









# Occasional Paper No.18

## Excavations at **KHARABEH SHATTANI**

Volume 2





**EXCAVATIONS AT  
KHARABEH SHATTANI**

VOLUME II





THE STATE ORGANISATION OF  
ANTIQUITIES AND HERITAGE, BAGHDAD

**SADDAM DAM REPORT**



MINISTRY OF CULTURE AND INFORMATION  
REPUBLIC OF IRAQ



**EXCAVATIONS AT  
KHARABEH SHATTANI**

VOLUME II

*Edited by*

Douglas Baird,  
Stuart Campbell  
& Trevor Watkins

*Contributions by*

Dianna Bolt, Paul Croft, Jacqui Goodwin, Ellen MacAdam,  
Dianne Rowan, St. John Simpson



© 1995: The authors

Published by Department of Archaeology  
University of Edinburgh  
Old High School  
Infirmary Street  
Edinburgh

ISSN 0144-3313

Typeset in Adobe Garamond 11pt by:  
Campbell Archaeological Services, 62 Scholars Green, Lymm, Cheshire.



---

## CONTENTS

---

Section 1:	Introduction . . . . .	1
	<i>Douglas Baird</i>	
Section 2:	Stratigraphy and architecture . . . . .	6
	<i>Douglas Baird</i>	
Section 3:	The Proto-Hassuna Pottery . . . . .	32
	<i>Ellen McAdam</i>	
Section 4:	The Halaf Pottery . . . . .	55
	<i>Stuart Campbell</i>	
Section 5:	The First Millennium B.C Pottery . . . . .	91
	<i>Jacqui Goodwin</i>	
Section 6:	Wider Implications of the Achaemenid Period Ceramics . . . . .	142
	<i>St. John Simpson</i>	
Section 7:	The Small Finds . . . . .	147
	<i>Stuart Campbell</i>	
Section 8:	The Achaemenid Period Metalwork . . . . .	161
	<i>Dianne Rowan</i>	
Section 9:	The Faunal Assemblage . . . . .	165
	<i>Paul Croft</i>	
Section 10:	Human Remains . . . . .	173
	<i>Dianna Bolt</i>	
Section 11:	Kharabeh Village . . . . .	175
	<i>St. John Simpson &amp; Trevor Watkins</i>	
Section 12:	Summary and Discussion . . . . .	185
	<i>Douglas Baird, Stuart Campbell and Trevor Watkins</i>	
Bibliography	. . . . .	195





---

## LIST OF FIGURES

---

Figure 1	General location maps	4
Figure 2	Site contour and trench plan	5
Figure 3	Plans of Proto-Hassuna period levels	23
Figure 4	Plan of Areas A and B, the Halaf site in its Early Phase, with the location of soundings into the Proto-Hassuna deposits	24
Figure 5	Major North-South section	facing page 24
Figure 6	Plan of Area B (1984 excavations), the Halaf site in its Early and Middle Phases	25
Figure 7	Plan of Area B (1984 excavations), the Halaf site in its Late Phase	26
Figure 8	Plan of Area B (1984 excavations), the First Millennium BC features	27
Figure 9	Plan of Areas A and B, the Halaf site in its Middle Phase	28
Figure 10	Plan of Areas A and B, the Halaf site in its Late Phase	29
Figure 11	Plan of the First Millennium BC features	30
Figure 12	Pit profiles and detailed plans of the burials	31
Figures 13-20	Proto-Hassuna pottery	47-54
Figure 21	Halaf shape typology	79
Figure 22	Halaf motif typology	80-81
Figures 23-31	Halaf pottery	82-90
Figures 32-56	First Millennium BC pottery	115-139
Figures 57-58	First Millennium BC schematics	140-141
Figures 59-61	Halaf and First Millennium BC small finds	158-160
Figure 62	Kharabeh Village pottery	184

*Abbreviations*

Volume 1 = Watkins T. and Campbell S., 1986  
*Excavations at Kharabeh Shattani* Volume 1,  
University of Edinburgh,  
Department of Archaeology,  
Occasional Paper No. 14.

*In catalogues*

L = Length  
B = Breadth  
Th = Thickness  
Ht = Height  
diam = Diameter  
min = minimum  
max = maximum

---

## FOREWORD

---

The purpose of this brief foreword is to record and acknowledge the support of those who made the excavations at Kharabeh Shattani possible, and to note how this volume has been authored and put together.

The excavations at Kharabeh Shattani were made possible only with the help and assistance of the Iraqi State Organisation for Antiquities and Heritage, which provided accommodation and workmen for the project. Specific thanks are due to Dr Mu'ayyad Sa'id, the President, and Dr Behnam Abu al-Soof, the Director-General of the Northern Region, as well as our government representatives, Sd Mohammed Zekki in 1983 and Sd Abd al-Salaam in 1984. The excavations were carried out under the aegis of the British Archaeological Expedition to Iraq, without whose support, material, logistical, administrative and moral, the work would have been very much harder. Specifically the generous help of Dr Michael Roaf, then Director of the BAEI and Director of its excavations in the area of the Eski Mosul Dam, Dr Jeremy Black, then Assistant Director of the BAEI, and Robert Killick, the Secretary-Librarian, is acknowledged with many thanks.

Funding for the excavations was provided by the British Academy, the Carnegie Trust for the Universities of Scotland and funds at Edinburgh University, particularly the Munro Fund. The team in 1983, led by Trevor Watkins, consisted of Douglas Baird, Stuart Campbell, Wendy Knight and Carl Phillips. In 1984 Trevor Watkins supervised the beginning of the season, and Edgar Peltenburg the latter part of the work. The team consisted of Douglas Baird, Paul Croft, Jacqui Goodwin and Ellen McAdam. The results of the two seasons of excavations are largely due to their hard work.

Grateful thanks are also due to those who contributed to the production of these reports. The illustrations for the first volume were drawn by Mairi Anna Birkeland and for the second volume by Gordon Thomas. The photographic prints for both covers were produced by Joe Rock. In this volume, Douglas Baird and Stuart Campbell have been mostly responsible for the work of co-ordinating the work of the contributors, bringing the contributions together, and the considerable task of making the whole ready for publication.

Douglas Baird did most of the recording on site in the second season of excavations, and he has written that part of the report that deals with the structures and the stratigraphy, with little help and only minor interruptions and hindrances from the author of this foreword. Stuart Campbell undertook the writing up of the Halaf ceramic assemblage and the small finds from the site while working on his doctoral research. Jacqui Goodwin wrote her MA dissertation on the Sassanian ceramic assemblage, and the section of this publication that deals with that material is largely derived from that dissertation. St. John Simpson very kindly provided a section bringing it up to date and setting the assemblage in its wider context. Ellen McAdam has described the proto-Hassuna ceramic assemblage. Thanks are also due to Dianne Rowen for the metalwork report, to Dianna Bolt for the report on the human remains and to Paul Croft for the faunal report. The editors greatly appreciate the patience of the contributors during the elephantine gestation period of the publication.

*Trevor Watkins*



# Introduction

*Douglas Baird*

---

The initial element of this report is a detailed stratigraphic record of the 1984 excavation season at Kharabeh Shattani, as promised and similar to that in the 1983 season report (*Volume 1*, 7). Further, as this second season proved to be the last, a summary of our interpretation of the development of the site, based upon the conclusions from both seasons' work, forms an additional part of the section on the stratigraphy and architecture. Also included in this volume is the complete and final account of work on the first millennium BC ceramic assemblage and a similar status account of the Proto-Hassuna pottery, the latter almost all recovered in the second season. In addition a summary of the regional significance of the Achaemenid period ceramics is appended to the basic account of the assemblage; as the latter was prepared some years before this publication it was felt appropriate that we put the assemblage in context in the light of more recent work. The Halaf pottery recovered in the first season was described and discussed in detail in *Volume 1*. Information on the Halaf ceramics recovered in the second season is included within an overall summary and interpretation of the significance of the entire Halaf pottery assemblage. Valuable information is provided on the faunal assemblage from both seasons and on the various human remains recovered. A further section is included on the significant pieces of metalwork. A basic catalogue of all small finds is included with some discussion of the most interesting Halaf examples. Finally there is a summary of the results period by period, forming the basis for a discussion of the significance of the site and its contribution to our knowledge of north Mesopotamia, focussed on the prehistoric periods. A small sounding at the neighbouring site of Kharabeh village is described. A report on the Sas-

sanian and Islamic period pottery recovered from this site is also provided.

The recording system and system of context codes used during the second season of excavation in 1984, were organized in the same manner as in the 1983 excavations (*Volume 1*, 19-20). Recovery and excavation procedures were essentially the same. Regrettably no dry sieving was carried out at all and only very limited flotation with very inconclusive results.

The process of excavation attempted to isolate each separable and distinct deposit, structural entity or specific evidence of activity, such as a cut. Each entity so isolated was assigned a unique code consisting of three letters. Inevitably many entities so labelled represent more than one ideally separable component or parts of more than one such element, or sometimes completely arbitrary units of excavation convenience. One advantage of this three letter context code is the ease with which one can assign specific significance to certain letter combinations. Thus all context codes relating to excavations in 1983 begin with the letter A, while all contexts excavated in 1984 begin with the letters B, C, or D. In fact the 1983 excavation area has been named Area A for convenience and the new trenches opened up in 1984 comprise Area B. The exceptions relate to the Proto-Hassuna deposits and the sterile deposit lying between the Proto-Hassuna and Halaf. Regardless of location all contexts belonging to the Proto-Hassuna start with the letter C and the sterile deposit with the letter D.

Further locational significance is embedded within the codes. Area B consisted of six, contiguous, 5m x 5m squares (two sets of three), opened up immediately to the south of Area A and extending 5m to its west. Contexts from the three squares forming the (15m x 5m) northern strip of Area B commenced with the two letters BB... or

BD..., those from the southern strip BC... or BE.... A 10m (north-south), 2.5m (east-west) sounding was cut through the sterile deposit DBA into the Proto-Hassuna site along the eastern edge of Area A; all contexts from this sounding were prefixed CC... (with the exception of CBB). The other small sounding into the Proto-Hassuna site was made in the southeast corner of Area B, all Proto-Hassuna contexts in this sounding were prefixed with the letters CB....

To aid description and understanding of the site certain codes were also employed for groups of contexts. A series of codes, of the same type used for excavated contexts, were assigned to these purely organizational entities. In this way each building or pit, which consisted of a coherent and related series of components, could be simply and conveniently described and referred to in the field and in publication. These unit codes are easily recognizable because the second letter of the code is always an ...A.... Thus all such Halaf and Achaemenid period entities in Area B are designated BA...; all such Proto-Hassuna entities start with CA.... These are the codes most frequently used on the published plans for such complex entities.

The site grid and datum remained the same, the latter set at the arbitrary height of 100m; all absolute heights referred to in this report are based on that datum. Points on the grid are referred to in eastings and northings in metres from the arbitrary point of origin of the grid to the southwest of the site. Notional excavation squares are 5m x 5m and can be referred to by their south-western corner six figure grid point; thus the south-western corner of Area B is 195 280. Precise coordinates to the nearest centimetre could be given for any object on the site with a ten figure grid reference.

Field registration of small finds (other than ceramics) in 1983 involved using a separate, running series of numbers each day. A final, consecutive sequence of numbers was applied to these objects for the site as a whole and this is the small find identification system used in the publication of the 1983 small finds in this volume. A running series of numbers for small finds and a separate series for samples was employed for each context in the 1984 season and this is the system of reference for the publication of the finds from the last season; for example, BBC 10 is the tenth registered find from context BBC. Sherds were assigned a consecutive series of numbers for each context for recording purposes, as in 1983; all ceramics in this publica-

tion are referred to by this system. Drawings of sherds were identified using the same system. Sherd or find numbers from the sounding excavated by Dr. J. Curtis of the British Museum are prefixed with the code JC....

It is useful to preface the account of the stratigraphy and architecture with a broad outline of some of the conditions and circumstances of excavation at Kharabeh. These circumscribed the operational procedures we adopted and some of the conclusions we can draw.

Due to various processes of bioturbation, it is clear that the upper 0.4m of deposit at Kharabeh was almost completely homogenized (Wilkinson 1990). No significant differentiation between deposits could be achieved within this zone. Because of this it is unclear from where any of the Achaemenid period pits were cut; it is certain, in almost every case, that it was not the point at which they were identified. In fact it is clear from sections (Fig. 5), from the manner in which slight, poorly defined differentiation in deposit was observed before a pit cut could be precisely defined (notably with larger pits e.g. BAA) and particularly the manner in which the upper, densely packed, stone fills of pits projected close to the present ground surface (BBD), although no containing cut could at that point be identified, that most if not all of these pits cut from relatively high in the stratigraphy. It seems quite plausible that the contemporary first millennium BC ground surface(s) from which these pits were cut was higher than that at present.

Homogenization processes (Wilkinson 1990, 91) and the resulting inability to identify pit cuts meant that this upper c. 0.4m of deposit contained much mixed material. This zone includes deposits or parts of deposits BCA, BCB, and BCC, BBA, BBB, and BBC. Even some deposits earlier in the sequence were contaminated by a degree of bioturbation and inability to detect every pit cut until relatively deep in the stratigraphy. Basically the lower in the sequence a deposit occurred the less probability of contamination exists (although this can hardly ever be completely ruled out in any archaeological context, let alone those typifying Kharabeh). These strictures do not apply to the Proto-Hassuna deposits which were sealed by approximately 1m of sterile compact clay-like material (DBA).

These circumstances limit the dependability of the conclusions relating to material recovered from these contexts and the status of the architecture.

This is one reason why sieving was not employed on the site. Most of the architectural elements assigned to the Late Phase of Halaf occupation on the site occur in this upper, homogenized zone. The observations of the sections relating to some of the architecture of this phase and excavation of limited areas of this zone, where pits were absent (e.g. ADF and ADH (*Volume 1*, 29)) suggested that the architectural elements of this phase must all antedate the pits and thus be Halaf, but this cannot be conclusively demonstrated in every case. In particular, this is why grave BAT cannot be definitively related to a particular period of occupation (§ 2.5).

The Achaemenid period pits contained much mud brick debris which included much derived Halaf material. Where pits were not detected, such derived Halaf pottery, as well as Achaemenid period pottery, was introduced into the general Halaf deposits from a particular phase. The later the set of deposits involved, the greater the degree of admixture of material, even though, for example, the Halaf pottery relating to Late Phase deposits was easily separated from the contaminating first millennium BC ceramics. Where recovered material was not chronologically distinct, e.g. the faunal assemblage or certain sorts of small finds, only material from a specific number of definitely non-contaminated contexts could be employed to characterize the Halaf assemblages and, of course, the Achaemenid period assemblages could not be characterized at all. A list of these probably uncontaminated Halaf contexts is here appended. In the case of chronologically undiagnostic material it must be assumed that any entity not from one of these contexts could be either Achaemenid period or Halaf. By plotting the location of certain small finds from this upper homogenized zone it was possible to suggest that certain pieces, although assigned to more general deposits, probably came from specific pits. These pieces are published in the small finds catalogue, listed by their original context designation, but a note is appended suggesting

from which Achaemenid period pit they probably derived. The relatively pristine Halaf contexts are: AAH, AAI, ABP, ABQ, ACG, ACI, ADF, ADH, ADI, ADJ, ADR, BBM, BBP, BBR, BBT, BBU, BBV, BCR, BCZ, BDC, and BDD.

The matrix depicting the relationships between the deposits assigned to the three Halaf phases, therefore, takes no account of the differing degrees of mixing/contamination of the deposits represented. It merely displays the logical structure of their relationships. It assumes all Achaemenid period pits are definitively (see above and § 2.6) later than any of these deposits, although this could not always be conclusively demonstrated.

In these circumstances sections were relatively uninformative. It was, therefore, decided to publish only the major east-west section of the site, providing the east section of Area B and the major Proto-Hassuna sections (Fig. 5). All other Proto-Hassuna sections are also published (Fig. 5) and profiles of most of the pits (Fig. 12). The north section of Area B is provided by the reverse face of Section I-J published in *Volume 1* (Plan 4).

In cases of doubt any statement in this volume of the Kharabeh publications may be taken to override any statement or conclusion in any preceding volume or publication. This is particularly important in the case of the Halaf stratigraphy where the sections and plans published in *Volume 1* have portions of their stratigraphy misleadingly labelled. This refers specifically to Section I-J, Plan 4 in *Volume 1*, where ABO represents only the surface of the deposit it appears to designate, as it was an oven base sitting on that deposit; in the same section a deposit has been incorrectly labelled ABQ. In Section A-B, *Volume 1*, Plan 4 a deposit has been mislabelled AAG. The pit ABY has been incorrectly labelled on *Volume 1*, Plan 2; it should in fact be ABZ/ABW. ABY is correctly assigned on Plan 1. On *Volume 1*, Plan 1 the depression labelled ABZ has been incorrectly so designated, the position of ABZ is correctly shown on Plan 4.

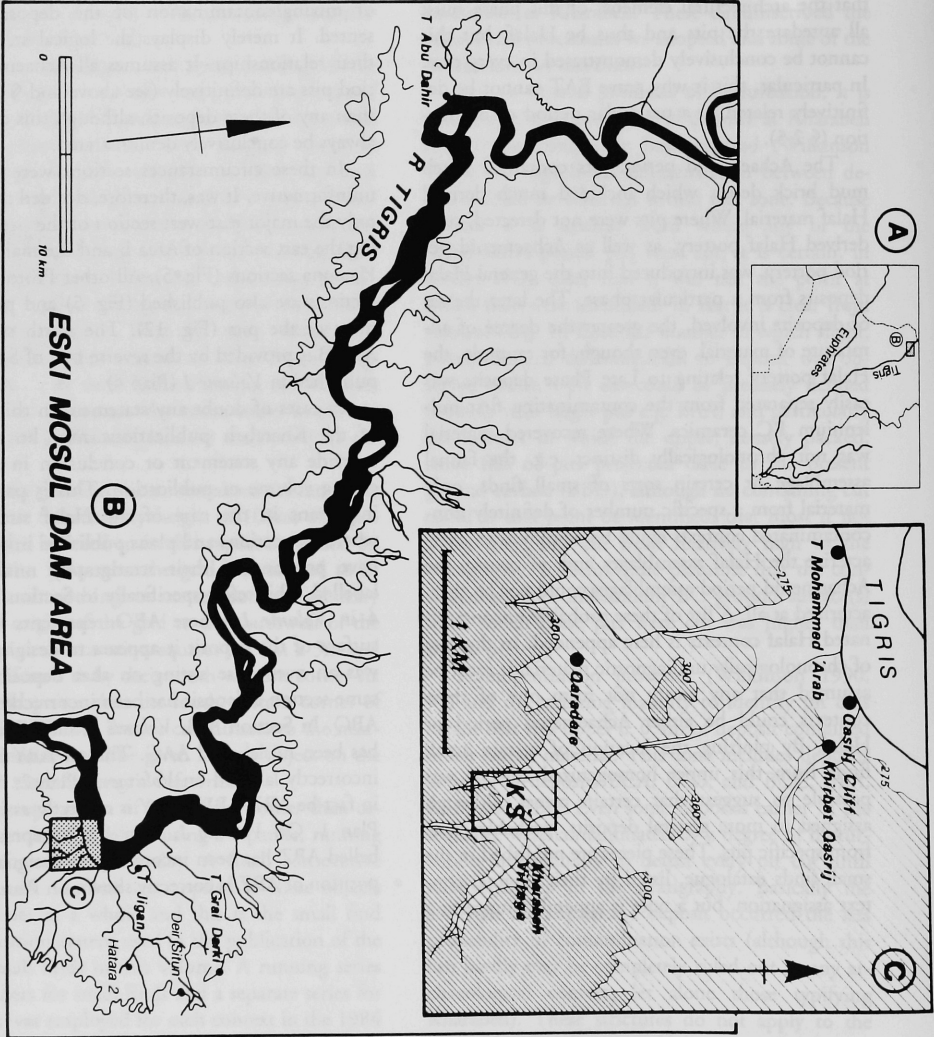


Fig. 1 General location maps



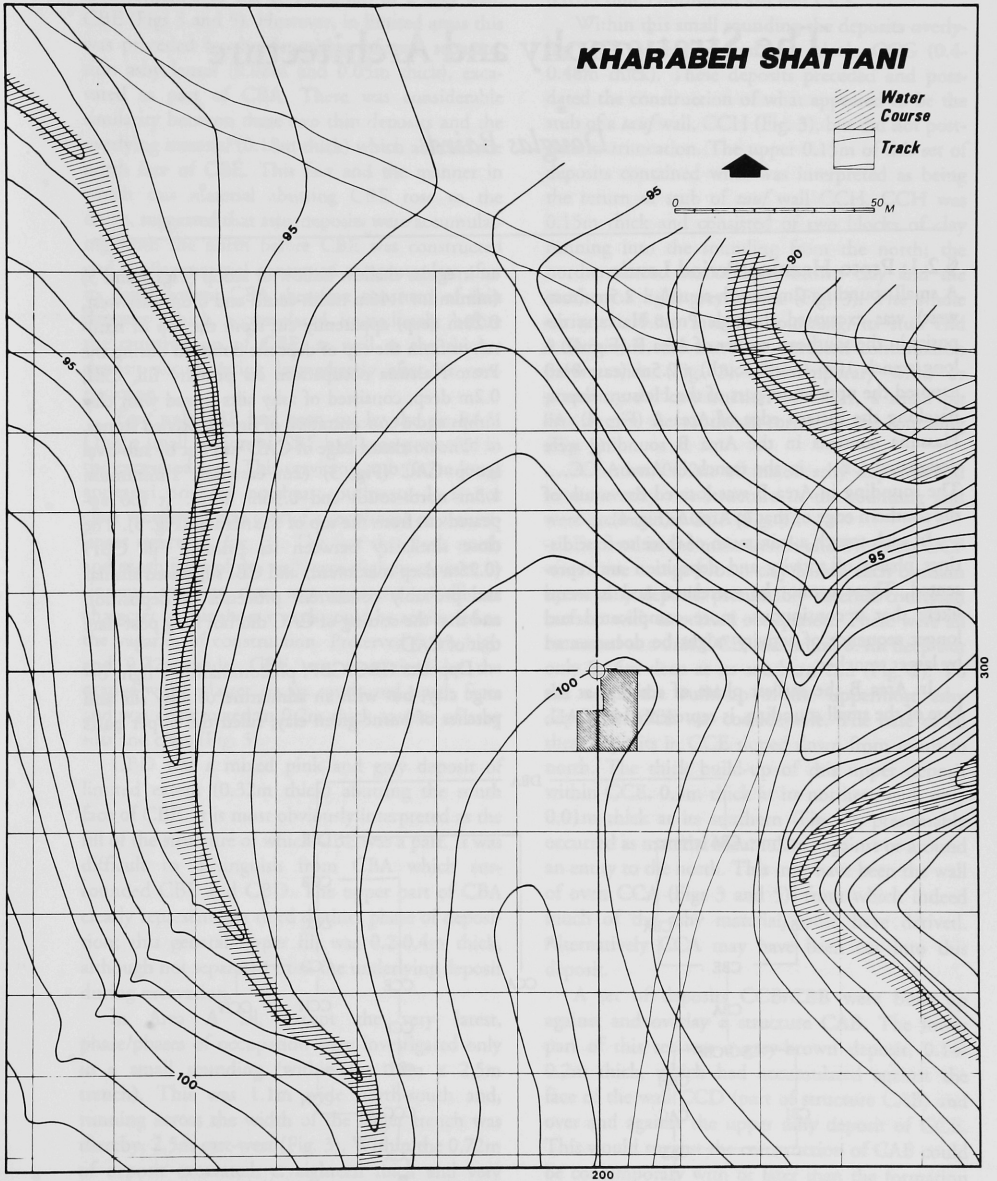


Fig. 2

# The Stratigraphy and Architecture

*Douglas Baird*

## § 2.1: Proto-Hassuna Period Levels

A small sounding 2m (north-south) x 2.5m (east-west) was excavated through Proto-Hassuna deposits in the southeast corner of Area B (Fig. 4). A long trench 10m (north-south) x 2.5m (east-west) exposed the uppermost part of the Hassuna deposits along the eastern edge of Area A (Fig. 4). All Hassuna contexts in the Area B sounding were designated CB..., in the trench in Area A CC.... The sounding in Area B was located 8m south of the southern edge of that in Area A (Fig. 4).

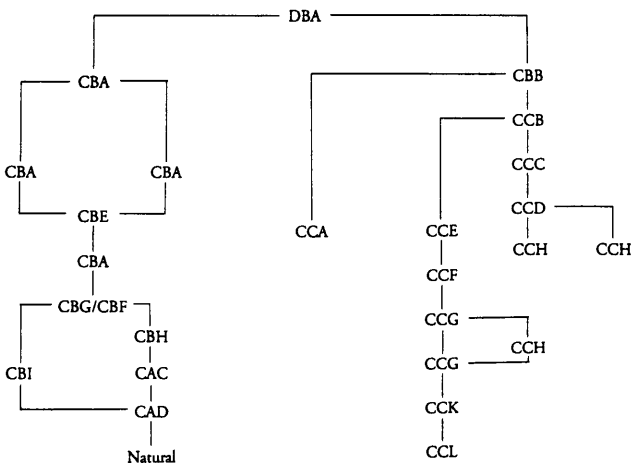
In each trench a minimum of three to four distinct phases of activity and deposition are represented. These cannot be correlated and it seems likely that a continuous, more complicated and longer sequence of activity might be documented by larger trenches.

In Area B the earliest phase of activity, at the base of the small sounding, is represented by CAD,

an irregular shallow hollow or scoop (Figs 3 and 5) (minimum 1.46m north-south and 0.6m east-west, 0.28m deep) apparently cut from the top of natural, or from the top of deposits removed during the Proto-Hassuna occupation. Its primary fill, CBI, 0.2m deep, consisted of ashy silts mixed with clay lumps and a concentration of fire-blackened stones.

The northeast edge of CAD was cut by sub-oval scoop CAC (Fig. 3) (2m east-west x minimum 1.3m north-south and 0.56m deep). It too appeared cut from the top of the natural (Fig. 5). The close similarity between its primary fill CBH (0.26m deep maximum) and CBI suggested similar and probably concurrent processes of deposition and that the cutting of CAC did not long post-date that of CAD.

Deposits CBG/CBF, predominantly a light orange clay, but with an admixture of ashy silt and patches of burnt green clay, filled the upper parts



of both hollows with 0.29m of material, and overlaid most of the surrounding surface of the natural subsoil to a depth of 0.18m (Fig. 5).

The second significant phase of activity in this area consisted of the construction of a *tauf* wall, CBE (Figs 3 and 5). However, in limited areas this was preceded by the deposition of two, separate, thin ashy lenses (0.08m and 0.05m thick), excavated as part of CBA. There was considerable similarity between these two thin deposits and the overlying material (0.18m thick) which abutted the north face of CBE. This fact and the manner in which this material abutting CBE rose to the north, suggested that ashy deposits were accumulating from the north before CBE was constructed and similar material continued to accumulate after its construction. CBA therefore consisted of thin deposits which accumulated immediately before the construction of CBE, as well as the thicker deposit accumulating immediately after its construction.

*Tauf* wall CBE had been cut by the pit BAA. Only a small section of CBE had been preserved in the excavated area. This surviving stub (0.7m long) appeared oriented northeast-southwest. It is not clear whether it was part of a rectilinear or a curvilinear structure (Fig. 3). The fact that both north and south faces of the wall were slightly concave or sinuous suggests that any apparent curvilinear character to this short stretch could be attributed to the vagaries of construction. Preserved 0.4m high and 0.72m wide, CBE was recognized by the orange-white plaster on its south and north faces and was constructed in 0.2m thick courses of ashy silts and clays (Fig. 5).

CBD was a mixed pink and grey deposit of limited extent (0.32m thick) abutting the south face of CBE. It is most obviously interpreted as the fill of the structure of which CBE was a part. It was difficult to distinguish from CBA which surrounded CBE and CBD. The upper part of CBA clearly represented a third distinct phase of deposition; this general upper fill was 0.2-0.4m thick, although not separated from the underlying deposit during excavation.

In Area A all, except the very latest, phase/phases of occupation were investigated only in a small sounding (within the 10m x 2.5m trench). This was 1.1m wide north-south and, running across the width of the larger trench was thereby, 2.5m east-west (Fig. 3). Within the 0.72m of deposit excavated, c. eighteen thick and very thin, continuous and discontinuous, independent

lenses were observed, with varying degrees of ash or mud content (Fig. 5). These overlay the apparently sterile natural deposit CCL, a compact, cloddy, light brown clay. Immediately over CCL lay a 0.02m thin, continuous ash lens CCK.

Within this small sounding the deposits overlying CCK were excavated as a block, CCG (0.4-0.48m thick). These deposits preceded and post-dated the construction of what appeared to be the stub of a *tauf* wall, CCH (Fig. 3), but did not post-date its truncation. The upper 0.15m of this set of deposits contained what was interpreted as being the return or stub of *tauf* wall CCH. CCH was 0.15m thick and consisted of two blocks of clay running into the sounding from the north; the northern-most was of light brown clay and the southern a light grey-brown (Fig. 3). The whole entity ran 0.9m into the sounding, its stub end 0.66m wide, the narrower northern continuation 0.48m wide (Fig. 3). Contemporary with, or preceding the construction of CCH, a small pit was dug in the southeast corner of the sounding (Fig. 5).

A further 0.32m of mixed ashy deposits and lenses overlay this structure in the sounding and were excavated as CCF (Fig. 5).

Exposed in the main trench and overlying CCF were three orange brown clay bands, each overlain by an ashy deposit, presumably external/courtyard surfaces with associated occupation. These were all excavated as a unit CCE, maximum 0.4m deep but only 0.16m deep at its southern end (Fig. 5). To the north the build-up of the uppermost ashy deposit in CCE was considerable. The base of all these deposits in CCE sloped down from south to north. The thick build-up of this upper deposit within CCE, 0.3m thick at its northern end, only 0.01m thick at its southern (Fig. 5), presumably occurred as material accumulated against or around an entity to the north. This may have been the wall of oven CCA (Figs 3 and 5), from which indeed much of the ashy material could have derived. Alternatively CCA may have been cut into this deposit.

A set of deposits CCB/CBB were built up against and overlay a structure CAB. The lower part of this set was a grey-brown deposit, 0.14-0.2m thick, which had accumulated against the face of the wall CCD (part of structure CAB) and over and against the upper ashy deposit of CCE. This would suggest the construction of CAB could be contemporary with or later than the formation of parts of CCE. As this lower part of CCB accu-

mulated against the exterior faces of CCD, one or perhaps two deposits were accumulating within the cells of CAB. No particular depositional process could be assumed to account for this 0.2m deep light fawn-brown material.

CAB itself was constructed with the run of the slope of underlying deposits (south to north) (Fig. 5). It consisted of a minimum of three courses of foundations, one stone wide, part of a rectilinear structure oriented northeast-southwest. A length of wall (4.9m) ran into the trench from the northeast and 1m of return formed a right angle, running southeast out of the excavation area (Fig. 3). These walls, CCD, bounded at least two cross-walls, parallel to the short stretch of return exposed, therefore also running out of the excavation area to the southeast. The southern-most compartment thus created was 1.4m long, along the northeast axis of the structure and its northern neighbour 1.34m along the same axis. The southern compartment was at least 1m wide and its northern neighbour minimum 0.5m wide. The lie of the courses provided a relatively even and regular external face to the perimeter walls; the internal faces of this wall and both faces of the dividing walls, to the extent that they were observable, were less regular (Fig. 3). No mud-plaster or plaster faces were observed in excavation. A vertical differentiation in deposit immediately adjacent to the south face of the southern cross-wall was observed in section and there is the possibility that the internal, less regular, faces may have been plastered. There is no indication as to whether there may have been a mud superstructure. The homogeneous fill of the compartments, CCC could have been dump, but it contained no obvious occupation-like material and had a limited quantity of artefactual material. It may have derived from superstructure or decayed facing/lining from sub- or superstructure.

Internal floors for CAB were not detected during excavation. Inspection of the section, as it dried, indicated a dense line of salts demarcating a 'primary fill' in both compartments at the level of the lowest course of stones in the wall (Fig. 5). These appeared to indicate the presence of relatively level surfaces running against the slope. It may be that they represent, merely, slightly differentiated initial filling of the compartments, but it could also be that they represent deliberately levelled, possibly trampled or packed/beaten earth floors.

The plan of this rectilinear structure cannot be confidently extrapolated from the small portion excavated. However, the regularly spaced, parallel cross-walls and relatively narrow spaces enclosed are suggestive of the structures containing double parallel rows of equal and similarly-sized small compartments at broadly contemporary sites such as Umm Dabaghiyah (Kirkbride 1975, Pl. 1), and slightly later Yarim Tepe 1 (Merpert and Munchaev 1973a, 96-98). A plausible interpretation of such is that they were storage blocks (Kirkbride 1975, 4). As the plans of structures at broadly contemporary Tell Sorto (Bader 1987, 161) and slightly later Yarim Tepe 1, level 6, also indicate, similar sets of regular, small units were also part of apparently domestic complexes of more varied character (Merpert and Munchaev 1973a, 96-98), although the size of such appended units may again suggest a storage role.

The use of CCI, a shallow, ash-filled, elongated oval pit (0.47m x 0.24m, 0.17m deep), immediately preceded the construction of CAB (Fig. 3). Adjacent to it and set into the underlying deposit from the same level as CCI was a sub-triangular 'husking tray' CCJ (0.38m x 0.26m, 0.06m deep) (Fig. 3). This setting did not contain a conventional vessel, but seemed to be a clay lining to a shallow scoop with surface characteristics similar to the classic Hassuna ceramic type, the husking tray (§ 3).

CCA, part of an oval cut in the northeastern corner of the excavation area, was lined with baked clay and had remnants of a fired, red clay superstructure protruding. The walls of the substructure sloped inwards (Fig. 5). The minimum dimensions of the upper part of this feature, probably an oven, are 0.3m x 0.3m (Fig. 3). It was not possible at that stage of excavation to decide from where CCA was cut. Therefore its relationship with CCE and ultimately CAB remains obscure.

The upper part of CBB/CCB, 0.1-0.2m thick (Fig. 5), sealed the oven and CAB and may be interpreted as deriving from other Hassuna deposits. The weathered surface of this deposit, the top of the Hassuna site, sloped from south to north, from 98.06m a.s.d. in the south of the 10m x 2.5m trench to only 97.66m a.s.d. at the northern end of the trench, a drop of 0.4m over 10m (Fig. 5). The top of Hassuna deposits was 98.22m a.s.d. in Area B, so overall the Hassuna site surface dipped 0.62m over 20m from south to north. The bottom of Hassuna deposits in Area B was 97.56m a.s.d. and

at the bottom of the small sounding in Area A was 96.56m a.s.d., a dip of 1m over 18.5m from south to north, suggesting that the base of Hassuna deposits sloped even more sharply down to the north than their upper surface. The bedding of CCE and CCD suggests that many of the Hassuna deposits accumulated following the lie of the natural.

## § 2.2 : The phase of natural deposition between the Halaf and Proto-Hassuna Periods

Between the Halaf and Proto-Hassuna occupations of the site 0.8 to 1.37m of naturally derived deposit had accumulated (Fig. 5); in excavation this was labelled DBA. This was virtually sterile, a few Halaf sherds were recovered from the top few centimetres of the deposit and a few Proto-Hassuna sherds from the bottom few. Only one sherd came from the centre of this deposit in the whole 10m x 2.5m strip excavated in Area A.

The bulk of this deposit was homogeneous and there was no clue given by its macroscopic structure to indicate the manner in which this material was laid. It was a dark orange brown compact clay-like deposit with nodular fracture, flecked with calcium carbonate inclusions. The upper, relatively level, surface of the deposit was laminated, however, and at its base, and in places in its lower part, discontinuous bands of silt and grit indicated that water borne material was being laid before, during and immediately after the deposition of DBA. Given the slope of the Hassuna deposits it is possible that DBA was derived from up-slope to the south. The level top of DBA would imply that by the end of its deposition local contours had changed. This process of landscape alteration may already have commenced during the deposition of the Hassuna deposits, as the change in the degree of slope between the basal natural and the surface of the Proto-Hassuna site may indicate. It is likely that local topography was somewhat different from that today, at the time of the accumulation of this deposit, given that DBA was not transported further. Given the apparent similarity of the deposit underlying the Proto-Hassuna and DBA, it may be that DBA represents no more than the continuation of more generalised deposition processes preceding and post-dating the Hassuna occupation. Its particular significance is impossible to assess without analysis of the precise character of the deposit.

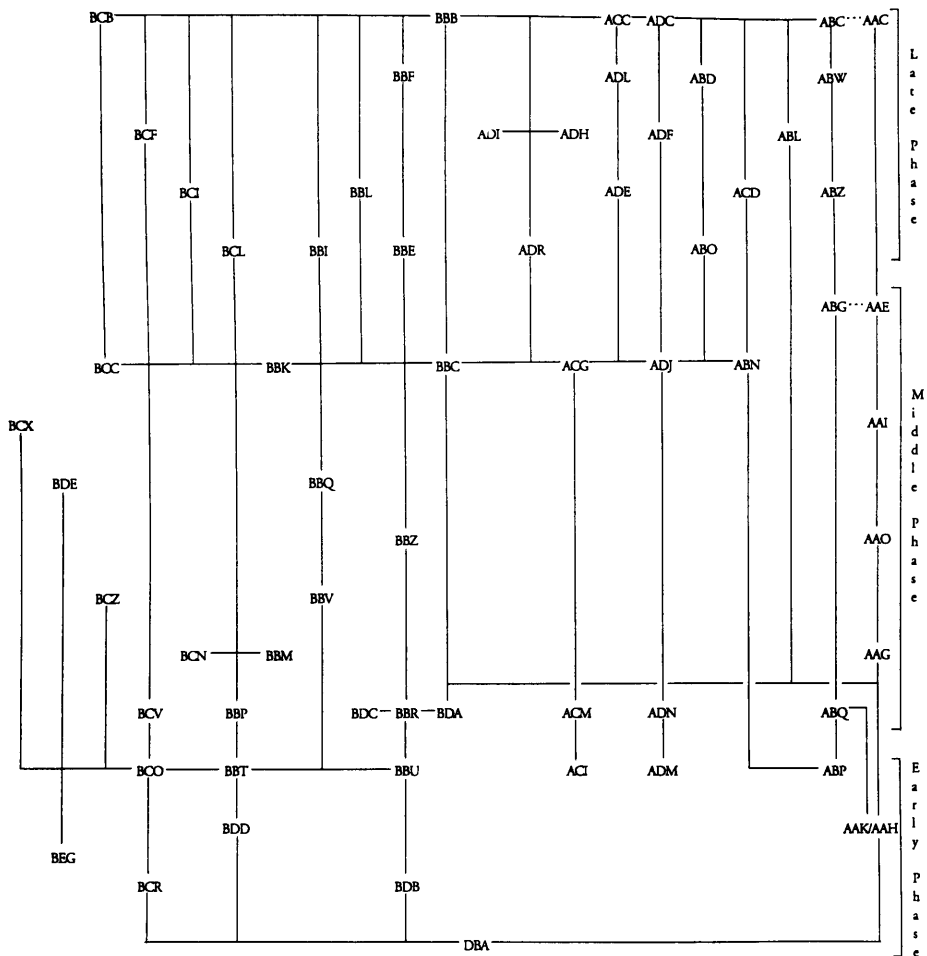
The local landscape and the soils available for farming in the early Holocene may have been quite different from those of today

## § 2.3: The Halaf Stratigraphy from the 1984 Season

The Halaf stratigraphy was divided into three broad phases. Each of these phases encompasses a series of developments. This division of the stratigraphy was somewhat arbitrary, but reflects a broad progression. At least in the western part of the 1984 excavation area the beginning of the Middle Phase is marked by the construction of a series of stratigraphically well linked entities. This represents the clearest demarcation of developments. Overlying this set of entities, following the accumulation of a substantial deposit, BCC/BBC, a further series of structures mark another distinct set of developments, although less precisely inter-linked than that characterizing the beginning of the Middle Phase. Other features/structures were slotted into the sequence so defined and it is unlikely such entities are precisely contemporary with these analytically key constructions. It is not clear which model suits the development of the site best; either a continuous sequence of activity has been arbitrarily divided for ease of analysis and description or each phase represents distinct, wide-ranging patterns of strictly contemporary developments which cannot be affirmed because of the circumstances of preservation on the site.

### *Early Phase*

Overlying the naturally deposited, virtually sterile fill, DBA, were primary Halaf deposits BBT, BBU and BCO and their arbitrarily separated lower horizons BDB and BCR. Compared with the deposits that succeeded them, these were relatively thin, average 0.16m. All had relatively high concentrations of soft, loose and ashy occupation-type content mixed with light pink-brown clayey material, probably redeposited natural, presumably derived from decayed *tauf* structures. This mixed, more occupation-like character also contrasted with overlying deposits. The base of these deposits BCR/BDB and the surface of DBA were laminated suggesting deposition/redeposition by water. During the accumulation of these deposits only two entities represent specific activity in the whole of the excavation area. The exiguous character of the evidence for activity during the build up of these deposits must, however, be considered in the



light of the fact that DBA was only reached in the eastern third, and early deposits investigated only in the southern half of the remaining two thirds of this 1984 excavation area. In the northeast of Area B in grid square 200 285, sealed by BBT/BBU and cutting down into natural from the top of the basal, laminated deposits was an oval pit BDD, 1.8m x 1.5m, depth 1.03m with dark ashy fill. It contained in its upper part concentrations of charcoal, a few large flat slabs, concentrations of disarticulated human bone (identified by P. Croft), and a spindle whorl BDD 1 (§ 7) (Figs 4 and 6). In the southwest of Area B stone tumble may be the remnants of two courses of foundations of the

corner of a rectilinear structure BEG (Fig. 6). These wall stubs suggest this would have been oriented southeast-northwest/northeast-southwest, but it could not be thoroughly investigated as it was discovered at the very end of the season.

#### Middle Phase

Overlying the above mentioned deposits a series of fills, BCC and BBC, contained and sealed a variety of structural entities and other features assigned to a Middle Phase. These deposits 0.35-0.4m deep consisted of an orange to red-brown clayey deposit, homogeneous in character. Most of this material must derive from local natural and can be envis-

aged as so doing by various modes of redeposition, including the decay of structures built of *tauf*. Dense calcium carbonate inclusions characterised the deposit, various processes of leaching and bioturbation appear to have contributed to the post-depositional homogenization of the deposit. As a result of such processes, in some places, the distinction between these and the clearly different underlying deposits was difficult to draw precisely and was thus set arbitrarily (particularly between BCC and BCO).

In the northwest of Area B a large area of the surface of BBT was burnt (Fig. 6). This represents one of the few areas of external surface traceable at Kharabeh and allowed us to establish the contemporaneity of the adjacent structure BBR/BDC (Fig. 6) and oven base BDA (Fig. 6), both just to the east of this burnt surface. BDA was the oval (1.44m x 1.88m), baked clay base of an oven set 0.06m into underlying BBT against the base of wall BBR and was possibly responsible for some of the burning of the surface of BBT. No trace of the base for, or remnants of, a superstructure were recovered for the oven. The base of these Kharabeh ovens may be typical of a certain type of oven characteristic of the Halaf (§ 10), at least at Arpachiyah (Mallowan and Rose 1935, 14-15) and Shams ed-Din (al-Radi and Seeden 1980, Fig. 46). BBR was one wall of a narrow, rectangular structure, oriented northwest-southeast, minimum 3.3m long (external length) and 2.26m wide (external), but only 1.6m wide internally (Fig. 6). Construction techniques represented in the walls, BBR and BDC, were very varied. The foundations of the corners of the structure consisted of three courses of stonework. The southwest, long wall of the structure, BBR, 0.34m-0.48m wide, was partly of coursed stonework and partly of a red-brown *tauf* with dense concentrations of pebbles and cobbles; the opposite northeast wall BDC, 0.46m wide, was *tauf* made from a very compact light green clay with few cobbles or pebbles. The corner sections of this essentially *tauf* structure were presumably constructed of stone to reinforce these most vulnerable and structurally important areas.

Cutting the burnt surface of BBT, west of BDA, was a small, oval (0.9m x 0.78m), ash-filled, unexcavated pit BDE with burnt daub elements projecting from its fill. This may have been a hearth with some sort of daub furnishing, associated like BDA with the burning of surface BBT, but the possibility that it is an intrusive

Achaemenid period feature, not recognized earlier in excavation, cannot be ruled out.

Just over 1m south of BBR, overlying BBT, was a small circular structure BAB, external diameter just over 3.6m and internal diameter 2.9-3m (Fig. 6). It survived, almost complete around its circumference, as a single foundation course of large flat-lying limestone slabs (0.2m x 0.3m - 0.4m x 0.4m), with a neatly aligned, continuous internal face but irregular external face. Part of a second course was observed only along a 2m stretch of foundation in the southern sector of the wall. The internal face of this second course was relatively neatly aligned, projecting over the internal face of the lower course by several centimetres. Its external face was irregular, as with the lowest course. On the north side of the structure possible remnants of a second course were represented only by a single stone, also projecting over the edge of the lower course by a few centimetres. This evidence suggests that, as with 'tholos' ADE (Volume 1, 31-32), a *tauf* wall may have sprung inwards from ground level. The relatively sharp angle involved would also suggest, as with 'tholos' ADE, that the resulting superstructure, quite possibly a dome, was not a simple portion of a sphere, otherwise the roof would have been impractically low. It seems plausible that the exterior face of the *tauf* wall continued to ground level where it provided a regular exterior face and was keyed into the irregular exterior face of the stone foundations. The original wall would thus have been slightly wider than the widest limestone slab, that is just over 0.4m. It is not clear if the gaps in the foundation, other than that caused by the Achaemenid period pit BAR, resulted from robbing or might be associated with an entrance. A small socketed stone sat upright, off-centre, on the stretch of second course stonework in the southern part of the wall. Its isolated, *in situ* character suggests it was the socket for a door post. In this case the fact that the only stretch of a stone second course was recovered here, may not be an accident of preservation, but an original feature providing a stone-based, raised threshold. Gaps elsewhere then would suggest robbing, but this would include the possibility of the robbing of the second course. The internal area of the structure was 6.83m<sup>2</sup>.

The fill of building BAB, BBM in its northern part and BCN in its southern, was divided at an arbitrary point from overlying and surrounding BBC/BCC, but was distinguished by higher concentrations of light pink clay adjacent to its wall

BBP. This deposit was too irregular and intermittent to represent any sort of internal bench-like feature and it seemed likely it was *tauf* melt derived from adjacent wall superstructure.

Whilst BAB sat immediately on BBT the absence of linking surfaces prohibit a conclusive demonstration of the contemporaneity of this structure and BBR. However, the absence of detectable foundation cuts, and the fact that both structures sit directly on the same deposit at the same absolute level, given their proximity, strongly suggested contemporaneity. In this sense the series of entities BDA, BDC/BBR, the burnt surface of BBT to the west of BBR, and the tholos BAB form one of the few distinct building phases on the site (Fig. 6); the other involved the construction of tholos ADE, wall ACD and paving ADR in the Late Phase in Area A (*Volume 1*, 30-32).

Possibly also linked with this phase in Area B is a disturbed oven base BCV to the southwest of BAB (Fig. 6). Immediately west of BAB a socketed stone, like the one on the second course of BBP, sat enigmatically – apparently *in situ* – on an isolated limestone slab (Fig. 6). South of the burnt surface of BBT, also sitting upright immediately upon BBT was a complete pot, BBC 08 (Fig. 6).

Less probably associated with primary activity within the Middle Phase were a series of other features. BAF (fill BBV and BBQ) (Fig. 6) was a broad, relatively shallow pit complex 3.55m north-south and minimum 1.35m east-west, 0.62m deep, with a curvilinear outline-plan. It protruded from the eastern edge of the excavation area. It had gently sloping upper sides, though this may have been the product of prehistoric weathering as its cut was vertical at its base. The floor of the feature was flat, its southern part was slightly raised. The primary fill BBV (Fig. 5), 0.35m deep, was a soft, ashy, grey-brown deposit and this was overlain by an orange-brown deposit BBQ, 0.27m deep, very similar to BBC and presumably derived from similar sources.

A small, circular pit or post-hole BBZ, 0.35m diameter and 0.31m deep, post-dated structure BBR/BDC (Fig. 6).

Contained within the accumulation of BBC/BCC at the west edge of the excavation area were large blocks of burnt daub or *tauf* (Fig. 6), the largest of which 0.4m x 0.4m was several centimetres thick and another piece of which 0.04m thick and 0.16m x 0.14m had one flat and one convex surface. Dense vegetable filler was noted in these blocks, it seems likely these represent accidentally

baked building material. At Yarim Tepe II slabs of *tauf* were noted of plano-convex cross-section and the dimensions of the clay slabs used in the construction of buildings there (Merpert and Munchaev 1987, 23) are of the same order of magnitude as the burnt blocks at Kharabeh. Southeast of these blocks a broken pot was sitting on its base within BCC (Fig. 6).

South of this vessel in the upper part of BCC a large sub-square limestone block 0.15m x 0.14m and 0.09m thick, with a cup mark in its upper surface, appeared set on its base (Fig. 6). Immediately south of this we recovered a large limestone cobble with hour-glass perforation, small find BCC 3 (§ 7) (Fig. 6). In the northeast of the excavation area, within the upper part of BBC, was a concentration of fragments of human bone, BBK, mainly skull, part of a mandible and part of a limb. There was no evidence for any containing cut and their circumstances of recovery suggested their redeposition within this generalized fill. Based on teeth and size of the limb fragment these all appeared to belong to a child (identified by P. Croft).

Two features were detected cutting into BCO, the Early Phase deposits, and may therefore be assigned to the Middle Phase; it is possible, however, that since the top of the cuts must have been missed in excavation they may have cut from higher. BAL (Figs 6 and 12) represents the burial of an adult male (§ 10), placed as a contracted inhumation in a sub-oval burial cut, 2.28m north-south x 1.4m east-west. The cut was back-filled with material (BCZ) similar to that which must have been excavated from it, which is why detection of the cut was so difficult. The burial was oriented north-south, its head at the north lying on its right side facing west (Fig. 12). His thorax was also inclined to the west. The left arm was tightly flexed and left hand, if present or preserved, would have rested in front of the mouth. The right arm was semi-flexed, lying under the lower thorax and the right hand touched the left elbow. The left leg was tightly flexed at the left knee which was drawn up to just under the thorax. The right knee was sharply drawn up to the thorax and this leg more loosely flexed than its counterpart. A series of bone, shell and stone beads (small finds BCZ 2 – BCZ 5) encircled the body's pelvis, presumably once part of a girdle or lower part of the burial garment (Fig. 12). The largest, most distinctive bead, trapezoidal and of dark grey stone (Figs 12 and \*49:4) (§ 7, BCZ 3), sat in front of the pelvis, ahead of



the rest of the concentration, just below the right femur, probably in the lower thigh region.

The second feature cutting BCO and possibly cut during Middle Phase occupation, although it may be later, was BAK, an oval pit (1.2m north-south x 1m east-west), preserved depth 0.2m, with a loose ashy grey fill BCX. It was located in the southeast part of the excavation area (Fig. 11).

#### *Late Phase*

The separation between BBB/BCB and underlying BBC/BCC was arbitrary in many places. They were only distinguished by meaningful criteria in the area of structures in the northwest part of Area B. None of the structural elements sealed by BBB/BCB can be considered necessarily contemporary. This was because no connecting or sealing surfaces were preserved in these levels. The proximity of BBE, BBI and BBL, and the manner in which they were founded at the same absolute level, suggested to the excavators their probable contemporaneity. Even this intuition was excluded for other entities in the southern area of excavation; in particular it is not clear whether BCL was cut down from relatively high deposits, was free standing, or leant against some upstanding structure.

BBE, (Fig. 7) located in the northwest corner of the excavation area, was the stone foundation for a *tauf* wall. A few centimetres of the *tauf* wall was observed, preserved in section, sitting on the stone foundations. These foundations seemed to belong to a circular structure of large diameter, although the curvature of the wall was slight enough not to exclude the possibility that it could be interpreted as a slightly bowed wall belonging to a rectilinear structure oriented northeast-southwest. The foundations (0.38m-0.4m wide) consisted of limestone slabs laid flat, usually two side by side. Since it was not clearly differentiated from overlying BBB the fill BBF, contained by BBE, was arbitrarily separated from the former.

Just under 3m southeast of BBE was a stretch of straight wall BBL (Fig. 7), 1.8m long, 0.28m-0.38m wide, oriented northeast-southwest with a return preserved at its northeastern end, 0.3m long and 0.38m wide. The wall foundation was constructed of a single row of limestone slabs, laid flat, with evidence in one place that it was originally coursed. It is not clear if a stone immediately to the northwest of the centre of the structure was related (Fig. 7). The stub of the return was two stones wide and may have had a neatly finished butt.

Whilst obviously incomplete the size of the structure and certain features of its manner of construction (the neatly finished stub return and the one slab-wide coursed wall) recall the E-shaped structure ABQ (Fig. 9) in Area A (*Volume 1*, 33). There is some evidence that the structure was not part of a larger entity running, as the return might suggest, to the south and east. This is the presence of the neatly constructed cairn of stones BBI (Fig. 7) only 0.8m southeast of BBL. BBI consisted of a large, flat slab with three other large and four other smaller pieces of limestone piled neatly over it at an angle of 45° to form a cairn standing 0.16m high.

