.
[65] Roaf 1984b.
[66] Mallowan and Rose 1935; Stronach 1961: 101, fig. 5; Fujii ed. 1981; Merpert and Munchaev 1993; Jasim 1985: vol. 2, fig. 279.
[67] Roaf 1984b.
[68] Jasim 1985: vol. 2, fig. 2; Fujii ed. 1981: fig. 43.
[69] Jasim 1985: vol. 1, 79-80.
[70] Jasim 1985: vol. 1, 85-86; cf. Stronach 1961: 105; Merpert and Munchaev 1993: 238-39.
[71] Hole *et al.* 1977: 210-12; Munchaev, Merpert and Bader 1984: 39; Perkins 1959: 36.
[72] Jasim 1985: vol. 1, 83, vol. 2, figs. 86e, 277; Fujii ed. 1981: 73.
[73] Speiser *et al.* 1935: vol. I, 96, pl. XLIVa; Tobler 1950: pl. LXIII.b.
[74] Fujii ed. 1981: 72, fig. 40: 3, 171, 179; Merpert and Munchaev 1993: 238-40.
[75] Merpert, Munchaev and Bader 1976: 29.

potter's workshop. However, as Majidzadeh observed, [76] many craft activities may not have been segregated prior to the so-called 'urban revolution', thus evidence of craft activity may be the norm for residential areas rather than evidence for a particular craftsman's house. Analysis of pigment used on Ubaid pottery elsewhere indicates that it was artificially crushed rather than collected in a natural state and red ochre was found on one basalt grinding stone <771>; similar remains of pigmented grinding stones were noted at Tell Abada.[77]

A number of other pieces of grinding equipment were recovered from secure Period 3 contexts. Most were made of basalt and thus were presumably imported from northeast Syria, as this was the nearest source for this material. Stones of any variety were generally rare in the Ubaid contexts excavated at Abu Dhahir – in marked contrast to the Hassuna period of occupation – and where present, seem to indicate use as artefacts, albeit not necessarily modified. A number of similar natural flat stones were noted at Tell Abada but it was thought that 'no particular function was indicated since they showed no traces or signs of any kind'.[78]

Plate 6 Ubaid Grave 1

Plate 7 Ubaid Grave 3

[76] Majidzadeh 1989: 161-62, 166.
[77] Jasim 1985: vol. 1, 75.
[78] Jasim 1985: vol. 1, 83, vol. 2, figs. 86-87.

Plate 8 Ubaid Grave 4

Plate 9 Ubaid Grave 4: grave goods

Plate 10 Ubaid Grave 5

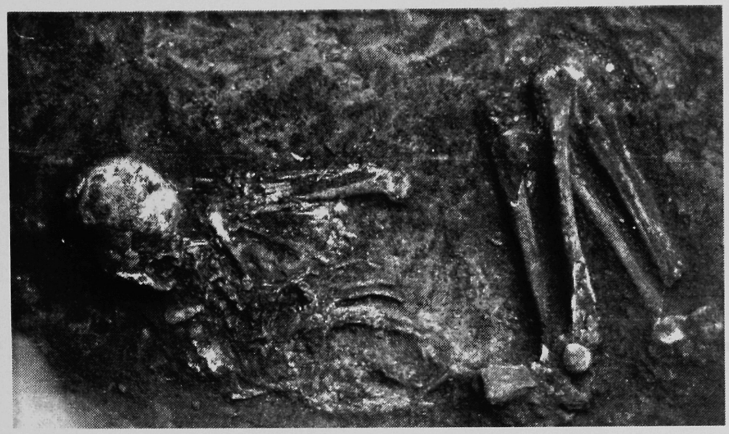

Plate 11 Ubaid Grave 6

Plate 12 Ubaid Grave 6: grave goods

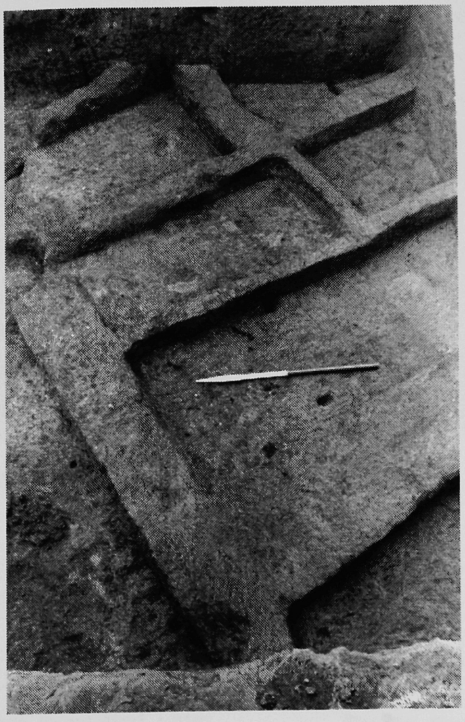

Plate 13 Ubaid cubicles in [M]

Plate 14 Ubaid Phase 3.7 domestic structures in [M]

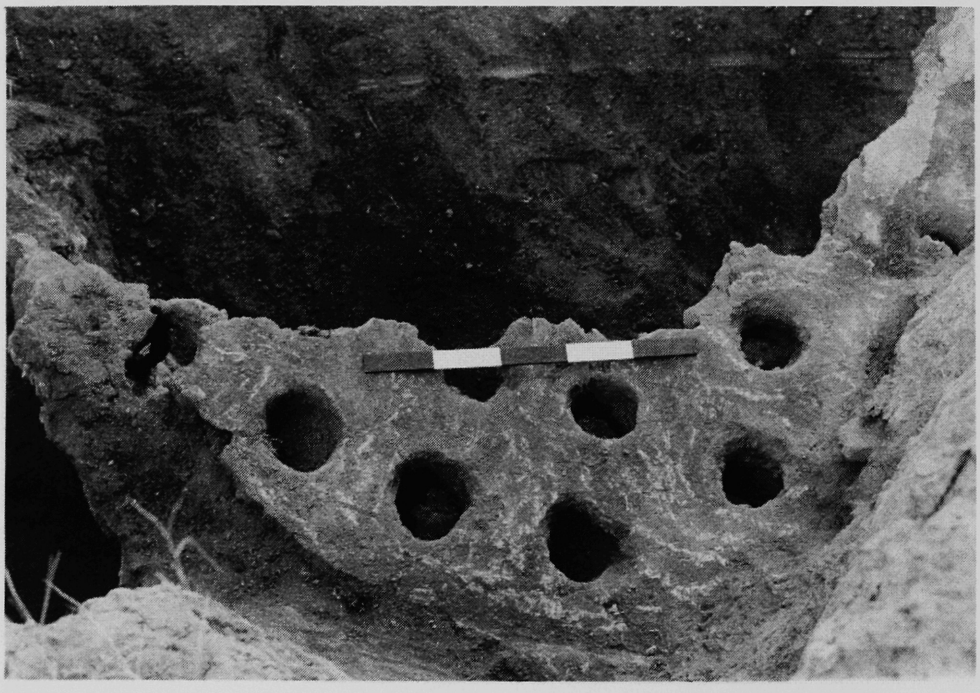

Plate 15 Ubaid kiln grate in Area E

CHAPTER 5

PERIOD 5: LATER URUK

SYNOPSIS

Abu Dhahir appears to be the largest Later Uruk site in this section of the Tigris river valley. *In situ* Later Uruk remains were found in one trench, namely [M], where two of the three phases were associated with pottery manufacture; traces of rubbish pits and other cut features in this area of the site suggests that the main focus of occupation was towards the centre of the mound where the University of Mosul discovered a level of mud-brick buildings, partly cut by a later terrace wall (see Chapter 11).

Area [K]

A small quantity of Later Uruk ceramics was recovered from secondary [Period 7-8] contexts excavated in [K1] and [K3]. No evidence for *in situ* Later Uruk deposits was found in Area [K]; thus it remains unclear whether this material derived from the main mound – perhaps accidentally included in rubbish clearing – or whether it originated from Later Uruk occupation and/or refuse tipping in the immediate vicinity. The possibility that the Period 5 settlement at Abu Dhahir was as extensive as in Periods 7 and 8 cannot be verified.

Trench [M]

The top of the Ubaid deposits in [M] were heavily eroded. This horizon was directly overlain by 1.30 m. of Later Uruk deposits. The top of these were partly truncated at a later (Period 7) date. Three phases belonging to the Later Uruk period were distinguished within [M]. The first of these, Phase 5.1, comprised part of a pottery workshop with the remains of a simple updraught kiln. After this fell into disuse, a mud-brick building of unknown function was constructed directly over the top: this building forms Phase 5.2. The next phase of activity, Phase 5.3, was characterised by the digging of a series of cut features and scoops, followed by their use for the disposal of refuse in what appears to have been an external area near the edge of the mound. The existence of a vertical soakaway drain and kiln wasters suggests that this peripheral area of the site continued to have (or reverted to) an industrial function. Useful groups of pottery were recovered from this final phase.

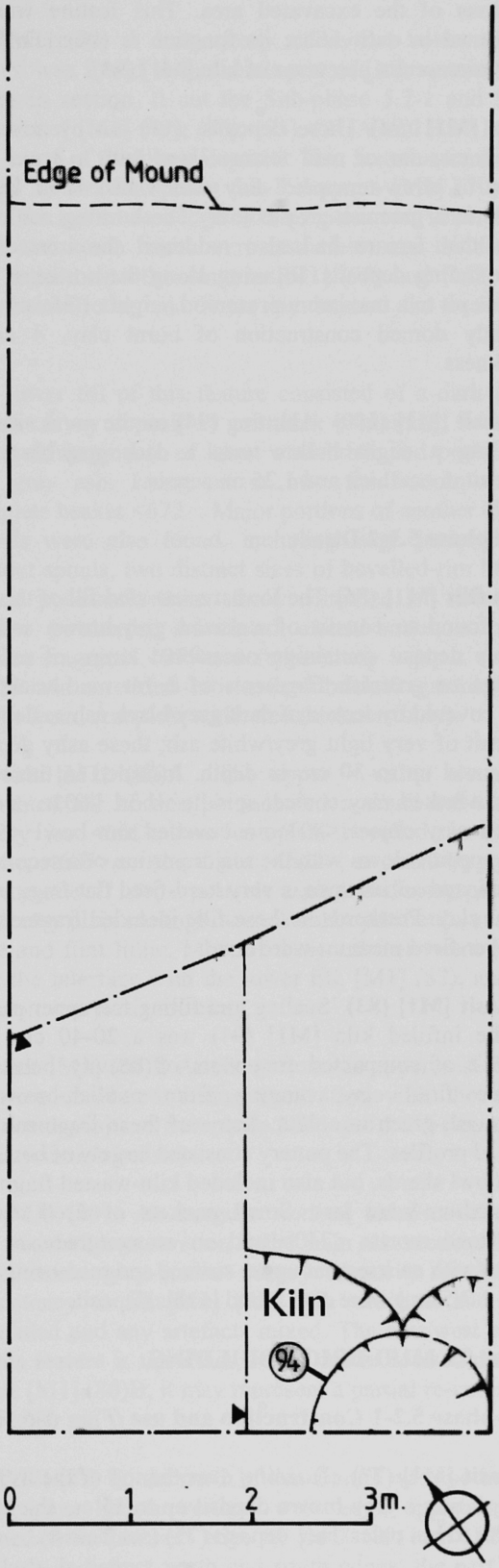

Fig 23 Period 5.1 Later Uruk kiln in [M]

PHASE 5.1 POTTERY MANUFACTURING AREA

Phase 5.1-1 Kiln and cut features *(Figs. 5-6, 23)*

Deposits [M1] (96), (81) The earliest excavated Later Uruk deposits consist of two consecutive layers of

compacted greyish clay containing lenses of light grey ash with numerous charcoal flecks in the upper portion. These probably represent the upper fills of a cut feature, possibly circular in plan, running into the south and west sections of the excavated area. This feature was not bottomed in excavation; its function is uncertain but it may represent a precursor of kiln [M1] (94).

Kiln [M1] (94) These deposits were cut by a vertical sided, circular or oval feature lined with a 3 cm thick layer of straw-tempered clay which had been heavily burnt to a greenish-grey colour. The burning associated with this feature had also reddened the immediately surrounding deposits. Running along the northeast edge of this pit to a maximum preserved height of 25 cm was a slightly domed construction of burnt clay, 4 cm in thickness.

Deposit [M1] (100) Abutting (94) on the north side and infilling a slight hollow was a dark grey/black ash deposit, 5 cm thick and 1.25 m. across.

Sub-phase 5.1-2 Disuse

Kiln fills [M1] (86) The lowest excavated fill of this kiln was found to consist of a mixed grey-brown crumbly clayey deposit containing occasional lumps of reddish-orange or greenish fragments of burnt mud-brick; this was covered by lenses of dark grey/black ash sealed by a deposit of very light grey/white ash; these ashy deposits measured up to 30 cm in depth. Included in these fills were a baked clay conical spindle whorl <605>, a large baked clay object <803>, a bevelled rim bowl <683>, lying upside-down with the major portion of a second, on top of, and adhering to, a very hard-fired flat fragment of burnt clay. Potsherds in these fills included fragments of an over-fired medium-ware bowl.

Deposit [M1] (83) Sealing and filling the upper portion of the infilled kiln [M1] (94) was a 20-40 cm deep deposit of compacted fragments of heavily burnt and friable fired clay, ranging from reddish-brown to yellowish-green in colour. Some of these fragments had curved profiles. The pottery consisted largely of bevelled-rim bowl sherds, but also included kiln-wasted fragments of medium-ware jars. Small pockets of fired clay, a sandstone mortar <740> and an orange/greenish fired brick (with an irregular upper surface and measuring 28 x 13.5 x 7.5 cm) were also found in this deposit.

Phase 5.2 MUD-BRICK BUILDING

Sub-phase 5.2-1 Construction and use *(Figs. 5-6, 24)*

Deposit [M1] (77) Running over the top of the in-filled kiln pit was a grey-brown deposit up to 15 cm thick, and similar to but paler than deposit (75) (see below).

Surface [M1] (76) Sealing (77) was a 5 cm thick compacted light brownish clay surface. This was found to

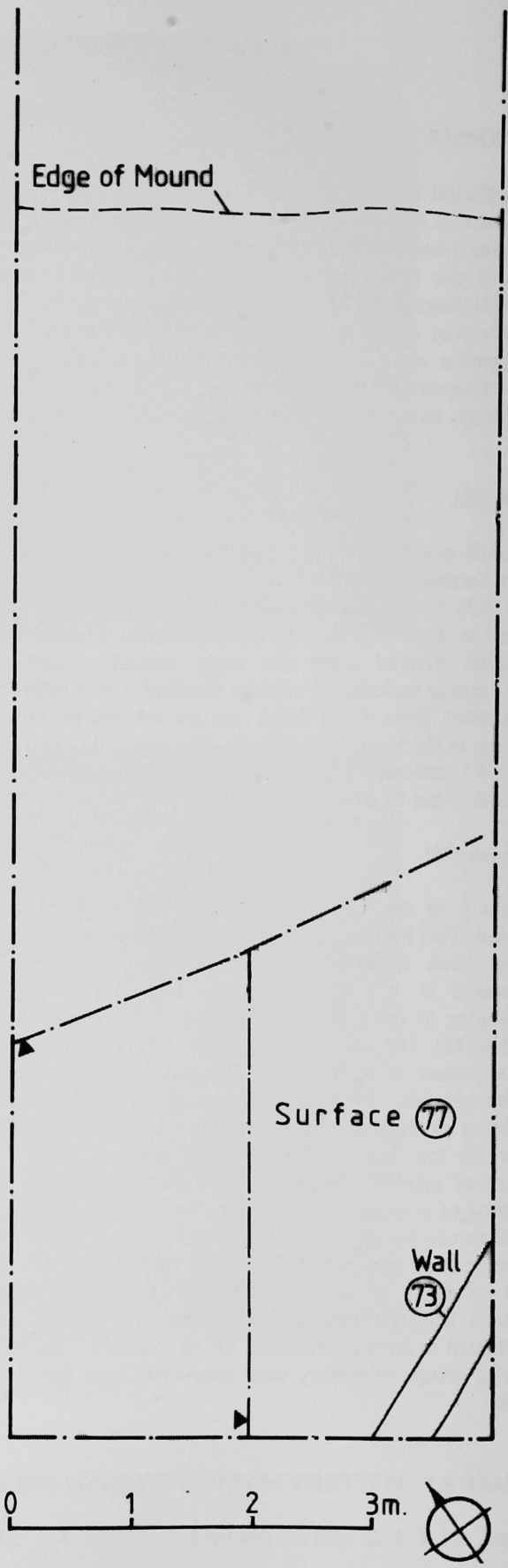

Fig 24 Period 5.2 Later Uruk wall

be cut near the south edge by a pair of small features packed with potsherds and pebbles. Two complete bevelled-rim bowls <682> and <684> were found associated with these hollows; an asphalt sealing <518> was found within (76).

Footings [M1] (97) A shallow trench appears to have been dug in the southeast corner of [M] and a line of rounded limestones packed into it, running northeast/southwest. The stones generally measured 15-25 cm across and incorporated a broken limestone socket or grinder. These stone footings were 65 cm (2 courses) across.

Wall [M1] (73) Constructed above these footings, was a wall built of grey-brown mud-bricks (measuring 36 x 16 x 10 cm) laid as alternate header and stretcher courses separated by 5-10 mm. thick layers of clay mortar. A mud plaster rendering, 3 cm thick, was preserved on both faces of this wall which survived 55 cm (5 courses) in height.

Surface [M1] (99) To the south of this wall, a pinkish clay floor 1-2 cm thick, had been laid over a 5 cm thick layer of grey-brown clay.

Deposit [M1] (75) At some stage, presumably during the use of the structure to the south, a grey-brown silty refuse deposit accumulated over the clay surface (76). It contained numerous potsherds, large animal-bones, large burnt fragments of a possible *tannur* or kiln and a basalt grinder fragment <831>.

Surface [M1] (74)A A yellowish clay surface up to 4 cm thick was laid directly over [M1] (75). Like the earlier surface, this was separated from wall [M1] (73) to the south by a 50 cm wide area of clay packing, possibly laid along the foot of the wall as a precaution against water-erosion.

Sub-phase 5.2-2 Destruction

Deposit [M1] (98)A A 2 cm thick layer of grey-brown silt overlay the floor (99) of the structure, to the south of wall (73).

Deposit [M1] (98)B This was sealed by lenses of a grey-brown bricky or clayey deposit 35 cm thick, slumping down to the south.

Deposit [M1] (72) These deposits, and the top of the partly destroyed wall [M1] (73), were sealed by a dark grey/black ash containing charcoal fragments. The clay packing along the foot of this wall was burnt orange and had acquired a friable texture.

Surface [M1] (74)A-B Most of the upper part of the associated clay surface [M1] (74)A to the north was also burnt to an orange colour and partly overlain by a 1.5 cm thick layer of ash containing numerous charcoal fragments, [M1] (74)B.

PHASE 5.3 PITS AND EXTERNAL FEATURES

Sub-phase 5.3-1 Pits and deposits *(Figs. 4, 25-26; Pl. 16)*

Pit [M1] (82) A long, steep sided, flat bottomed cut feature was found in the south part of [M], running into the main section. It cut the Sub-phase 5.2-1 and 5.2-2 deposits of [M1] (77), (76), (75), (74)A and B.8 It also cut the top of the Ubaid deposits. This feature seems to be sealed by the Sub-phase 5.3-1 deposits [M1] (70) and (71). The lower west edge of this feature was vertical; the north and south limits were less clear, and the feature may indeed directly relate to [M1] (92) and [M2] (27) (see below); the east limits lay beyond the excavated area.

The lower fill of this feature consisted of a dark grey-brown clayey deposit 15 cm thick containing flecks of charcoal, fragments of burnt mud-brick and pockets of fine grey ash. Lying on or near the bottom was a complete beaker <672>. Major portions of another eleven vessels were also found, including large jars with or without spouts, two distinct sizes of bevelled-rim bowls, and a pot-stand. Other finds consisted of numerous smaller potsherds, articulated animal-bones, a basalt grinder fragment <779>, a fragmentary asphalt sealing <632> and a reddish-brown fired brick fragment (13 x 12.5 x 7 cm; complete width and thickness only).

Deposit [M1] (80)A The upper – rather cleaner – excavated fill of this pit included a small red-slipped pottery jar <661>, two complete bevelled-rim bowls <686>, <689>, a sherd disc <551>, a possible ground stone pestle <713>, a possible asphalt lid, some possible black clay plain sealings, some smaller potsherds, animal-bone and flint lithic. Most of these artefacts were found near the interface with the lower fill, [M1] (82), and the division was partly arbitrary.

Deposit [M1] (80)B Artefacts from the uppermost fill(s), B, were combined during excavation with the upper exterior deposits of Sub-phase 5.2-1 and 5.2-2 (see above and discussion below).

Pit [M1] (101) An irregular vertical sided cut feature, was noted after excavation in the main east section. It was filled with grey-brown clayey deposit, similar in consistency to fill [M1] (75) with which it had been excavated and any artefacts mixed. The east/west extent of this feature is uncertain, but as it was located directly above [M1] (80)B, it may represent a partial re-cutting of the earlier pit.

Pit [M2] (27) To the north of this feature was another pit. This again had a vertical west edge approximately aligned with the west edge of [M1] (80) and (82) but similarly indistinct north and south edges; the east edge lay outside the excavated area. The main deposit within this pit consisted of a pale blue-grey silty clay [M2] (27)

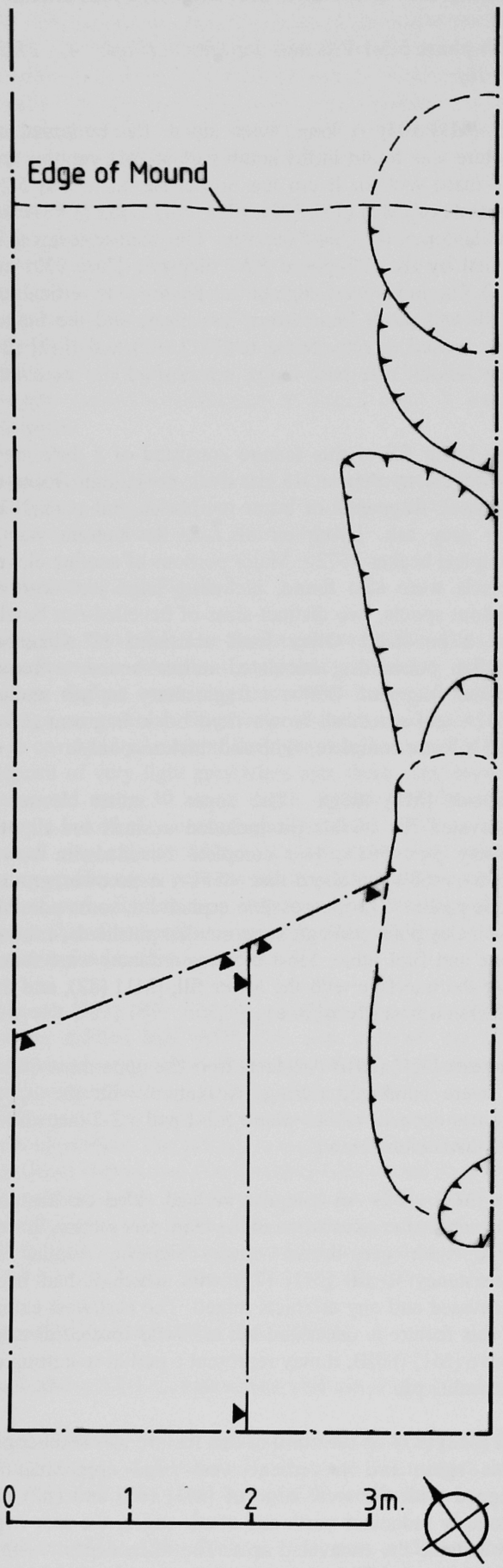

Fig 25 Period 5.3 Later Uruk pits

containing numerous small charcoal flecks. A complete bevelled-rim bowl <687> was found at the north end; other finds included a sherd disc <553> and an asphalt sealing <647>.

Deposits [M2] (18), (24) This deposit was sealed by two more heavily compacted light brownish clayey deposits; portions of two pottery bowls, one partially containing the mandible(s) and scapula of a large animal, were found here.

The similarity in alignment between the west edges of features [M1] (80)/(82) and [M2] (27), as well as their respective fills, suggest contemporaneity of use.

Pit [M2] (47) This steep sided pit was found to the north of and probably contemporary with the above features, again cutting Ubaid deposits. Measuring ca 1.60 x 0.90 m. within the excavated area, it was preserved to a depth of 70 cm. The fill consisted of dark grey-brown silty ash containing occasional stones, abundant potsherds and some animal-bone. Other finds consisted of a complete bevelled-rim bowl <685> found upright near the south edge, the large part of a pottery jar, and a large but worn chipped stone palette <573> (probably residual from Period 3). Probably deriving from this feature was a complete small painted jar with pierced lugs <677>, which was found during the excavation of topsoil at this spot.

Deposits [M1] (71), (70) Two consecutive grey-brown silty clayey deposits were found in the south part of [M], sealing [M1] (82), (81) and (101). An asphalt sealing <601>, a spindle whorl <636>, and a possible broken stone weight <729> were recovered here.

These evidently external deposits – comparable to [M1] (77), (75), (56) and (55) – ran across the entire excavated area in the east half of [M1].

Sub-phase 5.3-2 External surfaces *(Fig. 7)*

Surface [M1] (68), (62) Laid over the top of the Sub-phase 5.3-1 deposits (71), (70) in the east half of the excavated area was a light yellowish-brown clay surface; when first exposed, this had a slightly greasy texture suggesting its use as a floor.

Surfaces [M1] (69), (66) This was overlaid by a thin bluish-grey and slightly gritty clay surface. These deposits extended together up to a north/south-running straight edge on the west side.

No structural remains were found associated with these probable external occupation surfaces. The significance of the straight west edge is uncertain: it may correspond to the top of a cut feature similar to those excavated in Sub-phase 5.3-1.

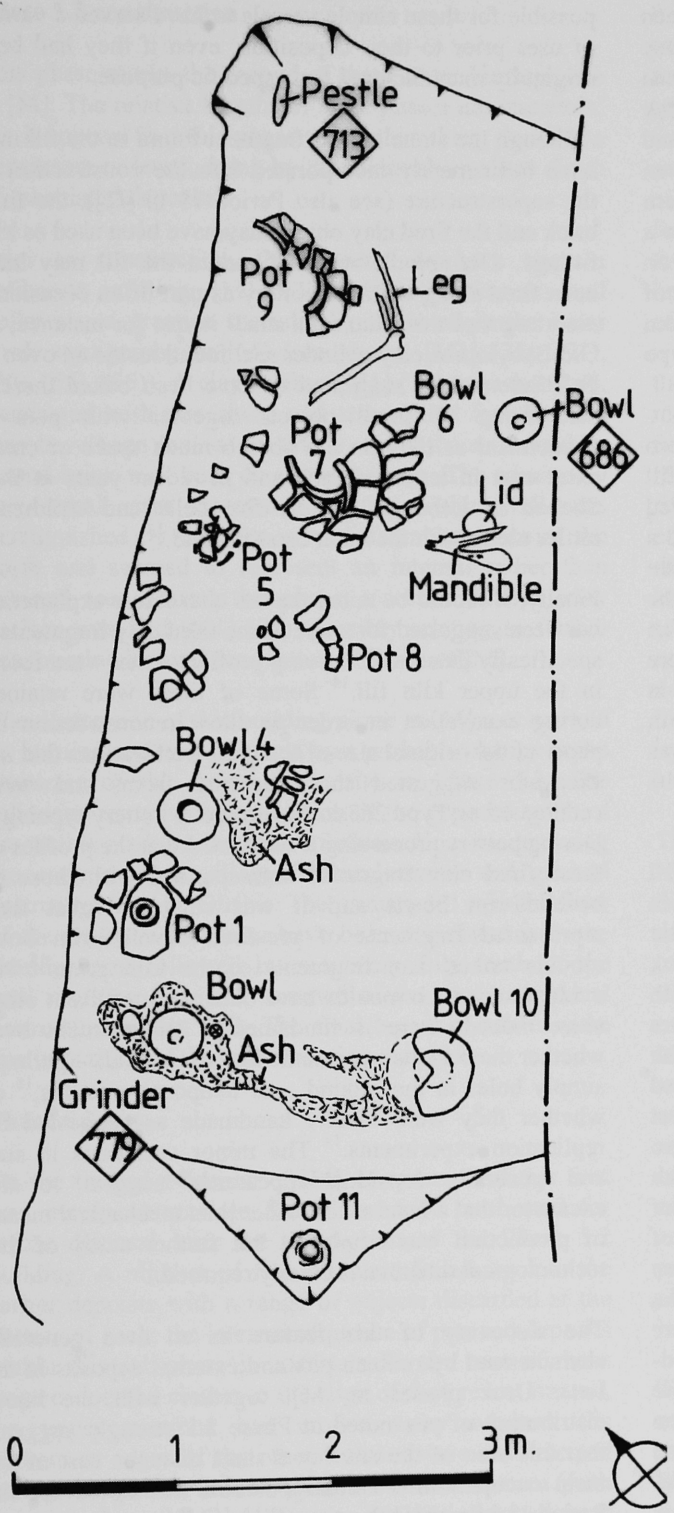

Fig 26 Period 5.3 Later Uruk pit [M1] (82)

Sub-phase 5.3-3 External deposits and features *(Fig. 7)*

The subsequent deposits marked the beginning of another sub-phase. The clay surfaces of Sub-phase 5.3-2 evidently fell out of use, and this area – although still external – seems to have reverted to use for refuse-disposal.

Deposit [M1] (56) Sealing the earlier deposit was a 10-20 cm thick grey-brown clayey deposit containing occasional white and charcoal flecks. Potsherds included several kiln-wasted flakes. The top of this deposit was marked by a thin layer of ash.

Feature [M1] (57)A A 90 cm deep, vertical sided and relatively flat bottomed, circular feature was found in the west part of the excavated area, cutting [M1] (56). The diameter of this feature measured some 40 cm (bottom) by 65 cm (top).

Feature [M1] (57)B The lower fill, ca 75 cm deep, consisted of slightly greenish, light grey-blue clay with numerous friable lumps of burnt greenish-yellow clay. Some pottery was also found here. The uppermost 15 cm of this feature was filled with a reddish material. There was evidence of heavy mineralisation throughout.

Deposit [M1] (55) Sealing this feature was another 10-20 cm thick grey-brown clayey deposit containing occasional charcoal flecks. The top of this was partially marked by a thin light brownish-orange – and probably burnt – clay surface, 1 cm thick.

This clayey deposit represents the top of the preserved Later Uruk deposits in [M]. However, a certain amount of these were removed by a Period 6 pit and Period 7 levelling. It is therefore uncertain whether this sub-phase marked the end of Later Uruk occupation.

DISCUSSION

Phase 5.1 Kiln

[M1] (94) represents the subterranean firebox or fire-pit of a small two-stage updraught kiln. A small portion of the superstructure, or an associated feature survived at the northeast edge of the pit: the flimsiness of this suggests that it may represent the edge of a flue[1] whereas the sloping or stepped stoking (raking-out) hole(s) lay beyond the excavated area. The dark ash (100) found near the possible flue may derive from raking-out whereas the fragments of burnt brick in the fill probably derive from the dismantled superstructure. The pieces of clay with curving profiles probably belonged to the grate which originally separated the fire-pit from the firing-chamber (but also see discussion below). The hard flat fragment of fired

[1] Dollfus and Hesse 1977: 15-16, fig. 1.

clay found in the lower fill of the pit may also have been part of the collapsed grate[2] whereas the adhering pot may have been reused in the construction rather than representing part of the firing load.[3] As with many excavated kilns, little or no trace remains of the walls and roof of the firing-chamber which would have been dismantled after each firing. A recent Middle Eastern updraught kiln with a solid superstructure placed above a subterranean firepit, and fed by a narrow stoking-hole on one side, is illustrated by Johnston. However the roofs of some contemporary kilns in Egypt are built purely from piled-up potsherds, suggesting a possible alternative type of roofing.[4]

The deposits within the excavated fire-pit suggest two consecutive firings whereby in each case the primary fill consists of ash followed by remains of the dismantled superstructure. This repeated sequence of fills points to a lack of thorough clearing out of the fire-pit between firings, perhaps reflecting the potter's knowledge that the kiln could only sustain a small number of firings. The type of fuel used is uncertain as charcoal analyses were not undertaken. Almost anything that can be burnt is ethnographically attested from kiln firings, and with decreasing availability of firewood, alternatives such as brushwood, sawdust, or even fruit-tree cuttings may be used.[5]

The presence of bevelled-rim bowl fragments in the fill may indicate that they were fired in this kiln, along with the medium-ware vessels evidenced by wasters. Similar mixed firings have been suggested from other Later Uruk sites and a complete bevelled-rim bowl was found with sherds of bevelled-rim bowls and other vessel types inside the remains of a kiln at Tell Rubeidheh, in the Hamrin.[6] Three oval kiln firepits containing vitrified pottery wasters of this period were excavated on the West Mound and Uruk Mound at Abu Salabikh.[7] It is also worth noting that in the 1987 excavations at Tell Shaikh Hassan, on the Euphrates, the partly sunken remains of several Later Uruk fireplaces were traced: in the centre of each 'was inserted a bevelled rim bowl that, by intense fire, was almost glazed like slag'.[8] However, at Warka bevelled-rim bowls found associated with kilns were interpreted as possible evidence of crucibles.[9] Bevelled-rim bowls could probably have been fired in a more primitive fashion; although their function has been discussed at great length elsewhere,[10] the recently revived idea that they represent bread moulds would support a re-interpretation of so-called kilns being large ovens.[11] It is possible for these simple vessels to have served a variety of uses prior to their deposition, even if they had been originally manufactured for a specific purpose.

Although the stone mortar fragment found in the fill may have been merely incorporated into the construction of the superstructure (see also Period 11 in [I2]), the fired brick and the fired clay object may have been used as kiln fittings. The spindle whorl found in the fill may have been fired along with the pottery as part of an occasional assortment of miscellaneous small items: for instance, an Old Babylonian clay cylinder seal found inside an oven at Tell Suleimeh is suggested to have been baked there.[12] The firing of small objects together with pots is economical as they do not absorb much space or entail extra cost in terms of fuel, and in recent years at Beit Shebab in Lebanon, potters fire bells and children's rattles along with the main ceramic load.[13]

Finally, it should be noted that an alternative explanation has been suggested for some of the fired clay fragments – specifically those with curving profiles – that were found in the upper kiln fill.[14] Some of these were retained during excavation in order to allow reconstruction on paper of the original size of the grate perforations that the excavator suggested these derived from, and were catalogued as Type 263 in the project's pottery typology. During pottery processing it was noted that the profiles of these fired clay fragments corresponded with those of bevelled-rim bowls and it was suggested that they represented fragments of pre-fired bevelled-rim bowl moulds rather than fragments of the kiln grate.[15] No evidence for such moulds have been reported from other sites; indeed, there is fundamental disagreement over whether these items were made in fixed moulds – perhaps simply holes in the ground – or temporary moulds,[16] or whether they were wholly handmade as suggested by replication experiments.[17] The minor variations in size and generally lopsided appearance suggest to the excavator that a hand made rather than mechanical means of production was employed but further study of this technological dilemma is clearly required.[18]

The discovery of this feature in an area generally characterised by rubbish pits and external deposits in the Later Uruk phases in [M], together with the linear distribution of pits noted in Phase 5.3 strongly suggests that this area of the site lay a short distance east of the main occupation: a similar position was noted for the Period 11 kilns in [I2].

[2] Dollfus and Hesse 1977: 16-17.
[3] Wels 1982: 8.
[4] Johnston 1974: 103, fig. 12; Nicholson and Patterson 1989: 77.
[5] Rice 1987: 176.
[6] Killick *et al.* 1988: 18-21.
[7] Postgate and Moon 1982: 105, 120; Postgate *et al.* 1983: 16, 40-41; Pollock, Steele and Pope 1991: 67-68.
[8] Boese 1986/87: 74, figs. 22-24.
[9] Nissen 1970: 110-38.
[10] See McAdam and Mynors 1988: 42-44 for a summary and comments.
[11] Millard 1988.
[12] al-Gailani Werr 1988: 5, no. 116.
[13] Hankey 1968: 29.
[14] Ball 2003: 12.
[15] Ball and Wilkinson 2003.
[16] Balfet 1980: 78; and as the interpretation presented here suggests.
[17] Kalsbeek 1980.
[18] Simpson 1997b: 50-51, 217, n. 9.

Phase 5.2 construction

This phase marks the second of three Later Uruk phases in [M]. The relative lengths of these phases are uncertain, but it appears that this phase was rather short, possibly a generation or less judging by the relatively shallow depth of associated deposits.

Prior to construction, there seems to have been a deliberate infilling, [M1] (77), of earlier features and hollows – a practice sporadically reflected in the Later Uruk stratigraphy in [M] (see above: [M1] (75), (71), (70), (56), (55)). A clay surface [M1] (76), was then laid, associated with two sherd and stone-filled features that may have been soak-away drains, cut at the south end by a mud-brick wall built on stone footings. The admittedly very small area excavated south of this wall was distinguished by deposits very different to those of the north and seemed to represent an internal rather than external area. During this phase, a second external clay surface was laid [M1] (74), possibly relating to further construction beyond the excavated limits of [M].

The destruction of this building phase in [M] was marked by burning and was followed by a probable change in the character of this area of the site in Phase 5.3. The following tentative interpretation of the deposits south of the wall is made on the basis of observations made during the early modern villagers' abandonment and gradual destruction of Abu Dhahir. The primary fill over the floor of the structure may also have been associated with the abandonment followed by secondary fills south of the wall resulting from the removal of the roof and partial destruction of the wall. The final layers of ash may be due to burning of discarded roofing material.

Phase 5.3 pits

On the limited evidence of [M], it seems as if this area was purely external in Sub-phase 5.3-1 and used for refuse disposal after the destruction of the Phase 5.2 building. A number of features were found cut into the earlier deposits with a range of objects discarded at the bottom of each; the internal sequence of pits and deposits within this sub-phase is uncertain. In the case of those features located closest to the edge of the present mound, the upper portions had eroded away whereas the uppermost edges of the other features were not detected during excavation. Indeed, the fills of these features (with the exception of [M2] (47)) were not distinguished from the deposits into which they were cut until approximately half-excavated. On the basis of the main east section of [M] – which runs through all of these features – it seems as if the uppermost deposits were relatively clean. In that case, the amount of contamination through excavation of the earlier deposits is suggested to be minimal. On the other hand, it must be admitted that as none of the pottery vessels found in the lower fill ran into this section, a similar conclusion could have been reached for the lowest fills.

It is not certain whether these features were in use at exactly the same time. A slight difference in date or use for [M2] (47) may be suggested by its different shape and type of fill. However, the spatial distribution of these features is significant. They were all restricted to the easternmost 1.30 m. of [M], extending for a total length of ca 9.50 m. Furthermore, while the west edges of these features were well-defined in at least the lower portions, the north and south edges were less satisfactory: the east limits lay beyond the excavated area. Given the location of [M], one can postulate a situation where irregular cuts were made – and eroded – at intervals along one edge of the mound. It is possible that these cuts were originally made in order to obtain clay for construction purposes, followed by use of the scoops as convenient places for refuse disposal. Similar reuse of pits originally excavated for another function has been documented from the ethnographic present in Iran by Kramer.[19] This distribution of rubbish pits may be related to property boundaries or to the restriction of these types of features to a distinct zone beyond, and probably in this case to the east of, the inhabited area. A similar distribution was noted in the nearby modern village of Bardiyya, where the rubbish-filled scoops were separated from the houses by an unpaved track and an open area used for baking bread, drying dung and tethering livestock.[20]

The clean upper fills of these Later Uruk pits may either reflect weathering of the sides, thus explaining the difficulty in recognising the edges during excavation, or deliberate backfilling after a relatively short period of refuse disposal. The latter may be related to concern over the hygiene of maintaining open rubbish pits – a consciousness reflected in the location of these features beyond the occupied area. Increasing awareness of sanitation and efficient refuse disposal must have accompanied the development of elaborate water systems and fortifications that mark the rise of urbanism in the 4th millennium,[21] and may be related to the beginnings of use of solid waste, or 'night soils', from settlements as artificial fertiliser or compost on surrounding fields: the potential advantages of this have been outlined by Hamza and evidence for 3rd millennium manuring of fields has been proposed from the north Jazira plain.[22]

These features may be compared with a large Uruk period refuse-filled pit, 10 m. long, 4 m. wide and more than 4 m. deep, excavated near the foot of the mound of Tepe Sharafabad in Susiana. This feature was partially excavated according to natural layers: the infilling was suggested to be seasonal on the basis of ash and charcoal silt layers interpreted as winter deposits that alternated with 'summer' deposits of silt layers containing mud-brick fragments. Based on estimates of the original size of the settlement at Sharafabad, the possible population

[19] Kramer 1982: 105.
[20] Cf. also Sweet 1974: 56, figs. 4, 23; Watson 1979: 37-39, fig. 2.1, pls. 2.2-2.5.
[21] Miller 1980.
[22] Hamza 1989; Wilkinson 1989.

size and pottery breakage rates based on ethnographic parallels, it was argued that 'there were twenty families dumping garbage in the pit. In a year, each family would discard about 12 large round rim jars, 16 small round rim jars, 25 smaller round rim jars, 25 smaller expanded and ledge rim jars, 6 large expanded band rim jars, 18 conical cups and 9 other bowls. [And] ... in the first year each family discarded about 280 bevelled rim bowls'.[23]

The primary fills of the Sub-phase 5.3-1 cut features varied from a dark clay to a lighter silty clay containing numerous small charcoal flecks and pockets of ash and burnt mud-brick throughout. These are comparable to Wright's winter deposits but – as in the case of the Sharafabad pit – are potentially confounded by sweeping-out practices associated with baking, cooking or industrial activities rather than refuse from purely domestic heating. Industrial activities in this area of the site are witnessed in Phases 5.1 and 5.3, and it seems likely that such activities will often be found near the edges of archaeological sites, and therefore in the proximity of rubbish pits and cemeteries.[24] Although finds were fewer at Abu Dhahir, they include grinding-stones, that 'occur without seasonal pattern throughout the pit's sequence [at Sharafabad]' and sealings.[25]

Despite the uncertainty over the exact phasing of some of the cut features excavated, specifically in the north portion of [M], all were assigned to Sub-phase 5.3-1. The subsequent excavated deposits of Later Uruk date were limited to the south end of [M] and were divided into two further sub-phases, described below.

Sub-phase 5.3-3 External deposits and features

The shape of Feature [M1] (57)B points to a specific purpose; the heavily burnt deposits are similar to those found in the earlier Sub-phase 5.1-1 kiln [M1] (94). It may therefore be associated with a pottery kiln lying beyond the area of excavation. The finding of pottery waster fragments in the immediately underlying fill – if they are not residual – also indicate a kiln or kilns in the vicinity; flakes of this type result from dunting of pottery within a kiln due to sudden cooling.[26] However, the original purpose of the pit itself is uncertain. Slightly larger vertical sided Uruk pits were excavated at Chogha Mish: green staining on potsherds in the fill of one suggested contact with organic wastes and they were therefore interpreted as drains.[27] A group of pits with similar green fills and thin rusty-red (presumably mineralised) layers was excavated in level III at Tell Razuk in the Hamrin, paralleled by latrine drains found at Nippur.[28]An industrial purpose, possibly related to tanning or fulling, is equally possible, particularly given the frequently preferred location of these activities in areas away from the main settlement.[29]

General discussion

In situ Later Uruk deposits were noted in only one excavation area – [M] – although a small quantity of residual sherds were recovered from [K]. The occurrence of rubbish-filled cut features and direct evidence for pottery manufacture, and possibly other industrial activities, in two of the three stratigraphic phases of this period in [M] suggests – given the frequent location of the latter in areas beyond the locus of settlement – that this trench was situated a short distance east or north of the Later Uruk settlement on the mound. This is supported by the discovery of other cut features, also containing large quantities of Later Uruk pottery, in erosion faces along the north side of the mound (Areas B, D, F, G and possibly Areas C, J, O and R). In the centre of the mound the University of Mosul recognised one level with a mud-brick building and a nearby adult (?) burial interred with a Later Uruk conical cup and a red-slipped four-lugged jar. This level was believed to date to the end of the 4th or beginning of the 3rd millennium on the basis of the jar being 'probably Jemdat Nasr'. A number of basalt pestles and other ground stone objects were also reportedly found in this level; pottery of this period was also noted from section collapse in this excavation area (Area E).[30]

Upon the available evidence it therefore seems that the Later Uruk occupation at Abu Dhahir represented a re-foundation at a mound deserted since the Ubaid period, with occupation not exceeding and possibly even less extensive than the former Ubaid settlement. This hiatus, corresponding to the early 4th millennium BC, appears to have been one of low density settlement in the upper Tigris river valley. Two successive phases of Earlier Uruk occupation are represented from a small number of sites in the Eski Mosul Dam Salvage Project. The first group is characterised by painted 'sprig ware', a ceramic type defined from Tepe Gawra levels XII-XIIA and found within this Project at Hatara, Tell Karrana 1, Khirbet Derak (misidentified as Transitional Halaf-Ubaid), Tell Museifneh, Tell Shaikh Humsi Cemetery and Tell Shelgiyya.[31] The second – so-called 'Gawra' – phase corresponds to Tepe Gawra levels XI-VIII. Pottery of this type was excavated at the following Eski Mosul Dam sites: Hatara, Tell Musaifna, Tell Musharifa and Tell Raffaan.[32] In contrast, there appears to have been an increase in settlement in the Later Uruk period.

[23] Wright, Miller and Redding 1980: 268, 271, 273-74.
[24] Matson 1974: 346.
[25] Wright, Miller and Redding 1980: 274, 278, 281.
[26] Hodges 1964: 41.
[27] Kantor 1977: 17-18.
[28] Gibson *et al.* 1981: 44, 67.
[29] Kramer 1985: 118.
[30] Yunis 1981: 104-105, 109-11, pl. 5 = Level 12.
[31] Fiorina 2001; Ball 1997; K. Toma, pers. comm. 1986 (Tell Karrana 1 & Tell Museifneh); Forest 1987a: 83-84; Forest 1987b: 192; Ball, Simpson and Tucker 2003; Ball 1997; Ball and Pagan 2003; cf. Tobler 1950; al-Soof 1985: 146-47.
[32] Ball and Black 1987: 239; Nashef 1987; Yunis 1987; Fujii and Oguchi 1987; Oguchi 1987; Bielinsky 1987a; Bielinsky 1987b: 18-19; cf. Tobler 1950; Rothman 1989; Lloyd 1940: 13-19, pls. II-IV.

The potentially important role of Later Uruk settlements along this stretch of the Tigris was recognised by Algaze.[33] Abu Dhahir is the largest of the Later Uruk sites that were investigated as part of the Eski Mosul Dam Salvage Project, and as such may have served as a local regional centre involved both in the local agricultural economy and more long-distance trade connections.[34] This factor may explain the occurrence of pottery kilns here as it would have facilitated the potential redistribution of ceramics and/or their contents to other settlements in the vicinity, such as Bardiyya 8. Much attention has been focused on the importance of the potential distribution of Later Uruk ceramics, with particular regard to bevelled-rim bowls.[35] It is therefore worth noting the extremely low frequency of bevelled-rim bowl fragments at Bardiyya 8.[36] It is unclear whether this contrast may reflect contextual difference, and therefore patterns of breakage and discard,[37] or whether it reflects real differences in the frequency of bevelled-rim bowl use at sites of different size and importance. Possible support for the latter hypothesis is illustrated by the relatively low excavated frequency of bevelled-rim bowls at the small rural site of Umm Qseir on the Khabur.[38]

There is a strong rural flavour to the excavated remains of this period. The most characteristic architectural feature are external drying racks consisting of a series of low parallel mud-brick walls originally supporting a flimsy matting floor. Identical examples have been discovered at Khirbet Basila, Hatara, Tell Karrana 3, Tell Rijim and Siyana Ulya, and are thought to have functioned as drying racks or domestic granaries. Little corresponding environmental data have been published, with the exception of a small quantity of carbonised barley and wheat from Tell Karrana 3.[39]

Other remains or pottery of this period were recovered from Bardiyya 8, Tell Thuwaij, Tell Gir Matbakh, Tell Jessary and Tell Shelgiyya.[40] Pottery kilns were also found at Hatara, and children's graves were identified at Hatara, Tell Karrana 3 and Tell Mohammed Arab.[41] The absence of any identified adult graves corresponds to a pattern found throughout Mesopotamia during this period and suggests that extramural cemeteries located away from mounded sites were the norm.

Plate 16 Later Uruk Phase 5.3 pit in [M1]

[33] Algaze 1986: 132-33; cf. also Algaze 1989: 246-47, 254.
[34] Ball and Wilkinson 2003.
[35] E.g. Alden 1988; Berman 1989; Johnson 1987; Rothman 1989; cf. also Reimer 1989.
[36] Ball, Simpson and Tucker 2003.
[37] Cf. Nicholas 1987.
[38] Hole and Johnson 1986/87: 185; cf. also Johnson 1987: 1112-13.
[39] Fiorina 1997: 19-22; Zaccagnini 1993; Ball and Gill 2003a; Costantini and Costantini Biasini 1993.
[40] E.g. Ball, Simpson and Tucker 2003; Campbell 2003; Ball and Pagan 2003.
[41] Fiorina 1997: 23-26, 49-58; Cremasco 1997; Stein 1993; Roaf 1984a.

CHAPTER 6

PERIOD 6: NINEVITE 5

SYNOPSIS

This period of occupation at the site was represented by a single pit excavated within [M], several levels of mud-brick walls reported by the University of Mosul near the centre of the mound and a small number of surface finds. The pit within [M] was found in the east part of the trench but all other *in situ* remains in the excavated area had been destroyed by later terracing and levelling. There is no reason to suspect that Abu Dhahir was anything other than a small rural settlement during this period.

TRENCH [M] *(Figs. 5, 27)*

Pit [M1] (67), (65) This feature, irregular in shape and steep sided, was filled with a variety of deposits ranging from a fine grey-brown silt (67) – with lenses of darker ash and occasional ash-filled rodent burrows – near the bottom, to a fine dark grey/black ash (65) in the upper portion. (Both were also excavated partially as [M2] (10), (11)). Pottery was predominantly Ninevite 5 and included plain and painted sherds and fragments of incised coarseware lids, but no Ninevite 5 Incised finewares or later material. The remainder of the pottery comprised a small number of residual Ubaid and Later Uruk sherds. A number of animal-bones, including some very fine (possibly rodent) bones and flint lithics were also found, along with a small perforated baked clay object <807>, a small fired clay container <544>, a fragment of a lightly baked hemispherical clay object <824>, a possible andiron fragment <608>, six burnt clay sealings with cylinder seal impressions <693>, <694>, <695>, <696>, <820> and <828>; a fragmentary unbaked clay object <649>, possibly part of wattle and daub lining, was also found.

DISCUSSION

Occupation of this period was limited to the area of the present mound; Painted or Incised Ninevite 5 potsherds were infrequent in the surface collections although noted in Areas B, D, O and R. Despite later disturbances in [M], it is likely that the focus of Ninevite 5 settlement was towards the core of the mound and west of the BAEI excavated areas. Significantly, four 'Early Dynastic' levels were uncovered in the deep University of Mosul excavations at the centre of the mound, the finds including a pear-shaped jar, a globular vessel and a clay cylinder seal measuring 8.3 cm. long x 4.4 cm. across decorated with repeated fingernail impressions.[1] This suggests that the peripheral area of [M] was simply used for extramural refuse disposal, thus representing

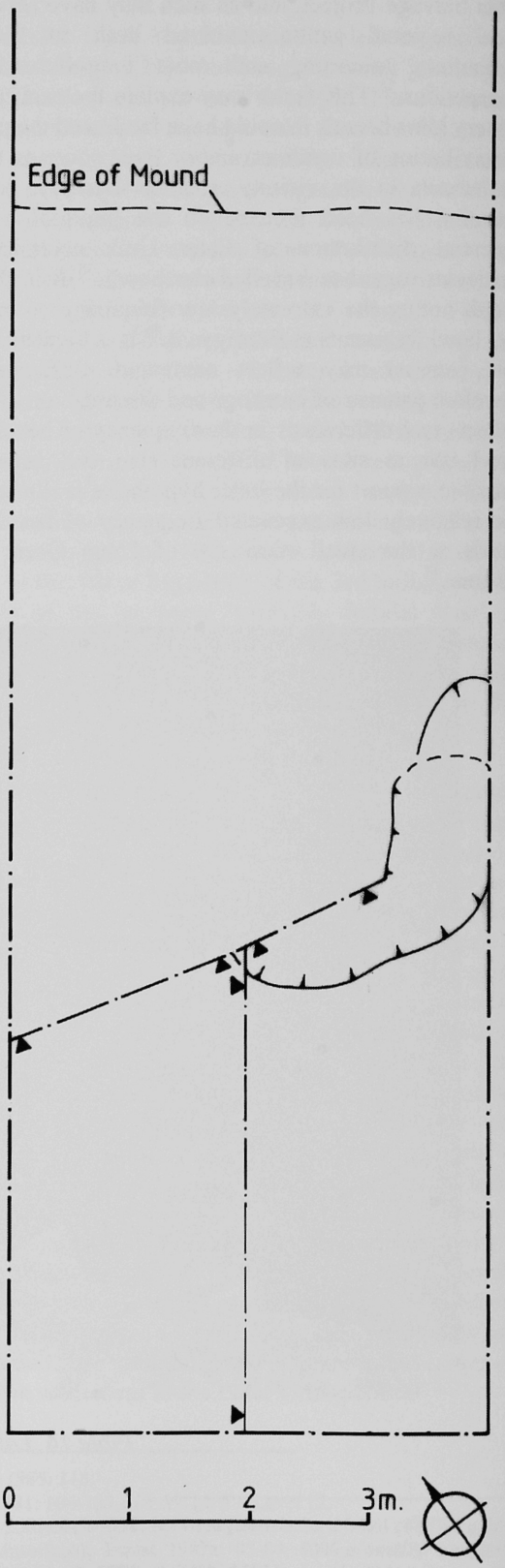

Fig 27 Period 6 Ninevite 5 pit in [M]

[1] Adil 1981: 87-89, figs. 14-16; Yunis 1981: 101, 102, 107, 111, pls. 3-4 = Levels 8-11.

continuity in the use of this space from the Later Uruk period.

The only excavated feature belonging to the Ninevite 5 period was a pit in [M1]. More of this feature originally lay within the area of [M1] but the top had been truncated in Period 7 and a large portion destroyed during later terracing in Period 11. The re-deposition of some of this material at the foot of this terrace-cut/wall may account for a baked clay cylinder seal <697>, an impressed sealing <698>, and Ninevite 5 pottery, including incised finewares, being found here.

Pit assemblages are particularly valuable in providing potentially 'closed' groups of material deriving from single or short-lived activity episodes. Despite its highly ashy fill, the sides of this feature were unburnt, suggesting that it was not a 'firepit' – as stated in the case of a Ninevite 5 feature excavated in Operation 1 at Tell Leilan[2] – but was instead a deliberate depository for cold wood-ash. The presence of animal-bone, broken utility wares and possible andiron fragments – yet the absence of industrial waste – implies that it was used for the disposal of domestic refuse. The occurrence of five impressed sealings raises interesting questions about the possible place of origin of this refuse: for instance, do they and the associated coarseware ceramic lids both represent discards following the opening of stored commodities? If the latter were known, it would be possible to reconstruct the actual season of this pit (but see below). However, it is possible that sealings are disproportionately highly represented in ashy deposits where they become accidentally baked, hence are more durable.