In the southwest of Area B was a rectangular area of stone paving BCI (Fig. 7) (1.1m wide and at least 1.4m long), oriented southwest-northeast, it ran southwestwards out of the excavation area. It was constructed of large limestone slabs (0.18m x 0.2m to 0.27m x 0.44m in size) laid flat, four wide. There was only evidence for a single course, although one stone immediately overlay the paving on its western edge. The greater width of this entity compared to the wall foundations of definite structures and the absence of any evidence for a return indicate clear similarities to paving ADR. It is not clear whether a concentration of stones, BCF, located at the northeast end of BCI, and slightly higher within the matrix of BCB, might have been related as some sort of return. Their position in deposits also overlying BCI and their highly irregular and jumbled distribution rendered this unlikely. ADE, the wall of a tholos, rested directly on the edge of ADR (Fig. 10) (*Volume 1*, 32) in such a manner as to indicate the exposed state of ADR on the addition of a stone footing to ADE; if a substantial wall had existed on ADR, it seems unlikely that the whole superstructure could have been removed without trace, exposing the foundations ADR but leaving them undisturbed. It seems more likely that ADR was relatively exposed because of its function. ADR is tangential to ADE and is unlikely to have formed part of a structure integral to it. The precise similarities of ADR and BCI and the peculiar absence of returns to such substantial entities argue for their function as paved tracks; such are inferred at Arpachiyah (Mallowan and Rose 1935, 18-19), although there they are constructed of cobbles laid in clay. The width of the entities is not in itself decisive, even though all clear structures at Kharabeh have much narrower foundations; at Arpachiyah (Mallowan and Rose 1935, 26 and Fig. 13) there are structures with walls as wide as ADR and BCI.

BCL (Fig. 7) was a curvilinear setting of three large limestone uprights, 3.4m east and slightly to the north of BCI. These uprights stood 0.28m-0.44m high and were each 0.44m-0.7m long. Since they leant towards the northwest, they were unlikely to be free-standing and formed a setting (1.6m long) curving round from southwest to northeast. Stone slabs lining a cut (ABZ) (Fig. 10) (*Volume 1*, 32) and stone slabs set up against a *tauf* wall (ADE) (Fig. 10) (*Volume 1*, 30-31) are both known at Kharabeh in Area A. In this instance neither cut nor structural element was detected because of the homogenization of these upper deposits through leaching and bioturbation, which was also the case with ADE and ABZ. These uprights, BCL, could have been part of a substantial entity of either type; the manner in which the stones curved away from the direction in which they leant, might suggest they lined a cut, but their slight displacement could have been responsible for this phenomenon. Clear confirmation of one of these options would be necessary to assess correctly their relative stratigraphic position.

It is possible that the grave BAT belongs to the Late Phase of the Halaf site (indeed certain features shared by the individuals buried in BAL and BAT are suggestive, § 10). It was cut by the Achaemenid period pit BAN, but it was not clear whether it cut or was cut by the Achaemenid period pit ABY. In stratigraphic terms it could just as easily belong to the Achaemenid period (Fig. 5), or to an intervening period. It is therefore described in detail in § 2.5.

#### § 2.4 : Summary of the development of the Halaf site in both Area A and B.

Only the Middle Phase deposits from Areas A and B can be relatively precisely equated. Thus deposits ACG, ADJ and ABN are to be equated with BBC and BCC on the grounds that ABN continued uninterrupted as BBC. ABP underlies ABN and is therefore most likely to be imprecisely equated with BCR/BCO and BBU/BBT/BDB. This is also probably the case for deposits ACI and ADM, although, as the matrix of the Halaf deposits at the beginning of § 2.3 indicates, this cannot be unequivocally demonstrated.

#### *Early Phase (Fig. 4)*

In the area of the site excavated, the only specific activity in the Early Phase that left any record was represented by the cutting of two relatively shallow,

wide pits AAK/AAH and BDD (Fig. 4), the latter just possibly associated with burial rites, and by the presence of what is possibly a disturbed rectilinear structure in the southwest corner of the excavated area. The Early Phase general fills are distinguished from their Middle and Late Phase counterparts by their relative thinness, more mixed character and higher ashy-type occupation content. Early Phase deposits were exposed and partially investigated in just over half of the 250m<sup>2</sup> excavated and natural (DBA) exposed in even less than this. Despite this and the obvious vulnerability of Early Phase deposits to disturbance from later occupation, it is clear that there was a relatively sparse distribution of entities relating to specific activity and little evidence of the structures from which Early Phase general fills must have partly derived.

#### *Middle Phase (Fig. 9)*

Constructed immediately on BBT, tholos BAB (Fig. 9), the thin rectangular structure BBR/BDC, with the oven BDA built against the base of the external face of its southern wall, in association with the exterior burnt surface of BBT, form a distinct, tightly defined building phase (Fig. 9). Possibly contemporary with this complex, because it was constructed immediately upon the surface of ABP and over AAK/AAH, was the well-preserved E-shaped structure ABQ (Fig. 9), founded at the same absolute level as BBR/BDC and oriented at right angles to it. It cannot be conclusively demonstrated that ABQ belongs to the same phase as this complex in Area B because it was only sealed by ABG, which may be later than ABN. Sealed by ACG and ADJ, the general fills equivalent to ABN further north, were two oven bases, ACN and ADM, cut down slightly from the same approximate level upon which ABQ and BBR/BDC were founded. It may be that BCV, another oven base, was constructed at the same time as BAB was in use (Fig. 9.)

It is possible that BBR/BDC is linked to a larger structure, possibly a habitation, outwith the excavation area. It could be part of a larger storage complex as at Yarim Tepe II (Merpert and Munchaev 1987, Fig. 10), a narrow ancillary room within a larger habitation unit, tholos or other, as at Yarim Tepe II again (Merpert and Munchaev 1973a, 110 and Merpert and Munchaev 1987, 25) or a particularly narrow dromos for a tholos. Whatever its precise overall configuration it is most likely BBR/BDC itself fulfilled a storage function. ABQ, however enclosed on its western edge, as

another narrow and cellular entity, is most likely to have fulfilled a storage purpose. There is only one specific structural parallel for ABQ and that is in level VI at Yarim Tepe II (Merpert and Munchaev 1973b, Pl. IX, 2, Structure 201), although there constructed in *tauf*. BAB is relatively small compared to the two other probable habitations on the site and at the lowest end of the size range for what are considered domestic/non-storage structures on other Halaf sites; but at Yarim Tepe structures of similar size occur in some numbers and are grouped by the excavators with more obvious habitations (Merpert and Munchaev 1973a, 110-111). Alternatively BAB could be considered a large storage structure as at Sabi Abyad (Akkermans 1987, 26-27).

Probably somewhat later in the formation of Middle Phase deposits was the cutting and filling of the relatively extensive scoop BBQ/BBV (Fig. 9). It is not clear whether any of the Middle Phase structures may have been in use. A post-hole BBZ (Fig. 9) indicates probable Middle Phase activity post-dating BBR, as perhaps does the pit AAO. It was probably also in the Middle Phase that the burial BAL/BCZ took place (Fig. 9).

An unusual aspect to the organization of this area of the settlement in this phase, is the high proportion of entities that may represent storage and processing activities (ovens), especially in relation to what may be, in terms of size, a relatively low order habitation entity (BAB), if one at all (§ 12). Thus the ratio of ovens to possible habitations is at least 2:1, possibly higher and three of those ovens are not immediately juxtaposed with structures. A similar pattern may occur at Arpachiyah; a relatively dense distribution of oven bases is implied (Mallowan and Rose 1935, Figs 3 and 4).

#### *Late Phase (Fig. 10)*

This phase is the most likely to encompass a series of developments rather than representing one single building phase. The closest to a coherent set of clearly contemporary entities is represented in Area A by tholos ADE, the remnant part of a rectilinear structure ACD and the linear stone pavement ADR (Fig. 10). All three of these entities sit on the same deposit, although strictly speaking, the actual laying of ADR must precede the placing of ADE, which rested on the very edge of ADR. This, however, does not mean that the tholos, of which ADE was part, came into use after ADR had fallen out of use; we may be dealing with a purely

constructional development not an occupational progression.

There may be reasons for regarding ADR as complete in itself (*Volume I*, 32) (§ 2.3). It seemed unlikely to be a wall footing because of its width (on the basis of the width of other walls on the site), taken in conjunction with its neat termination, the absence of any evidence for any sort of return and no sign of the preservation of any superstructure or hint of a second course of stones, such as is present in the case of other Halaf walls on the site. Exceptional width in itself is not enough to preclude the possibility that it represents a wall footing, there are walls of buildings as wide as this at Arpachiyah (Mallowan and Rose 1935, 26 and Fig. 13). The width of what are clearly the walls of structures at Kharabeh, are 0.22m-0.44m. The one other entity wider than ADR, BCI, shares exactly the same features as ADR. In both cases the weight of the limited evidence (§ 2.3) supports the interpretation of these elements as 'pavings' or track-like features. These may then parallel the elements so reported at Arpachiyah, although constructed slightly differently (Mallowan and Rose 1935, 18-19). The kerb around the eastern edge of ADE (Fig. 10), if not a bench whose decayed edges remained unrecognized, may indicate the structure continued in use during the accumulation of c. 0.2m of external deposit. A slight 'tail' to this kerb, swinging to the south (Fig. 10), suggests it was not part of an undetected bench.

Probably also contemporary with the foundation of the structure ADE was the oven base ABO (Fig. 10) and the stone lined pit ABW/ABZ (Fig. 10).

6m to 7m southwest of ADE were the foundations of a second major structure, BBE, probably another tholos. This structure was possibly contemporary with some phase in the life of ADE, founded as it was on an extension of the same set of deposits. There is, however, no evidence whether they were constructed contemporaneously. Within Area B it seems likely that BBE, BBL (probably another E-shaped storage structure) and BBI (Fig. 10), a small cairn, were contemporary as they were founded at about the same absolute height, within a short distance of each other, upon a similar deposit.

The rectangular length of paving BCI (Fig. 10), also belonged to this Late Phase, but was impossible to relate more precisely than in the general terms outlined already. Its width, lack of returns

and similarity to ADR clearly assign it a comparable function, probably a paved 'track'. The setting of uprights BCL, if set against a structure, might be broadly contemporary with BCI, but, if lining a cut, would almost certainly be later.

The Late Phase seems to represent a wider series of developments than the two previous phases. This presents us with a configuration of buildings closer in layout to the domestic areas of a conventional settlement compared to the Early and Middle Phases (§ 12), with two sizeable structures, probably habitations, each with possibly associated storage entities ABZ and BBL. ACD may also have been part of a habitation.

### § 2.5: Grave BAT (Figs 11 and 12)

We were unable to assign one feature in particular (see § 1) to either the Halaf or Achaemenid period specifically (§ 2.3). It could even belong to an intervening period, not actually represented by an occupation of the site, at least one apparent in terms of any surviving material culture.

As several successions of Achaemenid period cuts indicate (§ 2.6 and 2.7), the fact that BAN cuts the built grave BAT, does not preclude the grave from being of the Achaemenid period, as Fig. 5 also demonstrates. BAT was the stone and *tauf* coffin for the burial of an adult female (§ 10). A stone wall, at least three courses high, two stones wide with a *tauf* face (Fig. 5), lined a cut through the lower part of BBC. It ran for 1m northwest-southeast within the excavation area; at its north-western extremity it was bonded into a *tauf* return lining a cut running at right angles to the northeast (Fig. 11). The cut of BAN seems to have removed the northern edge of the grave, thereby obscuring the character of the north side of the coffin. A large flat limestone capstone rested *in situ* over the northwest end of the burial chamber, its long edge resting on the short *tauf* return and its southern end set into the stone wall (Fig. 11). A second capstone had been disturbed by BAN and wedged into the northwest side of the cut of BAN to stop the loose, ashy fill, BBY, of the burial chamber from spilling into the pit BAN. BBY the loose, light grey, ashy fill of the chamber contained the incomplete, disarticulated skeletal elements of an adult female (§ 10) (Fig. 12). It is not clear to what extent the cutting of BAN had involved the disturbance of this inhumation. It is possible that the order of the bones in BBY result from the sweeping, or pushing, of the remains into the northwest

end of the chamber when BAN was cut and the capstone wedged over the opening to the grave. The skull lay on its right side facing south (Fig. 12). A number of long bones lay both to the north of, and under, the skull; the skull overlay other long bones. It is also possible that the original interment was disarticulated.

### § 2.6: Achaemenid Period Occupation (Fig. 11)

To facilitate the presentation and understanding of the evidence relating to the latest phase of occupation on the site, which must be dated to the Achaemenid period (§ 5.5 and § 6), the evidence from the whole site is first summarised.

The ground surface(s) of the site of this period are not preserved and where the evidence was clear pits could be detected cutting from close to the present ground surface, e.g. BAA where the cut was picked up, if not clearly defined, from the base of the plough soil. The upper stone fill, BBD, of pit BAM was preserved at the base of the plough soil. Elsewhere the depth of the plough zone, bioturbation and other factors contributing to the homogenization of the deposit meant that pit cuts were not identified until at least the upper 0.4m of deposit had been removed and sometimes the base of BBC/BCC had been reached. The point at which the pits were detected in no way reflects the point from which they were probably cut; the depth of all pits as excavated must be considered a basic minimum. It is possible that a ground surface of this period lay in the upper 0.3m of the homogenized deposit; there were no clear structural remains, however. It is most likely that we have preserved only the sub-surface aspects of the Achaemenid period site and that almost all related surface occupation deposit has been eroded.

There are some suggestions of temporal developments. Three pits are cut by others. Two are in the eastern part of Areas A and B. At the eastern edge of Area B, BAE is cut by BAD (Figs 5 and 11). At the eastern edge of Areas A and B, BAN cuts ABY (Fig. 5). It is unclear whether ABV cuts ABH/ABY or *vice versa* (contra the suggestion in *Volume 1*, 25) (Figs 5 and 11). ABI (filled with ABI) is cut by ABT (Fig. 11). Most of the pits had a repetitive sequence of distinctive and similar fills. These three entities cut by later pits had different fills. Thus ABH (Fig. 5) the single preserved fill of ABY was a mixed, 'greasy', dark grey deposit with a few fragments of mud brick. The upper fill of BAE

was a relatively homogeneous, orange brown, silty, clay overlying BCQ, its ashier primary fill. ABI, fill of ABI, was a loose, homogeneous, soft, light brown deposit, unlike any other pit fills. It may also be significant that all three Achaemenid period entities cut by later features were probably shallower than the pits that cut them. This may contribute to the suggestion that the later pits are part of a broad phase characterised by a different sort of activity in this area than that characterising the area when these three pits were cut.

All other Achaemenid period pits were scattered over the excavated area with no intercutting (Fig. 11) and can be divided into three groups with similar sequences of fills. This led us to believe that they represent one broad phase of activity in this area of the site. The distinctiveness of the fills of ABI, ABY and BAE, all the earlier of their sets of cuts, suggest this phase with its many pits was not the earliest in the Achaemenid on this part of the site, although it may not necessarily have been preceded by a long occupation.

The pits of the first group were relatively large and deep, with unrestricted necks or upper parts to their cuts. They all penetrated into or through DBA. There are three such pits BAA, ABV and ACH (Fig. 11). These all evidenced the same sequence of similar fills; the primary fill consisted of a relatively thin deposit of brown, silty material including deposit derived from the weathered sides of the pits. The secondary fills were a very distinctive, thicker, heavily weathered, homogeneous, powdery and gritty, grey-green deposit with many tiny white veins suggesting the presence of decayed rootlets. The staining of the sides of the pits in the area occupied by these secondary fills support the view that chemical processes, initiated by the exposure of such fills to weathering, may have contributed to their peculiar character. The surface of these secondary fills was very compacted. This combined evidence suggests that these are classic gleyed deposits resulting from the presence of standing water and organic matter in the base of the pits. Presumably at this stage in their lives the pits stood open as rubbish pits. The upper fills of these three features consisted of relatively thick, heterogeneous deposits with heavy concentrations of derived structural debris – mud brick, mortar, and stone, contained in a matrix displaying distinct tip or fill lines, unlike preceding fills.

The pits of the second group were bell-shaped or cylindrical with flat bottoms and narrow diameter necks (average 0.9-1.7m) relative to the first

group. They do not cut as deep as the first group, only penetrating the upper part of DBA. There is also a distinct sequence of fills in this group, repeated from pit to pit, but including some variation in the character of the primary fills. Primary fills form a limited proportion of the overall pit fill and include two instances where this primary fill is very similar to the first group of pits secondary fill, that is gleyed deposits; occasionally they consist of brown silts like the first group's primary fill, but as frequently a similar depth of ashy and burnt deposit. Secondary deposits, minimum 75-80% of the fill, as preserved, are related to the tertiary fill in the first group; that is derived structural debris. This group includes features BAC, BAD, BAG, BAN, BAP, BAR, ABX, ABT, (Fig. 11) and the cylindrical pit revealed when cutting back the east section of Area A (Fig. 5).

The third group BAM, BAO and BAQ (Fig. 11) includes other types which, although not precisely related to each other, share some features. BAQ did not cut as deep as other Achaemenid pits but its most distinctive feature was the fact that its 0.45m of primary fill consisted of mixed occupation-like material, with high numbers of *tanour* wall fragments and numbers of large round fire-cracked wadi cobbles. It seemed likely that this fill derived in part from one, or a set of, related activities. No secondary fill was preserved, but this does not mean one never existed, nor does it preclude the possibility that it was the usual, recurrent structural debris. BAO was a relatively wide-necked, oval feature, with a peculiar scoop in the southwest end of its base. A single fill only was preserved in this feature, similar to the tertiary fills of the first group and secondary fills of the second group. This consisted of the usual heterogeneous structural debris; the usual primary fills were lacking. BAM was also distinguished because of a peculiar feature at its base. Its upper part consisted of a deep, relatively vertical, oval cut little different from cylindrical pits in the second group. However, a stone slab was set at the west edge of the base of this cut sealing the top of a constricted-necked, narrow, deep shaft whose base was not reached. This shaft undercut the edge of BAM just above the slab. Like BAO a single fill of conventional structural debris filled the preserved upper part of this cut. The shaft was filled with very fine, homogeneous, grey-green silts, distinct from any of the other fills recorded in these Achaemenid period pits.

Most other features, not listed above, seemed to conform closely with the second group of pits; however, they have not been so grouped because the upper part of their cuts were too poorly defined, or too limited a proportion of their fill distinguished, to make judgements about similarities or differences between them and other features.

There follows a list of the Achaemenid period features excavated in 1984 (those of 1983 are fully reported in *Volume 1*), giving details of dimensions, morphology, sequence and type of fill. Fills are listed from earliest to latest. Dimensions are for the upper parts of the pit shaft where first securely traced. All depths must be taken as a bare minimum for that of the original feature.

**BAA (Fig. 8)**

Location: 205 280

Dimensions: Plan 1.9m NW-SE x 1.5m NE-SW

Depth 1.6m

Shape in Plan: Oval

Shape in Section: Bell-shaped

Fills:

**BCM** Heterogeneous, nodular brown clay-like deposit, apparently derived from the weathering of pit edges i.e. of deposit DBA and underlying Proto-Hassuna deposits, mixed with silty grey-green material related to overlying BCJ. The surface of this deposit was compacted. The pit possibly stood open with a slight interruption to weathering and filling processes at this stage. Depth 0.41m.

**BCJ** Heterogeneous, gritty, predominantly grey-green deposit with occasional mud brick fragments and light yellow lenses. Indications of much leaching. Complete articulated dog skeleton located in upper part of the deposit (§ 9). Depth 0.22m.

**BCH** Heterogeneous, loose structural debris – mud brick and mortar with some occupation-like admixture. Depth 0.22m.

**BCG** The same deposit as BCH but excavated during the definition of edge of BAA. Depth 0.15m.

**BAC (Fig. 8)**

Location: 200 280

Dimensions: Diam. 1.15m.

Depth 0.4m.

Shape in Plan: Circular.

Shape in Section: Vertical-sided.

Fills:

**BCP** Heterogeneous, loose, light grey-brown silt with fragments of mud brick. Depth 0.15m.

**BAD (Fig. 8)**

Location: 205 280

Dimensions: Plan 1.15m N-S x min. 0.65m E-W.

Depth 0.94m.

Shape in Plan: Circular/oval.

Shape in Section: Bell-shaped.

Fills:

**BCK** Heterogeneous mixture of ashy silt (forming bulk of basal part of fill), mud brick and stone. Presumably derived occupation and structural debris. Depth 0.8m.

**BAE (Fig. 8)**

Location: 205 280

Dimensions: Plan min. 0.6m N-S x min. 0.8m E-W.

Depth 0.45m.

Shape in Plan: Oval/circular.

Shape in Section: Inward sloping sides.

Fills:

**BCQ** This comprises two different deposits, the lower ashy silt 0.26m deep and an upper homogeneous, compact, brown, silty clay, depth 0.14m. Depth 0.4m.

**BAG (Fig. 8)**

Location: 205 280

Dimensions: Plan 1.22m N-S.

Depth 1.15m.

Shape in Plan: Circular/oval.

Shape in Section: Cylindrical.

Fill:

**BCS** Heterogeneous, loose, ashy, mixed with more compact clayey material, this latter derived from mud brick fragments and weathering of pit sides i.e. DBA. Depth 1.15m.

**BAH (Fig. 8)**

Location: 205 280

Dimensions: Plan ?

Depth 2.86m.

Shape in Plan: ?

Shape in Section: Bell-shaped.

Fill

**BCY** Homogeneous, compact, ashy silt. Depth 0.32m.

**BCT** Composed of two deposits, the lower was a heterogeneous, loose, nodular, brown clay mixed with loose, ashy silt, the former from the weathering of DBA on the pit sides, 0.66m deep. The upper part was a compact ashy silt 0.26m deep.

**BAI (Fig. 8)**

Location: 205 280

Dimensions: Plan 1.2m N-S x 0.84m E-W.

Depth 0.48m.

Shape in Plan: Sub-oval.

Shape in Section: Sloping sides at base.

Fill:

**BCU** Grey, ashy silt with clayey inclusions and stone, possibly building material. Depth 0.48m.

**BAJ (Fig. 8)**

Location: 205 285

Dimensions: Diam. 1.05m.

Depth 0.31m.

Shape in Plan: Sub-circular.

Shape in Section: Vertical-sided.

Fill:

BBS Grey brown, loamy silt. Depth 0.31m.

**BAK** (Fig. 8)

Location: 205 280

Dimensions: Plan 1.2m N-S x 1m E-W.

Depth 0.2m.

Shape in Plan: Oval.

Shape in Section: ?

Fill:

BCX Grey, loose, ashy silt with pebbles. Depth 0.2m.

Note: Not necessarily Achaemenid period.

**BAM** (Fig. 8)

Location: 195 285

Dimensions: Plan 1.34m N-S x 1.18m E-W.

Depth 2m.

Shape in Plan: Oval.

Shape in Section: Cylindrical pit with constricted-necked shaft cut down from its base.

Fill:

BBD Fill of upper part of pit; heterogeneous, ashy occupation-like material mixed with structural debris, that is mud brick and mortar, the upper part of this structural debris consisting of a dense concentration of stone rubble. The lower part of this upper pit fill had higher concentrations of the occupation-like material with *tanour* wall. Depth 1.04m. The fill of the lower shaft was a homogeneous grey-green silt with artefacts. Probably a product of silting rather than dump. Depth 0.94m.

**BAN** (Fig. 8)

Location: 205 285

Dimensions: Plan 1.34m N-S.

Depth: 1.3m.

Shape in Plan: Oval/circular.

Shape in Section: Bell-shaped.

Fill:

BBG Two sets of deposits, the lower consisted of various light grey, ashy silt bands, 0.68m deep. The upper was heterogeneous mud brick debris, 0.5m deep.

**BAO** (Fig. 8)

Location: 200 285

Dimensions: Plan 1.8m NE-SW x 1.4m NW-SE.

Depth 0.71m.

Shape in Plan: Sub-oval.

Shape in Section: Inwardly/irregularly sloping sides.

Fill:

BBH Heterogeneous structural debris – mud brick and mortar. Depth 0.71m.

**BAP** (Fig. 8)

Location: 205 285

Dimensions: Plan 1.7m E-W x 1.4m N-S.

Depth 1.62m.

Shape in Plan: Oval.

Shape in Section: Cylindrical.

Fill:

BBJ Heterogeneous structural debris, mud brick and mortar with upper part notable for concentration of large stone slabs (like BBD). There was an articulated human limb at the base of the fill on the floor of the pit. Depth 1.62m.

**BAQ** (Fig. 8)

Location: 195 285

Dimensions: Plan 1.14m E-W x 1.08m N-S.

Depth 0.45m.

Shape in Plan: Sub-circular.

Shape in Section: Cylindrical.

Fill:

BBN Heterogeneous, soft, loose, ashy deposit with occasional fragments of mud brick, quantities of *tanour* wall and fire-cracked cobbles. Depth 0.45m.

**BAR**

Location: 200 285

Dimensions: Plan 1.3m N-S x 1m E-W.

Depth 0.2m.

Shape in Plan: Oval.

Shape in Section: ?

Fill:

BBO Compact ashy lenses mixed with brown loam. Depth 0.2m.

**BAX** (Fig. 8)

Location: 200 285

Dimensions: Plan 1.1m NE-SW x 0.9m NW-SE.

Depth 0.2m.

Shape in Plan: Sub-oval.

Shape in Section: Slightly belled.

Fill:

BBX Heterogeneous, loose, ashy deposit and structural debris including many complete mud bricks. Depth 0.2m.

**BAY** (Fig. 8)

Location: 195 285

Dimensions: Plan 0.86m NW-SE x 0.78m NE-SW.

Depth ?

Shape in Plan: Sub-circular.

Shape in Section: ?

Fill:

BDE Homogeneous ashy matrix containing burnt bricks and clay objects, possibly 'hearth furniture'.

Notes: Probably Achaemenid period.

## Achaemenid period pits in Volume 1.

For convenience of reference in relation to the use of the section on the Achaemenid period pottery a list of the pits excavated in the 1983 season (*Volume 1*, 23-27), with their associated fills, is here appended.

AAM: AAL, and AAF.

AAN: AAD

ABI: ABI

ABT: ABS, and ABF

ABX: ABR, and ABJ

ABY: ABH

ABV: ABU, ABK, and ABE

ADP: ADD

ADQ: ADG

ACH: ACN, ACK, ACQ, ACP, ACJ, and ACF

### *Corrections to published details of Achaemenid period pits in Volume 1.*

- 1) ABY is inaccurately used to label Halaf pit ABZ *Volume 1*, Plan 2, but is correctly ascribed on Plan 1 (where, however, ABZ is incorrectly assigned – see following note) and Plan 4.
- 2) ABZ was not an Achaemenid period pit as suggested in *Volume 1*, Section 5.6 (P. 25) but the stone lined cut just south of tholos ADE. The feature described in *Volume 1*, Section 5.6 was not assigned a context code separate from that of its only fill, ABI. ABI is therefore incorrectly labelled as ABZ in Plan 1, *Volume 1*.

## § 2.7: Achaemenid Period Summary

There is evidence for some stratigraphic development in the history of the Achaemenid period site. This consists of the cutting of three pits by later features, of the same broad period of occupation. The fills of these three earlier features seem to lack the structural debris characteristic of the upper fills of all other pits (well enough preserved to be indicative). This, taken with the fact that only these three have been impinged upon by later activity, may suggest that they represent an earlier phase than several of the other pits, although not necessarily all. The similarity in the sequence of fills, indeed of individual fills themselves (§ 2.6) and the fact that these other pits did not intercut, suggests they were broadly contemporary, if not necessarily cut simultaneously. In fact the specific similarity in preserved final fills, always closely related structural debris (§ 2.6), suggested a similar

process marked a close to their lives and thus, that at one stage, this part of the site was probably pocked with such partly open or functioning features.

The fills, as their character indicates, are not likely to suggest the initial function of these features. Morphological factors are more suggestive. Clearly a pit with a shaft such as BAM must have served a very particular function. The upper part of its cut cannot, however, be distinguished from the largest, second group of more conventional cuts, distinguished above on the grounds of their cylindrical or bell-shaped profiles (§ 2.6) (Fig. 12). Such morphological similarities may mean little. However, with their relatively constricted openings it might be possible to interpret some at least as storage pits. Interpretations of the significance of the fills would not contradict this. Little evidence for weathering or periods of exposure of primary fills were noted. Primary deposits are relatively shallow and appear to represent silting with an occupation-like admixture. This could accord with periods of silting and limited dumping during, between, and following periods of use/reuse; this could then quite logically have been followed by relatively rapid accumulation of structural debris, presumably deliberate dumping or collapse from adjacent structural entities when the features were no longer required for their original function(s). If most of this group fulfilled a contemporary storage role, storage capacity in this limited area would have been relatively large.

The other major group of pits (the first distinguished in § 2.6) had unrestricted necks (and considerably greater volumes) than this preceding group. They, therefore, seem less likely to be associated with a similar storage role. Their life cycles also seem slightly different. They evidence considerable weathering, presumably as they stood open. This is also witnessed by primary fills containing collapse from their sides. Further a substantial part of their fill is composed of the peculiar grey-green, friable gleyed deposit common to this group, although it occurred also in ABX and ABT as a primary fill. Its character and the associated coating of the pit edges, suggest a substantial rubbish accumulation subject to much leaching and weathering as they stood open. The very compact surface of these particular deposits further suggest that the pits may have stood open for a significant interval at this stage in their life cycle. This view may be supported by the manner in which a hearth, ACP, was cut from near the surface



of such a deposit in pit ACH (*Volume 1*, Plan 4). This hearth apparently saw several short term reuses. The dumping (not burial) of an articulated dog at the top of such a deposit BCJ, in BAA, also suggests that this feature stood open for rubbish deposition at this stage. The final fills of this group of features match the final fills of the other pits, except ABH/ABY, ABI and BAE, in consisting of structural debris. Their differing early histories, along with their morphology, may indicate different initial functions from the other main group, although the precise character of their role cannot be inferred from these data alone.

If, as the consistent recurrence of similar final fills and lack of intercutting amongst these examples may indicate, by the end of this phase in the life of the Achaemenid period site in this area, these features stood open together, then there would have been little room for conventional-sized domestic (or larger) structures in much of the area. This area of the settlement may have had a specialised aspect. If our inferences about the function of the largest group of pits is correct this would mainly have been one of storage. Of course, a shifting pattern of opening and closure of the features, with the repeated final filling of structural debris representing a convenient mode of levelling, might allow the presence of structures in this area contemporary with some of the features. We do, at least, know that such a concentration, or the recurrence, of such features was not typical of every part of sites of the broad post-Assyrian period in the neighbourhood, from the evidence of Khirbet Qasrij (Curtis *et al.* 1989), just under 1.5km to the north of Kharabeh Shattani (Fig. 1c). We also know that at some sites of a broadly contemporary period, albeit in different geographical settings, such as Tell ed-Mazar (Yassine 1988, 78-79) there were dense concentrations of what were clearly storage pits in certain areas of the site; some were brick-lined silos, others without brick linings were of exactly the same size and shape.

A number of putative storage pits belonging to the Hellenistic period at nearby Tell Mohammed

'Arab (Fig. 1c) (Roaf 1984, 144) had constricted necks of similar diameters to those at Kharabeh, but with a more pronounced bell-shaped profile their basal diameters were considerably larger (Curtis *et al.* 1989, 10). Curtis *et al.* (1989, 10) also mentions a group of Hellenistic 'grain silos' from the site of Grai Darki in the Sadam Dam area (Fig. 1b). The Late Assyrian site of Qasrij cliff (1.5km approximately to the north of Kharabeh Shattani) (Fig. 1c) consists of a large pit, considerably larger than the Kharabeh Shattani examples, for which a storage function is also inferred (Curtis *et al.* 1989, 10). Potential storage entities were clearly a common and important component of several first millennium BC sites in this area of north Iraq.

That settlement was located close to the features, at some points in the life cycle of the site, is suggested by the wide variety of finds recovered from the different fills. These included spindle whorls, grinding equipment, and metal artefacts, specifically ornamental pieces, 'domestic' – possibly agricultural – tools, weapons, and possibly horse trappings (§ 7, 8 and 12). There are two alternative sources for the derived mud brick characteristic of the upper fills of the pits; they may have derived from superstructures covering the pits. This is a plausible alternative if we envisage the function of these pits as related to storage. The broadly contemporary pits at Tell ed-Mazar had such superstructures (Yassine 1988, 78-79). The concentrations of large limestone slabs in the upper fills of some pits, BBD, BBJ and BCK, in appropriate reverse stratigraphic position, seem likely to represent foundations too substantial to belong merely to superstructures for the pits. On the whole it seems more likely this structural debris derives from more conventional structures. We still cannot necessarily assume that the site was a conventional village settlement, although 'statistically' one supposes this is the most likely role for any relatively small site of any particular period.

Blank

# KHARABEH SHATTANI

## Hassuna Soundings

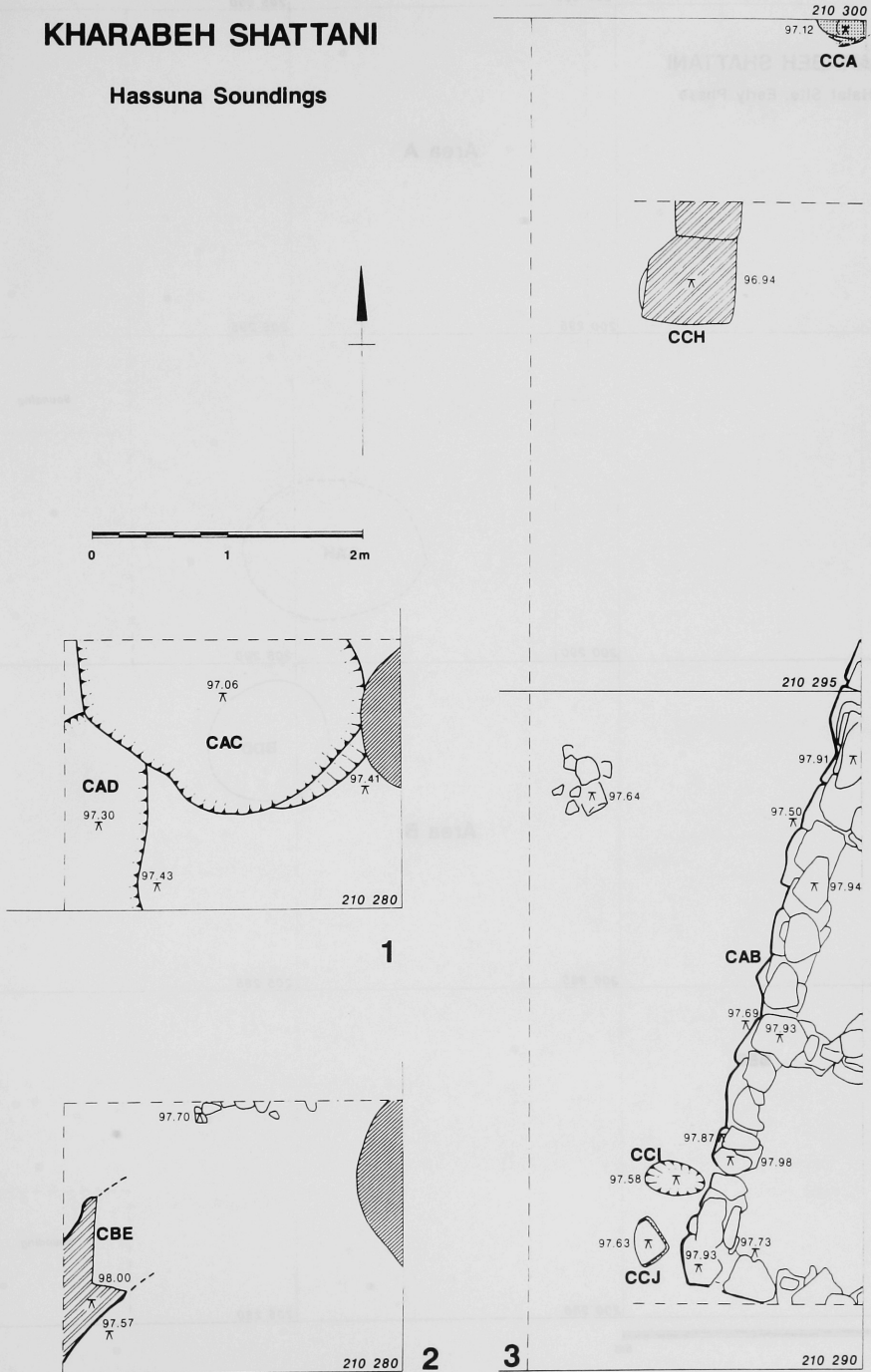
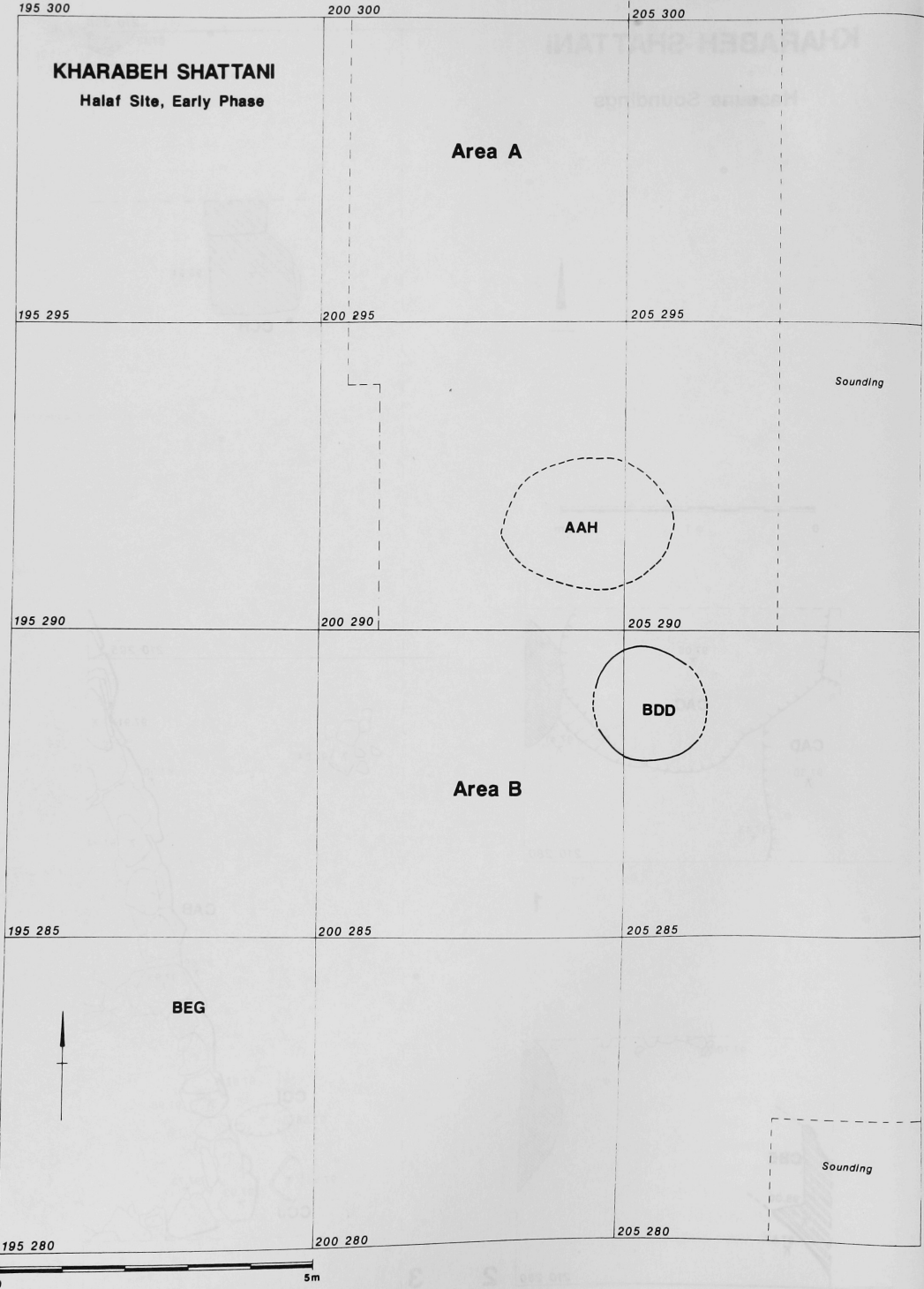
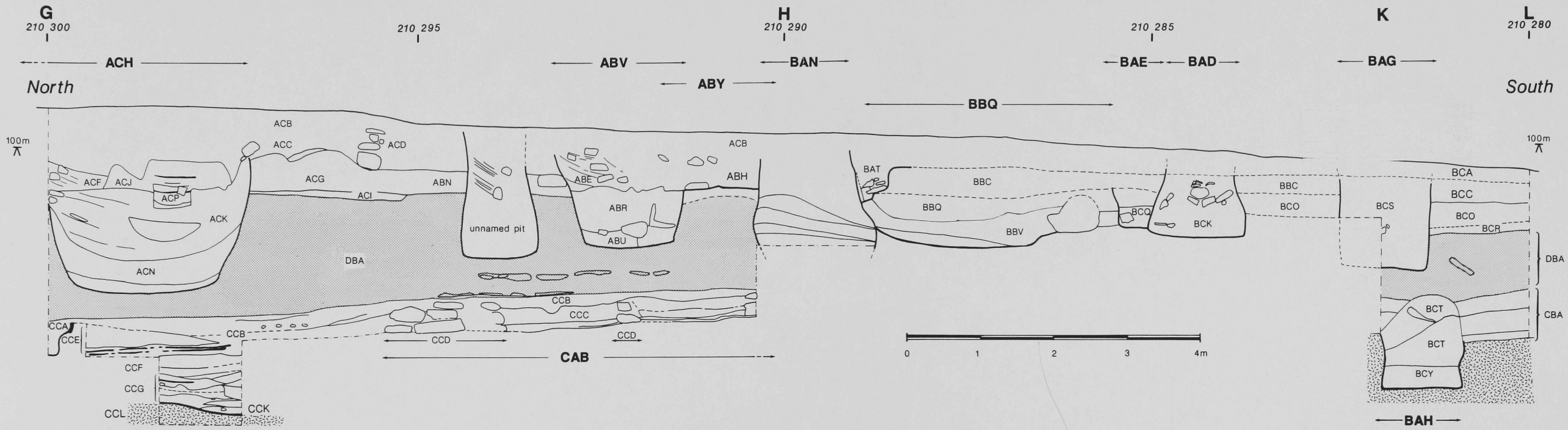


Fig. 3 Plans of Proto-Hassuna period levels



*Fig. 4 Plan of Areas A and B, the Halaf site in its Early Phase, with the location of soundings into the Proto-Hassuna deposits*

# Section G-H-K-L



# Section K-L-M-N

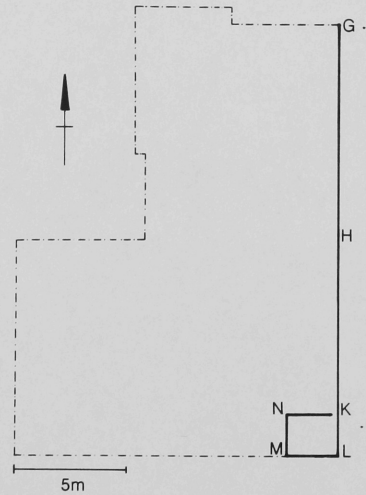
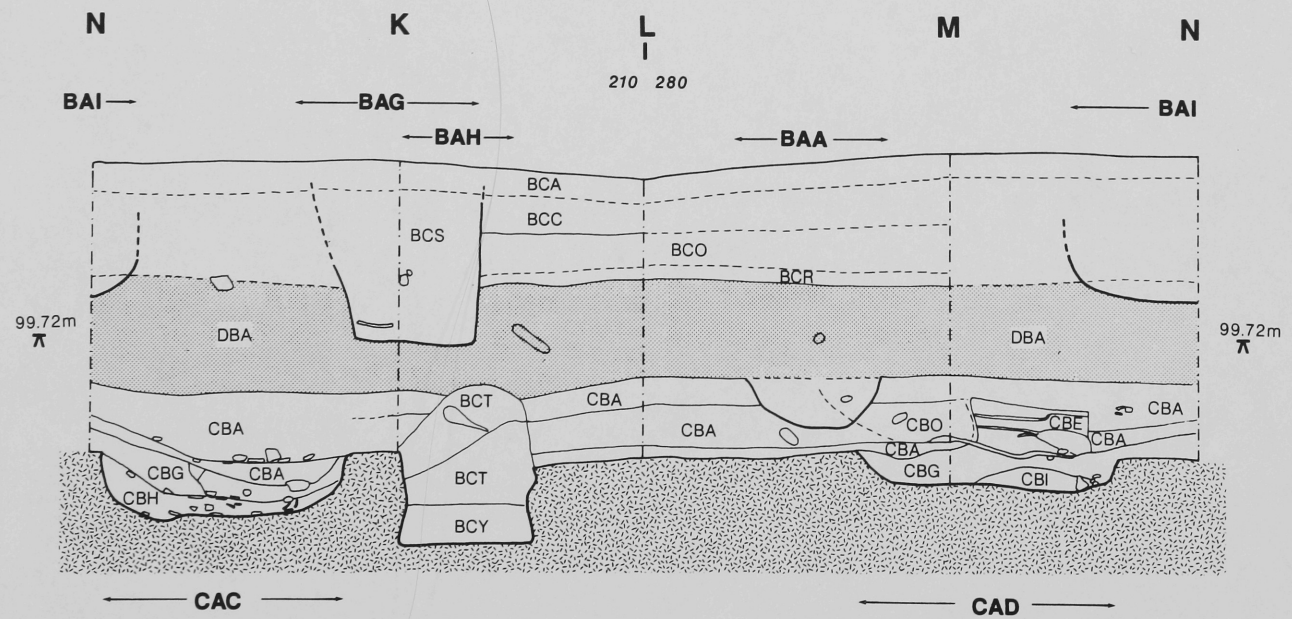


Fig. 5 Major North-South section



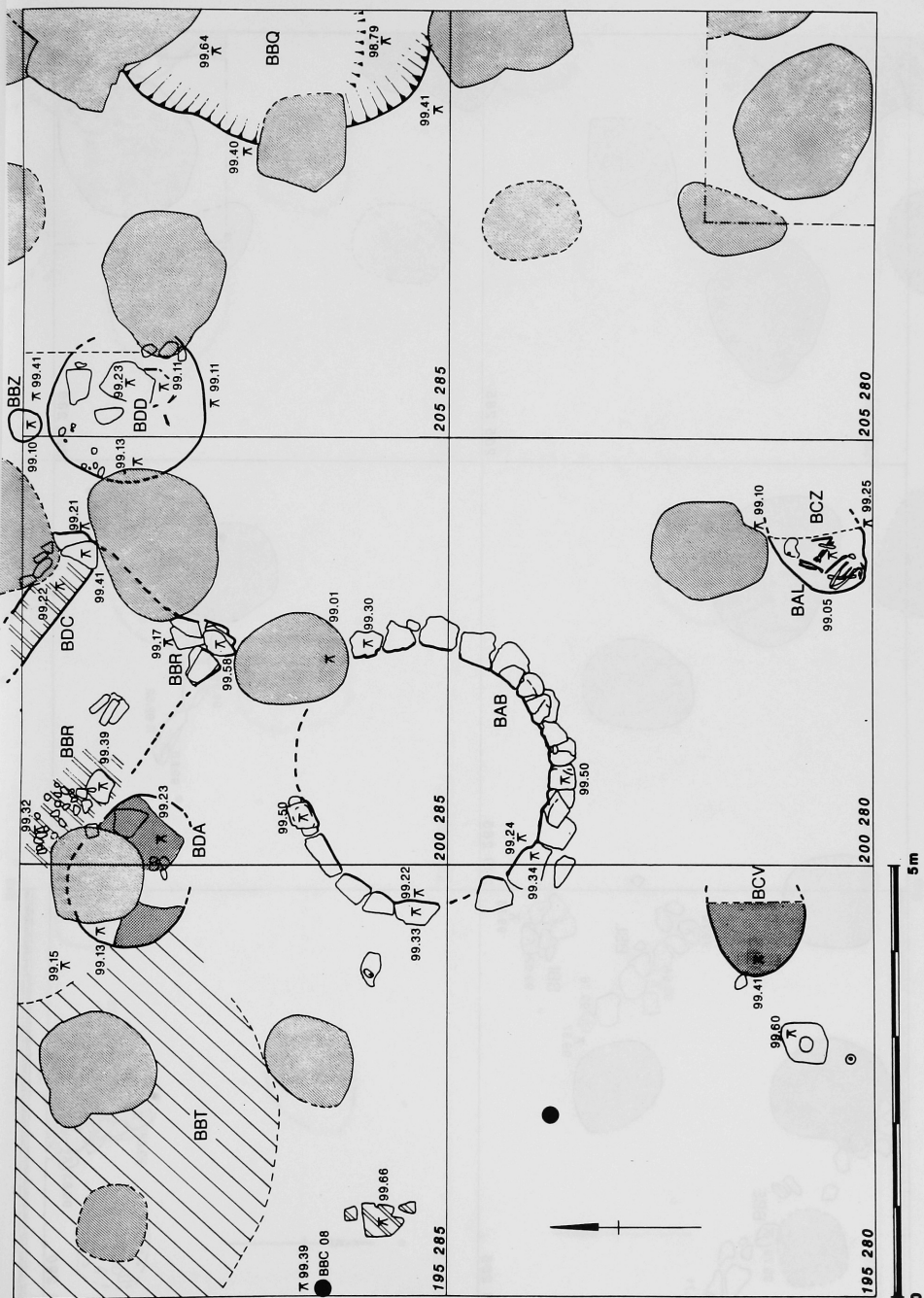
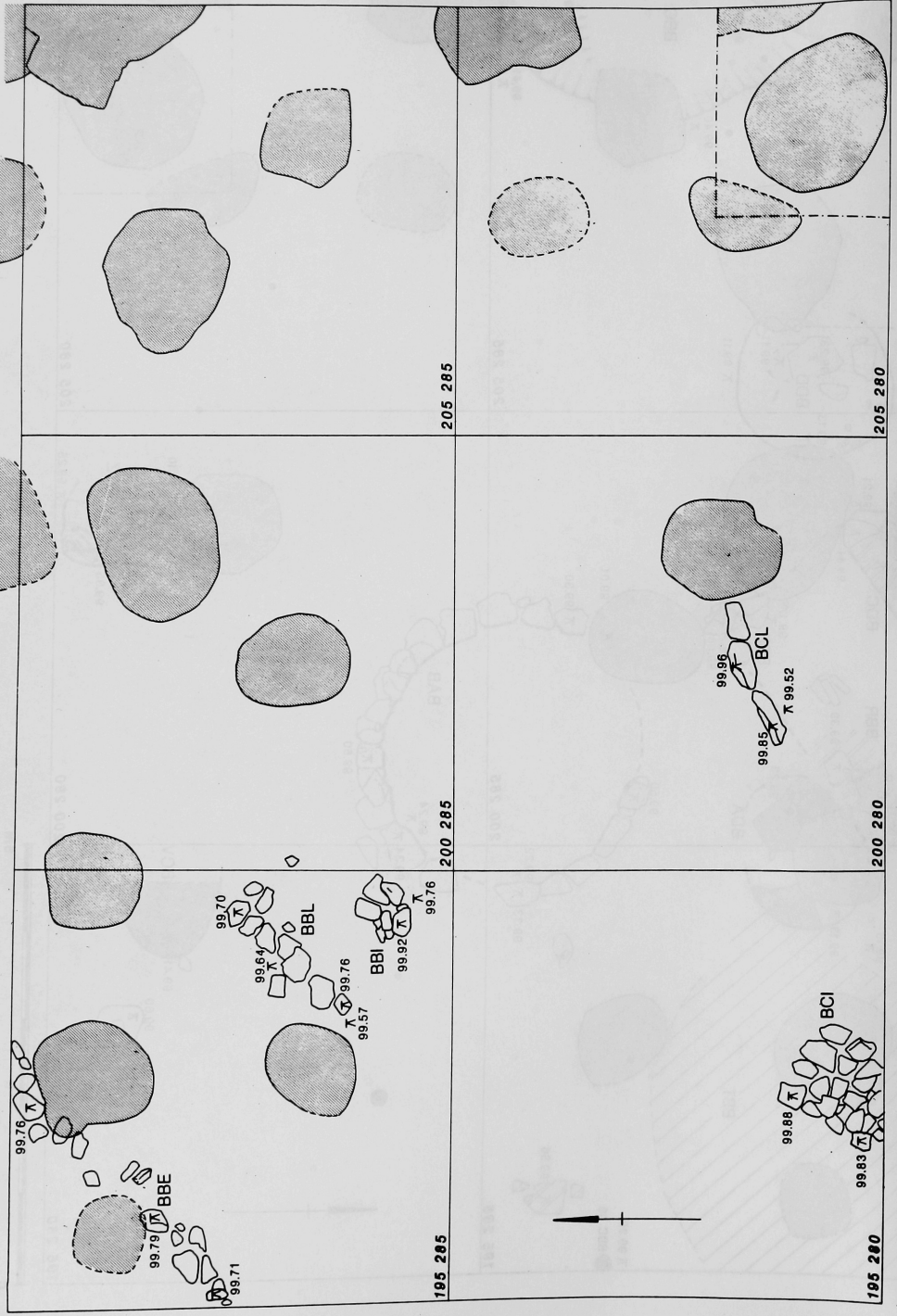


Fig. 6 Plan of Area B (1984 excavations), the Halaf site in its Early and Middle Phases