The small fired clay container,<544>, has been tentatively suggested as being a means of support on the ground for a spindle during the spinning of fine thread, such as flax or cotton.[3] It is interesting to note that in the case of the Uruk pit excavated at Tepe Sharafabad in Susiana, unbaked clay spindle whorls were found concentrated in ashy layers interpreted as late winter-early summer deposits, a season when there would be a greater availability of wool and plant fibres for spinning.[4]

Finally, the presence of some flint lithics in the ashy fill of this feature may be remarked upon, in the light of the suggested 4th millennium lithic pyrotechnology and the likely deliberate dispersal of sharp-edged waste in extramural refuse deposits.[5]

Otherwise, only a small quantity of Ninevite 5 pottery was recovered from the excavations: the stratified sherds comprised coarse and painted wares although a smaller quantity of incised wares was recovered from secondary contexts.[6] Nevertheless the seals add to a neglected aspect of 'popular glyptic' reflecting the cheapness of the raw material used to make the seal,[7] although the applicability of Ninevite 5 to glyptic has been questioned.[8]

General discussion

Abu Dhahir is one of 21 or more Ninevite 5 sites to be excavated in the Eski Mosul Dam Project. This period broadly corresponds to the first half of the 3rd millennium, or Early Dynastic 1-3A in southern Mesopotamian terminology.[9]

The fundamental sequence was obtained from Tell Mohammed 'Arab, which determined the gradual replacement of Painted Ninevite 5 by Incised Ninevite 5 wares, thus confirming earlier but less reliable data from the type-site of Nineveh.[10] Additional evidence suggesting a gradual transition in pottery style from the Later Uruk to Painted Ninevite 5 and from Incised Ninevite 5 to so-called 'Taya Ware' (i.e. late ED3 or Akkadian) periods was also found.[11] The principal sequence was replicated at three other sites within this project, namely Tell Thuwaij, Tell Jigan and Tell Selal.[12]

Remains of domestic architecture were excavated at Tell Mohammed 'Arab, Tell Karana 3 and Tell Kutan.[13] An isolated mudbrick platform found at Tell Fisna was interpreted by the excavators as a possible altar.[14] A stone terrace wall was traced along part of the riverside of Tell Jessary,[15] and the settlements at Tell Jigan and Tell Selal are likely to have been extensive, yet no monumental remains were discovered at any of these sites. The excavated funerary data supports a picture of unexceptional rural settlement, as inhumation graves were excavated at Hatara, Tell Jigan, Tell Karrana 3, Tell Kutan, Tell Mohammed 'Arab and Tell Rijim.[16] A surprising result was the fact that all of the sites appeared to belong to small rural settlements, with few long-distance imports and no evidence for the level of social complexity typical of contemporary settlement in southern Iraq. In this respect it represents a complete contrast to the periods before and after.

[2] Schwartz 1988: 17.
[3] Pers. comm. Belinda Barratt, London 1986.
[4] Wright, Miller and Redding 1980: 274; see also above: Phase 5.3.
[5] Miller 1989: 80.
[6] Cf. Rova 1988: 166.
[7] A Later Uruk clay cylinder seal was found at Tell Mohammed Arab (Roaf 1984a: 153, pl. XIII. j-k; Collon 1988); a possible Ninevite 5 example was found at Nineveh and another, inscribed with seven lines of cuneiform in reverse, was excavated at Tell Taya (Reade 1971: 95-96, pl. XXV.b). Their southern Mesopotamian counterparts have been discussed by al-Gailani Werr (1988).
[8] Collon 2003; Parayre 2003.
[9] Ball and Wilkinson 2003.
[10] Roaf and Killick 1987.
[11] Rova and Weiss eds. 2003.
[12] Numoto 2003; Roaf 1988; Rova 1988.
[13] Roaf 1998b; Roaf 2003; Bachelot 1987; Forest 1987a; Forest 1987b.
[14] Numoto 1988.
[15] Fujii 1987b.
[16] Bolt and Green 2003; Bielinsky 2003; cf. Schwartz 1986.

CHAPTER 7

PERIOD 7: AKKADIAN

SYNOPSIS

Ancient settlement at Abu Dhahir reached its greatest physical extent during the Akkadian period. *In situ* remains were found in seven areas investigated, namely [H], [I1], [K2], [K3], [M], [S1], [T1]. The University of Mosul also found Akkadian remains in the centre of the mound. The occupation thus covered an area measuring at least 400 m east/west and 100 m north/south, a minimum of some forty hectares. This burst of building activity appears to have been short-lived and traces of violent destruction were found marking the end of this period in each of the excavation areas.

AREA H

Area H was located at the east end of the main mound approximately 40 m southeast of [T1]. Following partial collapse of the wadi-eroded section below a number of large potsherds were observed, belonging to large combed medium-coarse vessels lying flat on a level clay surface. Traces of burning in the form of reddened clay were seen in the section immediately above this pottery. The pottery resembled that seen in [I1], [K3], [M] and [S1] and thus appears to derive from a Period 7 destruction horizon.

TRENCH [I1]

A single Period 7 phase of domestic occupation was excavated in this sounding. This was the earliest period to be reached in this excavation area; it was marked by a destruction horizon, apparently followed by a break until further construction in Period 8.

Phase 7.1 CONSTRUCTION *(Figs. 28-30, 32)*

Sub-phase 7.1-1 Construction and use

Deposits (60), (61) Two consecutive heavily compacted bricky deposits, at least 25 cm thick, containing few inclusions and sloping down slightly to the south. It is likely that these represent the eroded top of an earlier period of occupation prior to construction in Phase 7.1.

Foundations (59) A deposit of densely packed rounded pebbles measuring 1-3 cm across and up to 10 cm thick in total, covered an area of 2.8 x 1.4 m., thickest towards the south end of the excavated area.

Wall (54) A 0.65 m (one course) wide row of large roughly shaped grey limestones including a reused limestone weight <705> were found laid horizontally in a line running approximately north/south for a length of over 3.50 m; these footings survived to a height of 0.60 m (two courses).

Paving (55) An area of large grey limestone paving was laid to the east of these footings, raised 0.15 m above the bottom of, but ca 0.10 m below the top of (54).

Floors (56), (57), (58) A sequence of three or more approximately level moderately compacted dark grey clay layers (56)A-C, to the west of and running up to the wall (54). Each was 1-2 cm thick and rested on a layer of light yellowish brown slightly sandy clay (58), 3-5 cm thick. There appeared to be a thicker buildup of these deposits towards the south; finds included a small complete greenish yellow fired brick (7.5 x 7.5 x 4 cm), joining fragments of a possible limestone mortar <702> and three fragments of *tannur* (with a possible drip of asphalt on the interior).

Hearth An approximately circular area of dark brown burnt clay, 0.60 m across and 8 cm thick and covered with a thin layer of dark grey/black ash was found 0.40 m from the nearest edge of (54) and associated with (56)A.

Sub-phase 7.1-2 Destruction

Deposit (52) A 5-50 cm thick light brownish yellow clay deposit covering an area of 3.5 x 1.6 m was slumped over (54)-(57) and contained a series of lenses sloping downwards to the south. Containing some burnt mud-brick and *tannur* fragments, this was noteworthy for a number of large potsherds belonging to several large combed vessels. These lay smashed *in situ* over an area measuring at least 1.40 x 0.75 m. Four small plain pottery cups were found near the south edge of this scatter, <666>, <667>, <668>, <669>; additional finds were a smashed fineware bowl <675>, a limestone vessel <731>, and a long flat stone pestle? <827>.

Ashy deposit (53) A 3-5 cm thick deposit of dark grey/black ash sloped down sharply to the south/southwest, covering an area of 2.0 x 0.60 m and partly sealing (52).

Deposit (73) [=(49E)] A heavily compacted light grey-brown clay deposit covered the entire excavated area, measuring up to 15 cm thick with a relatively level but evidently weathered surface.

TRENCH [K2]

A single phase of possible Period 7 activity was found in this limited excavation area, followed by a break until Period 8.

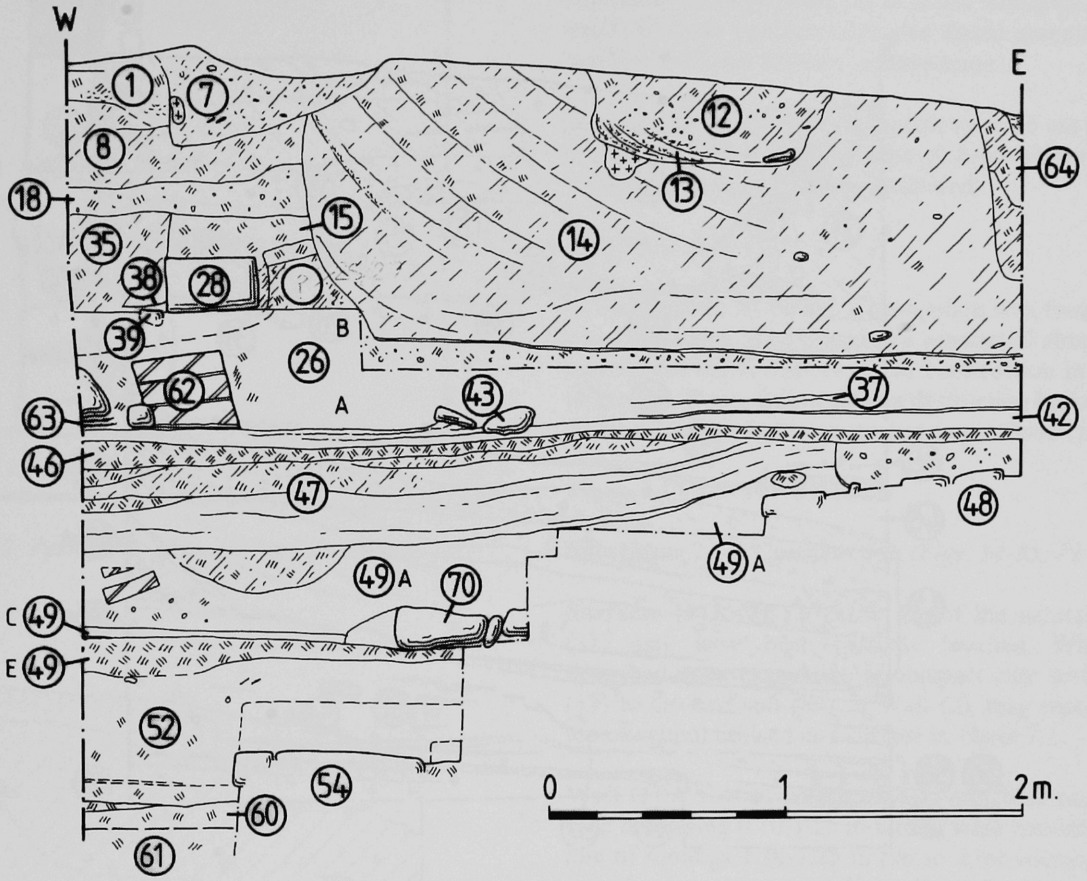

Fig 28 Main north section in [I1]

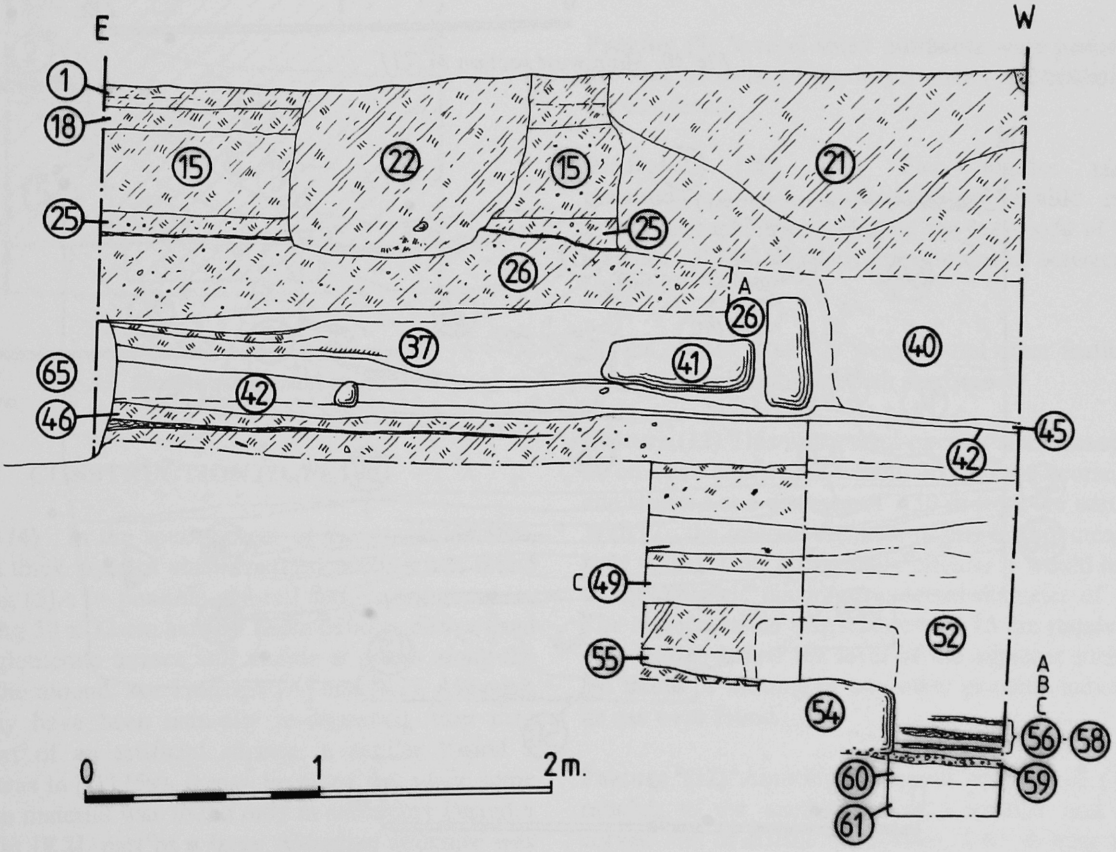

Fig 29 Main south section in [I1]

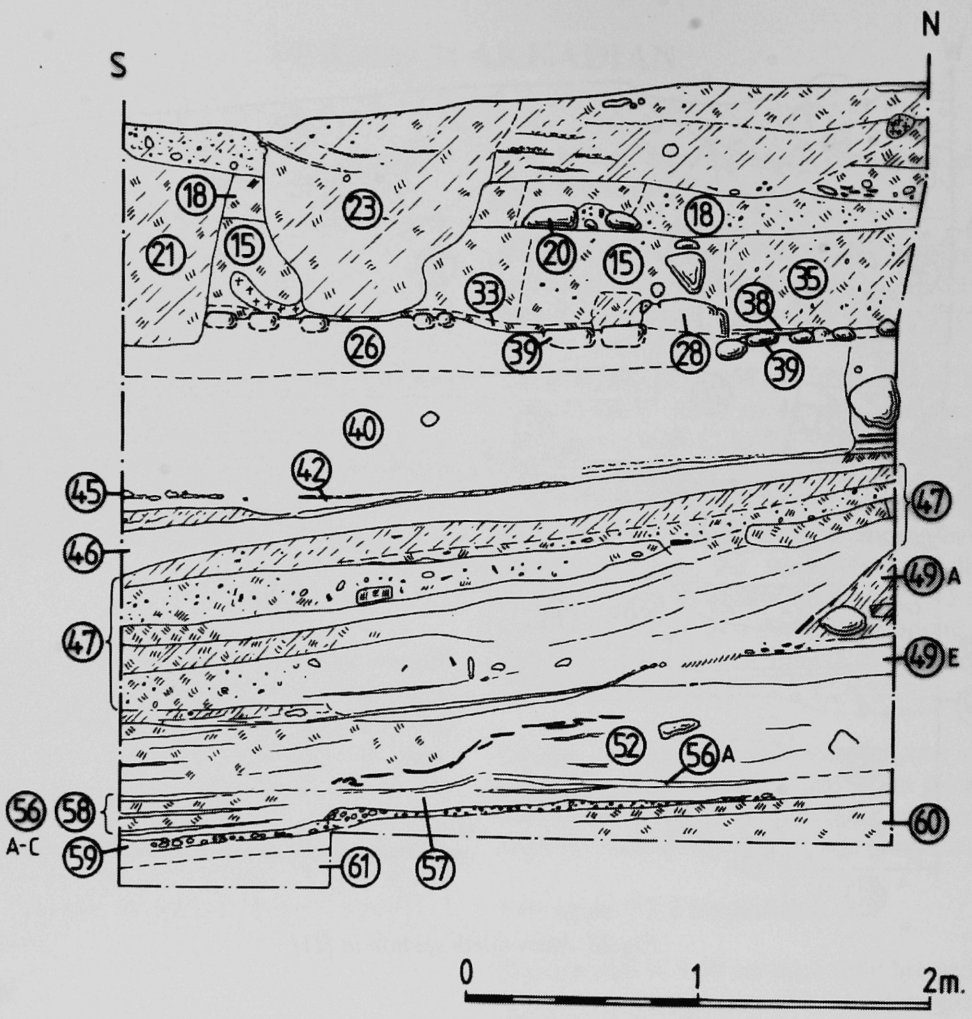

Fig 30 Main west section in [I1]

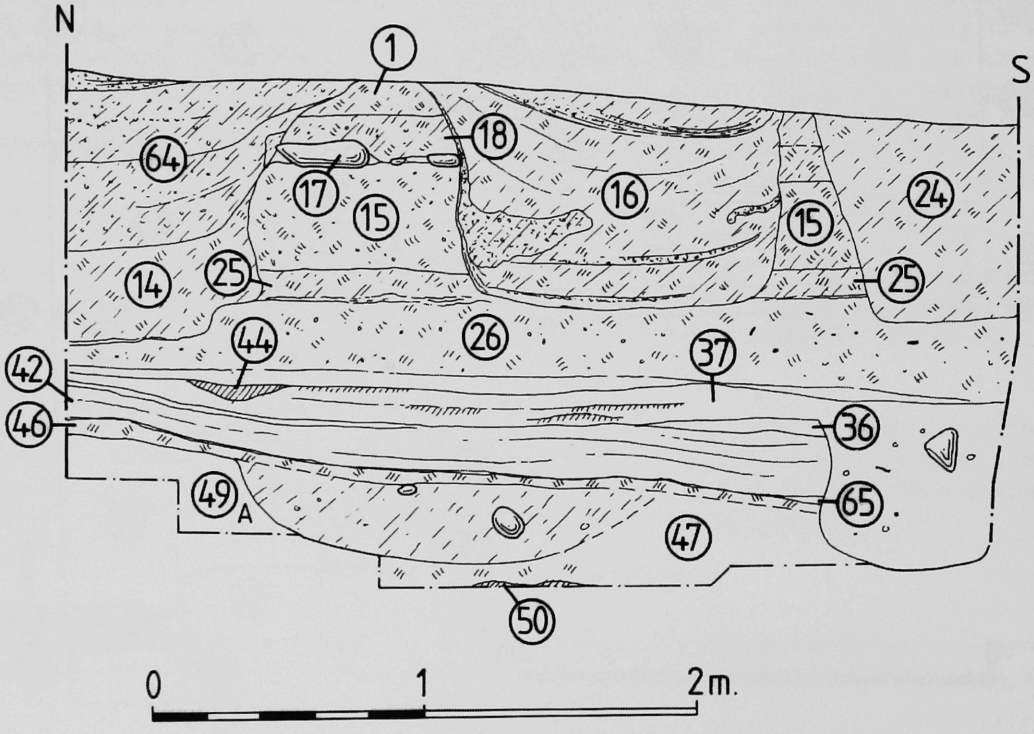

Fig 31 Main east section in [I1]

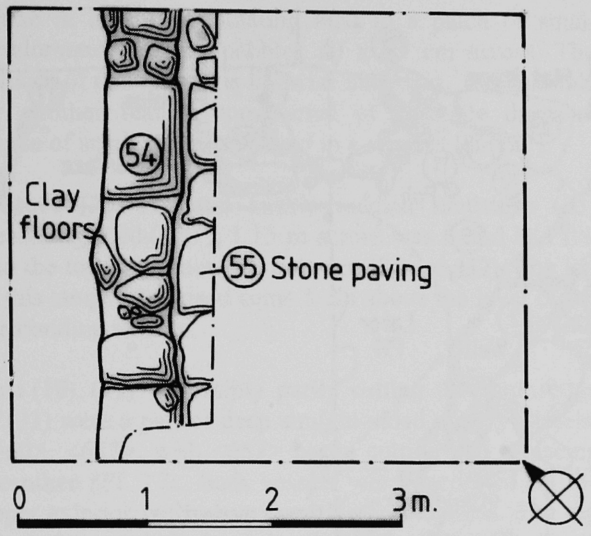

Fig 32 Period 7.1 Akkadian wall footings in [I1]

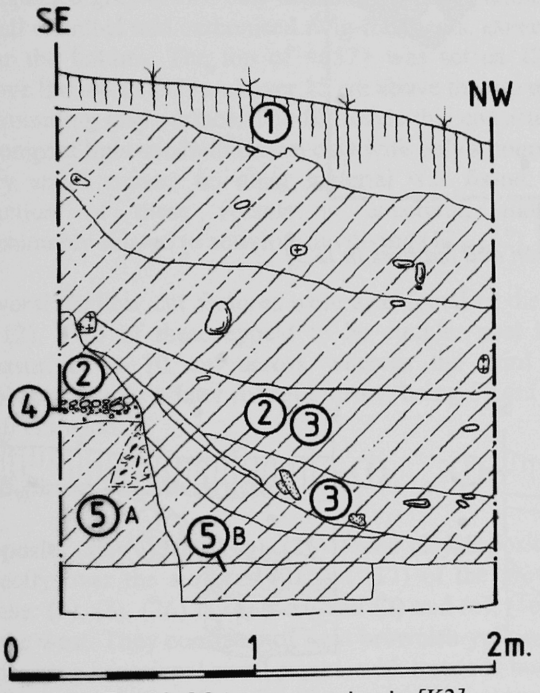

Fig 33 Main west section in [K2]

Phase 7 CONSTRUCTION (?) *(Fig. 33)*

Pebbles (4) In the south corner of the excavated area, an 8 cm thick layer of small rounded pebbles was found overlying (5)A [= possible natural] and covering an area measuring 50 x 32 cm across. These pebbles derive from the conglomerate terrace still visible at points along the foot of the mound: see Trenches [A] and [K2]. Although they may have been naturally re-deposited, they may form part of an artificial surface; a similar Period 7 deposit was in [I1] (59). It may be noted that while some Akkadian material was found only in secondary Period 8 pit fills in [K2], part of a large Akkadian structure was excavated in [K3], some 30 m to the southeast. A small patch of these pebbles were also found associated with small constructed features in these areas.

Deposit (2) A grey sandy deposit up to 36 cm thick and sealing (4). The nature and date of deposition of this are uncertain; no artefacts were recovered.

TRENCH [K3]

A single phase of Period 7 occupation was found in this excavation area: it belonged to a substantial structure that represented the first evidence of construction in this part of the site. It was followed by a destruction horizon and a phase of erosion before re-occupation in Period 8.

Phase 7.1 CONSTRUCTION

Sub-phase 7.1-1 Construction *(Figs. 34-35; Pl. 17)*

Surfaces (31), (9), (17) The top of the natural deposit (31) may have been partially levelled. What were described upon excavation as compact clay surfaces (9), (17) to the east and west of Wall (2), may represent the top of natural utilised as a surface in Phase 7.1.

Wall (2) A row of friable reddish-grey/blue sandstones, each measuring 0.10-1.25 m across, were constructed as a line of footings 1.10-1.25 m (up to three courses) across and running approximately north/south, surviving to a height of 40-60 cm (up to two courses).

Packing (7) Several small potsherds were packed along the base of some of the larger stones, particularly along the east face.

Buttresses (28), (29) Two regular rectilinear constructions, also constructed of friable red and grey/green sandstones, abutted the west side of (2) at a distance of 2.90 m apart; they measured between 80-95 cm across.

To the east of Wall (2) were several other features also constructed of friable reddish sandstones:

Feature (12) This was a semi-circular stone construction, 30 cm (two courses) in height, 30 cm (one course) across and situated at a distance of 1.50 m from the east face of Wall (2); the internal diameter of this feature measured at least 0.80 x 1 m: if originally circular it would have had an approximate maximum external diameter of 1.70 m. The surface inside this feature was 15 cm (equivalent to one course) below the level of the adjacent surface (9). No traces of burning or any other possible indication of its use were found.

Feature (32) Abutting the south exterior of (12) and running to the southeast, was a smaller and slightly curved line of friable sandstones, 1.05 m long and one

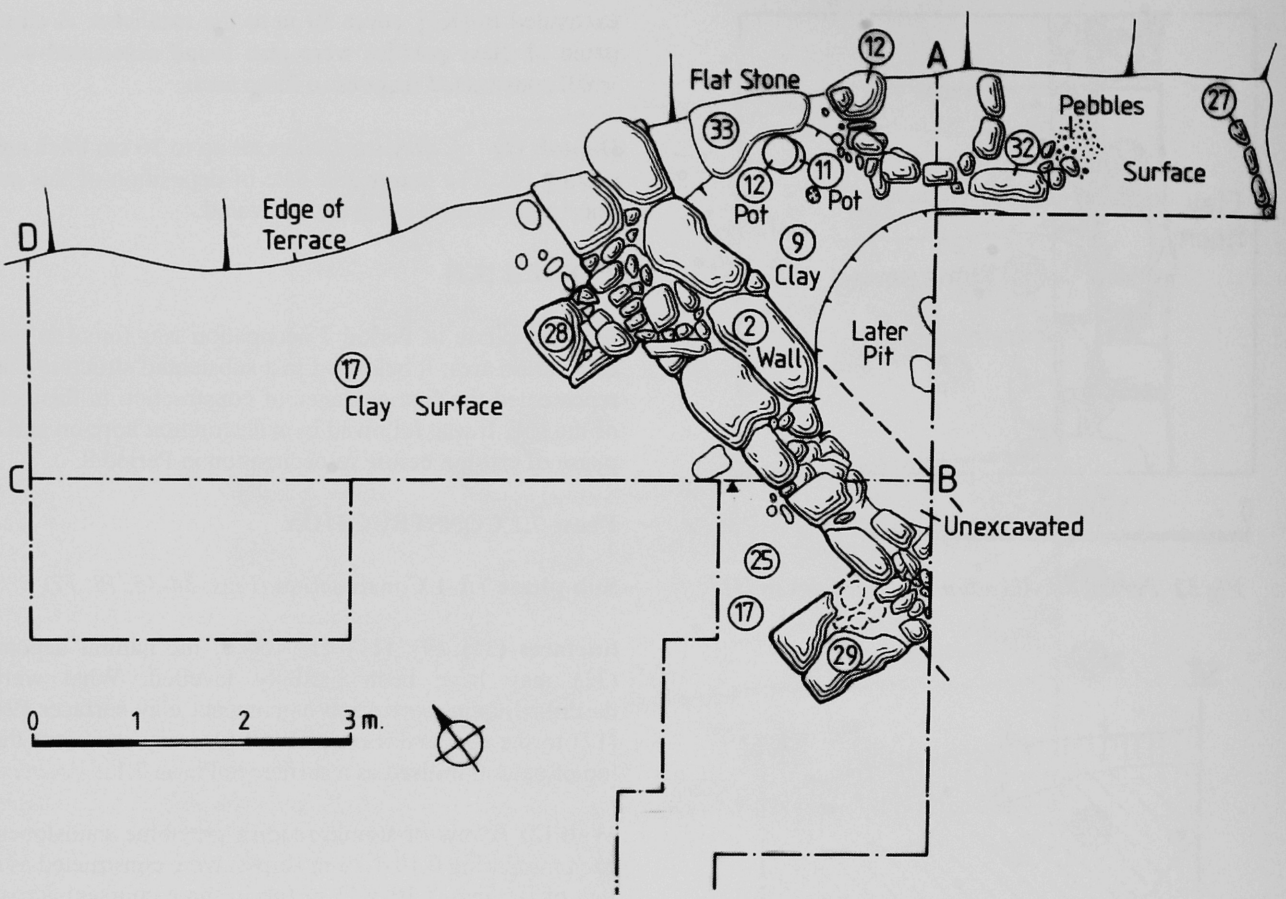

Fig 34 Period 7 Akkadian construction and features in [K3]

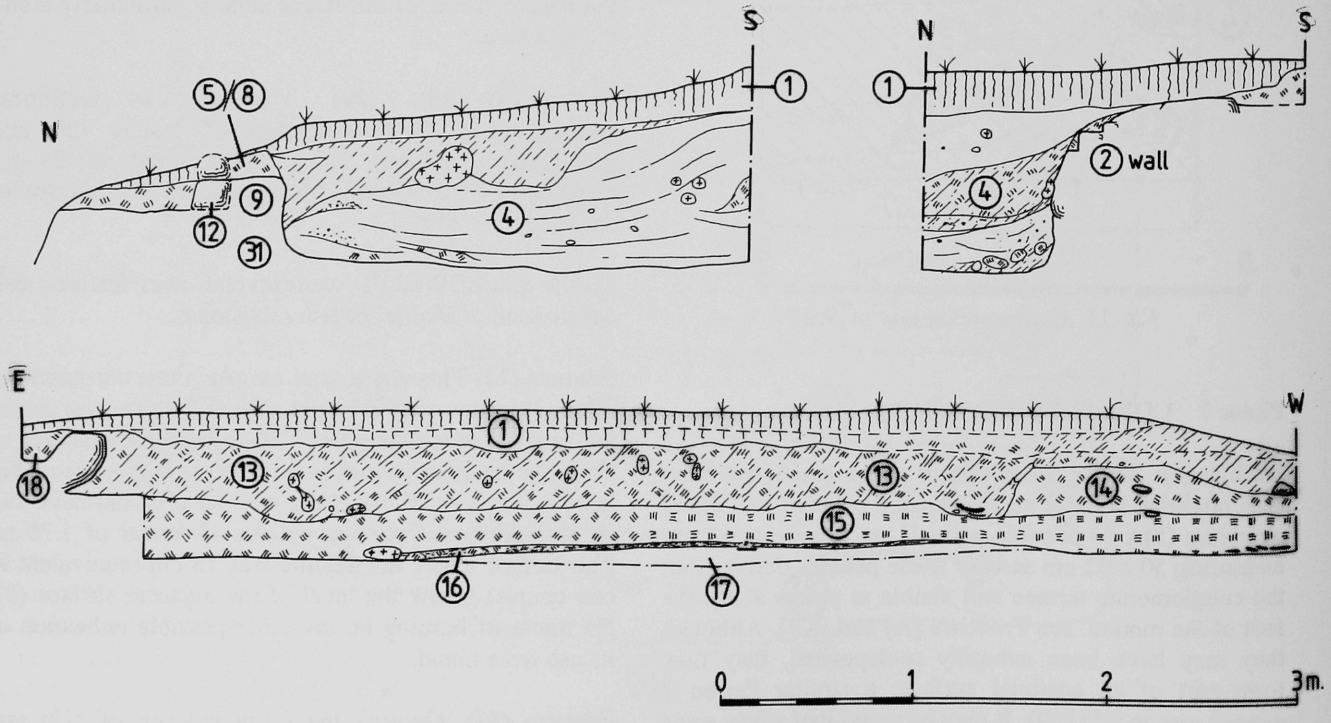

Fig 35 Main east and south sections in [K3]

course in height, terminating next to a patch of small conglomerate-derived pebbles 50 x 35 cm across. The purpose of this feature is likewise uncertain.[1] Beyond this lay another feature constructed of a single drystone course of small stones arranged in a straight line (27).

Feature (33) A large friable reddish sandstone (33) measuring 0.40-0.70 x 1.15 m across was found laid flat into the top of surface (9), between (2) and (12). The top of this stone was raised some 5 cm above the level of the surrounding surface.

Pots (10), (11) Possibly partly cutting the south edge of (33) were a pair of deep straight-sided pottery vessels, <660>, <657>, with <657> partly cutting and replacing the other *(Pl. 17)*. Both vessels were decorated on the upper exterior with wavy combing and incision. The top of <660> was just about the flat stone (33) to the north and just over 5 cm above the level of the adjacent surface (9). The fill inside this vessel consisted of a moderately compacted grey-brown clay deposit containing numerous small charcoal and carbonised twig fragments, especially near the bottom. The top of <657> was set ca 12 cm above the top of (33) and over 15 cm above the top of the surrounding clay surface. The fill inside this consisted of a compact light-medium brown clay with only a couple of very small stones; no other material was found. The function of these vessels is uncertain, although presumably related to activities involving (12), (32), (33).

Several shallow cut features were also found to the east of (2). Two of these appear to be circular post holes measuring ca 10 cm across whereas the third was probably simply a later rodent burrow, being 55 cm long x 10 cm wide.

Sub-phase 7.1-2 Destruction

Deposits (5), (6), (8), (16), (26) These clay deposits lay directly over the surfaces (9) and (17) of the previous phase: (5), (8), (26) lay east of wall (2) and (6), (16) lay to the west. They consisted of light brownish-yellow clay containing occasional small stones, with traces of burning over part of the deposit. These deposits varied in thickness from 10-20 cm to the east of wall (2), to ca 5 cm in the southwest part of the excavated area. Large quantities of large potsherds were found lying smashed and scattered across the top of surfaces (9), (17). These contexts also produced a large number of jar fragments, often decorated with combing and notched relief bands, medium-large bowls, basins, pot-stands and a small amount of grey burnished wares; finewares were rare. One Period 7 sherd belonging to a vessel decorated with an applied snake was found in a secondary context. A small number of residual Period 5 types – such as bevelled-rim bowl sherds – and some intrusive Period 8 sherds were also recovered, mainly from the east end of the excavated area where pottery was generally more frequent. Other finds included fragments of basalt grinder <715>, some lithic and animal-bone, including a complete rodent skull intrusive near the top of (26).

Rubble (18) The top of wall (2) was disarranged and some stone rubble (18) was found lying nearby. A presumably reused stone weight <709> was found in the loose rubble at the top of wall (2).

Sub-phase 7.1-3 Erosion

Deposit (15) Sealing the top of these earlier deposits, to the west of (2) was a 10-15 cm thick compacted light grey-brown clayey deposit containing occasional lumps and fragments of mud-brick. The surface of this was undulating, but sloped down gradually from east to west. Artefacts were scarce, and derived from near the wall face of (2), where – undetected – rodent activity may have introduced other material. The appearance of this deposit is consistent with dissolved mud-brick, probably derived from above the stone footings (2). The location of this material to the west of (2) may be explained by it having collapsed in this direction. The top of this context appeared to be eroded and weathered, probably indicating a break in occupation of this area.

TRENCH [M]

Two phases of Period 7 occupation were recovered in this area, the first with possible evidence for a destruction horizon. This occupation marked a break in earlier use of this area of the site for refuse-dumping in Periods 5 and 6. The top of the Period 7 deposits were truncated by Period 8 construction.

Phase 7.1 DOMESTIC ARCHITECTURE

Sub-phase 7.1-1/2 Construction and destruction *(Figs. 5, 36; Pl. 18)*

It is possible that all upper Later Uruk and Ninevite 5 deposits were partially levelled within the excavated area of [M1] during this period or phase; these deposits had certainly been lightly truncated on one side of [M1] (59)A.

Wall [M1] (59)A A north/south line of predominantly friable reddish or grey sandstones, between 40-80 cm across, were laid against the face of a shallow vertical cut. Smaller stones were used to wedge the crevices; construction materials included a reddish fired brick fragment (>10 x >14 x 9 cm.) and a large worn-out limestone grinder <778> placed upside-down with a pebble wedged into the hole in the base. The wall was at least 3.50 m (five courses) long x 50-65 cm (one course) across; it was preserved up to 48 cm (three courses) in height at the south end but was destroyed on the north by

[1] For the use of such pebbles in construction see [I1] Phase 7.1(59); [K2] Phase 7.1 (4); [M] Phases 8.2-3; University of Mosul Area A.

the Period 10 terrace wall and extended beyond the trench limits to the south.

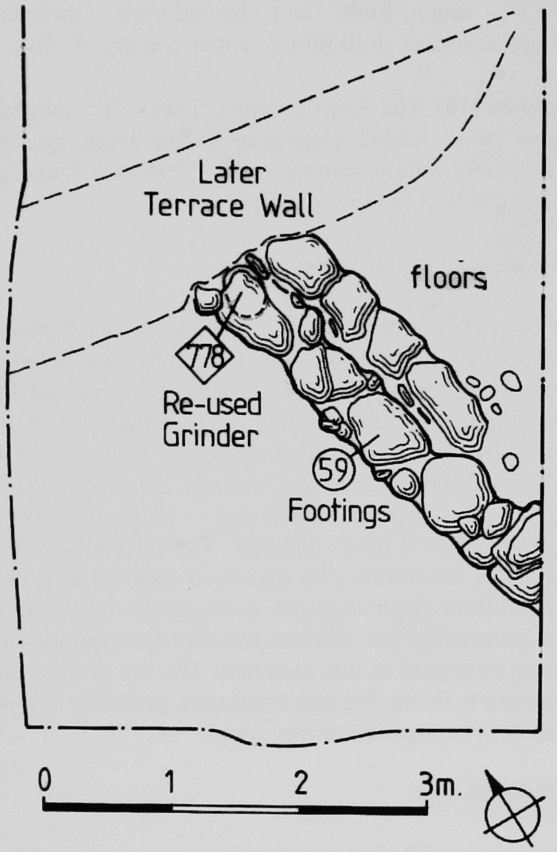

Fig 36 Period 7.1 Akkadian wall (59) in [M1]

Floors [M1] (64), (61), (63) The area east of these footings was marked by a build-up of roughly level moderately compacted light brownish clay floor surfaces (64) and (61), interspersed with thin layers of bluish-grey silt (63), 1-5 cm thick. These deposits were better preserved at the north end of the excavated area, to a maximum depth of 14 cm. They were interpreted as floor surfaces with thin occupation deposits. They were contemporary with the initial use of wall (59)A to the west. A small quantity of potsherds and animal-bone was found associated with these floors. One floor surface was marked by a scatter of joining fragments of several small plain and grey burnished bowls. These lay within a thick dark grey/black ashy deposit containing flecks of burnt orange mud-brick and charcoal. Despite the very limited size of the excavated area, this appeared to belong to a destruction horizon.

Sub-phase 7.2-1 Reconstruction

Wall [M1] (59)B The wall (59) was widened on the east side through the addition of this second course of stones placed directly above the destruction horizon. Several large potsherds – including the rim of a combed medium-coarseware jar with combed decoration – were incorporated as packing between the stones; it is possible that these also derived from the layer beneath. Further surfaces were presumably associated with this phase although they were excavated together with the overlying Sub-phase 7.2-2 deposit (60).

Wall [M1] (102) Possibly at this stage and prior to deposit (60), the south end of wall (59) was incorporated into this construction *(Fig. 5)*. This measured at least 1.30 m across x 1.50 m in height and was constructed of heavily compacted light brownish *tauf* with occasional small limestone inclusions, generally ca 5 cm across. A horizontal layer of light grey/white mud plaster(?) (102)B, 0.5-1 cm thick with a layer of large potsherds laid flat over the top, was situated 6 cm above the top of the highest preserved point of the stone footings (59).

This construction had been subsequently partly cut by the later walls (47) and (52) to the northwest, and pits (44) and (106) to the southwest. The original size, alignment and purpose of this *tauf* feature is uncertain. It seems to be contemporary with the Phase 7.2 structures and it may represent the remains of the wall that originally topped the stone footings of (59)B. The use of a layer of potsherds within the construction may have been to guard against the capillary rise of moisture into the wall above, a technique attested from Akkadian levels at Tell Taya.[2]

Sub-phase 7.2-2 Destruction

Deposit [M1] (60) The top of this phase was marked by a deposit of fallen and partly dissolved reddish brown mud-bricks (60), apparently limited to the area east of wall (59), the top of which was destroyed in later construction and pitting in Periods 8 and 10. The original brick sizes are uncertain. Although it is possible that later occupation surfaces were subsequently totally destroyed within the excavated area this deposit is provisionally interpreted as marking the end of this phase.

The area to the west of the structure was different in character to the internal area east of wall (59).

Sub-phases 7.1 – 7.2 External area

Deposits [M1] (45)A-C These deposits were excavated as spits and the material combined (see below: Chapter 8). They were recorded in section as a series of consecutive earth deposits, each essentially consisting of a slightly greenish brown clayey material, divisible into three major stratigraphic units, A-C, each ca 35 cm thick and totalling 1.12 m in thickness. The possibility of the top of this deposit having been at least partially flattened prior to subsequent Period 8 construction must be considered. The earliest and latest of these were interpreted on the basis of the section as deposited as single episodes whereas (45)B was characterised by a sequence of deposits separated by approximately

[2] Reade 1973: 167; cf. also Jacobsen 1982: 99.

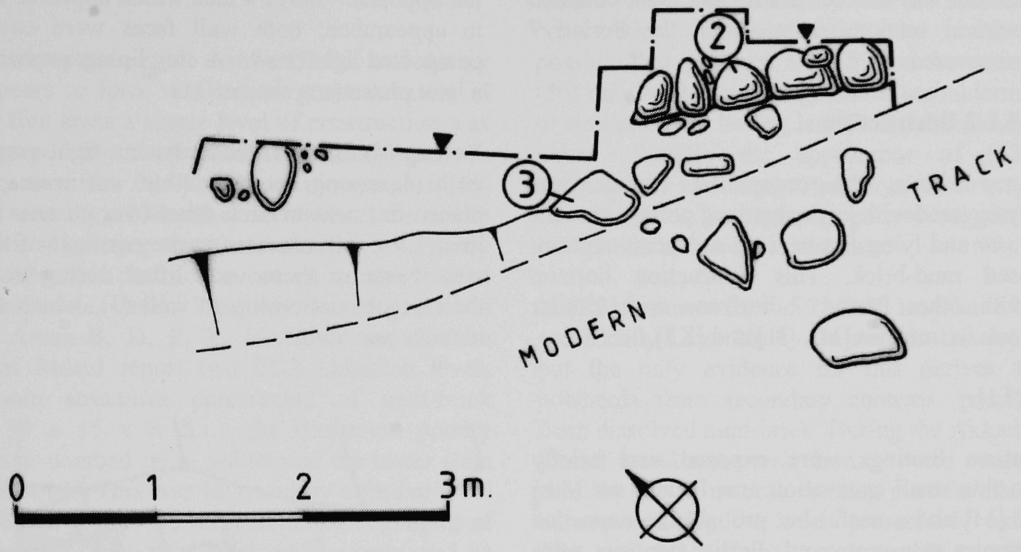

Fig 37 Period 7.1 Akkadian wall footings in [S]

horizontal surfaces at intervals of ca 5 cm which appeared to represent a more gradual accumulation. No proper floors, structural remains or other features were observed during excavation and it is likely that all of these were external deposits. In addition to pottery and vitrified clay, finds included a complete basalt grinder <728> from the west end of the excavated area, a possible limestone weight <792>, a small complete fired brick <529> (10.5 x 6 x 6 cm), and a small reddish brown fired brick fragment (10 cm thick).

Although it seems probable that at least some of this deposit must be contemporary with the use of the Period 7 building to the east, the stratigraphic relationship had been destroyed in subsequent phases, specifically by monumental construction in Period 8 and the Period 10 terrace wall. However, it does seem that the area west of the Period 7 structure was external throughout its deposition and use.[3] Bearing in mind the possible subdivision of (45) into A-C, the two most likely stratigraphic reconstructions are as follows:-

(1) Some/all of it is contemporary with the Period 7 structure immediately to the east. If so, there would have been an initial difference in elevation of 50 cm between the (internal) area to the east and the (external) area to the west. The minimum difference between the tops of the relevant surfaces east and west of wall (59) is ca 1.25 m although there is admittedly an element of uncertainty as to whether these deposits had been at least partially truncated in subsequent phases. This difference in height between tops of levels need not necessarily indicate that some/all of (45) is not contemporary with (59).

(2) Some/all of (45) is later than Phase 7.2. This hypothesis may also regard at least some of the Khabur pottery in (45) as not being intrusive from (47): however, as this context clearly pre-dates (47) (see below: chapter 8), this would make at least the upper part of (45) the earliest Khabur phase in [M].

It is probable that at least part of (45) is contemporary with Phase 7.2 whereas the uppermost portion is tentatively assigned to Phase 8.1 (see chapter 8). This highlights a problem over the interval of time between the Period 7 and Period 8 occupations. There was certainly some continuity of occupation and rebuilding in [M] after a destruction horizon yet uncertainties remain as to when this structure finally went out of use, whether this marks a break in the occupation of the site, whether the top of these Akkadian deposits remain *in situ*, and when Period 8 commenced.

TRENCH [S1]

Phase 7.1 CONSTRUCTION *(Fig. 37)*

Sub-phase 7.1-1 Construction and use

A flat surface was observed in eroded sections here associated with possible stone wall footings and collapsed mud-brick. Large amounts of pottery belonging to large plain and combed jars were found resting on this surface, sealed by later collapse. The elevation of this horizon was ca 91.5 m., or only 1 m below the surface of the mound at this point. A limited area measuring 4.65 x 1.00 m across was cleared in order to trace possible stone wall footings exposed on the surface; these may have been of Period 7 date but no satisfactory dating material

[3] Unfortunately, all material from this context was mixed with an unknown quantity from a later Period 8 foundation trench. Thus potentially any of the finds from [M1] (45) – with the exception of <728> (see above) – may actually date from a later period than that of the context.

was recovered nor was a direct stratigraphic link obtained with the exposed sections from which the Period 7 pottery was recovered.

Sub-phase 7.1-2 Destruction

As mentioned above, the occupation surface was subsequently covered with large sherds of pottery vessels, smashed *in situ* and lying flat beneath a deposit of burnt and collapsed mud-brick. This destruction horizon compares with other Period 7 horizons with similar combed vessels in trenches [M], [I1] and [K3].

TRENCH [T1]

Period 7 stone footings were exposed and briefly excavated in this small excavation area located ca 34 m southeast of [M] and a useful but probably re-deposited body of ceramics was recovered. Earlier deposits were not excavated; the footings appear to have been remodelled in Period 13.

Phase 7 CONSTRUCTION *(Figs. 38-39; Pl. 19)*

Footings (3) A row of light grey limestones, each between 50-70 cm across, were found set in a line running northeast/southwest into the south section. They measured 70 cm (one course) across x at least 75 cm (three courses) in height. It is uncertain if the bottom of this wall was reached, but the lowest excavated course of stones proved to be offset on the south side by up to 10 cm from the ones above. This level was not reached along the opposite – north – face which appeared to be rougher in appearance; both wall faces were covered with a compacted light brownish clay lining, probably applied in a later phase (see chapter 11).

Paving (4) Up to fifteen adjacent light grey limestones, each measuring between 20-90 cm across, were found placed flat next to each other over an area measuring at least 1.8 x 2.8 m across in the east half of the excavated area. None of these were lifted during excavation and their exact relationship to wall (3), which they abutted, remains uncertain.

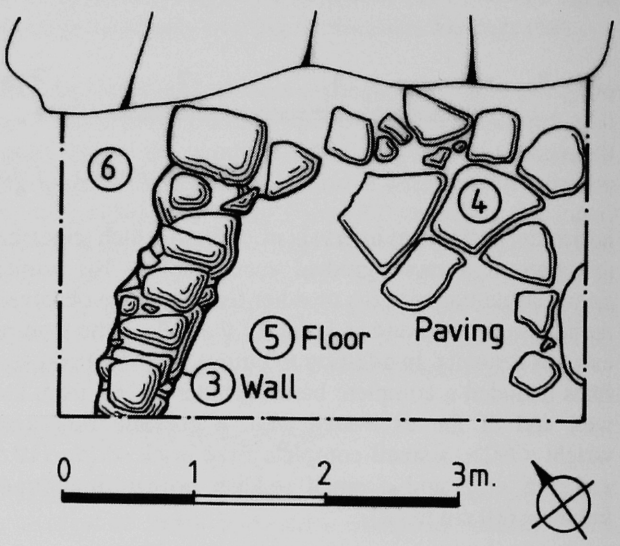

Fig 38 Period 7 Akkadian remains in [T1]

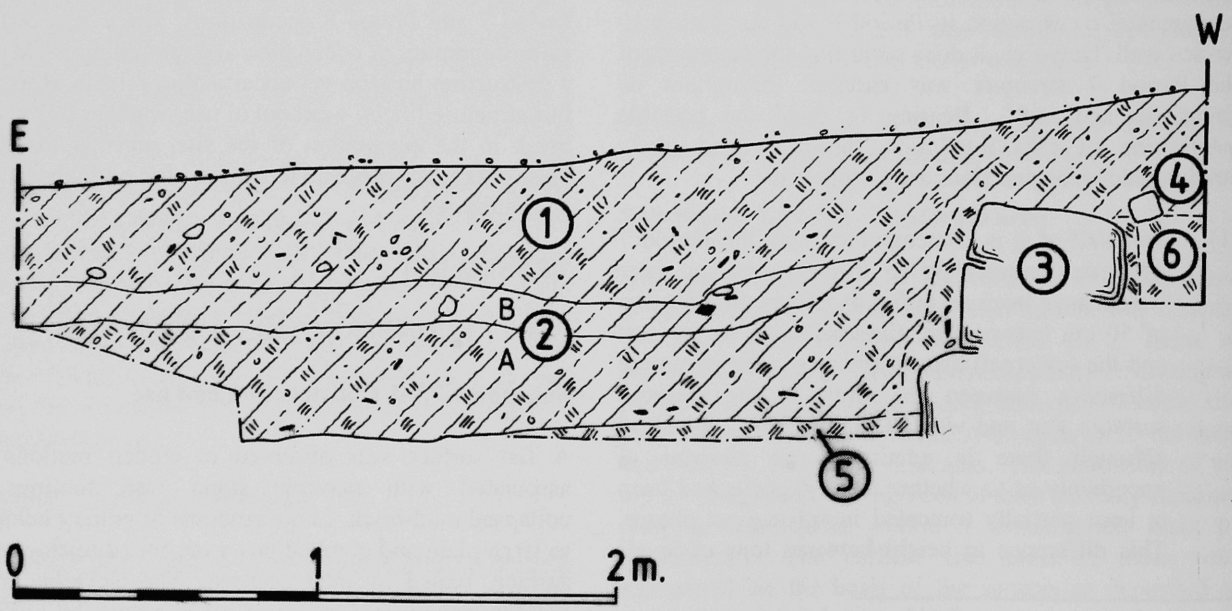

Fig 39 Main south section in [T1]

DISCUSSION

This was an important period at Abu Dhahir and during which it appears to have reached its greatest extent in antiquity. In five areas a single level of construction was found, followed by destruction and abandonment; evidence for more than one phase was recovered in [M] and in the University of Mosul excavations at the centre of the mound, suggesting that the settlement was partly rebuilt soon after this destruction but on a more limited and contracted scale. Period 7 pottery was recovered in quantity in Areas B, D, E, F, H, O, R and S. The University of Mosul report two ED3-Akkadian levels with one-room structures constructed of mud-brick (measuring 30 x 15 x 8 cm.); the illustrated pottery include a wavy-combed jar, a goblet and the lower stem of a pedestal bowl.[4] This was followed by a further level dating to the end of the 3rd millennium or beginning of the 2nd millennium with mud-brick walls constructed on pebble foundations: reported finds include clay figurines (including one of a hedgehog), toy wheels, ground stone, metal blades and weapons, a conical clay stamp seal, a crude stone human figurine found within a jar, colanders and a stripy-painted footed vessel.[5] The contraction of occupation following a short-lived phase of growth underlines the point that important sites may have been periodically ringed by suburbs or 'outer towns' at times of urban growth but traces of these may be easily overlooked through survey or excavation.[6]

The beginning of this period was marked in [I1] by the deposition of a layer of stones to act as a bedding course for a row of substantial stone wall footings with stone paving laid on one side and a number of consecutive clay floors deposited on the other. The latter are the only indication for how long this structure was used, with a probable minimum of several years. The burnt area west of the stone footings could be the remains of a small hearth (but see also below: Phase 7.2).

These layers mark the destruction of Phase 7.2. The lack of any *in situ* mud-brick suggest that any such walls in this area had been pushed over and eroded; the occurrence of most of the pottery smashed *in situ* on a slope within this deposit rather than on a floor suggests that they may have fallen from the roof or an upper storey or that there was some disturbance of the collapse through scavenging immediately after the destruction. An alternative hypothesis, based on observations of abandonment processes, is that water jars originally supported on wooden frames may become incorporated into room fills rather than deposited directly onto floor surfaces owing to a more gradual decay of their surroundings.[7] In any case the preservation and variety of finds exclude the possibility that the vessels had formed construction materials within the architecture. It is possible that the burnt area (57) on the underlying floors (56) may be due to a fragment of smouldering roof beam or similar object having landed and discoloured the floors below. Finally, the appearance of (53) with its decomposed and compacted physical structure and with the change in stratigraphy above, suggest a break in occupation of uncertain duration.

In [K3], prior to Period 7, there may have been some – specifically Later Uruk – activity in this area of the site but the only evidence for this derives from a few potsherds from secondary contexts, possibly deriving from dissolved mud-brick. During the Akkadian period, a line of broad stone wall footings were constructed on or near the top of natural, running north/south with regular buttresses along the west, presumably external, face.[8] This wall (92) originally presumably supported a mud-brick construction but no traces of this survived. Immediately to the east of this wall, in what was presumably an open courtyard, were a number of installations consisting of low curved stone walls, a large flat stone work-surface, a pebble scatter, possible post holes and two pots set into the ground, perhaps used as water jars. The stone work-surface recalls a feature found in a much later potter's yard at Khirbet Qasrij and features traditionally used in Near Eastern villages for food preparation and other domestic activities.[9] There were light traces of burning in this area but no industrial remains were found, nor were any *tannur* fragments recovered. The compacted appearance of the tops of the clay surfaces or 'stamped clay floors' either side of this wall probably resulted from daily use, sweeping and exposure to the elements.[10] With the destruction of this level, a large quantity of pottery was found: most was from large-medium sized vessels such as jars. Finewares were rare and apart from a couple of basalt grinder fragments, small finds were absent.

The size and nature of this structure are uncertain although it seems likely that it was both utilitarian – at least within the excavated area – and substantial. The relationship to the rest of the occupied area of the site is unclear. The duration of Phase 7.1 is likewise uncertain but may have been relatively brief as there does not seem to have been any significant accumulation of deposits prior to destruction. The destruction of this structure parallels that seen in the other excavated areas for this period.

The line of wall footings and stone paving in [T1] are probably contemporaneous in use if not in construction. This is supported by the fact that the top of the offset course along the south face of the footings corresponds in

[4] Adil 1981: 86-88, 91, 93, figs. 12-13, 21: no. 32, 31: no. 37; Yunis 1981: 101, 106, pls. 2, 3 = Levels 6-7.
[5] Adil 1981: 86-87, 91, 95, figs. 11, 22b: no. 19, 23b: no. 14, 36h; Yunis 1981: 101, 106, 110-11, pls. 1-2 = Level 5.
[6] Reade 1982: 77.
[7] Seeden 1985: 296.
[8] The building technique of using sandstone is paralleled at Abu Dhahir in [M] and University of Mosul Area A level 1.
[9] Curtis *et al.* 1989: 22, figs. 15-16, pl. VIa; Seeden 1985: 294, pl. 15.
[10] Seeden 1985: 290.

elevation to the top of the paving, suggesting that the latter originally ran up to the south face of the footings. The nature of the construction on the north side of these footings is uncertain: another offset course could be anticipated in the case of further paving. On the other hand, in [I1] Phase 7.1 a line of stone wall footings were found with stone paving to the east and a sequence of clay floors to the west. The original width of the footings in question in [T1] is not clear. They have the appearance of having originally been two courses wide, with the northernmost having been subsequently removed. This highlights the date and purpose of the clay lining on both wall faces (see chapter 11). The date of the construction of [T1] Phase 7.1 is not certain as the associated pottery appears to have been re-deposited during Period 13.

The destruction of the Period 7 settlement at Abu Dhahir is a feature shared by other settlements along this part of the river valley. Traces of destruction horizons with smashed Period 7 pottery lying in ashy burnt horizons have been noted at Tell Shelgiyya and Tell Musaifna (personal observation). It is possible that these destructions therefore result from a single military campaign or series of rapid raids along the river valley: the similarity of the pottery from Abu Dhahir to published pottery from level IX at Tell Taya suggests that this event (or events) falls within the late ED3 or Akkadian period when similar destruction levels are archaeologically attested as far as Tell Brak, Mari and Ebla).[11] However, it is unclear whether these events were directly caused by historically attested campaigns by the Akkadian rulers Sargon, Rimush or Naram-Sin, or whether they reflect wider instability in this region during this period. It is also important to note that analogy with the burnt destruction of the Period 19 village at Abu Dhahir suggests that it will be difficult in many cases to distinguish archaeologically between levels that are sacked through enemy action and occupation that is abandoned, scavenged and burnt for other reasons (see below: Chapter 12). The mid-3rd millennium is marked by rapid development of urban settlement across north Mesopotamia.[12] However the periodic creation and abandonment of these late Early Dynastic and Akkadian 'new towns' in upper Mesopotamia, including Rimush's foundation of a settlement near Nineveh with his name,[13] may have been a fluid process whereby some settlements were rapidly expanded as a result of new political patronage but could not be sustained in the longer term.

Investigations within the Eski Mosul Dam Salvage Project have added considerable new information on this period although problems remain over the determination of and distinction between Akkadian and late Early Dynastic, Ur-III and even early Khabur material.[14] The most important Akkadian site found within the area of the Project appears to have been Tell Jigan, where traces of substantial stone architecture were found at several points on the mound. This settlement appears to have been enclosed on the landward side by a stone fortification wall rising from the edge of a steep-sided defensive ditch, from which large quantities of Akkadian pottery were recovered from the rubbish infilling.[15] Important Akkadian occupation levels were found at the substantial mounds of Tell Selal and Tell Seh Qubbat, although the extent of the Akkadian occupation at both is uncertain.[16] An extensive area of unpublished mud-brick domestic architecture was excavated by the University of Mosul at Tell Thuwaij, the date of which was confirmed through soundings excavated by the Japanese Archaeological Expedition.[17] Remains of this period were also found at Tell Fisna, Hatara, Tell Jessary and Siyana Ulya; two sandstone moulds for casting metal ingots and tools were also found in an Akkadian level at Tell Karrana 1/2.[18] Plainware pottery production was proved through the discovery of pottery kilns at Tell Jigan, and wasters in the form of plainware bowls with rolled-over rims, comparable to examples published from Tell Taya Level VIII, were excavated at Tell Seh Qubbat;[19] the place (or places) of production of the exceptional Akkadian stoneware remains enigmatic however. Finally, several types of grave, varying from adult and child inhumations to multiple secondary burials within larger stone-built tombs, were excavated at Tell Fisna, Tell Jigan and Tell Karrana 1/2: many of these contained intact pottery vessels, cylinder seals, beads, shell rings, lead earrings, copper alloy circlets and weapons.[20]

In addition to the bowls mentioned above, the Period 7 pottery generally found close parallels with wares published from levels IX and VIII at Tell Taya. These included black burnished wares which appear to have been more popular in the Khabur basin; plainware jars with pinched quatrefoil rims, vertically pierced barrel lugs and wavy-comb incised decoration below the rim; and fine stoneware beakers and bowls.[21] A single sherd, found in a later context, belonged to a vessel decorated on the exterior with an applied snake.[22]

[11] Oates 1982: 65-66; Oates 1985; Matthiae 1977.
[12] Weiss 1983; Weiss 1986.
[13] Algaze 1986: 134.
[14] See most recently, Oguchi 2003.

[15] Ii and Kawamata 1984/85: fig. 4, pls. 3c-d, 9a-c; Ii and Kawamata 1987.
[16] Killick and Roaf 1983: 219-20.
[17] Killick and Black 1985: 230.
[18] Numoto 1987: 45-47; Numoto 1988; Fiorina 1997: 33-37; Celerrino 1997b; Numoto 1990: 215-22; Ball and Gill 2003a; Killick and Black 1985: 232-33.
[19] Ii 1987; Ii and Kawamata 1984/85: fig. 27, pl. 19. The author is indebted to Sd. S. Younis for kindly showing him the wasters and other finds from his unpublished excavations at Tell Seh Qubbat; cf. Reade 1968: 252, 262, pl. LXXXIV.10.
[20] Fujii and Numoto 1987; 181, fig. 100: 8-9; Numoto 1988; Bashir 1987b; Ii 1987; Ii and Kawamata 1984/85: figs. 15-16, 20-26, pls. 14-18; Killick and Black 1985: 232-33; Tusa 2003: 257-58, pl. LX.
[21] Cf. Reade 1968: 244, 251-52, 262, pl. LXXXIV.5.
[22] Cf. Oguchi 2003: 92-93, n. 32; compare Speiser *et al.* 1935: vol. I; Reade 1968: 255, pl. LXXXVI.24; Reade 1973: 163. This concept of apotropaic decoration continued into the early 2nd millennium as a large jar decorated with scorpions, dragons and snakes was excavated in a Khabur horizon at Tell Rijim (Bielinsky 1987b: 18); it was later revived on 9th-14th century water-jars in northern Mesopotamia.

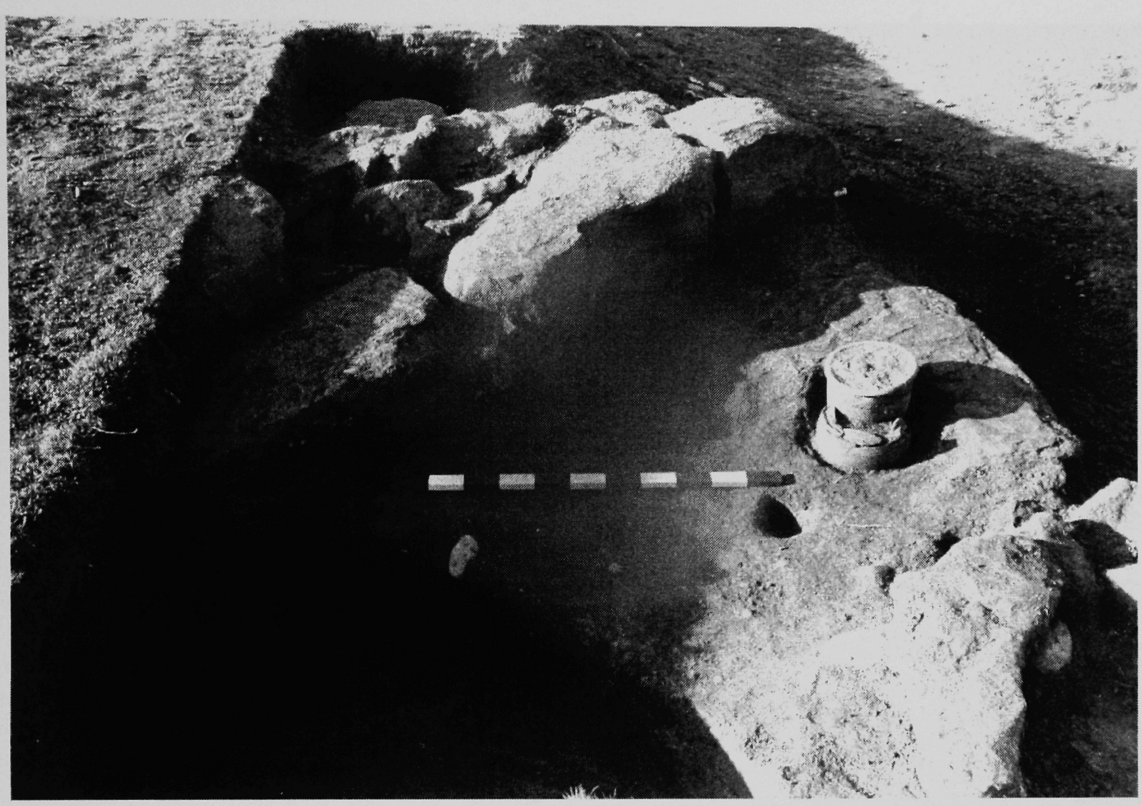

Plate 17 Period 7.1 Akkadian wall and pots in [K3]

Plate 18 Period 7.1 Akkadian wall (59) in [M]

Plate 19 Period 7 Akkadian wall and paving in [T1]

CHAPTER 8

PERIOD 8: KHABUR

SYNOPSIS

Khabur structural remains were encountered in two trenches on the main mound, namely [I1] and [M]. In both cases there was evidence for several phases of activity including monumental construction in [M], implying that this was an important period in the history of the site. Indeed this was the first of two periods where monumental construction was encountered in [M], the second possibly dating to the Late Assyrian period. The University of Mosul also appears to have found several levels of this period in the centre of the mound. In addition, evidence for pits and a storage area were found in each of the three trenches excavated off the mound in Area K.

TRENCH [I1]

Two phases belonging to this period were noted in this excavation area: the first of these was constructed directly above the eroded top of the Period 7 deposits. During the second phase this area appears to have been used as an external dumping ground followed by another erosion horizon before re-occupation in Period 11.

Phase 8.1-1 CONSTRUCTION AND USE *(Fig. 28)*

Wall (70) A number of greyish limestones measuring 10-40 cm across were placed directly upon the top of the Period 7 deposits as a set of stone wall footings in the northeast corner of the area.

Floors (72), (71) Two consecutive compacted clay floors, dark grey (72) and light brownish-yellow (71) and measuring 4-8 cm thick, were found running up to these footings.

Feature (51) These deposits were cut near the main west section by this 16 cm deep burnt feature measuring 30 x 60 cm across.

Walls (50), (48) Elsewhere in the sounding, running into the main east and north sections and not directly stratigraphically related to (70) were two other areas of deliberately laid limestones. These were raised to an elevation of 20-60 cm respectively above the top of (70).

Sub-phase 8.1-2 Destruction

Deposit (69) [=(49A)] Sloping down from the northeast corner across the whole area of [I1], and largely sealing the Phase 8.1-1 remains was a light brownish, slightly silty, clay deposit, between 5 cm and 33 cm thick. This deposit contained occasional small pebbles and some broken mud-bricks (at least 20 cm across and 6 cm thick). Two sherd discs <699>, <700>, a limestone door socket <711>, a fragmentary fired clay object <819> and a fired clay animal figurine fragment <554>, originally excavated as part of [I1] (49), belong to this phase but this deposit probably derives from the destruction of the mud-brick walls.

The excavated remains of Phase 8.1 in [I1] appear to represent an area of stone wall footings, associated with at least two consecutive clay floors and a possible sunken hearth. The original alignment of the former is uncertain; no traces of any *in situ* mud-brick were seen. The possibility of additional stone-built phases to the east is likely.

Phase 8.2 LATER DEPOSITS *(Fig. 30)*

Deposit (47) Following the slope of the underlying strata, were a series of deposits 15-60 cm thick. These varied from being compacted and occasionally slightly silty, grey-brown clays to a dark bluish-grey fine silty clay. These deposits were excavated in artificial spits, combined as (47). Fragments of burnt clay or mud-brick, small limestone chips, small battered lumps of basalt grinder (3-5 cm across) and abundant potsherds were found throughout. Other finds included two fired brick fragments reused as door sockets <727> and <818>, part of a limestone door socket <780>, a fired clay toy wheel <555>, a perforated sherd disc <701>, a sherd disc <578> and a bone tool <651>. These deposits may be associated with one or more levels or phases outside the area of the excavated sounding. The presence of pottery of recognisably different periods here points to some form of mixing of material through stone robbing or terracing nearby.[1]

Deposit (46) The tops of these deposits were sealed by a compacted light brownish-grey clay deposit up to 10 cm thick with a slightly undulating surface. A fired clay toggle <546> was found in this deposit. The compaction of this layer and its evidently weathered surface, combined with the change in character of the overlying excavated deposits, points to a stratigraphic break following (46).

TRENCH [K1]

A single pit belonging to Period 8 was excavated in [K1]; this was sealed by Period 19 deposits.

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[1] Indeed, this mixing of material made this phase at [I1] very difficult to date, containing as it did a mixture of Akkadian, Khabur and as yet indefinable 2nd millennium pottery. Assigning these [I1] levels to the Khabur period therefore, is at the moment very tentative; the final study of the pottery might well result in a date later in the 2nd millennium [WB].

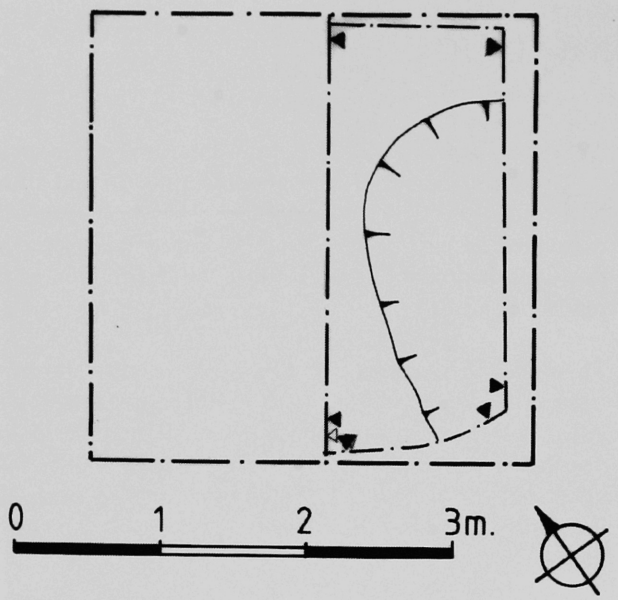

Fig 40 Period 8 Khabur pit in [K1]

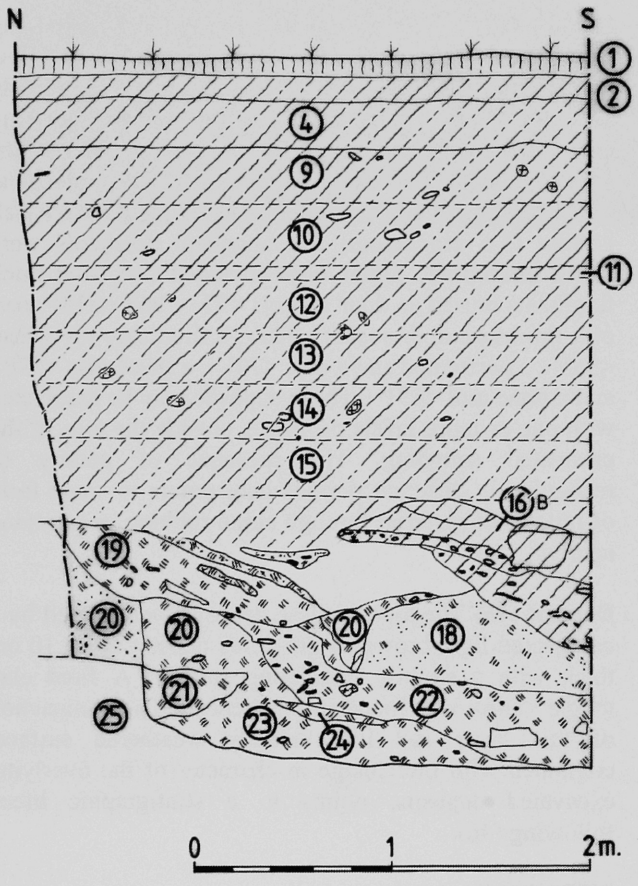

Fig 41 Main east section in [K1]

Phase 8 PIT AND DEPOSITS *(Figs. 40-41)*

Pit (23) Natural was found to be cut by what seemed to be a single large feature, possibly originally circular in plan, and part of which was excavated.

Deposits (24), (21), (20), (22), (18), (19), (17), (16) Associated with this were a number of different earth deposits, varying from a dark grey-brown clayey containing flecks of charcoal, to a thick stiff blue-grey clay and re-deposited natural. Pottery was abundant but mixed, and included some Period 5, 7 and 8 types. A complete Period 5 bevelled rim bowl <688>, a probably Period 8 painted fired clay figurine fragment of a bearded male <594>, a fired clay figurine arm <528>, a small limestone incense burner <621>, a shell bead <512>, and three basalt grinder fragments <718> and <766> (two fragments) were also found here. These deposits probably represent successive dumping episodes within the pit with partial weathering of the sides of the feature.

TRENCH [K2]

Period 8 was represented by a single pit cutting an earlier pebbled area provisionally assigned above to Period 7; the top of the pit was sealed by Period 19 deposits.

Phase 8 PITS AND DEPOSITS *(Fig. 33)*

Pit and deposits (3), (2) A steep sided flat bottomed pit measuring at least 1.40 across was found and approximately a quarter excavated. It is probably of the same date as the pit partially excavated in [K1] nearby. This pit was filled with a series of sloping layers, varying from dark grey-brown to light brown-yellow and including charcoal and occasional stones up to 12 cm across. These deposits were excavated in two spits. The pottery was of mixed date; other finds included a possible Period 7 ceramic wheeled animal toy fragment <624>, a circular fired clay weight <623> and some vitrified clay. The upper edges of this pit were not defined in the excavated area.

TRENCH [K3]

After a break in occupation following the destruction of the Period 7 structure this area was re-occupied in Period 8. A series of external clay surfaces were found, together with a quantity of pottery and a row of large jars set into the ground and sealed by Period 19 deposits.

Phase 8 OCCUPATION *(Figs. 35, 42; Pl. 20)*

Deposit (14) A light grey-brown clayey deposit containing occasional fine charcoal flecks, up to 20 cm thick toward the west end of the excavated area and sealing (15). It contained several fragments of burnt daub, two joining fragments of basalt grinder (15 x 9.5 x 5 cm) and a fragment of a fired clay animal figurine <547>. Pottery was abundant, mainly consisting of painted Period 8 types but including some residual Period 7 sherds.

Deposit (13) Overlying (14) was a similar 20 cm thick light brownish clay deposit. Pottery was again abundant and predominantly consisted of Period 8 types,

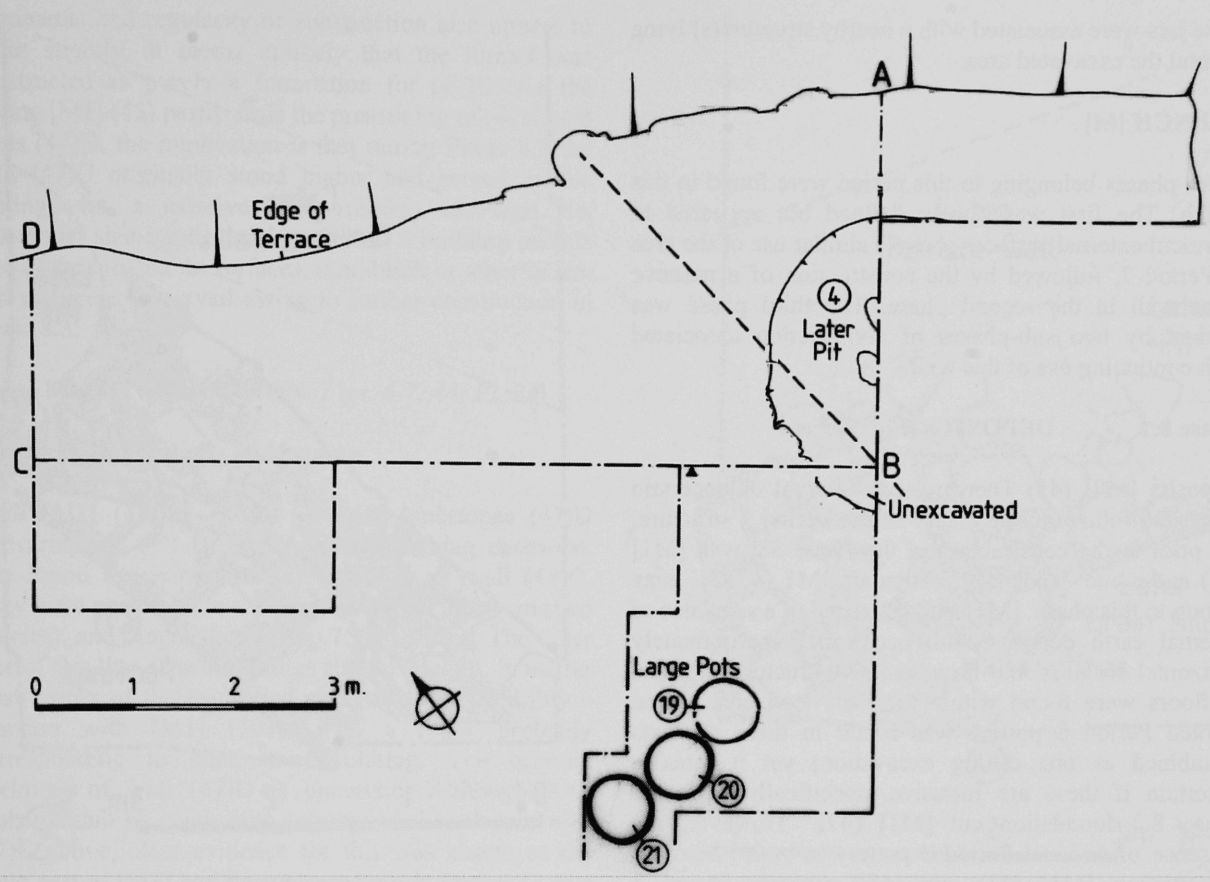

Fig 42 Period 8 Khabur pots in [K3]

including 'channel bases',[2] bowls, stripy-painted jars, some grey burnished ware and some residual Period 7 sherds. Part of a plain flat-based vessel with three broad interior handles and a Khabur fabric was also found here.[3] Other finds included a fragment of a bone object <541>, a limestone door socket <708> (found with hole upwards in the far east corner of the excavated area), a complete basalt grinder <725>, fragments of two others <704>, <802>, and numerous pieces of vitrified clay. From (13) or (14), came a fragmentary worked bone handle (?) <500> and a sherd disc <579>.

Deposit (25) In an extension of [K3] to the southwest of wall (2), a deposit of very compact light greyish-buff clay (25) containing occasional broken mud-bricks (one example ca 34 x 34 cm), was partially cleared. In consistency it appeared similar to (15) but it should stratigraphically correspond to (13). Potsherds were common, many belonging to the same vessels as from (13). A yellowish and partially burnt fired brick – measuring 29 x 29.5 x 9 cm – and some vitrified clay were also found.

Pots (19), (20), (21) An east/west orientated row of three or more large pots was found in the south end of the excavated area *(Pl. 20)*. These were situated just to the west of the top of the Period 7 wall (2) which must have been visible as a low ridge. The top of (19) was missing when discovered: the sides were decorated with shallow horizontal grooves; (20) and (21) were identical and decorated with horizontal relief bands on the exterior. Each was filled with a relatively fine light brownish silty clay ((22)-(24) respectively) containing some potsherds. A small plain pottery cup <671> was found inside (19), as was part of the rim of pot (20). No carbonised material was noted during the excavation of these fills.

The relationship of these pots to the previously-described clay fills (14), (13), (25) is slightly unclear; upon excavation, they were described as cutting the top of (25), but it is possible that some of this deposit accumulated around the vessels while they were in use. The function of these pots must have been for storage and when filled they would have been very heavy to lift.[4] It is likely that

[2] Cf. Reade 1968: 258 contra Lloyd 1938: 131 (fig. 6), 134, group IX

[3] Similar vessels are described as 'pottery baskets' at Tepe Gawra, stratum IV (Speiser *et al* 1935: 58-60, pls. XXXIXb, LXXV.212), 'goose neck pot stands' at Nuzi (Starr *et al.* 1937: vol. II: 24, pl. 94.B), and 'flap pots' at Tell Madhhur (Moon and Roaf 1984: 133-35, fig. 12.12); they are likely to have functioned as pot stands (Simpson 1997b: 53).

[4] A row of at least five pots of similar size, shape and decoration to (20) and (21) was found in the University of Mosul excavations, presumably on the main mound of Abu Dhahir (cf. Adil 1981: 84, fig. 5).

these jars were associated with a nearby structure(s) lying beyond the excavated area.

TRENCH [M]

Three phases belonging to this period were found in this trench. The first was poorly defined but appeared to represent external surfaces above a similar use of the area in Period 7, followed by the construction of a massive stone wall in the second phase. The third phase was marked by two sub-phases of construction associated with continuing use of this wall.

Phase 8.1 DEPOSITS *(Fig. 7)*

Deposits [M1] (45) There was an interval of uncertain time-span following the disuse of the Period 7 structure, but prior to the construction of the Phase 8.2 wall [M1] (47) and some deposits – particularly M1 (45)C – may belong to this phase. [M1] (45) consisted of a sequence of external earth deposits with occasional approximately horizontal surfaces, but no associated structural remains or floors were found within the excavated area. Some painted Period 8 pottery was found in these contexts (combined as one during excavation) yet it remains uncertain if these are intrusive, specifically from the Phase 8.2 foundation cut [M1] (47).[5] However, the presence of residual Period 8 pottery in both Phase 8.2 construction [M1] (43) and (47) suggests Period 8 occupation prior to these two main building phases. The nature or length of this occupation is uncertain but it is the main reason for the designation of Phase 8.1 which indeed may consist of more than one phase elsewhere on the site.

Phase 8.2 MONUMENTAL CONSTRUCTION *(Figs. 6-7, 43; Pl. 21)*

Foundation [M1] (47)A-B A large steep sided flat bottomed foundation trench (47)A was cut through the excavated area of [M1], running approximately east/west and measuring 1.95 m across and 1.35 m deep. The bottom of this cut was packed with a 5 cm thick layer of potsherds and small rounded pebbles derived from the natural conglomerate (47)B; the sherds included stripy-painted Period 8 types. 10 cm of earth fill was then deposited over this. These lowermost deposits evidently served as a so-called French drain designed to reduce the risk of rising damp whereby water was drawn upwards through capillary action.

Wall [M1] (47)C Laid over this bedding course but still within the foundation trench was a 1.40 m (four course) high construction of predominantly grey limestones (47)C measuring 1.75 m across in total. The size of these stones varied from 10-95 cm with the larger stones being placed close to the edges and the remainder wedged between. Earth fill was also used in the packing and as

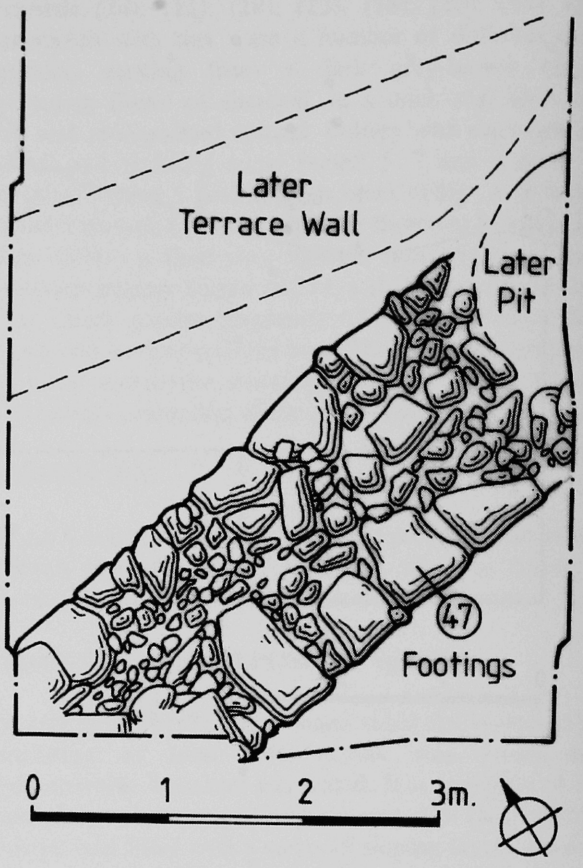

Fig 43 Period 8.2 Khabur wall (47) in [M1]

consolidation between courses. These deposits included a large number of potsherds – mainly of Period 7 and 8 types – and included a semi-complete small plain cup <561> that is very similar to a Period 7 group excavated in [I1] (52).[6] Occasional fragments of vitrified clay (one measuring 35 x 20 x 20 cm) and pieces of fired brick were also found, including one yellowish brick (>14 x >14 x 8 cm) and a reddish-orange piece with yellowish surfaces (>28 x >32 x 10 cm). Numerous pieces of ground stone were found reused in this construction: five basalt grinder fragments <746>, <750>, <752>, <760> (2 joining), a possible sandstone grinder fragment <768>, six limestone door sockets or mortars <744> (2 joining), <745>, <755>, <756>, <781> and a possible stone weight <775>.[7]

It is possible that prior to the Phase 8.2 building activity, the top of the earlier deposits were levelled, at least in this area close to the edge of the present tell: thus truncating the top of Period 7 [M1] (45)C and explaining the presence of residual Period 8 pottery in later construction. The width of wall (47)C is up to 1.25 m greater than the overlying wall (47)D and the respective

[5] It is also uncertain if the top of [M1] (45) was later levelled.

[6] Reade (1973: 164-65) noted a similar phenomenon on the citadel at Tell Taya whereby several hundred kg of pottery, including some more or less complete vessels, had been redeposited as levelling fill within rooms.

[7] The east end of M1 (47) was removed in a subsequent phase (see below: M:9 ?Pit).

alignments and regularity of construction also appear to differ slightly. It seems unlikely that the former was constructed as purely a foundation for (47)D. As the paving [M1] (43) partly seals the present top of (47)C and abuts (47)D, the implication is that during Phase 8.2 the wall (47)C originally stood higher and served as the footings for a massive wall running east/west. Its substantial size implies a large Period 8 building on this area of the site but no surfaces, mud-brick or other *in situ* material were preserved owing to further construction in Phase 8.3.

Phase 8.3 CONSTRUCTION *(Figs. 6-7, 44; Pl. 22)*

Sub-phase 8.3-1 Walls and paving

Wall [M1] (47)D A row of grey limestones (47)D measuring up to 1.10 m across and running east/west, was found overlying the south courses of wall (47)C. They were preserved to a maximum height of 25 cm (two courses), and ranged from 30 to 75 cm across. The outer face of this line of wall footings curved slightly; in the far west corner of the excavated area, there was possibly a junction with [M1] (103), with a break probably corresponding to later stone robbing. The original thickness of wall (47)D is uncertain. Although it is probable that its south face corresponded to that of wall (47)C above, clear evidence for this was absent as the south part of [M1] had been cleared out in Period 13 to a lower level with reuse of the south face of wall (47)C as part of a subterranean grain-silo; the east end of (47)C had also been removed in a later phase (Periods 9 and 11: [M1] (44), (58) pit).[8] No traces of mud-brick survived on top of wall (47)D.

Paving [M1] (43) To the north of this line, sealing part of wall (47)C and its foundation trench, was a layer of compacted rounded pebbles and sherds set in a blue-green clayey or reddish-brown bricky matrix about 10 cm thick, [M1] (43)A. The pebbles were derived from the natural conglomerate; the pottery included painted Period 8 sherds, part of a shallow vessel with legs, sherds decorated with crescentic stamp-impressions and fragmentary potstands, including a piecrust potstand.

Set into the top of this deposit was a flat-topped area of limestones (43)B, generally measuring about 40 cm across but with smaller stones and sherds wedged between. A single large flat stone, 1.05-1.30 m across, with the top set 10-15 cm below the remainder of (43)B, partially abutted the north face of wall (47)D. One of the other stones incorporated into (43)B was marked with four shallow circular artificial hollows on its upper surface (each 1.5 cm deep x 3.4 cm across). The top of the paving (43)B was up to 25 cm below the maximum preserved top of wall (47)D to the south. The north part

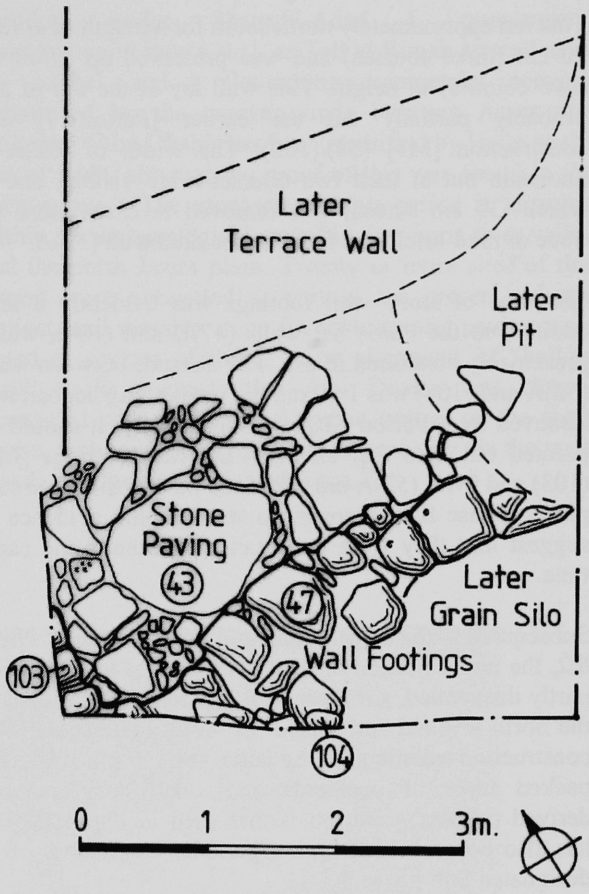

Fig 44 Period 8.3 Khabur wall footings and paving in [M1]

of paving (43) was cut in a later phase (Period 11 [M1] (38) terrace wall); so too, was probably the east part (see below: Periods 9 and 11 [M1] (44)/(58) pit). The original size of this paving is uncertain: although it abutted wall (47)D on the south and its relatively straight east excavated edge may mark its original limit on this side, its north and west limits are uncertain. It probably marks an external area, with the larger flat sunken stone mentioned above possibly serving as the base or emplacement for another feature or large object long since removed.

Sub-phase 8.3-2 Modifications *(Fig. 7)*

Wall [M1] (103) Apparently constructed on top of the Phase 8.2 paving (43) at the far west edge of the excavated area was a line of grey limestones running north/south (103) and measuring at least 90 cm (three courses) in length. This ran south to and abutted the north face of the earlier wall (47)D. The maximum preserved height of this feature was 16 cm (one course); the width was uncertain but measured at least 30 cm (one course) across; no traces of mud-brick survived.

Wall [M1] (52)A At right-angles to and abutting the south face of wall (47)D was a line of grey limestones.

[8] Several Hellenistic or early Parthian sherds were found in the excavations south of [M1] (47)D, and were wrongly bagged with [M1] (42).

This ran approximately north/south for a length of at least 70 cm (three courses) and was preserved up to 40 cm (two courses) in height. This wall lay at the top of and probably partially cut the earlier [Period 7] *tauf* construction [M1] (54)/(102). The width of (52)A is uncertain but at least two courses were visible, one of which (35 cm across) was removed in excavation. No trace of mud-brick was found associated with (52)A.

This line of stone wall footings was evidently a later addition to the Phase 8.3 walls (47)D and (104), which presumably continued in use. The distance between walls (52)A and (104) was 1.90 m.; the intervening deposit was removed by a Period 13 grain-silo. Finally, it should be pointed out here that although the wall footings [M1] (103) and [M1] (52)A are attributed here to the same sub-phase (Phase 8.3), there is no stratigraphic evidence to suggest that they were constructed at exactly the same time.

Subsequent to the construction and probable use of Phase 8.2, the upper portion of wall (47)C seems to have been partly dismantled, a thinner wall-line retained, the area to the north levelled and a layer of stone paving laid. The construction technique of the latter – stones placed over a packed layer of potsherds and small conglomerate-derived pebbles – resembles that used in Phase 8.2 but has also been noted for other periods. This activity was designated Sub-phase 8.3-1.

Subsequently, after an uncertain period of time, wall footings (103) and (52) were added to the north and south sides of wall (47)D respectively. The area south of (47)D, between the Phase 8.3 wall footings (47)D, (104) and (52) to the north, west and east respectively, was later disturbed by the Period 13 grain-silo [M1] (106) so the original nature of this is uncertain. The type of occupation represented by Phase 8.3 is uncertain but as in Phase 8.2, it probably formed part of a large building.

Sub-phase 8.3-3 Destruction *(Fig. 7)*

Deposit [M1] (42) Across the area north of wall (47)D, east of wall (103), and covering paving (42) was a 2-16 cm thick deposit consisting of lenses of light bluish-grey silt and ash containing small flecks of charcoal and fragments of light brownish mud-brick and tipping down from near the maximum preserved tops of the wall footings (47)D and (103). Numerous sherds of stripy-painted Period 8 pottery were found with occasional fragments of fineware, grey burnished wares, a piecrust potstand and other sherds impressed with a small circular stamp.[9] Three basalt grinder fragments (<759>, <783> and one unregistered) from the east part of the excavated area, a sherd disc <572> and possibly a fired brick <529>, as well as some animal-bone and vitrified clay were also found in this deposit although some of these may be intrusive. The deposit corresponding to (42) on the south side of wall (47)D had been subsequently removed by the Period 13 grain-silo [M1] (106), thus no comparison can be made between areas. In the west corner of [M1], a small cut into (47)D and (42) was observed, possibly connected with later stone robbing.

The [M1] (42) deposits seem to derive from the destruction of Sub-phase 8.3-2. If so, they may be compared with the Phase 8.1 destruction horizon in [K3]. However, the presence of abundant Khabur pottery, apparently of the same type, in the construction of the underlying Phase 8.2 and 8.3 (wall (47) and paving (43)) should not be overlooked. Given the very small area of [M1] (42) – and the fact that the sherds were not lying flat upon the underlying paving and therefore contrast with the pottery found in the Period 7 destruction horizons in [M], [I1], [K3], [S1] and Area [H], it remains a possibility that this material is re-deposited. As such, this deposit resembles that in [T1] Phase 7.1. It is therefore possible that at least some of this material may be residual from a phase prior to Phase 8.3 or have been subject to disturbance prior to Period 9. These doubts as to the stratigraphic reliability of any of the Period 8 material from [M] are also reflected in the other BAEI excavation areas of the site that produced Period 8 material, namely [K1] and [K3].

Deposit [M1] (28) [= (40), (41)] Sealing the top of Sub-phase 8.3-3 was a deposit of dried out and compacted reddish-brown mud-brick, up to 40 cm thick. Although there was some slight fissuring near the mound edge, no *in situ* bricks were identified in this deposit. This deposit evidently derives from mud-brick collapse, possibly levelled flat in Period 10 or Period 11 and presumably from above the stone wall footings of Phase 8.3. Its appearance is consistent with that of an eroded deposit suggesting an interval between these two periods of occupation.

DISCUSSION

Abu Dhahir appears to have been a sizable centre during Period 8. The discovery of monumental construction within [M] implies that its status was more than simply a village yet it is unknown whether this new architecture was secular, religious or military in function.

The discovery of storage jars and refuse-filled pits in Area [K] suggests that the main mound was densely occupied during this period, therefore triggering a degree of overspill along the river terrace. The University of Mosul reported two 2nd millennium levels which may be attributed to this period. The excavated remains consisted of five rooms constructed with stone foundations and belonging to a larger structure opening onto a courtyard,

[9] The occurrence of circular stamped motifs on Khabur kraters and bowls here and at some north Jazira sites appears to be a local phenomenon and may be a distant skeuomorph of imported carved softstone vessels decorated with dotted circles (Simpson 1997b: 54, 218, n. 42; cf. K. Oguchi 1997).

plus a *tannur*. Associated finds appear to have been scarce but included a collection of long cylindrical clay beads; some painted Khabur ware was published although without reference to level.[10] Period 8 pottery was recovered in quantity from surface collections in Areas C, F, H, K, O and R, and possibly Areas B, D and J.

The excavated pottery was dominated by Khabur stripy-painted wares, sometimes impressed with small circular stamps, a feature also noted on Period 8 pottery from Bardiyya and Tell Jambur, and associated with small numbers of grey burnished wares.[11] The precise date of these assemblages requires further analysis yet they fall between the 19th and 15th centuries BC.[12] This was a wealthy period in the history of northern Mesopotamia commencing with the foundation of the Old Assyrian kingdom under Shamshi-Adad I, monumental construction at towns such as Tell al-Rimah as well as at the capital, and a flourishing commercial network epitomised by the caravan trade between Assur and Kültepe.[13] Abu Dhahir has been identified by Hallo as the site of Lada, although no proof of this was found in the excavations.[14] The prosperity of this period is mirrored within the archaeological record in the Tigris river valley and the north Jazira plain. Twenty or more sites of this period were excavated as part of the present salvage project, and massive stone foundations and paving were noted at several of these.[15] The alignment of "hollow way" tracks suggests that Abu Dhahir was closely connected with major Old Assyrian centres on the north Jazira, including Tell al-Hawa, and probably via the wadi Usaila and the site of Hamad Agha.[16]

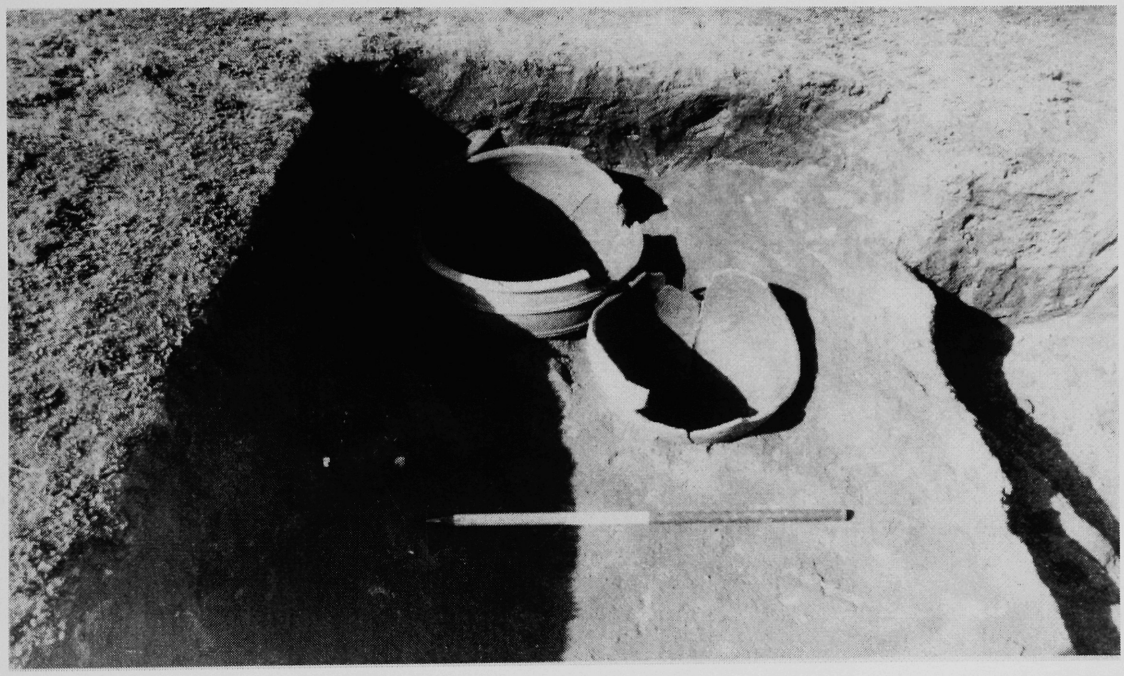

Plate 20 Period 8 Khabur pots in [K3]

[10] Adil 1981: 85-86, figs. 9-10, 99: fig. 45; 91, 94: fig. 22h: no. 20, fig. 32; Yunis 1981: 101 = Levels 3-4.
[11] Cf. Killick and Roaf 1983: 214.
[12] H. Oguchi 1997; Stein 1984.
[13] Oguchi 1999.
[14] Hallo 1964: fig. 4.
[15] H. Oguchi 1997: 212; cf. Bielinsky 1987b; Bielinsky 1987c: 25-29; Campbell 2003: 127-29.
[16] Cf. Wilkinson and Tucker 1995: 53-55, fig. 24.

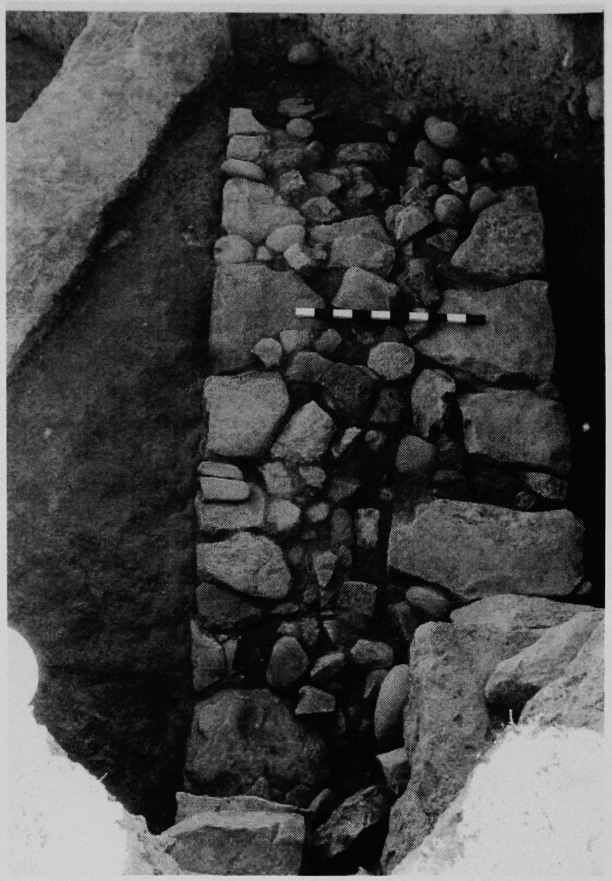

Plate 21 Period 8.2 Khabur wall (47) in [M1]

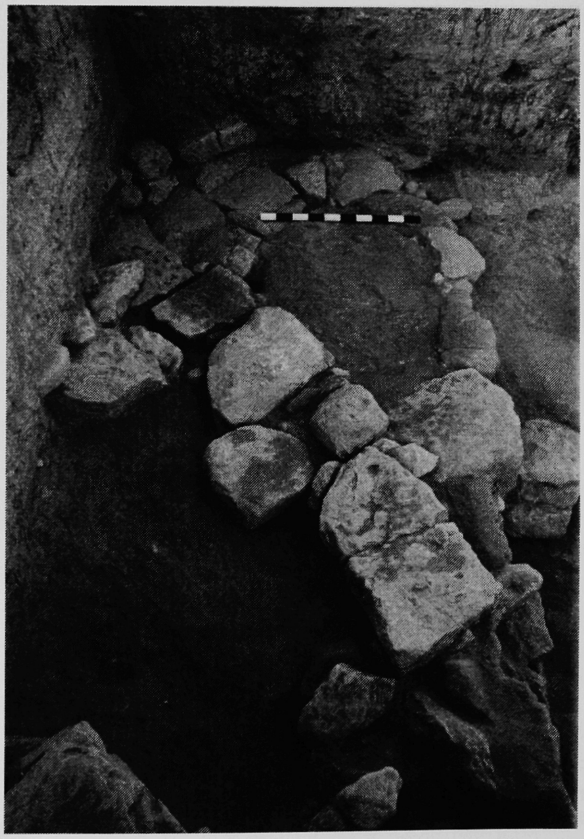

Plate 22 Period 8.3 Khabur paving (43) in [M1]

CHAPTER 9

PERIODS 9-10: MITANNIAN-MIDDLE ASSYRIAN

SYNOPSIS

These periods appeared to be poorly represented at the site, and the excavated remains consisted of a small room in Trench [M].

TRENCH [M] *(Figs. 7, 45; Pl. 23)*

Wall footings [M1] (20) A line of gray limestone footings were laid directly above the eroded Period 8 deposit [M1] (28) and in a line running northwest/southeast; these footings measured 35-55 cm (1 course) wide but included a single stone measuring 90 cm across.

Wall footings [M1] (24)A A second line of slightly smaller limestones, measuring 50 cm (1-2 courses) across, represent a return orientated northeast/southwest at the south end of [M1] (20).

Burnt patch [M1] (24)B A 5 cm thick patch of burnt clay, 25 cm across, lay near these footings.

Wall footings [M1] (24)C A group of four gray limestones measuring between 60-85 cm across appears to represent part of a third set of wall footings; these were orientated northwest/southeast, parallel with but ca 1.70 m from [M1] (20).

Paving [M1] (27) A series of stones were laid over a roughly rectangular area measuring 1.00 x 1.30 m and abutting the inner face of [M1] (20). This paving included five pieces of ground-stone, namely two joining fragments of a large basalt saddle-quern <736>, part of possibly a second quern <804>, a possible limestone trough <742>, and a possible limestone mortar <754>.

These remains represented a small rectilinear room consisting of stone wall footings and a small area of stone paving inside. There were few well stratified finds and the date of this phase of occupation is therefore tentatively placed within the second half of the 2nd millennium BC.

They were sealed by eroded bricky deposits [M1] (15), (16) which marks the end of this phase, and which was cut by the Period 11 terrace wall [M1] (38).

DISCUSSION

The University of Mosul attributed their level 3 to the mid-2nd millennium BC[1] but these remains have been re-

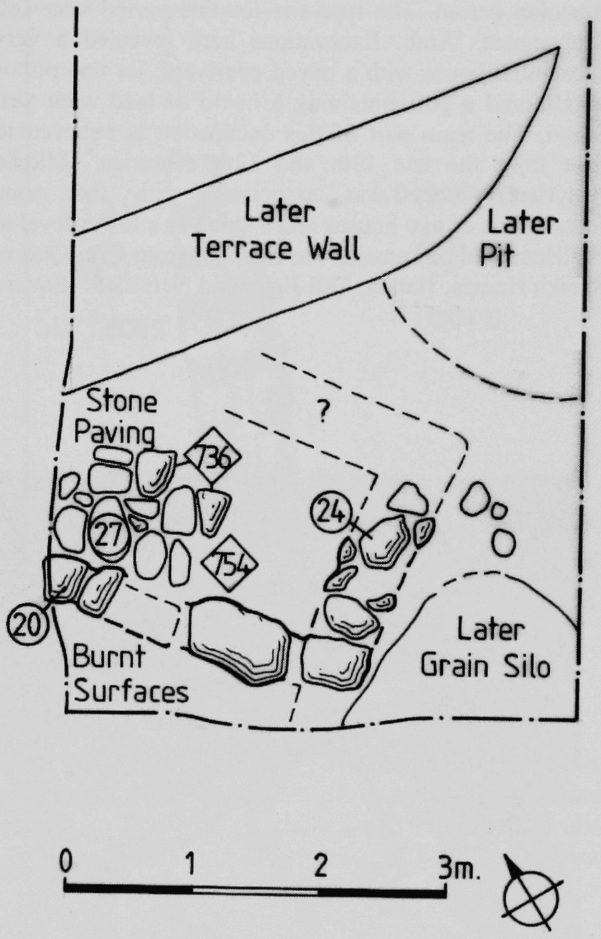

Fig 45 Period 9/10 Mitannian/Middle Assyrian footings and paving in [M1]

interpreted above as belonging to the Khabur period. No pottery belonging to either Period 9 or 10 was identified in the present surface collections. These periods therefore do not appear to have been very significant at Abu Dhahir.

Painted Nuzi wares and other finds, including occasional seal impressions and fritwares, are reported from several other sites, including Tell Der Hall, Tell Fisna, Hatara, Tell Jessary, Tell Jigan, Tell Jumbur, Karhol Sufla, Khirbet Karhasan and Tell Shelgiyya.[2] In some cases this pottery consisted of the canonical finewares familiar from Nuzi and Tell Atchana, but in other cases they included coarser white-on-dark painted wares of late Khabur or Proto-Nuzi type.[3] The overall impression was one of low-

[1] Adil 1981: 85-86, fig. 9; Younis 1981: 101.

[2] Killick and Black 1985: 230-31, 233; Killick and Roaf 1983: 214; Matsumoto and Yagi 1987a; Fujii and Numoto 1987: 181, fig. 100:3; Numoto 1987: 45-47; Numoto 1988; Toma 1987a; Fiorina 1997: 37-45; Numoto 1990: 205-208; Fujii 1987b; Ii and Kawamata 1984/85: figs. 28-29; Bashir 1987a; Tucker 2003: 102-103; Ball and Pagan 2003: 155.

[3] Cf. H. Oguchi 1997.

density occupation in the northern part of the project area during the mid-2nd millennium BC.[4]

This picture appears to have continued in the Middle Assyrian period. The type-site for this period was Tell Mohammed 'Arab. Excavations here revealed a very substantial house with a paved courtyard; jar and pithos burials and a pot containing a hoard of lead were also found. The main part of this occupation is believed to date from the late 13th and 12th centuries.[5] Middle Assyrian pottery was associated with the stone foundations of two houses and a street in a lower level at Bir Hami;[6] other remains are reported from Grai Qasim, Sheikh Hamza, Hatara, Tell Jigan and Nemrik 9.[7] Square pottery kilns closely resembling examples found at Nuzi were excavated near the northeast corner of Tell Jigan,[8] and a lengthy mid-late 2nd millennium sequence was noted in a machine-cut section at the same site.[9] Another kiln with its firing load intact was excavated at Anzeh Cemetery, where two phases of Middle Assyrian occupation were also found. These consisted of a group of mud-brick houses, one with the remains of pitched brick vaulting, and several graves containing a frit bowl, nipple-based beakers and personal adornments.[10] Finally, evidence for classic Middle Assyrian frit ornaments closely resembling finds from Tell al-Rimah were made at Khirbet Karhasan.[11]

Plate 23 Period 9/10 Mitanni/Middle Assyrian construction in [M]

[4] Ball 2003: 15-16.
[5] Roaf 1983; Roaf 1984a.
[6] Sem'an 1987/88: 104-109; cf. Killick and Black 1985: 228.
[7] Killick and Roaf 1983: 210; Killick and Black 1985: 238; Ball and Black 1987: 242; Cellerino 1997a; Fujii 1987a.
[8] Fujii 1987a: 66, figs. 4, 6.
[9] Sd. H. Bashir, pers. comm., January 1985.
[10] Killick and Black 1985: 227.
[11] Tucker 1992; Tucker 2003.

CHAPTER 10

PERIOD 11: LATE ASSYRIAN

SYNOPSIS

Late Assyrian occupation was mainly encountered in a sounding on the south slopes of the mound, namely [I1] where a long sequence – totalling six phases – of domestic architecture and external features, including small pits filled with freshly discarded animal-bone and a drying oven, was encountered. The southeast edge of the site was used for pottery production in this period, and the remains of two pottery kilns were identified here. The summit of the mound may have supported a monumental construction as the remains of a massive terrace wall was discovered running along the north side of the site; one corner of this was excavated by the University of Mosul, and the opposite end was discovered within Trench [M].

TRENCH [I1] *(Figs. 28-31, 46-51)*

Six phases attributed to this period were excavated here. The first of these marked a re-occupation after a lengthy break since Period 8. All of these phases appeared to belong to domestic occupation. The last of these phases was followed by a break with some erosion; later use of this area of the site is represented by a series of cut features assigned to Period 13.

Phase 11.1 DOMESTIC ARCHITECTURE *(Fig. 46)*

Sub-phase 11.1-1 Construction and use

Prior to any further deposits, a large roughly-shaped rectangular limestone block (1.30 x 0.60 x 0.30 m.) was deposited flat on the top of [I1] (46).

Floors (42) Sealing (46) and this block was a sequence of horizontal 2-10 cm thick greenish silty deposits, totalling 25 cm depth. These were interpreted as floor levels associated with walls lying beyond the limits of excavation.

Sub-phase 11.1-2 Modifications

Wall (41) At a later stage a 65 cm (two course) wide row of large stones was inserted, orientated approximately northeast/southwest and up to 48 cm (one course) high, cut one or more of the earlier floors (42). They mainly consisted of roughly-shaped limestones about 35 cm across and included a lump of natural conglomerate, a reused perforated limestone trough <834> found in an inverted position with an asphalt plug sealing the hole, and part of a small plain pottery jar <655> wedged upright between the stones. The edge of another large stone placed on end and protruding from the south section of the sounding abutted the west face of (41).

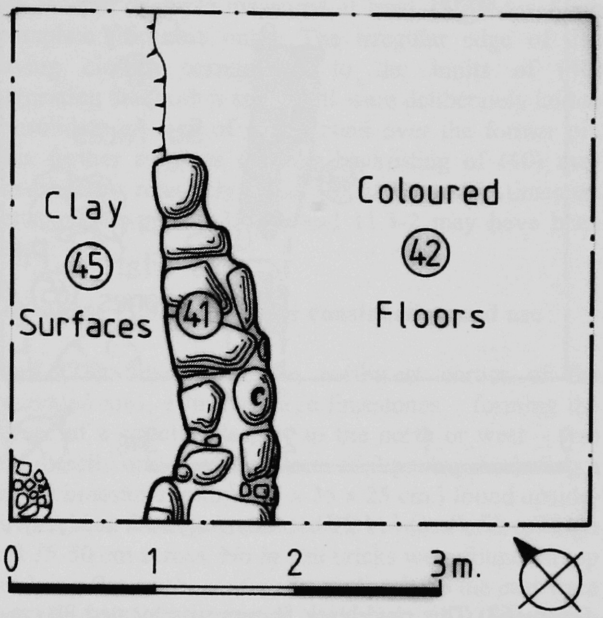

Fig 46 Period 11.1 Late Assyrian wall and surfaces in [I1]

Floors (42) There appears to have been a further build-up of floors immediately east of this wall. Small finds registered from this context comprised a sherd disc <653>, a basalt grinder fragment <761> and a basalt handstone fragment <805>.