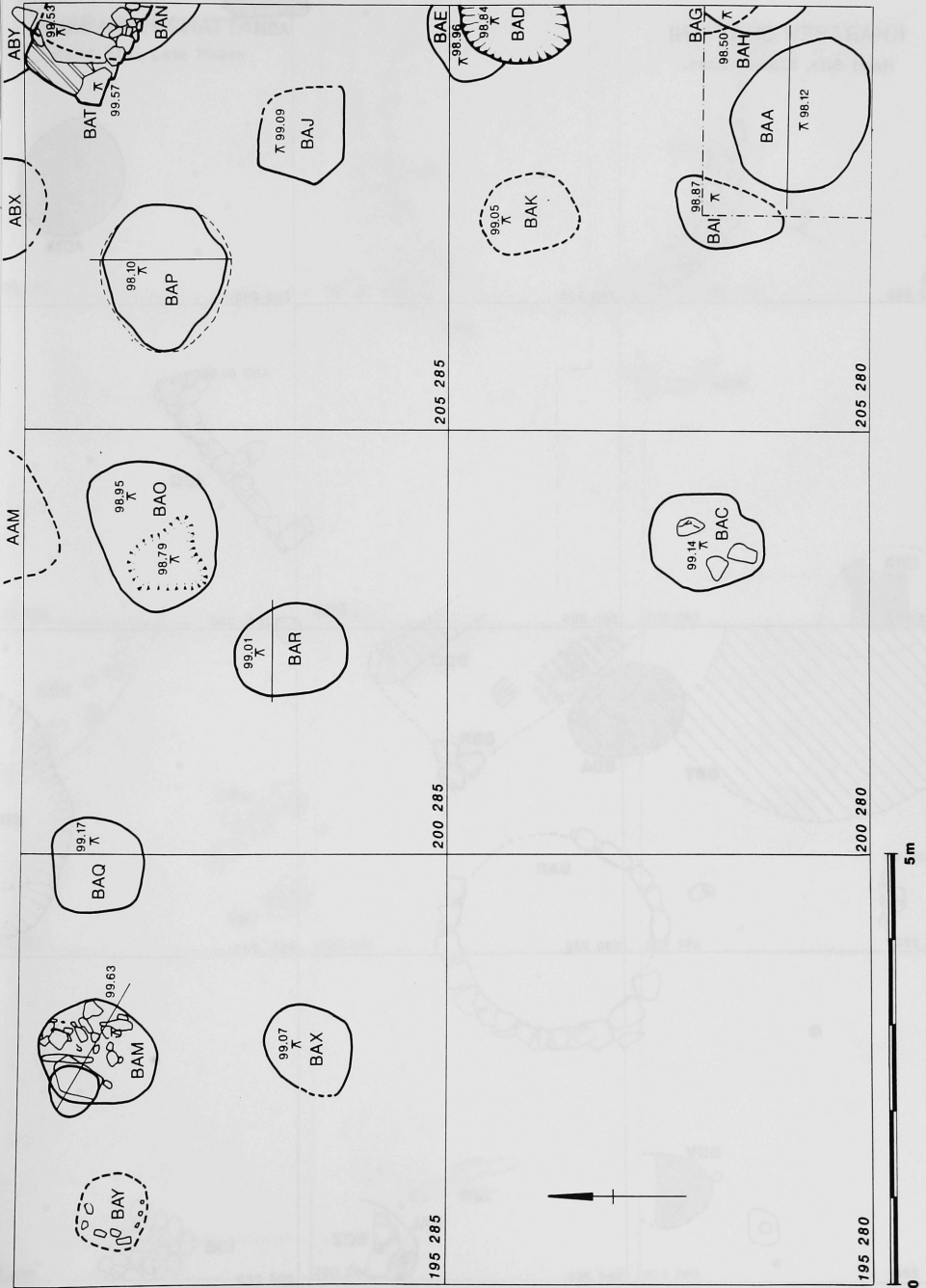
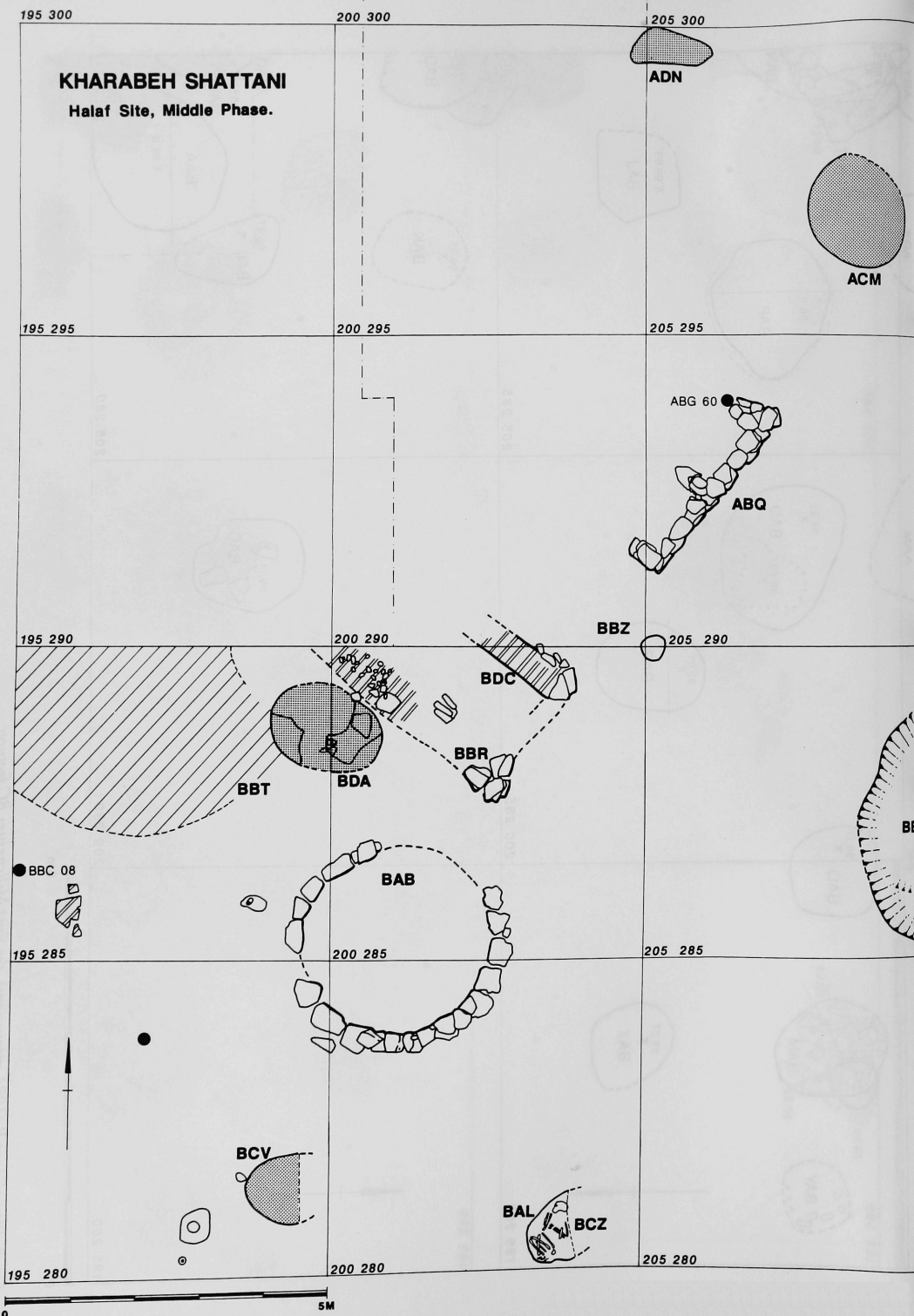


Fig. 8 Plan of Area B (1984 excavations), the First Millennium BC features



*Fig. 9 Plan of Areas A and B, the Halaf site in its Middle Phase*

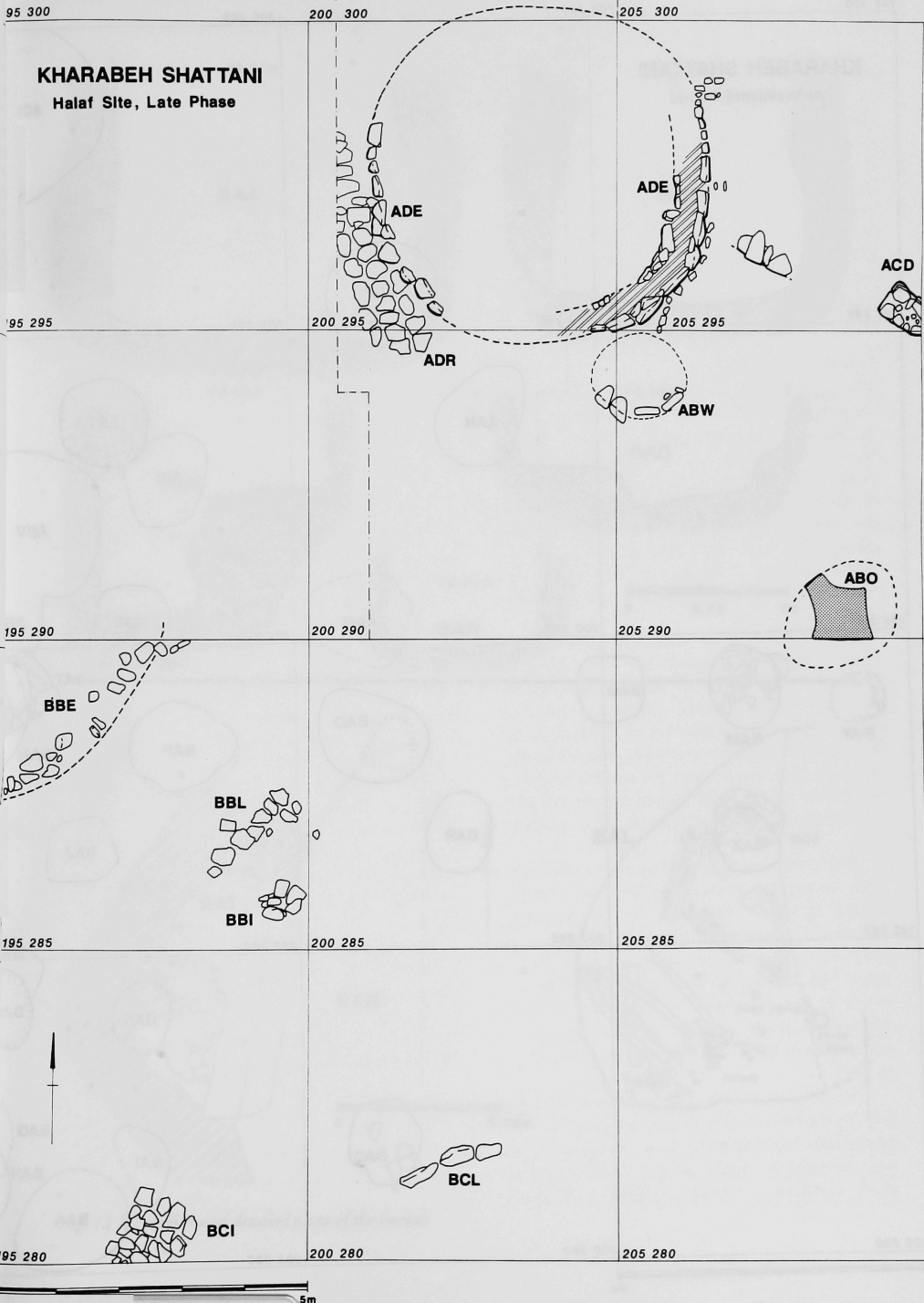


Fig. 10 Plan of Areas A and B, the Halaf site in its Late Phase

195 300

200 300

205 300

**KHARABEH SHATTANI**  
Achaemenid Period

ADQ

195 295

200 295

205 295

ADP

AAN

ABI

ABT

ABV

195 290

200 290

205 290

AAM

ABX

BAT

BAY

BAM

BAQ

BAO

BAP

BAN

BAX

BAR

BAJ

195 285

200 285

205 285

BAK



BAC

BAG

BAH

BAI

BAA

195 280

200 280

205 280

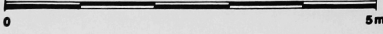


Fig. 11 Plan of the First Millennium BC features

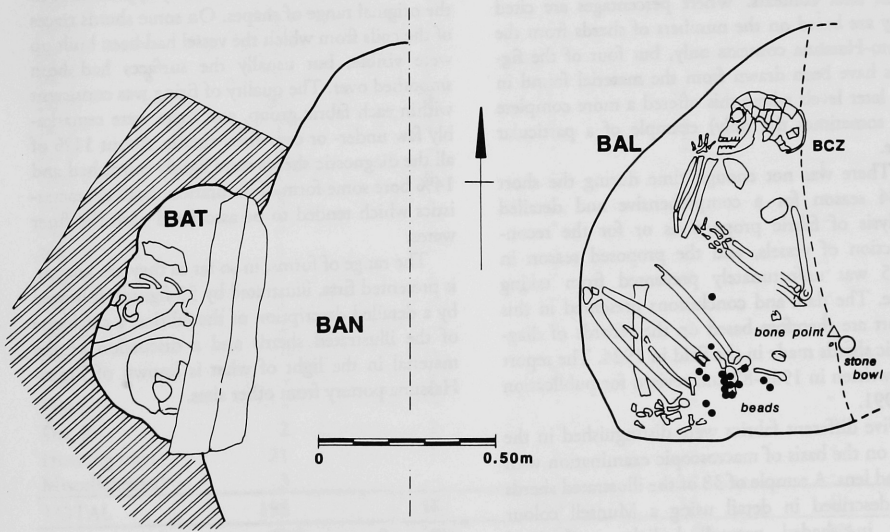
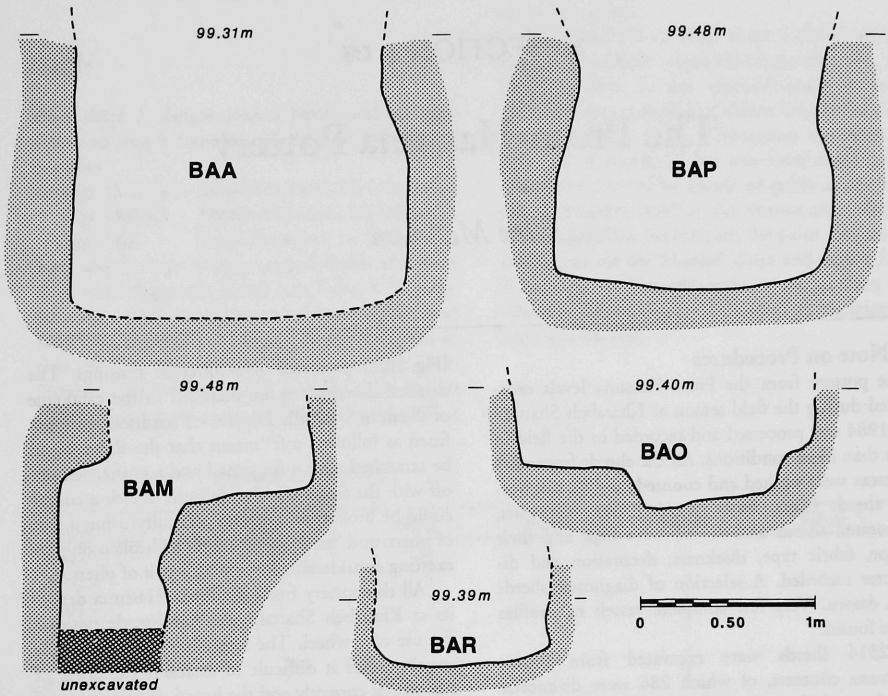


Fig. 12 Pit profiles and detailed plans of the burials

# The Proto-Hassuna Pottery

*Ellen McAdam*

## A Note on Procedures

The pottery from the Proto-Hassuna levels excavated during the field season at Kharabeh Shattani in 1984 was processed and recorded in the field in less than ideal conditions. All the sherds from each context were washed and counted, and all diagnostic sherds (rims, bases, husking tray fragments, decorated sherds and so on) were kept and their shape, fabric type, thickness, decoration and diameter recorded. A selection of diagnostic sherds was drawn. Very few complete vessels or profiles were found.

2314 sherds were excavated from Proto-Hassuna contexts, of which 284 were diagnostic sherds, and there were 43 Proto-Hassuna sherds from later contexts. Where percentages are cited they are based on the numbers of sherds from the Proto-Hassuna contexts only, but four of the figures have been drawn from the material found in the later levels where this offered a more complete (or sometimes the only) example of a particular type.

There was not enough time during the short 1984 season for a comprehensive and detailed analysis of fabric proportions or for the reconstruction of vessels, and the proposed season in 1985 was unfortunately prevented from taking place. The data and conclusions presented in this report are therefore based on the records of diagnostic sherds made in the field in 1984. The report was written in 1986-87 and revised for publication in 1991.

Five different fabrics were distinguished in the field on the basis of macroscopic examination with a hand lens. A sample of 38 of the illustrated sherds was described in detail using a Munsell colour chart in shaded natural daylight; one sherd

(Fig. 18.2) produced five different readings. The detailed descriptions are included in the catalogue of illustrated sherds. Degrees of hardness were defined as follows; 'soft' meant that the sherd could be scratched with a fingernail and a corner broken off with the fingers; with 'medium' sherds a corner could be broken off without difficulty using a pair of pliers; and 'hard' sherds could be broken only by exerting considerable force with a pair of pliers.

All the pottery from the Proto-Hassuna deposits at Kharabeh Shattani was hand-made without the use of a wheel. The irregularity of hand-made vessels makes it difficult to establish the angle of rim sherds correctly and the broad classifications of vessel form illustrated here can only approximate to the original range of shapes. On some sherds traces of the coils from which the vessel had been built up were visible, but usually the surfaces had been smoothed over. The quality of firing was consistent within each fabric group, and there were remarkably few under- or over-fired sherds. About 11% of all the diagnostic sherds were lightly burnished and 14% bore some form of decoration, both characteristics which tended to be associated with the finer wares.

The range of forms, in so far as they are known, is presented first, illustrated by 55 figures, followed by a detailed description of the fabrics, a catalogue of the illustrated sherds and a discussion of the material in the light of what is known of Proto-Hassuna pottery from other sites.

## § 3.1: VESSEL FORMS

## Bowls

*Bowl shape 1:* simple conical bowls with straight sides and simple rounded, pinched or slightly flaring rims.

Figs 13.1-13.5 Small diameters: 70-160mm.

Figs 13.6-4.1 Medium diameters: 170-260mm.

Fig. 14.2 Large diameters: >= 280mm.

Rim sherds from simple conical bowls comprise 43% of all diagnostic sherds (see Table 3.1). Some jar necks with carefully-smoothed interiors may have been included among the smaller diameters in this category by accident. Diameters range from 70mm to >400mm, but fall into the three groups indicated above, with the smaller diameters tending

to be shallow and saucer-like, the medium diameters steeper sided.

Just over 71% of Bowl shape 1 sherds were in Fabric 1, medium vegetable-tempered ware, and 24% in Fabric 2, fine vegetable-tempered ware. The remaining handful of sherds was in Fabric 3, fine buff-orange ware. Decoration occurred on only 5% of sherds, all but one from small bowls, and was restricted to bands of paint at the rim, usually a narrow band on the interior and a slightly broader band on the exterior; the paint colours did not appear on the Munsell chart and varied from brown and red through raspberry red to plum red. One sherd from context BCO had an exterior red wash and burnish.

Table 3.1: proportion of fabrics by vessel shape

Shape	Fabric 1	Fabric 2	Fabric 3	Fabric 4	Fabric 5
Bowl 1	87	29	6	-	-
Bowl 2	10	1	-	-	-
Bowl 3	2	1	-	2	-
Bowl 4	-	-	-	2	-
Bowl 5	2	-	-	-	-
Bowl 6	-	6	5	2	-
Bowl 7	-	-	1	-	-
Bowl 8	-	-	-	-	1
Jar 1	9	-	-	-	1
Jar 2	6	-	-	-	-
Jar 3	6	1	-	-	-
Jar 4	10	3	1	1	-
Jar 5	2	2	-	-	-
Jar 6	6	-	-	2	-
Base 1	22	6	-	-	1
Base 2	3	-	-	-	-
Base 3	2	-	-	-	-
Base 4	1	-	-	-	-
Dec 1	1	1	-	-	-
Dec 2	1	-	-	-	-
Dec 3	2	-	-	-	1
Dec 4	-	-	-	-	-
Dec 5	-	1	2	-	-
Dec 6	-	-	-	-	-
Dec 7	2	2	-	4	-
Husking trays	21	1	-	-	-
Miscellaneous*	3	-	-	-	-
<b>TOTAL</b>	<b>198</b>	<b>54</b>	<b>15</b>	<b>13</b>	<b>4</b>
% of diagnostics	70%	19%	5%	5%	1%

\* Includes one warped sherd and two rectangular trays.

Table 3.2: shapes by context (only contexts which produced diagnostic sherds have been included)

Shape	CBA	CBB	CBD	CBE	CBG	CBH	CBI	CCB	CCC	CCE	CCF	CCG
Bowl 1	21	25	6	2	5	11	5	17	2	11	1	13
Bowl 2	1	1	-	1	-	2	3	1	1	-	-	1
Bowl 3	-	-	-	1	-	2	-	-	-	-	-	2
Bowl 4	-	-	-	-	-	-	-	2	-	-	-	-
Bowl 5	2	-	-	-	-	-	-	-	-	-	-	-
Bowl 6	2	3	1	-	1	-	-	5	1	-	-	-
Bowl 7	-	-	-	-	-	-	-	1	-	-	-	-
Bowl 8	-	-	-	-	-	1	-	-	-	-	-	-
Jar 1	2	1	-	1	1	1	-	1	-	-	1	2
Jar 2	1	-	-	-	2	-	1	1	-	-	1	-
Jar 3	-	1	-	-	-	-	1	1	-	2	1	1
Jar 4	3	4	-	-	-	-	3	-	-	5	-	-
Jar 5	-	2	-	-	-	-	-	-	-	1	1	-
Jar 6	1	1	1	-	1	1	1	1	-	1	-	-
Base 1	5	3	1	1	1	9	2	-	1	1	2	3
Base 2	2	1	-	-	-	-	-	-	-	-	-	-
Base 3	1	-	-	-	-	-	-	-	-	1	-	-
Base 4	-	-	-	-	-	-	1	-	-	-	-	-
Dec. body sherd	3	3	-	-	-	2	1	5	-	1	2	-
Husking tray	4	4	1	1	1	6	2	1	-	1	-	1
Misc.	-	-	-	-	1	1	-	-	-	-	1	-
<b>Total</b>	<b>48</b>	<b>49</b>	<b>10</b>	<b>7</b>	<b>13</b>	<b>36</b>	<b>20</b>	<b>36</b>	<b>5</b>	<b>24</b>	<b>13</b>	<b>23</b>

*Bowl shape 2:* upright-sided bowls with rounded or internally-sloping rims.

Fig. 14.3 Small diameters: 110-150mm.

Figs 14.4-14.5 Large diameters: 230-280mm.

There are only 11 examples of this shape, or about 4% of diagnostics; all but one are in Fabric 1, medium vegetable-tempered ware, and the exception (the smallest), is in Fabric 2, fine vegetable-tempered ware. None is decorated.

*Bowl shape 3:* small cups.

Figs 15.1-15.2 Diameters: 40-120mm.

There are five examples of small, generally round-bottomed cups from Proto-Hassuna levels plus the very small example from an unknown context illustrated in Fig. 15.1. Some had a more open shape than those illustrated. Three were in Fabric 1, medium vegetable-tempered ware, one in Fabric 2, fine vegetable-tempered ware and two in the finer Fabric 4, yellow fine vegetable-tempered ware. One of the Fabric 4 cups was decorated on the exterior with traces of fugitive brown paint and burnishing.

*Bowl shape 4:* bowls with sinuous rims.

Fig. 15.3 Diameters: 130-200mm.

Two examples of this shape were found, both in Fabric 4, yellow fine vegetable-tempered ware. The bowl shown in Fig. 15.3 is decorated with bands of fugitive brown paint at the rim, a broader band on the exterior and a narrower band on the interior.

*Bowl shape 5:* bowls with curving sides.

Figs 15.4-15.5 Diameter: 160mm.

This shape also occurred only twice in the Proto-Hassuna levels; the sherd shown in Fig. 15.4 is in Fabric 1, medium vegetable-tempered ware, with a broad band of raspberry red paint at the exterior of the rim and a narrower band on the interior. The weathered and heavily salt-encrusted bowl from context BBC shown in Fig. 15.5 was also in Fabric 1, medium vegetable-tempered ware; it is flat-based and may originally have formed the lower part of a double ogee jar.



*Bowl shape 6:* fine bowls with straight, slightly outward-sloping sides.

Figs 15.6-15.8 Diameters: 100-260mm.

The majority of the 13 examples fell within the range 100-160mm in diameter. Only one was in Fabric 1, medium vegetable-tempered ware, six in Fabric 2, fine vegetable-tempered ware, five in Fabric 3, fine buff-orange ware, and one in Fabric 4, yellow fine vegetable-tempered ware. The three decorated examples are illustrated; all three are in Fabric 3, fine buff-orange ware, and come from the same context, CCB, as did the sherd shown in Fig. 15.9.

*Bowl shape 7:* bowl with flat rim and slightly in-curving sides.

Fig. 15.9 Diameter: 190mm.

Despite its slightly different shape, this bowl should probably be grouped together with the three fine bowls illustrated in Figs 15.6-15.8. All four are in Fabric 3, fine buff-orange ware, and are from context CCB. These are the only bowls found at Kharabeh Shattani with decoration other than overall wash or horizontal bands of paint at the rims.

*Bowl shape 8:* bowl with angular sides.

Fig. 15.10 Diameter: 130mm.

Fig. 15.10 shows the only example of this shape found, one of the very few sherds in Fabric 5, fine grit-tempered ware. The bowl has an exterior wash of light brown paint which extends into the interior as a narrow band around the rim; interior and exterior are lightly burnished.

## Jars

*Jar shape 1:* hole-mouthed vessels.

Figs 16.1-16.2 Diameters: 70-160mm.

Ten hole-mouthed vessels were found in Proto-Hassuna contexts, nine in Fabric 1, medium vegetable-tempered ware, and one in Fabric 5, fine grit-tempered ware. The grit-tempered sherd is shown in Fig. 16.2; it is decorated with bands of plum red paint at the rim and a vertical band running from the rim down the body of the jar. An example from context BCM was decorated with a spot of dark red paint on the exterior.

*Jar shape 2:* wide-mouthed jars.

Figs 16.3-16.5 Diameters: 120-250mm.

The general shape is open, almost bowl-like, but with a slight carination towards the rim and a less carefully finished interior. All six examples were in Fabric 1, medium vegetable-tempered ware; two were decorated, one with an overall brown wash and burnish on the exterior and one (Fig. 16.3) with random diagonal incisions. With the hole-mouthed vessels described above under Jar shape 1, these represent the only identifiable instances of decoration on jars. Some of these jars (and also those of Jar shapes 3, 4 and 6) may have been carinated, with shallow, curved bases, the curves of the lower part of the jar producing the characteristic 'double ogee' shape (see also Fig. 20.3).

*Jar shape 3:* jars with short, slightly out-turned or upright necks.

Fig. 16.6 Diameters: 80-120mm.

Six examples of this jar neck shape were in Fabric 1, medium vegetable-tempered ware, and one in Fabric 2, fine vegetable-tempered ware. None was decorated.

*Jar shape 4:* jars with long, straight necks and pointed or rounded rims.

Figs 17.1-17.4 Diameters: 50-150mm.

This was the most frequent jar neck shape. Of 15 examples, ten were in Fabric 1, medium vegetable-tempered ware, three in Fabric 2, fine vegetable-tempered ware, one in Fabric 3, fine buff-orange ware, and one in Fabric 4, yellow fine vegetable-tempered ware. None was decorated.

*Jar shape 5:* jars with flaring necks.

Figs 17.5-17.6 Diameters 90-100mm.

Four instances of this jar shape were recorded, two in Fabric 1, medium vegetable-tempered ware, and two in Fabric 2, fine vegetable-tempered ware. None was decorated.

*Jar shape 6:* neckless jars with collar rim.

Figs 17.7-17.8 Diameters: 80-370mm.

Six of the eight examples fell within the diameter range 80 to 170mm and of these five were in Fabric 1, medium vegetable-tempered ware, and one in Fabric 4, yellow fine vegetable-tempered ware. The exceptionally large vessel was also in Fabric 1, medium vegetable-tempered ware. None was decorated.

## Bases

*Base shape 1: flat bases.*

Figs 15.5 and 18.1-18.4 Diameters: 30-240mm.

This was the commonest base shape to be recognised, with 29 examples from Proto-Hassuna contexts in addition to the miniature cup in Fig. 15.1 and the flat-based bowl in Fig. 15.5. 22 were in Fabric 1, medium vegetable-tempered ware, and six in Fabric 2, fine vegetable-tempered ware. The example shown in Fig. 18.2 was one of only four sherds found in Fabric 5, fine grit-tempered ware. This base was also exceptional in carrying decoration in the form of circular impressions made with a sharp-pointed implement; there were traces of burnishing. The sherd shown in Fig. 6.4 is probably from a bowl, as there are signs of smoothing on the interior.

*Base shape 2: ring bases.*

Fig. 18.5 Diameters: 100-120mm.

Only three examples were found, all in Fabric 1, medium vegetable-tempered ware.

*Base shape 3: raised flat bases.*

Fig. 18.6 Diameters: 90-130mm.

Both examples were in Fabric 1, medium vegetable-tempered ware.

*Base shape 4: rounded bases.*

Fig. 15.2 Diameters: c.40-c.60mm.

Only two rounded bases were identified, one of them the small, round-bottomed cup in Fig. 15.2. Both were in Fabric 1, medium vegetable-tempered ware. It is probable that many rounded bases went unrecognised.

## § 3.2: DECORATION

*Decoration type 1: bands of paint at bowl rims.*

Figs 13.1-13.3, 15.3-15.4.

This is the single commonest form of decoration, occurring in fifteen instances, apparently always on small or medium-sized bowls, although in two instances the sherd was too small for the shape to be distinguished. In most cases there is a broader band on the exterior of the rim and a narrower band on the interior, but sometimes only the exterior band is present. The paint occurs in shades which are not represented on the Munsell colour chart; it may be brown, red, dark red, plum red or a lighter shade best described as raspberry red, and is often very fugitive. Surfaces are usually smooth, occasionally burnished or slipped, sometimes only on the exterior surface.

*Decoration type 2: bands of paint around the rim with a vertical stripe at right angles running down the body.*

Fig. 16.2.

Two examples were found, one on a hole-mouthed vessel (Fig. 16.2) in Fabric 5, grit-tempered ware, with plum red paint on a very smooth surface and lightly burnished exterior, the other a body sherd from near the rim in Fabric 1, medium vegetable-tempered ware, with dark red paint on a smooth and lightly burnished exterior.

*Decoration type 3: horizontal bands of paint on the vessel body.*

Fig. 19.1.

Three body sherds with horizontal bands of paint were found. The sherd illustrated in Fig. 19.1 is in Fabric 5, grit-tempered ware, with brown paint on a smooth surface and the other two were in Fabric 1, medium vegetable-tempered ware, one with raspberry red paint on a cream slip and light exterior burnishing, the other with dark red paint.

Table 3.3: *Decoration type 1 by bowl shape and fabric*

Bowl shape	Fabric 1	Fabric 2	Fabric 3	Fabric 4	Fabric 5
1	6	4	1	-	-
2	-	-	-	1	-
5	1	-	-	-	-
Shape unknown	1	1	-	-	-

*Decoration type 4:* painted triangles filled with parallel lines.

Figs 15.7-15.9.

All three examples of this type of decoration were from context CCB and were in the fine Fabric 3, fine orange-buff ware. All three were cream slipped. In Fig. 15.7, the triangle depends from a band at the rim; the paint is fugitive brown. In Fig. 15.8 only a small part of the design survives, but there is enough to make it likely that it belongs to this group; the paint is red-brown and the exterior is lightly burnished. Fig. 15.9 has a flat rim with bands across it and a pendant triangle in fugitive red paint, with traces of burnishing.

*Decoration type 5:* other painted designs.

Figs 15.6 and 19.2-19.3.

Of the four sherds in this group, only Fig. 15.6 has a recognisable pattern. Like the three bowls with infilled triangles, it comes from context CCB, is made in Fabric 3, fine buff-orange ware and is lightly burnished; the design, which is in fugitive black paint, probably consisted of a row of lozenges around the rim. The other three members of this group are all body sherds. Fig. 19.2 is in Fabric 2, fine vegetable-tempered ware with red-brown paint and Fig. 19.3 is in Fabric 3, fine buff-orange ware with raspberry-red paint. Both these sherds are from context CCB, and it should be noted that of the seven painted sherds in decoration types 5 and 6, six are from this context. The remaining example was in Fabric 3, fine buff-orange ware and carried six parallel lines in black paint.

*Decoration type 6:* overall wash and burnish.

Fig. 15.10.

There were only two instances of overall wash and burnish. Fig. 15.10 shows a bowl of type 8 in Fabric 5 with light brown wash and burnish. The other example was a rim sherd of Jar type 2 in Fabric 1, medium vegetable-tempered ware, also with light brown wash and burnish.

*Decoration type 7:* incised decoration.

Figs 16.3 and 19.5-19.8.

Fig. 16.3 shows a jar of type 2 in Fabric 1, medium vegetable-tempered ware; the remaining eight examples of incised decoration were body sherds, two in Fabric 1, medium vegetable-tempered ware, two in Fabric 2, fine vegetable-tempered ware and four in Fabric 4, yellow fine vegetable-tempered ware. There seems to have been little attempt to create patterns, except perhaps in the cases of Figs 19.5

and 19.6. The surfaces are usually smooth, occasionally slipped and in one case burnished.

*Decoration type 8:* impressed decoration.

Fig. 18.2.

This flat base in Fabric 5 with circular impressions made with a sharp-pointed implement is the only instance of impressed decoration.

## Trays and dishes

*Husking trays*

Figs 20.1 and 20.4.

22 fragments of so-called 'husking trays' were found, 21 in Fabric 1, medium vegetable-tempered ware and one in Fabric 2, fine vegetable-tempered ware. The bottoms of the trays were deeply marked with finger impressions or parallel grooves (Fig. 20.4) and in some cases the sides had also been diagonally scored with a pointed implement (Fig. 20.1). It seems unlikely that these were used for removing husks, as it would have been difficult to extricate seeds or grains from the deep indentations in these large, heavy trays, but it is possible that some sort of rubbing or grating action was performed in them.

*Straight-sided rectangular trays*

Two fragments of rectangular straight-sided trays were found in Fabric 1, medium vegetable-tempered ware and one warped and over-fired sherd which may have come from such a tray or from an oval dish. (Not illustrated).

## Miscellaneous

*Applied horse-shoe handles*

Fig. 20.2.

This applied horse-shoe handle in Fabric 2, fine vegetable-tempered ware, comes from a later context which produced a number of Proto-Hassuna sherds, and is the only occurrence of the use of applied pieces of clay for decorative or functional purposes in the Proto-Hassuna repertoire at Kharabeh Shattani.

*Attached legs*

One fragment of a leg like those attached in fours to vessels at Umm Dabaghiyah and one sherd with an attachment scar from such a leg were found. Both were in Fabric 1, medium vegetable-tempered

ware, and came from later contexts. (Not illustrated).

#### *Jar carination*

Fig. 8.4.

Numerous sherds from the shoulder carination of the characteristic biconical Proto-Hassuna jar were found, usually in Fabric 1, medium vegetable-tempered ware. The lower parts often had a flat double curve, hence the description of these jars as having a 'double-ogee curve', a term borrowed from architecture by Lloyd and Safar, who were the first to describe this form (1945, 277).

### § 3.3: FABRIC SERIES

*Fabric 1:* medium vegetable-tempered simple ware. Sherds in Fabric 1 usually had a dark grey or black core and a light orange or buff surface (see catalogue of illustrated sherds for Munsell readings). The temper consisted of medium-sized vegetable material which was not as coarse as chaff or straw, but the surfaces of many sherds were very unevenly finished, giving an impression of coarseness. Firing was even, and most sherds were medium hard with an irregular fracture. The majority of bowl and jar sherds fell into the range 7-15mm in thickness; bases tended to be rather thicker, usually 16-20mm, and most husking tray sherds were in the range 18-35mm.

70% of all diagnostic sherds were made in Fabric 1. It was most frequently used for the ubiqui-

tous simple conical bowl of Bowl shape 1, followed by husking trays, flat bases, jars of Jar shapes 1 to 6 and bowls of Bowl shape 2. Only 8% of diagnostic sherds in Fabric 1 were decorated and 9.5% were lightly burnished, a lower proportion than in finer wares. The most popular type of decoration was a simple band of paint at the rim. Fabric 1 and to a lesser extent Fabric 2 may be seen as the ordinary household wares of the settlement, used for a range of bowls, jars and trays in everyday domestic use. It seems probable that this pottery was locally produced.

*Fabric 2:* fine vegetable-tempered simple ware.

The fabrics of Fabric 2 were similar in colour to those of Fabric 1, with a dark grey or black core and a light orange or buff surface. The temper was fine or very fine material, perhaps animal dung, and the surfaces were more evenly finished than in Fabric 1. A light, cream-coloured slip was more frequently applied than in Fabric 1. Firing was even, and most sherds were of soft or medium hardness with a regular fracture.

Sherds of Fabric 2 were thinner than those of Fabric 1, the overwhelming majority of bowl and jar sherds falling between 6 and 10mm. Bases were in the same range. About 18% of all diagnostic sherds were made in Fabric 2. Again, it was most frequently used for simple bowls of Bowl shape 1, followed by Bowl shape 6, flat bases and jars of Jar shapes 3 to 5. There was a single husking tray sherd in a fine vegetable-tempered fabric.

Table 3.4: fabrics by context

Fabric	CBA	CBB	CBD	CBE	CBG	CBH	CBI	CCB	CCC	CCE	CCF	CCG
Fabric 1 <i>medium vegetable tempered</i>	30	31	7	4	11	32	15	20	4	16	11	17
Fabric 2 <i>fine vegetable tempered</i>	11	11	1	3	2	3	4	6	1	7	2	3
Fabric 3 <i>fine orange buff</i>	3	4	2	-	-	-	1	5	-	-	-	-
Fabric 4 <i>very fine yellow</i>	2	3	-	-	-	-	-	4	-	1	-	2
Fabric 5 <i>gris tempered</i>	2	-	-	-	-	1	-	-	-	-	-	1
Overfired	-	-	-	-	-	-	-	1	-	-	-	-
Total	48	49	10	7	13	36	20	36	5	24	13	23

*Fabric 3:* fine buff-orange ware.

Fabric 3 was a fine vegetable-tempered fabric, sometimes containing white flecks. It closely resembled the Halaf fabrics from the site in colour. The core might be buff to yellow with a pink to orange surface, or vice versa, and sherds were almost invariably carefully smoothed and cream slipped. Most sherds were medium hard to hard with a regular fracture, but one or two were soft and crumbly in texture. All Fabric 3 diagnostic sherds fell within the range 6-10mm in thickness.

Sherds of Fabric 3 accounted for only 5% of diagnostic sherds, with bowls of Bowl shape 1 again the most frequent shape, followed closely by Bowl shapes 6 and 7. No jar sherds were found. Fabric 3 was used for more complex painted designs than were found on bowls in Fabrics 1 and 2: the bowls shown in Figs 15.6-15.9 and the decorated sherd in Fig. 19.3 are all in Fabric 3 and all come from context CCB. 60% of Fabric 3 sherds were burnished and 47% decorated, and the impression is that this is a fabric that was used for fine, often decorated bowls, perhaps with a specialised function, rather than for ordinary household utensils.

*Fabric 4:* very fine yellow ware.

Fabric 4 was pale yellow in colour, sometimes with a greyish brown core and fine or very fine vegetable temper, occasionally over-fired. The surface finish was smooth, sometimes slipped, and sherds were hard with a regular fracture. Most sherds were between 6 and 10mm in thickness, but one was as much as 17mm thick. About 4.5% of all diagnostic sherds were in Fabric 4. The most frequent shapes were bowls of shapes 3 and 4 and there were four body sherds with incised decoration, nearly half of the incised sherds found. 23% of Fabric 3 sherds were burnished and 46% were decorated.

*Fabric 5:* grit-tempered ware.

Only four grit-tempered diagnostic sherds were found and each is described in detail in the catalogue of illustrated sherds. All were light orange in colour, in two cases with a darker core and in one case with a cream slip. In two sherds the temper was fine and in one very fine, and they were medium hard to hard with a regular fracture. All were 7 mm thick.

Each of the grit-tempered sherds was distinctive. Fig. 15.10 shows the only example of a bowl of shape 8 to be found, with an overall light brown wash and burnish. The hole-mouthed vessel in Fig.

16.2 has a band of paint at the rim and a stripe at right angles running vertically down the exterior of the vessel; only one other example of this type of decoration was found. The flat base in Fig. 18.2 is the only example of impressed decoration recovered, and Fig. 19.1 is one of three examples of a horizontal band of paint on a vessel body. The sherds shown in Figs 15.10, 16.2 and 18.2 were burnished.

### § 3.4: DISCUSSION

*Proto-Hassuna pottery: comparisons with other sites*

Proto-Hassuna pottery has now been identified from at least six excavated sites in northern Iraq in addition to Kharabeh Shattani: Level Ia at Hassuna itself, Umm Dabaghiyah, Layers XV and XVI at Telul eth-Thalathat Tell 2, Strata 1 and 2 at Yarim Tepe I, Tell Sotto and Kul Tepe.

At Tell Hassuna, the sherd count shows eight burnished bowl sherds and 'much' Coarse Ware in Level Ia and 'some' Coarse Ware alongside 53 burnished bowl sherds, 12 Archaic Painted sherds and 385 Standard Incised sherds in Level Ib (Lloyd and Safar 1945, 261-278 and Figs 5-7). The Coarse Ware of the three campsites of Level Ia was straw-tempered, with buff surfaces and a blackened core; exteriors were wet-smoothed and occasionally lightly burnished. There were a number of simple conical bowl rims and numerous large storage jars. The storage jars were sharply carinated, the upper part either curving inwards to form a hole-mouthed vessel or rising to form a tall-sided jar, while the lower part is a shallow, flat-based bowl whose sides may have a flat, double-ogee curve. Applied 'nipple lugs', horseshoe or horizontal ledge handles and one T-shaped ridge were found, and one of the eight burnished bowls had a painted band at the rim. Husking trays do not appear until Level II. From Level Ib upwards straw-tempered vessels occur with increasing rarity and Archaic Painted Ware (distinguished from the matt Standard Painted Ware by its uniform red paint and glossy surface) and Standard Incised Ware are already present. Archaic Painted Ware continues into Level III, which sees the first appearance of the classic Hassuna Painted and Incised Ware.

Since the numbers of Coarse Ware sherds are not given, it is not possible to compare the sample size from Level Ia at Hassuna with those from other excavated Proto-Hassuna sites or to decide whether the absence of certain features such as

decoration and husking trays is an accident of that sample size or reflects a distinctive, perhaps temporary, form of settlement. The differences and similarities between Levels Ia and Ib, and the continuity between Level Ib and succeeding levels at Hassuna, are evidence of the gradual evolution of the Proto-Hassuna pottery tradition into the Archaic and Standard repertoires.

At Umm Dabaghiyah, the pottery from the lower Levels III and IV was better made and more varied than that from the later Levels I and II (Kirkbride 1972, 8-10 and Pls. X-XVI; 1973a, Pls. II-III and X-XI; 1975, 9). Medium coarse wares with chaff and straw temper predominate, usually lightly fired with a grey or black core and fairly smooth exterior. White or cream slip was found on finer wares. A fine, pinkish brown burnished ware found mainly in the lower levels and said to be comparable with Halaf pottery in texture sounds very similar to Fabric 3, fine buff-orange ware, at Kharabeh Shattani. It was used for a similar range of bowl shapes and seems to have been a luxury ware.

The range of vessel shapes at Umm Dabaghiyah is larger than that at Kharabeh Shattani and includes bowls of our shapes 1, 2 and 4-8, jars of shapes 1, 2 and 6 and carinated jars like those from Level Ia at Hassuna, ring bases, husking trays (in the later levels only) and oval dishes. Narrow-necked jars like our jar shapes 3-5 are not illustrated. Incised decoration was rare and again confined to Levels I and II, but there was a great deal of applied decoration, including human and animal figures, and nipple and pierced lugs, horseshoe and mamelon handles and legs from four-legged jars were also found.

Painted motifs were more varied and elaborate at Umm Dabaghiyah than at Kharabeh Shattani, but throughout all levels at least half of the painted sherds had a band on the inside or the outside of the rim, sometimes both, and bands at the rim, infilled triangles like Figs 15.7-15.9 and the band of paint at the rim of a hole-mouthed vessel with a stripe at right-angles like Fig. 16.2 provide points of resemblance. The larger and more varied repertoire of shapes and motifs at Umm Dabaghiyah may be ascribed to a much larger sample size.

Layers XV and XVI of Tell 2 at Telul eth-Thalath produced over 10,000 sherds, almost all of a straw-tempered ware with a reddish brown to dark brown surface and black core; a few sherds were tempered with fine vegetable material, well fired and burnished. Large bowls were the most

frequent vessel form, followed by neckless, carinated jars of the type found in Level Ia at Hassuna and at Umm Dabaghiyah, dishes and small bowls. Only one fragment of husking tray, two painted sherds and one incised sherd were found. 65 examples of the appliqué technique were found, including a remarkable human face, but over half of these were simple nipple lugs; there were also pierced lugs, ledge handles and what appears to be a fragment of a leg like those from Umm Dabaghiyah (Fukai, Horiuchi and Matsutani 1970, 88; 1981a, Pls. 35,1 and 36,2; 1981, 35 and Pls. 14-16 and 35-37).

According to Bashilov *et al.* (1980, 50-61 and Table III), Strata 1 and 2 of Yarim Tepe 1 produced 3341 sherds of Proto-Hassuna pottery and there was no sign of a break between these levels and those of the Archaic Hassuna period immediately above them. Four fabric groups were distinguished. Group 1, massive straw-tempered sherds with dark brown, buff, dark grey or green surfaces and black core, probably corresponds to Fabric 1, medium vegetable-tempered ware, at Kharabeh Shattani, although it seems to have been coarser, with vessel walls 10-20mm and sometimes 30mm thick, very little decoration (usually applied) and only rarely signs of wet-smoothing or burnishing. Group 2, coarse pottery of better quality, seems to equate with our Fabric 2, fine vegetable-tempered ware; it is made with fine-grained clay with small particles of organic temper and the surface is beige, pink or nearly red with a darker, sometimes completely oxidised core. The walls are no more than 5mm thick and vessels are usually wet-smoothed or burnished, sometimes slipped, with red painted decoration on just over 13%. Group 3, well fired fine pottery of compact, fine-grained clay with some very small particles of organic temper, is light brown, reddish or grey-brown in colour and 5-8mm thick, with surfaces usually wet-smoothed or burnished and traces of red paint on nearly 16% of sherds, perhaps similar to Fabric 3, fine orange-buff ware. Group 4 consisted of only eight sherds, seven of which were well-made and hard-fired with some mineral temper. They were thin and hard, with a dark grey, highly burnished exterior surface, and it was thought by the excavators that they might have been imported.

The flat-bottomed 'goblets' of Yarim Tepe 1 are not paralleled at Kharabeh Shattani, where their place may have been filled by round-bottomed cups of Bowl shape 3. 'Bowls', rounded or carinated, with diameters of 120-180mm, correspond

to Bowl shapes 2 and 8, and perhaps also 6 and 7, and 'Plates', with diameters up to 350mm, are equivalent to the conical bowls of Bowl shape 1 (Bashilov *et al.* 1980, Fig. 5, 1-3). A jar similar to our Jar shape 5 (Fig. 17.4) appears under 'rare shapes', but in other respects the range of jar shapes at Yarim Tepe 1 seems to have been similar to that at Kharabeh Shattani (Bashilov *et al.* 1980, Figs 5, 4 and Fig. 6). Oval dishes and husking trays were found, and among the latter finger-impressions were commoner than grooving. Painted and applied decoration were present, but there were no incised sherds. Painted decoration was found only on bowls, usually consisting of bands of red paint at the rim and occasionally of an overall wash, but as at Kharabeh Shattani complex patterns were rare. In addition to multiple chevrons and pendant triangles like those from other Proto-Hassuna sites there were some unusual curvilinear (Bashilov *et al.* 1980, Figs 7 and 8). Applied decoration, usually on the shoulder, was quite common and included the usual range of nipple and oval lugs, horseshoe and T-shaped handles, 'eyebrows' and fragments of human and animal figures.

At Yarim Tepe 1, jars accounted for nearly 49% of the diagnostic sherds, whereas at Kharabeh Shattani they formed only 19% (21% if base sherds are excluded from the count of diagnostic sherds, as seems to have been the case at Yarim Tepe 1). At Kharabeh Shattani, bowls of Type 1 alone accounted for 43% of all diagnostics (48% excluding bases), but at Yarim Tepe the equivalent group represented only 1.7%. Dishes and husking trays formed a higher proportion of the sherds at Yarim Tepe, 26% as opposed to 9% (10% without bases). Since jars were primarily used for storage purposes and were often sunk into house floors, these differences in the frequencies of bowls and jars between the two sites may reflect the fact that the small soundings at Kharabeh Shattani encountered open areas or courtyards and included only a small area of the interior of a building.

Another article on Yarim Tepe I, although essentially a summary, stresses that its successive levels reflect the entire period of Hassuna development and supplements and expands on some of the points mentioned above (Merpert and Munchaev 1987). Here the two earliest levels, Strata 1 and 2, are referred to as 12 and 11 and level 12 is compared with Hassuna Ia. Vessel forms are classified into five types. Type 1, large coarse carinated storage jars of 'double ogee' type, occurs mainly in levels 12-10, with isolated examples up

to level 7. Ornament on vessels of Type 1 is confined to simple applied decoration. Type II is a more rounded jar form of which variety 1 occurs in levels 12-10, 2 and 3 in levels 10 to 8 and 4 in all six early levels. Type III consists of cups and bowls, the latter with straight rims in the lower levels, concave in the upper. Geometrical painted decoration gradually becomes more complex from level 12 to level 7. Type IV is represented by tall coarse and fine pots with 18 different painted designs, again becoming more complex with time. There are seven examples of applied decoration, all from level 12 and 11, and two examples of incised decoration in levels 9 and 8; incised decoration becomes common in level 7. Type V is the husking tray, with what is described as a 'cellular pattern' (perhaps finger impressions) in levels 12 to 10 and ribbing in all subsequent levels.

The Proto-Hassuna pottery from Kul Tepe and Tell Sotto has been reported in less detail than that from Yarim Tepe 1, but clearly belongs to the same tradition (Merpert *et al.* 1977, 74-81, 100 and Pls. XXX, XXXII and XXXIII; 1978, 48-49). At Tell Sotto, 3 km west of Yarim Tepe, coarse, straw-tempered pottery with grey, muddy yellow or red surfaces and black core predominated, but an evenly-fired pink ware with fine vegetable temper was also found. Large storage vessels with applied handles of various types, sherds with applied human and animal figures, oval dishes and husking trays were found in the coarseware, while the fine ware was used for small bowls and beakers, often carinated. Painted decoration was not found on the large, coarse storage jars or dishes and took the form of horizontal bands of red paint at the rim, overall wash and geometric designs including cross-hatching, chevrons and triangles. Incised decoration was absent. Levels 1 and 2 produced an extensive collection of coarse biconical jars with applied human and animal figures; levels 3-6 saw jar shapes evolve from the biconical into the globular and level 7 yielded some coarse spherical jars with upright neck of a type characteristic of the archaic Hassuna complex (Bader 1989, 353 and Figs 53-67).

Kul Tepe, 3km southwest of Tell Sotto, belonged to the same culture as Tell Sotto but was occupied slightly later; levels 1 to 4 at Kul Tepe compare with levels 3-6 at Tell Sotto (Bader 1989, 354 and Figs 78-83).

Although Kharabeh Shattani is the only site so far excavated on the east bank of the Tigris to produce Proto-Hassuna pottery, there is evidence of

Hassuna period settlement in the region. At Tell Jigan, not far from Kharabeh Shattani within the area now covered by the Saddam Dam, the Japanese Archaeological Expedition reported Hassuna material, including painted and incised decoration (Ii and Kawamata 1985, Figs 6 and 7). The painted decoration, all of which was on bowls, is reminiscent of our Figs 15.7-15.9. Only a few examples of applied handles and one narrow jar neck are illustrated. Husking tray sherds were found. Pottery in the Hassuna tradition was also present in the lower levels of Tell Abu Dhahir, one of the sites excavated by the British Archaeological Expedition in the course of the Saddam Dam rescue project (W. Ball, pers. comm.).

### § 3.5: CONCLUSIONS

This survey of the published evidence for Proto-Hassuna pottery permits some of the distinguishing features of the assemblage to be identified and a few tentative conclusions about relative dating to be reached. Future discoveries and full publication of excavated sites will no doubt refine and modify these conclusions.

Although there is a certain amount of variation between contemporary sites, the defining characteristics of the Proto-Hassuna pottery assemblage may be listed as follows:

1. A preponderance of medium to coarse vegetable-tempered fabric with an orange or light brown surface and dark core.
2. Applied decoration, mainly on jars, including human and animal figures and a variety of lugs and handles. This feature decreases with time.
3. A range of hand-made and therefore somewhat variable vessel forms among which may be recognised husking trays (possibly becoming more frequent with time), a range of simple, mainly conical or carinated bowl shapes and biconical, 'double ogee' storage jars.
4. Painted decoration, mainly bands of red paint at the rim, overall wash and simple geometric motifs which become more complex with time.

Incised decoration, grit-tempered fabrics and large globular storage jars appear to be late features and to mark the transition to the fully developed Hassuna tradition, with its increasingly complex decorative schemes and hard-fired fabrics.

At Yarim Tepe I, Tell Sotto, Kul Tepe and Hassuna itself Proto-Hassuna material is succeeded by Hassuna deposits (although it has been argued that at Hassuna there is a gap between Ia and Ib, at least in the area excavated; Bashilov *et al.* 1980, 59-61). A number of shapes and decorative motifs continue from the Proto-Hassuna into the Archaic and Standard Hassuna assemblages, including husking trays, carinated bowls, globular jars and various designs based upon filled or multiple triangles depending from a band at the rim. At the same time, the links between these sites and the perhaps rather earlier material from Telul eth Thalathat and Umm Dabaghiyah are clear. There does, however, seem to have been a certain amount of variation even among the sites which are relatively close to one another on the Jazira. For example, painted decoration was very rare at Telul eth Thalathat Tell 2, although applied decoration was plentiful and in architecture and other aspects of material culture the site is clearly related to Sotto, Yarim Tepe 1 and Umm Dabaghiyah; at Yarim Tepe 1 some of the curvilinear designs are without known parallels; and Umm Dabaghiyah boasts a more varied repertoire of painted decoration than other sites, possibly because a larger sample was excavated. The picture seems to be one of a tradition in continuous evolution, and in the present imperfect state of our knowledge it would be foolish to be dogmatic about the precise moment of transition from Proto-Hassuna to Hassuna proper.

At Kharabeh Shattani, Fabrics 1 and 2, medium and fine vegetable tempered wares, represent 88% of all diagnostic sherds, with Fabric 1 alone accounting for 70%. Vessel shapes are dominated by straight-sided conical bowls (Figs 13.1-14.2), a range of jar necks which from the evidence of the body sherds were probably mainly from biconical double ogee jars<sup>1</sup> (Figs 16.3-17.8) and husking trays (Figs 20.1 and 20.4). The single most frequent type of decoration consisted of bands of red paint at bowl rims (Figs 13.1-13.3, 15.3-15.4), with some more complex painted designs (e.g. Figs 15.6-15.9) and nine incised sherds (Figs 16.3 and 19.5-19.8).

It seems likely that the assemblage from Kharabeh Shattani, although belonging to the Proto-Hassuna sequence, represents a late stage in its de-

<sup>1</sup> Although just as it is possible to miss rounded bases among sherd material, the rounded body sherds of globular jars may have been present but unrecognised.



velopment<sup>2</sup>. The Proto-Hassuna attributes 1, 3 and 4 are present, but applied decoration is attested by only three sherds, all from non-Hassuna contexts, and small numbers of sherds with late features such as grit temper and incision are also present. Many late or 'exotic' types – the fine painted bowls of Figs 15.6 - 15.9, painted sherds, incised sherds and the finer fabrics 3, 4 and 5 – are concentrated in the later (and more prolific: see Tables 3.2 and 2.4) contexts CBA, CBB and CCB, and particularly in context CCB.

It has already been pointed out that Kharabeh Shattani is the first Proto-Hassuna site to be excavated on the east bank of the Tigris, some distance from the other known sites of the period in the northern Jazira. It is therefore suggested that the assemblage from Kharabeh belongs to a late phase of the Proto-Hassuna culture and represents the locally produced household utensils of a small, perhaps rather remote, settlement plus a number of

exotic forms which may have been imported from larger, more complex and technologically more advanced centres of population to the west in which the pottery repertoire known to us as Hassuna was already being produced.

At several sites the Proto-Hassuna settlement was founded on virgin soil and it has been suggested that these settlements were founded by family units moving eastwards across the Jazira (Bashilov *et al.* 1980, 61). Recent excavations at aceramic sites in northern Iraq such as Magzalia (Merpert *et al.* 1981: Bader *et al.* 1981), Nemrik (Kozłowski 1989: Kozłowski and Kempisty 1990) and Qermez Dere (Watkins *et al.* 1989: Watkins 1990), all of which produced evidence of substantial architecture, have demonstrated the existence of a still earlier phase in the history of settled life in northern Mesopotamia and may eventually help to clarify the origins of the Proto-Hassuna culture.

---

<sup>2</sup> It should, however, be remembered that the sample recovered (2314 sherds of which 284 were diagnostic) was relatively small.

## Catalogue of Hassuna Pottery Illustrations

*Note:* All drawings at 1:2.

### Fig.13

- 1 Context CCB Bowl shape 1.  
Diam: 100 mm Th: 8 mm Fabric 2: fine vegetable temper. Soft; regular fracture. Weathered, uneven surface. Surface: 5YR6/6, reddish yellow.  
Core: 10YR5/3, brown, to 10YR4/1, dark grey.  
Paint: plum red.
- 2 Context CBA Bowl shape 1.  
Diam: 120 mm Th: 8 mm Fabric 2: fine vegetable temper. Soft; regular fracture. Smooth surface. Burnished. Surface: 10YR6/4, light yellowish brown.  
Core: 10YR4/1, dark grey.  
Paint: dark red.
- 3 Context CBA Bowl shape 1.  
Diam: 130 mm Th: 9 mm Fabric 1: medium vegetable temper. Soft; irregular fracture. Smooth exterior, uneven interior. Surface: 7.5YR7/6, reddish yellow.  
Core: 7.5YR4/0, dark grey.  
Paint: raspberry red.
- 4 Context CBA Bowl shape 1.  
Diam: 130 mm Th: 12 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Fairly smooth exterior, uneven interior. Traces of burnishing. Surface: 5YR6/6, reddish yellow, to 5YR8/4, pink.  
Core: 7.5YR3/1, very dark grey.
- 5 Context CBH Bowl shape 1.  
Diam: 160 mm Th: 16 mm Fabric 1: medium vegetable temper. Hard; irregular fracture. Very uneven surface. Surface: 7.5YR7/4, pink.  
Core: 7.5YR2/0, black.
- 6 Context CBH. Bowl shape 1.  
Diam: 170 mm Th: 6 mm Fabric 2: very fine vegetable temper with white flecks. Medium hard; regular fracture. Smooth surface. Surface: 7.5YR7/6, reddish yellow.  
Core: 7.5YR2/0, black.
- 7 Context CBB Bowl shape 1.  
Diam: 190 mm Th: 8 mm Fabric 2: fine vegetable temper. Hard; regular fracture. Smooth surface. Traces of burnishing. Surface: 5YR6/6, reddish yellow.  
Core: 5YR3/1, very dark grey.
- 8 Context CBH Bowl shape 1.  
Diam: 230 mm Th: 12 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Uneven surface. Surface: 7.5YR7/6, reddish yellow, to 10YR7/4, very pale brown Core: 7.5YR2/0, black.

### Fig. 14

- 1 Context CBH Bowl shape 1.  
Diam: 240 mm Th: 15 mm Fabric 1: medium vegetable temper. Soft; irregular fracture. Uneven surface. Surface: 7.5YR7/6, reddish yellow.  
Core: 2.5Y 7/4, pale yellow, to 2.5Y4/0, dark grey.
- 2 Context CBB Bowl shape 1.  
Diam: c 400 mm Th: 15 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Smooth surface. Surface: 10YR6/3, pale brown.  
Core: 10YR3/1, very dark grey.
- 3 Context CCB Bowl shape 2.  
Diam: 150 mm Th: 9 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Uneven surface. Surface: 5YR7/6, reddish yellow.  
Core: 5YR5/1, grey.
- 4 Context CBA Bowl shape 2.  
Diam: 230 mm Th: 13 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Smooth surface. Surface: 7.5YR7/6, reddish yellow.  
Core: 7.5YR3/0, very dark grey.
- 5 Context CBH Bowl shape 2.  
Diam: 270 mm Th: 11 mm Fabric 1: medium vegetable temper. Hard; irregular fracture. Smooth surfaces (signs of smoothing visible). Surface: 7.5YR7/4, pink (slip).  
Core: 7.5YR6/8, reddish yellow, to 7.5YR4/0, dark grey.

### Fig. 15

- 1 Context unknown Bowl shape 3.  
Diam: 40 mm Th: 13 mm Fabric 1: medium vegetable temper.  
Colour: black core, orange/buff exterior.
- 2 Context CBH Bowl shape 3.  
Diam: 70 mm Th: 9 mm Fabric 1: medium vegetable temper Small find no.: 57.  
Colour: black core, orange/buff exterior.
- 3 Context CCB Bowl shape 4.  
Diam: 130 mm Th: 7 mm Fabric 4: very fine vegetable temper. Hard; regular fracture. Smooth surface.  
Colour: 5Y8/3, pale yellow.  
Paint: traces of brown.
- 4 Context CBA Bowl shape 5.  
Diam: 160 mm Th: 10 mm Fabric 1: medium vegetable temper. Soft, friable, irregular fracture. Uneven surface.  
Colour: black core, orange/buff exterior.  
Paint: raspberry red.
- 5 Context BBC Bowl shape 5.  
Diam: c 260 mm Th: 14 mm Fabric 1: medium vegetable temper Small find 58 Uneven surface, heavily salt-encrusted. Irregular rim.  
Colour: black core, orange/buff exterior.

- 6 Context CCB Bowl shape 6.  
Diam: unknown Th: 6 mm Fabric 3: very fine vegetable temper Surface smooth; lightly burnished.  
Colour: not recorded.  
Paint: black.
- 7 Context CCB Bowl shape 6.  
Diam: 140 mm Th: 7 mm Fabric 3: very fine vegetable temper with white flecks. Medium hard; regular fracture. Very smooth surface.  
Surface: 10YR8/3, very pale brown (slip); 10YR7/6, yellow.  
Core: 5YR5/8, yellowish red.  
Paint: fugitive brown.
- 8 Context CCB Bowl shape 6.  
Diam: 160 mm Th: 7 mm Fabric 3: very fine vegetable temper with white flecks. Hard; regular fracture. Smooth surface, lightly burnished on exterior.  
Surface: 10YR7/3, very pale brown (slip).  
Core: 10YR6/4, light yellowish brown, to 5YR6/8, reddish yellow Paint: red-brown.
- 9 Context CCB Bowl shape 7.  
Diam: 190 mm Th: 9 mm Fabric 3: very fine vegetable temper with white flecks. Medium hard; regular fracture. Very smooth surface. Traces of burnishing.  
Surface: 10YR8/3, very pale brown (slip).  
Core: 5YR7/8, reddish yellow.  
Paint: fugitive red.
- 10 Context CBH Bowl shape 8.  
Diam: 130 mm Th: 7 mm Fabric 5: fine grit temper with white flecks. Hard; regular fracture. Smooth surface. Interior and exterior lightly burnished.  
Surface: 10YR8/3, very pale brown (slip).  
Core: 7.5YR7/6, reddish yellow.  
Paint: light brown.

*Fig. 16*

- 1 Context BCM Jar shape 1.  
Diam: 70 mm Th: 8 mm Fabric 4.  
Colour: not recorded.  
Paint: dark red.
- 2 Context CBA Jar shape 1.  
Diam: 160 mm Th: 7 mm Fabric 5: very fine grit temper with white flecks. Medium hard; regular fracture. Very smooth surface. Exterior lightly burnished.  
Surface: 5YR7/6, reddish yellow.  
Core: 5YR6/6, reddish yellow.  
Paint: plum red.
- 3 Context CBG Jar shape 2.  
Diam: 200 mm Th: 14 mm Fabric 1: medium vegetable temper. Hard; irregular fracture. Uneven surface. Incised decoration.  
Surface: 10YR7/6, yellow.  
Core: 10YR5/1, grey.

- 4 Context CCB Jar shape 2.  
Diam: 200 mm Th: 10 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Uneven surface. Traces of smoothing on exterior, traces of coils on interior.  
Surface: 5YR7/8, reddish yellow.  
Core: 5YR5/1, grey.
- 5 Context CBG Jar shape 2.  
Diam: 250 mm Th: 13 mm Fabric 1: medium-coarse vegetable temper. Soft; irregular fracture. Smooth exterior.  
Surface: 2.5Y8/4, yellow.  
Core: 2.5Y5/2, greyish brown.
- 6 Context CBB Jar shape 2.  
Diam: 110 mm Th: 9 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Traces of smoothing on the exterior.  
Surface: 7.5YR7/6, reddish yellow.  
Core: 7.5YR3/0, very dark grey.

*Fig. 17*

- 1 Context CBI Jar shape 4.  
Diam: 100 mm Th: 9 mm Fabric 2: fine vegetable temper. Medium hard; irregular fracture. Smooth surface. Traces of burnishing.  
Surface: 10YR8/3, very pale brown (slip).  
Core: 7.5YR7/4, pink.
- 2 Context CBA Jar shape 4.  
Diam: 100 mm Th: 7 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Uneven surface.  
Surface: 5YR6/6, reddish yellow.  
Core: 10YR7/6, yellow, to 10YR5/1, grey.
- 3 Context CBA Jar shape 4.  
Diam: 130 mm Th: 10 mm Fabric 1: medium vegetable temper Even surface with traces of smoothing.  
Colour: black core, orange/buff exterior.
- 4 Context CBI Jar shape 4.  
Diam: 140 mm Th: 12 mm Fabric 1: medium vegetable temper Smooth surface with traces of burnishing on exterior.  
Colour: black core, orange/buff exterior.
- 5 Context CBB Jar shape 5.  
Diam: 100 mm Th: 10 mm Fabric 1: medium vegetable temper. Medium hard; irregular fracture. Uneven surface.  
Surface: 5YR6/6, reddish yellow.  
Core: 7.5YR7/6, reddish yellow, to 7.5YR4/0, dark grey.
- 6 Context CBB Jar shape 5.  
Diam: 100 mm Th: 10 mm Fabric 1: medium vegetable temper Uneven surface.  
Colour: black core, orange/buff exterior.
- 7 Context CCB Jar shape 6.  
Diam: 130 mm Th: 12 mm Fabric 4: fine vegetable temper. Soft; regular fracture. Smooth surface.  
Surface: 2.5Y8/4, pale yellow.  
Core: 2.5Y6/6, olive yellow.

- 8 Context CBH Jar shape 6.  
Diam: 170 mm Th: 8 mm Fabric 1: medium vegetable temper Uneven surface.  
Colour: black core, orange/buff exterior.

*Fig. 18*

- 1 Context CBA Base shape 1.  
Diam: 70 mm Th: 8 mm Fabric 2: fine vegetable temper. Medium hard; regular fracture. Smooth exterior.  
Surface: 5YR7/6, reddish yellow.  
Core: 10YR6/6, brownish yellow.
- 2 Context CCG Base shape 1.  
Diam: 220 mm Th: 7 mm Fabric 5: fine grit temper. Hard; regular fracture. Smooth exterior with traces of burnishing.  
Surface: 7.5YR2/0, black (exterior); 7.5YR7/6, reddish yellow (interior).  
Core: 7.5YR5/6, strong brown, to 7.5YR3/0, very dark grey and 2.5Y6/4, light yellowish brown.
- 3 Context CBA Base shape 1.  
Diam: 240 mm Th: 18 mm Fabric 1: medium vegetable temper Smooth exterior, discoloured by fire.  
Colour: black core, orange/buff exterior.
- 4 Context CCF Base shape 1.  
Diam: 240 mm Th: 19 mm Fabric 1: medium vegetable temper Uneven exterior, signs of smoothing on interior.  
Colour: black core, orange/buff exterior.
- 5 Context CBB Base shape 2.  
Diam: 100 mm Th: 17 mm Fabric 1: medium vegetable temper. Soft and friable; irregular fracture. Uneven surface.  
Surface: 5YR7/8, reddish yellow.  
Core: 7.5YR3/0, very dark grey.
- 6 Context CBA Base shape 3.  
Diam: 130 mm Th: 19 mm Fabric 1: medium vegetable temper Smooth exterior, uneven interior.  
Colour: black core, orange/buff exterior.

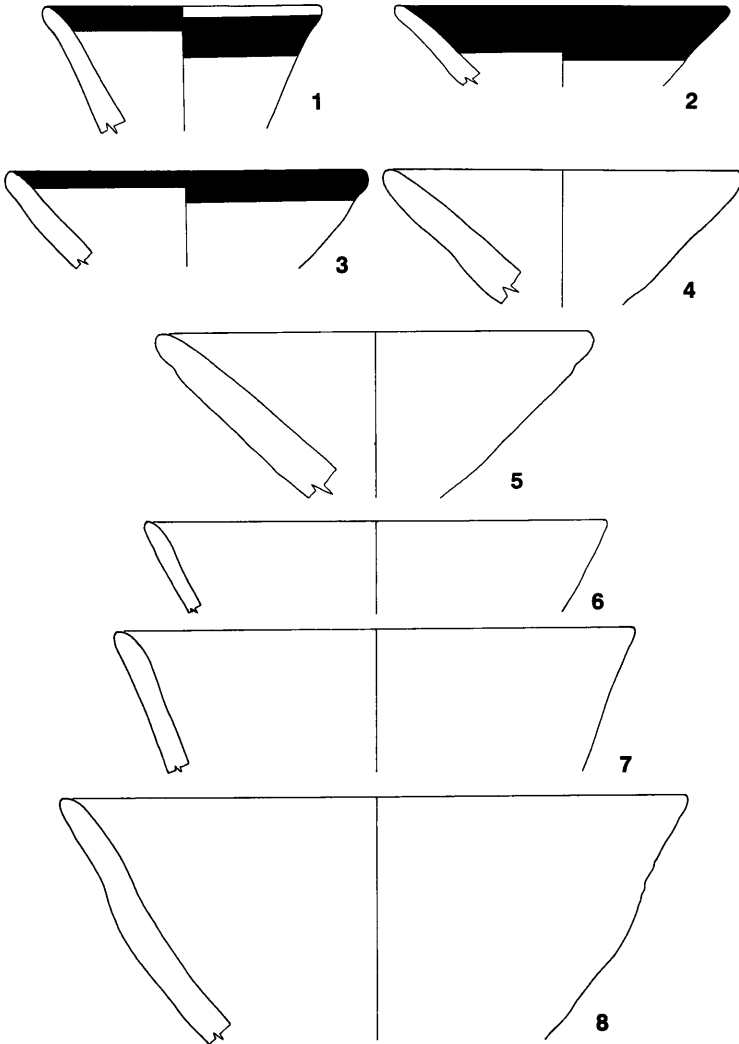
*Fig. 19*

- 1 Context CBA Painted sherd: decoration type 3.  
Th: 7 mm Fabric 5: grit temper. Hard; regular fracture. Smooth surface.  
Surface: 5YR7/6, reddish yellow.  
Core: 5YR5/1, grey.  
Paint: brown.
- 2 Context CCB Painted sherd: decoration type 5.  
Th: 6 mm Fabric 2: fine vegetable temper. Soft; regular fracture. Smooth exterior.  
Surface: 10YR8/4, very pale brown (slip); 7.5YR8/6, reddish yellow.  
Core: 7.5YR7/6, reddish yellow, to 7.5YR5/0, grey.  
Paint: red-brown.

- 3 Context CCB Painted sherd: decoration type 5.  
Th: 8 mm Fabric 3: very fine vegetable temper with white flecks. Hard; regular fracture. Smooth surface.  
Surface: 7.5YR7/4, pink (slip); 5YR6/6, reddish yellow.  
Core: 2.5Y7/6, yellow.  
Paint: raspberry red.
- 4 Context CBB Incised sherd: decoration type 7.  
Th: 17 mm Fabric 4: very fine vegetable temper. Medium hard; regular fracture. Smooth surface. Deep incisions.  
Surface: 2.5Y7/4, pale yellow (slip).  
Core: 2.5Y3/2, very dark greyish brown.
- 5 Context CBH Incised sherd: decoration type 7.  
Th: 12 mm Fabric 1: medium vegetable temper Smooth exterior with deep incisions.  
Colour: black core, orange/buff exterior.
- 6 Context CCB Incised sherd: decoration type 7.  
Th: 8 mm Fabric 2: fine vegetable temper. Medium hard; regular fracture. Uneven surface.  
Surface: 5YR7/6, reddish yellow.  
Core: 10YR7/6, yellow.
- 7 Context CBA Incised sherd: decoration type 7.  
Th: 7 mm Fabric 4: very fine vegetable temper. Hard; regular fracture. Smooth surface.  
Surface: 2.5Y8/4, pale yellow (slip).  
Core: 2.5Y5/2, greyish brown.
- 8 Context CCB Incised sherd: decoration type 7.  
Th: 8 mm Fabric 4: no visible temper. Hard; regular fracture. Smooth surface. Over-fired.  
Surface: 5Y8/2, white.  
Core: 5Y6/3, pale olive.

*Fig. 20*

- 1 Context BCM Husking tray: fragment of side with slashes  
Th: 26 mm Fabric 1: medium vegetable temper.  
Colour: not recorded.
- 4 Context CBI Husking tray: fragment of base with finger impressions  
Th: 21 mm Fabric 1: medium vegetable temper. Hard; irregular fracture. Smooth exterior.  
Surface: 7.5YR8/2, pinkish white.  
Core: 7.5YR2/0, black.



*Fig. 13 Proto-Hassuna pottery*

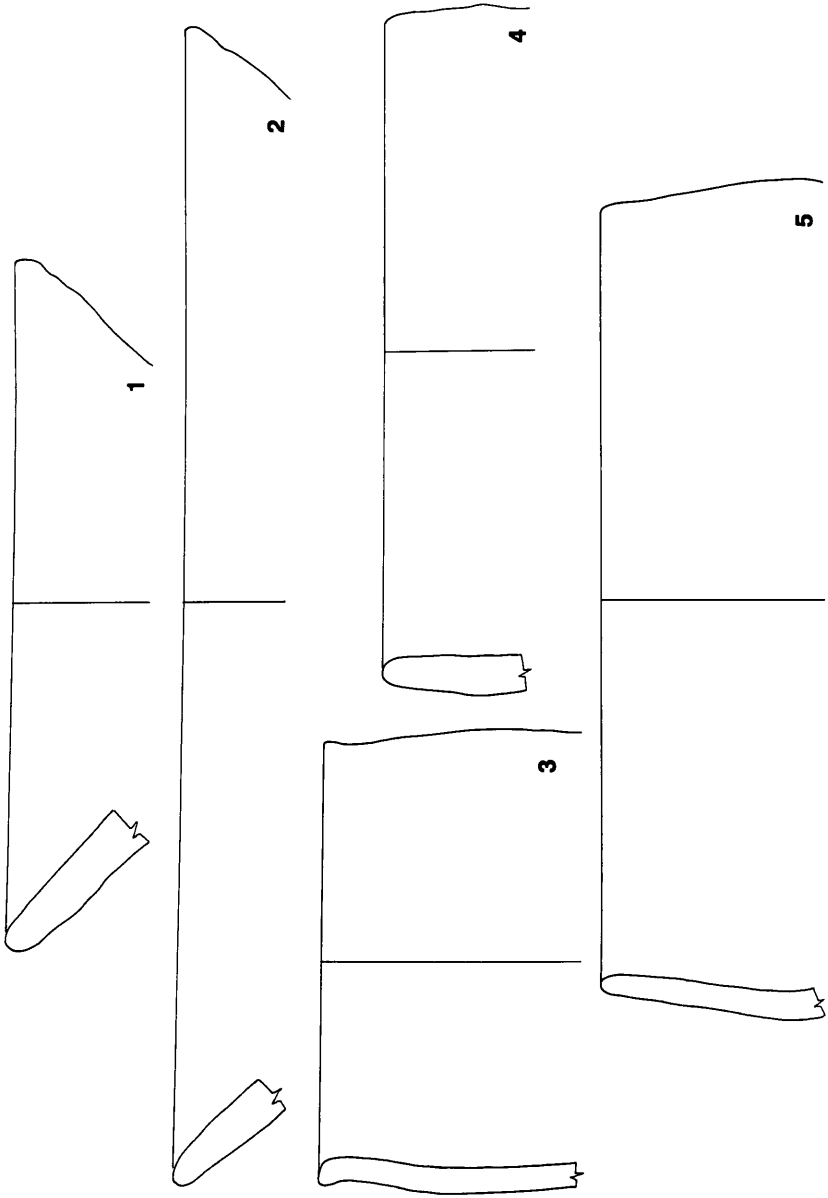


Fig. 14 Proto-Hassuna pottery

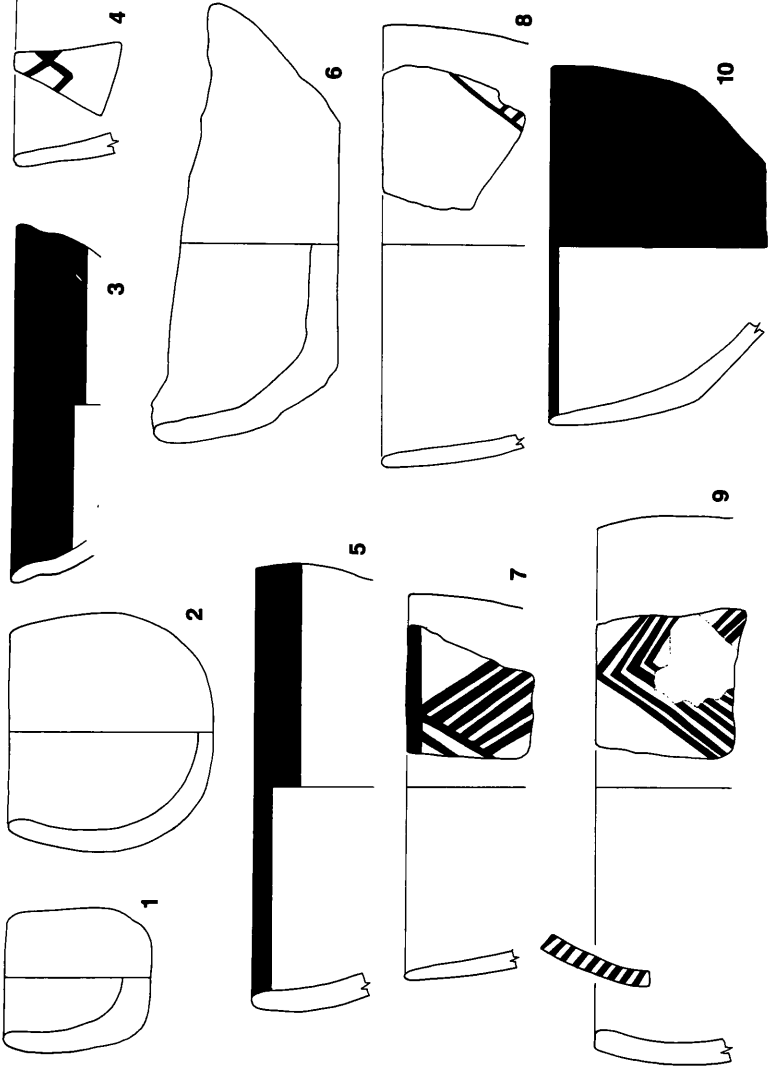
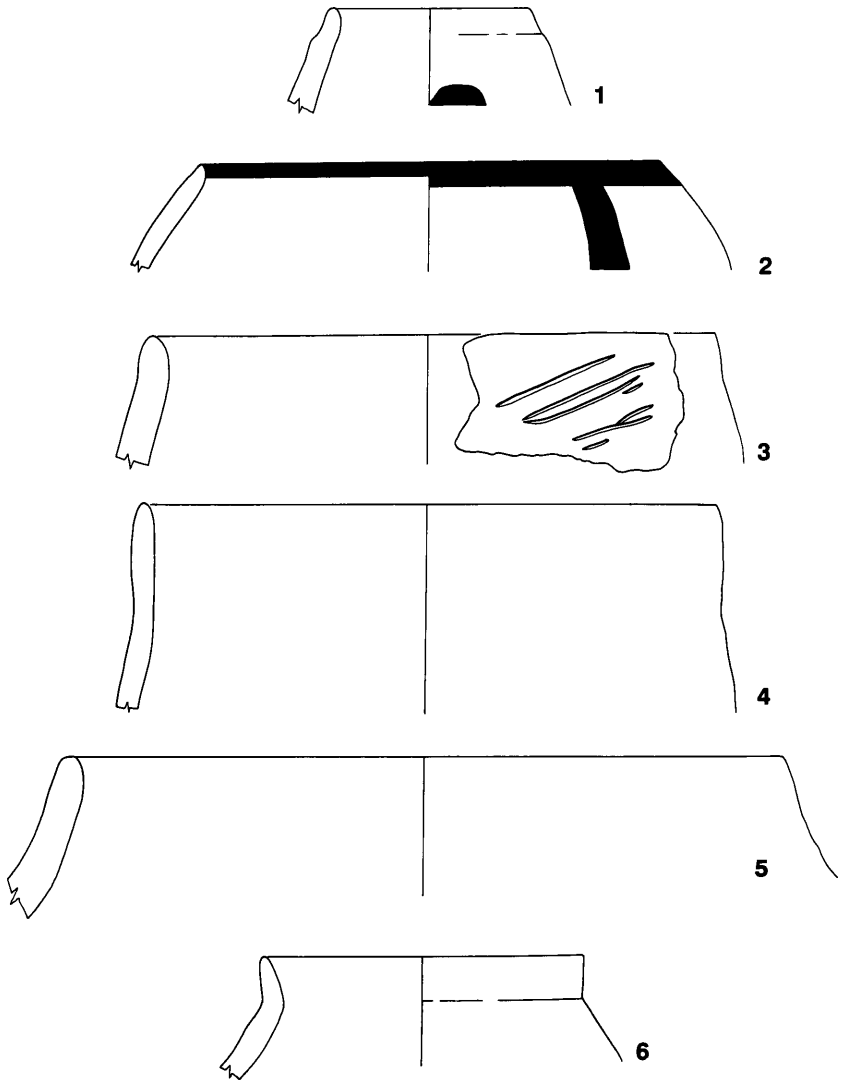


Fig. 15 Proto-Hassuna pottery



*Fig. 16 Proto-Hassuna pottery*



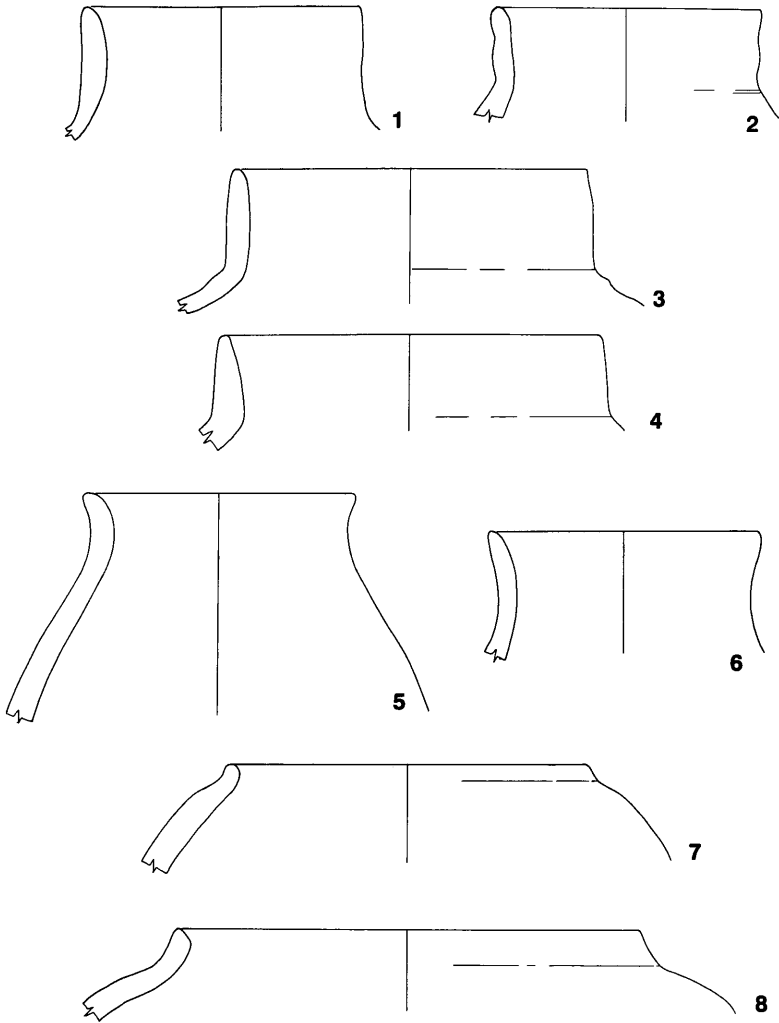
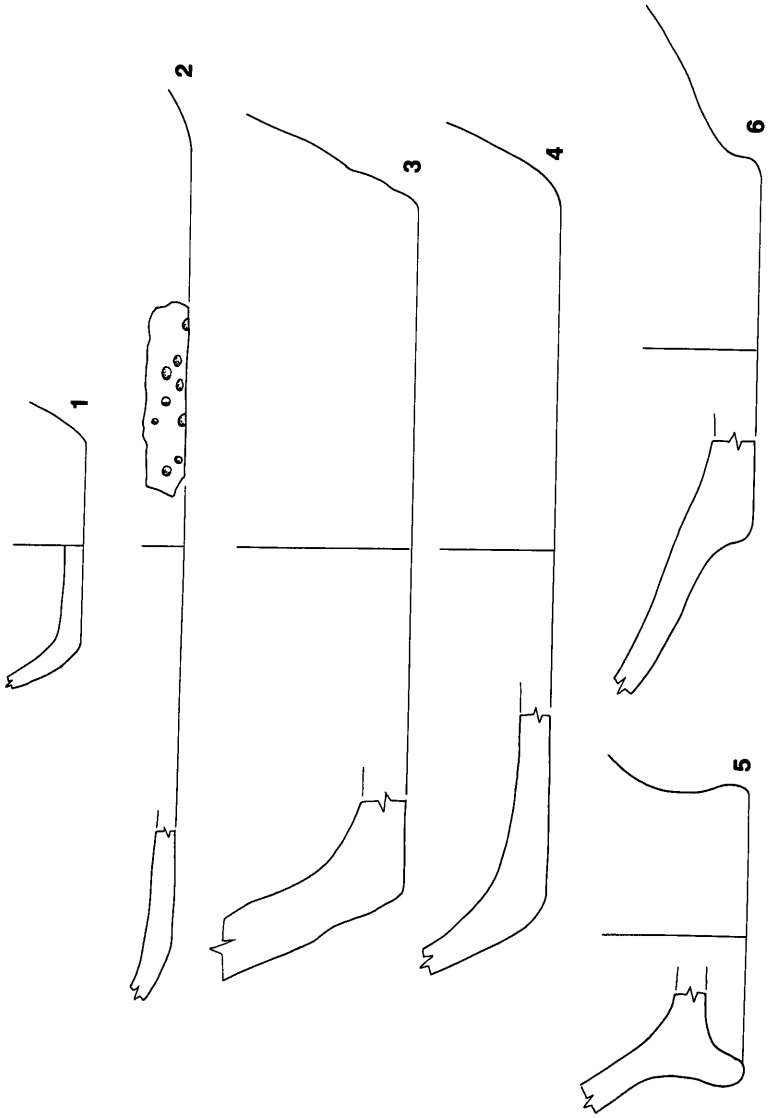


Fig. 17 Proto-Hassuna pottery



*Fig. 18 Proto-Hassuna pottery*

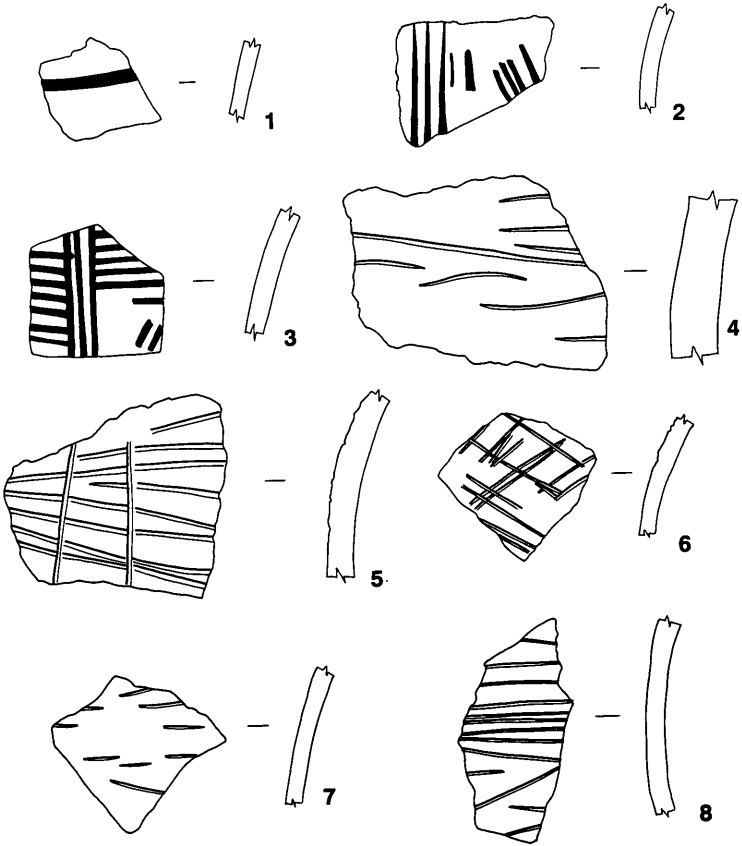
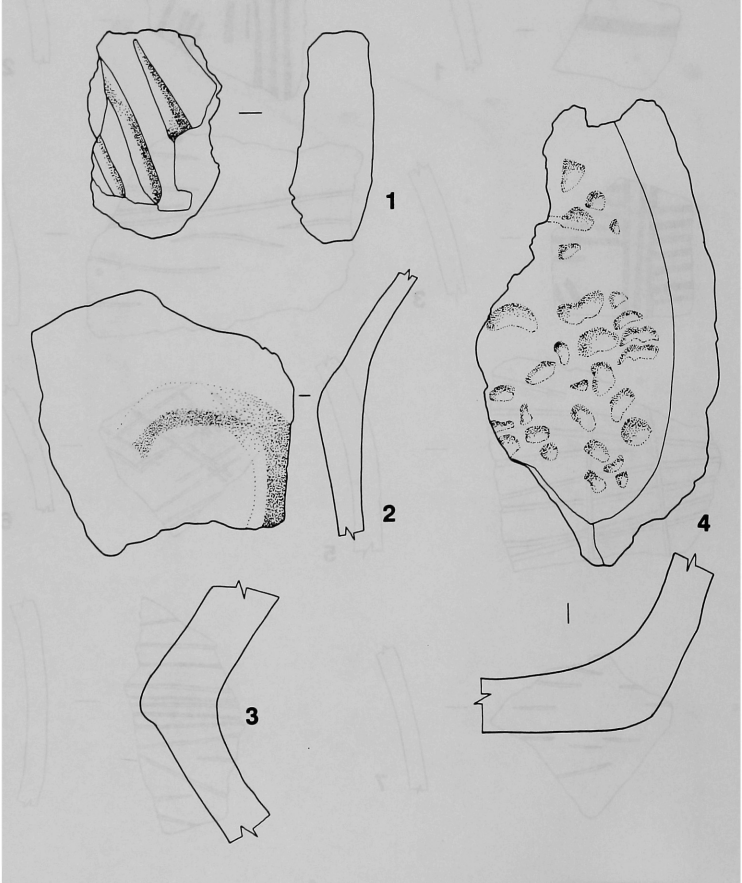


Fig. 19 Proto-Hassuna pottery



*Fig. 20 Proto-Hasuna pottery*

# The Halaf Pottery

*Stuart Campbell*

---

## § 4.1 INTRODUCTION

The publication of the 1983 season at Kharabeh Shattani contained a detailed report on the Halaf pottery found in that season. The present report follows on from that, but rather than simply dealing with the Halaf pottery from the 1984 season alone, it attempts to summarise the character of the pottery from both seasons. The aim is to present an overall characterisation of a Halaf ceramic assemblage and its position within the Halaf culture as a whole. To allow its success to be judged and different questions posed, as much of the primary data as possible has been provided in tabular form to allow independent reassessment.

Although this report is in many ways completely separate from that on the 1983 season, some explanation of its links with that report and of the constraints imposed on the use of the data by the history of its recording seems appropriate.

Because the characteristics of the corpus were not known before the first season, the primary method of recording in the 1983 season was through a large quantity of drawings. All the recording was done during and immediately following the first season of excavation. There was no opportunity to re-examine any of the pottery in better circumstances prior to the completion of that report. Subsequent examination inevitably reveals some inaccuracies in the first season's report. These are not major and make no difference to the main conclusions. Principally, a larger quantity of pottery went unrecorded than had been realised, mainly consisting of the pottery from the last contexts to be excavated and some of the less elaborately decorated material from other contexts which had been put aside for later recording. This

has a slight effect on the precise counts. As far as possible, the necessary recording has now been completed and its results are incorporated here. All the quantitative information contained in the first report is therefore superseded by the information presented here.

As a result of the knowledge gained in analysing the results of the 1983 season, a detailed recording system was devised which, it was hoped, would allow almost all the information which had been contained in the drawings to be recorded more efficiently without drawing such a large quantity of material. All the major variables relating to fabric, form and motif were recorded individually for sherds which had indications of shape or decoration. Rather than using standardised wares which would have been established on the evidence of a very small part of the total assemblage, the individual attributes of the fabric were recorded separately. Forms and motifs were recorded according to the typology established for the first season's pottery, ultimately derived from that of Davidson (*Volume I*, figs. 36-8; Davidson 1977). This large quantity of independently recorded attributes was later integrated and analysed with the use of a computer database.

To a large extent the aim of complete, detailed recording was achieved, although, owing to the pressure of time on the small staff, it was necessary to make a few compromises in the field which make the 1983 and 1984 data sets slightly incompatible in some respects. Some categories of frequently recurring sherds were recorded as a simple count without recording details of dimensions, paint and fabric colour. These categories included many bowls, mainly but by no means exclusively, of form 2a, which were undecorated or had a single

band of paint at the rim; the shoulders of jars which were not further diagnostic, that is of form 5a; simple bases; painted body sherds with no clear motifs or decorated with a simple line. In the counts of bowls, interior and exterior rim bands were not differentiated. The sherds which were recorded in this way will be referred to below as *bulk recorded sherds*.

In the first season, some aspects of the pottery were not systematically recorded. Where possible this was corrected in the second season. Therefore, the two data sets are complementary; the deficiencies in one are countered by the strengths in the other. For example, the 1983 data provides better information on the position of motifs on the vessel and the absolute quantities of bowl forms while the 1984 data provides much better absolute counts and more standardised fabric descriptions. Where the two data sets are not entirely compatible, the two sets of figures are presented separately. Because of the slightly varying methods of recording, and because, inevitably, details were sometimes omitted, the total sample for the various statistics given below, such as motif counts and fabric colour frequencies, vary slightly; the total sample size used for each count is given together with the statistics wherever appropriate.

Most of the sherds recorded are fine to medium wares. This is largely a reflection of their predominance in the assemblage but it also reflects the fact that much of the Halaf pottery came from contexts which had been contaminated by Achaemenid period material or from Achaemenid period contexts and it proved difficult to distinguish Halaf coarse wares from later coarse wares with total certainty. This is particularly unfortunate as Halaf coarse wares have largely been ignored at other sites.

In the second season, 6,757 fine ware sherds were found (counts are the number of definite Halaf sherds after sherds from the same vessel have been joined) of which 1580 were diagnostic and further recorded. Of these diagnostics some 641 were recorded in detail; the remainder were bulk recorded as described above. An additional 2,720 coarse ware sherds, the large majority of which are probably Halaf in date, were found in non-Hassuna contexts in 1984 and bulk recorded; a total of 9,477 Halaf sherds. 615 diagnostic sherds from the first season were drawn or fully described. Non-diagnostic and most coarse Halaf sherds were not recorded in the first season but, assuming the proportion of diagnostic to undiagnostic sherds was the same in the second season as the first, the

total number of Halaf sherds from the first season must have been approximately 5,000 and the total from both seasons 15,000.

The majority of sherds were undecorated: only 28.5% of the fine and medium ware sherds from both seasons were decorated. This figure falls to 21.5% if the sherds from the 1984 season are considered alone, which should be a more accurate estimate for the whole site. However, a large number of sherds will have come from the undecorated portions of decorated vessels. As Halaf pottery is often only decorated at the rim, and if decorated at all, almost always includes decoration at the rim, the number of rim sherds with decoration is probably a better reflection of the total number of vessels which were once decorated. 84% of all rim sherds were decorated. The decoration is generally painted, very rarely impressed or incised, and the paint is almost exclusively monochrome. Occasionally slightly different thicknesses of paint have been used to produce different shades (the so-called bitone decoration) but, in most instances, it is questionable whether this is deliberate. There are only two examples of sherds which are quite clearly deliberately decorated in two colours (bichrome).

As detailed in § 2.3, there were three main Halaf stratigraphic phases at Kharabeh Shattani. It was immediately clear that the pottery from the site was internally largely homogeneous, probably falling in a single phase of the Halaf ceramic chronology as presently known. This was supported by subsequent examination, although there are a very few sherds which are markedly earlier in date.

However, it was not known whether there was any detectable degree of development within the assemblage. Because of the absence of well defined strata in many cases and the difficulty of isolating later mixing and contamination within the Halaf period itself, it seemed inherently difficult to detect ceramic development, since any subtle changes would have been blurred by mixing of the deposits. Nevertheless, on analysis, some variation was detected, notably in the motifs used on the interior rims of vessels and, to an extent, in the range of shapes. In most areas no change could be isolated and, in general, the assemblage is presented here without sub-division. Where there are changes, the different phases are presented separately.

The only general division within the Halaf assemblage was between fine and coarse wares. This distinction could be readily and consistently made and the two wares are dealt with separately. Although there was clearly some variability in quality

amongst the fine wares, it was not particularly marked; a fabric of similar fineness might be used for a sherd a few millimetres thick as for one over a centimetre thick, or for an elaborately decorated sherd as for an undecorated sherd. Therefore, it does not seem justifiable to further sub-divide the Kharabeh Shattani Halaf material. The fine wares are dealt with first, followed by a short section on the coarse wares.

## § 4.2: THE FINE WARES: FABRIC ANALYSIS

### *Fabric Colour*

As stated above, apart from the bulk recorded sherds, fabric colours, inclusions and surface treatment were all recorded separately and form the subject of this section. The paste used for most of the fine wares was extremely fine. Visible inclusions are relatively rare and usually only make up a small percentage of the clay body. Therefore fabric colour will be considered first and other attributes related to it. Fabric colour, in fact, while not infallible does act as a good guide to the main fabric types which were noted.

Fabric colours were recorded for a total of 971 sherds. In the 1984 season, for reasons of speed and non-availability, the colour descriptions were not made using a colour chart, such as the Munsell colour chart, but using a standardised range of de-

scriptive adjectives. Internal consistency of description was assured as only one person performed the recording. The descriptions of a sample of the sherds was later checked, by a person other than the original recorder, against the Munsell colour chart to ensure that the descriptions had been made consistently and to produce a more objective definition of the colours which had been recorded. The recording of colours in 1983 was less tightly controlled and was carried out by more than one person. However, it was again possible to check that it was consistent and comparable with the 1984 data through the later detailed analysis of a sample of the sherds.

Six main colour groups were identified, although the boundaries of each are indistinct as much of the colour differentiation appears to be mainly attributable to firing differences. This is particularly true of the first three groups where there is almost a continuous spectrum and where sherds often have an exterior and interior colour of one group and a core colour of another. The assignment to particular groups is based on the colour close to the surface rather than on the core colour.

The large majority of sherds (86.4%) from Kharabeh Shattani come from the first three groups (Table 4.1); these three groups may perhaps be better described as a continuum with three concentrations rather than discrete states. Some of the sherds in the latter three groups also fit into this continuum, particularly in the 'grey' group where

*Table 4.1: Fabric colours*

Fabric	Early Phase	Middle Phase	Late Phase	Residual	Total
Orange	66	231	86	77	460
Pink	30	62	47	36	175
Brown	35	80	41	47	203
Red	15	17	9	2	43
Grey	6	39	8	11	64
Green	7	11	2	6	26
<i>Total</i>	159	440	193	179	971

*Table 4.1a: General Munsell equivalents for fabric colours*

Orange	2.5YR 5/8: 5YR 5/4: 5YR 5/6: 5YR 6/8: 5YR 7/6: 5YR 6/8: 7.5YR 7/6
Pink	2.5YR 6/6: 5YR 7/4: 7.5YR 6/6
Brown	7.5YR 7/6: 10YR 7/3: 5YR 5/6
Red	10R 5/8: 10R 5/6 and other, brighter reds not in the Munsell soil range.
Grey	10YR 4/1: 7.5YR 4/2: 5YR 4/2
Green	10YR 5/3: 2.5Y 6/4: 2.5Y 6/2: 5Y 6/3

the colour difference is often attributable to a slightly reducing atmosphere in firing. Nonetheless, a significant proportion of the sherds in the last three groups appear to constitute completely different types. There is little change in the relative frequencies of the different colour groups throughout the sequence; the apparent decrease in the number of sherds with green fabric colours is most probably a result of the small sample.

The large majority of fabrics was evenly coloured throughout the vessel wall. 18.4%, however, had distinctly different core colours. Amongst the orange, pink and red fabric colour groups less than 13% of all examples had a different coloured core, indicating a generally quite complete oxidation during firing. Where there was a different coloured core, it was typically slightly grey or brown, suggesting incomplete oxidisation. The surface of the sherd was very rarely affected. There is a slightly more frequent occurrence of vegetable temper in sherds which have a grey core (20.7% of the sherds tempered with vegetable temper had a grey core, almost all the other vegetable tempered sherds having no distinction between core and surface colouring) presumably reflecting the greater amount of carbon in their fabrics.

In the brown fabric colour group, in contrast, only 3.3% of the sherds lacked any difference in the colour of the core. The most common core colours in this fabric colour group are pink (24.6%), grey-black (24.6%) and orange (32.8%) suggesting that the reason for this, and perhaps for the existence of the whole brown fabric colour group, is that some vessels were fired at slightly too low a temperature or for an insufficient period of time or in an atmosphere which was not sufficiently oxidising for the fabric colour to attain the clear orange and pink colours characteristic of most of the finer wares. There are at least two different explanations for this high frequency of differentially coloured cores amongst this group of sherds. The grey-black cores probably result from carbon in the clay not being entirely burnt off in firing. Such carbon can persist in a fine, dense fabric even at firing temperatures of up to 800°C (Rice 1987, 335). Where the core is orange or pink, it may be more likely that the carbon had been fully burnt out of the clay and that the final part of the firing was slightly reducing, leading to the reabsorption of a small amount of carbon near the surface. This may have been accidental. However, as the surface colour is not unattractive and in other respects Halaf potters show great control over firing

(e.g. Steinberg and Kammilli 1984, 200), it is perhaps more likely to have been intentional and we should conclude that the potters were using two distinct firing methods to produce a brown surface.

The grey fabric colour sherds, which typically do not have differently coloured cores, or have cores in darker grey or black (5.1%), were probably not oxidised fully in any cases. The fact that no examples were noted with clear pink or orange cores, and few with brown cores, suggests that few were at any point completely oxidised as has been suggested for some of the brown fabric colour group. The absence of visible vegetable temper in the group of grey coloured sherds suggests that their colour is not the result of a having a greater initial amount of carbon in the paste but of different firing conditions.

#### *Fabric Inclusions*

In the majority of sherds (66%), there were no observable inclusions at the macroscopic level. Where present, three major types of inclusion were recorded; white mineral inclusions, almost entirely calcites; black, or occasionally grey, mineral inclusions; vegetable temper, almost all of which appears to be chaff. These were further qualified as coarse (approximately 1.5mm and over in maximum dimension), fine (barely visible) and, by exclusion, medium. A number of fabric descriptions did not include the colour of the mineral inclusions and these have been kept separate in Table 4.2 as fine ?, misc ? and coarse ?; from a re-examination of some of the sherds it is clear that more of these inclusions were grey-black rather than white but this is not quantifiable.

A number of clays were examined in the vicinity of Kharabeh Shattani, mainly from wadi beds. These clays all had quantities of natural, white calcite inclusions in varying sizes. From the quantities of such calcite inclusions occurring in the paste of the Halaf pottery (Table 4.2), it seems likely that they were not deliberately added but that some cleaning of the clay, to remove the larger calcite inclusions, took place prior to potting. Presumably the sherds with some calcite inclusions remaining were made from clay which had been less comprehensively cleaned. The black inclusions were not seen associated with clays near the site and may have been a deliberately added temper designed to alter the characteristics of the clay, but without further study this cannot be considered certain. The vegetable temper was deliberately added to the clay. Overall, it is reasonable to con-



Table 4.2: Fabric colour compared to predominant type of inclusions: Percentage frequencies

Inclusions	Fabric Colour					
	Orange	Pink	Brown	Red	Grey	Green
Fine white	12.6	13.1	17.7	18.6	15.4	7.7
Misc white	2.0	9.1	3.0		1.5	
Coarse white			1.5			
Fine black	4.6	5.1	6.4		7.7	15.4
Misc black		2.3		4.7		
Coarse black			0.5		1.5	
Fine ?	0.2	6.3	5.9			23.1
Misc ?	2.0		0.9	9.3	23.1	
Coarse ?			1.0			
Veg	0.4	1.7	2.0	2.3		3.8
Coarse veg			0.5			
None	77.8	62.3	60.6	65.1	50.8	50.0
Sample	460	175	203	43	65	26

clude that, at most, only 26% of the sherds had hard temper deliberately added to their fabric.