Surfaces (45) To the west and north of this wall the earlier coloured floors were replaced by a compacted light brownish clay deposit, some 5 cm thick. In one small area were a number of broken fired bricks (one measuring >14 x >21 x 5 cm thick) and a burnt basalt grinder fragment <707>.

This construction of substantial wall footings across the earlier Phase 11.1-1 floors may indicate a change in building plan although the apparently continued use of coloured floors suggest simple modification, possibly through reduction of room size or a change in room function.

Phase 11.2 DOMESTIC ARCHITECTURE *(Fig. 47)*

Sub-phase 11.2-1 Construction and use

Wall (43) A line of stones laid in a shallow foundation cut on the same alignment as but clipping the east edge of wall (41) marks a new construction phase. Use was made in the construction of a number of rounded limestones, averaging 20 cm but up to 70 cm across. The width of this feature varied from 40-50 cm (two courses) and was 20 cm (one course) in height.

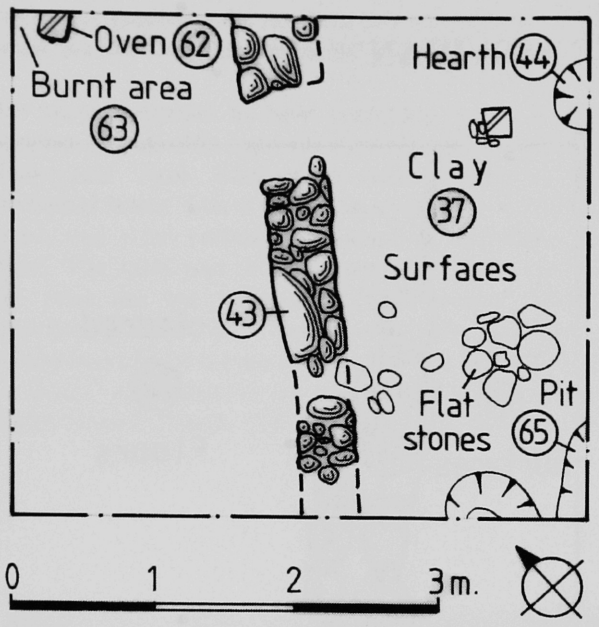

Fig 47 Period 11.2 Late Assyrian features in [I1]

Oven (62) This mud-brick feature was located 80 cm to the west of wall (43), next to the north section; it appeared to consist of a low wall, possibly aligned northeast/southwest, measuring 30 cm (three courses) high x 36 cm (one course) across and constructed on partial limestone footings; the bricks measured 36 cm square x 9 cm thick. There was no trace of a return or cut on either side and the bricks were tilted at an angle as if the structure originally had an arched or vaulted appearance. The overall size and shape of this feature are unknown but it appears to represent a small low horizontal oven with the mouth facing south/southwest.

Burnt lenses (63) A series of at least three horizontal clay lenses, all burnt to a rich dark reddish-brown colour were found on the west side of (62) with traces of burnt mud-brick in the overlying deposit adjacent to (62).

Surfaces (37) A series of compact light brownish clay surfaces ran up to (43), with a possibly thicker build-up on the east side. Some of these had traces of burning on the top and were occasionally separated by thin light grey-brown silty deposits. Small finds consisted of a possible blue faience bead <511>, an iron blade <530>, a cylindrical perforated fired clay object <543> and a fragment of a possibly lightly fired clay object <533>.

Feature (36) Set into the top of the lowest (also unburnt) clay surface were laid a number of limestones and reused fragmentary basalt grinding stones, generally 25-30 cm across.

Cut Feature (65) This was located in the extreme southeast corner of the excavated area and was cut from close to the top of (37). Measuring at least 80 cm across x 60 cm deep, this had slightly undercut sides and a fairly level floor. The fill consisted of a dark grey-brown silty clay deposit containing occasional mud-brick flecks.

Feature (44) Sunk into the top of the surfaces (37) was a shallow burnt clay feature, measuring 18 x 12 cm across and up to 10 cm deep.

Sub-phase 11.2-2 Destruction

Deposit (26)A Sealing the remains of Phase 11.2-1, across the area of the sounding was a moderately compacted greyish-brown clay deposit, 10-30 cm thick, containing rare small charcoal flecks and a distinctive gritty-sandy texture. Two possible door sockets <762> and <763> were found in this deposit, each with a certain amount of asphalt staining on the underside. This deposit is interpreted as the remains of mud-brick collapse from Phase 11.2-1, marking a stratigraphic break although possibly not of long duration as the deposit did not appear to be heavily degraded or compacted.

Phase 11.3 STORAGE AND DISPOSAL *(Fig. 48)*

Sub-phase 11.3-1 Cut features

Pit (40)A-B A relatively shallow flat bottomed and vertical sided feature (40)A was cut from the top of (26)A along the west edge of the excavated area. The primary fill consisted of a thin powdery light grey/white ashy deposit, only 5-10 mm. thick (40)B.

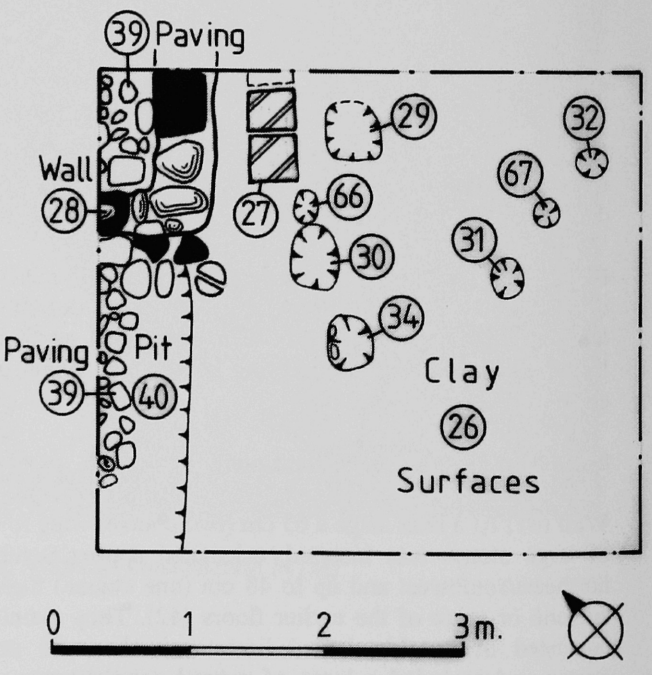

Fig 48 Period 11.3 Late Assyrian features in [I1]

Cut features A number of smaller cut features belonged either to this or the following sub-phase. Two of these – (29) and (30) – were mainly filled with animal-bones,

some of which were articulated and all appeared to be in fresh condition, whereas others – (31), (32) and (66) – contained little or nothing in their fills. Another feature – (34) – contained small limestones, measuring 5-15 cm across, placed around the sides and suggestive of post hole packing. The following is a list of all these features:-

(29) 45 x 40 cm.; 25 cm depth; fill consisted of fine dark grey-brown silty deposit.
(30) 45 x 35 cm.; 20 cm depth; fill as (29).
(31) 30 x 25 cm.; 32 cm depth; fill consisted of fine grey-brown silty deposit.
(32) 20 x 25 cm.; 12 cm depth; fill as (31), with a slightly sandy texture.
(34) 40 x 35 cm.; 25 cm depth; fill as (31).
(66) 25 x 20 cm.; ca 15 cm depth; fill as (31).
(67) 20 x 20 cm.; ca 20 cm depth; fill as (31).

The purpose of pit (40)A is uncertain but the primary deposit suggest storage of organic material, possibly straw or grain, in which case the surrounding clay fill (26)A would have helped to keep the contents dry and clean. The primary deposit resembles those excavated in Period 13 features [I1] (14) and [M1] (105). Judging by its colour and consistency, this may represent the remains of burnt chaff, grain or dung. Internal combustion of grain can be a problem in sealed storage pits, and the drying out and fumigation of grain silos by burning material inside is also well documented.[1] However, the shape of this feature would have been difficult to seal, suggesting that it was probably not designed for long-term storage. It may therefore represent some form of drying installation, hence the primary fill, whereas the similar layer found on the adjacent surface (26)A may represent residue deliberately burnt after the removal of grain and usable chaff.

It is possible that all of the smaller cut features, except (29) and (30) were post holes; (30) probably cuts (66). The animal-bone filled features (29) and (30), are more puzzling but find a later parallel in the Phase 11.4 feature [I1] (19). All of these Phase 11.3-1 cut features were probably in contemporary use with the top of (26)A which is marked by a thin lens of paler material probably corresponding to the primary fill of pit (40)A.

Sub-phase 11.3-2 Backfilling and paving

Deposit (40)C The pit (40)A was backfilled with a loosely compacted light brownish silty deposit containing a small shell bead <510>.

Deposit (26)B Prior to the laying of stone paving (39), a ca 10 cm thick layer of compacted grey-brown clay was deposited, probably as deliberate make-up.

Paving (39) A number of limestones, 20-25 cm across, reused fragments of basalt grinder <724>, <734> and <737>, a reused limestone door socket or mortar <743>, and fragmentary fired bricks were laid over (26)B to a depth of 15 cm. The bricks were mainly yellowish and measured over 26 x 31 x 6 cm (complete thickness only); one reddish example measured at least 19 x 14 x 5 cm (complete thickness only). The irregular edge of this paving closely corresponds to the limits of (40) suggesting that both it and (26)B were deliberately laid to consolidate an area of soft ground over the former pit. This further suggests that the backfilling of (40) may have been a relatively rapid affair, hence the timespan between Sub-phases 11.3-1 and 11.3-2 may have been brief.

Sub-phase 11.3-3 Further construction and use

Wall (28) Situated in the northwest corner of the excavated area, a line of large limestones – forming the corner of a structure largely to the north or west – was laid directly on top of the Phase 11.3 paving. Including a reused limestone trough (85 x 35 x 25 cm.) found upside-down; these footings measured 22 cm (one course) high and 35-50 cm across. No *in situ* bricks were found on top but lying flat on the surface immediately to the east were two adjacent light brownish mud-bricks (27), measuring 36 x 32 x 7 cm.

Floors (38) Abutting the north and west faces of (28) and sealing (39) were two consecutive compacted dark grey mortar and sandy clayey layers, each 3 cm thick.

Deposit (68) Directly overlying (39) and south of (28) was a thin dark grey/black greasy silty deposit, 1 cm thick, containing some organic impressions.

Deposit (33) (68) was sealed by this 5 cm thick layer of compacted yellowish-brown clay which also abutted the south side of (28). A hammer-stone or pounder <625> was found within (33).

Deposit (25) The exact relationship of this deposit to the compact, slightly bluish grey-brown clayey deposit containing occasional small charcoal flecks that was found over the remainder of the area to the east is uncertain, although both were approximately contemporary. The roughly level surface of (25) was burnt to a reddish-brown colour in the centre, over an extent measuring 35 x 65 cm. A basalt grinding stone <726> was found placed flat and upside-down immediately beneath this patch. Some 315 gr of vitrified clay was recovered from (25).

The relative lack of build-up of deposits associated with Phase 11.3-2, prior to the construction of Phase 11.3-3, suggests that these two sub-phases followed soon, if not immediately, after one another. It is possible to interpret the former sub-phase as simply an operation of levelling and consolidation prior to further construction and use of the area. The partial subsidence of paving (39), leaving an irregular surface above, is an indication of the need for

[1] Currid and Navon 1989.

this operation. As the clay deposits (33) and (25) were deposited during Phase 11.3-3, the probably organic refuse deposit (68) found above paving (39) may represent as little as a single episode possibly associated with the initial construction of Phase 11.3-3.

The excavated area during Phase 11.3-3 seems to have consisted of an external – possibly courtyard – area with some controlled burning, at least in the final stage. This was associated with the southeast corner of a structure with clay floors and stone wall footings and a nearby low mud-brick feature.

Sub-phase 11.3-4 Destruction

Deposits (15), (35) Running over the area, sealing the remains of Phase 11.3-3, was a compacted light grey-brown clay deposit. A fine distinction, probably of minor importance, was discernible between the deposit immediately above the structure (35) and that covering the remainder of the area (15) which contained occasional charcoal flecks. No mud-bricks survived *in situ* on the wall footings (28) but the presence of such a superstructure is suggested by collapsed bricks separated by thin lenses of loosely compacted grey-brown silty material sloping to the east; found within (15) were a fired clay counter (?) <520> and a light brown fired brick fragment (>15 x 11 x 5.5 cm; complete width and thickness only).

The level, but slightly weathered, top of this deposit of collapsed mud-brick represents a break of uncertain duration in the stratigraphy.

Phase 11.4 STRUCTURES *(Fig. 49)*

Sub-phase 11.4-1 Construction and use

Walls (17), (20) Two sets of stone footings were built in a line directly upon the top of (15) and running across the centre of the excavated area. These were constructed from predominately rounded or elongated water-worn cobbles, 10-30 cm across, but also included a reused door socket, a reddish-brown fired brick fragment (>10 x >11 x 7 cm; complete thickness only) and some large potsherds, all set in clay. Care had been paid in the construction of these footings to maintain relatively straight external course edges although smaller stones and potsherds were haphazardly crammed between. These footings ran northwest/southeast on the same alignment but were separated by an interval of 1.45 m.; no *in situ* mud-brick survived. (17) measured 40-70 cm x 1.00 m (two/three x five courses) and 15 cm (one course) high; (20) measured 75 cm x 1.55 m (three x nine courses) and 20 cm (one course) high. The tops of the deposits (15) and (35) served as working surfaces contemporary with the construction and use of these footings.

The regularity of the respective wall ends and the lack of any ghost impressions of stones removed from the area

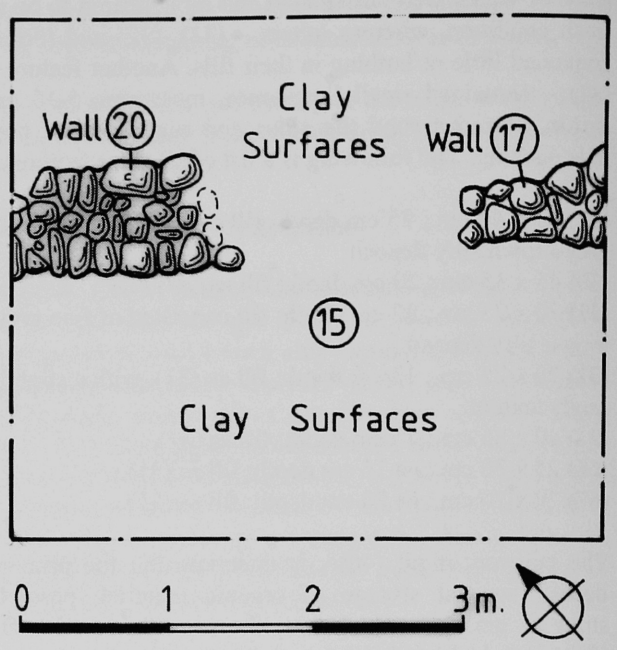

Fig 49 Period 11.4 Late Assyrian walls in [I1]

between imply that the break between (17) and (20) was deliberate and corresponds to a gate or doorway. The absence of any good floors suggests that the footings were part of external construction, possibly a courtyard wall.

Sub-phase 11.4-2 Destruction

Deposit (18) Covering the remains of Phase 11.4-1 and sealing the area was a compacted grey-brown clayey deposit, 8-18 cm thick. Small finds included a small iron object <833>, a ceramic toy wheel <557> and the remains of a small pottery jar <663> buried upright; the latter two objects were found close together in the southeast corner of the sounding, probably within a shallow feature cut from above (see below).

This deposit is interpreted as subsequently weathered mud-brick collapse from Phase 11.4-1. However, it is possible that prior to the deposition of (18) this area was subject to sufficient erosion to remove any traces of floors or other features associated with the Phase 11.4-1 structures. In either event, (18) marks a further stratigraphic break of uncertain duration.

Phase 11.5 FEATURES *(Fig. 50; Pl. 24)*

Sub-phase 11.5-1 Construction

Floor (11) A pale green silty deposit, 2-5 cm thick, running across the full area of [I1].

Brick paving (2) This construction of four adjacent reddish-brown fired bricks was placed on top of the floor (11) near the centre of [I1]. Each of the bricks measured 46 cm square and 6 cm thick and formed a square area 95

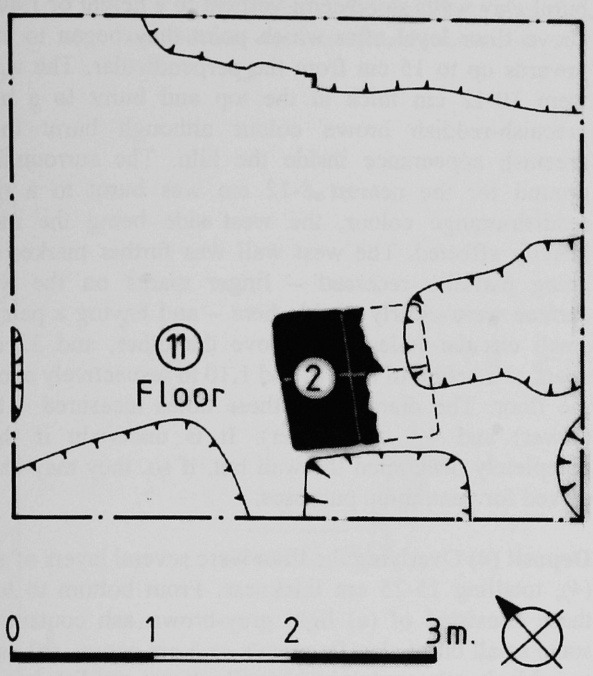

Fig 50 Period 11.5 Late Assyrian brick paving in [I1]

cm across; they had been cut along the east side and were partly visible on the surface prior to excavation.

The use of a coloured floor parallels those found in Phases 11.1 and 11.2; there were no traces of any other architecture associated with the coloured floor in the excavated area and heavy erosion of the top of this phase seems likely. The fired bricks are provisionally assigned to this phase by the difference in alignment to the level above. They may have served as the footing for a large pot or grinder although similar square fired brick features found at Nuzi and Tell Brak were interpreted as hearths.[2] It is probable that the pottery jar <663> and fired clay wheel <557> originally belonged to this phase and had been placed in a shallow cut, no more than 12 cm deep, in the southeast corner of the sounding. The top of the jar – since broken – may then have been flush with the top of the floor (11).

Sub-phase 11.5-2 Disuse

Cut feature (19) An oval feature measuring 40 x 90 cm across and 20 cm deep was cut through the earlier floor and underlying strata. In the dark brown silty fill was a relatively large quantity of animal-bone, all in fresh condition. The fill of this feature therefore closely resembles Phase 11.3 features excavated in this trench.

Sub-phase 11.5-3 Later deposits

Deposits (8), (10) These light brownish silty clayey deposits containing small charcoal flecks sealed the Phase 11.5-2 occupation and probably originally extended over the whole area but were subsequently damaged by erosion and pitting, thus only survived in the upslope areas of the sounding. An iron arrowhead <581> was found within (8) in the west part of the sounding.

Phase 11.6 OVEN *(Fig. 51)*

Sub-phase 11.6-1 Construction and use

Cut feature (3), (4) A shallow cut was dug at a later stage into the top of the Phase 11.5-3 deposits. Two parallel courses of limestones (3) and (4), were laid against the east and west sides of this cut some 1.30 m apart, with some additional limestones being laid flat as paving in the intervening area (9); some ground stone objects <712>, <751>, <789> were reused as part of (3). This feature measured ca 1.50 x 1.45 m with (3) and (4) each between 25-35 cm (one course) across x ca 20 cm (one-two courses) high. Aligned approximately northeast/southwest, the north end consisted of a sloping cut into earlier deposit whereas the south end was open.

Clay lining (6) Adhering to the west face of (3) was a layer of reddish-brown clay, 2-5 cm thick, containing joining sherds of a fineware vessel with dimpled walls.

Surface (10)A The surface south of this feature was partially burnt to a reddish orange-dark grey colour.

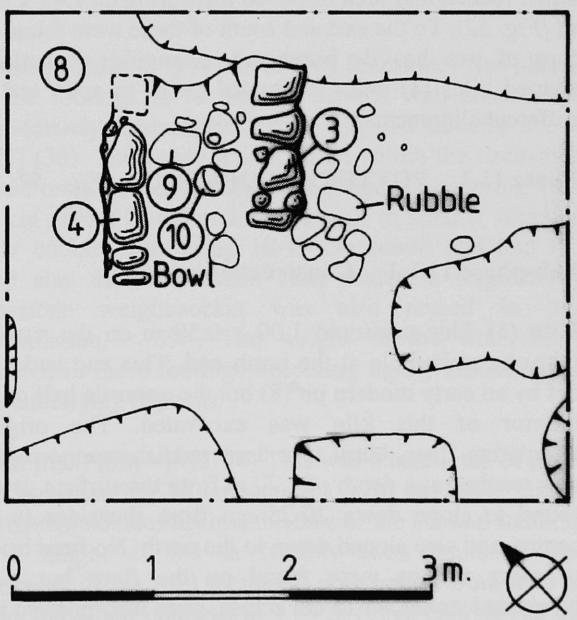

Fig 51 Period 11.6 Late Assyrian oven in [I1]

[2] Starr *et al.* 1939: vol. I, 51-53, pls. 17-19; D. Oates 1987: 182, pl. XXXV.

Burnt deposit (5) This deposit sealed the paved floor of this feature, varying from a reddish orange bricky material containing occasional lumps of burnt orange clay, to dark grey/black ashy lenses containing some large potsherds lying flat; it measured 1.50 x 1.30 m across and 20 cm deep. No industrial waste was recovered but a complete small incised plain pottery dish <674> and a large plain pottery bowl <691> were found respectively in (5) and at the interface of (10)A and (1) *(Pl. 24)*.

No other associated structures or surfaces were excavated for this phase in [I1], with the possible exception of the fired bricks (2) which were provisionally assigned to an earlier phase.

Sub-phase 11.6-2 Disuse

(1) A slightly bricky grey-brown deposit containing occasional limestones measuring up to 20 cm across, varying from 8-20 cm in depth, sealed the earlier remains. This deposit was interpreted as the weathered remains of mud-brick collapse, the surface of which was compacted by recent traffic across the area. This represents the latest deposit in [I1] followed by a lengthy stratigraphic break lasting until Period 13.

TRENCH [I2]

Remains visible on the surface of [I2] seemed to be of an early date and included several groups of limestones measuring between 10-45 cm across and a door socket. These could very tentatively be linked on paper as being the remains of stone wall footings, a doorway, and a small rectangular area of paved measuring ca 1.45 x 0.70 m *(Fig. 52)*. To the east and south of these were found the tops of two heavily burnt sub-rectangular or bath-tub shaped kilns (1) and (5) situated ca 13 m apart and on different alignments.

Phase 11.1 POTTERY WORKSHOP *(Fig. 52; Pl. 25)*

Sub-phase 11.1-1 Construction and use

Kiln (1) This measured 1.00 x 0.50 m on the surface, with the stoke-hole at the north end. This end had been cut by an early modern pit (8) but the opposite half of the interior of this kiln was excavated. The original undulating floor, burnt to a deep reddish orange colour, was reached at a depth of 1.70 m from the surface. It was found to slope down 20-25 cm from the sides to the centre, and also sloped down to the north. No fired bricks or other fittings were found on the floor but some blackened stones, ca 15 cm across, were incorporated into the construction near the foot of the walls. The method of construction of the walls of this feature is uncertain. They may were either lined with mud-bricks and subsequently plastered over, or simply faced with a thick layer of clay, but were fired solid during the use of the feature. The burnt clay walls stood semi-vertical to a height of 1.40 m above floor level after which point they began to arch inwards up to 15 cm from the perpendicular. The walls were 10-12 cm thick at the top and burnt to a pale greenish-reddish brown colour although burnt to a greenish appearance inside the kiln. The surrounding ground for the nearest 8-12 cm was burnt to a rich reddish-orange colour, the west side being the most heavily affected. The west wall was further marked by being partially recessed – finger marks on the wall surface were clearly visible here – and having a pair of small circular holes, one above the other, and 32 cm apart, at a height of 0.78 m and 1.10 m respectively above the floor. The diameter of these holes measured 4 cm (lower) and 4.5 cm (upper). It is uncertain if they completely penetrated the wall but, if so, they may have served for ventilation purposes.

Deposit (4) Overlying the floor were several layers of ash (4), totalling 15-25 cm thickness. From bottom to top, these consisted of (a) light grey-brown ash containing some small burnt clay fragments ca 5 cm across, (b) dark grey/black ash containing heavily burnt reddish-brown clay fragments, ca 3-5 cm across and (c) soft fine light grey/white ash, ca 18 cm thick and containing some burnt mud-brick lumps near the walls of the kiln.

These ashy primary fills were found to contain a lump of vitrified clay, a fragment of *tannur*, several potsherds (including a misfired jar-rim) and a small complete plain pottery vessel <670>. They may have resulted from a gradual accumulation of deposit during the use of this feature.

Kiln (5) The second kiln was not investigated beyond the recording of the surface-visible remains. As with (1), the tops of the walls were burnt to a pale greenish-reddish brown colour. A similar size, shape and date to (1) seem probable; aligned either north/south or east/west on the basis of the small surviving portion, the latter seems more likely with an original stoke-hole either at the east or west end. It is uncertain if it was in use at exactly the same time as kiln (1).

Sub-phase 11.1-2 Disuse

Upper kiln fills (3), (2) The upper (secondary) fills of kiln (1) consisted of a light brownish slightly clayey sandy matrix. Broken burnt bricky fragments from the collapsed roof occurred throughout but were less frequent in the uppermost 50 cm. A small amount of animal-bone and pottery, including some flakes of misfired pottery, were found in these deposits. The majority of the potsherds were Late Assyrian. Some fragments of vitrified clay, a fragment of drilled stone <799>, a light greyish-yellow fired brick fragment (>10.5 x >8 x 4.5 cm.; complete thickness only), and six small basalt grinder fragments, each with rather weathered surfaces (maximum size 7 x 5 x 3 cm.; one fragment registered as <723>).

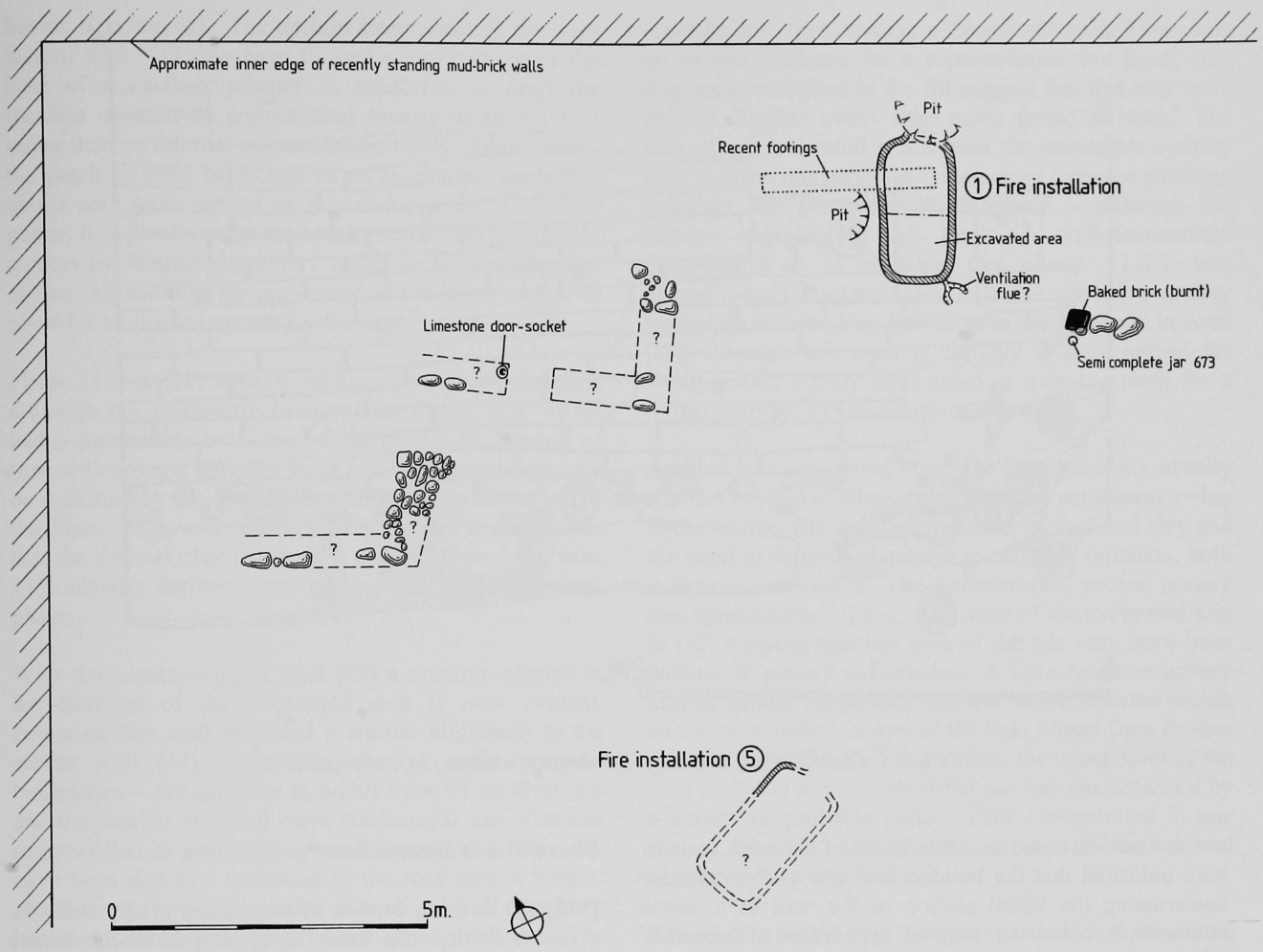

Fig 52 Period 11 Late Assyrian kiln and other features in [I2]

The heavily burnt sides of the kilns (1) and (5) and the ashy primary fills excavated in the former, suggest that they were repeatedly used. Although the presence of a *tannur* fragment in the fill must be fortuitous, the pottery wasters and vitrified clay were presumably derived from these or other unlocated kilns.

TRENCH [M]

No traces of Period 11 occupation were found within [M] yet it seems likely that a massive terrace wall found running along the north side of the mound and beginning within the excavated area of [M] belongs to this period.

Phase 11.1-1 TERRACE WALL *(Figs. 7, 53; Pls. 26-27)*

Terrace cut Prior to the construction of the Period 11 terrace wall, a steep cut was made along the north face of the mound into the earlier deposits. The area immediately north of this massive east/west section was levelled flat, thereby truncating or totally removing the earlier deposits in this portion of the trench. The edge of this cut was located close to the main east section in [M].

Footings [M2] (17) A line of grey limestones was placed as the footings for a massive terrace wall constructed immediately against the terrace cut and directly above [M2] (30). The construction varied within the excavated area from a pair of massive stone blocks measuring 40 x 30 cm across at the end of the wall to smaller rounded river cobbles measuring 10-15 cm across and laid flat with clay mortar between each course; a fragmentary limestone weight/socket was also reused in this construction, <769>. The weight of the wall above resulted in these footings becoming lightly embedded in the underlying deposits.

Wall [M1] (38) =[M2] (4) This was constructed of mud-bricks measuring 36 cm square x 9-10 cm thick, laid in horizontal courses against the face of the cut and standing to a height of 2.4 m (twenty-seven courses). The thickness of the wall increased with height from 0.95 m (two and a half courses) to 1.15 m (three courses) as the builders paid careful attention to maintaining a vertical external face along the north side yet stepping or trimming the bricks against the slope of the terrace cut along the rear. The east end of this wall was located close

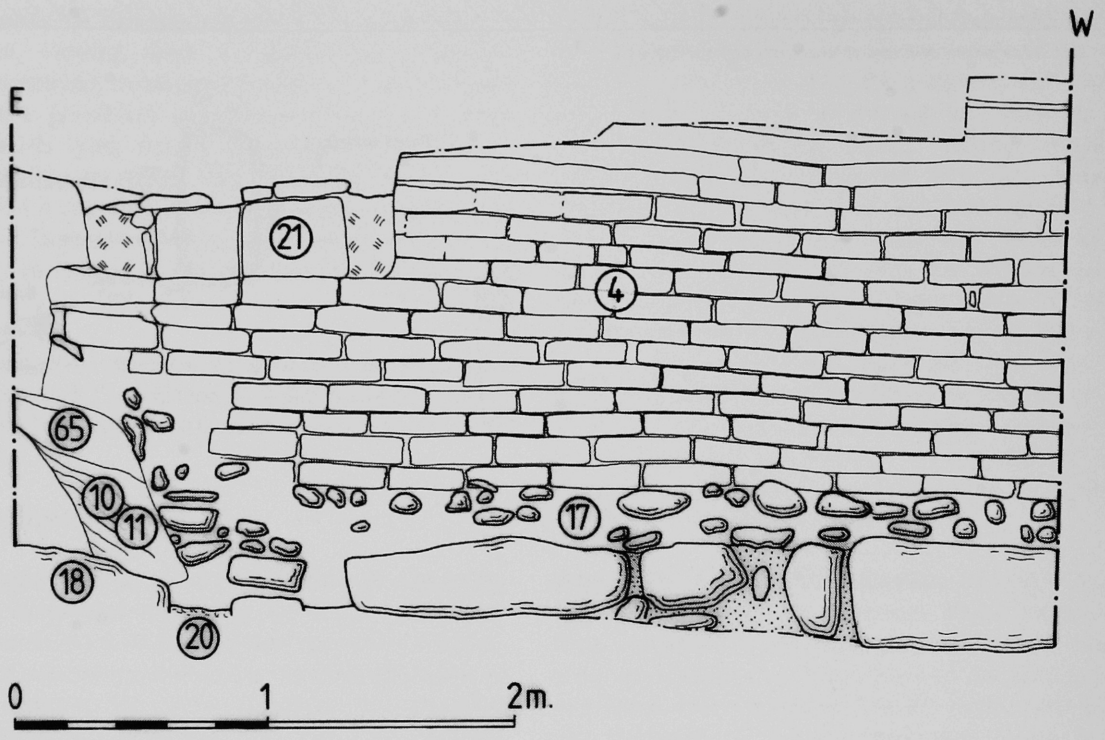

Fig 53 Period 11.1 Late Assyrian terrace wall in [M]: elevation

to the main east section; articulation of the brick courses here indicated that the builders had also economised by constructing the initial section of the wall as a single course thick, hence the 'pointed' appearance of the end of the terrace wall when seen in plan. Residual pottery found reused within the brickwork included diagnostic types dating from Periods 5-8.

Deposit [M2] (6) A 25-45 cm thick dark grey-brown silty deposit containing some small mud-brick fragments appears to have accumulated along the foot of the terrace wall during this phase. Finds from within this deposit included a small number of potsherds, lithic and animal-bone plus some heavily residual pieces, including a Period 6 seal <697> and seal impression <698>; small finds of less certain date included a spindle whorl <615>, a sherd disc <637>, a piece of worked bone <612>, a clay bead <628> and two fragmentary basalt grinders <753>, <784>. The bead and much of the pottery and bone were recovered through dry-sieving of some 225 litres.

Deposits [M1] (3), (2) These bricky deposits within the southern part of the excavated area in [M] may belong to this phase but owing to the destruction caused by later – Period 19 – graves in this limited area, a secure link between these and the top of [M1] (38) was not achieved. They were cut by the Period 13 grain-silo [M1] (106) and overlaid by [M1] (1).

Phase 11.1-2 Destruction

[M2] (2) A thick deposit of compacted bricky collapse, presumably deriving from the upper part of the terrace wall behind; the uppermost *in situ* courses were cut by later features, particularly several Period 19 graves.

DISCUSSION

The [I1] occupation

A similar bluish-green clay to that used for the [I1] (450 surface, known locally as *gil*, was used to plaster the walls of the so-called 'Green Palace' at Tell al-Fakhar and blue or green coloured walls and floors are reported from a number of Mesopotamian sites.[3] A grey-green clay or loam, taken from a nearby wadi, was used in Halaf construction at Yarim Tepe II apparently because it 'has important properties such as good resistance to moisture and quick drying after rain'.[4]

The area directly west of wall (41) in [I1] does appear to have changed its function, judging by the lower-quality surfaces: Early Dynastic reception rooms at Abu Salabikh were characterised by clean clay floors whereas kitchen areas were characterised by dirtier surfaces and courtyards possessed thicker clay deposits, and the same phenomenon was noted in the village at Abu Dhahir (see

[3] al-Khalesi 1977: 7.
[4] Munchaev and Merpert 1971: 29; Merpert and Munchaev 1987: 23.

below: Chapter 12).[5] The upright stone abutting the west face of wall (41) may have formed a low buttress or the base of a shallow pilaster in mudbrick or *tauf*: the location of such an architectural feature in an external rather than an internal context seems likely. Additionally, the patch of fired brick and stone fragments mentioned above may have served as a soak-away for a drain or gutter. It is possible that the break marked the position of a doorway, the upright pottery vessel found near the edge of the wall footings having served as the lower socket or pivot for an inward opening solid door.[6]

Phase 11.2 in [I1] appears to have been fairly lengthy, although not necessarily longer than Phase 11.1 which had a comparable buildup of floor levels. An interval of time with erosion between these two building phases may be indicated by the lack of surviving mud-brick on top of the Phase 11.1 wall footings (41). Indeed it is possible that the earliest clay fill surface (37) attributed to Phase 11.2 actually derives from the levelling of the previous phase.

With the construction of wall (43) a possible change in the function of the excavated area is now evident. Although this wall followed a similar alignment to the earlier wall (41) – possibly due to static property boundaries – the decrease in width from 65 to 40-50 cm and the smaller size and more economical use of stones suggests that its load-bearing need was reduced. This may have been due to a reduction in the roof size or height: alternatively, both areas either side of the wall may have become external, removing the need for a thick wall. The greater build-up of surfaces to the east of wall (43) is similar to the situation observed in Phase 11.1 which seemed to reflect differences in the use of internal and external areas. The discontinuity of the earlier coloured floors in favour of more strictly utilitarian clay surfaces suggests a change of function of the area east of wall (43). This is supported by the variety of features now found here. The laid stone areas (36) may represent emplacements for grinders or large pottery vessels (unless they consist of partial wall footings attached to (43) in a primary sub-phase, subsequently demolished). No industrial waste products were found and the remains are presumed to be domestic. Pit (65) could have been used for the storage or disposal of organic substances which unless carbonised would not have left any visible traces. Additionally, there seems to be burning associated with the oven (62); this type of oven was occasionally found at Nuzi.[7]

Ovens and kilns

Phase 11.6 in [I1] is marked by what seems to be a horizontal oven with the main aperture/mouth facing southwest but possibly with another aperture at the opposite end, thus creating a through-draught. There was no *in situ* evidence for a superstructure but burnt clay fragments collapsed in the fill suggest that this may have existed. Similar ovens were again found at Nuzi.[8] The lack of any industrial waste from the immediate vicinity may indicate domestic use – such as an oven for parching spikelets and producing brittle chaff[9] – although the regular cleaning-out of kilns is well-documented elsewhere.[10] It is possible that Phase 11.6-1 was approximately contemporary with the use of a pottery workshop situated less than 25 m to the southeast in Area [I2]: although this oven is unlikely to have served for firing pottery it may have acted as a drying oven for a limited number of vessels prior to firing.[11]

Another kiln was found nearby in [I2]. Kilns are usually situated beyond or close to the edge of a settlement owing to the smoke, fire risk, requirements of fuel and clay and the need to dispose of a large quantity of products, both intentional and waste. The presence of a second pottery kiln approximately 13 m. southwest of the excavated kiln in [I2] suggests that this area of the site may have been devoted to pottery manufacture. A Late Assyrian pottery kiln of similar shape and size was found situated within an enclosed industrial area at the Eski Mosul Dam Project site of Khirbet Qasrij.[12] In addition, the upper level of the Late Assyrian site of Tell al-Fakhar was characterised by a variety of probable pottery kilns concentrated in one part of the site.[13] Similar patterns recur at Nineveh and Mithlai in the north Jazira.[14]

The relative height of the original ground level associated with these kilns is uncertain. Nevertheless the visible burning of the earth adjacent to the walls indicates that these were sunken fireboxes, as at Khirbet Qasrij. Fuel could have been stacked inside the firebox by means of a sloping or stepped stoke-hole at one end, and the air-supply controlled by sloping ventilation holes at the sides. There may have been a gradual accumulation of fine ash at the bottom of the firebox, depending on the thoroughness of its cleaning-out following a firing. The fineness of the ash may reflect the use of brushwood as the fuel. The rounded corners of what was essentially a rectangular plan would have facilitated circulation of heat within the kiln and the cleaning out of the ash. The upper part of such a kiln, including the firing chamber, may then have been completely dismantled after each firing, leaving little trace in the archaeological record. Fragments of stone and fired brick in the upper (secondary) fills of the firebox may derive from this superstructure as it was probably constructed from mud incorporating occasional lumps of rubble.

[5] Matthews and Postgate *et al.* 1987: 104.
[6] Cf. Starr *et al.* 1939: vol. I, 45.
[7] Starr *et al.* 1939: vol. I, 54.
[8] Starr *et al.* 1939: vol. I, 54.
[9] Hillmann 1984: 129.
[10] Majidzadeh 1977: 213.
[11] Cf. Hodges 1964: 35.
[12] Curtis 1985: 12-15; Curtis *et al.* 1989; cf. also Simpson 1997b: 55.
[13] al-Khalesi 1977: 11-13, figs. 4, 35-37.
[14] Simpson 1990.

This interpretation suggests that the pottery kilns in [I2] were approximately contemporary with the stone wall footings visible on the surface nearby. The pottery jar <673> may also belong to this phase, having been deliberately sunken into the ground. Another possible instance of this may be seen in Phase 11.4 in [I1] where a pottery jar <663> – with a similar fabric to <673> – appears to have been placed in a shallow cut with the rim originally near the contemporary floor level. The relationship of [I2] with the upper part of [I1], including as it does a rectangular fire installation associated with Late Assyrian pottery, in Phase 11.6 seems temptingly close. The distance between the Phase 11 kiln in [I2] and the Phase 11 oven in [I1] is ca 22.5 m. Although the exact function of the [I1] feature is uncertain, it may have functioned as a drying oven associated with the pottery production in this area of the site.

The terrace wall

The exact function of the massive construction in [M] is unclear yet the terrace wall clearly served as a secure revetment along the north side of the mound. The lack of a return on the east side indicates that it was intended as a terrace wall rather than a defensive wall that encircled the site.

The west end of the same terrace wall was discovered by the University of Mosul in the centre of the mound where it ended in a free-standing rectangular platform said to measure up to 7.4 m across and up to 5.75 m high *(Pl. 27)*. The area immediately to the west was recognised as having been levelled in antiquity – hence like the area in front within [M] – and appears to have been paved and possibly defined by a second wall along the west side. The main structure was constructed of twenty-five or more courses of mud-brick containing residual Ubaid sherds, placed on one or two courses of large stone blocks, again as found within [M]; the east, south and west sides of the platform were faced with up to eleven courses of stones placed with a slight batter on the exterior and an offset along the west side. In the centre of this narrow platform was a low rectangular mud-brick bench measuring 1.00 x 1.20 m across and 30 cm high, possibly constructed on a course of flat stones. The top of the original terrace cut running along the rear of the terrace wall was detected between Level 2 (Period 13) and Level 5 (Period 7?) but misinterpreted as having in-filled through natural processes: the wall was therefore incorrectly interpreted as an early construction dating to the late 4th or early 3rd millennium BC on the basis of the bottom level of the footings which were found between Levels 12-9.[15]

General discussion

No evidence was recovered for a dramatic destruction at the end of the Late Assyrian period, despite expectations on the basis of historical evidence and discoveries at the Eski Mosul Dam Project site of Khirbet Khatuniyeh.[16] This may simply reflect the limited extent of the areas excavated at Abu Dhahir but despite the evidence noted above for the destruction horizons at the end of Period 7 (see chapter 7), our observations of the processes of abandonment and destruction of the early modern village suggest that the effects of these processes may be heavily localised and consequently more elusive in the archaeological record (see chapter 12).

Period 11 pottery was identified in surface collections in Areas B, E, F, I and O. Apart from the west end of the terrace wall, no Late Assyrian remains were reported from the University of Mosul excavations. This is slightly surprising as this team was particularly familiar with this period owing to its earlier excavations at Tarbisu. A fragmentary white, blue and yellow glazed 'tile' found in a Period 13 make-up context in the University of Mosul excavations may be part of an Assyrian glazed tile but unfortunately the piece is not illustrated in the published preliminary report;[17] a small quantity of Late Assyrian pottery was also identified from section collapse in their main excavation area (our Area E). One possibility is that their Levels 3-4 – attributed in their preliminary reports to the mid-2nd millennium BC and discussed above in the context of Khabur occupation in Chapter 8 – may be considerably later. An alternative and more likely explanation is that the focus of Late Assyrian domestic occupation was on the more sheltered southern slopes of the mound, thus outside the main areas excavated by the University of Mosul. This hypothesis accords with the lengthy sequence found in [I1] and helps explain the topography of the mound itself.

The excavated remains therefore indicate monumental construction with the building of a massive terrace wall along the northern side of the earlier mound, although the purpose of this construction is unclear. In addition there appears to have been an extensive and long-lived settlement with pottery production developing around the southern edge of the mound. Abu Dhahir thus appears to have been a relatively important settlement at this period but its ancient name is unknown. However, this was not the most significant period in the site's history, nor was any construction found associated with the terrace wall.[18]

Abu Dhahir is one of 18 sites of this period to be excavated within the Eski Mosul Dam Salvage Project. The size and importance of these appears to vary, as was highlighted in Green's review of the evidence.[19] A small rural settlement was identified at the nearby site of Khirbet Shireena, located only a short distance to the west near the mouth of the Wadi Suweidiya[20] and a grain-

[15] Adil 1981: 88-89, fig. 15; Yunis 1981: 103-104, 110, pl. 6.

[16] Curtis and Green *et al.* 1997.
[17] Cf. Adil 1981: 92.
[18] Contra Green 1999: 100.
[19] Green 1999 lists 16 sites.
[20] Green 2003.

silo was excavated at Qasrij Cliff.[21] An extensive one-period site, measuring up to half a km. across with a potters' workshop at the east end, was discovered at Khirbet Qasrij.[22] A poorly defined 1st millennium level with a pavement constructed of fired bricks measuring 34 cm square x 6 cm thick was found close to the summit of Tell Sheikh Humsi.[23] There are indications of possible high-status buildings at Khirbet Khatuniyeh[24] and particularly Tell Baqaq 2, where a palatial building dated by a tablet of the reign of Adad-Nirari III (809-782 BC) was partly excavated, revealing three courtyards, one of which was paved with fired bricks.[25] The eastern side of this paved courtyard opened onto a suite of four rooms, one of which may have been a bathroom, whereas the western side was characterised by a large room of standard 'reception room' plan, with red-painted walls, fired brick paving and stone 'tram lines' running along the centre of the floor. These are a standard feature of Late Assyrian palace throne-rooms. A large public building was also identified close to the northwest part of Tell Jigan and a possible terrace wall or fortification constructed of mud-brick (37 cm across x 12 cm thick) on three courses of stone footings was identified in a machined section near the northeast corner of the same site: unfortunately, the date of both areas remains ambiguous. Late Assyrian pottery has been reported from several other sites in this Project. Finally, a cremation burial was also found at Tell Shelgiyya.[26]

A lower density of settlement appears to have prevailed in this region after the fall of the Assyrian Empire as the region lost its former stability and probably largely reverted to pastoral nomadism during the Neo-Babylonian and Achaemenid periods.[27] The remains of a rural settlement probably dating to the 5th century have been identified at Kharabeh Shattani, and inhumation graves of the same period containing shouldered bronze drinking-bowls, a metal pin and pottery were excavated at Tell Rijim Omar Dalle.[28]

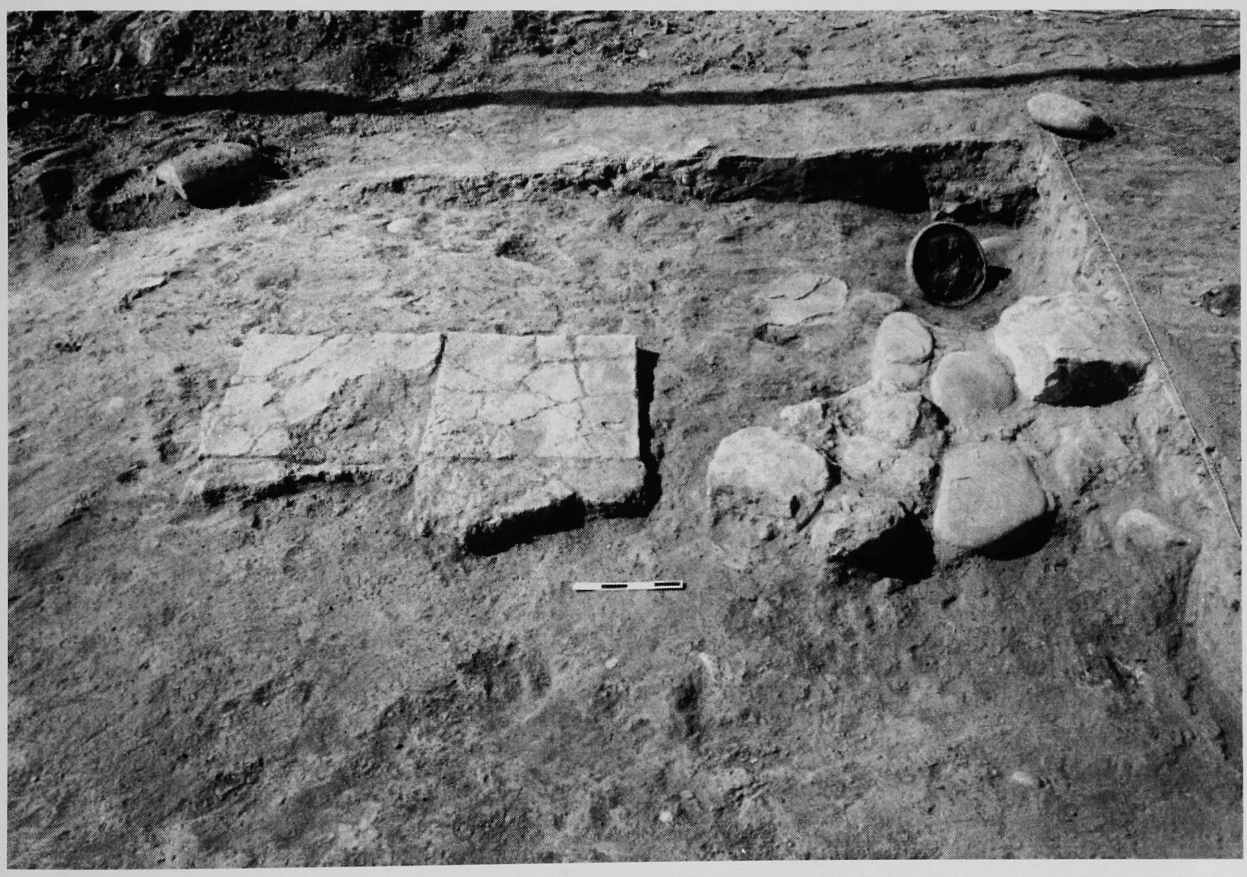

Plate 24 Late Assyrian Phase 11.5 and 11.6 features in [I1], looking west at paving (2), stone wall (3) and in situ *bowl*

[21] Curtis *et al.* 1989.
[22] Curtis *et al.* 1989.
[23] Bader 1987a: 132.
[24] Curtis and Green *et al.* 1997.
[25] Killick and Roaf 1983: 208; Killick and Black 1985: 228; Toma 1987c.
[26] Ball and Pagan 2003.
[27] Cf. Curtis *et al.* 1989.
[28] Baird 1995; Simpson 1995a; Kaim 1995.

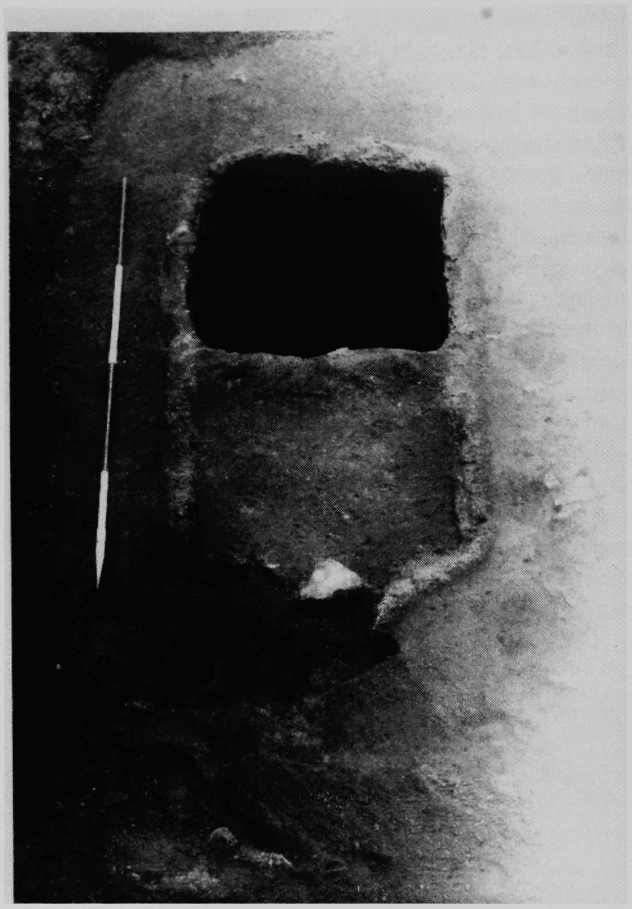

Plate 25 Late Assyrian Phase 11.1 kiln in [I2], further end fully excavated

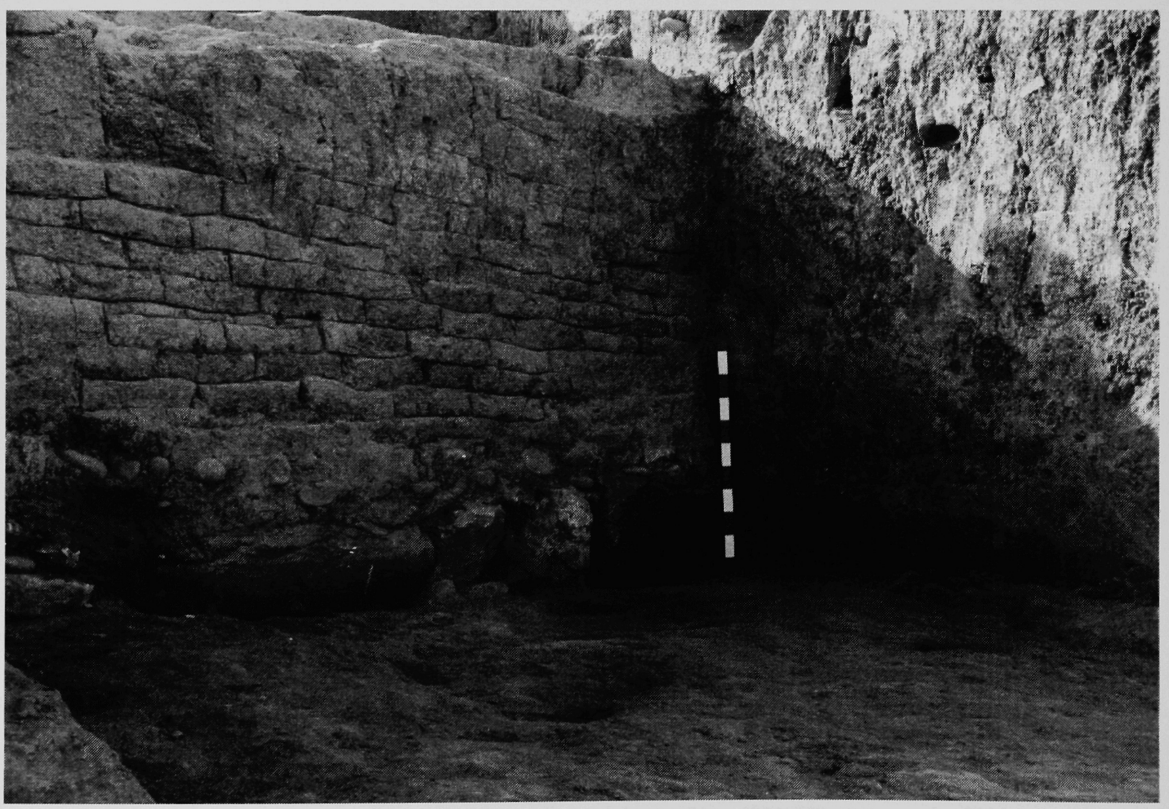

Plate 26 Late Assyrian Phase 11.1 terrace wall in [M1]

Plate 27 The end of the Late Assyrian Phase 11.1 terrace wall in the Mosul University excavation

CHAPTER 11

PERIOD 13: HELLENISTIC

SYNOPSIS

Massive structural remains belonging to this period were encountered by the University of Mosul across the summit of the mound; a grain-silo was discovered in [M] and other cut features attributed to this period, varying from possible grain storage to a single grave, were investigated in [I1] and [T1].