The sherds with coarser inclusions tend to be thicker, possibly because the use of temper was necessary to allow the thick-walled vessels, or portions of vessels, to dry and fire without cracking. This is especially marked with the few sherds with medium or coarse vegetable temper, although a few sherds which had very fine vegetable temper were indivisible from other fine ware sherds.

There is little obvious connection between the first three fabric colours and the different inclusions. It is not surprising that the relative quantities of the different inclusions remain approximately constant across fabric groups since the differences in fabric colour seem mainly attributable to differences in firing atmosphere and temperature. The sample of red coloured sherds is very restricted but there seems little indication that this fabric colour can be differentiated from the first three on the basis of inclusions. The grey fabric colour does have a larger proportion of sherds with medium sized inclusions (24.5%). The final fabric colour group, the green coloured sherds, does seem different. All but one of the small number of sherds in this group have either fine inclusions or none at all and there seems to be a much smaller number of sherds with white inclusions.

The above discussion suggests that several different fabrics are present and appear to be distinguished in several respects. As will be seen below some of them are also different in terms of the paint colours used and forms of vessels. Firstly, the fabric of the majority of sherds is orange or pink in

colour, rarely with inclusions, almost always hard fired and well oxidised (Fabric I). 65.6% of the Kharabeh Shattani fine ware sherds fall into this category. It may also include the red coloured fabrics, taking the total to 70%. There is a second group of fabrics which have been deliberately fired to a light brown colour, possibly by two different methods, which makes up 20.8% of the assemblage (Fabric II); this group is probably closely linked to the first. A third group is made up of the grey coloured sherds (Fabric III). This may include sherds which, but for insufficient oxidation during firing, might fall in the first two groups, but it does seem to include more sherds with grit temper and, at least in part, constitute a discrete group. The fourth, smallest and most distinctive group is made up of the green coloured sherds, which has a different pattern of inclusions and paint colours (Fabric IV). The fabric groups thus defined will be referred to below as Fabrics I to IV.

## Fine Wares: Surface Treatment

### Paint Colour

Paint colour was described in a manner similar to fabric, with a restricted range of adjectives which were later correlated to Munsell colour numbers. The variations in the recording over the two seasons are the same as those for fabric colours. There were five main paint colours. Unlike the fabric colours these are relatively distinct with little overlap amongst the groups, with the exception of the Dark brown and Brown groups which are slightly arbitrary divisions of a broader range.

When compared with the fabric colours, some correlations do emerge (Table 4.3). For instance, the pink fabric group has a high incidence of red paint with relatively small frequencies of black and orange paint. In some cases this is likely to be a consequence of the same differences in firing temperature and atmosphere which cause much of the differences in fabric colour. It might plausibly be suggested that the same paint was used to produce orange and red paint, but when the fabric was fired to the orange range of colours it tended to produce orange paint colours, while when it was fired to the pink range of colours it produced more red paint colours. Similarly, the grey fabric colour has high quantities of black paint, possibly because, in a slightly reducing atmosphere, paint which would otherwise give brown colours fires black. The colour of paint chosen can also be expected to reflect aesthetic preferences, particularly in the choice of paint to place on a particular background. Once again it is Fabric IV, which displays the greatest distinctness in paint colours. Most of the paint used is either brown or black, in contrast with all the other fabric groups where at least 40% of the paint is orange or red.

On only two sherds was there paint of more than one colour. Sherd AAE20 (*Volume I*, Fig. 19, 3) has paint of dark and light brown and can only be considered a marginal example of bichrome decoration. Sherd BBF2 (Fig. 26.4), however, is true bichrome, being decorated with black and dark red paint. Therefore, less than 0.25% of all the decorated pottery was bichrome painted.

### Slips

Most of the fine ware sherds had an interior or exterior slip, usually the latter but often both. The slips are typically thin and evenly applied. This varied slightly amongst the different fabrics. In Fabrics I and II, 75% of the sherds were slipped, over 60% with a cream slip, the remainder in a range of pink, white and light brown. In Fabric III only 65% of the total were slipped. In this group cream was still the most common slip colour, occurring in 45% of all cases, but there was a small but definite increase in the frequency of grey, green and brown tinged slips. Again, this reflects the different firing conditions in this group. Once again sherds from Fabric IV, the green coloured fabrics, were significantly different. They were largely without slips, only 27% having them out of the small sample present.

Slips are much more common on painted sherds than unpainted. Over 80% of painted sherds have a slip while less than 30% of unpainted sherds are slipped; as these counts refer to the detail recorded diagnostic sherds, they are likely to be quite closely related to the original number of vessels with and without a slip. Slips were probably applied, in part, to provide a better base for paint on which to adhere and with which to contrast. There seems to be no correspondence between paint colour and slip beyond that already noted as linking paint and fabric colour. Thus 1.5% of sherds with black paint have a grey tinged slip while less than 0.7% of the sherds with paint colours other than black do so.

*Table 4.3: Fabric colour compared to paint colour: Percentage frequencies*

Paint Colour	Fabric Colour					
	Orange	Pink	Brown	Red	Grey	Green
Black	25.2	13.9	30.9	36.1	50.0	50.0
Dark brown	8.1	7.3	10.3	5.6	18.8	
Brown	13.4	19.7	18.2	13.9	9.5	25.0
Orange	22.2	6.6	15.2	11.1	11.9	
Red	31.2	52.6	25.5	33.3	28.6	6.3
Sample	418	152	179	36	49	18

*Table 4.3a: General Munsell equivalents for Paint colours*

Black	10YR 3/2: 7.5YR 2/0
Dark brown	7.5YR 3/4: 5YR 2.5/2: 5YR 3/2 2: 5YR 3/2
Brown	5YR 5/6 7: 5YR 5/6: 2.5YR 3/6: 2.5YR 3/4
Orange	2.5YR 5/8: 2.5YR 6/8: 5YR 6/8
Red	10R 4/8: 10R 4/6: 10R 5/8

*Burnishing*

The surfaces of almost all of the fine ware sherds are well smoothed. However, relatively few have a true burnish, producing a glossy surface. There are only 52 examples, less than 5% of the total. Almost all of these are burnished only on the exterior. Although few unpainted sherds are represented, there is no clear tendency for burnishing to be more common on more extensively decorated sherds. There is no correlation with fabric type, temper, paint colour or slip colour. There is a single possible example of stroke burnishing. This a body sherd with grit temper which has parallel bands of burnishing on the exterior. It appears to be likely to belong in the late Halaf assemblage but it is from a context contaminated by later material.

**Fine Wares: Shape Analysis**

A detailed analysis of the forms of the fine ware vessels was made in the 1983 report, and there is little new to add. The same description of the different form types used is that defined in Appendix A of *Volume 1* and summarised here in Fig. 21. It is worth re-emphasising that while the form categories refer to the shape of the complete vessel, the

sherds were assigned to each type almost entirely on the basis of the form at the rim of the vessel. The types were deliberately chosen to concentrate on the variability which could be seen from only that portion of the vessel. Thus few sherds are likely to have been misassigned within the forms used, but the form categories do not pretend to cover all the types of complete vessel which may have been present at Kharabeh Shattani or elsewhere. In particular, the associations of particular base forms with vessel types is unknown as, very largely, are the body shapes of jars.

Because a large number of rim sherds were bulk recorded under the simple heading of bowls the relative proportions of forms is somewhat distorted. However, there is little noticeable difference between the overall statistics and those of 1983 if this is taken into account (Table 4.4). If the frequencies obtained from the 1983 excavations, when there was little bulk recording, are compared with the frequencies for both seasons, it can be seen that the major difference lies in the frequency of 2a bowls, and to a lesser extent 1a, 2b and 2c bowls. The 1983 results are a much more accurate guide to the relative and absolute quantities of all these types. Perhaps of more significance is the difference in the frequency of forms 3c and 3d, slightly hole-

Table 4.4: *Frequencies of fine ware forms*

Forms	Early	Middle	Late	Redep.	Total	1983
1a	7.6	4.5	7.5	8.9	6.2	9.7
1b	1.9	1.4	0.9		1.2	0.8
1c	2.5	2.6	2.3	2.0	2.4	2.3
1d	2.5	0.6	0.5	1.0	0.9	2.3
1e	0.6	0.3	0.5	1.0	0.5	0.8
2a	13.3	10.9	13.1	20.2	13.2	33.6
2b	1.3	2.7	2.8	2.0	2.4	5.0
2c	6.3	3.7	3.3	2.5	3.8	8.5
3a		0.2		0.5	0.2	0.8
3b	5.1	3.9	5.1	4.4	4.3	4.2
3c	4.4	5.0	3.3	3.0	4.3	12.4
3d	0.6	1.0		0.5	0.7	3.1
<i>All Bowls</i>	38.6	47.1	40.7	36.5	43.0	0.4
4a	2.5	0.8	0.5		0.8	6.6
5a	2.5	7.6	7.5	8.4	7.0	3.9
5b	7.0	4.3	6.5	4.9	5.2	3.5
5c	1.3	1.0	1.4	2.5	1.3	0.4
5d		0.2		0.5	0.2	0.8
5e	0.6	0.5	0.5		0.4	0.8
5f		0.8	0.9	1.0	0.8	0.4
other	1.3	0.6	2.8	0.5	1.1	
<i>Sample</i>	158	622	214	203	1197	259

*Table 4.5: Mean and standard deviation of the diameters of all forms. All figures rounded to the nearest whole mm*

Form	Number	Mean	St.Dev.
1a	26	237mm	106mm
1b	10	244mm	75mm
1c	13	216mm	67mm
1d	7	267mm	87mm
1e	3	150mm	60mm
1f	2	280mm	28mm
2a	29	212mm	86mm
2b	10	264mm	45mm
2c	13	140mm	39mm
3a	2	195mm	120mm
3b	20	176mm	77mm
3c	18	180mm	63mm
3d	5	160mm	55mm
4a	5	108mm	36mm
5a	1	110mm	
5b	16	142mm	59mm
5c	9	136mm	58mm
5d	2	85mm	35mm
5e	4	228mm	140mm
5f	7	150mm	22mm
other	11	204mm	184mm

mouthed bowls. In 1983 these forms made up 15.5% of all the forms while in the 1984 season they made up only 2% of all forms when bulk recorded sherds are included and only 4.5% if they are excluded. Much of this difference is certainly the result of sherds from these groups being placed in the group of bulk recorded bowls and, to a lesser extent, it may have been contributed to by slightly different interpretations of the forms in the two seasons. However, there may also have been an element of functional differentiation between the two areas exposed, as the bowls generally selected for bulk recording were open rather than holemouthed.

In the form types used in this report, as in the report on the 1983 material and as derived from the form types proposed by Davidson (1977), large shallow bowls (form 2b) are separated from small shallow bowls (form 2c); the former being considered to be those with diameters of more than 200mm, the latter by diameters of 200mm or less. This appears justified at some sites, particularly in the later stages of the Halaf at Arpachiyah. However, when the internal evidence of Kharabeh Shattani is examined, this division seems very arbitrary and it is better to regard these two types, for

this site, as two extremes of a single form rather than as distinct types.

There seems to have been little differentiation amongst the three phases at Kharabeh Shattani. A marked decline in the quantities of 3d bowls was detected in the 1983 sample between the Middle and Late Phases; 7.2% of the sherds of known form in the Middle Phase were form 3d but there were no occurrences in the Late Phase. However, this was not confirmed in 1984 when the frequency of this form may have been affected by the problems discussed above. Therefore, this change cannot be considered more than a possibility. The general proportions of bowls and jars present were consistent throughout the phases, with approximately 83% of the assemblage coming from bowl sherds and 15% from jars.

There is a single example of form 1f (Fig. 29.10). This is the cream bowl form which is primarily associated with the early Halaf. The sherd is highly abraded both on its surfaces and on the broken edges. It seems probable that, rather than being contemporary with the rest of the Halaf assemblage, it may be a residual sherd from an earlier occupation at the site or have come from a nearby site.

Table 4.6: Percentage frequency of forms in each fabric group

Form	Fabric Groups			
	I	II	III	IV
1a	12.9	12.4	9.1	6.3
1b	1.8	3.9		
1c	5.4	6.2		
1d	1.8	2.3	3.0	
1e	0.8	0.8	3.0	6.3
1f	0.5			
2a	25.8	24.0	18.2	6.3
2b	5.7	4.7		
2c	6.5	10.1	9.1	18.8
3a	0.3			
3b	9.8	7.0	9.1	6.3
3c	6.5	9.3	18.2	31.3
3d	1.3		3.0	6.3
4a	1.8	1.6	3.0	
5a	7.0	3.9	3.0	
5b	4.9	7.8	12.1	
5c	3.1	2.3		
5d				6.3
5e	0.8		3.0	6.3
5f	0.8	3.9	3.0	
Other	2.6		3.0	6.3
Sample	129	33	16	

When form type is examined together with fabric group (Table 4.6), it is difficult to see much differentiation between the groups. The fact that these figures include only the shards recorded in detail in 1983 and 1984, excluding the bulk recorded sherds which do not have fabric descriptions, means that the percentages of bowls are somewhat misrepresented in this table. To a lesser extent this is also true of the jar forms. Despite this, the 1983 figures on their own confirm the general accuracy of the figures given. The frequency of form 2a should be higher by, perhaps, 10% and the relative frequency of the other forms reduced slightly, but other than this the relative quantities are almost the same. The green fabric type (IV) once again appears different but with a sample size of only 16 it is impossible to be sure that the high numbers of 3c and, possibly 2c, bowls is significant. However, it may be significant that this group includes the only example of jar type 5d, the bow rim jar, for which we have a good fabric description.

The rims of vessels are most often terminated with a simple pinched rim. However in 23% of the rim sherds the top of the rim has been flattened. Such square rims are most common in forms 1a

and 2a, in which 27% and 35% respectively of all the rims are square. Approximately 10% of the square rims are further decorated on the top of the rim itself, either with rim ticks (motif 13) or a solid band (motif 1). Rim ticks were more common on vessel forms 1a and 2a, occurring twice as often as solid bands while on other vessel forms solid bands were considerably more popular.

There were two fragments of a vessel with an internal partition (Fig. 31.1 and 31.2). Both were small fragments but it was clear that they came from different vessels. Both sherds are the bases of vessels, which might be wide, steep side bowls, and it is unclear whether the partition continued up to the rim but there is no indication that they did not. Partitioned vessels are very rare in Halaf pottery. There is a published example of a similar shallow steep sided vessel from Yarim Tepe II (Merpert, Munchaev & Bader 1977, Pl. XIV, 1) and there is an unpublished, very small, example from Arpachiyah. In these examples, as with those from Khara-beh Shattani, there is no decoration.

## Fine Wares: Motif Analysis

### General overview

As is usual with Halaf pottery a very wide range of motifs occurred. Most of the most common motifs which are considered as 'typical' of Halaf pottery occurred at least once and the range of motifs at Kharabeh Shattani fits well within the central Halaf tradition. The large majority of the motifs are linear and are placed in narrowly spaced horizontal bands. Although the frequencies of motifs indicate an overwhelming dominance of simple horizontal lines, these generally occur either as the sole decoration at the rim or, very frequently, in combination with other motifs as a divider between more complex bands motifs. Only 15.5% of the painted sherds have a motif, such as crosshatching, which could be employed to fill a wide area. As many of the sherds included in this percentage are small and may misrepresent the decoration on the original vessel, this is the maximum number of vessels which may have had a single motif over a large area.

Because many of the decorated sherds are body sherds it is often very difficult to determine the position of a motif on the original vessel. However, where rim sherds alone are considered, it is possible to examine the motifs which occur in a known position. Often either the interior or exterior of an Halaf pot will be decorated with a single motif at the rim; this means the number of examples of rim motifs is significantly higher than motifs occurring elsewhere on the vessel and, at Kharabeh Shattani, provides a sample of sufficient size to examine in isolation. Because rim sherds with a single band

were bulk recorded in 1984 without distinguishing whether they were interior or exterior, the two seasons figures cannot be considered directly comparable and are given in different tables, although they are in close agreement when the additional bulk recorded 1984 examples are added to the totals.

Although the differing recording systems used in the two seasons has some affect, the general trends in the use of motifs can be seen in the accompanying tables. The information is the 1983 and 1984 totals combined and the values which are affected by the different recording methods are indicated by an asterisk in the left hand column.

Table 4.7 shows the general use of motifs; it is restricted to rim sherds with a significant proportion of the decoration preserved. The analysis is slightly simplistic as a single motif includes a few motifs, such as crosshatching, which might cover the whole of the interior or exterior of a vessel. However, examples of that sort are rare and are submerged within larger categories where they would only have an effect of a few tenths of a percent. Perhaps more serious is the case where the type of decoration is assessed on the evidence of a rim sherd on which there is only a single motif but where the sherd belongs to a vessel which had more decoration further down the body. This will have the effect of over-estimating the number of vessels with single motifs on the interior and exterior. However, the number of body sherds with multiple bands of decoration are quite small which is probably a good indication that the figures given are not a serious underestimation.

Table 4.7: The general distribution of motifs in rim sherds

Interior	Exterior	%age	Number
None	None	15.8	186
*None	Single motif	0.2	2
*Single motif	None		0
*Single motif	Single motif	27.5	309
None	Multiple motifs	0.3	3
Single motif	Multiple motifs	10.9	128
Multiple motifs	None	0.1	1
Multiple motifs	Single motif	6.2	73
Multiple motifs	Multiple motifs	10.2	120
Single band on interior and/or exterior (bulk recorded)		30	353
<b>Total</b>			<b>1175</b>

\* These numbers are artificially low as they do not take into account the many sherds which would have fitted into this category but which were bulk recorded and therefore cannot be used here.

Thus the figures should not be regarded as an exact representation of how the original assemblage was decorated, but as a close approximation. Table 4.7 gives a good impression of the general layout of decoration on vessels at Kharabeh Shattani.

Although the number of rims with decoration, a fairly direct measure of the number of vessels with decoration, is high, at 84%, most of the sherds have very simple decoration; only 27.7% of the sherds have more than a single band at the interior or exterior rim. This is in contrast to the generally held impression of Halaf pottery being characterised by complex, repeating bands of motifs. It is unlikely that this is a reflection of less elaborate decoration at Kharabeh Shattani. Although this may play a part, it is probably more indicative of the tendency to over-emphasise the elaborate and attractive decoration in selective publication of the pottery from sites such as Arpachiyah.

A tendency visible in Table 4.7 for extensive decoration to be more prevalent on the exterior than the interior (21.4% have multiple motifs on the exterior, only 16.5% on the interior) is reinforced if body sherds are included in the counts. 43% of all detailed recorded sherds have multiple motifs on the exterior but this would drop to around 25% if bulk recorded sherds were taken into account; 29% of detailed recorded sherds have multiple motifs on the interior but again this would drop when bulk recorded sherds are included, perhaps to around 20%. Although the 30% of rim sherds bulk recorded may distort the picture, almost all rim sherds either have no decoration or have decoration both on the interior and on the exterior.

The form of vessel clearly has a major influence on the decoration of vessels. Very open forms such as 1b, 1c, 2c and 2b tend to have more decoration on the interior, often the most elaborate and extensive (e.g. Fig. 26; *Volume I*, Fig. 14, Fig. 18). Deep bowls have more extensive decoration on the exterior. As at other sites, particularly to the west, bowls of form 1d are typically extensively decorated on the interior from the rim to the carination, usually with two bands on the exterior one at the rim and one along the carination (Fig. 27; *Volume I*, Fig. 4: 1, Fig. 3: 2 and 3; examples from other sites include Shams ed-Din, Gustavson-Gaube 1981, Fig. 492-4; Arpachiyah, Mallowan and Rose 1935, Fig. 66, 5; Tell Aqab, Davidson and Watkins 1981, Fig. 2, 4).

The total number of occurrences of the motifs in Fig. 22 are given in tables 4.12 and 4.13 for interior and exterior occurrences respectively. This summarises the range of motifs which appear on all sherds in the assemblage which received detail recording. However, many of the motifs are clearly related. Motifs 30 to 35 are obviously closely related. In Tables 4.14 and 4.15 the motifs in Fig. 22 have been divided into broader general groups, again for all sherds which were detail recorded. It should be noted that some motifs can be included in more than one general group (for example motif 57 is both a lozenge and has crosshatching so it is counted in two groups) and some motifs are included in none (such as motif 76). Therefore the number do not add up to the total sample from which they are drawn. The percentages given are the percentage of the whole sample which falls into a group. Therefore the percentages do not sum to 100%.

These tables provide a good guide to the general usage of generalised forms of motifs. The contrast in frequency between the interior and exterior of sherds is particularly apparent. There is little clear indication of change through time with the single exception of links on the exterior of sherds. This declines from 11.2% of all motifs being of this kind in the early phase to 4.8% in the late phase.

#### *Rim Motifs*

If the motifs which occur closest to the rim are considered alone (Table 4.8), there are some interesting points. Plain bands heavily predominate both on the interior and exterior, although particularly on the exterior. Given that the 'various' category includes many sherds where the decoration is unknown, it is likely that the true percentages are even higher. There is a marked contrast between interior and exterior use of motifs. Motif 18, a single band with a single line of swags below it, makes up 14% of the total number of interior motifs in the 1983 sample and 17% in the 1984 sample. The figures for exterior motifs are 2.6% and 2.1% respectively. The figures for motif 19, a single band with multiple lines of swags below it, are 3.5% and 4.7% on the interior, and 1.4% and 0% on the exterior. Motif 13 is also an important minority motif on the interior rim. It is perhaps worth noting that in no case does motif 13 occur on the interior rim combined with a square rim and motif 13 on the top of the rim. These three

Table 4.8: Motifs which occur at the rim

Interior	%age	Number	Exterior	%age	Number
*1 or 3	39.7	110	* 1 or 3	52.2	149
2	0.4	1	2	0.7	2
4	0.7	2	4	2.8	8
5	1.1	3	6	0.7	2
6	1.1	3	8	8.1	23
7	0.4	1	9	0.4	1
8	0.4	1	12	0.4	1
10	0.4	1	18	2.8	8
11	0.4	1	19	1.4	4
13	6.1	17	21	0.7	2
18	16.2	45	24	0.7	2
19	5.4	15	26	0.7	2
21	0.4	1	30	0.4	1
26	1.8	5	47	0.7	2
27	0.7	2	55	1.1	3
62	1.1	3	62	0.4	1
67	0.4	1	67	0.4	1
68	0.4	1	68	0.4	1
81	0.4	1	85	1.4	4
85	0.4	1	* Unknown	23.9	68
*Unknown	22.4	62			
<i>Sample size</i>		277	<i>Sample size</i>		285

\* These numbers are artificially low as they do not take into account the many sherds which would have fitted into this category but which were bulk recorded and therefore cannot be used here.

motifs, therefore, are used almost exclusively as interior rim motifs.

At many other Halaf sites, motif 18 is the predominant interior rim motif (for example Tell Aqab and Tell Arpachiyah; Davidson 1977). Although it is characteristically found in that position at Kharabeh Shattani, it is greatly outnumbered in this position by a single horizontal line (motif 1). As the sites where motif 18 predominates are deeply stratified and are likely to include the time span represented at Kharabeh Shattani, it is probable that this difference is not chronological. It is more likely that it is regional differences being emphasised by subtle stylistic variation, which, in less detailed studies or less clear cases, would not be detected.

It seems likely that there was a tendency for motif 26, chequerboarding, to be used on largely the interior (e.g. Fig. 26.6). This would accord with the many examples from other sites (e.g. Mal-lowan and Rose 1935, Fig. 61). Crosshatching and

similar motifs used to fill an area, typically occurs on the exterior down the body from the rim. From the relatively few examples with large parts of the profile preserved this extends approximately two thirds of the way down the body of deep bowls (Fig. 25.4 and 25.5; *Volume I*, Fig. 6, 2, Fig. 20) in a way abundantly paralleled at other sites.

As noted above, some of the rim sherds which have a single motif on the interior and exterior may have come from vessels which had more extensive decoration of the portion which is missing. Such sherds probably include those with motif 26 (small chequerboarding) on the interior. The category 'unknown' in Table 4.9 includes all the sherds where there were only traces of paint or encrusted exteriors; in the large majority of cases these sherds could be seen to have had only a single motif.

Table 4.9 gives the associations between interior and exterior rim motifs. The most frequent



*Table 4.9: Rim sherds with a single motif interior and exterior  
Percentages are of all rims with a single motif interior and exterior*

Exterior	Interior	%age	Number
* 1	1	21.1	33
1	5	0.6	1
1	6	0.6	1
1	8	0.6	1
1	10	0.6	1
1	18	8.3	13
1	19	8.3	13
1	26	1.3	2
1	81	0.6	1
1	85	0.6	1
* 1	Unknown	6.4	10
2	19	0.6	1
3	3	0.6	1
4	1	0.6	1
4	4	1.3	2
4	18	0.6	1
4	67	0.6	1
8	1	6.4	10
8	13	1.3	2
8	62	0.6	1
8	Unknown	0.6	1
9	26	0.6	1
18	18	0.6	1
18	Unknown	2.6	4
19	1	1.3	2
24	3	0.6	1
26	1	0.6	1
26	Unknown	0.6	1
47	Unknown	0.6	1
55	1	0.6	1
55	18	0.6	1
68	Unknown	0.6	1
85	1	1.3	2
85	62	0.6	1
*Unknown	1	5.8	9
Unknown	6	1.3	2
Unknown	13	1.9	3
Unknown	18	3.8	6
Unknown	19	0.6	1
Unknown	21	0.6	1
Unknown	27	1.3	2
Unknown	Unknown	10.3	16
<i>Sample</i>			156

\* These numbers are artificially low as they do not take into account the many sherds which would have fitted into this category but which were bulk recorded and therefore cannot be used here.

Table 4.10: Motifs occurring at interior rim

1983		Interior percentages			
Motif	Early Phase	Middle Phase	Late Phase	Redep	
1	50.00	66.67	63.33	61.70	
3	7.69	12.82		2.13	
18	19.23	5.13	13.33	14.89	
19	7.69	2.56	3.33	2.13	
Other	15.39	12.82	19.99	19.17	
Sample	26	39	30	47	

1984		Interior percentages			
Motif	Early Phase	Middle Phase	Late Phase	Redep	
1	31.82	41.43	53.49	36.00	
3	13.64	3.57	2.33	4.76	
18	20.45	12.14	13.95	24.00	
19		5.71	4.65	4.00	
Other	27.27	25.00	23.26	32.00	
Sample	44	140	43	25	

Table 4.11: Motifs occurring at exterior rim

1983		Exterior percentages			
Motif	Early Phase	Middle Phase	Late Phase	Redep	
1	53.33	40.38	71.43	66.07	
3	3.33	3.85		1.79	
18	3.33	7.69	4.76		
19	3.33		7.14	1.79	
Other	36.65	48.07	16.66	30.38	
Sample	30	52	42	56	

1984		Exterior percentages			
Motif	Early Phase	Middle Phase	Late Phase	Redep	
1	54.90	47.13	62.50	50.00	
3	3.92	5.17		3.33	
18	3.92	2.30			
19		0.57			
Other	35.29	33.31	29.16	46.65	
Sample	51	174	48	30	

associations are motif 1, a single band, on the interior and exterior; motif 1 on the exterior and motif 18 or 19 on the interior; and motif 8, crosshatching, on the exterior of a bowl and a single band on the interior. In the last case it is worth noting the fact that there were ten examples of crosshatching on the exterior with a single rim band on the interior but no occurrences of motif 18 or 19 on the interior together with a crosshatched exterior. This seems likely to be a deliberate choice in motif usage.

Compared to the large number of different motifs used at the rim, it is striking how consistently motif 19, a single band with multiple swags, occurs at the interior rim together with a single band on the exterior. Of the 15 examples where motif 19 is the sole interior rim motif, 13 have a single band on the exterior rim.

Although there are certain obvious similarities, such as the dominance of simple bands (motif 1), there are significant differences in the motifs which

Table 4.12: Interior motif frequencies

Motif	Early Phase	Middle Phase	Late Phase	Residual
1	25.9	32.5	43.5	37.8
2	1.2	0.3	2.7	1.7
3	10.5	6.5	3.4	6.4
4	4.3	5.7	4.8	2.3
5		1.1		
6		1.9		0.6
7			0.7	
8	3.1	0.8	1.4	0.6
9		1.4	0.7	
10	1.2	2.4	0.7	
11		0.3		
13	2.5	1.1	1.4	4.7
14		0.5		1.2
17		0.3		0.6
18	11.7	7.0	9.5	14.0
19	3.7	3.0	2.7	1.7
21	1.2	1.1	0.7	
22		0.3		
23	1.2			
24				1.2
26	2.5	1.1	1.4	2.3
27	0.6	0.3	1.4	0.6
30	2.5	0.5	0.7	1.2
31	1.2			0.2
32	0.6		0.7	
33		0.3		0.6
34		0.5		
35				1.2
36		0.5		
38				1.2
43	0.6			
45	0.6			
47	3.7	0.8		1.2
50		0.3	1.4	
52		0.8		
53		0.3	0.7	0.6
54	0.6	0.3		0.6
55		0.3		
56	1.2	0.5		
57	0.6	0.8	0.7	
61	*			0.6
62	0.6	0.5	0.7	
64		1.1		
67	1.2	1.4		1.2
68		0.3		
69				1.2
71	0.6			
72	1.2			
76		0.3		
81		0.3		
82				0.6
85	0.6			0.6
86			1.4	1.2
Encrusted	5.6	15.7	11.6	5.8
Other	5.5	5.5	4.8	4.7
Incision	1.2			
Rosette	0.6			
Traces	1.2	1.6	2.7	1.2
Vert panels				1.2
Sample				

Table 4.13: Exterior motif frequencies

Motif	Early Phase	Middle Phase	Late Phase	Residual
1	31.1	29.1	36.6	38.3
2	5.4	2.9	2.9	3.2
3	7.5	7.4	7.0	5.6
4	9.4	12.2	12.4	11.0
5	0.5	0.9	1.8	1.6
6	2.1	1.4	1.6	0.5
7		0.3	0.2	
8	3.0	6.5	4.1	5.1
9		0.6	2.5	0.5
10	2.1	3.0	2.0	3.8
11			0.5	
13		0.1		0.3
14				0.5
17				0.3
18	2.8	2.4	0.7	1.6
19	0.5	0.5	1.8	1.1
21	1.4	1.1		1.1
22		0.1		
23			0.5	
24		0.5		0.5
26		0.5		0.3
27		0.5	0.5	
30	5.9	3.2	2.3	2.7
31	1.2	1.1		0.5
32	1.4	0.6	0.5	
33	0.5	0.5		0.3
35	1.2	0.3		0.5
36		0.1	0.9	
43	0.7			
45		0.3	0.5	
47	0.9	1.1	0.2	0.8
50			0.2	
52	0.7	0.6		
53	0.2	0.9	0.5	0.5
54	0.7	0.4	0.9	
55	0.7	1.0	0.9	
56	0.5			
57	0.2	0.6	0.2	1.1
61				0.5
62		0.5		0.5
64	0.2			
67	3.0	1.1	1.8	0.3
68	1.4		0.5	0.3
69	0.5	0.3	1.4	
71		1.3	1.4	0.5
72	0.5			0.5
81	0.2	0.1		0.5
82	1.4	0.5		
85	0.2	0.3	0.5	
86	0.9	0.3	0.5	
Encrusted	2.1	4.9	4.7	3.2
Other	8.2	7.3	7.0	9.6
Incision		0.3		2.1
Traces	0.5	2.2	0.5	
Vert panel	0.2	0.3		
Sample	427	788	443	373

Table 4.14: General groups of interior painted motif (percentages are omitted for Redeeposited material)

Group	Early Phase		Middle Phase		Late Phase		Redeeposited	Total
Zig-zags			6	2.6%	1	1.2%		7
Triangles	1	1.0%	2	0.9%	1	1.2%		4
Lozenges	3	2.9%	7	3.0%	2	2.3%	3	15
Links	4	3.9%	5	2.2%	2	2.3%	3	14
Cross-hatch	4	3.9%	6	2.6%	3	3.5%	1	14
Chevrons	2	2.0%	3	1.3%	1	1.2%		6
Wavy lines	2	2.0%	7	3.0%	1	1.2%	2	12
Van Dykes	18	17.6%	33	14.35%	13	14.9%	21	85
Checks	4	3.9%	5	2.2%	2	2.3%	3	14
Dots	7	6.9%	4	1.7%	1	1.2%	1	13
Lines	50	49.0%	129	56.1%	58	66.7%	51	288
Circles	2	2.0%						2
Scales	3	2.9%	4	1.7%			1	8
<i>Sample</i>	102		230		87		98	517

Table 4.15: General groups of exterior painted motif (percentages are omitted for Redeeposited material)

Group	Early Phase		Middle Phase		Late Phase		Redeeposited	Total
Zig-zags			3	0.5%	2	0.9%	1	6
Triangles			3	0.5%			1	4
Lozenges	9	3.7%	26	4.9%	8	3.5%	6	49
Links	27	11.2%	41	7.7%	11	4.8%	12	91
Cross-hatch	10	4.1%	51	9.6%	14	6.1%	17	92
Chevrons	4	1.7%	6	1.1%	1	0.4%	4	15
Wavy lines	7	2.9%	22	4.1%	9	3.9%	8	46
Van Dykes	9	3.7%	12	2.3%	7	3.0%	5	33
Dots	2	0.9%	11	2%	3	0.9%	2	18
Lines	146	60.3%	312	58.7%	148	64.4%	135	741
Circles	2	0.9%	6	1.1%	6	2.7%	4	18
Scales	11	4.5%	12	2.3%	8	3.5%	4	35
<i>Sample</i>	247		532		230		214	1223

are used on the interior and the exterior of the rim (Tables 4.10 and 11). The range of motifs on the interior and exterior of the rim is quite varied and, because the motifs often only occur once or twice, most of them cannot be considered as of real significance. As the single band motifs which cause the incompatibilities between 1983 and 1984 seasons are repeated frequently, the motifs which occur exclusively on the interior and exterior rims are tabulated together.

In all 17 motifs occur on both the interior and exterior rim, 9 occur only on the interior and 12 occur only on the exterior. Clearly many of the motifs which only occur a few times cannot be considered to be significant.

#### General use of motifs (Tables 4.12 - 15)

There is evidence from both the seasons that there is an increase in the predominance of motif 1, a narrow single band, as an interior rim motif. In the early phase in 1983 50% of interior rim motifs were motif 1, compared to over 60% in the middle and later phases. In the 1984 sample, where the figures are artificially deflated relative to the motifs which are not simple bands because of the effect of bulk recording, the early phase has 31% of interior rim motifs as motif 1, and between 41% and 53% in the middle and late phases. This change is not paralleled in exterior rim motifs, where the exact percentages vary but no clear trend is visible. In the main, it appears that motif 3, a wide horizontal band, was more common in the early phase and that the actual change was not the increase in the use of a simple rim band, but a decrease in its

width. This development, together with the decline in the use of lozenge based decoration, is very interesting as possibly indicating a change in one particular aspect of the use of motifs within a single phase of the Halaf ceramic sequence without related change in other aspects.

### Surface manipulation

A number of sherds are decorated by various forms of surface manipulation (Fig. 30). All of these are in typical Halaf fabric; all of them fall into fabric groups I-III as defined above. On occasion incision or impression is combined with regular Halaf painted motifs using paint which appears entirely within the normal range for the site. All occur on the exterior of sherds and do not occur at the rim; all but five are on body sherds, many of which seems likely to have originally been from jars. With one exception discussed below, most of the varieties are quite simple.

Table 4.16:

#### Frequencies of types of Surface Manipulation

Incised	6
Incised chevron	4
Grooves	6
Combing	3
Stabbing	2
Circular impressions	4
Finger impressions	2
Finger nail impressions	2
Applied/scored layer	1

Broadly similar material to the majority of impressed and impressed sherds has been found consistently in small quantities at other Halaf sites, at least in north Iraq and north eastern Syria. At Arpachiyah the only example illustrated is considerably more complex (Mallowan and Rose 1935, PL. XXa) although there are general references to a range of incised and impressed pottery (Mallowan and Rose 1935, 174). However, Mallowan's site notes in the British Museum make it clear that finger impressed sherds in medium to coarse fabrics were found in the latest levels. Related sherds have been found at Khirbet Derak Ouest, in a Halaf-Ubaid Transitional context (pers comm Catherine Breniquet). One similar finger impressed sherd is illustrated from Chagar Bazar (Mallowan 1936, Fig. 27, 19) and another example comes from

Yarim Tepe (Bader, Merpert and Munchaev 1981, Pl. V).

Such decoration is much more widely spread, occurring most prominently as Dalma impressed ware in north west Iran (e.g. Hamlin 1975). It also occurs at many Ubaid 3 sites in the Hamrin as a major part of the ceramic assemblage. In levels I and II of Tell Abada it made up 20.8% of the assemblage (Jasim 1985, 130). Henrickson and Vitali (1987, 44) consider these occurrences to be examples of the spread of a decorative concept. It is not clear whether the Halaf examples should be considered as related to the Dalma examples and, if so, whether the link was direct or through the Ubaid sites to the south.

The variety referred to as applied/scored layer appears to have no published parallels and must be described in detail (Fig. 30.2). The fabric, paint and motifs are entirely typical of the Halaf pottery at Kharabeh Shattani. A very thick slip or a layer of fine clay, at most 3mm thick, was applied to the exterior surface. As the original exterior surface of the bowl is easily distinguishable beneath this extra layer, the original bowl may have been dried or partially fired before its addition. The surface of the applied layer was then scored diagonally. This scoring is very distinctive and may have been done by a bundle of straw or twigs. There are only two parallels known to this writer for this variety of surface manipulated decoration, both from Arpachiyah and both unpublished. There is one sherd of identical type from Arpachiyah in Birmingham City Museum and a similar one in the British Museum, both combined with typical Halaf painted decoration. It is not known from which levels at Arpachiyah these came. As with the Kharabeh Shattani example, they are sherds from bowls combining Halaf fabric and painted decoration with an applied/scored layer on the exterior below the rim.

### Red washed sherds

Two rim sherds of either form 1a or of flaring jar necks with an external wash of red paint were found at Kharabeh Shattani. This external wash is quite thin but even. In one case it has been heavily burnished and, in the other, much more lightly smoothed. The surface has a slightly streaky red wash which, where it has been more heavily burnished, has turned to red-brown. The wash extends over all of the exterior which has been preserved

(from the rim to the base of the neck if they are jars) and there is a thin interior rim band. The fabric of both sherds is similar to the rest of the Halaf pottery from Kharabeh Shattani.

These examples fit well within the range of the rather heterogenous red wash ware found in northern Syria principally in association with Late Halaf or Halaf-Ubaid Transitional pottery (Leenders 1989). It has not previously been found in the Tigris valley although there are scattered examples from the Sinjar plain (Leenders 1989, 90-91). In the Khabur area, it is best represented and described at Tell Aqab. Here it appears in the final phase of the Late Halaf and continues into the Halaf-Ubaid Transitional levels (Davidson 1977, 155-256).

### Green Fabric Group

Fabric group IV appears distinctively different from the other groups in several respects and it worthy of separate consideration of the sherds which occur with this fabric. Although they are different to the normal Halaf fabrics, two of the 26 sherds in this group can be separated from the rest. One of them is the Samarran sherd discussed in detail below (Fig. 30.7). A second sherd seems similarly unlikely to be an Halaf sherd from its style of decoration but cannot be clearly assigned to another pottery style (Fig. 29.9). The only sherd with vegetable temper in this group is also rather thick (10mm) and may more properly be considered on the boundary of coarse sherds. Apart from these exceptions, this group is consistent and seems to be component of the main Halaf assemblage at the site. The frequency of the green ware sherds appears to decline by phase but, on the very small sample, this may be illusionary (Table 4.17).

Table 4.17: Frequency of Green ware sherds by phase

Phase	Number	%age of total
Early	7	4.3
Middle	11	2.4
Late	2	1.0
All phases	26	2.7

#### *The Samarran sherd*

A single sherd was found which appears to be a clear example of the Samarran type (Fig. 30.7). The fabric is heavily grit tempered with the grits very prominent on the surface of the sherd. It is

more highly fired than other sherds from Kharabeh Shattani and the dark grey brown paint is fused to the body of the pot. There are no exact Samarran parallels for this sherd but it fits well within a more general type

The occurrence of a Samarran pot sherd here is surprising. It is argued below that the Halaf pottery from Kharabeh Shattani is from the latter half of the Halaf sequence, almost certainly from what has traditionally been termed Late Halaf. This ought to date from somewhere in the middle of the fifth millennium BC (uncalibrated). The presently available dates from sites with Samarran pottery (Watkins and Campbell, 1987, Fig. 5) do not indicate that it lasted to any extent into the fifth millennium.

It is most probable that the sherd is residual from earlier activity on the site. Certainly Samarran pottery does occur rarely in the area of the Saddam Dam, for instance at Musaiifna (Salem Yunis, pers. comm.).

### § 4.3 COARSE WARE

Because of the difficulty experienced, particularly in the first season, in differentiating securely Halaf coarse wares from those of the first millennium and of the Hassuna period, the coarse wares were less well recorded than the finer wares. It is unfortunate that little new information can be added to our knowledge of Halaf coarse wares, an aspect of the ceramic industry which has frequently been ignored in favour of the more attractive painted wares. Nonetheless a certain amount of quantitative information is available. In the first season a small number of detailed fabric descriptions were made and some sherds drawn. In the second season, although fabrics were not recorded in detail, records of the general form were made (Table 4.18). Coarse ware can be distinguished readily and consistently in the field from the fine ware, not always on a single characteristic, but on a combination of temper, thickness (on average 12.5mm on the 1983 sample) and surface finish.

41 coarse ware sherds were recorded in detail in 1983. These are not necessarily a representative sample as they were selected for recording due to being large portions of vessels suitable for drawing and no attempt will be made to treat them statistically. The fabrics recorded in the first season split into two main groups. The first has vegetable temper of varying degrees of coarseness and density.

The fabric colour (defined using the same terminology as used above for the fine wares) ranges from orange and pink through brown to a few grey sherds. Differently coloured cores occur in about half the sherds. The second type has grey or black grit temper, often very dense. Grit tempered coarse wares occur only in the brown and grey groups of fabric colour, and are most commonly grey, frequently with a darker grey or black core.

A total of 2720 coarse ware sherds was found in the Halaf and later levels in the 1984 season. Although a proportion were redeposited Hassuna sherds and there may have been an element of first millennium contamination, the majority of these are certainly of Halaf date. 2036 of these came from levels which were primarily Halaf and these sherds were used to obtain a broad frequency distribution of forms. A rough division was made between those with predominantly vegetable temper and those with grit temper, which corresponds closely to the major division which can be made for the 1983 sherds.

The division into shapes is rather approximate. Flat bases are the only type of base found and often have a slight foot (see *Volume I*, Fig.29, nos. 4 and 5 for examples). Shallow dishes are similar to fine ware forms 1b, 1c, 2b or 2c in shape. Bowls are similar to those found in 1983 (*Volume I*, Fig.2, no.2; Fig.11, no.5; Fig. 15, no. 5). All of these bowls are in vegetable tempered fabrics, presumably signifying a strong functional differentiation. Jars are similar to those illustrated in the 1983 report (*Volume I*: Fig. 26, no. 4; Fig. 27, nos. 1 and 5) although there is a wider range than illustrated, including some which would fall in the 5b category if the fine ware classification was used. Holemouth pots are a similar range to those illustrated from 1983 (*Volume I*, Fig. 21, nos. 1, 3-5; Fig. 23, no. 1) and often have a lug handle attached to the

upper body a short distance below the rim (for example *Volume I*, Fig. 28, no. 6). Such lug handles appear more common in the grit tempered sherds, although this could simply be a sampling error.

#### § 4.4 CHRONOLOGY AND DISCUSSION

The chronological position of the late Halaf ceramic assemblage at Kharabeh Shattani relative to Tell Arpachiyah and Tell Aqab was discussed in detail in the 1983 report (*Volume I*, 41-56). Briefly summarised the arguments were as follows. The site cannot date from the early Halaf because of the ratio of type 1a to type 2a bowl forms as well as the presence of other distinctively late vessel types, because of the absence of lustrous slips and paint, and because of the wide range of motifs. It has been argued elsewhere (*Volume I*, 55; Watkins and Campbell 1987, 430-1) that the major split within the Halaf is between early and middle and that division of middle and late Halaf may be, to some extent, regional. Therefore, it is rather harder to be definite about the position of Kharabeh Shattani within the latter part of the Halaf. The absence of polychrome and scarcity of bichrome painting would argue, on their own, for a middle Halaf date. However, there is other evidence that the absence of such painting must be explained by other factors than simply chronology. The presence of vessel forms 1b, 1d, 3b, 3c and 5c points to a date after the early part of the Tell Aqab middle Halaf. The presence of bow-rim jars (form 5d) in small numbers indicates a late phase date. The portion of 3c bowls, allowing for the underestimate in the 1984 Kharabeh Shattani sample due to bulk recording, fits TT 6-7 at Arpachiyah better than earlier phases. Finally, a single sherd was shown by neutron activation analysis to have been very likely

*Table 4.18: Frequencies of coarse ware shapes (1984 season)*

General Shape	Temper	
	Vegetable	Grit
Flat base	66	34
Shallow dish	3	16
Bowl	14	
Bowl with square rim	78	
Jar	5	7
Holemouth	6	
Holemouth with knob lug	14	10
Knob lug		2
Total	186	69



to have originated at Arpachiyah, made from the clay source used in the late phase at that site (*Volume I*, 61).

The above arguments require little modification. There are some new pieces of evidence, however, in support of a late dating. The presence of surface manipulated decoration at Kharabeh Shattani matches its occurrence in late Halaf contexts at Arpachiyah and Chagar Bazar. It also provides a useful link with the Ubaid in the Hamrin basin where pottery which seems to be related has been found widely. At Tell Abada such pottery is associated in Level II with small quantities of polychrome Halaf pottery implying that this site may be contemporary with the very latest Halaf (Jasim 1985, 139). The presence of Red Wash Ware provides some evidence of links with Late Halaf and Halaf-Ubaid transitional sites further west.

The nature of the ceramic assemblage as a whole at Kharabeh Shattani is interesting, and possibly correlates with the relative poorness of the other Halaf finds at this site (Section 7). It is similar to the assemblages of some other recently excavated sites such as Shams ed-Din (Gustavson-Gaube 1981) and Umm Qseir (Hole and Johnston 1986-87) in Syria in that it appears to possess a late Halaf assemblage but with a minimal component of fine bichrome or polychrome wares. This contrasts strongly with sites such as Arpachiyah, Chagar Bazar and Tell Aqab where the late Halaf is characterised most strongly by the presence of

significant quantities of such pottery. While this does emphasise the fact that earlier excavations, and perhaps most importantly the unique concentration of fine pottery in the Burnt House at Arpachiyah, have produced a slightly misleading characterisation of the late Halaf ceramic tradition, it does perhaps also have a wider significance. What all the sites which produce the 'impoverished' variant of the late Halaf assemblage have in common is that they are low sites with relatively short occupation. It may be suggested that there was some qualitative difference between Halaf sites (§ 12.4). The production of bichrome or polychrome pottery is a major advance in technology, probably requiring considerable knowledge of pigments and, particularly, control over firing temperature. Therefore, some settlements, such as Kharabeh Shattani, may have lacked direct access to this technology the knowledge of which may have been restricted to specific sites.

The Samarran sherd, the single cream bowl sherd and, possibly, the probable non-Halaf sherd in Fig. 29.9, suggest that there was activity in the vicinity of Kharabeh Shattani at some point between the proto-Hassuna and late Halaf. This activity may have been concentrated at a location on the site away from the area of excavation or it may have been of a very short term and fugitive nature. It is also possible that it was deposited on the site as part of DBA (§ 2.2) and had eroded from a nearby location.

## Catalogue of Halaf Pottery Illustrations

*Note:* Some of drawn sherds were not described at the time of drawing. Because it was not possible to return to Iraq during the final stages of writing, it is not possible to provide complete pottery descriptions for all drawings.

All drawings are at 1:2.

### Fig. 23

- 1 ADI 8  
Diam: 240 mm.  
Form: 2a.
- 2 ABP 25  
Diam: over 300 mm.  
Description: Possible waster.  
Form: 1b.
- 3 ABD 6  
Fabric: dark buff with cream slip and orange brown paint.  
No visible temper.  
Form: 2a.
- 4 BCC 7  
Diam: 110 mm.  
Description: Orange with fine white grits, cream slip and red paint.  
Form: 2a.

### Fig. 24

- 1 BBQ 15  
Diam: 220 mm.  
Description: Orange buff with buff slip and black paint.  
No visible temper.  
Form: 2a.
- 2 BBC 30  
Diam: 100 mm.  
Description: Orange with fine white grits, cream slip and orange red paint.  
Note: Rim heavily warped and diameter approximate.
- 3 ADJ 53  
Diam: 220 mm.  
Form: 2b.
- 4 ACK 5  
Diam: 260 mm.  
Form: 2a.
- 5 ADA/ADB 1  
Diam: 160 mm.  
Form: 1a.

### Fig. 25

- 1 BBC 72  
Diam: 70 mm.

Fabric description: Orange fabric with burnished exterior with cream slip and red brown paint. No visible temper.  
Form: 3c.

- 2 BBT 3  
Diam: 140 mm.  
Description: Light orange green fabric with fine white grits and black paint.  
Form: 3c.
- 3 BBC 113  
Diam: 140 mm.  
Description: Grey fabric with dark red core, white slip and red black paint. No visible temper.  
Form: 3c.
- 4 ABP 27  
Form: 3c.
- 5 BBC 56  
Diam: 120 mm.  
Description: Orange brown fabric with buff slip and black paint. No visible temper.  
Form: 3c.
- 6 A-A/A-B/A-C 10 (balk cleaning)  
Diam: 180-220 mm.  
Form: 3c.

### Fig. 26

- 1 BCC 32  
Diam: 160 mm.  
Description: Orange fabric, black paint. No visible temper.  
Form: 2c.
- 2 ACI 3  
Diam: 50 mm.  
Form: 2c.
- 3 BCC 23  
Diam: 360 mm.  
Description: Orange fabric, burnished exterior, black paint. No visible temper.  
Form: 1c.
- 4 BBF 2  
Description: Orange fabric with cream slip. Bichrome decoration, black on drawing shows brown-black paint, shading shows red-orange. No visible temper.
- 5 BBT 6  
Description: Brown fabric with cream slip and brown paint. No visible temper.  
Form: 2b.
- 6 BBC 87  
Diam: 150 mm.  
Description: Orange fabric with red paint. No visible temper.  
Form: 2c.

*Fig. 27*

- 1 BCU 2  
Diam: 220 mm.  
Description: Pink fabric with cream slip and black paint.  
No visible temper.  
Form: 1c.
- 2 BCC 35  
Diam: 210 mm.  
Description: Buff fabric with grey core, cream slip and red paint. No visible temper.  
Form: 1c.
- 3 BCC 71  
Description: Orange fabric with cream slip and orange paint. No visible temper.  
Form: 1c.

*Fig. 28*

- 1 BBB 22  
Diam: 80 mm.  
Description: Orange fabric with buff core and fine white grits, cream slip and red black paint.  
Form: 5b.
- 2 BCO 36  
Description: Red fabric with cream slip and light orange paint. No visible temper.
- 3 BBH 15  
Diam: 100 mm.
- 4 BBF 5  
Diam: 140 mm.  
Description: Brown buff fabric with cream slip and orange brown paint. No visible temper.  
Form: 5b.
- 5 BCB 1  
Diam: 120 mm.  
Description: Buff fabric with pink core, cream slip and black paint. No visible temper.
- 6 BCO 61  
Diam: 120 mm.  
Description: Buff fabric with burnished exterior, cream slip and orange paint. No visible temper.  
Form: 5b.

*Fig. 29*

- 1 BBS 5  
Description: Orange fabric with brown paint. No visible temper.  
Note: This does not appear to be a pedestal vessel as the profile is asymmetric.
- 2 BCC 98  
Description: Orange fabric with dark red core, exterior cream slip and orange paint. No visible temper.

Form: 5a.

- 3 ABE 14
- 4 BCC 26  
Description: Orange fabric with red paint. No visible temper.
- 5 BCO 37  
Description: Orange fabric with buff core, exterior cream slip and orange paint. No visible temper.
- 6 BCO 38  
Description: Grey fabric with black paint. No visible temper.
- 7 BCC 51  
Description: Orange fabric with exterior cream slip and red black paint. No visible temper.
- 8 BCC 24  
Description: Orange brown fabric with exterior cream slip and black paint. No visible temper.
- 9 BCC 72  
Description: Greenish fabric, black paint, very well smoothed surface. No visible temper.
- 10 BCC 5  
Diam: 220 mm.  
Description: Orange fabric with red paint. No visible temper.  
Form: 1f.

*Fig. 30*

- 1 BCO 39  
Diam: 300 mm.  
Description: Orange fabric with no visible inclusions. Near fingernail impressions.
- 2 BCO 15  
Diam: 280 mm.  
Description: Orange fabric with red brown paint.  
Form: 2a.
- 3 BBU 6  
Diam: 240 mm.  
Description: Orange fabric with no visible inclusions. Deep fingernail impressions.
- 4 BBM 11  
Description: Orange fabric with no visible inclusions. Deep fingernail impressions.
- 5 BBG 1  
Description: Orange fabric with few inclusions. Shallow horizontal scoring.
- 6 BCC 73  
Description: Grey fabric with fine vegetable temper.
- 7 BCO 14

Description: Light greenish fabric, hard fired with prominent fine black, white and orange grits. Dark green-brown paint. Shallow slashed incisions on upper shoulder made after painting. Diam. of base of neck c.100 mm.

## 8 BCC 74

Description: Buff fabric with orange core. No visible temper.

*Fig. 31*

## 1 ADJ 33

Diam: 155 mm.

Description: Mottled buff grey fabric with fine grey grits. Thin vertical division (c.5 mm thick) up to preserved height of vessel.

## 2 AAD 6

Description: Pink orange fabric with light pink slip. Vertical division broken off; only preserved at base.

## 3 Surface 1

Diam: 180 mm.

Form: 1a.

## 4 BCC 76

Diam: 60 mm.

Description: Orange fabric. No visible temper.

## 5 BBB 20.

Diam: 120 m.

Description: Grey fabric with vegetable temper, buff slip and orange paint.

## 6 A-A/A-B/A-C 11 (balk cleaning)

Dimensions: Slightly oval, maximum length 212 mm. No visible temper.

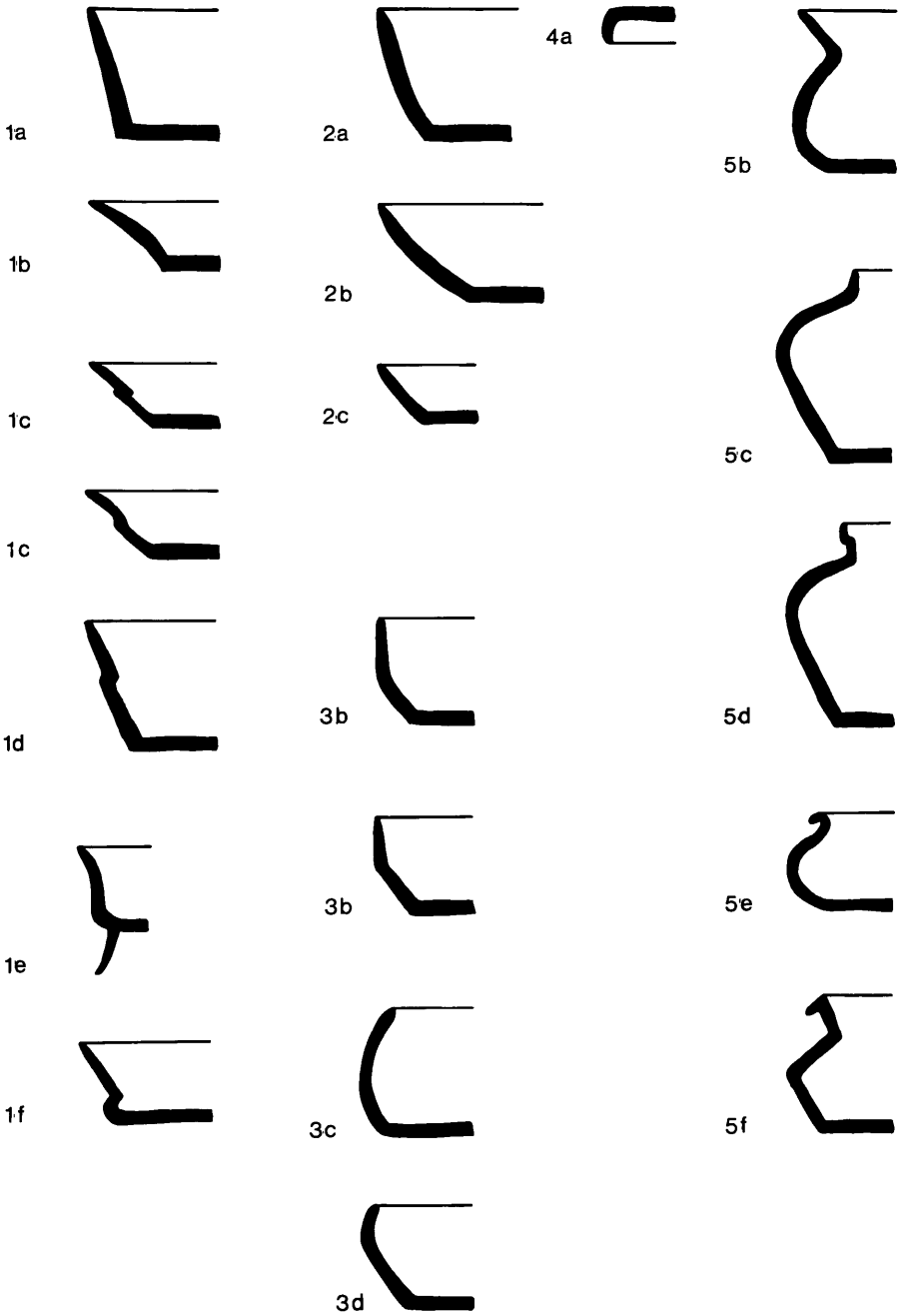


Fig. 21 The Halaf Pottery

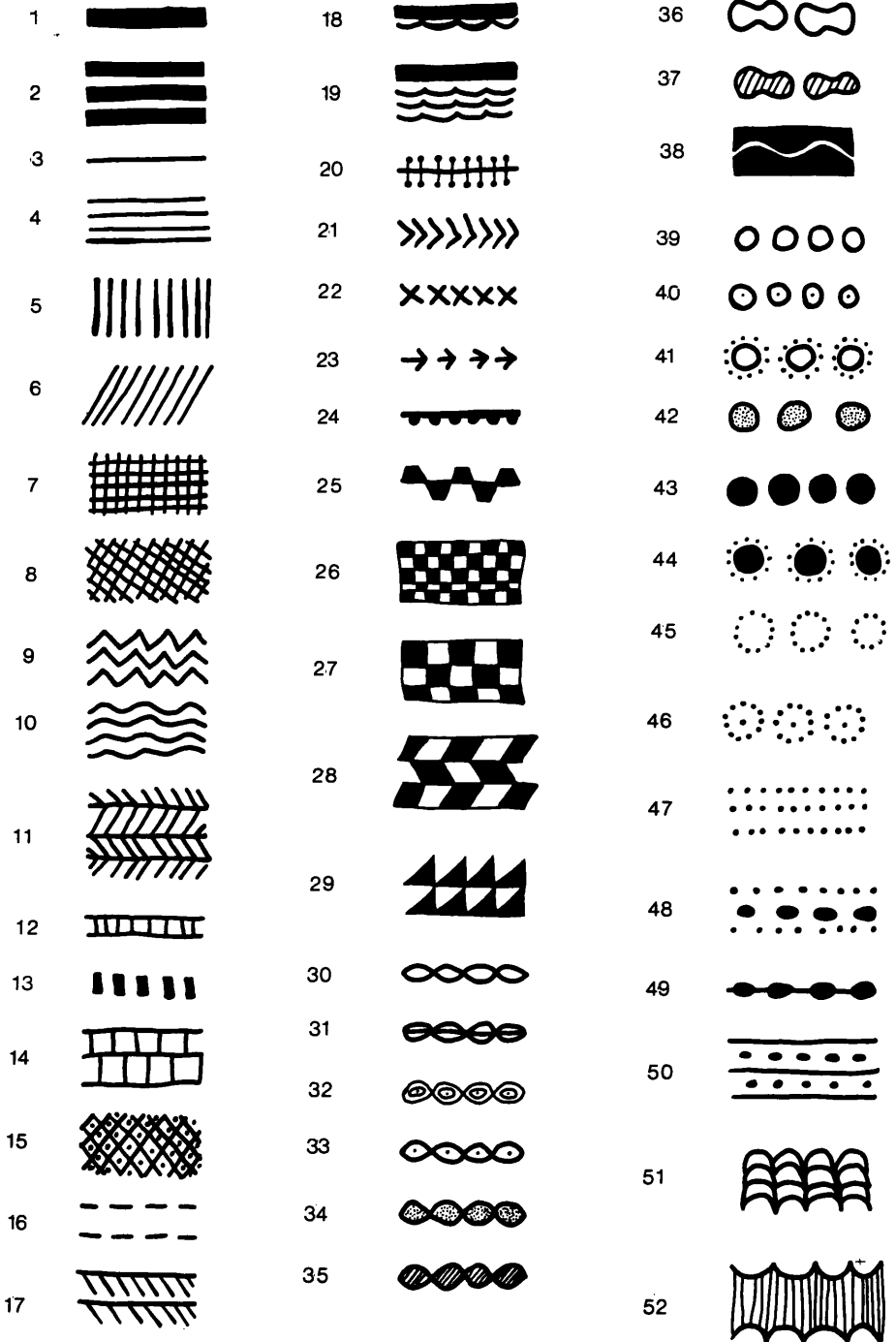


Fig. 22 The Halaf Pottery

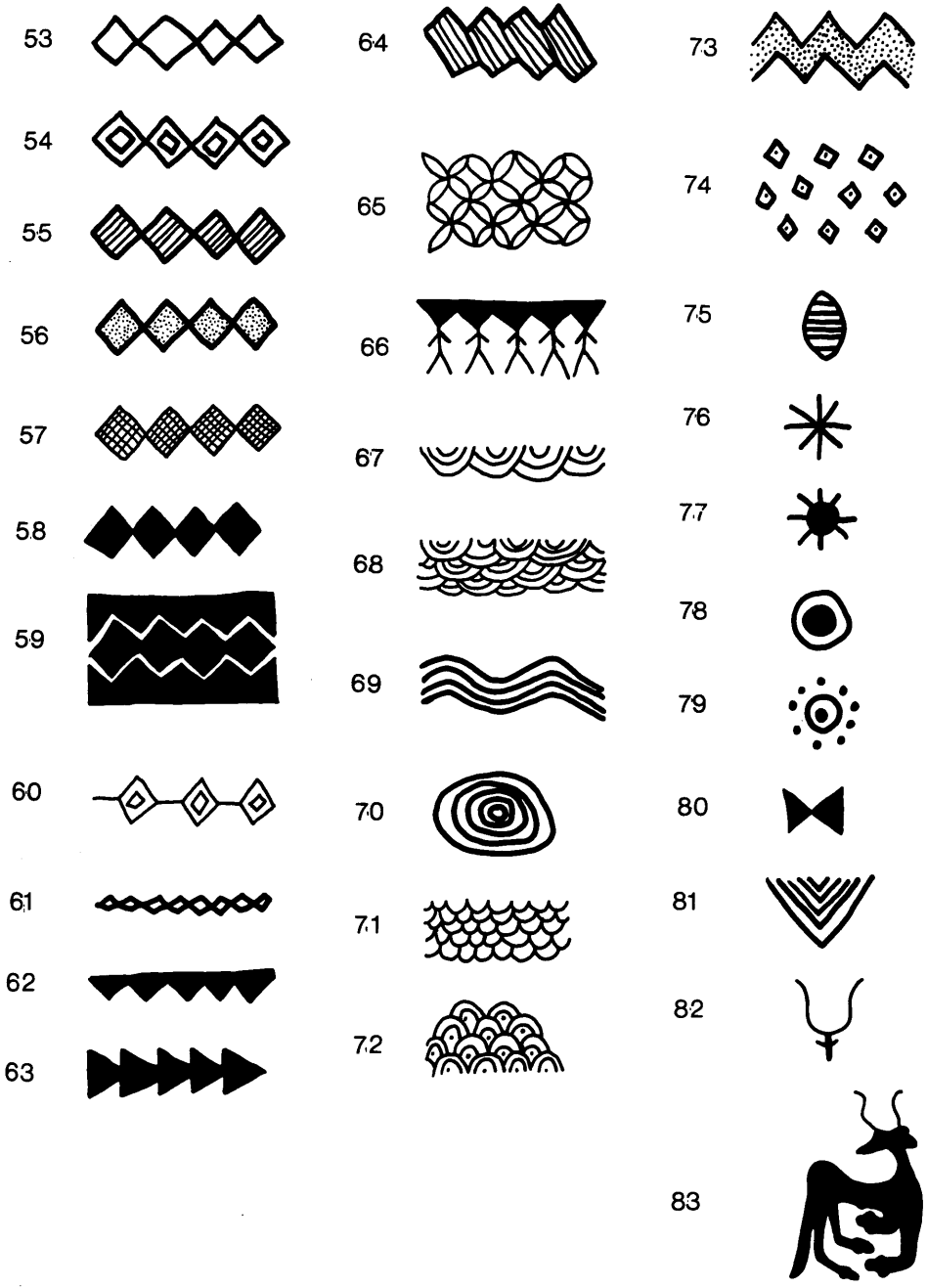


Fig. 22 (contd) The Halaf Pottery

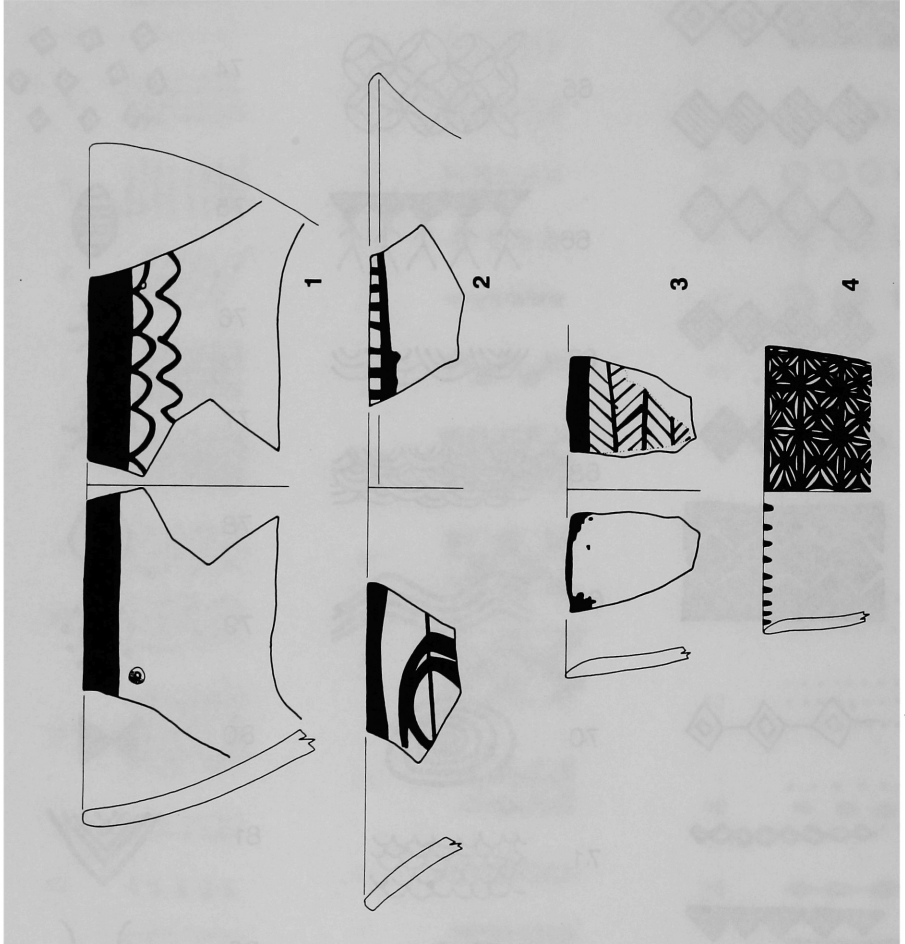


Fig. 23 Halaf pottery



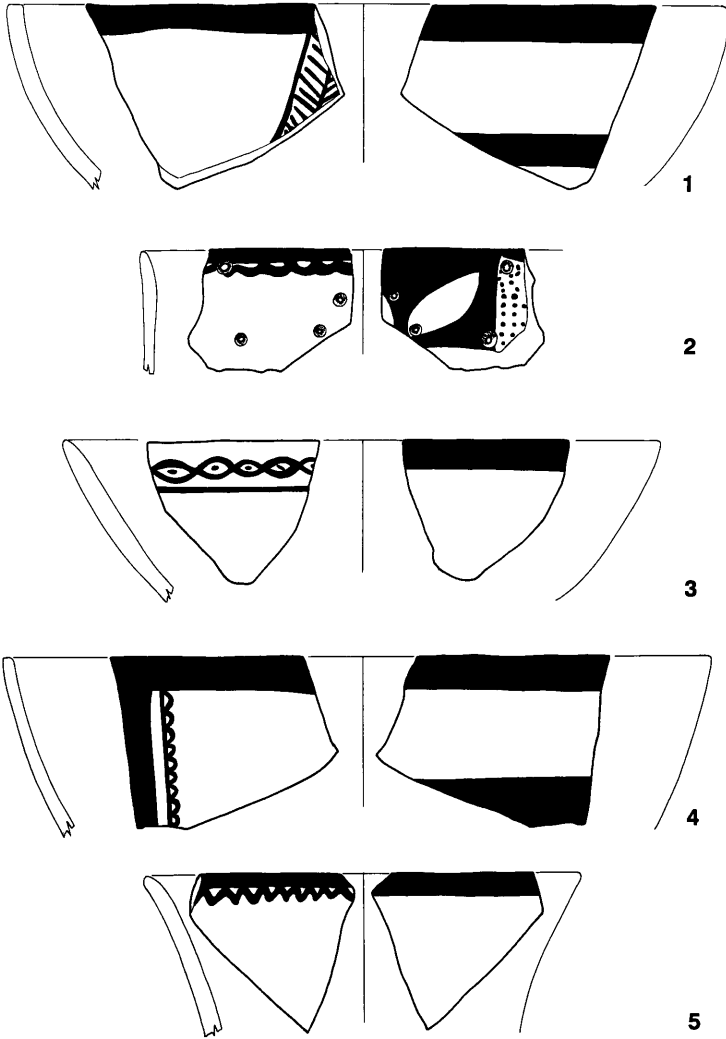
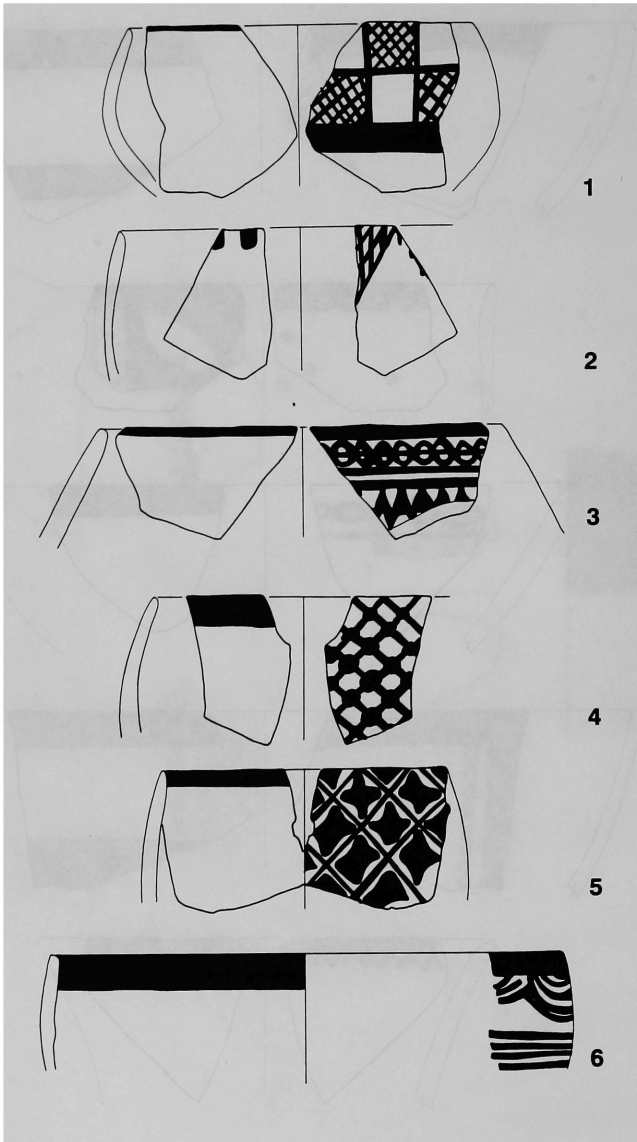


Fig. 24 Halaf pottery



*Fig. 25 Halaf pottery*

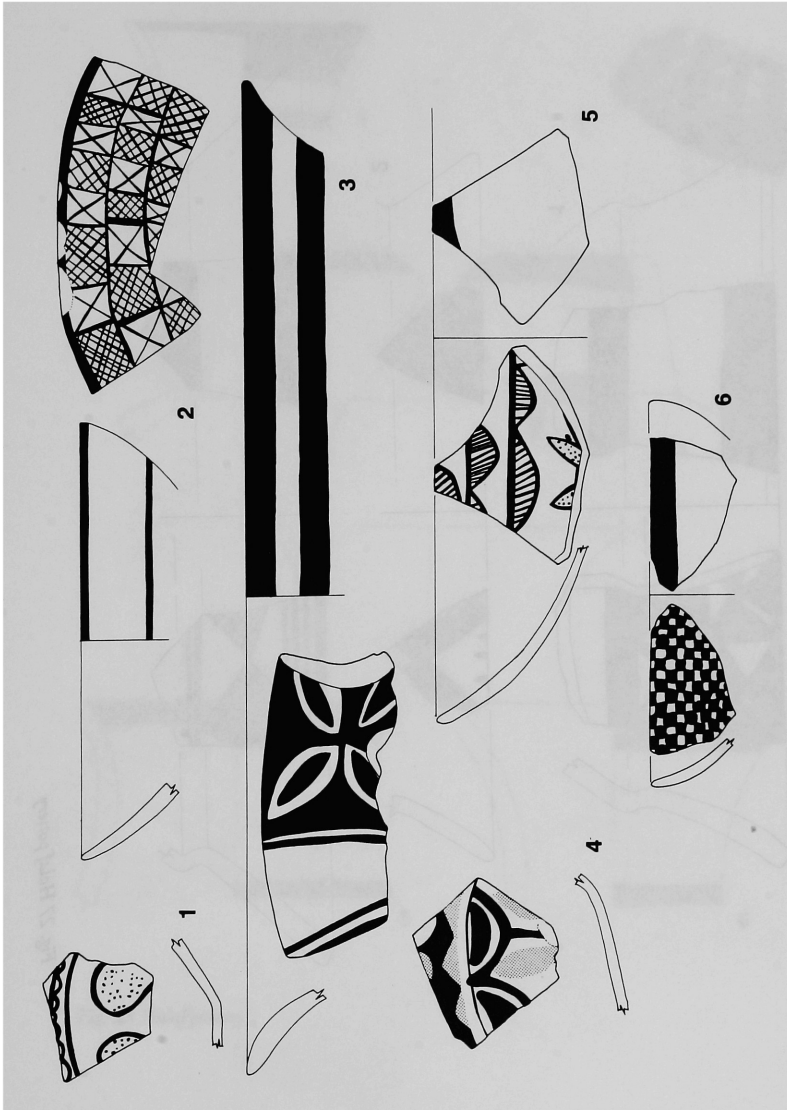
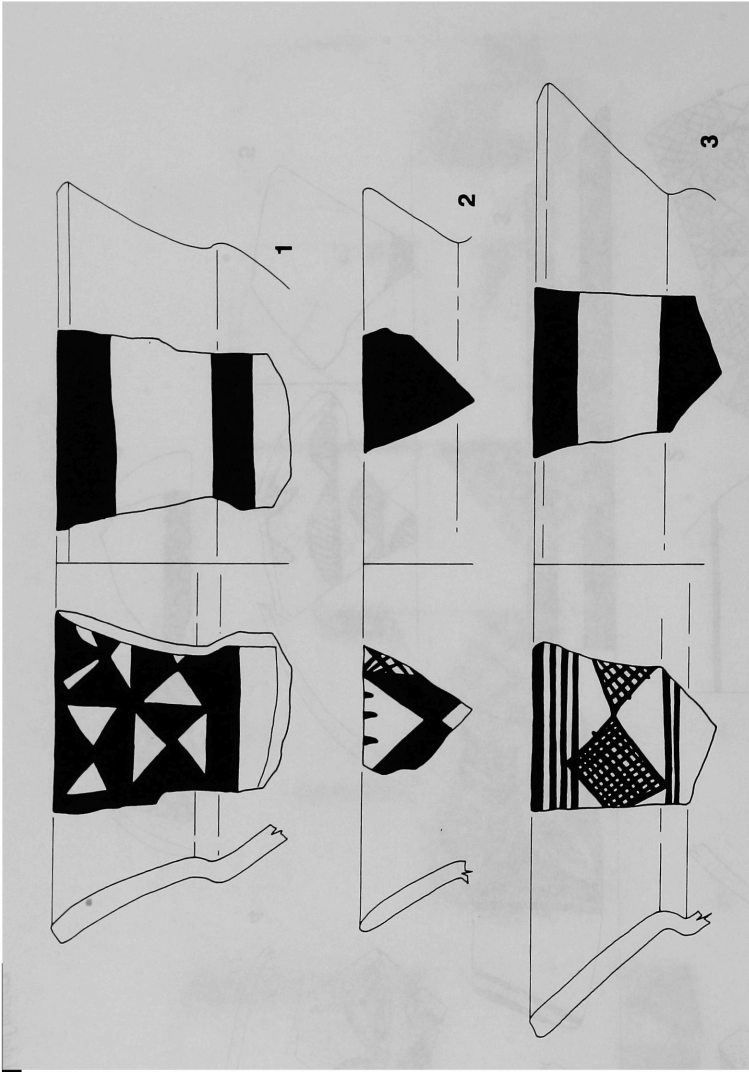


Fig. 26 Halaf pottery



*Fig. 27 Halaf pottery*

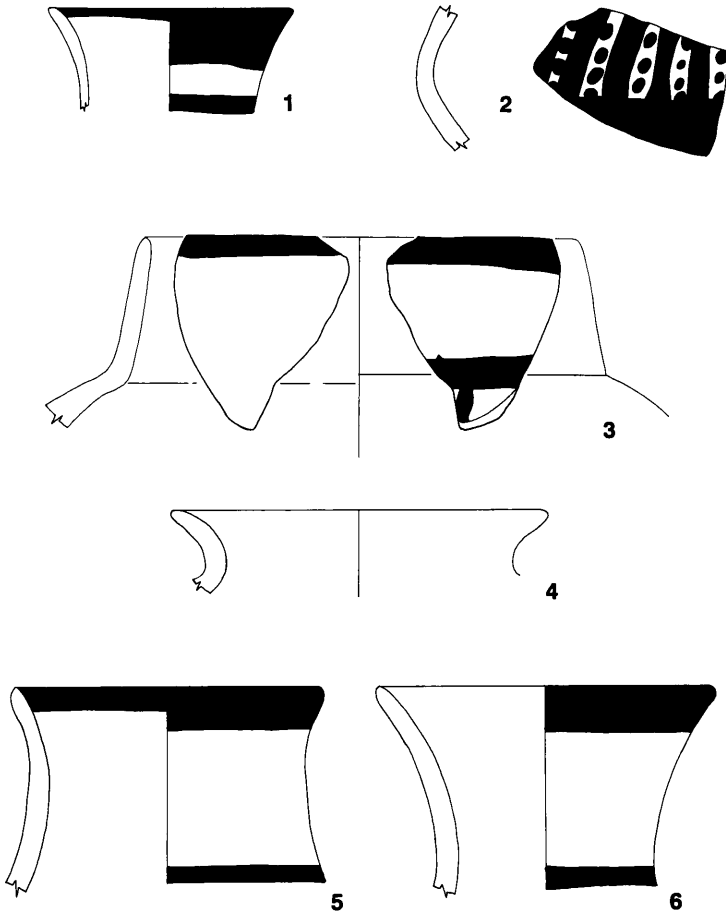
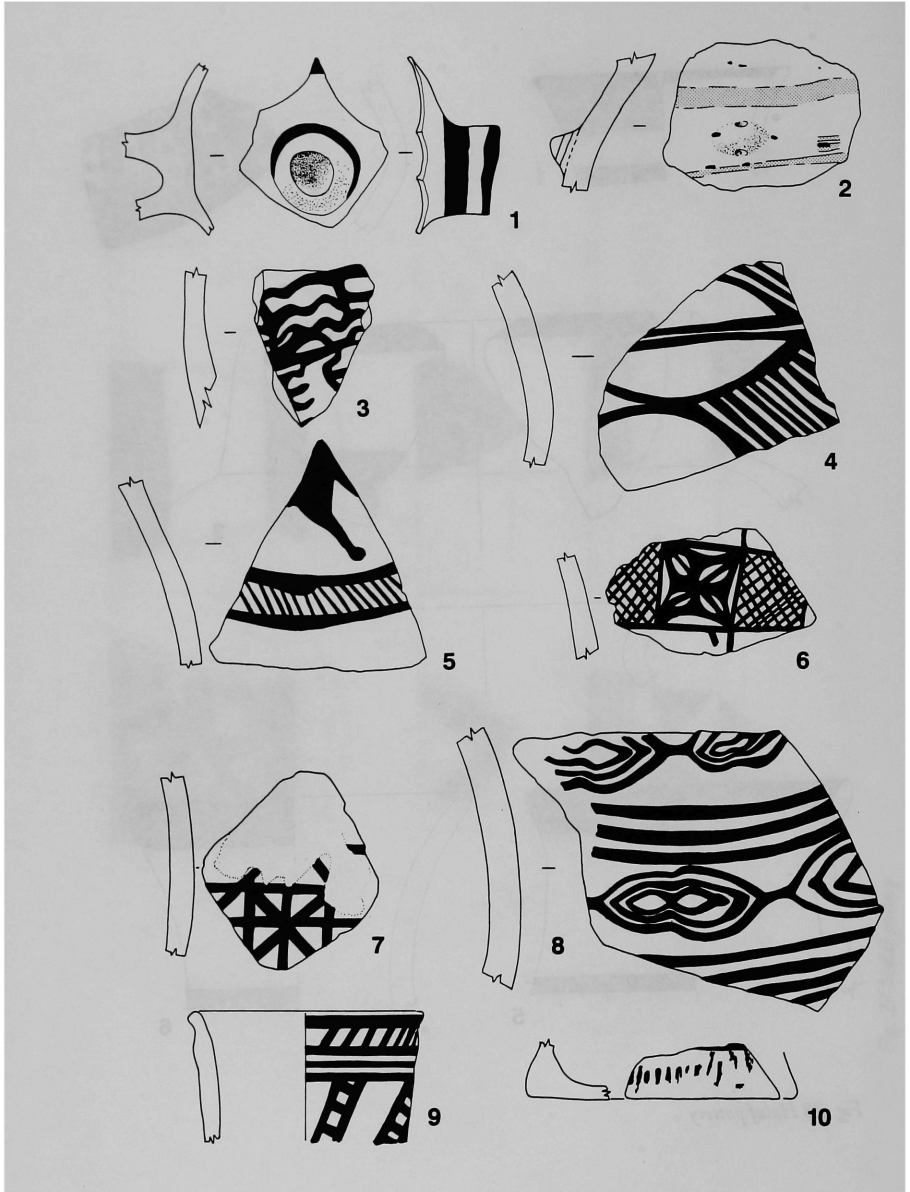


Fig. 28 Halaf pottery



*Fig. 29 Halaf pottery*

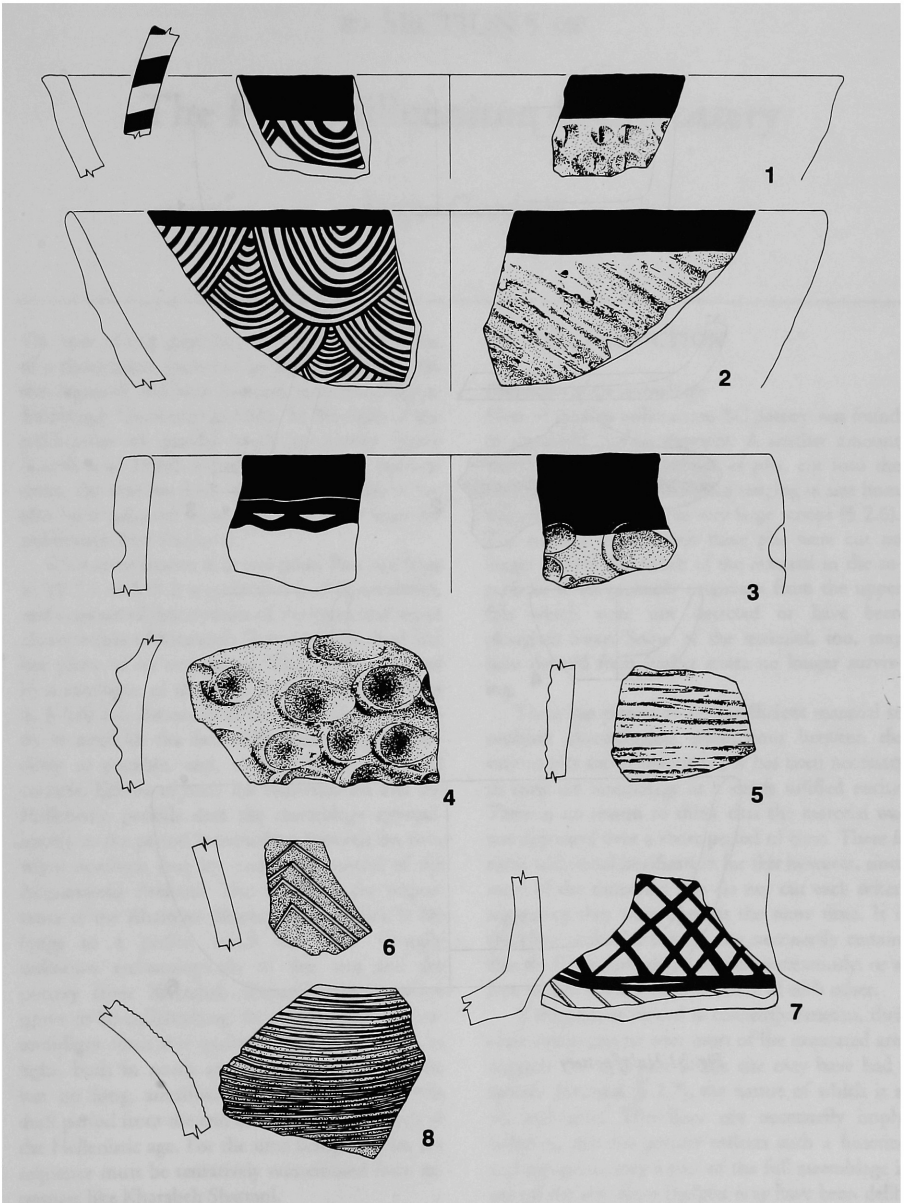
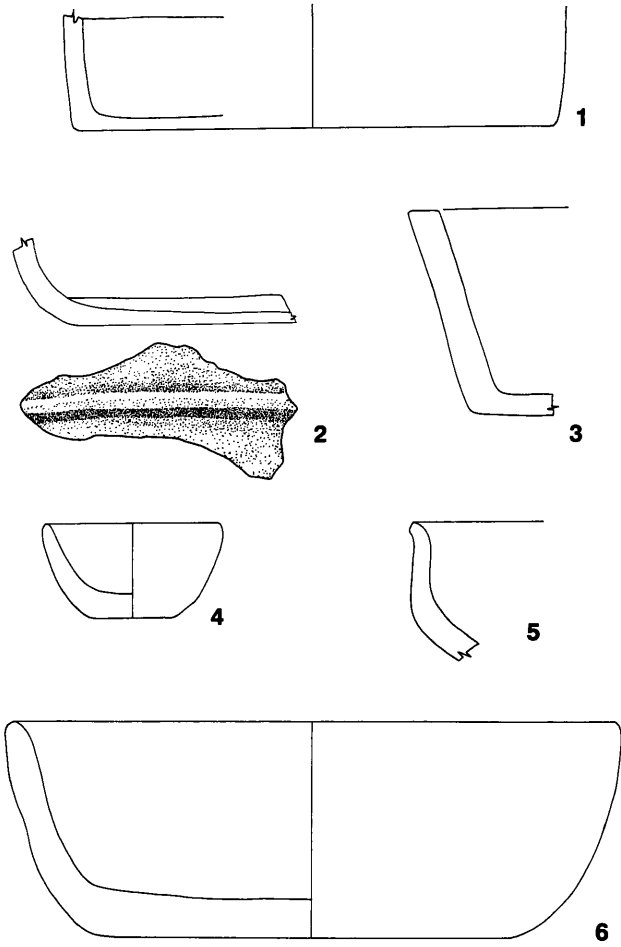


Fig. 30 Halaf pottery



*Fig. 31 Halaf pottery*



# The First Millennium B.C. Pottery

*Jacqui Goodwin*

---

The core of this contribution is based on the text of a dissertation presented by Jacqui Goodwin for the degree of MA with honours in Archaeology at Edinburgh University in 1985. In the light of the publication of parallel work at nearby Qasrij (Curtis *et al.* 1989) and some other recent publications, the text has been minimally revised; it has also been adjusted from its dissertation form for publication here [Editors].

This contribution is in two parts. Part one (that is, §§ 5.1 to 5.3) is a presentation of the evidence, and consists of descriptions of the types and wares characteristic of Kharabeh Shattani in the third and last phase of its occupation. This is accompanied by a catalogue of all drawn sherds. Part two (that is, § 5.4) is a discussion of the material, the aim to try to establish the date of the assemblage as precisely as possible, and, to consider its historical context. Echoes of both the Neo-Assyrian and the Hellenistic periods date the assemblage approximately to the period intermediate between the two, when northern Iraq lay under the control of the Achaemenid Persians. This is where the importance of the Kharabeh Shattani material lies. It belongs to a period which has been virtually unknown archaeologically in this area and the pottery from Kharabeh Shattani may therefore prove to be enlightening. In recent years other assemblages from this general period have come to light, both in north and in south Mesopotamia; but no long, stratified sequence yet bridges the dark period from the end of the Assyrian Empire to the Hellenistic age. For the time being, at least, the sequence must be tentatively reassembled from exposures like Kharabeh Shattani.

## § 5.1: INTRODUCTION

### *Deposition of the Assemblage*

Most of the first millennium BC pottery was found in disturbed surface deposits. A smaller amount was contained in a number of pits, cut into the underlying Halaf deposits, and ranging in size from narrow cylindrical pits to very large scoops (§ 2.6). The surfaces from which these pits were cut no longer survive and much of the material in the superficial levels probably originates from the upper fills which were not detected or have been ploughed away. Some of the material, too, may have derived from higher strata no longer surviving.

There has proved to be insufficient material to establish chronological distinctions between the various pits and consequently it has been necessary to treat the assemblage as a single unified entity. There is no reason to think that the material was not deposited over a short period of time. There is some additional justification for this however, since most of the excavated pits do not cut each other, suggesting they were open at the same time. It is therefore probable, though not necessarily certain, that the fills accumulated contemporaneously, or at least within a relatively short time of each other.

If the pits are viewed as contemporaneous, their close concentration over most of the excavated area suggests that this part of the site may have had a specific function (§ 2.7), the nature of which is as yet unknown. This does not necessarily imply, however, that the pottery reflects such a function and represents only a part of the full assemblage in use on the site, since the pits may have been deliberately infilled with material derived from elsewhere, particularly mud brick debris, or

alternatively fills could have accumulated gradually from a wide area. For our purposes the pottery can be treated a single, general assemblage, with the possible exception of a few sherds which may be later. [opposite]

#### *Introduction to the Catalogue*

As the first millennium BC pottery came from mixed surface deposits or from pits cut through Halaf levels, the first step in processing was to separate it from secondary Halaf material. As the assemblage was an unknown entity intrusions from other periods could not necessarily be easily recognized. All non-Halaf sherds were therefore recorded for later study.

It was excavation policy to draw as many as possible of the diagnostic sherds (rims, bases, handles and lugs, decorated sherds) and in 1983 every example was drawn. In 1984 some duplicates were merely noted but again the majority of diagnostic sherds were drawn. The bulk of the corpus of drawings is reproduced in the catalogue. The fabric of each sherd was recorded in detail, and in the catalogue the ware is given whenever possible. Where a sherd cannot be attributed to one of the wares, the fabric description is quoted from the excavation records. The context 'JC' refers to a 2m x 2m sondage conducted by Dr. John Curtis of the British Museum early in 1983. All measurements are given in millimetres.

The catalogue is arranged according to shape type rather than according to fabric. This is because the majority of sherds are of what has been termed 'Standard ware', but also because fabric is likely to be a local feature and when comparisons have to be made with other sites for chronological purposes, shape is a feature more likely to be retained over distance.

## § 5.2: VESSEL SHAPES

### *Introduction*

The first millennium BC pottery from Kharabeh Shattani is very fragmentary and with the sole exception of type 2, beakers, there are no complete profiles. Rims, bases, handles and lugs, and decorated sherds must therefore be discussed separately.

### **Rims**

These are the most commonly surviving diagnostic sherds. Altogether 6% of the rim sherds could not be classified.

### *1. Bowls*

19% of the Kharabeh Shattani rims come from bowls.

- a) (Figs. 33:5, 34:6, 35:5, 41:1-2, 46:7) Plain rimmed, usually open bowls. Only one example has inturned sides. Most examples are characterized by a groove just below the rim. Diameters range from 120 to 340 mm.
- b) (Fig. 32:3, 33:9, 11, 37:3, 44:8) Bowls with everted rims, generally flattened along the top. The smaller examples have a marked carination. Internal diameters range from 120 to 330 mm.
- c) (Fig. 32:4, 35:6) Bowls with smooth exterior profiles and a rim thickened to a roughly triangular profile on the interior. Diameters range from 160 to 320 mm.
- d) (Figs. 32:2, 33:8) The most elaborate rim type at Kharabeh Shattani. The rim is roughly diamond shaped in profile with a thickened interior, similar to that of type c) above, an external lip and a pointed top. A groove sometimes runs below the exterior lip. Diameters range from 200 to 410 mm, most commonly above 300 mm.
- e) (Fig. 34:4, 35:1, 3, 53:1) A rather amorphous group of rim sherds, thickened, often to a collared rim, on the exterior only. Diameters range from 160 to 300 mm.

### *2. Beakers*

(Fig. 36:9, 10, 37:1, 5) Only 3% of the rims at Kharabeh Shattani come from beakers. These are small, thin-walled vessels, generally with plain flared rims of diameters between 100 and 110 mm. One example (Fig. 36:10) has a rounded base and there are several recorded examples of small, flat, fine ware bases with diameters from 20 to 40 mm, which may belong to beakers. All surviving examples have carinated bodies.

### *3. Jars*

63% of the rim sherds are from jars.

- a) (Figs. 34:3, 43:1, 3, 17, 44:3, 45:12, 46:8) Jars with flared plain rims. The top of the rim is usually rounded and the exterior may be very slightly thickened. Diameters range from 70 to 260 mm but are concentrated between 100 and 190 mm.
- b) (Figs. 32:10, 33:2, 10, 34:7, 35:2, 4, 38:1-2, 40:2-7, 42:3, 4, 6, 11, 13, 43:6, 44:2, 6, 45:6, 46:5, 47:1-2, 49:1-4, 50:1-7, 51:3-4) One of the most common jar rim types at Kharabeh Shattani with many variations. The rim is

thickened on the exterior to a collar with a convex profile which often gives the rim a roughly triangular section. Some examples have grooved collars. Diameters range from 45 to 340 mm but are concentrated between 100 and 200 mm.

- c) (Figs. 34:2, 38:4, 40:1, 41:3-6, 8, 42:2, 5, 7, 9-11, 43:14, 16, 44:11, 45:10, 46:4) The most common jar rim type at Kharabeh Shattani. Also a collared rim but with a concave profile which gives the collar a distinctive upturned edge. Diameters range from 40 to 230 mm, with a concentration between 100 and 210 mm.
- d) (Fig. 33:1, 38:5, 41:7, 45:2, 7) Again a jar with a concave collared rim, but with a flattened top in contrast with the pointed top of type c) above. Diameters range from 130 to 340 mm.
- e) (Fig. 43:2, 4, 44:4, 9-10, 45:11, 48:2-4) Everted rim with squared profile. This type is often characterized by relatively coarse, poorly levigated fabric and is also commonly painted. Diameters range from 110 to 260 mm.
- f) (Fig. 33:4, 44:1, 7, 12) Everted rim, usually flattened on the top, but with a rounded or pointed profile. A short-necked jar with a flat thickened rim (Fig 22:7) should also perhaps be included with this type though the rim is not everted. Diameters range from 90 to 200 mm.

#### 4. Hole-Mouthed Vessels

Only 9% of the rims belong to hole-mouthed vessels.

- a) (Figs. 45:5, 47:3, 52:1-4) Plain or simple hole-mouthed vessel rims with diameters ranging from 90 to 300 mm.
- b) (Fig. 33:3, 7, 37:4, 46:1, 2, 47:4, 51:1) Complex hole-mouthed vessels, often characterized by collared rims, generally grooved. Diameters range from 130 to 220 mm.
- c) (Fig. 42:12, 43:11, 15, 45:8, 47:5, 52:6-7) Vessels with a very short vertical neck giving them almost the appearance of short-necked jars. Diameters range from 130 to 380 mm.

#### 5. Plate

Fig. 32:1

#### 6. Lid

#### 7. Bases

Base sherds are greatly outnumbered by rims. The possibility that some vessels may have had round bases should not, however, be ruled out, although

there is only one clear instance of this, Fig. 52:6, a Common ware cooking pot. There are only fourteen recorded Common ware bases and these are perhaps more likely to belong to straight-sided bowls, the rims of which are also recorded.

Recorded base types are as follows.

- a) (Fig. 39:2, 5-6, 9) Simple flat bases with diameters generally ranging from 50 to 160 mm. Several smaller examples with diameters between 20 and 40 mm. probably belonged to fine ware beakers.
- b) (Fig. 39:4, 7-8) Flat bases with a clear indication on the external wall of the vessel where the base begins. Some examples are developed enough to be classified as disc bases. Diameters range from 60 to 145 mm.
- c) Slightly rounded bases with diameters ranging from 25 to 90 mm.
- d) (Fig. 54:5) Flat bases of tall narrow vessels, possibly jars or amphorae.
- e) Ring bases varying from almost flat bases to clearly developed rings. Diameters range from 55 to 140 mm with one recorded example of a diameter of 25 mm.
- f) (Fig. 36:1-2) Pedestal bases.

#### 8. Possible Stands

Fig. 36:4-5

#### Handles and Lugs

These are not common at Kharabeh Shattani except on hole-mouthed vessels, some of which show clear signs of burning on the exterior, indicating probable use as cooking pots. Handles and lugs would therefore have had a practical function in lifting, carrying and possibly suspension above fires. Examples now surviving singly would originally have occurred in pairs or larger numbers to facilitate this.

- a) *Handles*:- Short strap handles, often slightly grooved, and joined directly to the rim of the vessel, are seen on Fig. 47:5, 51:4 and 52:6-7; these are all hole-mouthed vessels. There is only one recorded example of a jar with handle. Fig. 53:2 is a fragment of a much larger, thicker handle with a double groove. Fig 53:5 shows part of an unevenly made handle joined to a fragment of a Fine ware rim.
- b) *Plain Lugs* Fig 53:2 shows a small oval lug, and a larger example appears in Fig. 52:1 on a hole-mouthed vessel. A more angular, plain lug is seen on Fig. 52:2.

- c) *Perforated Lugs* Fig. 53:2 shows an oval pierced lug while Fig. 53:3 shows a narrower version, the last being the only recorded example of a jar with lug.
- d) Crescent shaped lugs, found only on hole-mouthed vessels. (Fig. 52:3-4).
- e) Two-horned Lug. Fig. 42:12.

### Decoration

Most of the Kharabeh Shattani assemblage consists of plain utilitarian vessels. Decoration, when it does occur, is very simple and is found on the normal Kharabeh Shattani types and wares. Recognized techniques may be classified as follows:-

- a) Painted decoration.  
Most commonly this consists of horizontal bands of red paint around the rims and/or bodies of the vessels. (Figs. 33:9, 37:5, 50:2). The only consistently painted type is jar type c (Fig. 45:11, 48:2-4). Irregular black bands are shown on Fig. 56:9, 10. Fugitive traces of painting may be seen on Figs. 36:4, 42:2, 11, 54:4.
- b) Horizontal Ribs.  
These have been recorded on isolated sherds in groups of one to three (Fig. 55:1-3). Ribs occur on recognisable vessels on Figs. 40:6, 42:10.
- c) Slashed Ribs.  
These occur on generally fairly coarsely executed and decorated, relatively thick walled vessels.
- d) Incised horizontal lines.  
These are sharply defined lines and must be distinguished from the more gentle grooves emphasizing the rims of type a, b and c bowls, and from those on the collar rims of type b and c jars. Incised lines occur in groups of two to four (Fig. 36:8, 55:6-9) and are seen singly in association with other decorative forms (Figs. 55:4, 56:1, 3-4, 7, 11). Single incised lines are seen on recognisable vessel forms on Figs. 39:5, 36:10 and 45:11.
- e) Other incised decoration.  
Incised zigzags are seen on Figs. 56:2, 5. Diverging incised lines are seen on Fig. 56:7 and Fig. 56:8, 9 show multiple incised lines, probably executed with a comb. Fig. 56:3, 4 have a distinctive 'petal' design, and, as already noted, may be of a later date than the main body of pottery.
- f) Impressed decoration occurs only on three isolated sherds. Fig. 56:2, 6, 11.

### g) Glaze

Only one very small fragment of a glazed vessel from pit fill BCM (pit BAA) was found at Kharabeh Shattani. A yellowish glaze covers one side of the sherd but it is uncertain if this was the original colour. The glaze is too mottled to take accurate Munsell readings. A yellowish stain and greenish patches on the other side of the sherd indicate that the vessel may originally have been glazed on both surfaces, perhaps suggesting an open bowl shape. The fabric falls within the limits of Kharabeh Shattani green-white ware (see below).

Decorated sherds not illustrated include seven sherds with incised lines, seven with raised ribs and three examples of slashed ribs, together with the small glazed sherd. Most of these come from mixed deposits.

## §5.3: WARES

### Introduction

Each ware is discussed under three headings:- a) physical properties, b) surface properties and c) types.

### a) Physical Properties

These include such aspects as colour, texture, hardness, porosity and strength (Shepard 1954, 100-2), all commonly reported features, but often described in a subjective manner which may not accurately convey what was seen by the archaeologist. It was decided at Kharabeh Shattani that these properties could only be meaningfully reported by reference to common standards. Hardness, porosity and strength which could not be calculated objectively in field conditions were therefore regarded as less important than colour and texture.

Colour can be reported most objectively by reference to Munsell soil colour charts, which classify colours scientifically according to three variables. The first set of numbers and letters in each reading refer to hue, the position of the colour within the spectrum. This is followed by a fraction, the numerator representing value and the denominator representing chroma. Value describes lightness and darkness on a scale of 0 indicating black, to 10 indicating white. The chroma or purity of colour is also calculated on a scale of 0 indicating neutral grey, to 10 the colour in its purest form. An appropriate standardized colour name is indicated for each reading and so avoids the use of unnecessarily

imprecise terms (such as the infamous 'buff') which have little descriptive value. Munsell readings are presented as a summary in table form, indicating the range and most common reading for each ware. The excavation records preserve the Munsell reading for individual sherds.

There is not yet a comparable descriptive system which can be applied to texture. This is a feature influenced primarily by the non-plastic inclusions in the fabric (Shepard 1954, 117), so a description concentrates mainly on the composition of inclusions together with calculations of the amounts, size and size variability of the grains. Wentworth's scale (Shepard 1954, 115) could be used as a standard for distinguishing the sizes of larger measurable grains but it is not possible to distinguish the smaller divisions by the naked eye. It was found more practical to record the actual sizes of measurable grits, this being in itself an objective method.

'Fracture' is a characteristic conditioned by the texture, hardness, homogeneity and other qualities of the clay, and also by the method of breaking (Shepard 1954, 102), and therefore has little descriptive value.

### b) Surface Features

These are indications on the surface of the vessel of the method of manufacture or finish. On the most basic level it is possible to separate wheelmade and handmade vessels, the former being characterised by distinctive, horizontal, parallel or spiral ridges, ('wheelmarks') together with body walls of relatively even thickness. Handmade pots are often recognized by a surface marked by depression and indentations, and by less regular body walls. These marks may be obliterated by smoothing of the vessel, but smoothing, too, may leave marks on the surface. Smoothing marks depend to a certain extent on the texture of the clay, but may indicate both the state (i.e. degree of dryness) of the clay when finished, and the tool used.

Marks of manufacture and smoothing may finally be obscured by more decorative finishing techniques such as slip or burnish. Burnishing generally produces an easily recognisable lustrous finish but the recognition of slip may present more problems. When a slip is a different colour from the body of the vessel it is clearly visible with the naked eye, but when there is little or no colour difference it may be detectable only by microscopic investigation. This has not been possible on the sherds from Kharabeh Shattani, and the recogni-

tion of slip remains a problem. All surface features were recorded whenever recognized.

### c) Types

This section will summarize briefly the main types, or forms describes in Chapter 2, represented in each ware.

#### Standard Ware

The overwhelmingly common ware at Kharabeh Shattani has been called Standard Ware.

#### a) Physical Properties

Table 5.1: Munsell values for Standard Ware, based on 97 readings from 86 vessels/sherds.

	Lower Limit	Modal Value	Upper Limit
Hue	2.5 YR	5 or 7.5 YR	10YR
Value	3	6 or 7	8
Chroma	2	6	8

Colour is generally uniform over the surface of the vessel and falls within the range indicated in Table 5.1. High value and chroma readings show a predominance of light, pure colours most commonly described as 'reddish yellow'. These colours indicate firing in an oxidizing atmosphere, the high chroma values showing a normally high degree of oxidation. Some sherds with grey cores or with Munsell readings with lower chroma values for the cores than the surfaces may indicate incomplete oxidation.