TRENCH [I1]

Following a lengthy break, marked by erosion of the top of the Period 11 deposits, a number of cut features assigned to Period 13 were constructed in this area. Some appear to have been used for grain storage whereas another consisted of a grave.

Phase 13 LATE PITS AND GRAVE *(Figs. 28-30, 54; Pl. 28)*

A number of pits and large features were cut from, or just below, the modern ground surface.

Cut feature (14) A large flat bottomed and steep sided cut feature measuring at least 0.70 x 3.00 x 1.18 m deep ran into the north and east sections of the sounding. The primary deposit consisted of a thin (1-2 cm thick) layer of white/light grey powdery ash spread uniformly across the bottom of the feature. This was overlain by a secondary light grey brown silty clay deposit; some rodent intrusions were evident. Small finds included a basalt grinder fragment <719>. The top of this feature was cut by (7), (13)/(12), (64).

This type of feature with traces of an organic primary fill is very similar to a Period 11.3 feature – [I1] (40) – with some resemblance also to a Period 13 grain-silo in [M]. The date of this feature is uncertain but a Period 13 date is most likely.

Cut feature (21) This relatively flat bottomed and steep sided cut feature ran into the west and south sections of [I1], measuring at least 0.45 x 1.82 x 0.90 m. The fill consisted of a relatively fine grey-brown silty clay with few inclusions or artefacts except for a small iron object <820>. This feature is similar in appearance and depth to (14) but lacks its distinctive organic primary fill; its purpose and date are uncertain.

Grave (22) *(Pl. 28)*. A flat bottomed and steep sided grave largely excavated and measuring ca 0.50 x 1.10 m across containing an adult male skeleton lying on its left side, orientated east/west with head bent downwards and facing southwest; the right arm was bent upwards with hand in front of the face, and left arm bent downwards

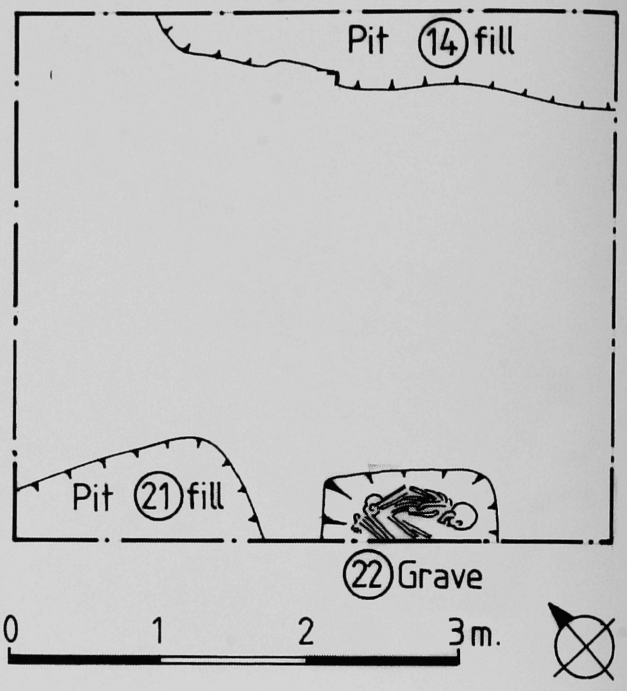

Fig 54 Period 13 Hellenistic pits and grave in [I1]

with hand between the lower legs; the legs were tightly flexed. No grave-goods were found. The main fill of this 68 cm deep grave consisted of a fairly fine grey-brown silty clay, including a basalt grinder fragment <790>.

The date of this grave is uncertain yet it post-dates the Period 11 deposits and the consistency of the fill is more similar to features [I1] (14) and (21). Moreover, the type of grave and attitude of the body is unlike any of the early modern graves excavated in [M]. The nearest visible graves in the early modern cemetery are up to 12 m away and on the opposite – north – side of the track which separates it from the early modern village. This grave is therefore thought to predate this cemetery.

TRENCH [M]

Remains of this period in [M] were represented by a single feature, namely a sunken grain-silo. This marked the first use of this area since Period 11; the mound was later deserted until graves were constructed here in Period 19.

Phase 13 GRAIN-SILO *(Figs. 5-6, 44-45)*

Grain-silo (106) This large flat bottomed feature was cut through earlier deposits, including (3), in the south corner of [M1]. The sides were slightly undercut, especially in the lower 2.30 m. This may have been due to the nature of the earlier deposits for during its original excavation,

its builders discovered, and reused, the face of an earlier (Period 8) stone wall [M1] (47): consequently all original floors and deposits contemporary with this earlier building were destroyed on the south side of (47).

Lining [M1] (52)B A moderately compacted layer of light brownish-yellow clay up to 12 cm thick had been deliberately applied to this revealed stone face.

Primary deposit (105) The horizontal floor of this cut feature was covered with a thin horizontal layer, no more than 0.5 cm thick, of a loosely compacted white/pale grey silty or ashy deposit containing wispy traces of a fine organic substance; no other inclusions were visible.

Deposits (53), (51), (50), (49), (46)A Above this deposit was a compacted grey-brown silty clay deposit with clear tip/dump-lines, up to 2.30 m in depth. The lowermost 0.90 m (53) was particularly distinguished by thin fine bluish-grey silty lenses and pockets containing occasional small fragments of orange mud-brick. Grey limestones (between 5-25 cm across) were scattered throughout these deposits; two larger stones (up to 47 cm across) were found pitched down at a steep angle between 30-90 cm above the bottom of this cut feature. Some rodent burrows (5-15 cm across) were found concentrated in the lowermost 35 cm of the fill, partially intruding into the top of the underlying deposits.

Deposits (46)B The uppermost 75-90 cm of this feature was filled with a series of consecutive slightly greenish-grey silty clay deposits containing occasional dark ashy lenses: these were thickest and deepest in the centre.

Although the position of the top of the cut for (106) is uncertain, it postdates the deposition of (3); the relationship with (2) is less certain. The in-filled feature was sealed by (1), subsequently slumped into a hollow at the top. Potsherds in the various fills were of mixed date, including Later Uruk, Ninevite 5, Akkadian, Khabur and Hellenistic types, the latter including a fishplate base with a stamped palmette on the interior. Some vitrified clay and a little animal-bone and shell were found throughout these deposits. The following small finds were also found: a highly polished bone tool fragment, an oval asphalt stopper <571>, two burnt clay plain sealings <641>A-B, a grinder <720>, two asphalt or burnt clay plain sealings <644>A-B, a fired clay animal figurine fragment <620> and an inscribed Rhodian amphora handle <794>.

TRENCH [T1]

Earlier Period 7 stone construction appears to have been reused and remodelled in this period; no traces of any further activity were found.

Phase 13 POSSIBLE GRAIN-SILO *(Figs. 38-39, Pl. 19)*

Construction (4), (3) Part of the stone paving (4) next to the wall footings (3) appears to have been removed subsequent to construction; the footings themselves may also have been partly removed. The clay lining on either face of the preserved footings thus may have been applied at this secondary stage rather than during their construction in Period 7: similar evidence for the relining of earlier exposed architecture as part of later modification and reuse was found on the Period 13 grain-silo in [M].

Deposit (8) A number of deposits were excavated. The top of a very fine dark, slightly greenish, grey silty clay deposit was reached in one corner of the excavated area covering an area of approximately 0.60 x 1.20 m.; no associated material was recovered.

Deposit (5) Sealing (8) was a lightly undulating light greenish-grey clay deposit mottled with white flecks and patches, 3-5 cm thick.

Deposit (7) Lying directly over the paving (4) was a dark brown slightly clayey silty deposit.

Deposits (2) Two layers, combined during excavation, and overlying (5) and (7). These included a dark brown slightly bricky silty deposit (A), 15-40 cm thick containing occasional small pebbles (up to 1 cm across) and chunks up to 4 cm across of coarse slightly reddish-brown clay containing large white flecks. Overlying this was a light, slightly bluish-grey, fine silty clay with rare inclusions, approximately 10-15 cm thick. Potsherds were abundant including an unusually high proportion of finewares. These, plus a semi-complete small jar with vertically smoothed exterior <664>, are Akkadian types paralleled at Tell Taya[1] but including some residual Period 5 and presumably contemporary Period 13 material. Additional finds were a fired clay animal figurine fragment <595>, a fragmentary basalt grinder <3023> (>5.5 x >6.5 x 3.5 cm.; complete thickness only) and some animal-bone.

Deposit (6) A dark brown silty deposit containing occasional greyish limestones 10-15 cm across, similar in appearance to deposit (2A) and possibly contemporary. The thickness was uncertain as excavation ceased at an arbitrary point. This was the only deposit to be excavated to the north of the wall footings. Pottery was fairly abundant; some flint lithics and large pieces of vitrified clay were also found.

Deposit (1) The uppermost excavated fill in [T1], sealing all other contexts, consisted of a dark brown slightly bricky silty deposit 25-50 cm thick, containing a number of small limestones (ca 5 cm across) and abundant

[1] Reade 1973.

potsherds. A small amount of animal-bone, some vitrified clay and a basalt grinder fragment <730> were also recovered; a fired clay animal figurine fragment <521> may belong to [T1](1)/(2).

On the surface of [T1] and the surrounding area were a number of small pebbles ultimately deriving from the underlying natural conglomerate, plus very small potsherds with worn edges evidently washed from higher up the mound. The lowest excavated contexts [T1] (8)/(5) were quite distinct to the upper deposits (7), (6), (2), (1): these were initially interpreted as initial floor levels associated with the stone wall footings, prior to the laying of a paved area, and succeeded by disturbed Period 7 destruction deposits. This material was therefore interpreted initially as a closed group. However, although this interpretation cannot be firmly excluded, it seems more likely following post-excavation analysis that all of the excavated fills are re-deposited. With the disuse of this area, the infilling of features was unchecked. The lowest excavated fills here could possibly be interpreted as water-lain silts, followed by deliberate dumping of material including some re-deposited natural. The presence of joining potsherds as well as semi-complete vessels may indicate large scale re-deposition of earlier material. The large proportion of Akkadian material here – if it indeed is all exactly contemporary – may be a reflection of the date and type of deposits being disturbed, possibly in more than one place on the mound. The small but undeniable numbers of recognisably late (i.e. Period 13) artefacts here sounds a note of caution in dealing with such batches of material. Finally, it should be pointed out that the latest recognisable and datable artefact in such a group may itself be earlier – indeed, considerably earlier – than the actual date of re-deposition.

As an illustration of what indeed may be the case in [T1], comparison is made here with the excavated Period 13 grain-silo in [M1]. As mentioned above, the clay lining on the wall faces in [T1] recalls that on the sides of this large storage pit. There again, there was an excavated sequence of dumped deposits separated by fine undulating silty layers, with quantities of re-deposited material. Although not on the same scale as in [T1] – and as observed above, this may be a reflection of the deposits being disturbed in a particular area – the proportion of recognisably late (i.e. Period 13) types was small.

In conclusion, it is very possible that the [T1] construction – possibly associated with large quantities of Akkadian material subsequently re-deposited – was at least partially cleared, and incorporated into one or more deep sunken Hellenistic grain-silos. These may have penetrated into natural deposit, hence accounting for the relatively large chunks of natural in the backfill. The duration of these grain-silos is uncertain prior to their being filled with what was presumably the nearest or most readily available material.

DISCUSSION

This period was marked by the construction of a large building on the summit of the mound, which was investigated by the University of Mosul, and a series of cut features on the slopes behind. These included at least one, and possibly two, grain-silos, suggesting that the area along the eastern edge of the mound was used for the processing and storage of agricultural products. These siloes were encountered in [M] and possibly [T1]. Additional cut features, including a grave provisionally assigned to this period, were encountered in [I1].

The silo in [M1] was presumably originally circular in plan although as it extended beyond the excavated area it was not possible to reconstruct its original capacity. Its depth suggests that it would have exceeded the requirements of an individual family. The pit appears to have had undercut lower walls and a flat bottom whereas the uppermost 2.30 m were vertical, thus forming a bell – or inverted funnel – shape in profile. This shape therefore combined economy of digging and ease of sealing with maximum capacity during use. The partial clay lining – specifically applied over the earlier rough stone wall face – suggests that this feature was intended for dry storage. The most likely function of this feature is as a grain-silo although the primary fill may represent the remains of chaff. A recent parallel in Iran cited by Wulff consisted of placing winnowed grain in 'deep trenches dug into the ground, lined with straw, and covered with chaff and earth ... until milling facilities became available'.[2] Elsewhere in Iran, barley was 'piled in ... pits, whose tops are then sealed with a layer of chaff-tempered mud plaster. Villagers say that barley stored in this fashion may be usable for up to three years'.[3] Similar storage has been observed at the end of the 19th century in parts of Palestine and Syria, the reasons given being that this was a more secure means of concealing agricultural produce at times of insecurity or from tax-collectors;[4] the process of sedentarisation of rural communities may also lead to increased use of such silos.[5] Shallow bell-shaped storage pits proliferate in Palestine during the Iron Age: despite suggestions that some were used as chalk quarries or composting pits, finds of carbonised wheat at Tell Keisan and Shiloh proves that these likewise functioned for long-term storage of agricultural produce but were often reused as convenient dumping places for refuse.[6]

Experiments with similar storage pits in England indicate that their effectiveness results from a chemical process whereby the partial decomposition of grain in contact with the pit walls releases sufficient carbon dioxide to kill off the bacteria and fungi causing the rotting, thus stabilising the atmosphere until the seal is broken after which time the contents continue to be usable for as long

[2] Wulff 1976: 277 and ref.
[3] Kramer 1982: 105.
[4] Wilson 1906: 137; Thomson 1911: 507-508.
[5] Finkelstein *et al.* 1986: 126.
[6] Kislev 1980; Herzog 1989: 113.

as a year.[7] The thin primary fill appeared to be of organic origin: its fineness and appearance were very distinctive and the lack of inclusions suggests that it derived from the decomposition of a single material such as grain, chaff or animal dung. One possibility is that it represents the burning of residue as a form of fumigation against contaminatory pests.[8] Experimental archaeology offers a second possible cause as the residue of emptied grain-silos is typically 'a thin crust 1-2 cm thick against the pit sides and bottom' a secondary use for which is as cattle feed.[9]

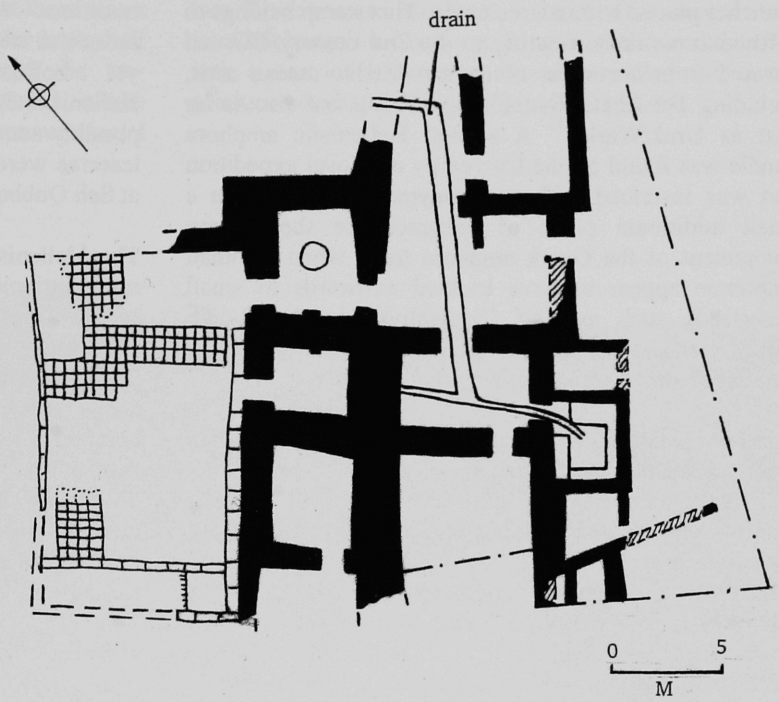

Fig 55 Period 13 Hellenistic building excavated by the University of Mosul: reconstructed plan (after Adil 1981; Yunis 1981)

The ground here, close to the edge of the summit of the mound, is well-drained and the same probably held true for the period of use of this feature. No other structures of this late date were found in the limited area excavated here, but one may postulate the digging of grain-silos such as this on an unoccupied site or area of a site. The upper portions of one or two similar features were excavated in [T1], 36.5 m to the southeast of this feature in [M], one of which was associated with Hellenistic pottery. This cut feature remained in use for an undefined length of time. Tip-lines in the lower secondary fills of this feature seem to indicate later deliberate dumping of material into a disused but deep and dangerous hole. The comparative homogeneity of these deposits – apart from the intermediate lenses – may be interpreted that this infilling took place over a short period of time, possibly as a single episode. Above this, the uppermost (tertiary) fills are totally different in character. Their regular stratification and lensing, corresponding to the sloping-back upper edges of the feature cut, suggest erosion of the edges following rain and the washing of up to 90 cm of sediment into a hollow, approximately 1.60 m deep in the centre. All traces of this slumped-in feature were sealed by the deposition of (1)A, prior to subsequent Period 19 grave digging.

General discussion

The final period of pre-Islamic occupation at Abu Dhahir dates to the late Hellenistic period. The strategic and/or administrative role of the village thereafter passed to Seh Qubba for the Roman, Sasanian and Islamic periods.[10] Two levels attributed to the Hellenistic period were uncovered on the summit of the mound of Abu Dhahir by the University of Mosul (Fig. 55).[11] The uppermost of these in their Area A belonged to a single large courtyard building with a row of rooms completely excavated along the east side. The rectangular courtyard measured some 10 m east/west x 17.5 m north/south and was paved with fired bricks (40 x 40 x 5 cm.) or pebbles set on an asphalt bed. The walls were built of mud-brick on offset substantial reddish sandstone footings which were traced around all sides of the courtyard. Although partly destroyed by early modern graves, the walls survived up to a height of 1.70 m.; they were constructed of mud-bricks measuring 38 cm or 41 cm across x 9.5 or 13 cm thick. The central room on the east side opened onto the courtyard and was faced around the lower portion with further sandstone slabs measuring up to 90 cm across and 6-8 cm thick and attached with asphalt to the mud-brick behind. The upper portions of the walls were plastered with a greenish mud plaster and the floor was constructed of pebbles set on an asphalt bed. Further excavations by the same expedition to the southeast of these walls revealed a stone-paved passage or alleyway flanked by further mud-brick walls with part of a second courtyard containing an asphalt-lined storage pit.[12]

There are several indications that the Hellenistic level at Abu Dhahir dates to the 2nd and early 1st centuries BC. The most important is that of the stamped amphora handle found in [M]: this was inscribed with the name 'BROMIOS' followed by a wreath or pair of olive/vine

[7] Cunliffe 1983: 112.
[8] Currid and Navon 1989.
[9] Cunliffe 1983: 112.
[10] Ball and Gill 2003b.
[11] Adil 1981: 83-85, fig. 4; Yunis 1981: 101 = Areas A, E and G, Levels 1-2.
[12] Yunis 1981: 101-102.

branches placed within a rectangle. This stamp belongs to a Rhodian workshop dating to the 2nd century BC and attested from a number of eastern Mediterranean sites, including Tel Anafa, Samaria and Tarsus but also as far east as Uruk/Warka.[13] A second Hellenistic amphora handle was found by the University of Mosul expedition and was inscribed with an eponym.[14] They provide a small additional piece of evidence for the eastern component of the Greek amphora trade when Rhodian amphorae appear to have trickled eastwards to small farmsteads such as Tell Damishliyya in the Balikh valley[15] and Tell Sheikh Hassan, as well as larger population centres such as Babylon.

A red-slipped bowl found in the same level as the second amphora handle was stamped with oval geometric [= palmette?] impressions.[16] This is a diagnostic ceramic type for the late Hellenistic period in this region, found for instance at Tell Deir Situn, Grai Darki, Hatara, Tell Jalluqeh, Tell Jigan and Tell Mohammed Arab.[17] A relatively large quantity of Hellenistic pottery was also found on the surface in Areas B, C, D, E, F, K, O, R and V. These included bowls with incurved rims decorated with black glossy paint and sherds belonging to large vessels impressed with crescentic or triangular stamps, the latter repeated to form a dogtooth pattern around the upper shoulder;[18] pottery impressed with dotted circle stamp impressions was reported from the University of Mosul excavations although identified as 'Parthian' by reference to Hellenistic pottery published from Nimrud.[19]

Several unidentified copper alloy coins were found during the surface investigations but the only example to offer useful means of dating was a silver coin found in the University of Mosul excavations and originally identified as Alexander Balas (150-146 BC).[20] This was kindly re-identified by Dr A. Meadows (Department of Coins and Medals, The British Museum) from the published photograph as more likely to be a tetradrachm of Antiochus XI Epiphanes Philadelphos, who ruled for only one year (93 BC); the coin was struck at Antioch. A 32 cm long bronze so-called 'skull' spoon with a bent handle was found during the third season of excavations by the University of Mosul, as were a number of animal figurines in this level.[21] Finally, a small fragment of mosaic consisting of roughly squared white limestone tesserae set into a thick bed of *opus signinum* <793> was recovered from slope-wash. The date of this is less certain however as Hellenistic mosaics usually relied on the use of pebbles – as in the earlier Assyrian or Phrygian tradition – rather than shaped cubes. The use of floor mosaic at sites in this region is very poorly documented yet Loftus records what appears to be a Hellenistic/Parthian mosaic at Mongerah (Mungarreh),[22] possibly named after the Kurdish Mangur tribe; scattered tesserae were also found in a 3rd century Roman context at Seh Qubba, a short distance upstream of Abu Dhahir.[23]

The Hellenistic period witnessed a marked increase in rural settlement density throughout the area of the Eski Mosul Dam Project. Architectural remains vary from domestic architecture at Tell Jessary and Khirbet Khatuniyeh to a single long building at Tell Deir Situn.[24] Large subterranean grain-silos were found at a wider number of sites, including Tell Thuwaij, Tell Fisna, Grai Darki, Tell Jessary, Tell Mohammed Arab and Khirbet Shireena.[25] In many cases these sites were on earlier mounds that were re-occupied between the mid-3rd and mid-1st centuries BC. Elsewhere in northern Iraq, the summits of old tells at Nineveh, Nimrud, Balawat and Tell Abu Sheetha were likewise re-occupied during this period.[26]

This high rural settlement density is also mirrored in the north Jazira, parts of northern Syria and southeast Turkey.[27] The archaeological evidence therefore implies a period of prosperous stability with several major agricultural and technological innovations, including the use of bell-shaped sunken silos for easily sealable long-term storage of grain, hourglass-shaped Pompeian mills were used alongside the traditional rotary querns, and pyramidal loom-weights imply widespread use of vertical looms. There were also marked changes in the material culture. Classical forms of ceramic, notably incurved rim bowls and amphorae, were adopted by local potters although the use of red slips or, in southern Mesopotamia, stamps to decorate certain wares were a continuation from a late Achaemenid tradition.[28] Classical styles of terracotta figurines and lamps cast in two-part moulds also appear in Mesopotamia during the Hellenistic and early Parthian periods. Rural settlements within this section of the Tigris river valley again shared the cultural revolution, judging by finds of pottery and terracottas made in the same mould found at Tell Deir Situn and Hatara.[29]

The effects of the political transformation from Seleucid to Parthian rule in this region remain to be understood in

[13] Ariel and Finkielsztejn 1994: 199; Crowfoot 1957: 383; Grace 1950: 143, fig. 116, nos. 51-53; Börker 1974: 43-44, 49.
[14] Yunis 1981: 106, pl. 1 = Area E, Level 1.
[15] Akkermans 1986/87: 45.
[16] Yunis 1981: 106.
[17] Curtis, Green and Knight 1987/88: 52, pls. 5-6; Venco Ricciardi 1997; Thennun 1987; Roaf 1983; Roaf 1984a.
[18] Cf. Curtis and Green *et al.* 1997: 93-94, fig. 68, nos. 541-42.
[19] Adil 1981: 85, fig. 6.
[20] Adil 1981: 85, fig. 7.
[21] Yunis 1981: 110.
[22] British Museum, Original Drawings II, 33.
[23] Ball and Gill 2003b.
[24] Curtis and Green *et al.* 1997; Curtis, Green and Knight 1987/88.
[25] Numoto 1996: 77-81, figs. 1-2, pls. 3-4; Numoto 1987: 43-45, fig. 9: 1-4; Numoto 1988: figs. 2, 8, 10; Numoto 1990: 234; Curtis, Green and Knight 1987/88: 52; Fujii *et al.* 1987: 72; Roaf 1984a; Green 2003.
[26] Cf. Oates 1968: 63-66; Oates and Oates 1958; Reade 1998.
[27] Wilkinson and Tucker 1995: 64-67; Wilkinson *et al.* 1990: 114-17; Oates and Oates 1990; Oppenheim 1962.
[28] E.g. Thennun 1987; Toma 1987b; Venco Ricciardi 1997; cf. Simpson 1995a.
[29] Curtis, Green and Knight 1987/88: 52, pl. 4; Ball and Black 1987: 239.

detail. The current tentative impression is that there was a reduction in rural settlement density from the latter half of the 1st century BC onwards. Amongst the few identified sites of this period was Baqaq 2 where excavations produced pottery, a moulded terracotta and two Roman coins struck at Antioch. One was a silver tetradrachm minted between 31 and 16 BC, and the other was a cast of a bronze coin or so-called 'SC issue' produced during the reign of Nero (AD 54-68).[30]

Plate 28 Phase 11 Grave (22) in [I1]

[30] Toma 1987c: 47, top: cf. *Roman Provincial Coinage* I, nos. 4136-4149; bottom: cf. *Roman Provincial Coinage* I, nos. 4283, 4297-98 or 4307-12 (identifications by Dr A. Meadows, Dept of Coins & Medals, The British Museum).

CHAPTER 12

PERIOD 19: EARLY MODERN

SYNOPSIS

The early modern period was represented by an extensive mud-brick village, a large cemetery which extended across the summit of the old tell, and a number of other excavated features, described separately below. The recording of these was undertaken on the understanding that this was the latest period of occupation and use of the site. This was an ethno-archaeological rather than an anthropological study and was conducted within tight constraints of time and resources.

THE VILLAGE *(Figs. 56-60, Pls. 2, 29-44)*

Spatial organisation

During its latest phase of development (1985/86), the village of Abu Dhahir appeared to be roughly organised according to spatial criteria, some readily apparent. For example, most of the tell itself was free of construction although there was a thin scattering of discarded domestic materials resulting from the process of abandonment. The early modern village climbed the lower slope of the tell but was divided from the cemetery which covered the crest by an east/west running track. Although there was no physical reason why building could not have continued up the slope, those houses which were adjacent to the track presented a continuous wall face. The primary direction of access to these compounds was therefore from the village to the south rather than the cemetery area: whether this reflected a practical reason or superstition is uncertain.

With the exception of that part which climbed the slopes of the tell, the village was topographically unconstrained and showed no sign of being situated for defence.[1] The main part of the village spread to the south and west of the tell itself, following the line of the river terrace, presumably facilitating access to fresh water yet avoiding seasonal flooding. There was no evidence to suggest overall planning of the settlement although individual compounds were clearly built to household requirements. There were some newer buildings in concrete – for instance the mosque – but these were individual structures rather than a planned development, and in some cases they were built among or on the extant mud-brick structures.

There were two main streets running parallel to the river: these were wider and straighter than the lanes which tended to be just wide enough for a land-rover; narrower alleys wide enough for a single pedestrian might lead into house compounds. All of these spaces were un-metalled although some households created areas of hard standing in their courtyards through the laying down of river cobbles. Construction within the village was relatively dense yet this decreased towards the edge of the village. Some one in five houses had a vertical unlined well with no superstructure; the remainder of the houses relied on the river for domestic water supply. Collapsed remains of wooden hoisting gear were sometimes present in the well shafts but only one structure was observed with a permanent construction over the well (see below: the 'khan').

The situation of public buildings appeared to be governed by practical reasons rather than a desire for centralisation: the local agricultural station was, logically, at the northwest edge of the village, adjacent to its land. The single new cement-built mosque was in the area of densest construction, adjacent to the tell and close to the cemetery. The cemetery itself was located on well drained high ground that was unsuitable for agriculture and further from the potential sources of domestic water supply, probably the main reasons why the village was situated on the lower ground. The 'khan' lay on the outskirts of the village to the south. It was not possible to gain any information about local land-holdings to see whether property boundaries in the land around influenced the siting of any of these buildings. Some boundaries at least within the village would seem to have been flexible as many structures showed signs of having had subsequent extensions: other compounds were very clearly defined on two or three sides but remained relatively open on the remaining sides. These small-scale changes may reflect changes in wealth, inheritance or marriage agreements.

Several small soundings were excavated in the area around the tell within the limits of the recent village: the primary purpose of these was to try to ascertain the extent of the ancient settlement. However, lying as they did within the courtyards of standing structures, it was almost inevitable that some of the excavated deposits and features related to the early modern occupation. These are discussed below according to sounding.

The village structures generally stood to roof height, and in many cases still contained some of their original contents, then recently discarded; many structures also retained their internal divisions (e.g. partitions, concrete and mud-brick room fixtures, etc). In view of this, it was felt that survey of some of these buildings might be of ethno-archaeological interest. As there was not sufficient time for anything more ambitious, the survey could only be partial; some structures were planned by pacing and remaining contents noted, and some general observations made concerning the spatial arrangement and

[1] The possible 'khan' building was itself defensible but like the rest of the village was built on flat ground.

organisation of the village, architectural methods and materials, decoration etc.

Architectural materials

The materials reflected those which were locally available. Most structures were built of mud-brick, but extensive use was also made of undressed stone, cement, concrete, with timber and straw used for roofing.

Mud-brick The normal material for construction was mud-brick on one or two courses of undressed stone footings, the whole then being plastered over with straw-tempered mud. Mud-brick sizes tended to vary although it was usual for bricks within a single wall to be of the same size. The largest bricks recorded were 48 x 33 x 10 cm, the smallest 32 x 25 x 8 cm, mostly grey-brown, although some were more orange or yellowish-brown. Colour occasionally varied within a single wall. In March 1986 the process of making mud-bricks in open moulds was observed at the north Jazira village of Kharabeh Tibn: these bricks measured 49 x 32 x 9.5 cm.

Stone Undressed stone was used as the basic construction material for sleeping platforms (see below), and was also usually employed for the footings of mud-brick walls in order to reduce rising damp *(Pl. 29)*.[2] Walls without footings of this kind were unusual and were invariably associated with small partitions or other low-status parts of structures. Other walls might have several courses of stone to a height of about a metre, with mud-brick above; others consisted entirely of large undressed stone although these tended to be single rooms within predominantly mud-brick compounds. In most of these cases where stones provided more than footings, mud plaster was used as mortar whereas cement proper was rare for this purpose.

Cement/concrete As has been mentioned, there were a small number of concrete structures in the village such as the mosque. There were also buildings which had concrete additions such as room (11) of the 'mukhtar's house' *(Fig. 59)* or some cases where internal fixtures to the room had been done in cement. For instance in the 'mukhtar's house', room (2) had a cement threshold, and the rooms adjoining the main entrance to the 'khan' had cement floors, thresholds and small rectangular or curving bins in their corners (elsewhere these are found in mud-brick and plaster). However, these were relatively few in number and restricted to these larger and presumably important establishments.

Timber This was mainly used in the form of rafters to hold up roofs constructed of matting and straw covered with mud, but almost all the roofs in the village had been removed in order to reuse the relatively valuable and scarce wood. Only one roof was in place in the 'mukhtar's house'; namely, above room (5), which was roofed with beams running across the width of the roof a metre apart. All but two of the roofs of 'private house 1' *(Fig. 57)* were still intact, mostly again with beams spanning the width of the room (although rooms (3) and (6) had beams running lengthwise). It was notable that rooms (1), (2) and (5) had superior roofs covered with matting whereas rooms (3) and (6) were covered with branches. Room (3) was a low-built room apparently specifically used for the housing of animals: here the roof beam was partially supported immediately inside the doorway by a pillar made of several cylindrical metal water containers (*baramil*) cemented together. Both this room and room (2) had posts helping to support the roof: these appeared to be temporary shoring, as they did not occupy the central axis of the room or directly support the roof beam. All the wood used in this way was unworked, and had a diameter of 10 cm. Finally, some small planks and flat pieces of wood were used as lintels above windows and doors and occasionally a wooden grille would be used in a window *(Pl. 30)*.

Matting and straw The extant roofs usually had large woven bamboo or palm-fibre mats resting immediately on the roof beams, this being then covered with straw and mud plaster.[3] In those compounds where the roofs had been dismantled to reclaim the timber, the straw and matting was left lying in the rooms and courtyards, often up to 2 m high against the walls *(Pl. 31)*. Sometimes this material had subsequently been burnt leaving extensive scorch marks on the lower wall faces *(Pl. 32)*.

Other roofing materials Small twigs were occasionally used between the large beams. In some rooms there were quantities of wire that had been used to bind the mats to the roof. In some cases, the use of matting had been replaced by sheets of corrugated iron covered with straw and mud.

Mud plaster Mud mixed with straw was almost universally employed to plaster walls on both the exterior and interior. In some rooms the interior was painted red, white or pale green. Slightly different tones of these colours may reveal up to four or five re-plasterings. Within a single house, only one or two rooms – the sitting room and/or bedroom – were decorated, usually in white or pale green, and lending an impression of coolness to the interior. Sometimes there was also a dado painted red or dark green; occasionally, a design was also added, for example scalloping at the top of the dado, handprints or flowers, invariably in the same colour as the dado itself *(Pl. 33)*: the hand motif is a traditional means of affording protection against the 'Evil Eye' and recurs in this particular architectural context throughout the Near East.[4] The dado of one room was variously painted red and yellow. In other cases, the area around the entrance from the courtyard to the main sitting room was also whitewashed to highlight its importance (see below:

[2] Cf. Conti and Fiorina 1997: 68, fig. 50.

[3] Cf. Conti and Fiorina 1997: 68, fig. 54.

[4] Baldensperger 1893: 217; Biewers 1997: 70.

floors). Mud plaster was also employed to make troughs, bins, benches and even butter churns.

Metal The use of *baramil* to support the roof in one house has been noted above; elsewhere they were occasionally employed to support the mud bins in the corners of rooms *(Pl. 34)*. Metal was also used for doors, where prefabricated sheet metal (aluminium) doors could be bought in the nearest towns, and then usually painted red or blue. These, like the roof beams, were generally removed at the time of evacuation. The other frequent use of metal was as wrought-iron window grilles decorated with scroll-work, about 50 x 30 cm across, either unpainted or rust-red. Several of these had been left in place. Finally, sheet metal was also sometimes used in *tannurs* or bread ovens, presumably because it was a good heat conductor.

Features of construction

Walls The normal method of construction was mud-brick on one or two courses of undressed stones used as a damp course *(Pl. 29)*. Bricks were laid with mud mortar and usually plastered with mud. These walls were usually one brick in thickness, about 40 cm wide; the bricks were laid flat with alternate rows overlapping, although there was frequent use of a herringbone pattern, either just at the top of the wall or sometimes for the entire height; this technique was also noted at Hatara Saghir.[5] This pattern was found only in courtyards so was presumably decorative: although the use of mud plaster on exterior surfaces was usual it was not invariable. The other decorative form of brickwork was associated with sleeping platforms (see below), where the parapet around them was about 50-60 cm high and constructed of single bricks arranged vertically or at an angle with gaps between thus giving a plastered lattice effect *(Pl. 37)*.

Roofs The method of roof construction has been mentioned above, namely beams spanning the width of the room (usually) covered with matting, straw and mud. In a few cases, small patches of sheet metal had been applied to leaks; and occasionally corrugated sheets have been used in place of, or in addition to, the matting layer. The effect was essentially a flat-roofed village but the tops of the roofs could not usually sustain much activity. Daily life within the village was therefore mostly limited to the ground: this was in contrast with the new village at Bardiyya where the flat roofs of the concrete houses facilitated alternative means of drying clothes and foodstuffs and offered, for the first time, an upper storey for sleeping during the hot summer months.

Floors These were mostly of beaten earth. A few rooms possessed cement floors, these usually being the principal residential rooms of a house. This reinforced the impression that these were the most carefully constructed parts of the house (see above: mud plaster) and reflected the social importance of the sitting room in daily life and the reception of guests. This pattern, to be observed throughout the Near East, appears to be a very lengthy one judging by archaeological evidence from mid-3rd millennium housing at Abu Salabikh; the same phenomenon was observed in Period 11 occupation in [I1] (see Chapter 10).[6]

Doorways There were two types of doorway: one was a regular rectangle to accommodate the ready-made metal doors *(Pls. 31-32)* whereas the other had a slightly trapezoidal shape tapering inwards towards the top, with a thin wooden lintel running across the top *(Pls. 35-36)*. In two instances it was found that the plank-built wooden door was secured shut by means of a rope attached to the wall and partially blocked by piled boulders *(Pl. 35)* or that the doorway had been bricked up and plastered over *(Pl. 36)*. These perhaps represented structures belonging to families who had moved to another part of the village.[7] Most doors – like the gates to their compounds – were removed by the householders at the time of abandonment. Thresholds were usually constructed of five or so limestones, roughly plastered and raised between 5-15 cm above floor level; cement thresholds were also constructed.

Windows Windows varied in size from small rectangular openings high up in the walls to let in light (these lacked a frame or covering, and measured on average 30 x 30 cm across) to the large metal-framed windows with glass panes found at the mosque and room (5) of the 'khan' (ca 1.24 x 1.00 m). The average window size was 40 x 60 cm; these were equipped with wooden slot frames for glazing, since removed. Some houses had metal or wooden grilles dividing the window into 6, 9 or 12 panes *(Pl. 30)*; these were often covered with wire mesh with sheets of heavy plastic stretched over and nailed into position: the discarded remains of plastic window sheeting were a regular feature of the abandoned houses. Sometimes there was also a small circular aperture high in the wall, often at the gable end: these were, like the rectangular apertures, probably designed to facilitate ventilation in summer but which could be easily blocked with straw or clay in winter.[8]

Sleeping platforms These were built of stone covered with mud plaster, about a metre high and approached by three steps. The top measured 5 x 3 m on average (the largest example measured, in the 'mukhtar's house', was 9 x 3 m), usually attached to a wall of the compound and only rarely free-standing. The centre of the platforms may be filled with bricks or earth, and the tops were sometimes surrounded with a low plastered mud-brick parapet *(Pls. 37-38)*. There was invariably one but occasionally two platforms within each compound (see

[5] Conti and Fiorina 1997: 65, 67, fig. 53.

[6] Matthews and Postgate *et al.* 1987: 104; cf. also Kramer 1982: 93, 103-104; Hill and Kazi 1990: 141.

[7] Cf. Ziadeh-Seely 1999: 131.

[8] Cf. Nissen 1968.

below: staircases). These would have been used by the entire family in the hot summer months. Similar sleeping platforms are known as 'scorpion beds' in the Khabur basin.[9] In other villages within this section of river valley, the roofs were used as sleeping platforms (see below) or a roof-level platform was constructed with poles resting on cross walls.[10]

Staircases A small number of houses had narrow staircases constructed of plastered mud-brick leading from the courtyard onto the flat roof *(Pl. 38)*. However, unlike villages at Seh Qubba and Musaifna, relatively little use appears to have been made of the roofs at Abu Dhahir, thus presumably reflecting fundamental differences in building materials and the presence at Abu Dhahir of sleeping platforms in each of the house compounds (see above).

Ovens These were invariably constructed above-ground and were situated in the house compounds, usually within a flimsy mud-brick shelter *(Fig. 56; Pl. 39)*. The ovens were made of coil-built ceramic, measuring between 4-6.5 cm thick, up to ca 80 cm high, ca 70 cm across at the base and 30 cm across at the top; the interiors were burnt to a reddish appearance, blackened around the aperture at the top; the exterior walls were covered with pieces of iron sheet, plastered over.[11] Breakage of the ovens tended to be along the coil junctions as this was the point of weakness.[12]

Wells These were cylindrical and unlined, up to 30 m or so in depth; the most elaborate example was found in the 'khan'. In other cases, domestic water supply was transported in *baramil* by donkey from the Tigris: a ford opposite the site was still used for this purpose in 1985/86.

House compounds

All of the village houses were built on a compound plan with rooms facing onto and entered from a central courtyard. The size of the compounds and the materials used varied but some features were characteristic, if not always present in compounds:

1) a separate oven installation
2) a sleeping-platform
3) small platforms or bins in room corners
4) windows tending to face onto the courtyard
5) communication from room to yard, not usually between rooms

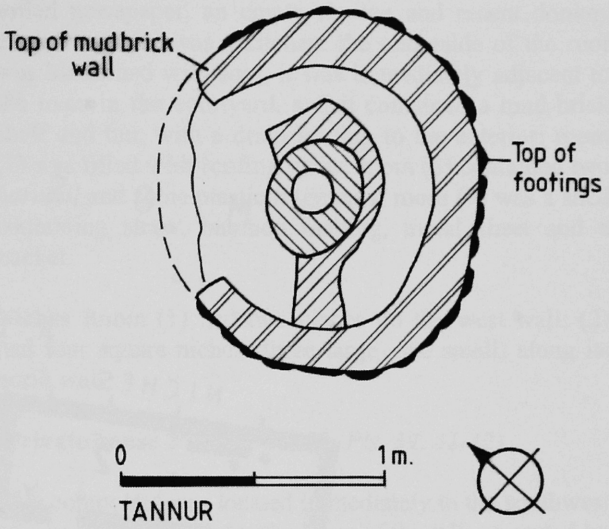

Fig 56 Period 19 oven and enclosure shed in 'private house 2'

It was not possible to produce a full plan of the village but four compounds, detailed below, were selected for more detailed recording, supplemented by a number of photographs taken in other compounds.

'Private house 1' *(Fig. 57)*

This compound was very well-preserved and still retained most of the roofs. Its situation was immediately to the south of the mosque, with alleys or other open spaces to the south and east and another house to the west. Rooms (1), (2) and (5) were residential and had superior floors, walls, windows and roofs whereas room (3) appeared to be used for stabling and storage of valuable winter fuel[13] and rooms (6)-(9) were used as kitchen and domestic areas. Room (4) appeared to have been abandoned at an earlier stage; Boivin illustrates examples of house reduction following the death of a parent or splitting-off of one or more sons and their families that lead to certain rooms being recycled for use as stabling or storage.[14]

Walls No walls had more than one course of stone footings. Above this the walls were of greyish mud-bricks (either 32 x 25 x 10 cm or 36 x 29 x 10 cm). The top course of room (4) was laid in herringbone pattern. All walls were plastered externally with orange/red mud plaster, heavily tempered with straw; room (11) also had patches of *juss* plaster. Some rooms bore interior decoration. Room (1) was white-plastered with a dark blue-green dado roughly painted 65 cm high, and also painted around the window; the top of the dado was scalloped *(Pl. 33)*. To the right of the door as one entered the room was written the name and titles of Allah. Room (2) bore traces of red plaster. Room (7) was roughly plastered.

[9] Seeden 1985: 294.
[10] Lemarié 1984.
[11] Cf. Conti and Fiorina 1997: 67, 69.
[12] Sherds of *tannurs* were recognised in several excavated contexts but tend not to be systematically reported in other archaeological reports, either because they are not distinguished from potsherds or because they are considered worthless.
[13] Cf. Kramer 1982: 47-48, 89.
[14] Boivin 2000: 379; cf. also Ziadeh-Seely 1999: 131.

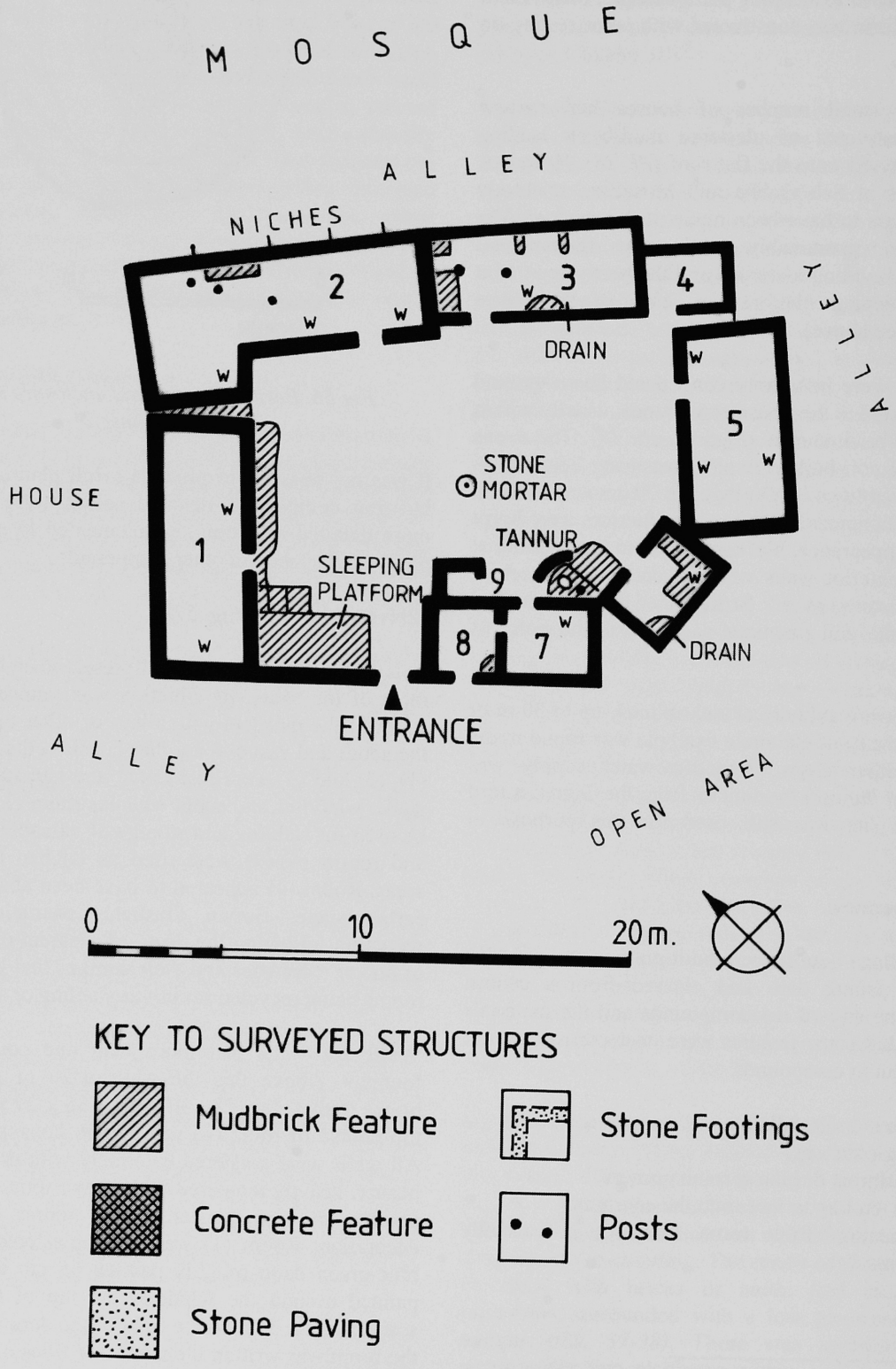

Fig 57 Period 19: private house 1

Windows Room (11) had a large rectangular window 1.04 m high and 56 cm wide, fitted with a metal grille, as were the windows of rooms (2) and (5), one of which was in wrought-iron scroll-work. All windows had wooden lintels.

Doorways All doorways were complete except room (4), which was an unroofed enclosure. All of them had a wooden lintel and room (11) had a full wooden frame. The average measurement was 1.80 x 0.75 m.

Roofs All the roofs were still extant apart from rooms (4), (7) and (8) (a full description has been given under 'Architectural methods').

Courtyard The courtyard was entered from a single entrance to the south. The sleeping platform was built against the southwest corner of the court, adjacent to the entrance and room (1): it was 1.3 m high and 3 x 5 m across, and reached by three high mud-brick steps, now rather eroded. Outside room (1) there was a low stone platform about 1 m wide and 30 cm high and running along the entire face of the wall: this was presumably used for placing shoes before entering the room or sitting on at appropriate times of the day. There was a stone mortar in the centre of the courtyard, and between the entrances to rooms (6) and (7) a separate *tannur* was built against the wall with a shield wall on the north side and a post behind to support a roof. Assorted old twisted Nestlé and other tin cans, a plain smashed *hubb* and some metal bars lay in a pile between rooms (1) and (2), a child's pair of pink plastic boots were left on the platform outside room (1) and assorted *baramil*, a metal dish, empty tin cans and plastic sheet were scattered across the empty space.

Room contents Room (1) contained some plastic sheeting from the windows, a sugar sack, a shallow metal bucket minus the bottom, an aluminium water-tank lid, an empty cigarette packet, a miniature bathroom tile, a tin can, assorted fragments of cloth and a small quantity of donkey dung; room (2) had a floor covered with pieces of straw, animal dung, old clothing, including a quilted coat, odd shoes and socks, plastic sheet, plus old carrier bags and the remains of a suitcase, an empty jam-jar, empty tin cans, a broken plastic bucket, rusting tin trays, a metal oil-drum and three sugar sacks full of solidified cement; room (3) had a floor covered with straw and dung and contained several long mud-brick troughs, one filled with fodder, a drain leading beneath one wall into the courtyard, traces of circular dung fuel pats on the walls (largely removed), the rim of a *hubb* and three stacked metal trays – one filled with animal dung – left on top of a bin next to the door, the rest of the room containing a collection of old buckets, *baramil*, a metal tray, a metal bar, the broken stand for a *hubb*, plastic sheet and a tree stump; room (4) was overgrown with deep grass and contained some plastic sacking, a *baramil* and an empty tin can; room (5) contained some twisted corrugated metal sheet attached to wood, plastic sheet, pieces of soiled newspaper, an empty tin can and recent donkey dung; room (6) was a kitchen: the underside of the roof was blackened with soot, it was immediately adjacent to the oven in the courtyard, and it contained a mud-brick shelf and bin, with a drain leading to the exterior; room (7) was filled with roofing straw; room (8) contained two *baramil* and some plastic fragments; room (9) was a shed containing straw, bamboo matting, metal sheet and a bucket.

Niches Room (1) had two niches on the west wall; (2) had four square niches (three large, one small) along its north wall.

'Private house 2' *(Figs. 56, 58; Pls. 39, 41-42)*

This compound was located immediately to the southwest of Trench [I1] on the south slopes of the tell, separated by an alley from the 'mukhtar's house' to the east. Room (12) – and possibly rooms (6) and (7) – were residential whereas room (8) appeared to be a kitchen and place for making butter; rooms (1) and (11) were likewise domestic. The arrangement of these, plus the evidence of two sleeping platforms and several cooking installations, indicates an extended family. The presence of several blocked doors and altered interior decoration in room (8) – a surprisingly spacious room for a domestic function – suggests periodic remodelling and possibly a change in function: Horne documents recycling of rooms according to the season or the age of the room.[15]

Walls Room (8) had a sequence of three visible plasterings on the interior wall faces, the first plain, the second red followed by a final plain coat; room (12) was painted red above a green dado except for an area measuring 2.55 m across at the north end of the east wall, perhaps representing a reconstruction or the position of a large piece of furniture and a former doorway in the west wall which had clearly been blocked subsequent to this interior decoration. An old black leather shoe was found embedded toe outwards in the brickwork to the left of one doorway as one entered from the courtyard, at a height of 20 cm above the threshold.[16]

Doorways This compound had several blocked doorways, namely leading from the courtyard into rooms (8), (9) and (14) and connecting rooms (12) and (13). A low stone step outside the door marked the entrance from the courtyard into room (8).

Courtyard There were two sleeping platforms, one situated against the east wall of room (5), the second against the north wall of room (14), both accessed by low

[15] Horne 1994.

[16] Campbell Thompson (1923: 236) recorded how 'the inhabitants of Basrah nail up either an old shoe or a doll over the door' in order to keep away the Evil Eye; Drower (1941: 86) documented a similar practice from north Iraq whereby cut human hair was placed within the interstices of walls rather than being discarded for fear that this might bring bad fortune.

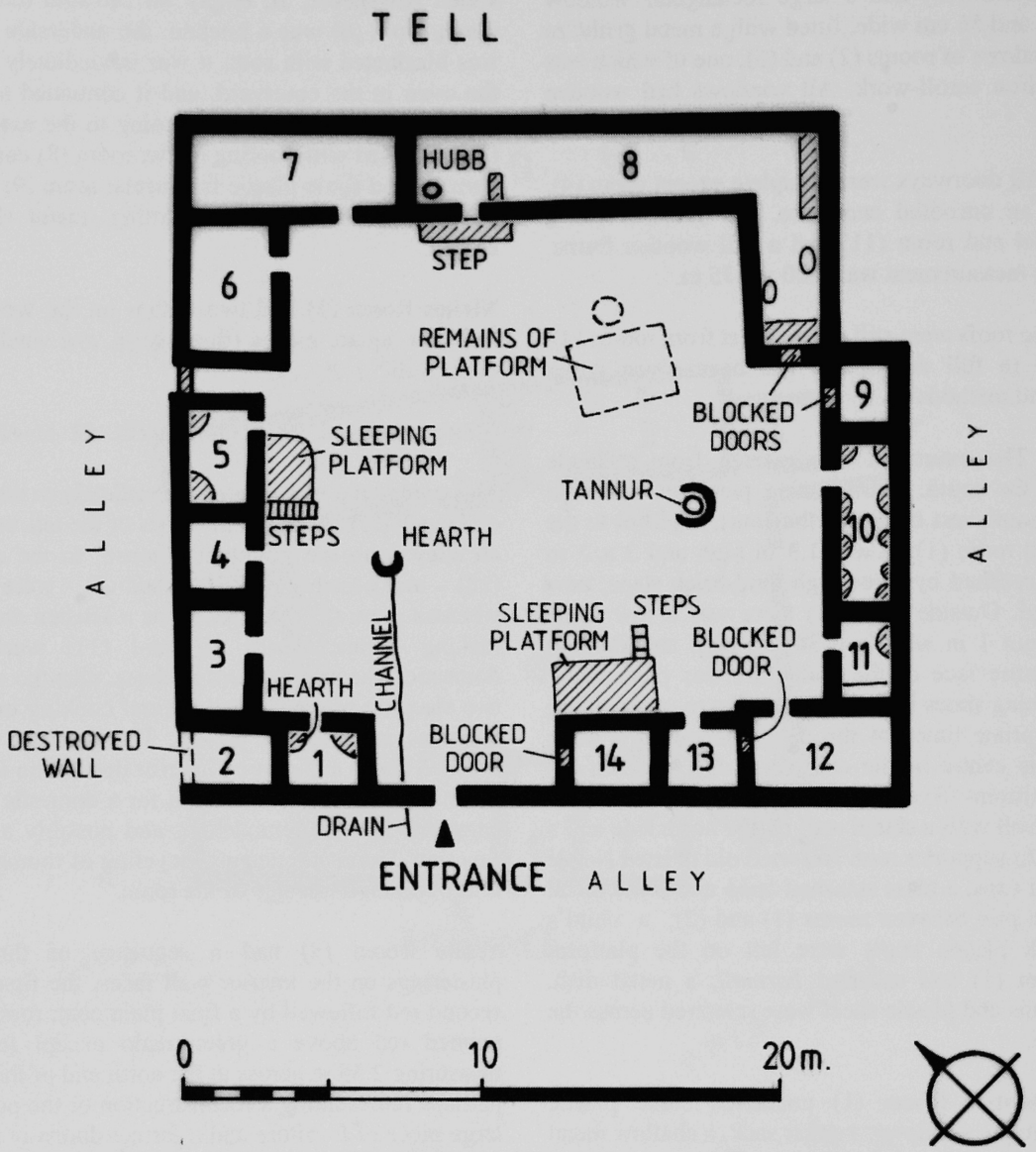

Fig 58 Period 19: private house 2

flights of steps. A freestanding *tannur* was constructed in the east half of the courtyard, enclosed within a circular roofed shed facing west *(Fig. 56; Pl. 39)*; a semi-circular open cooking hearth was situated on the opposite side of the courtyard, with a channel leading from it into a drain that passed beneath the compound wall close to the entrance on the south side of the house.

Room contents Room (1) contained a hearth and a semi-circular plastered bin either side of the entrance; room (5) had a pair of plastered features against the wall opposite the entrance; room (8) contained a broken *hubb* immediately inside the doorway and low plastered benches along the far walls in the east half of the room, between which were positioned two large horned clay butter churns *(Pl. 41)*, the floor being partially covered with roofing straw and other detritus; room (10) contained a green-glazed jar (*sadd*) <810> and had semi-circular bins along each of the long walls; room (11) had a semi-circular bin opposite the entrance and a plastered bench along the far wall; room (12) had a cement floor but was empty. The position or type of detritus in the other rooms was not noted.

The 'mukhtar's house' *(Fig. 59)*

This compound is a good example of the larger house; it belonged to the former village headman but had been acquired by a relatively wealthy villager prior to its abandonment. It was situated immediately adjacent to the mosque to the southwest and to the track and tell to the north; 'Private house 2' lay immediately to the west but separated by an alley which connected the mosque with the cemetery. A small sounding, Trench [I2] was excavated at the north end of the courtyard and revealed some cut features of early modern date, possibly *tannur* pits, close to the entrance to room (4) (see below).

Walls All exterior walls were plastered with orange-red, straw-tempered mud plaster, except room (11), which

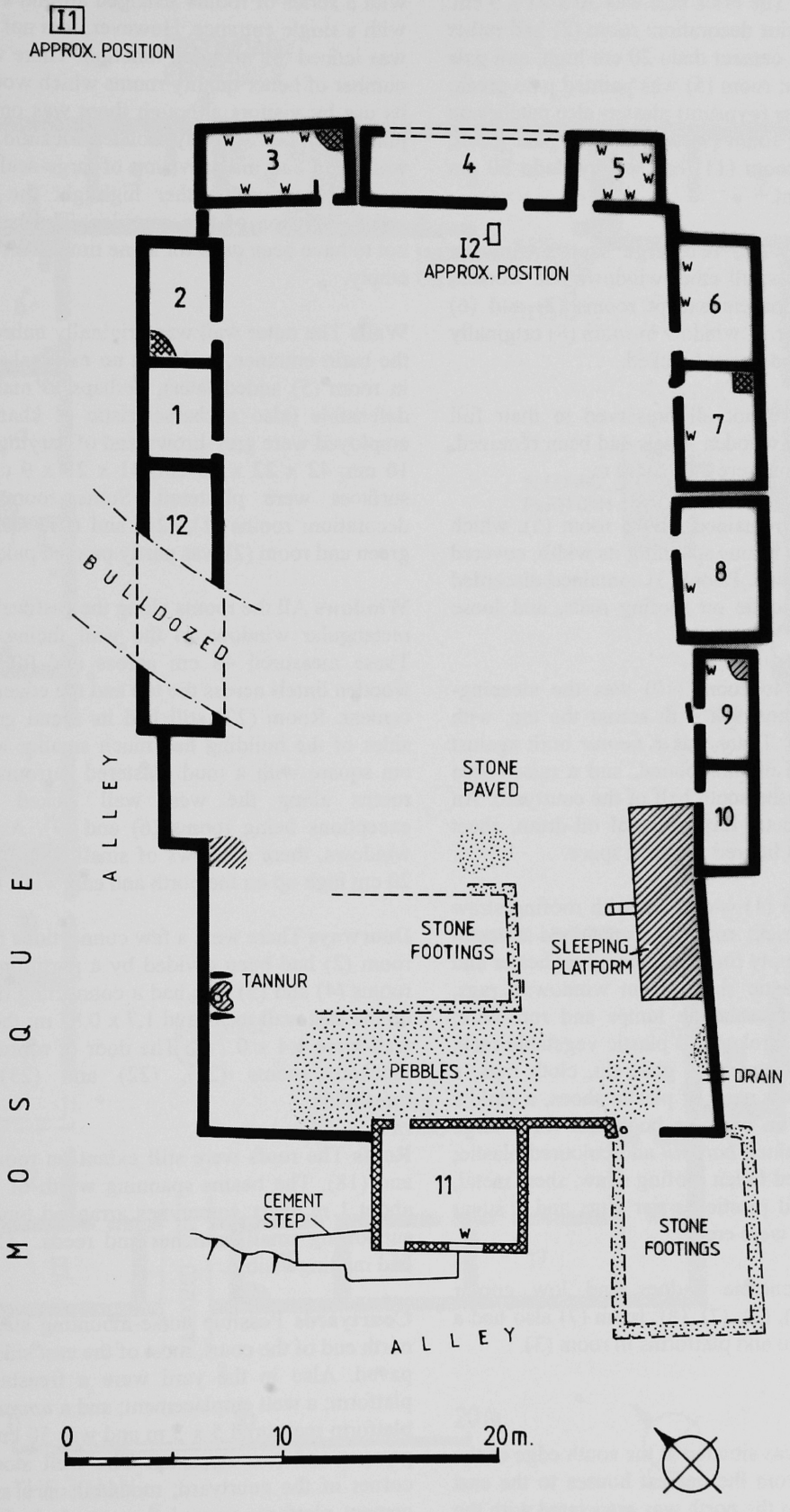

Fig 59 Period 19: the 'mukhtar's house

was built of concrete. The brick size was 30 x 28 x 9 cm. Some rooms had interior decoration: room (2) had rather faded red plaster on a cement dado 20 cm high, and pale green paint above this; room (5) was painted pale green; room (6) had white *juss* (gypsum) plaster- also patches on exterior of this room; room (7) was painted pale green, now old and faded; room (11) had a grey dado 30 cm high, below white paint.

Windows Room (11) had two large square windows measuring 1.5 m across; all other windows had wooden lintels and rounded corners except rooms (2) and (6) which were rectangular. A window in room (8) originally had a metal grille but had been blocked.

Doorways These were not all preserved to their full height and most of the wooden lintels had been removed. The average dimensions were 2.05 x 1.0 m.

Roofs Only one roof remained, above room (5), which was constructed of ten beams spanning its width, covered with mats, straw and mud. Room (3) contained discarded wire originally used to tie on roofing mats, and loose roofing straw.

Courtyard Adjacent to room (10) was the sleeping-platform 1.1 m high and 9 x 3 m across the top, with three mud-brick steps. There was a *tannur* built against the southwest wall of the compound, and a raised area with stone footings in the south half of the courtyard. An old metal heater, a metal tray, a metal oil-drum, sheet metal and plastic sheet littered the open space.

Room contents Room (1) was filled with roofing straw and collapsed mud-brick; room (2) contained a metal thermos flask, three empty tin cans, a kerosene heater and cloth wick, heavy plastic sheet (from windows), rags, some fallen mud-brick, concrete lumps and roof-wire; room (3) contained a broken red plastic vegetable rack, parts of three broken heaters, a ghee tin, cloth rags, a broken glass vessel, two pairs of plastic shoes, a child's jumper and trousers, an exercise book and three large stones; room (7) contained *baramil* and coloured plastic; room (8)-(11) contained fallen roofing straw, sheet metal, lumps of concrete, old plastic carrier bags and a sugar sack. The other rooms were empty.

Interior fixtures Concrete dadoes and low corner platforms in rooms (2), (3), (7), (8); room (7) also had a cement floor; mud dado and platforms in room (3).

The 'khan' *(Fig. 60)*

The so-called 'khan' was situated at the south edge of the village, about 50 m from the nearest houses to the east and west. One house to the north was associated with the 'khan' in some way as a doorway had been knocked through the original exterior wall. This building has been referred to herewith as a 'khan' as it shared the typical plan of khans or caravanserais throughout the Near East with a series of rooms arranged around a large courtyard with a single entrance. However, it is not certain that this was indeed the intended function. There were an unusual number of better quality rooms which would also suggest its use by visitors although there was only one sleeping platform. The relatively isolated location, the substantial well-head and the provision of large-scale hard-standing in the courtyard further highlight the unusual status and/or function of this complex. The building appeared not to have been used for some time as all the rooms were empty.

Walls The outer wall was originally unbroken except for the main entrance, and with no external windows (those in room (5) added later), perhaps to make the building defensible (also a characteristic of khans). The bricks employed were grey-brown and of varying size: 44 x 28 x 10 cm, 42 x 22 x 10 cm, 41 x 28 x 9 cm. All exterior surfaces were plastered. Some rooms had interior decoration: rooms (1), (21) and (22) were painted pale green and room (2) was partly painted pale green.

Windows All the rooms along the east wall had one large rectangular window on the wall facing the courtyard. These measured 48 cm across and 90 cm high, with wooden lintels across the top and the edges plastered with cement. Room (22) still had its metal grille. The other sides of the building had much smaller windows, ca 34 cm square with a mud plastered surround. Most of the rooms along the west wall lacked windows, the exceptions being rooms (6) and (9). As well as these windows, there are rows of small square apertures 20 x 20 cm high up on the north and east walls to let in light.

Doorways There were a few connections between rooms: room (2) had been divided by a partition of mud-brick; rooms (4) and (5) also had a connecting doorway. Doors on the east wall measured 1.7 x 0.85 m; those on the west wall were 1.4 x 0.7 m. The door of room (21) had been blocked; rooms (21), (22) and (23) had cement thresholds.

Roofs The roofs were still extant on rooms (6), (7), (8) and (18). The beams spanning width of the room were about 1 m apart, sometimes arranged together as a pair, supporting small branches and reeds. Only room (18) had matting visible.

Courtyards Possible horse-mounting steps stood at the north end of the court, most of the east side being roughly paved. Also in the yard were a freestanding sleeping platform; a well emplacement; and a *tannur*. The sleeping platform measured 5 x 3 m and was 50 cm high, with no parapet and two steps up. The well stood in the west corner of the courtyard, mounted on a small stone and cement platform around the actual shaft and its cover. The diameter of the shaft was 1.2 m, and a stone and cement round structure with a slightly pointed arch 1.5 m high was built over it. The *tannur* was freestanding and housed inside an enclosure, the shape of which was

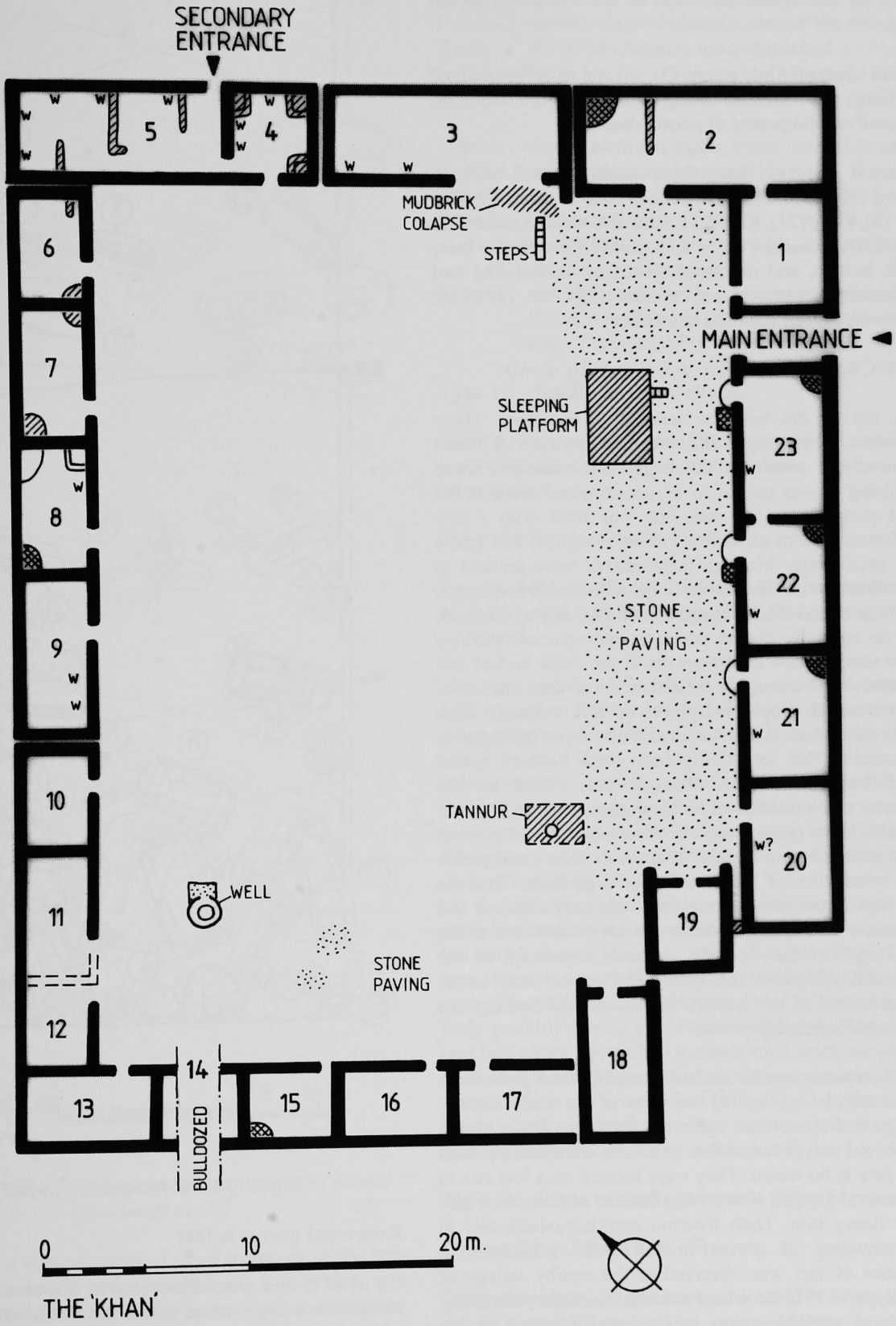

Fig 60 Period 19: the 'khan'

obscured by fallen brick and erosion, but measured about 3 x 2 m. The *tannur* itself was 40 cm across and 70 cm deep.

Room contents Only rooms (3), (4) and (6)-(9) contained anything, the contents being abandoned old clothing, *baramil* and fragments of plastic sheeting.

Internal fixtures Corner-bins made of mud-brick in rooms (4), (6) and (8), and cement bins in rooms (2), (6), (7), (8), (15), (21), (22) (23), (and also outside room (22) and (23)). Rooms (1)-(5) and (20)-(23) were the best-built, best-lit, and decorated rooms in the building and presumably guest-rooms: rooms (13) to (19) are windowless, perhaps used as stabling.

THE CEMETERY *(Figs. 4-8, 61-62, Pls. 2, 45)*

The top of the tell was used as a cemetery. There appeared to be some differentiation between different areas of the cemetery: the larger and somewhat more imposing graves tended to be concentrated towards the west part of the tell, and one was built with a low enclosure wall of unworked stones, a vertical bed-frame and small flags. Most of these graves were marked in accordance with Islamic tradition with unworked stones at the head and foot although sometimes only at the head, but no specially carved stone or cast concrete markers were used. A few of the graves at the north end of this cemetery had a roughly incised word or date on one of the stones. A couple had pieces of dark coloured cloth tied around one of the stones and may have belonged to women.[17] The possibility of some other spatial subdivision within the cemetery was raised by the discovery of a number of recent graves at the east end of the site, some lying within the excavated area of [M] but none of these were marked in any way. The construction and orientation of these varied through time. That the individuals concerned were predominantly children and immature burials may indicate the use of this area of the cemetery for that specific purpose, especially as the presumably higher-status graves were to be found at the opposite end of the mound. The excavated findings are discussed separately below.

Lastly, a much smaller second area of marked graves was found off the mound, to the west of the early modern village and close to an agricultural station. These graves numbered only a few dozen or so and were said by local villagers to be recent. They were located on a low rise in the natural ground, above what became an inundated area after heavy rain. Their location may have been due to overcrowding of graves in the main cemetery. An instance of this was observed at the nearby village of Bardiyya in 1985/86 where a similar secondary cemetery area was created owing to pressure of space on the original cemetery mound.

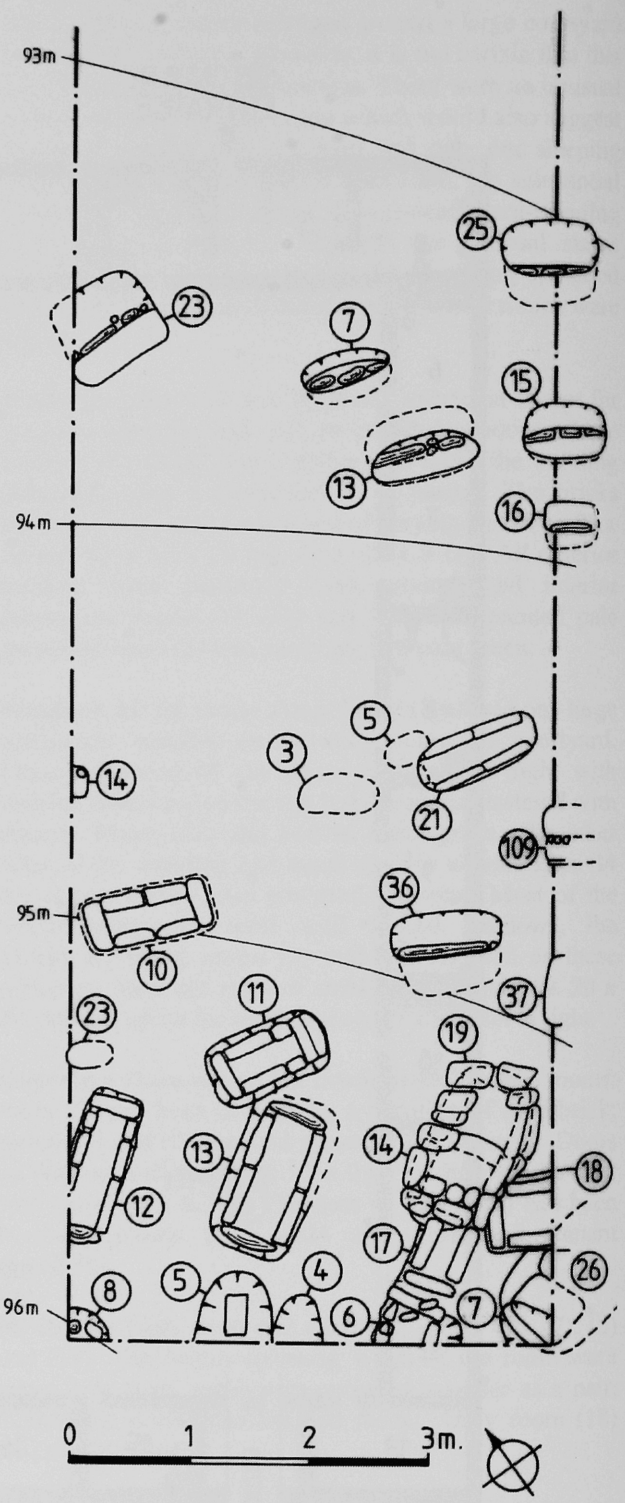

Fig 61 Period 19 cemetery in [M]

Excavated graves in [M]

Up to 29 graves were discovered in this excavation area, all but one being located within the southernmost 9.50 m and mostly clustered in the southeast corner. None were visible on the surface prior to excavation as this had been a primary reason for locating the trench in this spot. Judging by surviving markers, most of the cemetery covering the crest of the mound belonged to adult graves.

[17] Cf. Roberts 1981: 129.

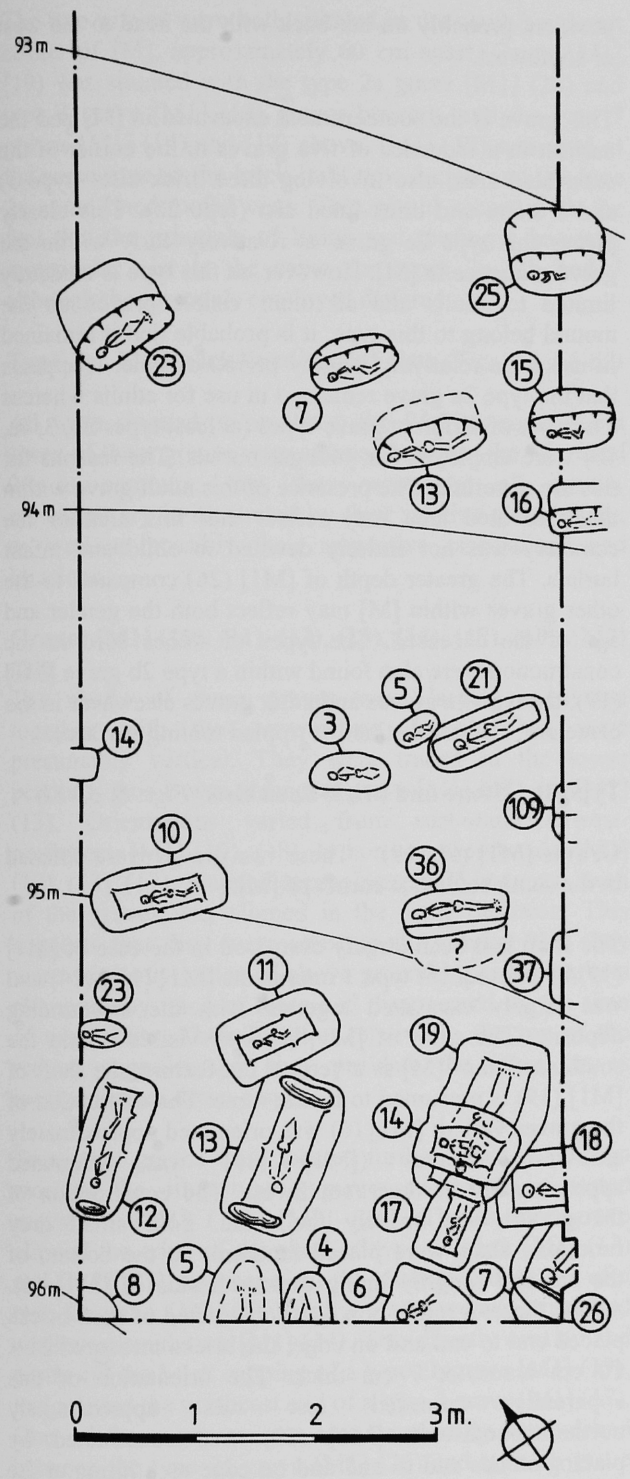

Fig 62 Period 19 cemetery: schematic plan of graves excavated in [M]

There was a concentration of smaller graves in the area immediately south and southeast of [M] which was presumed, prior to excavation, to represent a segregated children's cemetery. The lack of any visible markers for the excavated graves – and therefore presumably for a large number of other graves on the site – may be due to reuse of the head and foot stones, complete erosion of the low earth mounds used to mark the grave, or possibly a combination of these factors. As this area is situated on a slope, water erosion of such features could be rapid. Following anthropological identification of the excavated remains,[18] the human remains were re-interred.

Four main grave-types were distinguished:

Type 1: simple earth-cut shafts, either vertical (type 1a) or of uncertain form (type 1b).
Type 2: stone-lined cists (types 2a and 2b respectively).
Type 3: mud-brick-lined and/or roofed cists (subdivided into type 3a and 3b according to precise orientation).
Type 4: vertical shafts with undercut side-chambers. These were blocked off with either with stones (type 4a) or mud-bricks (type 4b).

Type 1 Simple earth-cut shafts

This type was sub-divided into two groups (1a and 1b) according to the shape of the shaft, location and orientation.

Type 1a Vertical shafts *(Figs. 6-7, 61-62)*

Graves [M1] (4), (5), (8) Situated along the south edge of [M] – at the 96 m contour, and thus only partially excavated.

The upper parts of the shafts were excavated together with topsoil or uppermost deposits; only the bottoms of these features were defined in excavation but the shafts were recorded from section. Two of the graves were orientated approximately north-northeast/south-southwest [M1] (4), (5) whereas the third was uncertain as no bones were recovered in the limited area excavated [M1] (8). The grave construction simply consisted of a steep sided unlined cut; [M1] (5) partly cut [M1] (4). Only the ends of the graves were within the excavated area but sufficient bones were recovered in two graves to indicate the burial of a child and an adult. The body in [M1] (4) was placed in an extended position, probably on its back with the ankles crossed whereas [M1] (5) contained a body possibly placed on its side with lightly flexed legs and feet partly covered by a single mud-brick measuring 35 x 16 x 9 cm. Fragments of similar orange mud-bricks were found in the lower fill of [M1] (8). The presence of these bricks suggests that these graves were contemporary with a village in the vicinity.

Type 1b Shape of shafts uncertain *(Figs. 61-62)*

Graves [M1] (23), M2 (3), (5)

These three type 1b graves were located between 2 and 4.5 m north/northeast of the excavated type 1a graves along the south edge of [M], i.e. between the 94.5 and 95.5 m contours of the mound slope. The only direct

[18] Bolt, forthcoming.

stratigraphic link with any of the other excavated graves is between [M2] (5) and the type 3 grave [M2] (21) which appeared to cut it: however, it is possible that the body of [M2] (5) was placed in an undercut side-chamber to the south of a vertical shaft that could therefore have been later than [M2] (21).

The shapes of the shafts of these graves are uncertain as they were excavated together with the deposits which they cut, and no portion of these graves ran into the sections; given the differences in location and orientation of these graves, they may differ in date and type to the type 1a graves described above. They may have had undercut side-chambers which were not blocked-off from the spatial shaft (as with types 4a, 4b) hence were not recognised in excavation. Their location and orientation may be more compatible with a date similar to types 4a and 4b which are suggested below to be later in the sequence. These graves were orientated either approximately northwest/southeast, [M1] (23), [M2] (3) or east/west, [M2] (5). These graves belonged to infants. Two of these were interred in an extended position, placed on the back with head to the northwest, feet to the southeast and hands by the sides, [M1] (23), [M2] (3) whereas the third was placed on its right side with head to the west, feet to the east with legs lightly flexed and both arms in front of body, [M2] (5).

Type 2 Stone-lined cists

Type 2a Stone-lined/roofed cists *(Figs. 61-62)*

Grave [M1] (26) Situated in the south/southeast corner of [M], and running into the main east section of [M1], thus only partially excavated.

The shaft of this grave had been partly disturbed by later graves, especially the type 3 grave [M1] (18). It is uncertain if the excavated feature [M1] (7) belonged to this grave: the lack of bones led to its initial interpretation as an animal burrow, recalling Watson's comment that adults in the western Iranian village that she observed in detail were interred beneath stone slabs in order 'to protect the bodies from wolves, jackals, or even dogs that are likely to dig up the graves, especially during the winter when food is hard to find'.[19] An alternative hypothesis is that [M1] (7) was part of the shaft of [M1] (26), which was therefore largely vertical.

The grave was orientated approximately east/west or southwest/northeast. Flat stone slabs were placed end to end and on edge as a lining around the lower part of the shaft. These stones consisted of friable red sandstone with characteristic rippled tool marks on the otherwise flat surfaces. After burial, this cist was roofed with a series of stones placed flat over the top. Only the cranium and upper chest of the burial were excavated. This belonged to an adult female that had been placed in an extended position, probably on her back with the head to the west or southwest.

This grave is the southernmost excavated in [M] and the earliest in a sequence of five graves in the corner of the excavated area, also involving three brick cists (type 3) and a stone and brick-lined cist (type 2b). This clearly places this type 2a grave as relatively early within the grave sequence in [M]. However, as this type is evidently limited to adults and all other visible graves on the mound belong to this type, it is probable that it remained in use for a relatively lengthy period of time. It appears that the type 2a grave remained in use for adults whereas a number of different grave-types (at least types 2b, 3, 4a, 4b) were employed for younger burials. The reasons for this are uncertain. The presence of this adult grave within the excavated area may reflect that this area of the cemetery was not entirely devoted to child and infant burials. The greater depth of [M1] (26) compared to the other graves within [M] may reflect both the gender and age of the deceased. The types of stones used in the construction were also found within a type 2b grave [M1] (19), the type 4a graves and adult graves elsewhere in the cemetery: all bear distinctive rippled tooling surfaces.

Type 2b Stone and brick-lined cists *(Figs. 6, 61-62)*

Graves [M1] (6), (19) These two graves were situated in the south/southeast corner of [M].

The shaft had been largely destroyed in the case of [M1] (19) by subsequent type 3 interments [M1] (17), (14) and was largely excavated together with the surrounding deposits. The shaft of [M1] (6) was visible within the south section of [M] as a vertical cut feature; the shaft of [M1] (19) is presumed to be the same. The orientation of the graves varied: [M1] (6) was orientated approximately east/west whereas ([M1] (19) was orientated approximately northeast/southwest. The construction of the graves was broadly the same. Four small grey limestone slabs were placed randomly at the bottom of the cut and roughly lining the north side of [M1] (6). Above these, a rough box was constructed of mud-bricks placed end to end and on edge; the bricks measured 21 x 10 cm across x 9 cm thick. The orientation of this apparently unroofed cist was approximately northeast/southwest. [M1] (19) was constructed by placing stones end to end and on edge as a lining at the bottom of the shaft, with a single stone at each end and along each side. Above these stones were a number of poorly-preserved reddish brown mud-bricks of varying sizes, mostly evidently reused fragments. These probably originally formed a roof over the cist but had collapsed into this grave at the northeast end and had been cut by later graves at the southwest. This roof was probably originally flat. The body within [M1] (6) belonged to a newborn girl, placed in an extended position on its back with arms by the sides, head to the west, feet to the east; [M1] (19) contained the body of a young boy.

[19] Watson 1979: 215.

The two graves were both situated in the south/southeast corner of [M], approximately 60 cm apart. Grave [M1] (19) was situated with the type 2a grave [M1] (26) and type 3 grave [M1] (18) graves beneath, and the type 3 graves [M1] (14) and (17) above. [M1] (19) was used at the same time as the brick-built type 3 cists and the type 2a stone lined/roofed cists. This would accord with the fact that the principle of lining and roofing a basically rectangular cist is the same for types 2a, 2b and 3 although the materials employed differed.

Type 3 Mudbrick lined/roofed cists *(Figs. 53, 61-62)*

All were situated at or above the 94.5 m contour but seven of these graves were situated between the 95 m and 96 m contours; that they were not all exactly contemporary is illustrated by their relative stratigraphy, as well as possibly their respective orientations and locations.

Graves [M1] (10), (11), (12), (13), (14), (17), (18), [M2] (21)
The shafts of these graves were largely excavated together with the surrounding deposits but were presumably vertical. They were traced in the lower portions, thus it was clear that grave [M1] (11) cut [M1] (13). Orientations varied from east-southeast/west-northwest, [M1] (10), (18), to northeast/southwest, [M1] (12), (13), (17). Situated approximately 75 cm apart, each of the graves was aligned in the same direction. This suggests that they were contemporary and/or that they were originally indicated above ground by grave markers although any trace of these had disappeared by the time of excavation. Their location relative to the top of the mound suggests that they pre-date the other graves located further down-slope.

Two other graves were located further down-slope than most of the other type 3 graves and were orientated east/west: [M1] (11), [M2] (21). The former grave clipped the edge of the shaft of type 3 grave [M1] (13) and [M2] (21) may have cut the shaft side-chamber of a type 1b grave, [M2] (5). Finally, one grave was orientated northwest/southeast: [M1] (14). This directly overlay and partly cut the brick capping of a type 2b grave [M1] (19), and abutted the northeast end of a type 3 grave [M1] (17). One of these graves was stratigraphically sandwiched between the type 2a grave [M1] (26) and type 2b grave [M1] (19) in the southeast corner of the trench. The orientation of the grave and body of [M1] (14) contrast most strongly with the north-northeast/south-southwest orientation of the type 1a graves [M1] (4), (5) to the west, which are suggested above to represent the earliest Period 19 graves in [M]. This difference in orientation is indeed very marked but may be more clearly understood if considered in the context of a gradually changing orientation. This would seem to occur during the use of the type 3 graves in [M].

The construction of the graves usually involved placing mud-bricks end to end and on edge to form a box around the bottom of the possibly vertical grave shafts; in two instances stones were substituted for bricks either at the head, [M1] (12), or head and foot, [M1] (13). With the exception of these cases and a third grave where the ends were not lined, [M1] (21), a single brick was placed at each end of the grave cist. Where the sides of the lower shaft were excavated, the cist walls seemed to have been constructed close to them. Over each of these cists, between two and four bricks were placed as a flat roof. The mud-bricks varied in size and some were simply fragments that had been either accidentally broken or deliberately trimmed prior to reuse; complete mud-bricks in [M1] (10) measured 33 cm square and over 3 cm thick.

The bodies belonged to infants/children ranging from the newborn to children of one and a half years. Four burials were placed in an extended position on their backs with arms by their sides, [M1] (10), (13), (14), [M2] (21); the remainder were placed on their right side with their arms flexed in front. The position of the legs varied from being lightly flexed [M1] (10), (11), (12), (13), [M2] (21), to being placed with one leg straight and one leg flexed [M1] (17); the position of the legs of the remaining burials was not recorded. Orientation varied from east-southeast/west-northwest [M1] (10), (18), northeast/southwest [M1] (12), (13), (17), east/west [M1] (11), [M2] (21), or northwest/southeast [M1] (14).

The use of stones appears to be related to the greater age of the deceased (i.e., adult) in the cases of types 2a and 2b at least. The age of the children in the type 3 graves [M1] (12) and (13) is uncertain. The type 3 graves possibly represent the longest-lived type in the area of [M]. As well as their larger number (totalling eight), the variation in construction, location, and orientation suggest a longer time-span than the six excavated graves of type 4a.

Type 4 Vertical shafts with undercut side-chambers *(Figs.4-5, 7-8, 61-62)*

This type was subdivided into two subgroups (types 4a and 4b) according to differences in the method/material used for sealing off the side-chamber. They varied spatially and type 4a possibly predates type 4b.

Type 4a Diagonally-placed stone slabs to seal-off the side-chamber

Graves [M1] (36), [M2] (7), (13), (15), (16), (23), (25)
The shafts were largely excavated together with slope-wash in this area but could be observed where they ran into the main trench sections to east and west: i.e. graves [M2] (15), (16), (23), (25). Their orientation varied from approximately east/west [M2] (7), (13), (23) to approximately east-southeast/west-northwest [M1] (36), [M2] (15), (16), (25). The grave construction involved digging a vertical shaft with a hollowed side-chamber at the bottom on the south side, placing the burial in this

chamber and sealing it off with a row of stone slabs placed at an angle before backfilling the shaft with loosely compacted earth. The side-chambers were largely void of earth fill but contained occasional dried lumps of water-derived greyish green mud: this evidence for water action in the graves may explain the disturbance of the bones in grave [M2] (16).[20]

The bodies ranged from the newborn to children aged one and a half years. Body posture also varied. One was placed in an extended position on its back with head to the west, arms by its sides, legs apart and ankles crossed, [M2] (23); others were placed in a flexed position on their right sides with head to the west, possibly facing south, and arms either by their sides or pelvis, [M1] (36), [M2] (7), (13), (15), or flexed in front of the face, [M2] (25).

With the exception of [M1] (36) which appeared to be of a slightly different construction, the remaining six graves were situated well down the steep slope of the mound, between the 93 m and 94 m contours and some 1.4 m away from the nearest other grave. This spatial distribution is clearly different to the other excavated graves and may suggest that they were placed here due to lack of room for further interments nearer the top of the mound, in turn implying that these are the latest graves in this sequence. However, no direct stratigraphic evidence was available to support this. The difference to type 4b, both in materials used to block off the side-chamber and the relative location, may be chronological. The rippled surface on the stone slabs is very similar to those found in type 2a graves.

Type 4b Diagonally-placed mud-bricks to seal off the side-chamber

Graves [M1] (37), [M2] (14), (109)
None of these graves were excavated but the edges of these graves appeared in the main east and west sections of [M].

One grave was orientated approximately east-southeast/west-northwest, [M2] (14), but the orientation of the remaining two graves was uncertain. They were constructed with vertical shafts with an undercut side-chamber placed on the south side; the floor of this burial chamber was slightly lower than that of the grave shaft and the mouth of the burial chamber was sealed with a row of pitched stones or mud-bricks; the bricks used for [M2] (14) measured 32 cm square and 11 cm thick. None of the graves were fully excavated but judging by their size they probably belonged to infants/children.

These graves were situated between the 94.5 m and 95 m contours and thus compare with the two northernmost (and possibly latest) type 3 graves, two of the three type 1b graves, and an atypical type 4a grave. They were over 2 m south of the main cluster of excavated type 4a graves. It is tempting to link their relative location and use of mud-brick with the type 3 graves and therefore regard them as a transitional type between type 3 and type 4a.

Indeterminate type

Cut feature [M4] (4) Shallow cut feature filled with a dark grey-brown clayey silty deposit. The north edge appeared to have been eroded away unless cut from the recent mound slope; it was undercut along the east and south edges but had a relatively straight west edge; it was not sealed and was located during the excavation of slope-wash in this area. >45 x 40 x >50 cm, west edge 1.40 m from main [M4] west section; located on Phase 3.2-3 plan but its date is uncertain. Three potsherds were found in the fill.

Graves in [S1]

Several graves were observed in this area, some of which were indicated on the surface by up to two stone markers. All of the graves were constructed as deep stone-lined and roofed cists, orientated approximately east/west and appeared to belong to adults.

EXCAVATED FEATURES AND DEPOSITS WITHIN THE VILLAGE

Early modern features and deposits were encountered in ten additional soundings. In some cases these consisted of earthy deposits, up to 2.2 m thick in [K1]; a variety of cut features, one with a bell-shaped profile, were encountered in [I1], [I2], [K1], [K3], [V2] and [V4]. Several of these had ashy fills and appear to have been used for the disposal of *tannur* rake-out as well as animal-bone and other domestic refuse whereas the remainder may have been excavated for temporary storage or the disposal of organic refuse.

TRENCH [I1]

The use of many of these cut features is uncertain. Although [I1] (16) may be a sunken *tannur* pit, the remaining features lack its quantities of ash and may simply represent extramural refuse-pits located in an open area between the village and cemetery. They mark the first activity to be found in this area since a small number of cut features assigned to Period 13.

Phase 19 PITS *(Figs. 28, 30-31, 63)*

Pit and fill (7) An irregular shallow feature measuring over 25 x 90 cm across and 42 cm deep, running into the north section of [I1] and filled with a dark brown silty deposit.

[20] Similar lumps were noted in a Period 3 grave with an undercut side-chamber (see above: Chapter 4).

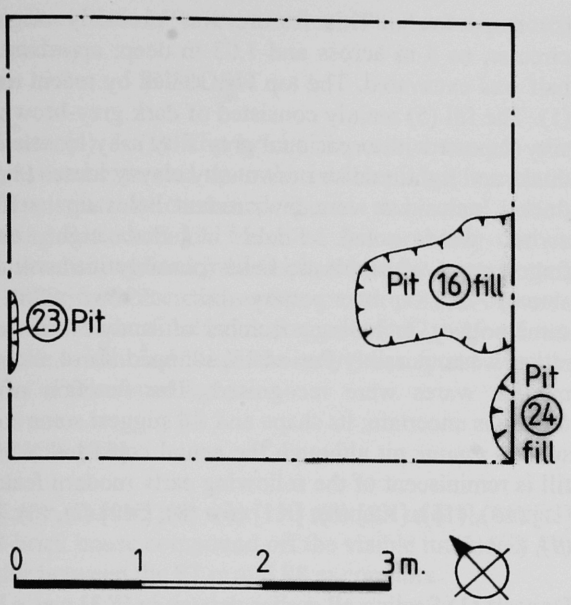

Fig 63 Period 19 cut features in [I1]

Pit and fills (13), (12) A cut feature measuring over 45 cm x 1.04 m across and 34 cm deep, running into the north section of [I1]; the lowest fill consisted of dark grey ash (13) containing large flecks of charcoal and some dark grey-brown silt. This was overlain by a compact light brown fine clayey deposit (12) containing white flecks, charcoal and rare limestone chips (5-10 cm across). This upper deposit also contained an asphalt sealing <639> and a gypsum lid or plug <811>.

Pit and fill (16) A flat bottomed, irregular sided cut feature measuring over 1.34 x 1.25 m across and 80 cm deep, running into the east section of [I1]. It was filled with a relatively loosely compacted soft grey-brown silty deposit and thick lenses of dark grey-brown/black ash containing abundant fragments of exceptionally well preserved wood charcoal. It also contained some heavily blackened potsherds, some articulated fresh animal-bone and three ornate clay tobacco pipe fragments <522>. The presence of pipe fragments, relatively large chunks of charcoal, fresh animal-bone and the loose compaction of the deposit prove an early modern date for the infilling of this feature. The abundant traces of burning suggest that it may have been a sunken *tannur* pit, as excavated in [V2] (2) and [V4] (3). These were also of early modern date.

Pit and fill (23) A steep sided cut feature over 1.00 m x 20 cm across and 85 cm deep, running into the main west section of [I1], immediately within the excavated area; it cut a series of lenses along the west edge of [I1] which contained plastic, paper and cloth. It was filled with a fine dark grey-green silty deposit containing few inclusions.

Pit and fill (24) A steep sided cut feature over 75 x 20 cm across and 75 cm deep, in the extreme southeast corner of [I1], and running into the east and south sections. It contained a fine grey-brown silty deposit with rare inclusions.

Pit and fill (64) A flat bottomed straight sided cut feature over 1.06 x 0.20 m across and 70 cm deep in the northeast corner of [I1], running into the north and east sections. It was filled with a dark grey silty ash deposit containing some small possible white plaster flecks in the upper portion and lenses of dark grey/black ash filling a subsided hollow in the top.

TRENCH [I2]

Phase 19 PITS AND FOOTINGS *(Fig. 52)*

Some early modern potsherds were found on the surface of [I2] within the large rectangular courtyard of a substantial private house.

Pits (7), (8) Two cut features were noted upon scraping the surface around the Period 11 kiln (1). These were respectively located 15 cm west of, and cutting the north end of, this feature. As visible on the surface, their fills appeared to consist of dark grey/black ash containing small flecks of wood charcoal and white plaster(?). Their original size and shape are uncertain. Their close proximity to the present walls of the mud-brick 'mukhtar's house' house (see above) suggested a slightly earlier date. Their fills may indicate use as sunken *tannur* pits.

Footings (6) An irregular 30 cm wide east/west-aligned row of stones (each ca 10-15 cm across) with fragments of modern concrete but no visible mortar overlay the north part of the Period 11 kiln. The total length of this feature was at least 2.85 m, at a distance of approximately 2 m from the nearest mud-brick wall (9). It was 10 cm (one course) in height. This feature appears to have belonged to a line of very shoddy footings possibly associated with a lean-to or *tannur* shed. If so, (6), and (8) may be contemporary.

TRENCH [K1]

Phase 19.1 DEPOSITS *(Fig. 41)*

Deposit (4) Sealing the top of the Period 8 activity in [K1] was a thick deposit of uniform dark brown earth, 2.2 m thick, containing occasional small animal burrows, pebbles, potsherds, bone, vitrified clay, a plastic pendant <3027>, residual animal figurine fragments <559>, <570> and a basalt grinder fragment <717>. Deposit arbitarily divided into (4), (9), (10), (11), (12), (13), (14), (15).

All artefacts were heavily worn, and must have been exposed on the surface for some length of time prior to their burial. This deposit is similar to that encountered in [K2], [K3], [V1] and [V4]: although some material may be intrusive through animal burrows, it is likely that this

deposit is of early modern date but pre-dates the latest phases of the standing mud-brick village. The similar location of these excavated deposits beneath the east side of the early modern village suggests that they may be from levelling activities with large-scale dumping of this material along the edge of the river terrace. The absence of visible tip-lines may reflect the homogeneity of the material being re-deposited.

Phase 19.2 PIT *(Fig. 40)*

Pit (6) The tops of the [K1] earth fills were cut by an approximately circular flat bottomed feature with undercut walls, measuring 1.30 x 1.40 m across and 1.20 m deep. The top of this feature was 35 cm below the present ground surface.

Pit fills (6)A, (7), (8) These pit fills comprised lenses of dark brown silty dark grey/black ash containing some pebbles, small fragments of brick, pottery and animal-bone. A dried coprolite was found at a depth of 60 cm. The purpose of this feature is uncertain but its size and fill are comparable to pits excavated in [I1]. Some of these may be interpreted as sunken *tannur* pits but others may have been originally dug for the disposal of ash from such features.

Deposits (5), (3) Probably associated with the top of this ash-filled pit were a number of fine ashy layers, 5 cm thick, running across part of the excavated area and containing freshly burnt wood fragments, early modern pottery, glass, metal, shoe leather and a spent bullet cartridge.

PHASE 19.3 DEPOSITS *(Fig. 41)*

Deposits (2), (1) Running across the area of the excavated sounding, were two consecutive dark grey-brown deposits, totalling 20 cm in thickness; fresh wood-chips, tins and glass fragments were found.

TRENCH [K2]

Phase 19 DEPOSIT

Deposit (1) Sealing the Period 8 pit fills was a very thick deposit of uniform brown earth and topsoil, effectively the same context as encountered in [K1], [K3] and [V4].

TRENCH [K3]

Period 19 was represented by a pit followed by a homogeneous earth deposit sealing all traces of the earlier Period 8 activity.

Phase 19 PIT AND DEPOSITS

Pit (4) In the east half of [K3], a flat bottomed vertical sided cut feature was found cutting the earlier deposits of natural (31), surface (9), wall footings (2), and fills (8)-(5) respectively. This feature was probably originally circular, ca 3 m across and 1.03 m deep; approximately half was excavated. The top was sealed by recent topsoil (1). The fill (5) mainly consisted of dark grey-brown fine silty deposit with occasional grey silty ashy lenses (3 cm thick) and light reddish brown silty clayey lenses (3-5 cm thick). Inclusions were few; rodent holes up to 10 cm across were noted. Finds included eight *tannur* fragments, a white plastic bead (possibly intrusive from above) <3028>, two pottery discs <592>, <826> and some pottery, including a number of sandy fabrics and a rather worn, possibly Period 13, stamped sherd. No early modern wares were recognised. The function of this feature is uncertain; its shape and fill suggest some sort of sunken *tannur* pit although the actual consistency of the fill is reminiscent of the following early modern features: [I1] (13), (16); [K2] (8); [K1] (6)- (8); [V2] (2), (3); [V4] (9), (3), (2).

Deposit (1) Sealing all earlier deposit in [K3] was a layer of topsoil, up to 25 cm thick. This contained potsherds belonging to Periods 5, 7 and possibly 13, early modern porcelain, a fragment of an early modern rouletted *hubb* with Arabic inscription, a clay pipe bowl fragment <507> and a black glass bracelet fragment <542>.

TRENCH [M]

Phase 19 DEPOSIT

Deposit [M1] (1) Sealing all earlier deposits was a deposit of topsoil, partly cut by Period 19 graves.

TRENCH [S1]

Phase 19 DEPOSIT

The Period 7 destruction horizon was sealed by a compact brownish clayey deposit probably deriving from eroded mud-brick and slope-wash; its date is uncertain.

TRENCH [V1]

[V1] was situated on the southwest edge of the visible mound, near the 89 m contour, within the courtyard of an early modern mud-brick house. Natural deposit was not reached in [V1] and excavation was stopped at a maximum depth of 1.45 m below the surface (elevation ca 87.45 m).

Phase 19.1 CONSTRUCTION

Wall (5) This ran approximately east/west across the area of the sounding, the top being discovered at a depth of 1.05 m below the present ground surface. The bottom was not reached and the wall stood at least 45 cm high (four courses). The size of the large bricks was not recorded; the width of the wall measured over 1.25 m; the date of this construction is uncertain and may be considerably

earlier than Period 19. The function of this construction is also unclear.

Phase 19.2 DEPOSIT

Deposits (4) – (1) The bricky deposit above (5) was compact and extended up to the surface; it was excavated in four spits. It contained mixed and worn pottery spanning Periods 3-19. Much of this probably derived from the disintegrated mud-brick, while the latest pottery was either from near the surface or intrusive in burrows. A reddish-brown fired brick fragment (>17 x 16 x 5 cm; complete width and thickness only) was found near the bottom of this sounding.

TRENCH [V2]

[V2] was situated just over 140 m south of [I1], within a mud-brick house compound off the visible mound of Abu Dhahir between the 87 m and 88 m contours.

Natural (5), (4) Natural clay (5) was seen in pit sections at a depth of 1 m below the surface (ca 86.50 m). Possible natural (4), consisting of a compact yellowish-brown slightly sandy clay with no visible inclusions, was reached at a depth of 20 cm (ca 87.3 m) and excavated to a depth of 0.45 m (87.05 m) below the surface. These natural deposits are different in appearance to those reached at the bottom of [A], [K1], [K2], [K3], [M4], [V3] although the reason for this is uncertain.

Phase 19.2 PITS

Pits (2), (3) Cutting these deposits were two large probably circular flat bottomed, vertical sided features (2) and (3); these ran into the east and west sections of the sounding. These had been cut from near the present ground surface, and over half of each was excavated. They measured over 1.35 x 0.90 m across and 1.20 m deep (2) and 2.50 x 1.40 m across and 1.40 m deep (3). The north edge of the latter feature was slightly undercut, hence was bell-shaped in section. The fills consisted of lenses of dark grey/black ash and silt containing fragments of wood charcoal, occasional small stones, pieces of *tannur*, which were numerous in (2), animal-bone – very large and fresh in (3) – and pottery. Large joining sherds of early modern combed jars were found in (3). A red clay tobacco pipe fragment <556> and a used bullet cartridge were found in (2) and (3) respectively.

Deposit (1) Topsoil was found to seal all deposits and features; it contained a second red clay tobacco pipe fragment <549>.

TRENCH [V3]

[V3] was located some 125 m south of the [K] soundings, on the opposite side of a wadi running through this part of the village, in an open area recently used as a track. The elevation of this area was ca 86 m. The aim here was to test for ancient occupation, specifically to define the limits of the Period 7-8 settlement in a location that was slightly raised above the surrounding ground. However, no ancient remains were found and natural deposit (5) was reached a depth of 5 cm below the surface. This consisted of a heavily compacted reddish brown clay deposit containing numerous white flecks and chunks. This was excavated to a maximum depth of 55 cm below the surface.

Phase 19.1 CONSTRUCTION

Oven (3), footings (4) Built directly upon natural were the low remains of a *tannur* measuring ca 75 cm across. Probably originally circular, it ran into the south section of the sounding. Possibly associated with this oven was a crudely built stone feature (4) constructed of greyish limestones up to 30 cm across but without any traces of mortar, running roughly northeast/southwest across the southwest corner of the sounding, at a distance of 25 cm from (3). This may represent the remains of a wall on drystone footings enclosing the *tannur* (3).

Phase 19.2 DEPOSITS

Deposits (2), (1) Excavated in two 25 cm spits, the deposit in the remainder of the sounding consisted of ashy and clayey lenses containing quantities of rusty iron, plastic and cardboard, etc. These deposits seemed to abut [V3] (3) and (4), thus providing a *terminus post quem* for their construction.

TRENCH [V4]

[V4] was located just above the 87 m contour line, some 60 m south of the visible mound and was located midway between [I2], [K1] and [V2] within an early modern mud-brick house courtyard. Neither natural nor early archaeological deposits were reached and excavations were stopped at a depth of 1.95 m below the present surface, at an approximate absolute elevation of 85.15 m.

Phase 19.1 DEPOSITS

Deposit (8)-(4) A thick homogeneous earth deposit, over 1.65 m deep, was excavated in a series of spits (8)-(4) across the area of the sounding. It varied from dark grey brown to light brownish yellow silty clay from bottom to top. It included some mixed pottery, often very weathered, and ranging in date from Period 5 onwards. Other finds included a chipped pottery disc <548>, a wheeled animal fragment <580>, some vitrified clay, *tannur* fragments, a piece of a basalt grinder (9 x 8 x 2.5 cm) <3033>, an iron object <582>, a red clay tobacco pipe fragment <808>, coffee-cup sherds and some fresh animal-bone.

A similar deep deposit was found in [K1], over 65 m to the southeast.

Phase 19.2 PITS AND OVEN

Pits (9), (3), (2) Portions of three large probably circular flat bottomed, vertical sided, cut features ca 1.40-1.75 m across and 80-90 cm deep were found cut from just below the present ground surface. Their fills consisted of a mainly dark grey-brown fine silty deposit with thick lenses of dark grey/black ash, thicker near the bottom in (3). These contained fresh charcoal fragments, occasional small stones, some pottery and some fresh animal-bone, occasionally partially burnt. Other finds included a fragment of a plastic shoe (?) <3035>, a piece of corroded iron sheet <3036>, an iron horseshoe measuring 12 cm across and 12.5 cm long <3037>, and a 6.5 cm long iron hook <3034>.

Oven Set into the top of (3), close to its south edge, was a sunken, flat bottomed, burnt clay fire installation, with its base set 55 cm below the level of the surface. It was made of a rather friable reddish brown burnt clay but white on the interior. The walls measured 1-1.5 cm thick and curved inwards slightly at the top, which was 15 cm below the present surface. This type of countersunk *tannur* was unlike any seen in the early modern village but was said by the local workmen to be characteristic of earlier inhabitants in this area.

Phase 19.3 TOPSOIL

Deposit (1) This deposit sealed all earlier deposits and features in [V4] and varied from 15-40 cm in depth. It contained a fragmentary red clay tobacco pipe <821>.

TRENCH [V5]

[V5] was situated between the 88 m and 89 m contours midway between [V1] and [V2], over 95 m southwest of [I1], and in the centre of a large mud-brick house compound. A probably recent line of stone wall footings was visible on the surface just to its north. This was the last of the soundings to be commenced but was discontinued almost immediately due to a pressing need for workmen elsewhere. All excavated material was of early modern date.

DISCUSSION

This period of settlement at Abu Dhahir was termed early modern in order to distinguish these remains from earlier post-medieval/Late Islamic and present-day assemblages epitomised respectively by Ottoman sites and the modern village at Bardiyya.[21] Immediately prior to the construction of the Eski Mosul Dam there were many early modern villages within this section of river valley although a number of others had already been abandoned during an earlier phase: traces of these were noted during the excavations at Tell Gir Matbakh and surface collections at Khirbet Jem Laklak and elsewhere.[22] Some villages were constructed of mud-brick whereas others were built exclusively using rubble and mortar technique, apparently depending on the available construction materials. One of these villages, on the edge of the tell at Musaifna, was the subject of study by the French expedition excavating at the site whereas the mud-brick hamlet at Hatara Saghir was surveyed by the Italian mission.[23] Tribal differences in the vernacular architecture of north Iraq were noted at the end of the 19th century by Cuinet,[24] and architectural differences observed between the present village and those at Seh Qubba and Musaifna reinforce the impression of architectural variability.[25] The locations of the villages also varied: some, such as Abu Dhahir, were sited on the edge of the river terrace and/or on tells but many – for instance below Siyana or Jessary – had been recently founded within the river flood plain. This is a location in which there were no visible archaeological remains yet a similar pattern could have existed in antiquity. The surviving archaeological picture therefore may be incomplete: a more fluid settlement history of periodic foundation and abandonment inside and on the edge of the river flood plain would indeed explain the episodic sequences from most sites excavated within this Project.