Inclusions are visible in the body of the vessel and on both the internal and external surfaces. Most characteristic are white limestone grits varying from very fine (i.e. too small to measure) to 1mm in diameter, occasionally up to 2mm. There is great variation in size, even within the same vessel. Pits on the surfaces occur where these grits have exploded during firing. Very fine black and, less commonly, red grits of a more uniform size are also visible but have not been identified. There are also occasional indications of very fine shiny or grey, possibly micaceous, inclusions. Organic inclusions have been recognized in only a few examples.

The organic matter was undoubtedly added to the clay as temper but the other non-plastic inclusions may be natural. Clays from surrounding wadi beds appear to contain significant quantities of limestone grains, generally of a size similar to those which occur in the pottery (see § 4) and thus, al-

though these may have been retained as beneficial to the firing, they need not necessarily be deliberately added.

The absolute number of inclusions per cm<sup>2</sup> fluctuates considerably within a single vessel due to the variability in size of the limestone grits. The finer grits are too small to count with the naked eye. The proportions of grits also varies considerably between vessels, and is estimated to range between 5 and 20% of 1 cm<sup>2</sup>. Consequently, although the clay is generally well levigated, there is a continuum of fabrics with varying degrees of coarseness of texture. There is no apparent relationship between the coarseness of texture and the thickness of the vessel walls.

Finally, Standard ware is generally hard fired and breaks with a rough fracture.

#### *b) Surface Features*

Standard ware sherds are characterised by prominent 'wheelmarks', which are particularly evident on interior surfaces. Most rim sherds indicate closed vessel shapes, in which case it would have been neither necessary or practical to remove such marks. 'Wheelmarks' are much less prominent on the exteriors, where roughly horizontal, shallow striations suggest smoothing before firing. The absence of dragged grains suggests this was most probably carried out while the vessel was still wet, possibly with a yielding tool. Some white grits, visible on the surface, may originally have been smeared over but 'exploded' during firing, displacing the clay covering.

One sherd (Fig. 56:12) is marked by a line of faint indentations which may be the marks of a cord tied around the body of the vessel to help it maintain its shape during firing. This is the indication of such a practice.

The majority of Standard ware vessels do not appear to have been further finished after smoothing and have a matte or dull surface. Only one vessel shows signs of burnishing. The use of slip is not common but there are occasional clearly visible examples of 'white' or 'pinkish-white' slips which give Munsell readings (Table 5.2) indicating the absence of the red element present in the body sherds. There is also a group of sherds which have surfaces slightly lighter than the interior and which produce readings within the normal Standard ware range. In these cases the light colouration may be due to compaction during smoothing rather than the application of a slip. Consequently it is not

possible at present to make a reliable statement regarding the percentage of slipped Standard ware.

*Table 5.2:  
Munsell readings for Standard Ware slips.*

	Lower Limit	Modal Value	Upper Limit
Hue	2.5 YR 2.5 Y	10 YR	
Value	7	8	5Y
Chroma		2	4

#### *c) Types*

Standard ware is the most common of the Kharabeh Shattani wares, and is used for all recognized types, except possibly beakers (type 2).

#### **Fine ware**

This shares most of the characteristics of Standard ware but forms a definite group with its own definable, distinctive features.

#### *a) Physical Properties*

*Table 5.3: Munsell readings for Fine ware, based on 14 readings.*

	Lower Limit	Modal Value	Upper Limit
Hue	2.5 YR	5 or 7.5 YR	10 YR
Value	6	7	8
Chroma	4	6	

Table 5.3 shows the recorded colours of Fine ware sherds and clearly demonstrates that Fine ware colours are within the Standard ware range, the most common readings being identical. The narrower ranges of the value and chroma readings indicating generally lighter and less pure colours than Standard ware, may be due to differential firing or to clay selection, but, as the sample is small, it is perhaps more likely to be entirely fortuitous.

The most common Fine ware inclusions are the white limestone and fine black grits of Standard ware, the difference being one of degree. The black grits, as in Standard ware, are too small and too numerous to count, but the limestone grits are limited to the smaller sizes in the Standard ware range, that is below 1mm in diameter. The proportion of inclusions is low, an estimated 2.5 to 5% of 1 cm<sup>2</sup>. This could indicate that the clay was specially selected or treated before working to remove larger grits.

Finally, Fine ware vessels are characterized by thin walls, around 4mm thick, compared to an average of 8mm to 10mm in Standard ware vessels.

#### *b) Surface Features*

The surface features of Fine ware show great similarity to those of Standard ware. 'Wheelmarks', though not normally prominent, are characteristic of the internal surfaces of the vessels, while the exteriors show signs of wet smoothing. Also comparable to Standard ware is the relatively rare occurrence of light coloured slip; more common in fine ware is the use of burnishing. Fig. 40:6 has rings of pot burnishing around the neck of the vessel and Fig. 37:5 is burnished over the entire body surface. There are also three recorded burnished body sherds.

#### *c) Types*

The most important Fine ware type is the beaker (Fig. 36:9, 10, 37:1, 5), but there are also examples of bowls of type a, and jars of types a, b, c and f, and hole-mouthed vessels, type a. Flat Fine ware bases have also been recorded.

### **Common Ware**

This is recognisably coarser than other Kharabeh Shattani wares but is still well levigated and sometimes of a medium texture. The term 'Common ware' is therefore preferred to 'coarse ware', where common means unsophisticated rather than numerous.

#### *Physical Properties*

*Table 5.4: Munsell readings for Common ware, based on 21 readings from 12 vessels.*

	Lower Limit	Modal Value	Upper Limit
Hue		5 YR	10 YR
Value	N5	5	6
Chroma	1	4	8

Common ware vessels are characterized by comparatively low value and chroma readings, indicating dark colours of low purity, which suggests a low degree of oxidation or even reduction. Individual vessels occur in a variety of colours ranging from dark grey to reddish yellow, the most diagnostic colour being however reddish brown. Surface colours are generally uneven and are often

marked by dark grey or black patches, apparently caused by burning during use.

Common ware is also distinguished by the presence of large mineral inclusions ranging in size from 1mm to 5mm within the same vessels and protruding on both the inner and outer surfaces. These are usually grey, angular, quartz grits, although one vessel has large, black grits. It is not known whether these grits were deliberately added as temper or occurred naturally in the clay, possibly specially selected for its coarseness, though the single example of large black grits suggests deliberate addition. Smaller white limestone grits, ranging in size from very fine to around 2mm are also common, and very fine black and possibly grey grits also occur.

The actual number of grits per cm<sup>2</sup> may be low but the large size of the inclusions means that there is often a high proportion of inclusions in 1cm<sup>2</sup>, an estimated 15 - 30%.

#### *b) Surface Features*

'Wheelmarks' are occasionally visible but indentations on the surfaces and walls of uneven thickness indicate that most Common ware vessels were handmade. Fine grooves running horizontally, vertically and diagonally over the external surfaces show that the vessels were rather carelessly smoothed before firing. Smearing on the surfaces of vessels with finer textures shows that this process took place while the clay was still wet. The internal surfaces are generally unsmoothed and are grainy and pitted, probably indicating that most vessels were closed shapes. There is no indication of any other form of surface finish or decoration.

#### *c) Types*

The most frequent Common ware types are hole-mouthed vessels, often with handles or lugs, but there are also nine recorded, but undrawn, Common ware rims belonging to straight-sided bowls. These are very fragmentary but have recorded diameters ranging from 130mm to 180mm. As the hole-mouthed vessels would probably have had rounded bases, the fourteen examples of Common ware bases of type a may have belonged to these bowls.

### **Green-white ware**

This is an infrequent ware at Kharabeh Shattani.

### a) Physical Properties

Table 5.5: Munsell Readings of Green-white ware, based on 13 readings from 11 vessels.

	Lower Limit	Modal Value	Upper Limit
Hue	2.5 Y	5 YR	10 YR
Value	7	8	
Chroma	2	3	6

The predominance of Y readings (Table 5.5) indicate the absence of any red element in the hue. Colours are generally light, either pale yellow or white with a characteristic greenish tinge.

The texture of Green-white ware is similar to that of Standard ware. The usual white limestone grits are visible in sizes up to 1mm but the smaller sizes cannot be seen with the naked eye against the light fabric, and the number and percentage cannot therefore be estimated accurately. The very fine black or grey and red grits, also found in Standard ware, stand out clearly but are too small to be counted.

### b) Surface Features

Like Standard ware the outer surface has usually been smoothed before firing while the interior is often rougher with prominent 'Wheelmarks'. This suggests a predominance of closed shapes.

There are no known examples of dark slips and since the colours recorded for Standard ware slips closely match those of Green-white ware, it remains a moot point whether Green-white ware was sometimes slipped.

### c) Types

Green-white ware is used for normal Kharabeh Shattani shapes, specifically one type b bowl, jars of types b, c, e and f, and several base sherds of various types. One decorated sherd (Fig 56:2) is also in this ware.

### Grey Ware

This is also an infrequent ware at Kharabeh Shattani.

### a) Physical Properties

Table 5.6: Munsell readings for Grey ware, based on 13 readings from 10 vessels.

	Lower Limit	Modal Value	Upper Value
Hue	5 YR	10 YR	
	2.5 YR	5 Y	
Value	N5	7	
Chroma	0	1	2

Grey ware sherds have very low chroma values, which shows a very low purity suggesting that firing took place in an unoxidizing or reducing atmosphere. This contrasts strongly with Standard ware, which generally reveals a high degree of oxidation.

The most frequently recorded grits are very fine black or dark grey grits. White limestone grits are also commonly recorded in sizes varying from very fine and unmeasurable to around 1.5mm. These are often very widely spaced and form a negligible proportion of the total fabric. There are also two recorded examples of very fine, shiny, probably micaceous grits, and finally one example of very fine red grits. Only one vessel has no visible grits.

### b) Surface Features

Like the other wares at Kharabeh Shattani, Grey ware is characterized by a smoothed outer surface and prominent 'wheelmarks' especially on the interior of the vessels.

The outer surface may occasionally be of a slightly lighter colour than the core of the vessel, but this is probably due to smoothing and there is no clear indication of slip.

### c) Types

Grey ware vessels include normal Kharabeh Shattani bowls of type c, jars of type a and d, hole-mouthed vessels of type c and type a flat bases. In addition there are two unusual Grey ware rims, a bowl with an inturned rim, and perhaps the lip of a bottle.



## The Origins Of The Wares

Standard ware is overwhelmingly the most frequent ware at Kharabeh Shattani, and as such should be viewed as an indigenous product, either manufactured on the site itself or distributed from some nearby centre. If this is so, Fine ware and Common ware should probably also be considered local. The former shares many of the physical properties of Standard ware, suggesting an identical origin, while the latter also shares the same inclusions, and is often used for handmade cooking pots, probably the least likely vessels to be imported (But see Freestone and Hughes in Curtis *et al.* 1989, 74 for an alternative view). Green-white ware, although very different in appearance from Standard ware again shares the same inclusions, and as this ware is used for normal Standard ware vessel types it should probably also be considered as local, possibly representing the occasional use of an alternative clay source.

The source of Grey ware is more difficult to establish however, and several unusual features could be used to suggest an extraneous origin. The grey fabric indicates firing in a reducing atmosphere, uncharacteristic of Kharabeh Shattani, and the inclusions too, though of the same types as those found in Standard ware are found in very different proportions. These features could however be explained simply as differential selection, preparation and firing of local clay resources. Most grey ware vessels are in fact easily recognisable Kharabeh Shattani types and support this explanation. Grey ware vessels of unparalleled shapes cannot be shown to come from a recognized source and are not therefore securely classifiable as imports.

In conclusion it can be stated that the first millennium BC pottery from Kharabeh Shattani forms a locally made assemblage with no unequivocal examples of imports. Local fabrics do not automatically suggest that the shapes of the vessels and all other aspects of life should be considered entirely localized too, since pottery manufacture is possible even on the smallest sites. The apparent absence of ceramic imports, however, may suggest a relatively poor settlement unable to afford such luxuries or a specialised site. [But see the evidence of the metalwork, § 8. Editors].

## § 5.4: THE DATE OF THE ASSEMBLAGE

It has already been suggested that the Kharabeh Shattani pottery may be dated to the post-Assyrian period, but this post-Assyrian pre-Hellenistic period spans two or three centuries. First, the placing of the assemblage in this period must be justified. Then, if the position of the material within this period can be more closely established, the value of the assemblage as comparative material will be greatly increased. There are very few published assemblages of this period not only from northern Iraq but from the whole of the Near East, except perhaps Palestine. It must be stated at the outset that the discussion which follows is based on relatively little comparative material and therefore any conclusions reached are necessarily tentative and imprecise.

A local pottery series is almost always likely to provide the best comparative material, especially in a period which, to judge from our historical knowledge, is likely to be comparatively regionalized. In this particular instance the local pottery series is decidedly deficient, and is used here to establish the outer limits for the range of possible dates for the Kharabeh Shattani assemblage. Only one local site has provided a useful comparative assemblage within these outer chronological limits. The second part of the study will deal with possibly contemporary sites outside northern Iraq. Once the parallels have been presented, all the information will be drawn together in the conclusion, and a tentative date will be suggested.

### *The Upper Limit: Neo-Assyrian Parallels*

The points of comparison between the Kharabeh Shattani material and late Neo-Assyrian pottery are listed in detail below. These clearly show that the two groups of material are related, albeit relatively distantly. The pottery is obviously not Assyrian and so cannot be dated directly from Assyrian comparisons; but, since it can be shown from clear indications of Hellenistic influence that the Kharabeh Shattani pottery is post-Assyrian, it is possible to use the latest fixed Assyrian date as the earliest limit of the Kharabeh Shattani range.

The most important late Assyrian site in this context is Nimrud. The Nineveh reports (Thompson & Hutchinson 1929; Thompson & Hutchinson 1931; Thompson & Hamilton 1932; Thompson and Mallowan 1933), although extensive by the standards of the time, do not illustrate sufficient vessels to form comprehensive compari-

sons. However, the Nimrud material is securely dated to the extreme end of the Neo-Assyrian period, much of the published material coming from destruction levels belonging to the sack of the city by the Medes in 612 BC. The earliest date for the Kharabeh Shattani assemblage can be carried beyond this watershed date by the material from Fort Shalmaneser. Here Joan Oates (1959, 130) has shown that pottery identical to that used in 612 BC continued in use in three levels of squatter settlement for an estimated fifty years. The date of the destruction of the third squatter settlement therefore sets the upper limit for the Kharabeh Shattani material around 560 BC.

### *Parallels*

a) The carinated bowls of type 6 at Kharabeh Shattani (Figs. 33:9, 37:3) show a generic similarity to small bowls with everted lips and carinated shoulders which occur in large numbers at Nimrud (Lines 1954, Pl. XXXVI: 4, 5, 10; Oates 1959, Pl. XXXV: 8, 9, 17-19, 21, 23, 24). The Kharabeh Shattani examples have a slightly flatter lip and a less pronounced carination, although the many varieties of this type at Nimrud do include vessels with rounded shoulders. The Nimrud bowls also appear to be deeper than the Kharabeh Shattani examples but have comparable diameters. Ring bases, characteristic of this type at Nimrud, are known at Kharabeh Shattani but cannot be specifically associated with any particular type.

b) Kharabeh Shattani beakers (Fig. 36:9, 10, 37:2, 6) may be compared to palace ware beakers and small bowls from Nimrud (Lines 1954, Pl. XXXVII: 7, 8; Oates 1959, Pl. XXXVII: 59-67, 78-79), together with their imitations in ordinary ware and to two similar beakers from Nineveh (Thompson and Mallowan 1933, Pl. LXXIV: 16-17). A wide flared rim is common to examples from both sites, but here are obvious differences. Most of the Assyrian beakers are taller and more slender, although the shorter examples are similar in shape to Kharabeh Shattani Fig. 37:5. At Nimrud, too, most of the beakers are characterized by tiny ring or indented bases. There is one recorded fragment of a ring base of comparable size at Kharabeh Shattani, but beakers here generally have small flat bases. The carinated bodies of Fig. 36:9, 37:1 are related to the Nimrud bowls, although in this case the Nimrud vessels are shorter and wider.

The vessels from Kharabeh Shattani are obviously not in Assyrian palace ware, but are in the corresponding finest ware, perhaps more akin to

the wares of ordinary beakers at Nimrud. The difference in fabric is probably the main reason for the absence of dimpled decoration on the Kharabeh Shattani vessels, as well as on the ordinary beakers from Nimrud, this being a functional form of decoration, an extension into a pattern of the potter's fingerprints on the thin vessel walls (Rawson 1954, 168)

c) The Kharabeh Shattani goblet base (Fig. 36:1) is similar to one example from Nineveh (Thompson and Mallowan 1933, Pl. XXIV: 14), although the latter is much taller and wider. The goblet bases from Nimrud (Oates 1959, Pl. XXXVII: 55-57) are of a different type.

d) The slashed rib type decoration from Kharabeh Shattani (Figs. 51:1, 4, 55:4-5) may be compared with a similar rib on a 'teapot' from Nineveh (Oates 1959, Pl. XXXVIII: 96).

In addition it is possible to compare the use of simple painting in bands, and the use of horizontal incision and plastic ribs, but given the extreme simplicity of such forms of decoration, the validity of such comparisons is ambiguous.

e) Finally, the fact that there are no comparisons at Nimrud to the numerous large jars from Kharabeh Shattani may not be of much significance, since the published corpus is not a complete range of late Assyrian pottery types and large jars appear to be a category virtually unrepresented in the illustrations. Those which are shown, from Fort Shalmaneser and from private houses, (Lines 1954, Pl. XXXIX; Oates 1959, Pl. XXXVIII: 93, 98-99) are, however, of types not paralleled at Kharabeh Shattani.

### *The Lower Limits: Hellenistic Parallels*

The possibility that Hellenistic parallels might indicate a post- or late Hellenistic date must be ruled out on several counts. Firstly, a study of Seleucid and Parthian material in the Ashmolean Museum and in available publications bears no resemblance to the Kharabeh Shattani pottery. In addition many characteristic Hellenistic types, such as 'fish plates' and angular bowls, are not found on the site, and this, together with the relatively strong Assyrian parallels outlined in the preceding section, clearly indicates a pre-Hellenistic date. Consequently the earliest established Hellenistic date may be regarded as the latest limit of the Kharabeh Shattani pottery.

Again, the most useful assemblage of comparative material comes from Nimrud. Hellenistic material has also been found at Tell Mohammed

'Arab within easy walking distance of Kharabeh Shattani (Fig. 1c), but has not yet been published (except Roaf 1984, Fig. 3; nothing illustrated can be paralleled at Kharabeh Shattani).

The material from Nimrud comes from six, somewhat arbitrarily defined levels of small mud-brick houses, probably representing the life of a single village, on the high south-east corner of the citadel. The dating of the earliest level, level 6, is based on a coin of Seleucus III, which gives a *terminus post quem* of 233-226 BC for the destruction level in which it was found. Oates (Oates and Oates 1958, 135) convincingly suggests a founding date of 250-240 BC, when the threat of Parthian pressure in the east may have led to the foundation of the village in a protected position on the citadel of the old Assyrian mound. This date is well within the historical Hellenistic period, inaugurated by the campaigns of Alexander in 331 BC, but as the earliest secure Hellenistic date it must be regarded as the latest limit of the Kharabeh Shattani assemblage.

#### *Parallels*

a) Carinated bowls with everted lips from Kharabeh Shattani (Figs. 33:9, 37:3, 44:8) can be compared with similar bowls from Nimrud (Oates and Oates 1958, Pl. XXII: 13, 34-37), at least one example of which was found as early as level 6. This is a form which had continued in use from the Assyrian period onwards and has already been discussed in connection with parallels of that period.

b) A 'bag-shaped bowl' from Nimrud (Oates and Oates 1958, Pl. XXIV: 27) is very similar in shape to Fine ware beaker Fig. 36:10 from Kharabeh Shattani and is of a closely comparable size. This too may have been derived from Assyrian prototypes.

c) Large jars at Nimrud, as at Kharabeh Shattani, are numerically the most common type and there are many similarities between vessels from both sites. Jars with a "folded rim, often with an indent on the side" (Oates and Oates 1958, 128, Pl. XXV: 5-6) found as early as level 5 at Nimrud, may be closely paralleled with examples from Kharabeh Shattani (Fig. 35:4). Similar vessels were also found at Tell Mohammed 'Arab (Killick, pers. comm.).

Many of the large jars illustrated from Nimrud came from the 'Hellenistic house', possibly contemporary with levels 5 and 6 but more likely to be earlier, perhaps early Hellenistic (Oates and Oates 1958, 124, 150 (note too Pl. XXVII)). Many of

these vessels can be paralleled at Tell Mohammed 'Arab and some (Oates and Oates 1958, Pl. XXVII: especially 7 and 9) also at Kharabeh Shattani (types 3b and 3e, particularly Figs. 33:10, 40:2, 44:4, 9, 45:11, 50:2, 4). The slight depression on the inside of the rim, characteristic of many of the Nimrud jars, may also be seen on a few vessels (Figs. 42:13, 46:5, 50:7).

d) The rather irregular band of triangles on Fig. 56:11 may be compared with the neater band of "notched triangles" from the later levels at Nimrud (Oates and Oates 1958, Pl. XXI: 16-17; Pl. XXIV: 8) and with "dog tooth bands" commonly used to decorate the shoulders of large jars at Tell Mohammed 'Arab, the latter instances probably being more significant since the Kharabeh Shattani sherd also appears to have come from a large jar.

e) Bowls with thickened interior rims from Nimrud (Oates and Oates 1958, Pl. XXIV: 16-17) bear a slight resemblance to type c bowls from Kharabeh Shattani, but the relationship must remain uncertain since these belong to the latest level at Nimrud (after c.140 BC). Examples from Abu Sheetha are so far undated.

f) Incised grooves, possibly comparable to those decorating vessels at Kharabeh Shattani are also known at Hellenistic Nimrud (Oates and Oates 1958, Pl. XXIV: 21; Pl. XXVII: 5-7, 9, 11-12).

#### *Achaemenid period assemblages*

The preoccupation of archaeologists in the past with large scale city mounds has meant that until very recently Achaemenid material has been reported only when it occurred in or near to ruined Neo-Assyrian buildings at the major Assyrian centres such as Khorsabad (Loud and Altman 1938, 58) and Assur (Moorey 1980, 131). At Nimrud too an Achaemenid date has been suggested for occupation levels at a height of about 1m above the Assyrian pavements of the AB Palace, the Nabu Temple and the Burnt Palace (Mallowan 1956, 20-1, Phase H; Oates and Reid 1956, 32, 33, 37, Phase H; Oates and Oates 1958, 119, 122). Unfortunately these settlements have produced very little pottery and the three identifiable bowl types from Nimrud, published by Oates and Oates (Oates and Oates 1958, Pl. XXVIII: 12-14) are of types so far unrepresented at Kharabeh Shattani. A little more possibly Achaemenid pottery comes from a post-Assyrian level of Ezida, sealed beneath the floor of a house which Oates and Oates (1958, 124) have tentatively dated to the Early Hellenistic period. Two jars (Oates and Oates 1958, Pl. XXVIII: 17,

23) may be compared with vessels from Kharabeh Shattani (respectively Figs. 32:10, 33:10, 40:2, 4, 6, 7, 43:6, 46:5) and such close parallels in such a small assemblage may be significant; but the Nimrud material is of little practical value, since it cannot yet be pinpointed within the Achaemenid period to which it has been assigned on the basis of its stratigraphic position between the Assyrian and Hellenistic remains. Oates and Oates (1958, 122) suggest that recognisable types are closer to Hellenistic than to Assyrian styles but there is as yet insufficient material from Nimrud to suggest the date of the assemblage relative to Kharabeh Shattani.

#### *Khirbet Qasrij*

The most useful, comparable assemblage from the north of Iraq has come from the site of Khirbet Qasrij, situated only 1.5km from Kharabeh Shattani (Fig. 1c) and excavated by Dr John Curtis of the British Museum as part of the same rescue project (Curtis *et al.* 1989). The pottery from this site shows many points of close similarity to the Kharabeh Shattani material and the assemblages are clearly related, although the absence from Kharabeh Shattani of any of the distinctive yellow 'sherbert ware' found *in situ* in a kiln at Khirbet Qasrij and therefore manufactured on the site, suggests they are not contemporary.

Parallels between the two sites may be listed as follows:-

- a) Collared rim jars, the most common form at Kharabeh Shattani, are also popular at Khirbet Qasrij and many vessels are virtually identical (Curtis *et al.* 1989: No 223 - cf here Fig. 35:1; Curtis *et al.* 1989: No 150 - cf here Figs. 38:2, 40:3 etc).
- b) Kharabeh Shattani beaker types (Fig. 36:10, 37:2) are closely related to a similar beaker from Khirbet Qasrij (Curtis *et al.* 1989: No 140).
- c) One distinctive hole-mouthed vessel from Kharabeh Shattani (Fig. 46:1) is almost exactly paralleled at Khirbet Qasrij (Curtis *et al.* 1989: No 289) and other hole-mouthed types including vessels with handles jointed directly to the rim, show a more general relationship to the Kharabeh Shattani material.
- d) A slashed rib from Khirbet Qasrij (Curtis *et al.* 1989: No 242) may be compared to similar instances from Kharabeh Shattani (Figs. 51:1, 4, 55:3, 5).
- e) The small carinated bowls already discussed in connection with Assyrian and Hellenistic paral-

els above are also present at Khirbet Qasrij (Curtis *et al.* 1989: Nos 3, 5, 8, 9, 21, 29, 43, 44) and show similarities with Kharabeh Shattani type 1b (Fig. 32:3, 33:9, 11, 37:3, 44:8).

Khirbet Qasrij is a site with similar dating problems to Kharabeh Shattani, being a single period site with no datable associated artefacts, but Curtis *et al.* (1989, 52) has been able to suggest a date of the first half of the sixth century BC on the basis of very strong parallels with pottery from the post-Assyrian squatter settlements at Nimrud. This is not the place to discuss these parallels exhaustively but they can clearly be seen in tripods, fine ware vessels with high flared rims, carinated bowls with everted lips and flat plates, all of these being virtually identical to the Nimrud examples. Evidently the Assyrian connections are much greater at Khirbet Qasrij than they are at Kharabeh Shattani and this, together with the absence of any indications of Hellenistic shapes, suggests that the Khirbet Qasrij assemblage is earlier than the Kharabeh Shattani material, and that the latter should probably be dated to a developed stage of the Achaemenid period.

## § 5.5: DISCUSSION

#### *Towards a closer date*

It has been shown above that the Kharabeh Shattani first millennium BC assemblage is related to pottery from both the post-Assyrian squatter settlements and the Hellenistic village at Nimrud, and consequently should be dated to the period between these, the limits of which may approximately be set at 560 and 250 BC. This upper limit is supported by the dating of Khirbet Qasrij to the first half of the sixth century BC (Curtis 1989, 52). To determine a more specific date within these confines however, is a much more difficult matter. As has been shown above there is no well-dated local pottery sequence into which the Kharabeh Shattani assemblage can be fitted and as the bulk of the material appears to be of localized production there are few extraneous parallels which could be used to date the material from foreign sequences.

The meagre amount of local material available for comparison is, however, sufficient to suggest that the Kharabeh Shattani assemblage belongs to the middle of the suggested time range. In the absence of any strong cultural influences on north Iraq from outside during the Persian period,

Assyrian styles tended to be long-lived and parallels with late and post-Assyrian Nimrud need not necessarily, therefore, be considered indicative of an early date. The Kharabeh Shattani assemblage is clearly more closely comparable with the material from the Hellenistic levels at Nimrud, and this suggests a relatively long period of development after the destruction of the final squatter settlement, into which the intermediate stage represented by the Khirbet Qasrij assemblage must be fitted.

Two particular vessel types of which both Neo-Assyrian and derived Hellenistic forms are known are particularly significant in demonstrating the comparatively close relationship of the Kharabeh Shattani material to Hellenistic styles. The first of these types consists of small carinated bowls with everted lips related to Kharabeh Shattani type 1b; these have already been mentioned as a long-lived northern type. Fig. 57 shows a representative selection of these vessels in chronological series. Although Oates and Oates (1958) suggest that the great range of Assyrian shapes make it virtually impossible to date these bowls from shape alone, now that more sites are known there does appear to be some evidence of a developmental sequence. The bowls from Assyrian Nimrud and Khirbet Qasrij are clearly closely related, with sharply defined carinations and downward pointing lips. The Kharabeh Shattani vessels on the other hand resemble the Hellenistic examples more closely having a less clear carination and a generally flatter rim.

A similar developmental sequence can perhaps be suggested for the small beakers and bowls, related to the Kharabeh Shattani type 2, a representative selection of which is shown on Fig. 58. The earliest vessels from Nimrud are of two distinct types, tall necked beakers and small squat bowls, and this division appears to be preserved at Kharabeh Shattani. At Kharabeh Shattani the distinction is blurred. The painted beaker is a 'jar' shape, apparently ultimately derived from the tall Assyrian beakers, and is of a type not so far known from the Hellenistic period. The remaining vessels appear to be more closely related to the bowls, although they are considerably taller. Two are very similar in height and body shape to a 'bag-shaped bowl' from Nimrud, the latter example having however a less pronounced flared rim. A gradual increase in height relative to width may be seen in the illustrated examples of Nimrud bowls, and beakers from Khirbet Qasrij and Kharabeh Shattani.

The closest parallels to the most rounded of the Kharabeh Shattani beakers are not local, however, but from Pasargadae. As has been suggested above, beakers of this type, derived from metal prototypes, were widespread during the Iron Age and consequently these are the only foreign vessels which may convincingly be used as comparative material for dating purposes. The Pasargadae beakers are dated to the late and immediately post-Achaemenid periods and the close similarity between these and the Kharabeh Shattani vessel indicate that the latter is probably of a similar date.

The use of impressed decoration at Kharabeh Shattani is also perhaps significant in this context. This is a feature which is known in a simple form as early as the Assyrian period but is apparently much more widely used in Hellenistic assemblages being a characteristic feature at both Nimrud (Oates and Oates 1958, 128-9) and Tell Halaf (von Oppenheim 1931, 314). Impressed decoration is not common at Kharabeh Shattani but is not unknown, and its use may be considered as indicative of a late date, particularly since the impressed triangle design may be paralleled on late Hellenistic sites.

Finally the similarities between the Kharabeh Shattani jars and the jars found in the "Hellenistic house" at Nimrud, together with a possible Achaemenid deposit sealed beneath it, must also be mentioned. Both of these deposits most probably ante-date the earliest level of the Hellenistic village by a short period and the parallels of the material with that from Kharabeh Shattani may therefore be significant. As has been previously pointed out, however, similar storage jars may also have been in use in later levels and too much reliance should not be placed on the similarity of simple forms.

Most of the evidence shows that the Kharabeh Shattani assemblage should be considered to belong either to the developed Achaemenid period or to the earlier part of the Hellenistic period and it may be tentatively suggested that a late Achaemenid date is preferable. An important consideration in this context is the possible connection between the historical Hellenistic period, inaugurated by the conquests of Alexander in 331 BC, and the appearance of Hellenistic pottery styles in the archaeological record. Unfortunately as the early Hellenistic period is as yet unknown in north Iraq the nature of the introduction of Hellenistic styles in the area has to be inferred from other sources.

Before 331 BC in the late Persian period Greek imports are known from Egypt, Cyprus, Palestine, Syria and Anatolia, but have been recovered only in very limited quantities from sites further to the east such as Babylon and Susa. In these areas the Hellenistic influence on the pottery is unlikely to have been very significant, and in a small-scale rural society such as has been suggested for north Iraq the local tradition is likely to have remained most prominent. After 331, however, the situation appears to have changed. All over Alexander's empire his Orientalizing policy resulted in an increasing demand for Greek goods, and the settlement of Greek colonists in Asia made commercial activity considerably easier. Much of this trade, too, was potentially influential, as it must have passed through north Iraq which lay on the main routes south and east from Asia Minor and the Mediterranean coast.

Although it would be simplistic to suggest that changes in pottery styles can be dated closely by political events there do appear to be indications that the widespread adoption of Greek-derived types is perhaps more likely to have taken place in the circumstances created by the empires of Alexander and the Successors than in the late Persian period. It may be significant, therefore, that the most diagnostic Hellenistic types are not found at Kharabeh Shattani. Perhaps, therefore, the Kharabeh Shattani assemblage should be dated before the main influx of Hellenistic styles which it has tentatively been suggested indicates a date broadly before 331 BC.

Finally, before concluding with a possible date for the Kharabeh Shattani first millennium material, the limited nature of the available evidence must again be stressed. Much more excavation of post-Assyrian sites is necessary before there is sufficient comparative material to allow the Kharabeh Shattani assemblage to be dated accurately. All that is possible at present is to suggest a tentative date, probably towards the end of the period of Achaemenid rule, perhaps the later fifth and earlier fourth centuries BC. As this is a period which has been virtually unknown in northern Iraq, the assemblage is of considerable potential significance. In the future, as more post-Assyrian sites are excavated and published, the Kharabeh Shattani assemblage will prove to have made a contribution to the construction of an archaeological chronology, and thus to have played a part in opening the way to some understanding of the nature of the period in north Mesopotamia.

#### *Historical context*

It would be more gratifying, both to author and reader, if the consideration of the light shed by Kharabeh Shattani on its historical period in post-Assyrian northern Iraq were the major part of this study, rather than a mere appendage. Till now, however, the effect of the dissolution of Assyrian political power on ordinary Assyrian society and economy, the operation of the Achaemenid Empire on Assyria, and the cultural effects of the Hellenistic advance remain dark areas of historical and archaeological ignorance. Certainly there was massive dislocation of population and settlement pattern in Assyria as the royal centres collapsed and the major cities were abandoned. It is probably significant that no site excavated has shown continuity of occupation from the neo-Assyrian period into the Seleucid period. Instead we know that major sites, former population centres, were abandoned, though they may, as at Nimrud (Mallowan 1956, 20; Oates and Reid 1956, 32, 37; Oates and Oates 1958, 122) or at Fort Shalmaneser (Oates 1959, 130) have sustained limited squatter occupation for a generation or two. Those years were possibly troubled, as the repeated destructions of these refuges at Fort Shalmaneser may show (Oates 1962, 10; 1968, 58-9). The lack of further use of the high mounds as refuges may be related to the establishment of Achaemenid power in the middle of the sixth century BC.

Very little is known about the nature of Achaemenid provincial administration of former Assyria, but perhaps this lack of information reflects an absence of heavy-handed administration and interference with regional or local mechanisms. Common practice elsewhere within the Achaemenid empire was the division of satrapies into huge estates granted to members of the royal family and other influential Persians. If that practice held good in Assyria, then it, too, may have had an absentee satrap and absentee landlords. We are a long way from understanding how the system worked or what it would have looked like from the point of view of the inhabitants of Assyria. But perhaps Kharabeh Shattani gives us one of our first glimpses into the shadows, and it is all the more a pity that the last phase of occupation at the site was so poorly preserved and can give us so little information on which to build a picture (§ 6, § 12.5).

## Catalogue of First Millennium B.C. Pottery Illustrations

Fig. 32

- 1 AAF 11  
Type: 5                      Diam: 310 mm  
Ware: Standard.  
Notes: Finely finished.  
Scale: 1:2
- 2 ABE 6  
Type: 1d                    Diam: Approx 370 mm  
Ware: Standard.  
Scale: 1:2
- 3 ABC 5  
Type: 1b                    Diam: Ext. mm  
Ware: Standard.  
Notes: Cream slip with yellowish green tinge.  
Scale: 1:2
- 4 ABE 3  
Type: 1c                    Diam: 250 mm  
Ware: Standard.  
Scale: 1:2
- 5 AAC 27  
Type:                        Diam: 320 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2
- 6 AAC 26  
Type:                        Diam: 220 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2
- 7 AAC 25  
Type:                        Diam: 200 mm  
Ware: Pink beige fabric, hard fired.  
Scale: 1:2
- 8 ABC 6  
Type:                        Diam: 95 mm  
Notes: Handmade, buff light orange-brown fabrics, fine veg temper, Cream slip, soft.  
Scale: 1:2
- 9 JC2.4  
Type:                        Diam: 200 mm  
Ware: Standard?  
Decor: Fugitive paint.  
Scale: 1:2
- 10 ABI 3  
Type: 3b                    Diam: 120 mm  
Ware: Unrecorded.  
Scale: 1:2

Fig. 33

- 1 AAA 25  
Type: 3                      Diam: Indet. mm  
Ware: Standard.  
Notes:
- 2 AAA 29  
Type: 3b                    Diam: Indet. mm  
Ware: Light pink brown. Very fine grey grits.  
Notes:
- 3 ABH 4  
Type: 4b                    Diam: Indet. mm  
Ware: Standard.  
Scale: 1:2
- 4 AAC 7  
Type: 3f                    Diam: 300 mm  
Ware: Light brown.  
Notes: Cream slip.  
Scale: 1:4
- 5 ABF 21  
Type: 1a                    Diam: Int. 300 mm  
Ware: Standard.  
Notes: Possible yellow-cream.  
Scale: 1:2
- 6 AAE 5  
Type: 1b                    Diam: Ext. 330 mm  
Ware: Standard.  
Notes: Some vegetable temper.  
Scale: 1:2
- 7 ADA 8  
Type: 4b                    Diam: 360 mm  
Ware: Standard.  
Scale: 2:3
- 8 ADA 7  
Type: 1d                    Diam: 290 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2
- 9 ADA 9  
Type: 1b                    Diam: Int. 120 mm  
Ware: Standard.  
Notes: Red painted bands (Decoration type a).  
Scale: 1:2
- 10 ADA 10  
Type: 3b                    Diam: 110 mm  
Ware: Unrecorded.  
Scale: 1:2
- 11 ADA 6  
Type: 1b                    Diam: Ext. 200 mm  
Ware: Standard.  
Scale: 1:2

- 12 ABF 8  
 Type: Diam: 90 mm  
 Ware: Fineware.  
 Notes: Cream slip int and ext.  
 Scale: 1:2

*Fig. 34*

- 1 AAE 6  
 Type: Diam: 280 mm  
 Ware: Light orange with dark orange core.  
 Scale: 1:2
- 2 ACF 2  
 Type: 3c Diam: 100 mm  
 Ware: Standard.  
 Scale: 1:2
- 3 ADC 37  
 Type: 3a Diam: 90 mm  
 Ware: Grey.  
 Notes: Fine grey cream slip.  
 Scale: 1:2
- 4 ADB 2  
 Type: 1e Diam: Indet. mm  
 Ware: Standard.  
 Notes: Green cream slip.  
 Scale: 1:2
- 5 AAG 12  
 Type: Diam: 290 mm  
 Ware: Green.  
 Scale: 1:2
- 6 JC3.7  
 Type: 1a Diam: Int. 260 mm  
 Ware: Mottled grey.  
 Scale: 1:2
- 7 ABC 3  
 Type: 3b Diam: 260 mm  
 Ware: Standard.  
 Notes: Thick cream slip with green tinge.  
 Scale: 1:2

*Fig. 35*

- 1 JC 1.3  
 Type: 1e Diam: 240 mm  
 Ware: Standard.  
 Notes: Cream slip.  
 Scale: 1:2
- 2 AAA 15  
 Type: 3b Diam: 280 mm  
 Ware: Unrecorded.  
 Scale: 1:2

- 3 JC 1.1  
 Type: 1e Diam: 260 mm  
 Ware: Standard.  
 Scale: 1:2
- 4 AAA 4  
 Type: 3b Diam: 200 mm  
 Ware: Light yellow brown Small black grits.  
 Scale: 1:2
- 5 AAA 6  
 Type: 1a Diam: Ext. 260 mm  
 Ware: Standard.  
 Scale: 1:2
- 6 AAA 7  
 Type: 1c Diam: 160 mm  
 Ware: Grey.  
 Scale: 2:3

*Fig. 36*

- 1 ABC 8  
 Type: 7f Diam: Ex bs 105 mm  
 Ware: Standard.  
 Notes: Some vegetable temper. Rough interior.  
 Scale: 1:2
- 2 AAG 8  
 Type: 7f Diam: Ex base 75 mm  
 Ware: Green white.  
 Notes: Exterior fugitive orange-red paint.  
 Scale: 1:2
- 3 AAE 10  
 Ware: Standard.  
 Notes: Cream slip.  
 Scale: 1:2
- 4 AAC 9  
 Type: 8 Diam: 150 mm  
 Ware: Orange.  
 Notes: Black painted (?) band at foot.  
 Scale: 1:2
- 5 AAC 10  
 Type: 8 Diam: 175 mm  
 Ware: Orange.  
 Notes: Orange cream slip.  
 Scale: 1:2
- 6 AAC 64  
 Ware: Cream with white and black grits.  
 Scale: 1:2
- 7 Unrecorded  
 Type: 9b Diam: c30 mm  
 Ware: Unrecorded.  
 Scale: 1:2



- 8 JC 5.1  
Type: d  
Ware: Unrecorded.  
Scale: 1:2
- 9 ABI 7  
Type: 2                      Diam: Base 44 mm  
Ware: Unrecorded.  
Scale: 1:2
- 10 AAF 1  
Type: 2                      Diam: 110 mm  
Ware: Unrecorded.  
Scale: 1:2

Fig. 37

- 1 ADA 1  
Type: 2                      Diam: 100 mm  
Ware: Fineware.  
Scale: 1:2
- 2 AAC 30  
Type:                         Diam: 200 mm  
Ware: Standard?  
Scale: 1:2
- 3 AAC 33  
Type: 1b                     Diam: Ext. 195 mm  
Ware: Green-white.  
Scale: 1:2
- 4 AAC 62  
Type: 4b                     Diam: 260 mm  
Ware: Light beige.  
Scale: 1:2
- 5 BCJ 1  
Type: 2                      Diam: Rim 105 mm; Base 17 mm  
Ware: Fineware.  
Notes: Red painted bands (Decoration type a) Height 104.  
Scale: 1:2

Fig. 38

- 1 AAC 5  
Type: 3b                     Diam: 260 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2
- 2 AAC 8
- 3 AAA 16  
Type: 3b                     Diam: 160 mm  
Ware: Unrecorded.  
Scale: 1:2

- 4 AAC 91  
Type: 3c                     Diam: 210 mm  
Ware: Very light brown.  
Notes: Pale cream slip.  
Scale: 1:2
- 5 AAA 1  
Type: 3d                     Diam: Ext. 220 mm  
Ware: Very light brown. Very small white grits.  
Scale: 1:2

Fig. 39

- 1 AAA 31  
Type: 7c                     Diam: 60 mm  
Ware: Brown small black grits.  
Scale: 1:2
- 2 AAA 30  
Type: 7a                     Diam: 90 mm  
Ware: Green white.  
Scale: 1:2
- 3 JC 1.5  
Type: 7b                     Diam: 80 mm  
Ware: Green white.  
Notes: Interior and exterior green-cream slip.  
Scale: 1:2
- 4 AAC 47  
Type: 7a                     Diam: 16 mm  
Ware: Fineware.  
Notes: Crudely executed fine incisions (Decoration type d).  
Scale: 1:2
- 5 AAC 46  
Type: 7a                     Diam: 22 mm  
Ware: Fineware.  
Scale: 1:2
- 6 AAC 48  
Type: 7b                     Diam: Indet. mm  
Ware: Beige Coarse tempered.  
Notes: Finger width impressions on interior.  
Scale: 1:2
- 7 AAC 50  
Type: 7b                     Diam: 145 mm  
Ware: Common.  
Scale: 1:2
- 8 AAC 49  
Type: 7b                     Diam: Indet. mm  
Ware: Common.  
Scale: 1:2
- 9 AAC 61  
Type: 7a                     Diam: 160 mm  
Ware: Standard.  
Scale: 1:2

## Fig. 40

- 1 AAC 4  
Type: 3c                      Diam: 130 mm  
Ware: Very light brown.  
Notes: Cream slip.  
Scale: 1:2
- 2 AAC 90  
Type: 3b                      Diam: 120 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2
- 3 AAC 2  
Type: 3b                      Diam: 140 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:3
- 4 AAA 8  
Type: 3b                      Diam: 100 mm  
Ware: Green white.  
Scale: 1:2
- 5 AAA 9  
Type: 3b                      Diam: 130 mm  
Ware: ? Fineware Light pink brown. Sandy grit.  
Scale: 1:2
- 6 JC 1.4  
Type: 3b                      Diam: 110 mm  
Ware: Standard.  
Notes: Three lines of pot (?) burnishing above raised rib  
(Decoration type b).  
Scale: 1:2
- 7 AAA 10  
Type: 3b                      Diam: 120 mm  
Ware: Fineware.  
Scale: 1:2

## Fig. 41

- 1 AAA 21  
Type: 1a                      Diam: Int 210 mm  
Ware: Standard.  
Scale: 1:2
- 2 AAA 23  
Type: 1a                      Diam: Ext. 140 mm  
Ware: Grey-green Very fine.  
Scale: 1:2
- 3 AAA 5  
Type: 3c                      Diam: 150 mm  
Ware: Standard.  
Scale: 1:2
- 4 AAA 12  
Type: 3c                      Diam: 170 mm  
Ware: Standard.  
Scale: 1:2

- 5 AAA 13  
Type: 3c                      Diam: 180 mm  
Ware: Unrecorded.  
Scale: 1:2
- 6 AAA 18  
Type: 3c                      Diam: Ext. 200 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2
- 7 AAA 2  
Type: 3d                      Diam: Ext. 210 mm  
Ware: Very light brown. Grey grits.  
Scale: 1:2
- 8 AAA 17  
Type: 3c                      Diam: 220 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2

## Fig. 42

- 1 JC2.5  
Type:                          Diam: 162 mm  
Ware: Fineware.  
Notes: Cream slip.  
Scale: 2:3
- 2 JC 2.3  
Type: 3c                      Diam: 150 mm  
Ware: Green white.  
Notes: Interior and exterior fugitively painted in solid red  
brown.  
Scale: 1:2
- 3 JC 2.1  
Type: 3b                      Diam: 190 mm  
Ware: Standard.  
Scale: 1:2.6
- 4 ABE 5  
Type: 3b                      Diam: 210 mm  
Ware: ? Fineware Light brown white grits.  
Notes: Cream exterior slip.  
Scale: 1:2.6
- 5 JC 2.2  
Type: 3c                      Diam: 190 mm  
Ware: Green white.  
Scale: 1:2
- 6 ABI 1  
Type: 3b                      Diam: 45 mm  
Ware: Unrecorded.  
Scale: 1:2
- 7 JC 3.2  
Type: 3c                      Diam: 100 mm  
Ware: Standard.  
Scale: 1:2

- |   |   |
|---|---|
| <p>8 ABI 2<br/>Type:                   Diam: 130 mm<br/>Scale: 1:2</p>  | <p>7 AAG 10<br/>Type:                   Diam: 130 mm<br/>Scale: 1:2</p>   |
| <p>9 JC 3.3<br/>Type: 3c               Diam: 120 mm<br/>Ware: Standard.<br/>Notes: Cream slip.<br/>Scale: 1:2</p>   | <p>8 ?<br/>Type:                   Diam: 170 mm<br/>Ware: Beige, hard fired.<br/>Notes: Cream slip int. and ext.<br/>Scale: 1:2</p>                     |
| <p>10 JC 3.1<br/>Type: 3c               Diam: 66 mm<br/>Ware: ? Fineware very light brown. Very fine black grits.<br/>Scale: 1:2</p>                                    | <p>9 ADB 7<br/>Type:                   Diam: 130 mm<br/>Ware: Cooking pot?.<br/>Scale: 1:2</p>  |
| <p>11 JC 3.5<br/>Type: 3b               Diam: 240 mm<br/>Ware: Green-white.<br/>Notes: Fugitive brown red painted band on rim interior, 15 mm thick.<br/>Scale: 1:2</p> | <p>10 AAC 12<br/>Type:                   Diam: 280 mm<br/>Ware: Grey pink, very fine black grits, hard fired.<br/>Notes: Cream slip.<br/>Scale: 1:2</p> |
| <p>12 ABC 50<br/>Type: 4c               Diam: Int. 180 mm<br/>Ware: Common.<br/>Notes: Two horned lug (type 9e).<br/>Scale: 1:2</p>                                     | <p>11 AAC 13<br/>Type: 4c               Diam: 175 mm<br/>Ware: Grey pink. Coarse white grits.<br/>Notes: Cream slip.<br/>Scale: 1:2</p>                 |
| <p>13 ABC 2<br/>Type: 3b               Diam: 160 mm<br/>Ware: Standard.<br/>Scale: 1:2</p>  | <p>12 ADB 8<br/>Type:                   Diam: indet. mm<br/>Ware: Standard.<br/>Scale: 1:2</p>  |
| <p><i>Fig. 43</i></p>   |   |
| <p>1 ABE 7<br/>Type: 3a               Diam: 150 mm<br/>Ware: Standard.<br/>Scale: 1:2</p>   | <p>13 AAC 15<br/>Type:                   Diam: 120 mm<br/>Ware: Beige orange, hard fired.<br/>Scale: 1:2</p>  |
| <p>2 AAC 11<br/>Type: 3e               Diam: 200 mm<br/>Ware: Grey-beige.<br/>Scale: 1:2</p>  | <p>14 ADB 10<br/>Type: 3c               Diam: 210 mm<br/>Ware: Standard.<br/>Notes: Cream slip.<br/>Scale: 1:2</p>                                      |
| <p>3 ABE 8<br/>Type: 3a               Diam: 110 mm<br/>Ware: Standard.<br/>Notes: Interior and exterior cream slip.<br/>Scale: 1:2</p>                                  | <p>15 ADB 3<br/>Type: 4c               Diam: 130 mm<br/>Ware: Light brown grey. White grits.<br/>Scale: 1:2</p>   |
| <p>4 AAC 3<br/>Type: 3e               Diam: 190 mm<br/>Ware: Green white.<br/>Scale: 1:2</p>  | <p>16 ADB 9<br/>Type: 3c               Diam: 100 mm<br/>Ware: Light beige fabric. White grit.<br/>Scale: 1:2</p>  |
| <p>6 AAC 6<br/>Type: 3b               Diam: Indet. mm<br/>Ware: Standard.<br/>Notes: Cream slip.<br/>Scale: 1:2</p>   | <p>17 ADB 1<br/>Type: 3a               Diam: 70 mm<br/>Ware: Standard.<br/>Notes: Cream slip.<br/>Scale: 1:2</p>  |

## Fig. 44

- 1 ADB 4  
Type: 3f                      Diam: Ext. 180 mm  
Ware: Green white.  
Scale: 1:2
- 2 ADB 5  
Type: 3b                      Diam: 160 mm  
Ware: Standard.  
Notes: Green cream slip.  
Scale: 1:2
- 3 ABS 90  
Type: 3a                      Diam: 130 mm  
Ware: Standard.  
Notes: Light cream slip.  
Scale: 2:3
- 4 ADC 33  
Type: 3e                      Diam: 190 mm  
Ware: Standard.  
Scale: 1:2
- 5 ADC 32  
Type:                          Diam: Indet. mm  
Ware: Light grey pink, dense white and grey grits.  
Notes: Light grey cream slip.  
Scale: 1:2
- 6 ADB 50  
Type: 3b                      Diam: 270 mm  
Ware: Green white.  
Scale: 1:2
- 7 AAE 7  
Type: 3f                      Diam: Ext. 120 mm  
Ware: Standard.  
Notes: Possible cream slip.  
Scale: 1:2
- 8 AAE 8  
Type: 1b                      Diam: Ext. 140 mm  
Ware: Unrecorded.  
Scale: 1:2
- 9 ACF 1  
Type: 3e                      Diam: 100 mm  
Ware: Light creamy beige. Fine white and black grit.  
Scale: 1:2
- 10 ABE 1  
Type: 3e                      Diam: 170 mm  
Ware: Standard.  
Notes: Interior and exterior cream slip.  
Scale: 1:2
- 11 ABE 2  
Type: 3c                      Diam: 80 mm  
Ware: Standard.  
Notes: Possible interior and exterior light cream slip.  
Scale: 1:2

- 12 ABC 4  
Type: 3f                      Diam: Ext. 200 mm  
Ware: Standard.  
Scale: 1:2

## Fig. 45

- 1 ADA 2  
Type:                          Diam: 200 mm  
Ware: Orange with pale orange core, fine grits.  
Scale: 1:2
- 2 ADA 5  
Type: 3d                      Diam: Ext. 210 mm  
Ware: Standard.  
Scale: 1:2
- 3 AAC 31  
Type:                          Diam: 200 mm  
Ware: Standard?  
Scale: 1:2
- 4 AAC 32  
Type: 3f                      Diam: Ext. 185 mm  
Ware: Green white.  
Scale: 1:2
- 5 ABC 7  
Type: 4a                      Diam: Int. 640 mm  
Ware: Standard.  
Notes: Veg. temper. Dull cream slip. Coil built
- 6 ADA 4  
Type: 3b                      Diam: 260 mm  
Ware: Standard.  
Notes: Exterior cream slip.  
Scale: 1:3
- 7 ADA 3  
Type: 3d                      Diam: Ext. 340 mm  
Ware: Standard.  
Scale: 1:2
- 8 AAE 4  
Type: 4c                      Diam: 220 mm  
Ware: Grey.  
Notes: Possible green-cream slip.  
Scale: 1:2
- 9 ADA 12  
Type:                          Diam: 120 mm  
Ware: Orange with yellow core, small grits.  
Notes: Cream ext. surface.  
Scale: 1:2
- 10 ADA 13  
Type: 3c                      Diam: 130 mm  
Ware: Standard.  
Notes: Cream slip.  
Scale: 1:2

11 ABH 6  
 Type: 3e                      Diam: 140 mm  
 Ware: Standard.  
 Notes: Purple red painted band over incised groove  
 (Decoration types a and d).  
 Scale: 1:2