The cemetery

Fully published groups of Late Islamic graves are relatively rare yet their study offers potential insights into aspects of Muslim society.[26] The excavated pottery, clay tobacco pipes and local tradition suggest that the early modern village of Abu Dhahir was founded within the 20th century. However, there may have been an earlier cemetery on this site, thus accounting for the high number of visible graves which totalled more than 600. The mound of Abu Dhahir is one of the largest in this area of the Tigris valley and would have been a suitable place for burial – for instance by bedouin – before it was reoccupied. Evidence for late graves cut into the summits of tells was observed throughout this Project, but were either associated with a standing or recently abandoned village; by contrast, many of the excavated sites in the Hamrin basin yielding Late Islamic graves are thought to have been unconnected with contemporary settlement.[27]

Nevertheless, the discovery of mud-bricks within the fills of the earliest excavated burials in [M] – belonging to type 1a – implies the existence of a contemporary mud-brick village on the site. The presence of old or new bricks in their construction may even reflect the season

[21] Cf. Vroom 1998.

[22] Campbell 2003; Ball, Simpson and Tucker 2003.

[23] Lemarié 1984; Conti and Fiorina 1997.

[24] Cuinet 1892: vol. II, 767.

[25] Ball and Gill 2003b: 76-78; Lemairié 1984.

[26] Insoll 1999: 166-200.

[27] E.g. Bader 1987a: 132 = Type 4; Bader 1987b: 162 = Type 2; Campbell 2003: 130-32 = mass graves; Green 2003: 50-51 = Type 2; Ii and Kawamata 1984/85: figs. 14, 17, pls. 12 = Types 1-2; Ii and Kawamata 1987: 38; Numoto 1987: 43; Numoto 1988b; Tucker 2003: 107-108, fig. 37 = Type 4; contrast Gibson *et al.* 1981: 15, 24.

death occurred, with new bricks being representative of spring or summer burials. Although the bricks imply that these graves were associated with a mud-brick village on the site, the apparent lack of exact parallels in the mud-brick sizes in the village standing in 1985 could be because these graves were associated with a pre-existing village, since levelled and rebuilt, for which there is some possible evidence from excavations in Areas [K] and [V]. However, no great reliance should be placed on the evidence of mud-brick sizes as considerable variation was found both in the graves themselves and the present village. These graves evidently belonged to an adult cemetery largely situated further upslope. If there was a separate child/infant cemetery at this time, it may have been located beyond the excavated area.

Chronologically, the next grave-type was probably type 2a. Only one example of this was found within the excavated area and that again was close to the south edge of the trench. Its orientation was slightly different to the ones mentioned above, being aligned a few degrees further east/west. This type was probably used for the subsequent adult burials on Abu Dhahir until the abandonment of the site in 1985, a hypothesis supported by the lack of any other observed adult grave-types. As such, they may then have continued in use whilst the type 4 apparently replaced the older type 3 brick-built cists for children/infants in [M]. The similarity in stone-working between the type 2 and type 4a graves support a chronological overlap. A longer use of the type 2 graves would explain the large numbers of these graves as they form almost all of the visible graves, including a number near the west end of the site with recent inscribed dates on the footstones.

The construction of a cist, although here in stone and not brick, is the same in principle as the types 2b (stone and brick) and 3 (brick only): the differences in material may reflect the age of the deceased. Although adults were buried in stone cists, younger persons were buried in stone-lined brick-roofed graves and children/infants were placed within brick cists. Two of the latter included stone slabs at the ends although the possible significance of this is unclear. The adult graves are the deepest of these graves. This variation in the relative grave-depths was deliberate. According to Islamic tradition, a 'woman's grave must be deep enough to hide her breasts if she were placed upright ... [whereas a] ... man's grave need be only 4 feet deep, i.e. up to a man's middle, or his knees, if there is no time to bury him properly'.[28] This was corroborated by workmen at Abu Dhahir, who also stated that a single stone marker was indicative of a female burial whereas two markers were used to indicate male graves.

The discovery of only one type 2a grave in [M] clearly reflects increasing use of this specific area for a child/infant cemetery. This may have originally been located further to the south/southeast, spreading in size by this subphase. It is uncertain if there was any relationship between those adult graves buried near the child/infant cemetery and the latter. There is a clear contrast with the west end of the cemetery which was marked by larger graves. The separation of child/infant and other burials is paralleled elsewhere in the Islamic world, the reason being 'that such young children die innocent, not having grown old enough to know sin, and are therefore not interred among adults'.[29] The relative position of these infant/sub-adult graves to the evidently more important adult graves at the opposite end of the cemetery is probably significant. As well as the 'social' spatial distribution of graves, the hypothesis of graves being situated progressively further from the presumed original centre of the cemetery on the mound summit is supported by the presence of a separate cemetery to the west.

As already observed, a possible adolescent grave in [M] was marked by a stone and brick cist construction (type 2b, i.e. an amalgam of types 2a and 3). Its orientation is similar to three equidistant – and probably contemporary – type 3 brick-built cists to the south and west. One of these overlay one end of this adolescent(?) grave, which in turn clipped the edge of an earlier type 3 brick cist.

There appears to have been a shift in the location and orientation of graves during the use of the type 3 brick cists in [M]. The northeast four of these graves – two of which were stratigraphically later than the others – were apparently more randomly scattered down-slope, with a more heavily east/west orientation. These differences are partly reflected in the burial posture of the deceased. No parallels for the use of the type 3 graves were observed elsewhere, but they were said locally to be characteristic of former inhabitants of this area.

Possibly subsequent to the type 3 graves were four infant burials in type 2b – [M1] (6) – and type 1b graves. Whereas the former included rather shoddy use of stones and mud-bricks, the latter were in plain earth-cut graves. The forms of the latter graves are uncertain however, as is their one direct stratigraphic relationship with a type 3 grave. These graves are scattered throughout the southernmost portion of [M], with later graves – if one includes type 2b with type 1b – this orientation was either approximately east/west or northwest/southeast.

Located down-slope[30] of all but one of the type 3 cists, and in approximately the same area as the type 1b graves, were four type 4b graves consisting of vertical shafts and undercut side-chambers. Three of these were characterised by the use of several mud-bricks, pitched at an angle, to seal off the void side-chamber from the backfilled shaft. The fourth – [M1] (36) – was an atypical

[28] Dickson 1949: 212.

[29] Watson 1979: 215.

[30] There is no evidence in [M] of the late graves doing more than clip each other if at all, and grave digging evidently stopped if the roof of another grave was encountered. This would explain the down-slope spread of the cemetery.

example of type 4a, with the side-chamber being apparently located to the north – as opposed to south – of the (largely undetected in excavation) vertical grave shaft. It was also sealed off from the latter by a single stone slab, as opposed to the usual row of smaller stones. These differences in construction from the other type 4a graves, as well as their respective locations, suggest that they may be of a slightly different date [see below: type 4a].

Situated approximately 1.4 m down-slope of the closest other excavated Period 19 graves, i.e. well below the crest of the mound and between the 93 m and 94 m contours at this point, a cluster of six graves were excavated. All belonged to type 4a, i.e. graves with vertical rectangular shafts with an undercut side-chamber to the south blocked off by a row of pitched stones: the latter bore the same distinctive rippled tool-marks on their surfaces as observed on type 2a graves. Although their orientation varied slightly from approximately east/west (3 graves) to east-southeast/west-northwest (3 graves), this was in marked contrast to those excavated graves (types 1a, 2a, 2b, ([M1] (19), and 3 in the south part of [M]). This appears to support a further shift in grave orientation. Although distinctive construction could represent a technical solution to grave digging on a steep slope, there is some evidence to support their later date. Similar examples found at Tell Madhhur were also believed to be of very recent origin.[31] It seems probable at Abu Dhahir that these represent the introduction of a different burial type for children/infants in this area of the site. The reasons and exact date for this apparent replacement of the type 3 graves are uncertain. Their rather surprising location on the sleep slope must represent a desire not to disturb earlier graves. This might suggest that these were still marked but may simply reflect local tradition as to the whereabouts of graves. This became evident at the beginning of excavation in [M] when an elderly lady from the village voiced concern over the position of the trench yet did not appear to recognise the excavated graves when they were uncovered. It should also be pointed out that the type 4a graves were themselves not visible prior to excavation. Incidentally, this grave type is found elsewhere on flatter areas of some other sites, for example at Tell Gubba.[32]

No traces of any shrouds, coffins or grave-goods were found with any of these burials. In contrast, infant burials 'of recent date' at Tell Razuk in the Hamrin contained beads, whereas another also possessed a reused Ottoman silver coin of AD 1907/1908 and four plastic bracelets.[33] An Islamic grave at Tell Songor is reported to have contained a mirror and personal ornaments.[34] Within the Eski Mosul Dam Salvage project, the site of Grai Shaibo was found to include a number of burials with grave-goods, that were attributed by the excavator, Sd. Mamoon Ghanim Husain, to Period 18 bedouin.[35] The discovery of some glass bracelet fragments <634> in topsoil near the south corner of [M] could be purely accidental, but may illustrate the deliberate breaking of these glass bracelets during mourning ceremonies.[36]

Islamic stone slab-lined graves were discovered at several other sites excavated as part of this Project, including Tell Jigan and Tell Sheikh Humsi.[37] However, the closest comparable archaeological evidence comes from rescue investigations within the Hamrin basin of central Iraq. Some 240 Islamic graves were excavated on mound A at Tell Songor.[38] Several types of grave were found, as at Abu Dhahir, belonging to adults as well as children but no chronological or spatial patterns were distinguished. The study of the cranial remains suggested differences in form (i.e. round and long-headed crania respectively] that were believed to indicate 'two kinds of people'.[39] It is not indicated whether these differences were reflected by different burial practices. Many of the graves are described as 'simple plan cigar-shaped holes' (*ibid.*) that were suspected by the excavators to merely represent disturbed examples of the other grave types. It seems unlikely, however, that no trace of the bricks, etc. belonging to these other constructions survived: upon the – albeit very limited – basis from Abu Dhahir it is tempting to compare these to the type 1 graves. This does not imply contemporaneity but may be indicative of a similar funerary tradition. Another grave type found at Tell Songor was one where 'the dead was placed inside the small fired bricks which were arranged in the shape of a box', thus evidently referring to burial within cists constructed of fired brick.[40] A third type, again believed to be 'probably of recent date' and resembling type 4a, consisted of a grave with the body placed in a side-chamber set below the *qiblah* side of a vertical access shaft . This is known in Arabic as *al-Lahd* and described by 'Abdul-Hameed as 'the best' type,[41] and was represented on the summits of the mounds of Tell Songor, Tell Madhhur, and probably Tell Gubba.[42] At Tell Madhhur this side-chamber was 'often closed by rows of slanting baked bricks, mud-bricks, stone, clinker, or anything else that came to hand'.[43]

The village

Some archaeological evidence was noted for different phases of early modern occupation at Abu Dhahir itself, notably the remains of stone footings on slightly different alignments in several house compounds, early 20th

[31] Roaf ed. 1984: 113.
[32] Fujii ed. 1981: 18, fig. 4.
[33] Gibson *et al.* 1981: 81-82.
[34] Fujii ed. 1981: 172.
[35] Pers. comm. Dr J. E. Curtis, April 1987.
[36] Simpson 1995b: 248.
[37] Ii and Kawamata 1987: 38; Bader 1987a: 132; Bader 1987b: 162.
[38] Fujii ed. 1981: 172.
[39] Fujii ed. 1981: 172.
[40] Fujii ed. 1981: 172.
[41] 'Abdul-Hameed 1994: 31.
[42] Roaf ed. 1984: 113; Fujii ed. 1981: 18, fig. 4, 152, 172.
[43] Roaf ed. 1984: 113.

century pits in [I1] and elsewhere, the complex grave sequence and the evidence for massive single-phase re-deposition along the edge of the river terrace in [K1], [K3] and [V4]. One feature that was noted on several occasions was the creation of secondary access into a house compound by means of removing the roof of one room, demolishing the rear wall and reusing the former doorway from the courtyard as an entrance to the exterior. In addition, throughout the village there was evidence for blocked doorways *(Pl. 34)*, stages of abandonment, recycled rooms, new compound walls or other changes within the layout of the domestic architecture. These are typical of multi-generation mud-brick village architecture and reflect changes in the size, wealth and new relationships within a family.[44]

The cumulative picture therefore suggests that there has been a village on this site for much of the past century. The recently abandoned early modern village provides evidence for several phases of construction, modification and recycling of space, plus an outward growth of the occupation and its cemetery. The extent to which the previous inhabitants may have been related to those living in the village at the time of the Project is unclear yet the discovery of a counter-sunk *tannur* in [V4] suggests a radical change in baking methods during the early modern occupation, as all of the ovens associated with the standing village were of the above-ground variety. However, it is unclear whether part of the cemetery pre-dated the first village or whether the two were strictly contemporary.

Aspects of the material culture of this early modern village can be reconstructed from excavated finds and detritus left during the abandonment; however, not all remains belonged to this period of occupation as residual pottery, small finds and fragmentary grinding stones were also found in early modern contexts, additional sherds and fragmentary animal-bone often visible in the mud-brick and bonding of the standing walls. Furthermore, the processes of abandonment had clearly heavily skewed the surviving repertoire. Those that remained were invariably deemed useless as they had been broken, and the distribution of even these had been partially affected through scavenging. The situation therefore contrasts with living villages where the correct placement of an object may be governed by social rules and deep tradition.[45]

A variety of different containers and everyday utensils were found distributed throughout the deserted village. These included a single large plain coil-built storage jar with a pair of handles above a horizontal ridge *(Pl. 40)* that marks the end of this ceramic tradition in this region[46] but the use of built-in mud-plastered storage bins in some households belongs to the same tradition *(Pls 40-41)*. Other ceramic vessels included ubiquitous and invariably smashed water-jars [*hubbs*], occasional green-glazed jars [*sadds*] that were traditionally bought in Mosul and used for storing meat and butter, etc. but which had already been replaced by plastic containers by the 1980s, fragmentary comb-incised vessels and coffee cups; a few sherds of modern glassware were also noted. Plastic vegetable racks, plastic egg cartons, perished sugar sacks, plastic carrier bags, circular tin trays, cylindrical tin barrels [*baramil*] – one of the most frequent artefacts – metal ghee tins, frequent tin cans and occasional thermos flasks offer a final insight into the impact of the late 20th century on food, diet and the kitchen *(Pls. 34, 40, 42)*. A poignant testimony of the increased use of sugar in the diet of the village inhabitants was provided by the teeth of the young individuals found in the graves in [M].[47]

Smoking in the early village was evidenced by red and black burnished clay tobacco pipe bowls probably datable to the first half of the 20th century and found in [I1], [K3], [V2], [V4]; these traditional types were based on Ottoman styles of pipe but were finally replaced by cigarettes and European types of briar during the 1950s.[48] Other surviving categories of material culture consisted of the following:

Clothing
- Plastic shoes: village, [V4]
- Leather shoes: [K1]
- Clothing: village

Personal adornment
- Plastic pendant: [K1]
- Plastic bead: [K3]
- Glass bracelet: [K3]

Agricultural
- Iron horseshoes: [V4]
- Iron harrows: village and near the Wadi Suweidiya
- Iron scythe: village *(Pl. 42)*
- Iron pitchfork with four prongs (*mithra'a*): village *(Pl. 42)*[49]
- Stone trough: village

Defence
- Bullet cartridges: [K1], [V2]

Other
- Iron hook: [V4]
- Miscellaneous iron sheet or unspecified: throughout the village, [K1], [V4]

[44] Horne 1994; Ziadeh-Seely 1999.
[45] Cf. Rohweder 1976: 83.
[46] Cf. Simpson 1997c: 104-109.
[47] Bolt, forthcoming.
[48] Gargies 1987.
[49] N.B. Wooden pitchforks have nine prongs.

- Plastic window sheeting: village – one of the most common discarded items, presumably reflecting a move to a village with glazed windows
- Kerosene heaters: village *(Pl. 38)*
- School exercise book: village

The discovery of rubbish pits in [V2] and [V4] that were filled with substantial quantities of animal-bone recalls earlier Period 5.3-1 features in [M] or Period 11.3 and 11.5-2 features in [I1] which appear to represent secondary use of cut features as places of rubbish disposal. In most cases animal-bone and other food remains appear to have been casually disposed of, hence were largely scattered and/or destroyed by domestic scavengers, and pits were only used when large social events accompanying life-cycle ceremonies generated larger quantities of food debris.[50] Other pits that were still open at the time of investigation were observed to be filled with soiled clothing or other organic waste, a function that is unlikely to be recognised from the archaeological record of earlier periods. It is possible that other organic matter was used as 'night soil' fertilizer, a widely documented practice from recent and ancient periods alike in the Near East, particularly as a dense field scatter of multi-period debris was noted in fields adjacent to the river terrace immediately to the south of Abu Dhahir.[51]

It was instructive to see some of the processes and effects of abandonment of the village at Abu Dhahir. The evacuation of the villagers to Bardiyya was a gradual and determined process organised on a household basis. Most families took care to remove the roof poles despite the presence of their new cement accommodation: the process of removing these poles was rapid and consisted of pitchforking the lighter roofing material to either side of the structure or into the shell beneath. The latter had the effect of covering any unwanted room contents. It should be emphasised that very little of value was left.

Abandonment was followed by opportunistic scavenging by workmen and others, a process that led to a stripping of practically all remaining reusable small objects or fittings. It also contributed towards wanton damage, scattering of some breakable objects such as unwanted pottery vessels, fragments of which could not always be traced, and some additional ephemeral detritus (such as cigarette packets). In some cases, bulkier objects such as kerosene heaters were stockpiled in rooms that still had roofs until suitable transport could be found (see above: the 'khan's house'). This category of delayed curation resembles a pattern noted in abandoned villages in Mexico and Palestine, and provides a suitable warning to archaeologists over the interpretation of such room contents.[52] Further transformation of the rooms was gradually effected as animals sheltered or searched for food in the empty houses, scattering cans and depositing dung at random (see above: 'private house 1').

Over the course of the ensuing months casual fire-raisers ignited the straw leaving dramatic scorch marks on the walls *(Pl. 32)*. The mud-brick itself of course did not catch fire. In these cases, there was a very clear correlation between the degree of burning and the extent of the discarded roofing material which was usually either inside or outside a room but rarely both, hence giving dramatically different appearances to a potential excavator. In addition, the accumulation of debris immediately above the floor created a tideline effect along the wall faces as the lowermost areas of wall face were unburnt: the similarity with burnt and unburnt sections of palace relief from Sennacherib's palace at Nineveh is very striking. It was also instructive to witness the casual demolition of house walls or even long sections of courtyard wall that, weakened by a winter of neglect and/or damp percolating between courses from the top after removal of the roof, proved remarkably easy for one or two determined young men to push over simply using their shoulders *(Pl. 44)*. The cumulative effect of these different actions was to transform many areas of the village at Abu Dhahir into the imagined scene of a sudden and violent sack following a period of squatter occupation *(Pls. 31-32, 44)*.

Most villagers took their valuable livestock with them although some continued to allow their animals to graze near the old village and a small number of domestic cats and dogs were left behind or deliberately shot. Over the course of the next few months those dogs that remained regrouped as a substantial pack that became increasingly desperate as food fell into shorter supply. Emboldened by occasional attacks on donkeys or cattle grazing close the river, they grew to harass persons on foot, causing the villagers to periodically shoot the dogs. The abandoned river valley became briefly colonised by wild boar and, according to the villagers, wolves – thereby attracting hunters – until the backing-up of the Tigris behind the new dam led to this area being submerged. During this stage fishermen from lower Iraq briefly set up a camp near Abu Dhahir as they set nets across the waters.

The story of the village of Abu Dhahir finally came to an end in March 1986 with the submerging of this area of the Tigris river valley within the Saddam Dam basin *(Pl. 3)*. The mound was exposed briefly in 1987 when the waters receded: all traces of the village had disappeared and the excavation sections had collapsed heavily. A complete Period 3 pot <841>, probably belonging to an unexcavated grave, was found at the site by a villager during this period and submitted to the authorities. The site was again submerged later that year, although at the time of publication the heavily eroded mound rose out of a heavily sedimented dam basin *(Pl. 46)*.

[50] Cf. Weinstein 1973: 274; Kramer 1982: 44, 49.
[51] Cf. Horne 1994: 163; Wilkinson 1989.
[52] Joyce and Johannessen 1993; Ziadeh-Seely 1999: 135.

Plate 29 Period 13: typical mud-brick wall on stone footing construction

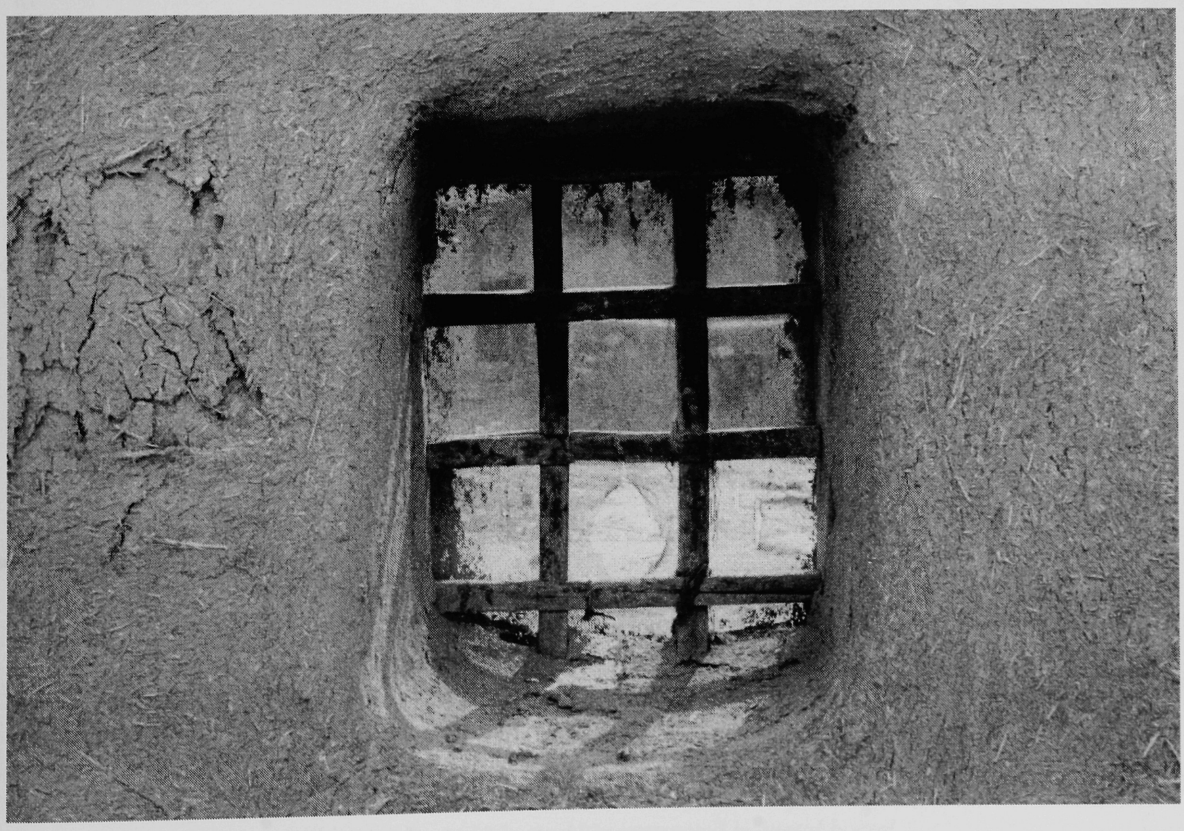

Plate 30 Period 13: wooden window grill

Plate 31 Period 13: discarded roof straw and matting after roof beams salvaged

Plate 32 Period 13: scorch marks of burnt roof straw against walls

Plate 33 Period 13: interior decoration

Plate 34 Period 13: mud bin supported by metal barrel

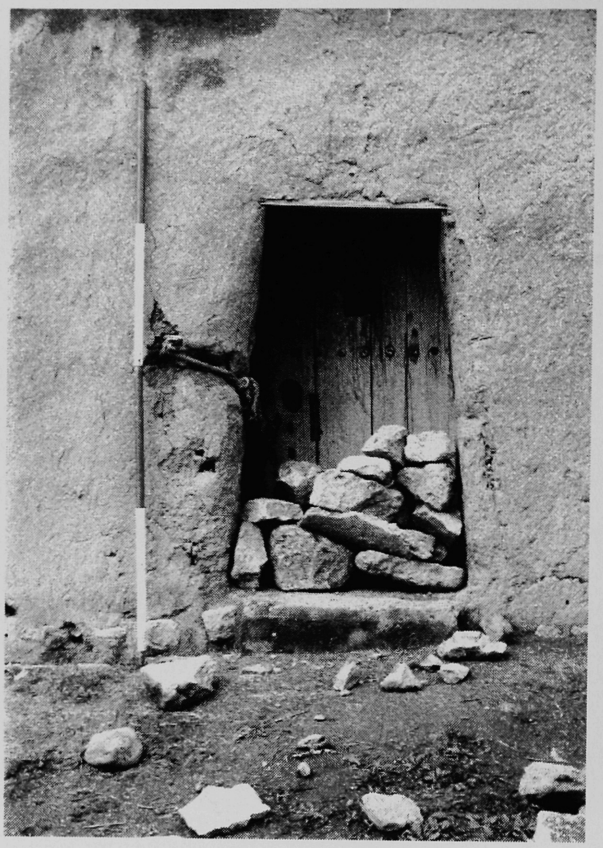

Plate 35 Period 13: trapezoidal doorway

Plate 36 Period 13: bricked up trapezoidal doorway

Plate 37 Period 13: sleeping platform

Plate 38 Period 13: sleeping platform and roof staircase

Plate 39 Period 13: roofed oven

Plate 40 Period 13: abandoned room. Note storage jar and bins

Plate 41 Period 13: plastered storage bin

Plate 42 Period 13: abandoned room

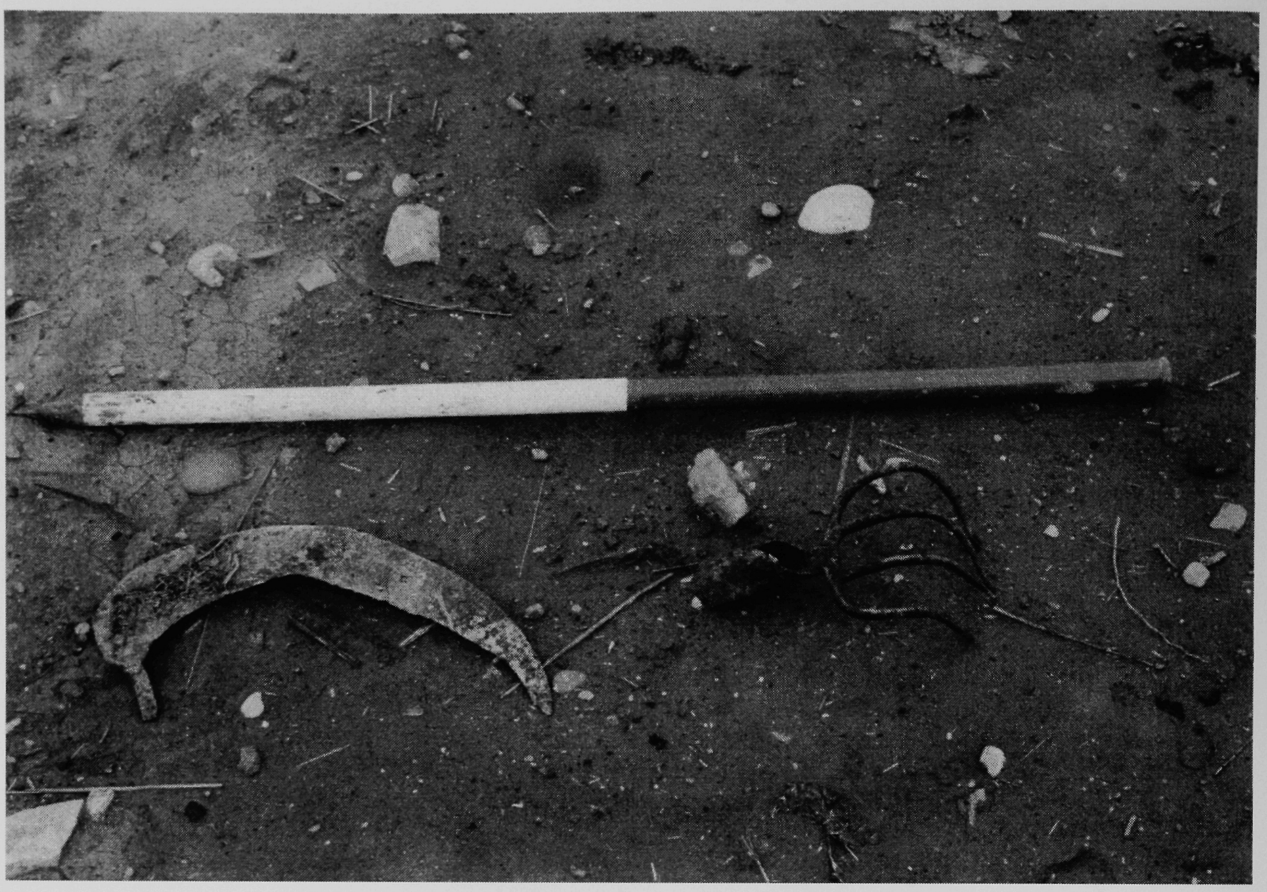

Plate 43 Period 13: abandoned scythe and pitchfork

Plate 44 Period 13: wall in 'mukhtar's house' in process of collapse

Plate 45 Period 13 graves in [M]

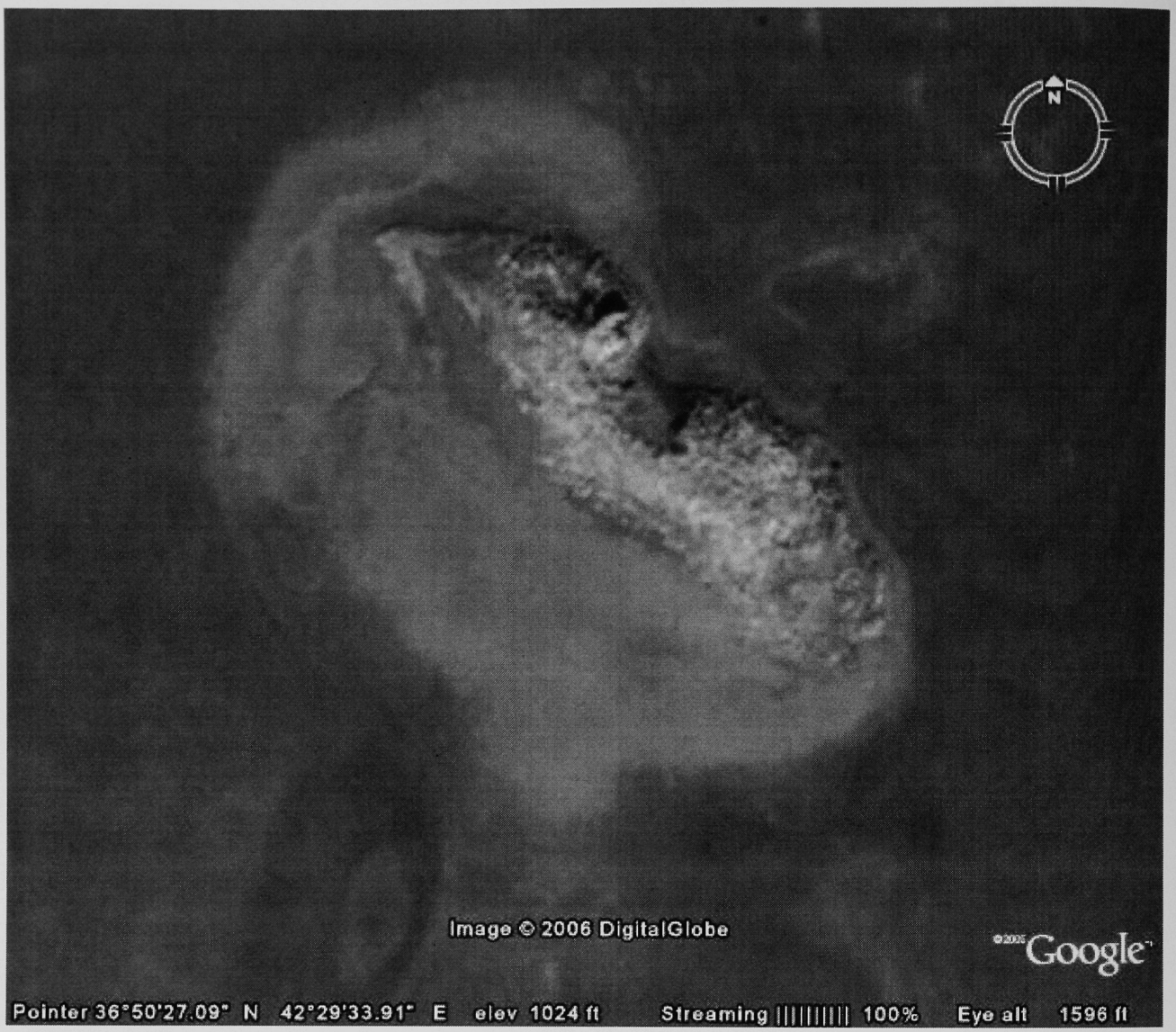

Plate 46 Abu Dhahir in 2006 (taken from Google Earth)

Concordance: List of excavated contexts

Notes

Trenches are listed in alphabetical order and contexts are listed in numerical order according to trench.
The following abbreviations are used in the Finds column:

A: asphalt, B: bone [animal], Fe: ferrous slag, L: lithic, P: pottery, S: shell, Se: seed, V: vitrified clay, x*: discarded without processing.

Some categories are listed in more than one column (e.g. an asphalt stopper may be listed under the finds and small finds columns).

Small finds are listed according to their field registration number: further details are listed in the small finds concordance.

Trench [A]

Context	Period	Description	Recov method	Finds	Small finds
1	19	slopewash	shovel	B*P*	610, 748, 770, 773, 774, 786, 787, 806, 814, 3024, 3025

Trench [I1]

Context	Period	Description	Recov method	Finds	Small finds
1	11.6-2	sub-surface	trowel	BLP	691, 3026
2	11.5-1	brick paving	trowel		
3	11.6-1	oven	trowel		712, 751, 789
4	*see 3*				
5	11.6-1	oven fill	trowel	BPS	674
6	11.6-1	oven lining	trowel	P	
7	19	pit	trowel	BP	
8	11.5-3	ext. deposit	trowel	BPS	581
9	11.6-1	paved floor	trowel	-	
10	11.5-3	ext. deposit	trowel	BPSV	
11	11.5-1	floor	trowel	BLPV	
12	19	pit	trowel	ABPS	639, 811
13	19	pit	trowel	BPV	
14	13	cut feature	trowel	BPSV	719
15	11.3-4	ext. deposit	trowel	BLPS	520
16	19	pit	trowel	BP	522
17	11.4-1	wall	trowel	P	
18	11.4-2	ext. deposit	trowel	BLPV	557, 663, 833?
19	11.5-2	cut feature	trowel	BLP	
20	11.4-1	wall	trowel	P	3021
21	13	cut feature	trowel	BLP	820
22	13	grave	trowel	BPV	790
23	19	pit	trowel		
24	19	pit	trowel		
25	11.3-3	ext. deposit	shovel	BLP	726
26	11.2-2/3-2	ext. deposits	shovel	BLPSV	762, 763
27	11.3-3	bricks	trowel		
28	11.3-3	wall	shovel		3020, 3038
29	11.3-1	ext. cut feature	trowel	BP	
30	11.3-1	ext. cut feature	trowel	BP	
31	11.3-1	ext. cut feature	trowel	-	
32	11.3-1	ext. cut feature	trowel	V	
33	11.3-3	ext. deposit	trowel	LP	625
34	11.3-1	ext. cut feature	trowel	BP	
35	11.3-4	ext. deposit	trowel	P	
36	11.2-1	feature	trowel		3018, 3039

37	11.2-1	surfaces	trowel	BLP	511, 530, 533, 543
38	11.3-3	floors	trowel		

Context	Period	Description	Recov method	Finds	Small finds
39	11.3-2	ext. stone paving	shovel		724, 734, 737, 743, 3019
40	11.3-1/2	pit & fills	trowel	BLPS	510
41	11.1-2	wall	shovel	BLPS	655, 834
42	11.1-1/2	int. floors	trowel	BLPS	653, 761, 805, 3015
43	11.2-1	wall	shovel	BLV	
44	11.2-1	burnt feature	trowel		
45	11.1-2	ext. surfaces	trowel	BPV	707
46	8.2	ext. deposit	shovel	BLPV	546
47	8.2	ext. deposits	shovel/trowel	BLPSV	555, 578, 651, 701, 727, 780, 818, 3013
48	8.1-1	wall	-	-	-
49	7,8	deposits	shovel	BLPV	
50	8.1-1	wall	-	-	-
51	8.1-1	hearth?	shovel		
52	7.1-2	deposit	shovel	BP	666, 667, 668, 669, 675, 731, 827
53	7.1-2	ashy deposit	trowel		
54	7.1-1	wall	shovel		705
55	7.1-1	paving	shovel	-	-
56	7.1-1	floors	trowel	-	-
57	7.1-1	floors	trowel		
58	7.1-1	floors	trowel	LP	702
59	7.1-1	pebble foundations	shovel	P	
60	7.1-1?	deposit	shovel	P	
61	7.1-1?	deposit	shovel	LP	
62	11.2-1	oven	trowel		
63	11.2-1	burnt lenses	trowel		
64	19	pit	trowel		
65	11.2-1	pit	trowel		
66	11.3-1	ext. cut feature	trowel	-	-
67	11.3-1	ext. cut feature	trowel		
68	11.3-3	ext. deposit	trowel		
69	8.1-2	ext. deposit			554, 699, 700, 711, 819
70	8.1-1	wall			
71	8.1-1	floor			
72	8.1-1	floor			
73	7.1-2	deposit			
74					
75					
76					
77				V	
78					
79					
80					

Trench [I2]

Context	Period	Description	Recov method	Finds	Small finds
1	11.1-1	kiln	trowel	-	-
2	11.1-2	kiln fill	trowel	BPV	-
3	11.1-2	kiln fill	trowel	BLPV	723, 799, 3016, 3017
4	11.1.1	kiln fill	trowel	PV	670
5	11	kiln	-	-	-
6	19	footings	-	-	-
7	19	pit	-	-	-
8	19	pit	-	-	-

Trench [K1]

Context	Period	Description	Recov method	Finds	Small finds
1	19.3	sub-surface	shovel	P	-
2	19.3	ext. deposit	shovel	BP	-
3	19.2	ext. deposit	trowel	BPS	-
4	19.1	ext. deposit	shovel	BPS	559, 570, 717, 3027
5	19.2	ext. deposit	trowel	BP	-
6	19.2	pit	shovel	BPS	-
7	19.2	pit fill	shovel	BP	-
8	19.2	pit fill	shovel	BLP	-
9	19.1	ext. deposit	shovel	P	
10	19.1	ext. deposit	shovel	P	
11	19.1	ext. deposit	shovel	P	
12	19.1	ext. deposit	shovel	BP	
13	19.1	ext. deposit	shovel	PV	
14	19.1	ext. deposit	shovel	BPV	
15	19.1	ext. deposit	shovel	BPV	
16	8	pit fill	shovel	BLPSV	528, 621, 718
17	8	pit fill	shovel	BP	
18	8	pit fill	shovel	BP	
19	8	pit fill	shovel	BLPV	766
20	8	pit fill	shovel	BLPV	
21	8	pit fill	shovel	BLPV	688
22	8	pit fill	shovel	BP	594
23	8	pit	shovel	BLPS	512
24	8	pit fill	-	-	-
25	-	natural	-	-	-

Trench [K2]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	P	
2	8	pit fill	shovel	B*PV	623, 624
3	8	pit fill	shovel	B*P	-
4	7	pebble surface	shovel	-	-
5	-	natural	-	-	-

Trench [K3]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	BLPV	507, 542
2	7.1-1	wall footings	trowel	-	
3	19	pit fill	trowel	BPL	592, 826, 3028
4	19	pit	trowel		
5	7.1-2	ext. deposit	trowel	LP	
6	7.1-2	ext. deposit	trowel	P	
7	7.1-1	wall foundations	trowel	P	
8	7.1-2	ext. deposit	trowel	BLP	715
9	7.1-1	ext. surface		-	-
10	7.1-1	pot	trowel	P	
11	7.1-1	pot	trowel	P	
12	7.1-1	stone feature		-	-
13	8	ext. deposit	trowel	BLPV	500?, 541, 579?, 704, 708, 725, 802
14	8	ext. deposit	trowel	BLPV	547, 3012
15	7.1-3	ext. deposit	trowel	AP	
16	7.1-2	ext. deposit	trowel	BP	
17	7.1-1	ext. surface	trowel	-	
18	7.1-2	rubble	trowel	P	709
19	8	pot	trowel	P	
20	8	pot	trowel	P	
21	8	pot	trowel	P	

Context	Period	Description	Recov method	Finds	Small finds
22	8	pot fill	trowel	P	671
23	8	pot fill	trowel	PS	
24	8	pot fill	trowel	P	
25	8	ext. deposit	shovel	BPV	
26	7.1-2	ext. deposit	trowel	BPV	
27	7.1-1	stone feature	trowel		
28	7.1-1	stone buttress	-	-	
29	7.1-1	stone buttress	-	-	
30			shovel		
31	7.1-1	ext. surface	shovel	-	
32	7.1-1	stone feature	-	-	
33	7.1-1	stone feature	-	-	

Trench [M1]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	BLP	631, 634
2	11.1-1?	deposit	shovel	BLPV	567, 602, 626
3	11.1-1?	deposit	shovel	BLP	
4	19	grave	trowel	-	
5	19	grave	trowel	-	
6	19	grave	trowel	-	
7	19	grave	trowel	-	
8	19	grave	trowel	-	
9	*see 9*		shovel	PV	
10	19	grave	trowel	L	
11	19	grave	trowel	-	
12	19	grave	trowel	-	
13	19	grave	trowel	-	
14	19	grave	trowel	P	
15	9/10	ext. deposit	trowel		
16	9/10	ext. deposit	trowel	BLP	
17	19	grave	trowel	BP	
18	19	grave	trowel	-	
19	19	grave	trowel	-	
20	9/10	footings + patch	trowel		
21	9/10	ext. deposit	trowel		
22	9/10	ext. deposit	trowel	BLP	
23	19	grave	trowel	-	
24	9/10	footings + burnt patch	trowel		
25	?	deposit	trowel	P	
26	19	grave	trowel	-	
27	9/10	paving	trowel	-	736, 742, 754, 804
28	8.3-3	ext. deposit	trowel	BP	757
29	?	deposit	trowel	BPV	
30	?	deposit	trowel	BLPS	
31	9/10	deposit	trowel	BPA	3040
32	9/10	deposits	trowel	BP	
33	?	deposit	trowel	BLP	
34	9/10	deposit	trowel		
35	?	deposit	trowel	B	
36	19	grave	trowel	L	
37	19	grave	trowel		
38	11.1-1	terrace wall	shovel/trowel	BL	
39			trowel		
40	*see 28*				
41	*see 28*				
42	8.3-3	ext. deposit	trowel	BLPSV	529?, 572, 759, 783, 3014
43	8.3-1	paving	trowel	BLPV	
44	?		trowel	BFeP	816

Context	Period	Description	Recov method	Finds	Small finds
45	7.2-1/8.1	ext. deposits	shovel	BLPV	728, 792
46	13	grain silo fills	trowel	BLP	
47	8.2	wall	shovel/trowel	BLPV	561, 744, 745, 746, 750, 752, 755, 756, 760, 775, 781
48			trowel		
49	13	grain silo fill	trowel	ABLPV	620, 644, 794
50	13	grain silo fill	trowel	BLPV	720
51	13	grain silo fill	trowel		
52	8.3-2/13	wall & lining	trowel	BP	-
53	13	grain silo fill	shovel/trowel	ABLPSV	571, 641, 3022
54			shovel	P	
55	5.3-3	ext. deposit	shovel	BPS	
56	5.3-3	ext. deposit	shovel	BLPSV	
57	5.3-3	cut feature & fill	trowel	BLPSV	
58			trowel/sieve	BP	3041
59	7.1-1	wall	trowel	P	778
60	7.2-2	int. deposit	trowel	P	
61	7.1-1	floor	sieve	BLP	
62	5.3-2	ext. surface	trowel	P	
63	7.1-1	floor	sieve	P	
64	7.1-1	floor	sieve	BLP	
65	6	pit fill	sieve	ABLPS	544, 649?, 694, 695, 696, 807, 824, 828
66	5.3-2	ext. surface	trowel	BLP	
67	6	pit & fill	sieve	BLPS	693
68	5.3-2	ext. surface	trowel	BLP	
69	5.3-2	ext. surface	trowel	BLP	
70	5.3-1	ext. deposit	shovel/trowel	ABLP	601, 636, 729
71	5.3-1	ext. deposit	trowel	LP	
72	5.2-2	ext. ashy deposit	trowel		
73	5.2-1	wall	trowel	BLPV	3042
74	5.2-1/2	ext. surfaces	trowel		
75	5.2-1	ext. deposit	shovel	BLPS	831
76	5.2-1	ext. surface	shovel	ABLPV	516, 518, 682, 684, 3043
77	5.2-1	ext. deposit	shovel	ABLPSV?	
78	3.7	deposit	trowel/sieve	BLP	-
79	3.7	deposit	trowel	BLP	-
80	5.3-1	pit fill	trowel	ABLPSV	551, 661, 686, 689, 713
81	5.1-1	kiln fill?	trowel	BLP	
82	5.3-1	pit & lower fill	sieve	ABLPV	632, 672, 779
83	5.1-2	kiln fill	trowel	BLP	740
84	*see [M2] 32*				
85	3.7	wall	trowel	-	-
86	5.1-2	kiln fills	trowel	BLP	605, 683, 803
87	3.7	wall	trowel	-	-
88	3.7	floor	trowel	-	-
89	3.7	deposit	trowel		
90	*see 85*				
91	3.7	wall	trowel	-	-
92	3.7/5.1-1?	deposit	trowel	BLP	
93	3.7	wall	trowel	-	-
94	5.1-1	kiln	trowel	-	-
95	3.7	deposit	trowel	-	-
96	5.1-1	kiln fill?	trowel	BL	
97	5.2-1	footings	trowel	-	3009
98	5.2-2	int. deposits	trowel	-	
99	5.2-1	floor	trowel	-	

Context	Period	Description	Recov method	Finds	Small finds
100	5.1-1	kiln rake-out	trowel	-	
101	5.3-1	pit	trowel	*see (75)*	
102	7.2-1	wall	shovel	P	
103	8.3-2	wall			
104	8.3-1	wall			
105	13	grain silo fill	trowel	-	-
106	13	grain silo	shovel	-	-

Trench [M2]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	BLPS	
2	11.1-2	ext. deposit	shovel	BLPSV	714, 3029
3	19	grave	trowel	-	
4	*see [M1] (38)*				
5	19	grave	trowel	-	
6	11.1-1	ext. deposit	shovel/sieve	BLPSV	612, 615, 628, 637, 697, 698, 753, 784
7	19	grave	trowel	-	
8	6/7	flat stone	trowel		
9	*see [M1] 67*	deposit	trowel	P	
10	*see [M1] 67*	deposit	trowel		
11	*see [M1] 65*	deposit	trowel	BPS	
12	VOID	-	-	-	-
13	19	grave	trowel	-	
14	19	grave	trowel	-	
15	19	grave	trowel	-	
16	19	grave	trowel	-	
17	11.1-1	terrace wall footings	shovel	BLP	769
18	5.3-1	pit fill	shovel	BLPV	-
19	3.7	int. deposit	trowel	BLP	-
20	3.7	deposit	trowel	P	-
21	19	grave	trowel	P	-
22	3.7	deposit	shovel	ABLP	503, 640
23	19	grave	trowel	AP	643
24	5.3-1	pit fill	trowel	ABP	-
25	19	grave	trowel	-	
26	***=6***		shovel	BLPSV	642
27	5.3-1	pit & fill	trowel	ABLPS	553, 647, 687
28	3.7	int. deposit	trowel	BLP	596
29	3.7	int. deposit	trowel	-	-
30	3.7	ext. deposit	trowel	-	-
31	3.7	ext. deposit	trowel	BLP	-
32	3.7	ext. deposit	sieve	ABLPSV	564, 593, 599
33	3.7	deposit	trowel	-	-
34	3.7	deposit	trowel	P	-
35	3.7	deposit	trowel	ABLPS?	563, 589, 609, 629, 638, 782
36	3.7	deposit	trowel	ABLPS	531, 584, 813
37	3.7	wall	trowel	-	-
38	3.7	deposit	trowel	-	-
39	3.7	int. deposit	trowel	LP	-
40	3.7	wall	trowel	-	-
41	3.7	int. deposit	trowel	BLP	648
42	3.7	int. deposit	sieve	ABLP	739
43	3.7	int. deposit	sieve	-	-
44	3.7	int. deposit	sieve	ABLPS	568, 776, 797
45	3.7	deposit	trowel	ABLPS?	*see (35)*
46	3.7	wall	trowel	BLP	-
47	5.3-1	pit & fill	sieve	BLP	573, 677?, 685

Context	Period	Description	Recov method	Finds	Small finds
48	3.7	int. deposit	sieve	ABLPS	566
49	3.7	int. deposit	sieve	ALP	-
50	3.7	int. deposit	trowel	-	-
51	3.7	oven fill	trowel	-	-
52	3.7	oven	trowel	-	-
53	3.7	oven	trowel	-	-
54	3.7	int. deposit	sieve	BLP	627
55	3.7	int. deposit	trowel	BL	-
56	3.7	int. deposit	trowel	BLP	633, 733, 771, 772, 815
57	3.7	ext. surface	sieve	ABLP	630, 823
58	3.7	ext. deposit	trowel	BLP	-
59	3.7	int. floor	trowel	-	-
60	3.7	wall	trowel	-	-
61	3.7	wall	trowel	-	-
62	3.7	int. deposit	sieve	BLPS	527, 809, 3004
63	3.7	int. floor	trowel	BL	-
64	3.7	int. deposit	trowel	BLP	747
65	3.7	int. deposit	trowel	BLP	-
66	3.7	wall	trowel	-	-
67	3.7	wall	trowel	-	-
68	3.7	door blocking	trowel	BLP	622
69	3.7	int. deposit	trowel	BLPS	617
70	3.7	wall	trowel	*see 69*	-
71	3.7	wall	trowel	-	-
72	3.7	floor	trowel	-	-
73	3.7	floor	trowel	-	-
74	3.7	wall	trowel	-	-
75	3.7	wall	trowel	-	-
76	3.7	wall	trowel	-	525
77	3.7	wall	trowel	-	-
78	3.7	wall	trowel	-	-
79	3.7	wall	trowel	-	-
80	3.7	wall	trowel	-	-
81	3.7	floor	trowel	-	-
82	3.7	wall	trowel	-	-
83					
84	3.7	wall	trowel	-	-
85	3.7	wall	trowel	-	-
86	3.7	wall	trowel	-	-
87	3.7	wall	trowel	-	-
88	3.7	int. deposit	trowel	LP	565
89	3.7	int. deposit	trowel	ABLP	600, 616, 838, 3005
90	3.7	floor	sieve	ABLPS	613
91	3.7	floor	sieve	BLPS	825, 3046
92	3.7	doorway	trowel	-	-
93	3.7	doorway	trowel	-	-
94	3.7	wall	trowel	-	-
95	3.7	wall	trowel	BLP	552, 569
96	3.7	wall	trowel	-	-
97	3.7	ext. deposit	trowel	BPS	-
98	3.7	int. deposit	trowel	BLPS	583
99	3.7	int. deposit	trowel	-	-
100	3.7	int. deposit	trowel	BLP	-
101	3.7	cut feature	trowel	-	-
102	3.7	cut feature	trowel	-	-
103	3.7	post hole	trowel	P	-
104	3.7	wall deposit	trowel	L	-
105	3.7	wall	trowel	-	-
106	3.7	wall	trowel	-	-
107	3.7	wall	trowel	-	-

Context	Period	Description	Recov method	Finds	Small finds
108	3.7	wall	trowel	-	-
109	19	grave	trowel	-	-

Trench [M3]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	ABLPSV	646, 3031, 3032
2	19	slopewash	shovel	BL	-
3	3.7	wall	trowel	-	-
4	3.7	int. deposit	sieve	BLP	509
5	3.7	ext. deposit	sieve	BLS	590, 840
6	3.7	deposit	sieve	BPS	764, 3047
7	3.7	wall	trowel	ABPL	562, 703, 3048
8	3.6	ext. deposit	sieve	BLS	524
9	3.6	wall footings	trowel	-	765, 3049
10	3.5	ext. deposit	sieve	ABL	591, 597
11	3.5	ext. deposit	sieve	BLSV	-
12	3.4	wall	trowel	-	-
13	3.4	ext. deposit	trowel	ABLV?	-
14	3.3	ext. deposit	trowel/sieve	ABLSV	519, 526, 540, 839
15	3.4	int. deposit	sieve	BLSV	-
16	3.3	ext. surface	trowel	ABLPS	3008, 3050
17	3.3	ext. cut features	trowel	LP	-
18	3.2-2/3	cubicle wall	-	-	-
19	3.2-3	cubicle 1 fill	trowel	ALPS	607, 3006, 2051
20	3.2-3	cubicle 2 fill	trowel	ABL?P	-
21	3.2-1/2/3	cubicle wall	trowel	-	-
22	3.2-1/2/3	cubicle wall	-	-	-
23	3.2-3	cubicle 3 fill	trowel	ABLP	-
24	3.2-3	cubicle wall	-	-	-
25	3.2-2/3	cubicle wall	-	-	-
26	3.2-3	cubicle 7 fill	trowel	L	-
27	3.2-2/3	cubicle wall	-	-	-
28	3.2-3	cubicle wall	-	-	-
29	3.2-3	cubicle 8 fill	trowel	ABLPS	3007
30	3.2-3	cubicle 4 fill	trowel	ABLS	812
31	3.2-2/3	cubicle wall	-	-	-
32	3.2-1/2/3	cubicle wall	-	-	-
33	3.2-3	cubicle 5 fill	trowel	-	-
34	3.2	ext. deposit	trowel	BLPS	-
35	3.2	ext. asphalt patch	trowel	A	-
36	3.2-3	cubicle 3 fill	trowel	ABLS	-
37	3.2-1/2	cubicle wall	-	-	-
38	3.2-2	cubicle 3 fill	shovel	ABPV	-
39	3.2-1/2	cubicle wall	-	-	-
40	3.2-3	cubicle wall	-	-	-
41	3.2-3	cubicle wall	-	-	-
42	3.2-3	cubicle 6 fill	trowel	*see 20*	-

Trench [M4]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	-	-
2	3.2	ext. deposit	trowel	P	-
3	3.2	ext. deposit	trowel	B	-
4	3.2	cut feature	trowel	LP	-
5	*see [M3] (21)*				
6	3.2	ext. deposit	trowel	ABP	791
7	3.2-2	cubicle 4 fill	trowel	BS	-
8	*see [M3] (21)*				
9	*see [M3] (31)*				

Context	Period	Description	Recov method	Finds	Small finds
10	3.2-2/3	cubicle wall	-	-	-
11	3.2-2	cubicle 5 fill	trowel	B	-
12	3.2	ext. surface	trowel	AL	-
13	3.2	ext. deposit	trowel	BLS	-
14	3.2	ext. deposit	trowel	ABP	515
15	3.2	oven	trowel	-	-
16	3.2	oven sweep-out	trowel	-	-
17	3.2	ext. deposit	trowel	P	-
18	3.2	burnt deposit	trowel	P	-
19	3.2	ext. deposit	trowel	BLP	-
20	3.2	oven fill	trowel	BLP	-
21	3.2	ext. deposit	trowel	BLPS	735
22	*see 15*				
23	1.2	ext. surface	trowel		-
24	1.2	ext. deposit	trowel	ABLPSV	508, 3003?
25	1.1	ext. surface	trowel	ABLPS	514, 536, 829
26	1.1	ext. deposit	trowel	BLPS	502?, 550, 587?, 832?
27	3.1-2	grave fill?	trowel	BL	-
28	3.1-2	grave fill?	trowel		-
29	3.1-2	grave fill?	trowel		-
30	3.1-2	grave fills	trowel	BLPSV	722, 795
31	3.1-2	grave	trowel	BP	658, 681
32	1.1	ext. surface	trowel	BLP	-
33	1.1	ext. deposit	trowel	BLPS	539
34	1.1	ext. surface	trowel	*see 33*	
35	3.1-2	grave fill?	trowel	BLP	-
36	1.1	ext. deposit	trowel	BLP	-
37	3.1-2	cut feature	trowel	BLP	-
38	1.1	ext. deposit	trowel	BLPS	534
39	*see 45*				
40	*see 37*				
41	1.1	ext. surface	trowel	BLPS	532, 3052
42	*see 41*				
43	1.1	ext. deposit	trowel	BLS	3001, 3002
44	1.1	ext. deposit	trowel	BLS	652
45	3.1-2	cut feature & fill	trowel	BLPS	654, 659
46	3.1-2	grave fills	trowel	BLP	535
47	1.1	ext. deposit	trowel	*see 49*	-
48	3.1-1	grave	trowel	-	-
49	1.1	ext. deposit	trowel	BLPS	513, 650
50	*see 35*				
51	1.1	ext. deposit	trowel	BLP	-
52	3.1-1	grave	trowel	-	-
53	3.1-1	grave fill	trowel	BLPS	
54	1.1	ext. deposit	trowel	BLPS	3000
55	?	grave fill?	trowel		-
56	3.1-2	grave fill	trowel	BP	3053
57	3.1-2	grave fill	trowel	BLPS	-
58	1.1	ext. deposit	trowel		-
59	3.1-2	grave	trowel	P	680
60		fill of cut	trowel	B	-
61	3.1-2	grave	trowel	BLP	679, 800
62	3.1-2	grave fill	trowel	BLS	-
63	3.1-2	grave fill	trowel	BL	-
64	3.1-2	grave	trowel	LP	505/801, 588, 662, 676, 678, 798
65	1.1	post hole	trowel	-	-
66	1.1	post hole fill	trowel	BP	-
67	1.1	post hole	trowel	-	-

Context	Period	Description	Recov method	Finds	Small finds
68	1.1	post hole fill	trowel	-	-
69	1.1	post hole	trowel	-	-
70	1.1	post hole fill	trowel	BLP	-
71	1.1	ext. burnt surface	trowel	-	-
72	1.1	ext. deposit	trowel	LP	-
73	1.1	ext. deposits	trowel	BLP	-
74	1.1	ext. burnt patch	trowel	-	-
75	-	natural	-	-	-

Trench [M5]

Context	Period	Description	Recov method	Finds	Small finds
1	19	slopewash	shovel	A*B*LPS*V*	516, 793
2	19	slopewash	shovel	A*B*LPS*V*	

Trench [S1]

Context	Period	Description	Recov method	Finds	Small finds
1	7.1-2	sub-surface	trowel	B*P	-
2	7.1-1?	footings	trowel	-	-
3			trowel	-	-

Trench [T1]

Context	Period	Description	Recov method	Finds	Small finds
1	13?	sub-surface	shovel/trowel	BLPV	521?, 730
2	13?	deposits	shovel/trowel	BLPV	595, 664, 3023
3	7/13?	footings	-	-	-
4	7/13?	paving	-	-	-
5	13?	floor	trowel		-
6	13?	deposit	trowel	BLPV	-
7	13?	deposit	trowel	PV	-
8	13?	deposit	trowel	-	-

Trench [V1]

Context	Period	Description	Recov method	Finds	Small finds
1	19.2	sub-surface	shovel	BPV	-
2	19.2	ext. deposit	shovel	BPV	-
3	19.2	ext. deposit	shovel	BLP	-
4	19.2	ext. deposit	shovel	P	-
5	19.1?	wall	-	-	-

Trench [V2]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	BP	-
2	19	pit	shovel	BP	556
3	19	pit	shovel	BP	
4	-	natural	shovel	-	-
5	-	natural	-	-	-

Trench [V3]

Context	Period	Description	Recov method	Finds	Small finds
1	19.2	sub-surface	shovel	P	-
2	19.2	ext. deposit	shovel	BP	-
3	19.1	*tannur*	-	-	-
4	19.1	footings	-	-	-
5	-	natural	-	-	-

Trench [V4]

Context	Period	Description	Recov method	Finds	Small finds
1	19.3	sub-surface	shovel	BP	
2	19.2	pit	shovel	BP	3035, 3036

Context	Period	Description	Recov method	Finds	Small finds
3	19.2	pit & oven	shovel	BP	3034
4	19.1	ext. deposit	shovel	BLPV	582
5	19.1	ext. deposit	shovel	BLP	808, 3033
6	19.1	ext. deposit	shovel	BLP	-
7	19.1	ext. deposit	shovel	LPV	-
8	19.1	ext. deposit	shovel	BP	548, 580
9	19.2	pit	shovel	-	-

Trench [V5]

Context	Period	Description	Recov method	Finds	Small finds
1	19	sub-surface	shovel	B*P	-

Small Finds

Most artefacts other than potsherds or chipped stone were registered as small finds although a small number remained uncatalogued at the end of the season and were subsequently ascribed numbers commencing with 3000. Further details on the registered small finds will be presented in the illustrated catalogue of small finds which is expected to appear in a subsequent Zammar Excavation Report. A selection of the small finds was made on behalf of the Iraq Museum and assigned additional ADH numbers 1-58; the remainder were stored in the Departmental offices in Tel'afar, but their present location is uncertain.

Notes

* Designates certain residuality either because the object is easily datable, it was a surface find or it was reused in construction; a number of other finds may also be residual.
* [x] Designates certain residuality and attributed period.
** Designates later intrusion.

Reg. no.	Description	I.M. no.	Trench	Context	Phase
500	Bone handle (?)	-	[K3]	13/14	8.1
501	Worked stone	ADH1	Area N	surface	19*
502	Bone tool	-	[M4]	26?	1.1** [3.1?]
503	Stone grinder (?)	-	[M2]	22	3.7
504	Bone object	-	[I1]	41/43	11.1-2/2-1*
505	Obsidian pendant	-	[M4]	64	3.1-2
506	Animal figurine	-	[M5]	1	19*
507	Clay pipe	-	[K3]	1	19
508	Perforated shell	ADH2	[M4]	24?	1.2** [3.1?]
509	Bone tool	-	[M3]	4	3.7
510	Shell bead	-	[I1]	40C	11.3-2
511	Faience bead	-	[I1]	37	11.2-1
512	Shell bead	-	[K1]	23	8
513	Bone tool	-	[M4]	49	1.1
514	Clay stopper (?)	-	[M4]	25	1.1
515	Asphalt stopper (?)	-	[M4]	14	3.2
516	Human figurine	ADH3	[M5]	1	19* [2/3]
517	Stone lamp (?)	-	Area N	surface	19*
518	Asphalt sealing (?)	-	[M1]	76	5.2-1
519	Bone tool	-	[M3]	14	3.3
520	Clay counter (?)	ADH4	[I1]	15	11.3-4
521	Animal figurine	-	[T1]	1/2	13* [7?]
522	Clay pipes (3)	-	[I1]	16	19
523	Copper coin	ADH5	Area E	surface	19*
524	Shell bead	-	[M3]	8	3.5
525	Clay lump	ADH6	[M2]	76	3.7
526	Shell bead	-	[M3]	14	3.3
527	Sherd disc	-	[M2]	62	3.7
528	Human figurine	-	[K1]	16	8
529	Fired brick	-	[M1]	45	7.1-4
530	Iron blade	-	[I1]	37	11.2-1
531	Bead	-	[M2]	36	3.7
532	Stone pestle	-	[M4]	41	1.1
533	Clay object	-	[I1]	37	11.2-1
534	Clay object	-	[M4]	38	1.1
535	Turquoise bead	-	[M4]	46	3.1-2
536	Bone spatula	-	[M4]	25	1.1
537	Clay figurine (?)	-	[M4]	26	1.1
538	Stone celt	ADH7	[M5]	1	19* [3]
539	Bone tool	-	[M4]	33	1.1
540	Ground stone	-	[M3]	14	3.3
541	Bone object	-	[K3]	13	8.1

542	Glass bracelet	-	[K3]	1	19
543	Clay object	-	[I1]	37	11.2-1
544	Clay object	-	[M1]	65	6
545	Ceramic toy wheel	-	[M5]	1	19*
546	Ceramic toggle	ADH8	[I1]	46	8.2
547	Animal figurine	-	[K3]	14	8
548	Sherd disc	-	[V4]	8	19.1*
549	Clay pipe	-	[V2]	1	19
550	Calcite bowl	-	[M4]	26	1.1
551	Sherd disc	-	[M1]	80A	5.3-1
552	Stone vessel	-	[M2]	95	3.7
553	Sherd disc	-	[M2]	27	5.3-1
554	Animal figurine	-	[I1]	69	8.1-2
555	Ceramic toy wheel	-	[I1]	47	8.2
556	Clay pipe	-	[V2]	2	19
557	Ceramic toy wheel	-	[I1]	18?	11.4-2?
558	Spindle whorl	-	Area P	surface	19*
559	Animal figurine	-	[K1]	4	19.1* [7/8?]
560	Animal figurine	ADH9	Area N	surface	19*
561	Ceramic cup	-	[M1]	47C	8.2* [7]
562	Spindle whorl	-	[M3]	7	3.7
563	Stone palette	-	[M2]	35/45	3.7
564	Stone pestle (?)	-	[M2]	32	3.7
565	Stone palette	-	[M2]	88	3.7
566	Stone celt	ADH10	[M2]	48	3.7
567	Stone vessel	-	[M1]	2	11.1-1?
568	Stone grinder (?)	-	[M2]	44	3.7
569	Sherd disc	-	[M2]	95	3.7
570	Animal figurine	-	[K1]	4	19.1*
571	Asphalt stopper	-	[M1]	53	13
572	Sherd disc	-	[M1]	42	8.3-3
573	Stone palette	-	[M2]	47	5.3-1* [3]
574	Sherd disc	-	[M1]/[M2]	45	3/5/7* [3/5]
575	Sherd disc	-	[M3]	1	19*
576	Sherd disc	-	[M3]	1	19*
577	Sherd disc	-	[M3]	1	19*
578	Sherd disc	-	[I1]	47	8.2
579	Sherd disc	-	[K3]	13/14	8
580	Ceramic toy	-	[V4]	8	19.1*
581	Iron arrowhead	ADH11	[I1]	8	11.5-3
582	Iron object	-	[V4]	4	19.1
583	Sherd disc	-	[M2]	98	3.7
584	Sherd disc	-	[M2]	36	3.7
585	Spindle whorl	-	[M3]	1	19*
586	Iron arrowhead	ADH12	[M3]	1	19* [17/18]
587	Clay weight (?)	-	[M4]	26?	1.1** [3.1?]
588	Stone lid	-	[M4]	64	3.1-2
589	Bone tool	ADH13	[M2]	35/45	3/5
590	Bone tool	ADH14	[M3]	5	3.7
591	Spindle whorl	-	[M3]	10	3.5
592	Sherd disc	-	[K3]	4	19*
593	Spindle whorl	-	[M2]	32	3.7
594	Human figurine	ADH15	[K1]	22	8
595	Animal figurine	-	[T1]	2	13* [7?]
596	Sherd disc	-	[M2]	28	3.7
597	White stone bead	-	[M3]	10	3.5
598	Copper coin	ADH17	?	surface	19* [17]
599	Stone mace-head	-	[M2]	32	3.7
600	Stone palette	-	[M2]	89	3.7
601	Asphalt sealing	-	[M1]	70	5.3-1

602	Clay spindle whorl	ADH18	[M1]	2	11.1-1?
603	Limestone lamp (?)	-	Area D	surface	19*
604	Stone bowl	-	Area F	surface	19*[5?]
605	Spindle whorl	ADH19	[M1]	86	5.1-2
606	Ceramic jar	ADH20	[I1]	unstrat	?
607	Stone grinder (?)	-	[M3]	19	3.2-3
608	Andiron (?)	-	[M1]	65	6
609	Sherd disc	-	[M2]	35	3.7
610	Stone object	-	[A2]	1	19*
611	Bone tool	ADH21	[M2]	2	19* [3/5]
612	Bone tool	ADH22	[M2]	6	11.1-1* [3/5]
613	Burnishing pebble	-	[M2]	90	3.7
614	Ceramic fragment	ADH23	?	surface	19* [7?]
615	Spindle whorl	-	[M2]	6	11.1-1
616	Stone scraper (?)	-	[M2]	89	3.7
617	Stone bowl	-	[M2]	69	3.7
618	Copper coin	-	[M1]	unstrat	?
619	Spindle whorl	-	[M3]	1	19*
620	Animal figurine	ADH24	[M1]	49	13
621	Limestone incense burner	-	[K1]	16	8
622	Stone stirrer (?)	-	[M2]	68	3.7
623	Clay weight	-	[K2]	2	8
624	Ceramic toy	-	[K2]	2	8
625	Limestone hammerstone	-	[I1]	33	11.3-3
626	Clay spindle whorl	-	[M1]	2	11.1-1?
627	Spindle whorl	-	[M2]	54	3.7
628	Clay bead	ADH25	[M2]	6	11.1-1
629	Asphalt sealing	-	[M2]	35	3.7
630	Stone weight (?)	ADH26	[M2]	57	3.7
631	Clay spindle whorl	-	[M1]	1	19*
632	Asphalt sealing	-	[M1]	82	5.3-1
633	Stone celt	ADH27	[M2]	56	3.7
634	Glass bracelet	-	[M1]	1	19
635	Copper coin	-	Area N	-	?
636	Spindle whorl	-	[M1]	70	5.3-1
637	Sherd disc	-	[M2]	6	11.1-1
638	Asphalt sealing	-	[M2]	35	3.7
639	Asphalt sealing	-	[I1]	12	19*
640	Asphalt sealing	-	[M2]	22	3.7
641	Clay sealings (2)	-	[M1]	53	13
642	Clay sealing	-	[M2]	26	11.1-1
643	Asphalt sealings/stoppers (2)	-	[M2]	23	19*
644	Asphalt sealings/stoppers (2)	-	[M1]	49	13
645	Clay sealing	-	[M3]	1	19* [6]
646	Asphalt sealings (3)	-	[M2]	26	19* [6]
647	Asphalt sealing	-	[M2]	27	5.3-1
648	Clay sealing (?)	-	[M2]	41	3.7
649	Clay object	-	[M1]	65/67	6
650	Stone pestle	-	[M4]	49	1.1
651	Bone tool	-	[I1]	47	8.2
652	Bone tool	-	[M4]	43/44	1.1
653	Sherd disc	-	[I1]	42	11.1-2
654	Modified sherd	-	[M4]	45A	3.1-2
655	Ceramic jar	-	[I1]	41	11.1-2*
656	Ceramic jar	-	[M1]	28	8.3-3
657	Ceramic vessel	ADH28	[K3]	10	7.1-1
658	Ceramic jar	ADH29	[M4]	31	3.1-2
659	Ceramic jar	ADH30	[M4]	45	3.1-2
660	Ceramic vessel	-	[K3]	11	7.1-1
661	Ceramic jar	-	[M1]	80A	5.3-1

662	Ceramic bowl	ADH31	[M4]	64	3.1-2
663	Ceramic jar	-	[I1]	18?	11.4-2?
664	Ceramic jar	-	[T1]	2	13.1* [7]
665	Ceramic beaker	-	[M1]	28/42	8.3-3
666	Ceramic cup	ADH32	[I1]	52	7.1-2
667	Ceramic cup	ADH33	[I1]	52	7.1-2
668	Ceramic cup	-	[I1]	52	7.1-2
669	Ceramic cup	ADH34	[I1]	52	7.1-2
670	Ceramic vessel	ADH35	[I2]	4	11.1-1
671	Ceramic cup	ADH36	[K3]	22	8
672	Ceramic beaker	ADH37	[M1]	82	5.3-1
673	Ceramic jar	-	[I2]	surface	19* [11?]
674	Ceramic dish	ADH38	[I1]	5	11.6-1
675	Ceramic bowl	ADH39	[I1]	52	7.1-2
676	Ceramic jar	ADH40	[M4]	64	3.1-2
677	Ceramic jar	ADH41	[M2]	47 (?)	5.3-1
678	Ceramic bowl	ADH42	[M4]	64	3.1-2
679	Ceramic bowl	ADH43	[M4]	61	3.1-2
680	Ceramic bowl	ADH44	[M4]	59	3.1-2
681	Ceramic bowl	ADH45	[M4]	31	3.1-2
682	Ceramic bowl	ADH46	[M1]	76	5.2-1
683	Ceramic bowl	ADH47	[M1]	86	5.1-2
684	Ceramic bowl	ADH48	[M1]	76	5.2-1
685	Ceramic bowl	-	[M2]	47	5.3-1
686	Ceramic bowl	ADH49	[M1]	80A	5.3-1
687	Ceramic bowl	ADH50	[M2]	27	5.3-1
688	Ceramic bowl	ADH51	[K1]	21	8* [5]
689	Ceramic bowl	ADH52	[M1]	80A	5.3-1
690	Ceramic bowl	ADH53	Area D	surface	19* [3]
691	Ceramic bowl	ADH54	[I1]	10/1	11.6-1/2
692	Clay sealing	ADH55	Area C	surface	19*
693	Clay sealing	ADH56	[M1]	67	6
694	Clay sealing	-	[M1]	65	6
695	Clay sealing	-	[M1]	65	6
696	Clay sealing	ADH57	[M1]	65	6
697	Clay cylinder seal	ADH58	[M2]	6	11.1-1* [6]
698	Clay sealing	-	[M2]	6	11.1-1* [6]
699	Sherd disc	-	[I1]	49	8.1-2
700	Sherd disc	-	[I1]	49	8.1-2
701	Sherd disc	-	[I1]	47	8.2
702	Limestone mortar (?)	-	[I1]	58	7.1-1
703	Sandstone tray	-	[M3]	7	3.7
704	Basalt grinder	-	[K3]	13	8.1
705	Limestone weight-		[I1]	54	7.1-1
706	Basalt grinder	-	[I2]	surface	19* [11?]
707	Basalt grinder	-	[I1]	45	11.1-2
708	Limestone socket	-	[K3]	13	8.1*
709	Stone weight/socket	-	[K3]	18	7.1-2*
710	Limestone grinder	-	[M5]	1	19*
711	Limestone socket	-	[I1]	49	8.1-2
712	Basalt grinder	-	[I1]	3	11.6-1*
713	Stone pestle	-	[M1]	80A	5.3-1
714	Stone weight	-	[M2]	2	11.1-2
715	Basalt grinders (2)	-	[K3]	8	7.1-2
716	Basalt grinder	-	[M1]	58	?
717	Basalt grinder	-	[K1]	4	19.1*
718	Basalt grinder	-	[K1]	16	8
719	Basalt grinder	-	[I1]	14	13
720	Limestone grinder	-	[M1]	50	13
721	Basalt grinder	-	[M2]	23	19*

722	Basalt grinder	-	[M4]	30	3.1-2
723	Basalt grinder	-	[I2]	3	11.1-2
724	Basalt grinder	-	[I1]	39	11.3-2*
725	Basalt grinder	-	[K3]	13	8.1
726	Basalt grinder	-	[I1]	25	11.3-3
727	Brick socket	-	[I1]	47	8.2
728	Basalt grinder	-	[M1]	45	7.1-4
729	Stone weight (?)	-	[M1]	70	5.3-1
730	Basalt grinder	-	[T1]	1	13.1
731	Limestone vessel	-	[I1]	52	7.1-2
732	Basalt grinder	-	[M5]	1	19*
733	Limestone pestle	-	[M2]	56	3.7
734	Basalt grinder	-	[I1]	39	11.3-2*
735	Basalt grinder	-	[M4]	21	3.2-1
736	Basalt grinder	-	[M1]	27	9/10*
737	Basalt grinder	-	[I1]	39	11.3-2*
738	Basalt grinder	-	[M4]	1	19*
739	Basalt weight (?)	-	[M2]	42	3.7
740	Sandstone mortar	-	[M1]	83	5.1-2
741	Basalt mortar	-	Area E	surface	?
742	Limestone trough (?)	-	[M1]	27	9/10*
743	Limestone socket/mortar	-	[I1]	39	11.3-2*
744	Limestone socket/mortar	-	[M1]	47C	8.2*
745	Limestone socket/mortar	-	[M1]	47C	8.2*
746	Basalt grinder	-	[M1]	47C	8.2*
747	Stone pestle	-	[M2]	64	3.7
748	Basalt grinder	-	[A1]	1	19*
749	Limestone pestle	-	[M3]	1	19*
750	Basalt grinder	-	[M1]	47C	8.2*
751	Basalt grinder	-	[I1]	3	11.6-1*
752	Basalt grinder	-	[M1]	47C	8.2*
753	Basalt grinder	-	[M2]	6	11.1-1
754	Limestone mortar (?)	-	[M1]	27	9/10*
755	Limestone socket/mortar	-	[M1]	47C	8.2*
756	Limestone socket/mortar	-	[M1]	47C	8.2*
757	Basalt grinder	-	[M1]	28	8.3-3
758	Limestone weight	-	[M3]	1	19*
759	Basalt grinder	-	[M1]	42	8.3-3
760	Basalt grinder	-	[M1]	47C	8.2*
761	Basalt grinder	-	[I1]	42	11.1-2
762	Limestone socket	-	[I1]	26A	11.2-2
763	Brick/stone socket	-	[I1]	26A	11.2-2
764	Basalt grinder	-	[M3]	6	3. ....
765	Basalt grinder	-	[M3]	9	3.5
766	Basalt grinder	-	[K1]	19	8
767	Basalt grinder	-	[M2]	35/45	3/5
768	Sandstone grinder	-	[M1]	47C	8.2*
769	Limestone weight/socket	-	[M2]	17	11.1-1*
770	Sandstone socket	-	[A3]	7	?
771	Basalt grinder	-	[M2]	56	3.7
772	Basalt grinder	-	[M2]	56	3.7
773	Basalt grinder	-	[A2]	1	19*
774	Basalt grinder	-	[A2]	1	19*
775	Stone weight	-	[M1]	47C	8.2*
776	Limestone grinder	-	[M2]	44	3.7
777	Limestone mortar	-	[M1]	?	?
778	Limestone grinder	-	[M1]	59A	7.1-1/2*
779	Basalt grinder	-	[M1]	82	5.3-1
780	Limestone socket	-	[I1]	47C	8.2*
781	Limestone socket/mortar	-	[M1]	47C	8.2*

782	Basalt grinder	-	[M2]	35	3.7
783	Basalt grinder	-	[M1]	45	8.3-3
784	Basalt grinder	-	[M2]	6	11.1-1
785	Basalt grinder	-	[M2]	2	11.1-2
786	Basalt grinder	-	[A]	1	19*
787	Basalt grinder	-	[A]	1	19*
788	Limestone mortar (?)	-	[M2]	?	?
789	Limestone mortar (?)	-	[I1]	3	11.6-1*
790	Basalt grinder	-	[I1]	22	13
791	bowl	-	[M4]	6	3.2
792	Limestone weight (?)	-	[M1]	45	7.1-4
793	Mosaic fragment	-	[M5]	1	19* [13/14]
794	Stamped amphora handle	-	[M1]	49	13
795	Clay object	-	[M4]	30	3.1-2
796	Stone palette	-	[M1]	unstrat	3
797	Asphalt object	-	[M2]	44	3.7
798	Ceramic bowl	ADH16	[M4]	64	3.1-2
799	Drilled stone	-	[I2]	3	11.1-2
800	Obsidian blade	-	[M4]	46A	3.1-2
801	*see 505*				
802	Basalt grinder	-	[K3]	13	8.1
803	Clay object	-	[M1]	86	5.1-2
804	Basalt grinder	-	[M1]	27	9/10
805	Basalt grinder	-	[I1]	42	11.1-2
806	Basalt grinder	-	[A]	1	19*
807	Clay object	-	[M1]	65	6
808	Clay pipe	-	[V4]	5	19.1
809	Basalt grinder	-	[M2]	62	3.7
810	Green-glazed jar	-	Area V	village	19
811	Gypsum lid/plug	-	[I1]	12	19*
812	Asphalt knob	-	[M3]	30	3.2-2
813	Asphalt stopper	-	[M2]	36	3.7
814	Clay pipe (?)	-	[A1]	4	19
815	Burnishing pebbles (2)	-	[M2]	56	3.7
816	Ferrous slag	-	[M1]	44	?
817	Ground stone	-	[M1]	61/62	5.3-2/7.1-1
818	Brick socket	-	[I1]	47.....	8.2*
819	Clay object	-	[I1]	49/69	8.1-2
820	Iron object	-	[I1]	21	13
821	Clay pipe	-	[V4]	1	19
822	Clay pipe	-	Area N	surface	19
823	Clay artefact	-	[M2]	57	3.7
824	Clay object	-	[M1]	65	6
825	Animal figurine	-	[M2]	91	3.7
826	Sherd disc	-	[K3]	4	19*
827	Stone pestle (?)	-	[I1]	52	7.1-2
828	Clay sealing	-	[M1]	65	6
829	Baked clay lump	-	[M4]	25	1.1
830	Basalt grinder	-	[A]	1	19*
831	Basalt grinder	-	[M1]	75	5.2-1
832	Basalt grinder	-	[M4]	26?	1.1** [3.1-2?]
833	Iron object	-	[I1]	18?	11.4-2?
834	Limestone trough	-	[I1]	41	11.1-2*
835	Sherd disc	-	[M5]	1	19*
836	Sherd disc	-	[M5]	1	19*
837	Sherd disc	-	[M5]	1	19*
838	Sherd disc	-	[M2]	89	3.7
839	Modified sherd	-	[M3]	14	3.3
840	Sherd disc	-	[M3]	5	3.7
841	Ceramic vessel	-	Unstrat	-	3

2002	Bone tool -	?	53	?
3000	Basalt grinder	[M4]	54	1.1
3001	Basalt chip	[M4]	43	1.1
3002	Hammer-stones (?)	[M4]	43	1.1
3003	Asphalt object	[M4]	24?	1.2
3004	Burnishing pebbles	[M2]	62	3.7
3005	Asphalt stoppers (?)	[M2]	89	3.7
3006	Burnt pestle (?)	[M3]	19	3.2-3
3007	Lid (?)	[M3]	29	3.2-3
3008	Stone pestle	[M3]	16	3.3
3009	Limestone socket/grinder	[M1]	97	5.2-1*
3010	Asphalt lid (?)	[M1]	80A	5.3-1
3011	Clay sealings (?)	[M1]	80A	5.3-1
3012	Basalt grinder	[K3]	14	8.1
3013	Basalt grinder	[I1]	47	8.2
3014	Basalt grinder	[M1]	42	8.3-3
3015	Basalt flake	[I1]	42	11.1-1/2
3016	Basalt grinder	[I2]	3	11.1-2
3017	Basalt grinder	[I2]	3	11.1-2
3018	Basalt grinders	[I1]	36	11.2-1*
3019	Basalt grinder	[I1]	39	11.3-2*
3020	Limestone trough	[I1]	28	11.3-3*
3021	Door socket	[I1]	20	11.4-1*
3022	Bone tool	[M1]	53	13
3023	Basalt grinder	[T1]	2	13*
3024	Basalt grinder	[A]	1	19*
3025	Basalt grinder	[A]	1	19*
3026	Clay pipe	[I1]	1	19
3027	Plastic pendant	[K1]	4	19.1
3028	Plastic bead	[K3]	3	19
3029	Basalt grinder	[M2]	2	11.1-2
3030	Basalt grinder	[M2]	23	19*
3031	Limestone loom-weight (?)	[M3]	1	19*
3032	Limestone pestle	[M3]	1	19*
3033	Basalt grinder	[V4]	5	19.1*
3034	Iron hook	[V4]	3	19.2
3035	Plastic shoe (?)	[V4]	2	19.2
3036	Iron sheet	[V4]	2	19.2
3037	Iron horseshoe	[V4]	2	19.2
3038	Limestone trough	[I1]	28	11.3-3
3039	Basalt grinder	[I1]	36	11.2-1
3040	Asphalt object	[M1]	31	?
3041	Basalt grinder	[M1]	58	?
3042	Limestone socket/mortar	[M1]	73	5.2-1
3043	Asphalt sealing	[M1]	76	5.2-1
3044	Limestone socket	[M2]	33	3
3045	Stone grinder (?)	[M2]	48	3
3046	Burnt limestone lid (?)	[M2]	91	3
3047	Basalt grinder	[M3]	6	3.7
3048	Limestone trough, pierced	[M3]	7	3.7
3049	Basalt grinder	[M3]	9	3.6
3050	Pestle	[M3]	16	3.4
3051	Stone grinder	[M3]	19	3.2-3
3052	Stone pestle with asphalt	[M4]	42	1.1
3053	Burnishing pebbles	[M4]	56	3.1-2

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المنحدرات الجنوبية من التل المحمية من الرياح مما يجعلها خارج المنطقة الرئيسية لتنقيبات جامعة الموصل.

وعليه فإن بقايا التنقيبات تشير إلى وجود أبنية تذكارية كبيرة إلى جانب الجدار المصطبي الضخم على امتداد الجهة الشمالية للتل رغم عدم وضوح الغرض من هذه الأبنية. إضافة إلى ذلك يبدو وجود استيطان واسع ومستوطنات ذات عمر مديد مع تطور في إنتاج الفخار حول الحافة الجنوبية للتل. وعليه يبدو أن أبو ظاهر كان مستوطنة مهمة في هذا العصر ولن اسمه القديم غير معروف. على أي حال فإن هذا العصر هو ليس أهم العصور في تاريخ الموقع ولم يعثر على أي منشآت لها علاقة مباشرة بالجدار المصطبي.

العصر الثالث عشر: الأغريقي

تعد الحقبة الأخيرة من الاستيطان السابق للعصر الإسلامي في أبو ظاهر إلى هذا العصر؛ حيث انتقل الدور الاستراتيجي و/أو الإداري لهذه القرية بعد ذلك إلى سه قبة خلال العصور الرومانية والساسانية والإسلامية. كما تم العثور على مباني تذكارية ضخمة تعود إلى العصر الإغريقي من خلال التنقيب الذي قامت به جامعة الموصل في قمة التل. وعثر على مخزن حبوب حديث في [M] وتم تحري معالم أخرى تعود إلى ذلك العصر تتراوح بين مخزن حبوب محتمل إلى قبر منفرد وذلك في [I1] و [T1].

وهناك أدلة تشير بأن من الممكن تأريخ الطبقة الإغريقية في أبو ظاهر تأريخا دقيقا تقريبا إلى القرن الثاني والقرن الأول قبل الميلاد. وكان أهم اكتشاف هو يدة جرة عثر عليها في [M] مختومة بالكلمة 'BROMIOS' يتبعها إكليل أو غصنين من شجرة الزيتون/ العنب مختومة داخل مستطيل. ويعود الختم إلى مشغل في جزيرة رودوس من القرن الثاني قبل الميلاد بدعم من عدد من المواقع الواقعة في شرق البحر الأبيض المتوسط. كما عثرت حملة أثرية من جامعة الموصل على يدة مختومة أخرى لجرة إغريقية. وعثر على عدد كبير نسبيا من الفخار الإغريقي على السطح في المناطق B, C, D, E, F, K, O, R و V.

وعثر كذلك على عدد من قطع النقد النحاسية غير محددة الهوية على السطح وكانت القطعة الوحيدة التي تم تأريخها هي قطعة فضية عثر عليها خلال التنقيبات التي قامت بها جامعة الموصل حيث تم تحديد هويتها بأنها عملة قيمتها أربعة دراهم من عهد الملك أنتيوكوس الحادي عشر أبيفانيس فيلاديلفوس الذي حكم لمدة عام واحد (٩٣ قبل الميلاد)؛ وسكت العملة في أنطاكيا. وتم كذلك استخلاص شظايا من مكعبات الفسيفساء من ما غسلته المياه من سفح التل. غير أن تاريخ هذه أقل تأكيدا علما بأن الفسيفساء الإغريقية اعتمدت على استخدام الحصى بدلا من المكعبات.

وشهد العصر الإغريقي ازديادا ملحوظا في كثافة الاستيطان الريفي في منطقة سد صدام. وانعكس هذا الارتفاع في كثافة الاستيطان الريفي في الجزيرة الشمالية وأجزاء من شمال سوريا وجنوب شرق تركيا. وعليه فإن الأدلة الأثرية تشير إلى عصر من الرخاء والاستقرار.

العصر التاسع عشر: الحديث المبكر

سميت هذه الفترة من الاستيطان في أبو ظاهر 'العصر الحديث المبكر' وذلك لتمييز هذه البقايا عن مجاميع حقبة ما بعد القرون الوسطى المبكرة/ الحقبة الإسلامية المتأخر والوقت الحاضر. وتتمثل فترة العصر الحديث المبكر بقرية واسعة مبنية من الآجر الطيني ومقبرة كبيرة تمتد عبر قمة التل القديم وعدد من المعالم التي تم تنقيبها. ولقد تم تسجيل هذه الاكتشافات على أنها آخر فترة استيطان في هذا الموقع واستخدامه. إن هذه الدراسة كانت قومية – أثرية أكثر مما هي في علم دراسة الإنسان. ولقد تعلمنا الكثير من مشاهدة بعض آثار العمليات التي حصلت وتأثير هجران القرية في أبو ظاهر. وكان التأثير المتراكم لذلك هو تحويل مناطق عديدة من القرية في أبو ظاهر إلى مشهد يمكن تصوره لسقوط عنيف مفاجئ بعد استيطان محتلين فيها. وبهذا تكون دراسة القرية العصرية المبكرة اختبار مفيد للنظريات المطروحة عن العصور التي قبلها. وأتت قصة أبو ظاهر أخيرا إلى نهايتها في شهر مارس ١٩٨٩ مع غمر هذه المنطقة من وادي نهر دجلة والواقعة ضمن حوض سد صدام (لوح ٣). كان التل مكشوفا لفترة قصيرة. وعندما تراجعت المياه عام ١٩٨٧ اكتشف بأن كل أثر للقرية قد اختفى والمقاطع المنقبة قد تهدمت تماما. وغمر الموقع بالماء مرة أخرى في وقت لاحق من نفس العام، ولو أنه ظهر من جديد كما يتبين من الصور الفضائية التي أخذت عام ٢٠٠٦ (لوح ٤٦).

D,E,F,H,O,R و S. وأشار تقرير جامعة الموصل إلى وجود ثلاث طبقات أكدية تحتوي على أبنية.

إن دمار العصر السابع في أبو ظاهر هو ميزة شاركت فيها مستوطنات أخرى على طول هذا الجزء من النهر. كما شوهدت آثار من طبقات الدمار مع فخار مهشم من العصر السابع مبعثرا في طبقات محروقة يعمها الرماد في تل شلغيا وتل مصيفنه. وعليه فمن المحتمل أن يكون هذا التدمير هو نتيجة لحملة عسكرية واحدة أو سلسلة متتابعة من عمليات الغزو على طول وادي النهر: إن تشابه الفخار في أبو ظاهر مع الفخار من الطبقة التاسعة من تل طايا يشير إلى أن هذا الحدث (أو الأحداث) تقع ضمن العصر الأكدي حيث أثبت آثاريا على وجود مستويات دمار مشابهة حتى تل براك وتل ماري وتل أبلا.

العصر الثامن: الخابور

تم اكتشاف بقايا أبنية خابور في خندقين على التل الرئيسي وهما [I1] و [M]. وفي كلا الحالتين كانت هناك أدلة عن عدة أدوار من النشاط تشمل الأبنية التذكارية في [M]، مما يدل على إنها كانت عصرا مهما في تاريخ هذه المنطقة. حقا كانت هذه هي العصر الأول من عصرين شوهدت فيهما الأبنية التذكارية في [M] (التاريخ الثاني يعود إلى العصر الآشوري المتأخر). ويبدو أن جامعة الموصل قد اكتشفت عدة طبقات من هذا العصر في الجزء المركزي من التل، وذلك بالإضافة إلى أدلة عن حفر ومناطق خزن في كل من الخنادق الثلاثة التي نقبت من التل في المنطقة K.

ويبدو أن أبو ظاهر كان مركزا كبيرا خلال العصر الثامن. ويدل اكتشاف الأبنية التذكارية في [M] بأن مركزه كان أكثر من مجرد قرية، ولكن لا يعرف فيما إذا كانت وظيفة هذه العمارة دنيوية أو دينية أو عسكرية. إن اكتشاف جرار للخزن وحفر للنفايات في المنطقة [K] تدل على الاستيطان الكثيف على التل الرئيسي خلال هذا العصر إلى ة أخرى منتشرة على طول مصطبة النهر. وأشارت جامعة الموصل في تقريرها إلى طبقتين من الألف الثاني قبل الميلاد يحتمل أن تنسب إلى هذا العصر. هذا، وقد عثر على فخار من العصر الثامن بكميات كبيرة من سطوح المناطق C, F, H, K, O و R ومن المحتمل من المناطق B, D و J كذلك.

الفخار المكتشف هيمنت عليه الأواني المقلمة بالأصباغ وفي بعض الأحيان مطبوعة بختم دائري وعدد قليل آخر من الأواني الرمادية المصقولة. ويتطلب تأريخ هذه المجموعات تحليلات إضافية، ولكننها تعود إلى الفترة ما بين القرن التاسع عشر والخامس عشر قبل الميلاد. وكانت هذه الحقبة حقبة غنية في تاريخ شمال وادي الرافدين استهلت بتأسيس المملكة الآشورية القديمة تحت الملك شمشي أدد الأول وكان من معالمها المباني التذكارية الكبيرة وشبكة تجارية مزدهرة. وانعكس هذا الرخاء في السجلات الأثرية لوادي نهر دجلة وهل الجزيرة الشمالية.

العصر التاسع والعاشر: الميتاني والآشوري الأوسط

نسبت جامعة الموصل طبقتهم الثالثة إلى منتصف الألف الثاني قبل الميلاد ولكن أعيد تفسيرها ونسبت إلى عصر الخابور؛ ولم يتم تشخيص أي فخار عثر عليه على السطح إلى العصر التاسع أو العاشر. ولكن تم مبدئيا تنسيب دور بناء واحد في [M] إلى هذا العصر.

العصر الحادي عشر: الآشوري المتأخر

صادفنا الاستيطان الآشوري المتأخر خلال سبر أو تحري تم في المنحدر الجنوبي من التل وهو [I1] حيث تم خلاله تسجيل سلسلة طويلة - تتكون من ستة أدوار - من الأبنية السكنية والمعالم الخارجية. وكانت الحافة الجنوبية الشرقية من الموقع مستخدمة لغرض إنتاج الفخار في ذلك العصر، وتم العثور على بقايا فرنين لصناعة الفخار في ذلك الموقع. ومن المحتمل أن تكون قمة التل قد استخدمت قاعدة لنصب تذكار حيث تم العثور على بقايا جدار مصطبي ضخم ممتدا على طول الحافة الشمالية من الموقع؛ وتم تنقيب زاوية واحدة منه من قبل جامعة الموصل، بينما عثر على النهاية الشرقية منه ضمن خندق [M].

لم يتم العثور على آثار دمار في نهاية العصر الآشوري المتأخر رغم التوقعات المحتملة المستندة إلى أدلة تاريخية. وقد يعكس ذلك فقط محدودية رقعة التنقيبات التي تمت في أبو ظاهر، ولكن هذه العمليات تمت على الأكثر محليا وقد تكون لذلك السبب مفقودة من السجلات الأثرية.

تم تشخيص فخار العصر الحادي عشر بين الملتقطات السطحية في المناطق B, E, F, I و O. هذا ولم يتم تشخيص أي آثار من العصر الآشوري المتأخر من قبل جامعة الموصل فيما عدا النهاية الغربية من الجدار المصطبي. وقد يكون الاستيطان السكني في العصر الآشوري المتأخر مركزا في

تحت الكتف الأعلى إن كانت جرة. هذه النقوش بسيطة وهندسية الشكل، وتكثر الثقوب القديمة التي تم إصلاحها على الطاسات.

أما حلى التزيين الشخصية فكانت نادرة ومقتصرة على قلادة زبجية (الزجاج البركاني الأسود) عثر عليها في قبر مع أربعة خرزات من ضمنها اثنتان معمولتان من الصدف. وبالمثل كانت الأدلة على وجود التماثيل الصغيرة شحيحة واقتصرت على تمثال صغير لامرأة وتمثال صغير لحيوان. على أي حال، فقد عثر على عدد من المنتجات العبيدية المعمولة شملت شظايا من رأس صولجان صغير من الحجر الجيري وكذلك حافتي أناء حجري ، وأربعة أدوات عظمية وعدد صغير من شظايا الأقراص. والأقراص هي من معالم العبيد والمواقع التي تبعتها في أنحاء الشرق الأدنى، ومن المحتمل أن الأقراص كانت يستخدم كأدوات لصقل الفخار عند صناعته، وفي دباغة الجلود، وكسدادات أو فلكات للمغازل. كما عثر على عدد من الحصى المصقول الذي قد كان يستخدم كمكشطة أو للصقل والتلميع، وكذلك عثر على أربعة ألواح من الحجر الأسود المصقول على كل منها خدوش كثيرة ولكنها تفتقد جميعا على سطوحها أي وجود للصبغة. وعثر كذلك على قطع تعود لمعدات جرش معظمها مصنوع من مادة البازلت البركاني، ولذلك يفترض بأنها معدات مستوردة من شمال شرق سوريا لكونها أقرب مصدر لهذه المادة. وتشح الأحجار بأنواعها في بيئة العبيد المنقبة في أبو ظاهر.

العصر الخامس: الوركاء المتأخر

يبدو أن أبو ظاهر هو أكبر موقع للوركاء المتأخر في هذا القطاع من وادي نهر دجلة. ولم تتم مشاهدة مخلفات الوركاء المتأخر موقعيا إلا في منطقة تنقيب واحدة هي - [M] – رغم العثور على كمية قليلة من الشظايا المتبقية في الموقع [K] . إن ظهور المعالم المليئة بالنفايات بالإضافة إلى الأدلة عن صناعة الفخار وفعاليات صناعية أخرى في [M] تشير إلى أن هذا الخندق يقع على بعد مسافة قصيرة شرق أو شمال مستوطنة الوركاء المتأخر على التل. وما يؤيد ذلك هو وجود كميات كبيرة من فخار الوركاء المتأخر في واجهات التآكل على طول الحافة الشمالية للتل (المناطق B,D,F,G ومن المحتمل C, J, O و R كذلك). وميزت جامعة الموصل في مركز التل وجود طبقة واحدة لمبنى من اللبن وبالقرب منها مدفن يحتوي على فخار الوركاء المتأخرة.

لهذا يبدو أن مستوطنة الوركاء المتأخر في أبو ظاهر تمثل إعادة تأسيس مستوطنة في موقع مهجور منذ عصر العبيد قد تكون أصغر من مستوطنة العبيد السابقة. ويبدو أن هذه الفترة بين الاستيطانين، والتي تتوافق مع الألف الرابع قبل الميلاد، هي فترة استيطان أقل كثافة في أعالي وادي نهر دجلة. وبالمقارنة تبدو هناك زيادة في الاستيطان في عصر الوركاء المتأخر.

تم تحري أعداد كبيرة من مواقع الوركاء المتأخر كجزء من مشروع إنقاذ سد صدام، وأبو ظاهر هو أكبر هذه المواقع ومن المحتمل أنه كان مركزا محليا إقليميا للاقتصاد الزراعي المحلي وحلقة وصل لخطوط الاتصالات التجارية. وقد يوضح هذا العامل وجود أفران للفخار هنا وذلك لتسهيل توزيع الفخار و/ أو محتوياته إلى المستوطنات المجاورة الأخرى.

العصر السادس: نينوى الخامسة

مثلت هذه الفترة من الاستيطان في هذا الموقع حفرة واحدة تم تنقيبها ضمن حدود [M]، وعدة طبقات من جدران اللبن قرب مركز التل أوردته جامعة الموصل في تقريرها بالإضافة إلى عدد قليل من الملتقطات السطحية. وتم اكتشاف كمية صغيرة من فخار نينوى الخامسة بالإضافة إلى أختام أسطوانية من الطين المفخور وطبعة ختم. ولا يوجد سبب للافتراض بأن أبو ظاهر لم يكن سوى مستوطن ريفي صغير خلال هذا العصر.

العصر السابع: الأكدي

وصل الاستيطان القديم في أبو ظاهر أعظم امتداده خلال العصر الأكدي. وتم تنقيب مخلفاته في سبعة مناطق هي [H]، [I1]، [K2]، [K3]، [M]، [S1]، [T1]. كما اكتشفت جامعة الموصل بقايا أكديه في وسط التل. وعليه فأن الاستيطان قد غطى مساحة يبلغ مقاسها على الأقل ٤٠٠م شرق/ غرب و ١٠٠/ شمال/ جنوب أو ما يقرب من أربعة هكتار على الأقل. ويبدو أن هذا الارتفاع الشديد في الأنشطة العمرانية كان قصير العمر حيث تم العثور على آثار للدمار العنيف مؤشرا نهاية هذا العصر في المناطق المنقبة.

وجدت في خمسة مناطق طبقة واحدة من البناء تبعها دمار وهجران؛ وكشف عن أدلة لأكثر من دور في [M] وفي تنقيبات جامعة الموصل في وسط التل مما يدل على أن المستوطنة قد أعيد بناءها جزئيا بعد فترة قصيرة من تدميرها ولكن بحجم أصغر. وعثر على فخار العصر السابع بكميات كبيرة في المناطق

خشبية في بدايات بلاد الرافدين وذلك لكون حجمها وعمقها يدلان عن هيكل مبنى أو سياج. ولم تلاحظ أية أدلة عن وجود مباني من الطوف أو اللبن في أي من المقاطع المكشوفة من تاريخ حسونة على طول الحافة الشمالية من الموقع، وعليه فإن من الممكن أن تكون هناك هياكل أخرى منشأة من الخشب.

عند تفحص فخار حسونة ككل نجد من الممكن تلخيص مواصفاته بأنه فخار يدوي الصنع و هو بصورة عامة خشن الطبيعة وغير مصقول لكنه متناسق الشكل ذو لون بني أحمر ومزخرف بنطاق محدود من الزخرفة. كما لم يتم العثور على جرة كاملة من حسونة. إن العصور الحجرية هي السائدة، وهناك شظايا من الصخر الصواني، تتخللها نصول من الأحجار الزبجية النحيفة. كما عثر على قطع صغيرة من إناء معمول من حجر الكالسايت الصقيل وشظايا من أدوات عظمية مصقولة. وهناك صخرتين كرويتين بسطوح مهشمة قد كانتا تستعملان كمطارق أو أجزاء من أداة للصيد (بولا) (وهي سلاح يتكون من كرتين حجريتين يربطهما حبل يرشق على الحيوان لأسره). وأخيرا عدد كبير من الحصى الطبيعي وهذا تباينا مهما مع الاستيطان الذي تبع في الموقع: حيث لم يعثر إطلاقا على أمثالها من بين بقايا موقع العبيد الذي جرت فيه تنقيبات واسعة (العصر الثالث). ولم يكن سبب كثرتها في العصر الأول واضحا، ولكن يبدو أنها كانت تستخدم كأدوات غير محورة كمدقات أو مطارق أو لوحات لتقطيع اللحم عليها.

أبو ظاهر هو واحد من ثلاث مواقع في منطقة المشروع حيث تم تنقيب وتحديد نوعية مخلفات ومصنوعات حسونة أو (أو حسونة الأولية). ويقع الآخر في الجزء الجنوبي من منطقة المشروع على الضفة اليسرى من نهر دجلة. وتمثل هذه المواقع المستوطنات المعروفة الأولى في هذا الجزء من وادي نهر دجلة (فيما عدا عدد من العصور الحجرية القديمة واستيطانات العصر الحجري الحديث غير الفخاري في تل دير هال ونمريك).

العصر الثاني: حلف

تم تشخيص عدد صغير من الشظايا في الموقع يحتمل أن تكونوا من حقبة حلف ولكن لم يتم تشخيص أي بقايا موقعيا. وتبين من تنقيبات [M] وجامعة الموصل في المنطقة E بأن استيطان عبيد يتبع مخلفات حسونة دون وجود فترة استيطان فيما بينهما. لذلك فقد تكون هذه الشظايا من مواقع أخرى وصلت الموقع عفوا أو أنها مستوردات استخدمت خلال الحقبة المبكرة من العصر الثالث. عليه فإن استيطان عصر حلف لا يمكن إثبات وجوده من خلال الأدلة التنقيبية.

العصر الثالث: العبيد

أعيد استيطان الموقع وواصل نموه ليصبح مستوطنة خلال عصر العبيد. كما تم تنقيب سبعة أدوار في الجزء الشرقي من التل في [M]؛ وتم اكتشاف فرن ذو مرحلتين مع بقايا أخرى من قبل جامعة الموصل قرب مركز التل، ولوحظت آثار استيطان العبيد على طول قطاع النهر ولمسافة لا تقل عن ١٠٠م. لذلك يبدو أن أبو ظاهر هو أحد مواقع العبيد الرئيسية التي تم البحث والتنقيب فيها ضمن مشروع إنقاذ سد صدام. وينم حجمه وتعاقبه بأنه كان مركز محلي مهم.

وأظهرت تنقيبات جامعة الموصل في مركز التل بعض من بقايا بناء من اللبن ومخلفات رماد أرخت إلى أواخر عصر العبيد. وهذا يؤيد الأدلة المستحصلة من [M] عن طول استيطان العبيد في أبو ظاهر، يفترض امتداده عبر أدوار العبيد ٤/٣ لجنوب العراق. وتمت مشاهدة فخار العبيد بكميات كبيرة بين ما تم جمعه من سطح التل في المناطق B,D,F,G و R. وشكل التركيز الكبير للقبور التي تم تنقيبها في [M] جزءً من مقبرة كبيرة تقع في الطرف الشرقي من المستوطنة (يدل تقاطع بعض القبور على أن المكان المتوفر للقبور كان محدودا). ويشير الاستعمال التالي لهذه المنطقة إلى حصول تغير في أولويات استخدام هذا المكان، ولكن لا يمكن معرفة فيما إذا كان ذلك يعكس زيادة في الاستيطان في الموقع أو مجرد تحولا في الاستيطان صاحبه تغيرا في استعمال المكان.

هذا، وأن المخلفات المعمارية في [M] لها أهمية كذلك رغم المحدودية الشديدة لمنطقة التنقيب، حيث تم العثور على ثلاثة أنماط مختلفة من الأبنية (رغم كونها متفككة) وهي: مبنى كبير مكعب كان يستخدم للخزن، مبنى دائري، ومنطقة سكن تضم أنشطة حرفية مصاحبة. استخدام الطوف والغرف الصغيرة الضيقة ماثل عمارة العبيد التي تم تنقيبها في الأربجية ورأس العمية وتل سنكور وتل عبادة.

الفخار معمول بشكل جيد بصورة عامة. كما عثر على أواني فخارية مفخورة أكثر مما يجب وقد تكون مرفوضة من قبل الفخاري فأعيد استعمالها في القبور. وما أيد إنتاج الفخار في الموقع هو العثور على فرن في المنطقة E. وشمل التصميم اعتياديا تلوين الأواني. وكان التزيين إما من داخل الآنية أو من خارجها ويقتصر اعتياديا على حيز أفقي يقع تحت حافة الآنية إن كانت الآنية على شكل طاس، أو

الخلاصة

وصف الموقع

يقع تل أبو ظاهر في محافظة نينوى بحدود ٨٥ كم شمال غربي الموصل، ويقوم عند ارتباط نهر دجلة بوادي سويداني وهو فرع صغير يصب فيه من جهة الغرب (شكل ١). كان قاع النهر الأصلي في وقت التنقيب يقع على مسافة كيلومتر واحد إلى الشرق من أبو ظاهر وبجانب قناة تجري مباشرة على طول الحافة الشمالية للتل. (صورة ١). وكان عبور النهر في هذه النقطة يتم عند مخاضه. ويقال بأنها أقصى نقطة من شمال العراق.

يتكون الموقع من تل كبير يبلغ ارتفاعه ٢٠م فوق السهل الفيضي وقياساته يبلغ بحدود ٣٥٠م شمال/جنوبا و ٥٠٠م من الشرق إلى الغرب (شكل ٣، صورة ١) والتل خرب (متآكل) بشكل كبير في جزئه الشمالي الغربي، وكان الانحدار الجنوبي للتل وجزء من السهل المرتبط به مغطى بقرية كبيرة وحديثة مبنية باللبن وبمقبرة كبيرة بحدود ٦٠٠ قبر (صورة ٢).

التنقيبات الحالية

الأهداف

تل أبو ظاهر هو واحدا من المواقع الكبيرة التي تم التنقيب فيها ضمن حملة إنقاذ مشروع سد أسكي موصل (في حينها مشروع سد صدام)، وتم الاستيطان فيه خلال معظم العصور من عصر حسونة إلى العصر الإغريقي. لهذا يعد أبو ظاهر موقع النوع الرئيسي لهذه المنطقة من وادي نهر دجلة، ويحتمل أن يكون من أهم كل المواقع في هذه الإقليم. وبسبب هذه الحقائق قررنا تركيز جهودنا خلال الموسم ١٩٨٥- ١٩٨٦ على منطقة أبو ظاهر متبنين لذلك الأهداف التالية:

١. تتبع استظهار تسلسل طبقي للفخار بقدر ما أمكن من العصور التي سكنت الموقع بواسطة حفر خندق متدرج على طول انحدار جانب التل.

٢. توضيح التحول المحدود والممكن للاستيطان القديم بواسطة عدة خنادق بالقرب من حافات التل.

٣. تحري أي مواقع خاصة قد نجدها ذات أهمية، وبشكل خاص أينما تكون البقايا واضحة أو قريبة من السطح.

تم نشر تقرير أولي وملاحظات كنتيجة لهذا التنقيب[1]

إن أبو ظاهر مغمور الآن ببحيرة سد أسكي موصل (صورة ٣، ٤٥).

الاستراتيجية العامة والمنهج

شملت التحريات الأثرية في أبو ظاهر ككل العمليات الأربعة التالية:

١. المسح الكنتوري بمقياس ٥٠٠ – ١ لكل مسافة متر واحد (شكل ٣)

٢. الشظايا السطحية (شكل ٣)

٣. التنقيبات: تم التنقيب في أربعة عشر منطقة قبل غمر الموقع. تتكون هذه المناطق المنقبة من خندق متدرج وثلاثة عشر خندق (مجس) صنفت بالأحرف (A-V) يتبعها رقم الخندق (A1, A2, A3,...) الخ. وتجدها معلمة على خارطة الموقع (شكل ٣) والملخصة أدناه.

تم تقسيم كل عصر إلى أدوار وأجزاء الأدوار (إن أمكن). ولو أن الأرقام لكل عصر تطابق التبويب العام للعصور لمنطقة زمار المذكورة في المقدمة (العصور ١ – ١٩ صورة ١٠)، ولكن أرقام الأدوار وأجزاءها هي لكل مجس (خندق) على انفراد فقط. مثال: جزء من دور ١٣,٢ في خندق (M) ليس من الضروري أن يتوافق مع جزء الدور ١٣,٢ من خندق [I1] رغم أن كليهما يعود إلى العصر ١٣.

٤. مسح للقرى العصرية (شكل ٥٦ – ٦٠ الألواح ٢، ٢٩ – ٤٤) بما أن كل القرية ستدمر بالغمر بالماء. لقد شعرنا بأن من الضروري بتسجيل الفترة الأخيرة من الاستيطان. وهناك تقرير مفصل ضمن الفصل ١٢.

العصر الأول: حسونه

هذا هو أول العصور في تل أبو ظاهر. وهناك تتابع للطمى الخارجي تم تنقيبه في أحد الخنادق [M] حيث وجدت هناك ثقوب كثيرة لقواعد أعمدة. وهذا يؤيد نتائج تنقيبات جامعة الموصل في مركز التل. كما لوحظ وجود طمى مماثل يحتوي على فخار حسونة فقط على طول الجزء المجاور للنهر ولمسافة تبلغ ١٥٠م تقريبا شرق/غرب. وعليه يبدو أن أبو ظاهر هو واحد من اكبر المواقع المعروفة لهذا العصر في شمال العراق.

زودتنا الثقوب الثلاثة أو الأربعة المنتظمة الكبيرة التي عثر عليها في الدور ١,١ ببراهين نادرة لعمارة

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