12 ABF 7  
 Type: 3a                      Diam: 105 mm  
 Ware: Standard.  
 Notes: Exterior cream slip.  
 Scale: 1:2

*Fig. 46*

1 JC 1.2  
 Type: 4b                      Diam: 190 mm  
 Ware: Brown, Heavy white grits.  
 Scale: 1:2

2 AAC 92  
 Type: 4b                      Diam: 190 mm  
 Ware: Light brown.  
 Notes: Cream slip.  
 Scale: 1:2

3 AAA 19  
 Type:                          Diam: 180 mm  
 Ware: Fineware.  
 Scale: 1:2

4 AAA 22  
 Type: 3c                      Diam: 120 mm  
 Ware: ? Fineware Very light brown. Fine grey grits.  
 Scale: 1:2

5 AAA 24  
 Type: 3b                      Diam: 100 mm  
 Ware: Standard.  
 Scale: 1:2

6 AAA 14  
 Type: 3c                      Diam: 100 mm  
 Ware: Unrecorded.  
 Scale: 1:2

7 AAA 20  
 Type: 1a                      Diam: Ext. 120 mm  
 Ware: ? Fineware Light Brown.  
 Scale: 1:2

8 AAA 11  
 Type: 3a                      Diam: 130 mm  
 Ware: Fineware.  
 Scale: 1:2

9 AAA 3  
 Type:                          Diam: 90 mm  
 Ware: Light brown, small white grits.  
 Notes: Possibly not Achaemenid, possibly Halaf.  
 Scale: 1:2

*Fig. 47*

1 ABF 9  
 Type: 3b                      Diam: 170 mm  
 Ware: ? Standard Grey brown to pink-orange small white  
 grits.  
 Notes: Possible exterior cream-orange slip.  
 Scale: 1:2

2 ABH 1  
 Type: 3b                      Diam: 200 mm  
 Ware: Standard.  
 Scale: 1:2

3 ABF 12  
 Type: 4a                      Diam: 140 mm  
 Ware: ? Common Dark brown to orange brown. Coarse  
 white grits.  
 Scale: 1:2

4 ABH 2  
 Type: 4b                      Diam: 150 mm  
 Ware: Dark brown. Fine black grits.  
 Notes: Interior cream slip. Cream band of paint beneath  
 rim.  
 Scale: 1:2

5 ABF 15  
 Type: 4c                      Diam: 170 mm  
 Ware: Common.  
 Notes: Handle (type 9a).  
 Scale: 1:2

*Fig. 48*

1 BCC 2  
 Type: 3e                      Diam: 220 mm  
 Ware: Standard.  
 Notes: Red painted band (Decoration type a).  
 Scale: 1:2

2 BCJ 8  
 Type: 3e                      Diam: 210 mm  
 Ware: Standard.  
 Notes: Red painted band and incised groove (Decoration  
 type a and d).  
 Scale: 1:2

3 BBH 1  
 Type: 3e                      Diam: 260 mm  
 Ware: Standard.  
 Notes: Red painted bank (Decoration type a).  
 Scale: 1:2

*Fig. 49*

1 AAC 1  
 Type: 3b                      Diam: 200 mm  
 Ware: Standard.  
 Scale: 1:3

- 2 ABS 6  
Type: 3b                      Diam: 360 mm  
Ware: Standard.  
Scale: 1:2
- 3 BBB 5  
Type: 3b                      Diam: 240 mm  
Ware: Standard.  
Notes: Possible very pale brown slip.  
Scale: 1:2
- 4 BBD 8  
Type: 3b                      Diam: Indet. mm  
Ware: Standard.  
Scale: 1:2

*Fig. 50*

- 1 BBB 1  
Type: 3b                      Diam: 60 mm  
Ware: Standard.  
Notes: High narrow pierced lug (type 9c).  
Scale: 1:2
- 2 BBA 1  
Type: 3b                      Diam: 150 mm  
Ware: Standard.  
Notes: Red painted bands (Decoration type a).  
Scale: 1:2
- 3 BCH 1  
Type: 3b                      Diam: 200 mm  
Ware: Standard.  
Scale: 1:2
- 4 BBQ 1  
Type: 3b                      Diam: 90 mm  
Ware: Standard.  
Scale: 1:2
- 5 BCB 1  
Type: 3b                      Diam: 120 mm  
Ware: Standard.  
Notes: Exterior white slip or wash.  
Scale: 1:2
- 6 BBN 3  
Type: 3b                      Diam: 110 mm  
Ware: Standard.  
Scale: 1:2
- 7 BCJ 5  
Type: 3b                      Diam: 130 mm  
Ware: Standard.  
Scale: 1:2

*Fig. 51*

- 1 JC 2.6  
Type: 4b                      Diam: Ext. 245 mm  
Ware: Beige. Very fine black grits.  
Notes: Slashed rib below 2 incised grooves (Decoration types c and d).  
Scale: 1:2
- 2 ABS 4/5  
Type: 4b                      Diam: 130 mm  
Ware: Standard.  
Scale: 1:2
- 3 ABR 4  
Type: 3b                      Diam: 200 mm  
Ware: Green-white.  
Notes: Possible white slip.  
Scale: 1:4
- 4 AAD4 AAC64  
Type: 3b                      Diam: Int. 220 mm  
Ware: Standard.  
Notes: Two conjoining sherds Strap handle (type 9a) joined to rim and slashed rib  
Decor: (Decor type c).  
Scale: 1:4

*Fig. 52*

- 1 ABK 3  
Type: 4a                      Diam: 230 mm  
Ware: Common.  
Notes: Plain lug (type 9b).  
Scale: 1:2
- 2 BCC 1  
Type: 4a                      Diam: 110 mm  
Ware: Common.  
Notes: Plain lug (type 9b).  
Scale: 1:2
- 3 BBB 4  
Type: 4a                      Diam: 110 mm  
Ware: Common.  
Notes: Crescentic lug (type 9d).  
Scale: 1:2
- 4 BBD 6  
Type: 4a                      Diam: Indet. mm  
Ware: Common.  
Notes: Grey fabric.  
Scale: 1:2
- 5 BCB 11  
Type: 4b                      Diam: 380 mm  
Ware: Standard.  
Scale: 1:2

6 ABR 3  
Type: 4c                      Diam: 180 mm  
Ware: Common.  
Notes: Hand made Lug (type 9c).  
Scale: 1:4

7 BBN 2  
Type: 4c                      Diam: 180 mm  
Ware: Common.  
Notes: Handle (type 9a).  
Scale: 1:2

*Fig. 53*

1 BBB 7  
Type: 1e                      Diam: Indet. mm  
Ware: Standard.  
Scale: 1:2

2 ABS 1  
Type: 9a  
Ware: Yellow Limestone grits up to 3mm & black grits up to 0.5mm Fine red grits.  
Scale: 1:2

3 AAA 35  
Type: 9c  
Ware: Brown. Fine black grits.  
Notes: Cream-orange slip.  
Scale: 1:2

4 BCJ 19  
Type: 9c  
Ware: Standard.  
Scale: 1:2

5 BBE 1  
Type: 9a  
Ware: Fineware.  
Notes: Attached to fragment of plain rim.  
Scale: 1:2

6 ABK 1  
Type:                          Diam: 260 mm  
Ware: Reddish yellow, small white, red and black grits.  
Notes: Smoothed surface.  
Scale: 1:2

*Fig. 54*

1 ABR 2  
Type: 7c                      Diam: 90 mm  
Ware: Standard.  
Scale: 1:2

2 ABS 10  
Type: 7c                      Diam: 80 mm  
Ware: Standard.  
Notes: Rough interior.  
Scale: 1:2

3 BBD 1  
Type: 7c                      Diam: 28 mm  
Ware: Very pale brown. Very small white and black grits.  
Scale: 1:2

4 ABH 3  
Type: 7d  
Ware: Pale orange.  
Notes: Possible exterior bands of fugitive red brown paint.  
Scale: 1:2

5 BCS 1  
Type: 7d                      Diam: 25 mm  
Ware: Standard.  
Notes: Possible very pale brown slip or wash.  
Scale: 1:2

*Fig. 55*

1 BCH 5  
Type: b  
Ware: Standard.  
Scale: 1:2

2 BCQ 1  
Type: b  
Ware: Standard.  
Scale: 1:2

3 BBB 8  
Type: b  
Ware: Standard.  
Notes: Possible white slip.  
Scale: 1:2

4 BCJ 21  
Type: c  
Ware: Standard.  
Scale: 1:2

5 BCR 2  
Type: c  
Ware: Standard.  
Notes: Possible exterior wash.  
Scale: 1:2

6 BCB 18  
Type: d  
Ware: Standard.  
Notes: Possible very pale brown slip.  
Scale: 1:2

7 AAC 59  
Type: d  
Ware: Unrecorded.  
Scale: 1:2

8 AAC 55  
Type: d  
Ware: Unrecorded.  
Scale: 1:2

9 BCH 4  
Type: d  
Ware: Standard.  
Scale: 1:2

*Fig. 56*

1 BCJ 20  
Type: d & e  
Ware: Standard.  
Notes: Exterior very pale brown slip.  
Scale: 1:2

2 AAA 36  
Type: e & f  
Ware: Green white.  
Notes: Identical sherd from BCA, also plough soil.  
Scale: 1:2

3 ABE 12  
Type: d & e  
Ware: Standard.  
Notes: Cream exterior slip.  
Scale: 1:2

4 BBB 11  
Type: d & e  
Ware: Standard.  
Notes: Exterior well smoothed.  
Scale: 1:2

5 ADB 15  
Type: e  
Ware: Standard.  
Notes: Possible slip. Some pot temper.  
Scale: 1:2

6 AAD 150  
Type: f  
Ware: Unrecorded.  
Scale: 1:2

7 BCA 4  
Type: d & e  
Ware: Very pale brown.  
Notes: Rough surface.  
Scale: 1:2

8 BBO 1  
Type: e  
Ware: Standard.  
Scale: 1:2

9 BBN 1  
Type: a & e  
Ware: Light brown-cream.  
Scale: 1:2

10 ABE 10  
Type: a  
Ware: Brown. Very fine grey grits.  
Notes: Grey cream slip.  
Scale: 1:2

11 BCB 16  
Type: d & f  
Ware: Standard.  
Notes: White slip.  
Scale: 1:2

12 BCR 1  
Ware: Standard.  
Notes: Possible exterior wash. Possible rope mark.  
Scale: 1:2



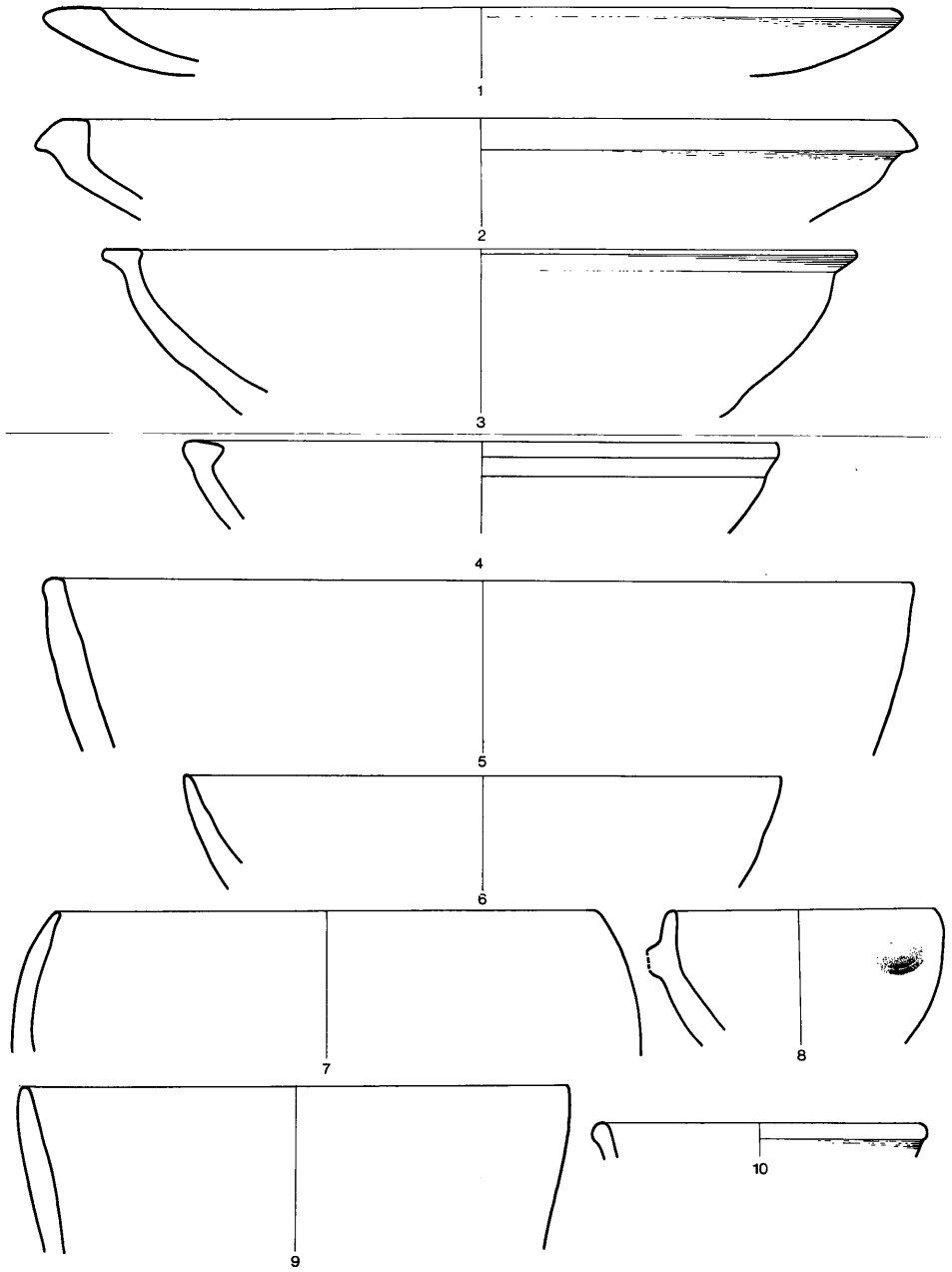
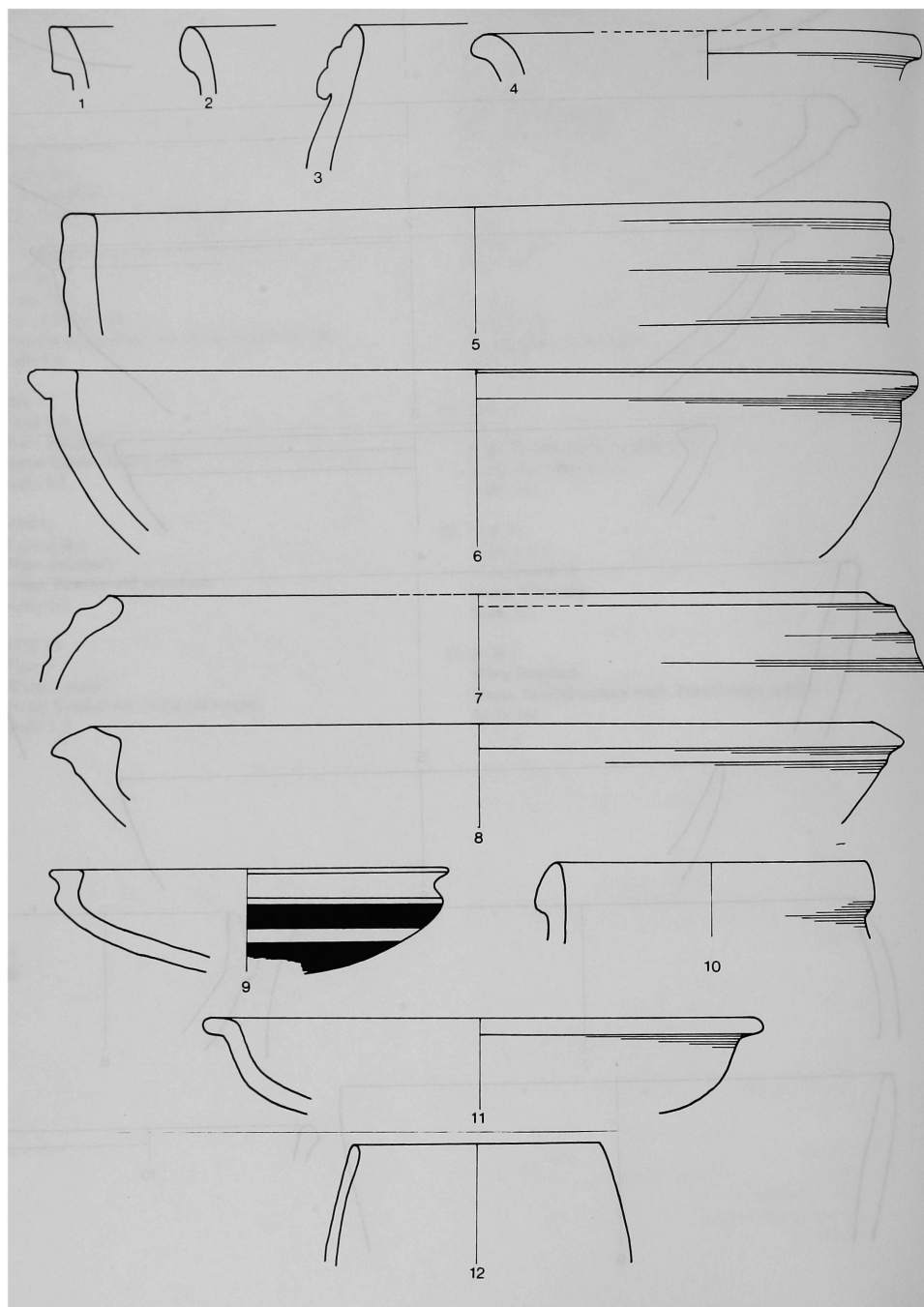


Fig. 32 First Millennium BC pottery



*Fig. 33 First Millennium BC pottery*

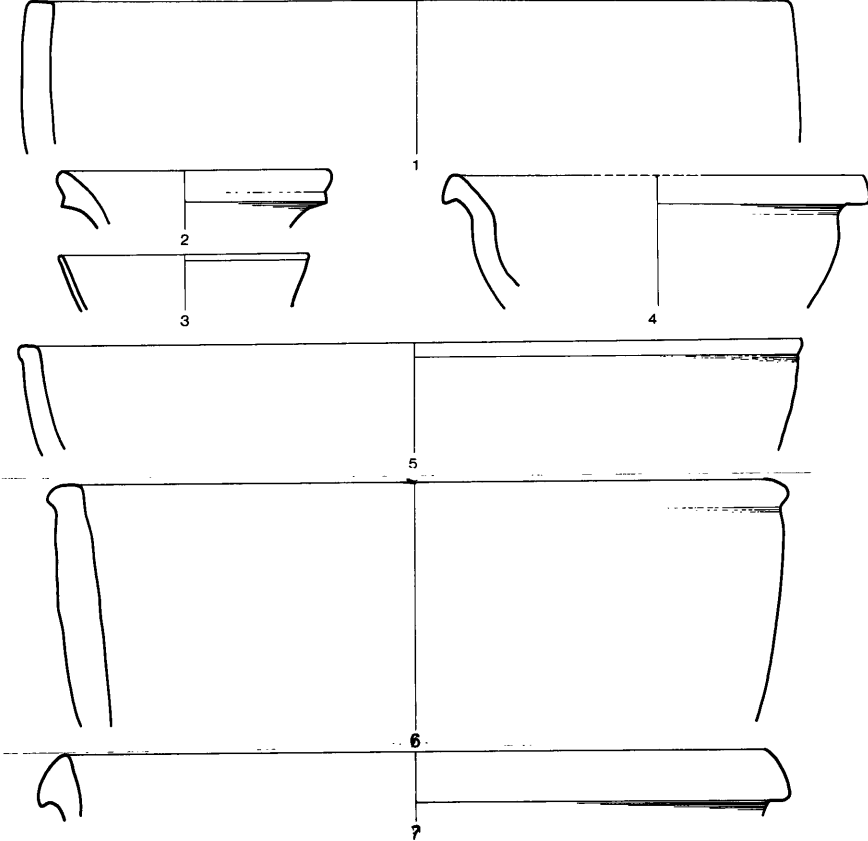
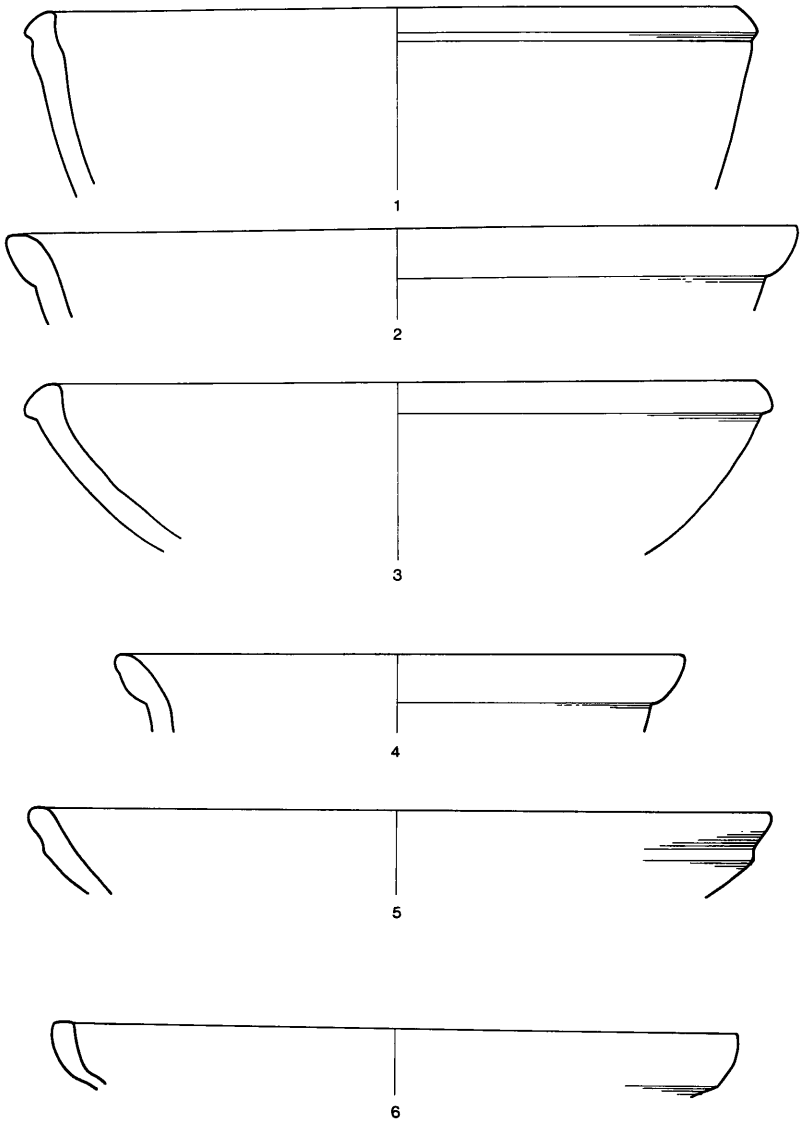


Fig. 34 First Millennium BC pottery



*Fig. 35 First Millennium BC pottery*

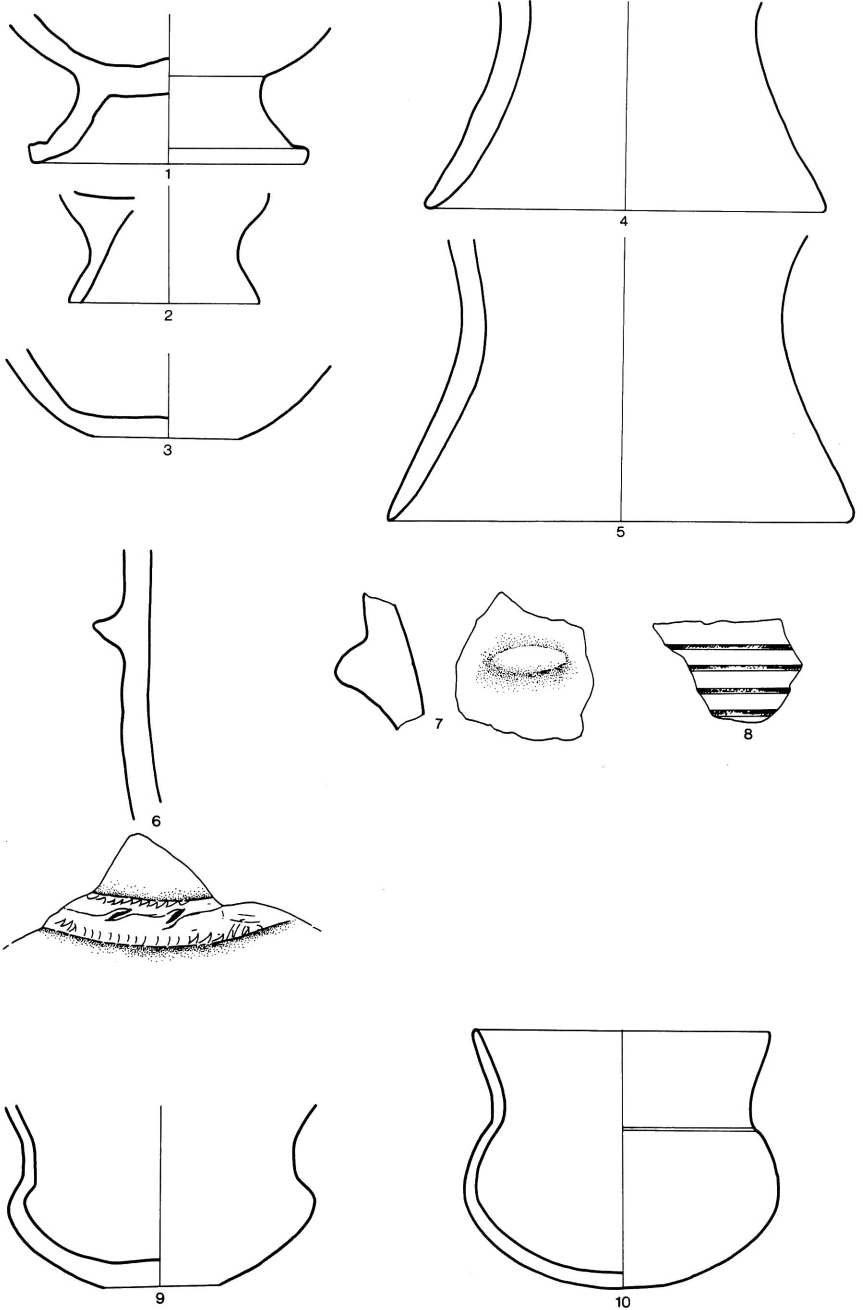
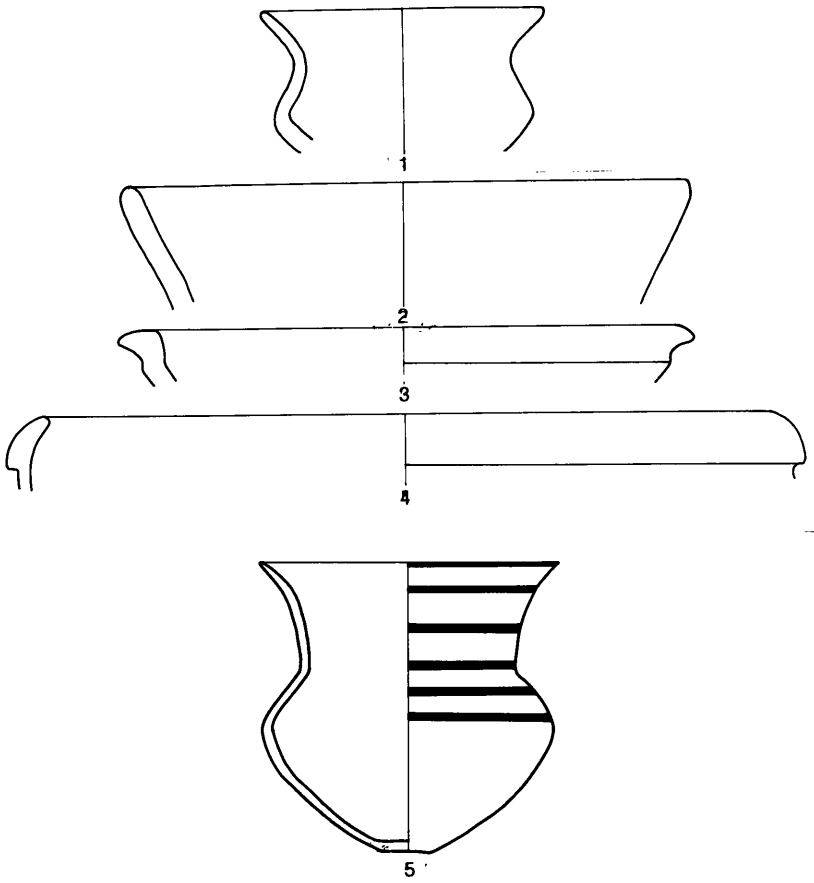
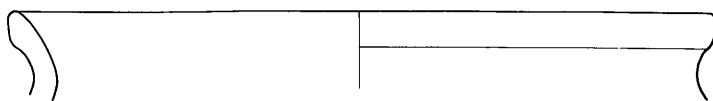


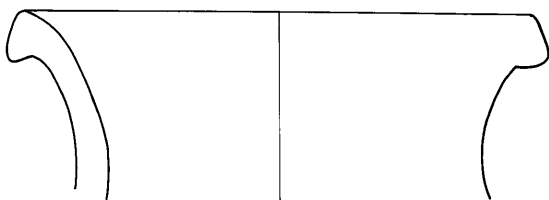
Fig. 36. First Millennium B.C. pottery



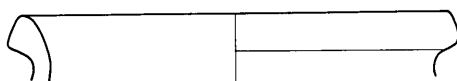
*Fig. 37 First Millennium BC pottery*



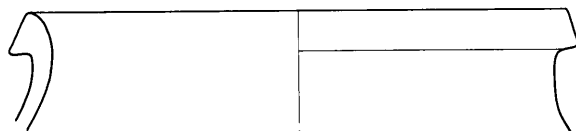
1



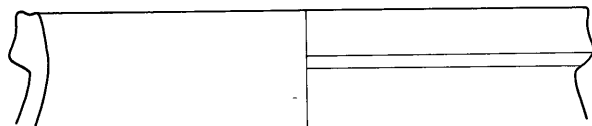
2



3



4



5

*Fig. 38 First Millennium BC pottery*

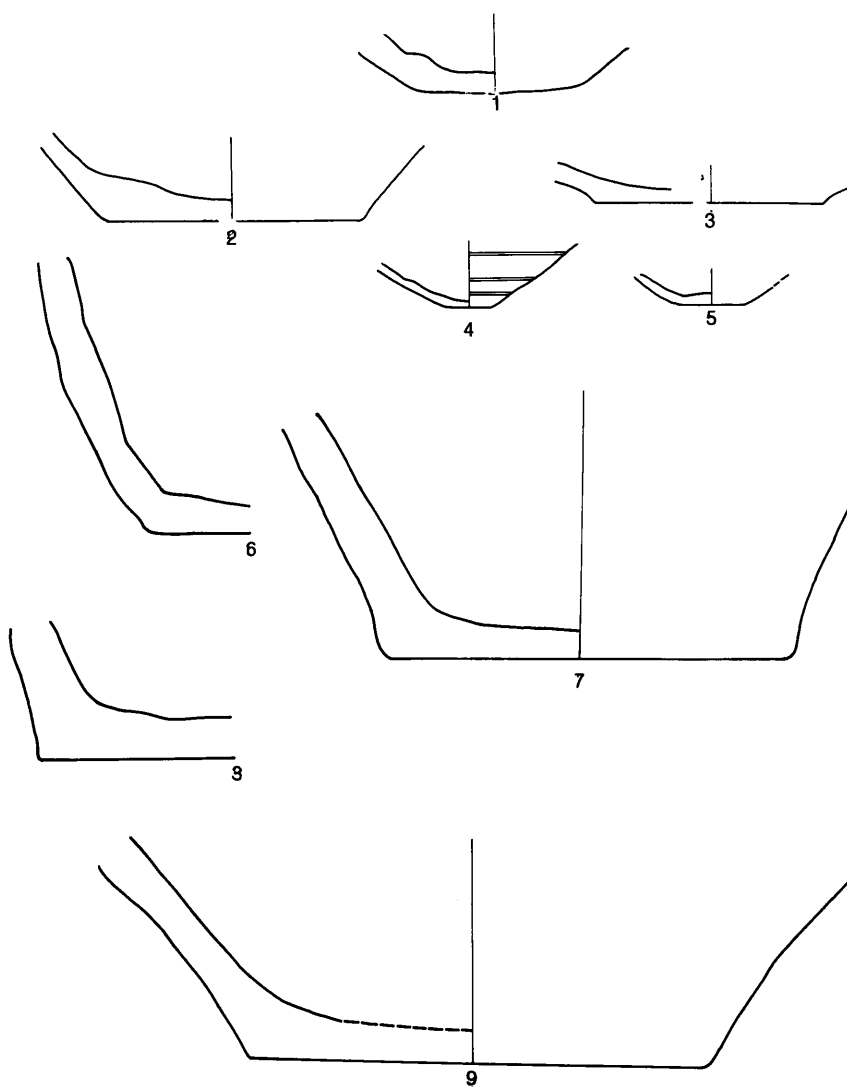


Fig. 39 First Millennium BC pottery



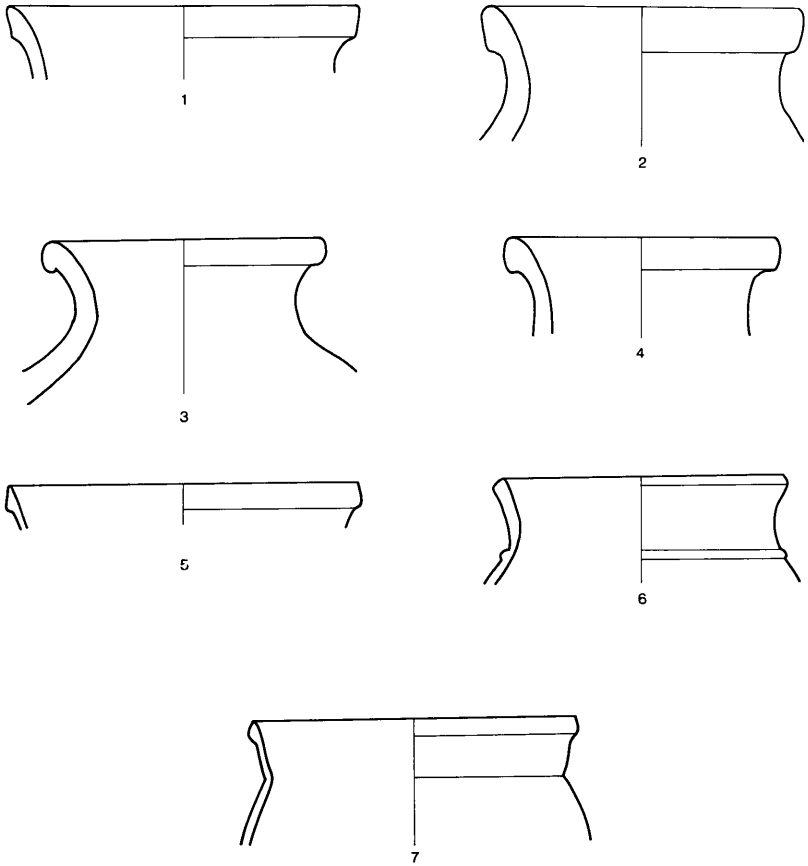
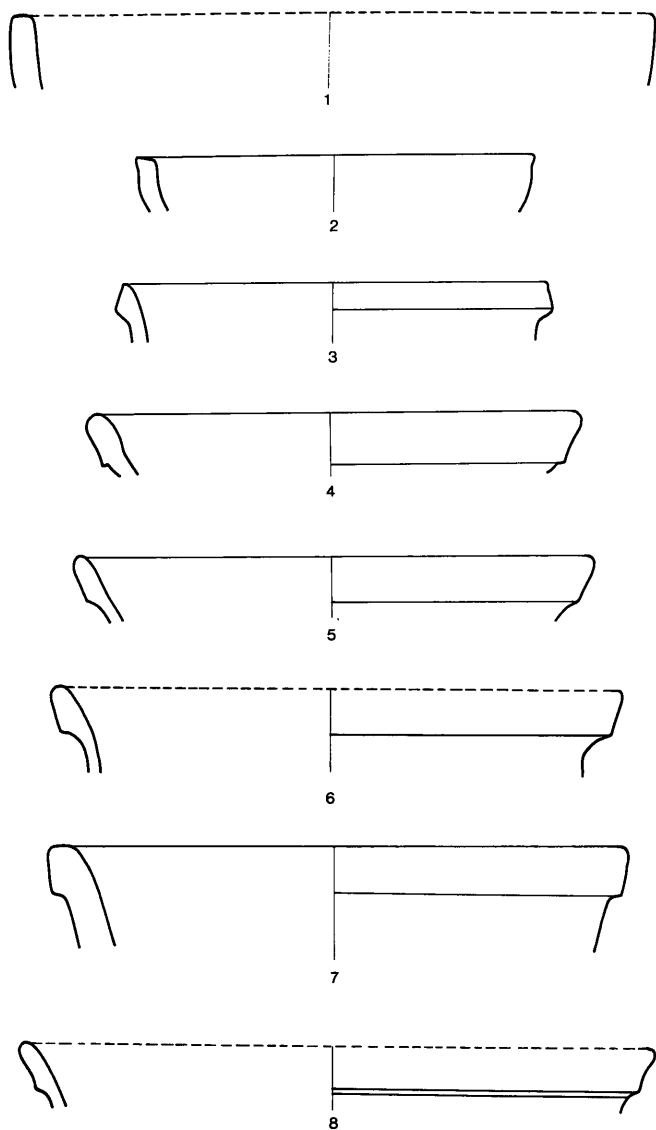


Fig. 40 First Millennium BC pottery



*Fig. 41 First Millennium BC pottery*

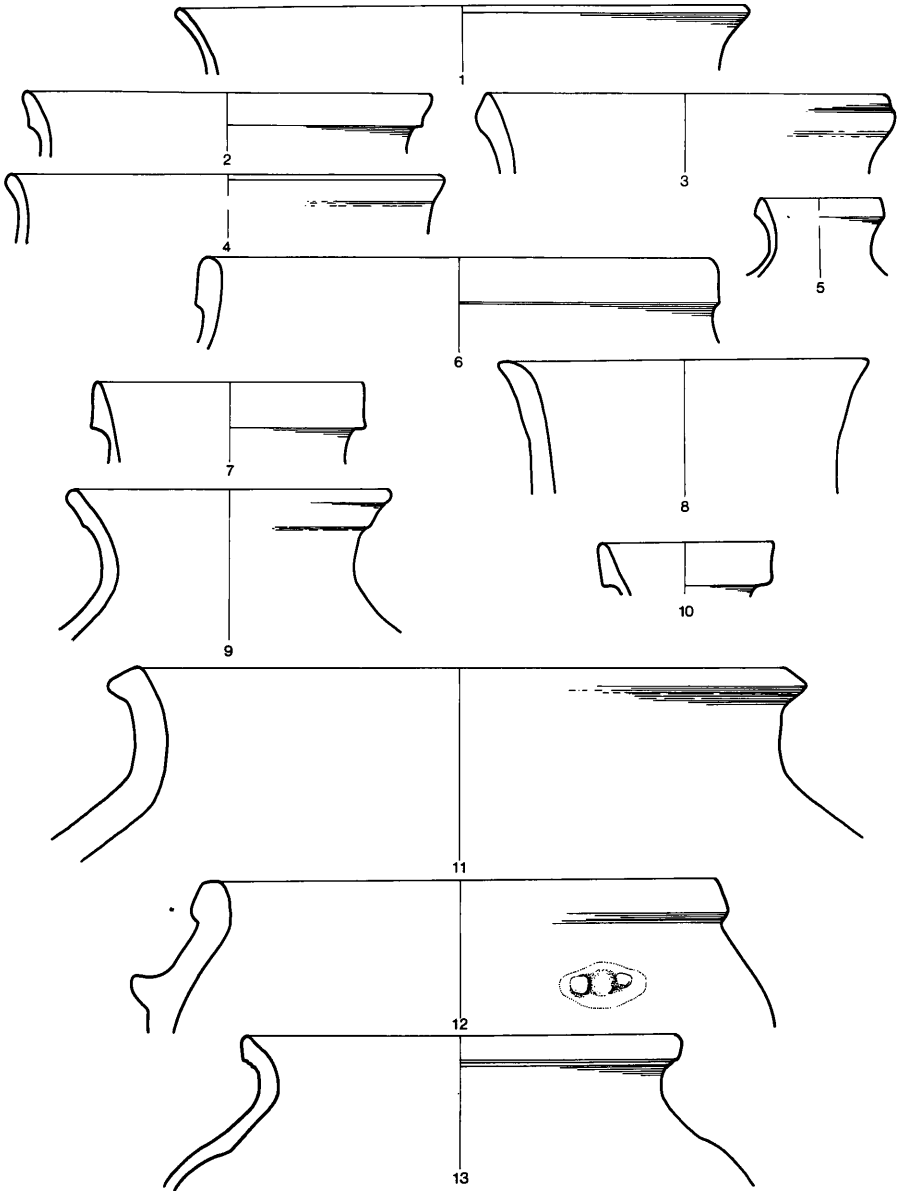
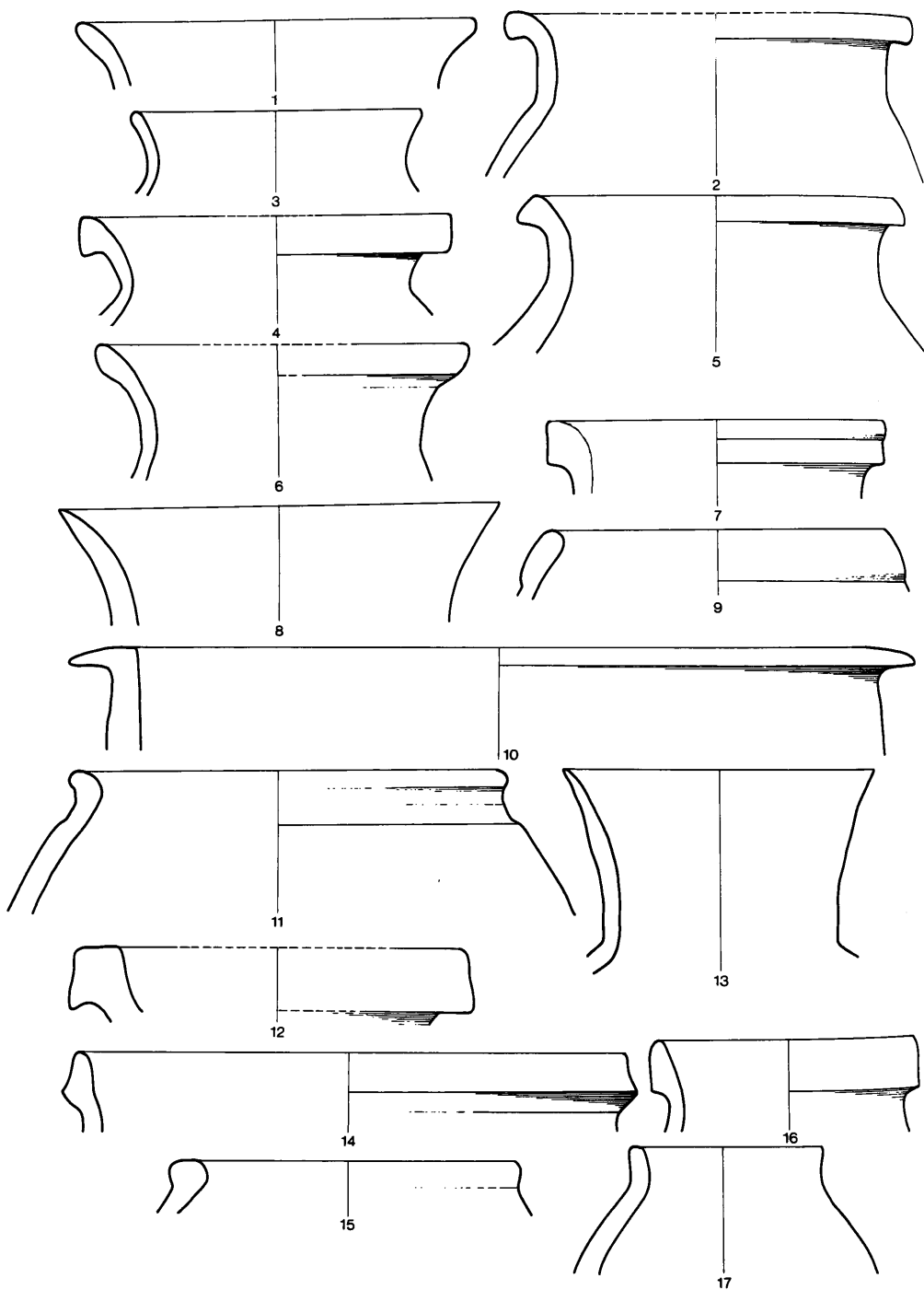


Fig. 42 First Millenium BC pottery



*Fig. 43 First Millennium BC pottery*

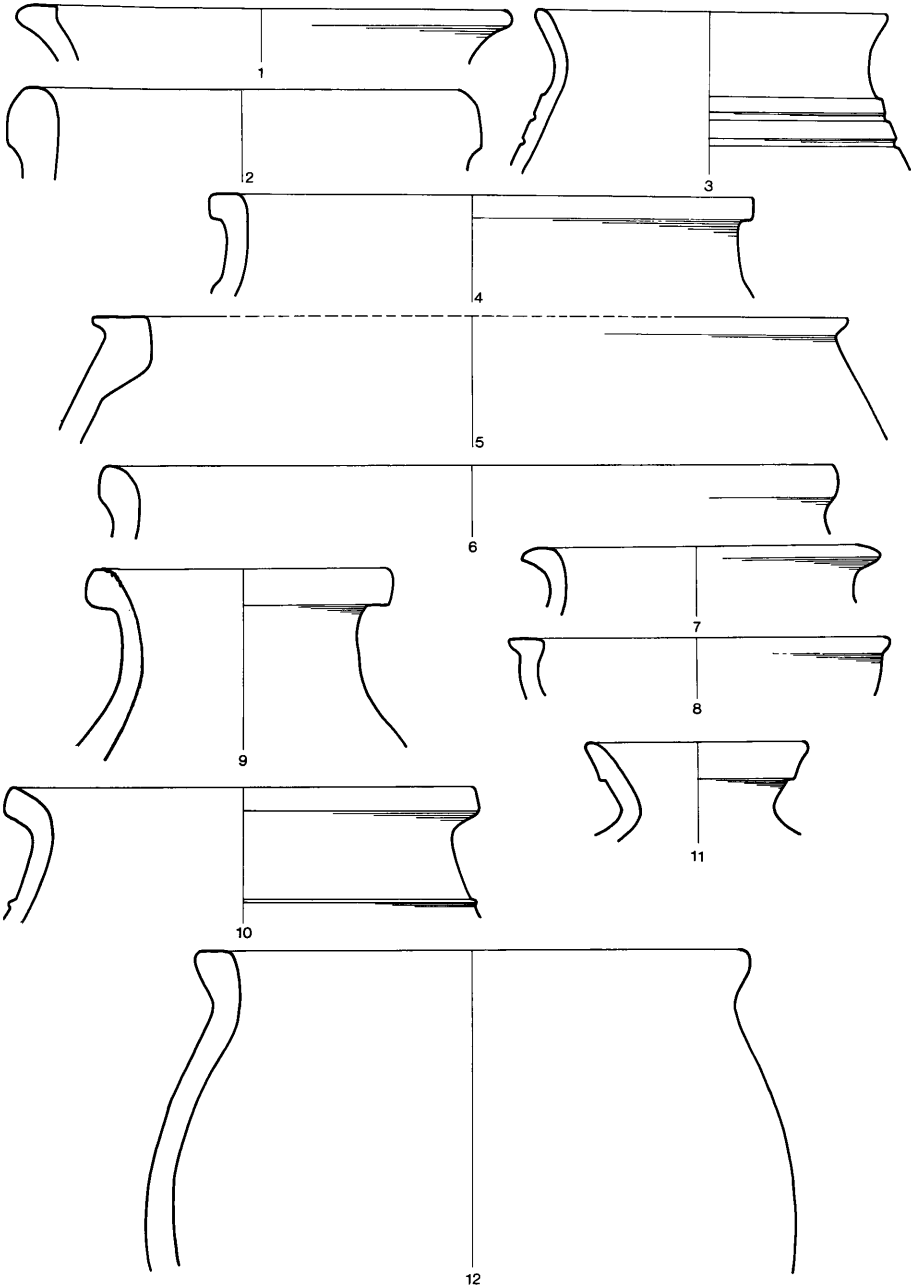


Fig. 44 First Millennium BC pottery

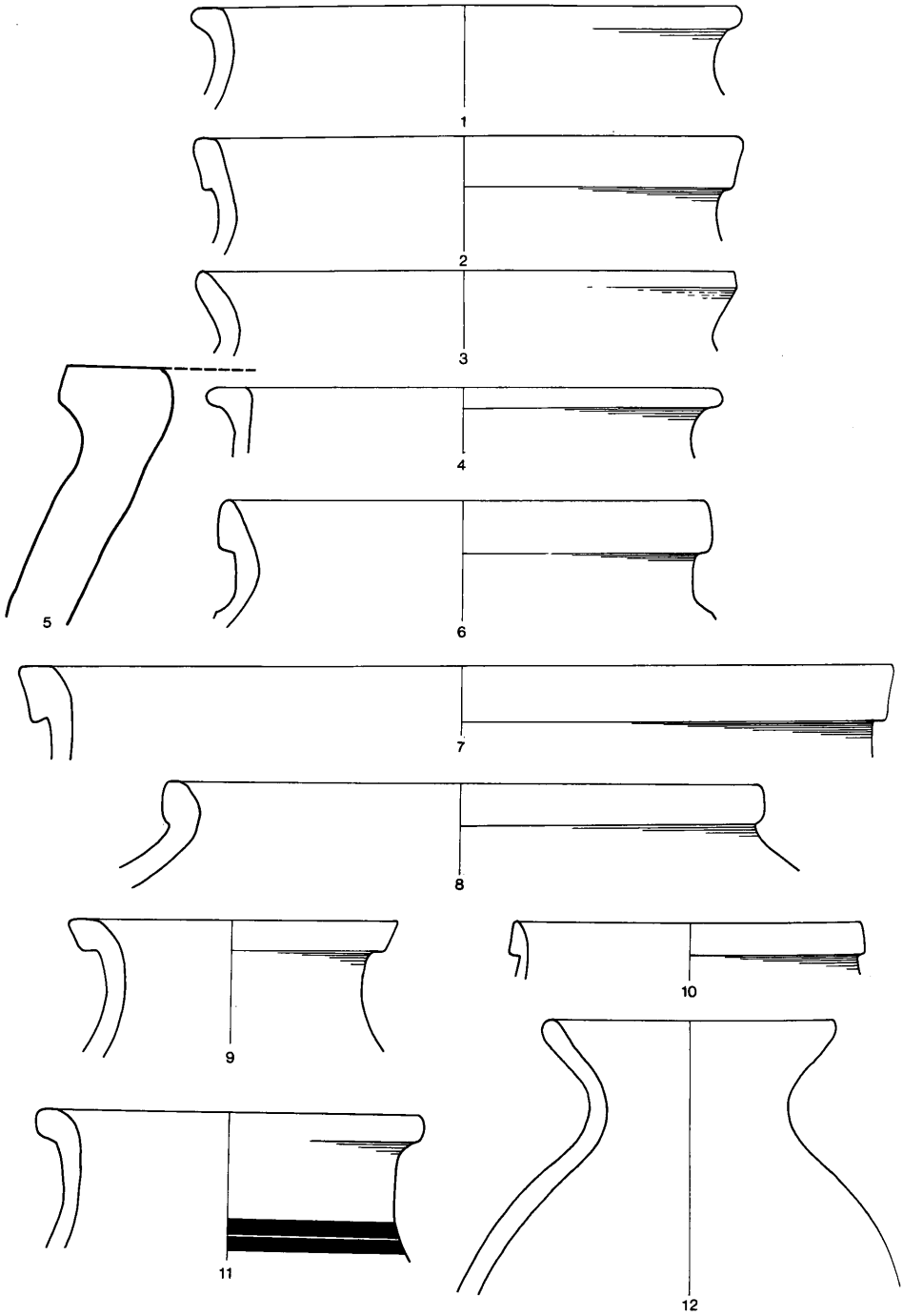
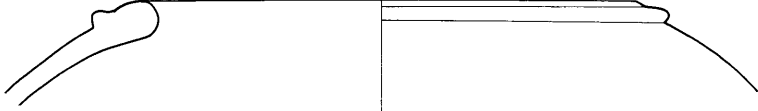


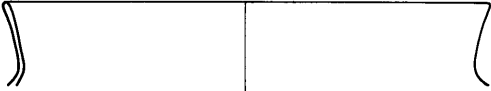
Fig. 45 First Millennium BC pottery



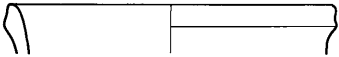
1



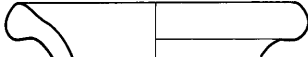
2



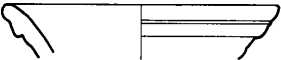
3



4



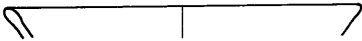
5



6



7

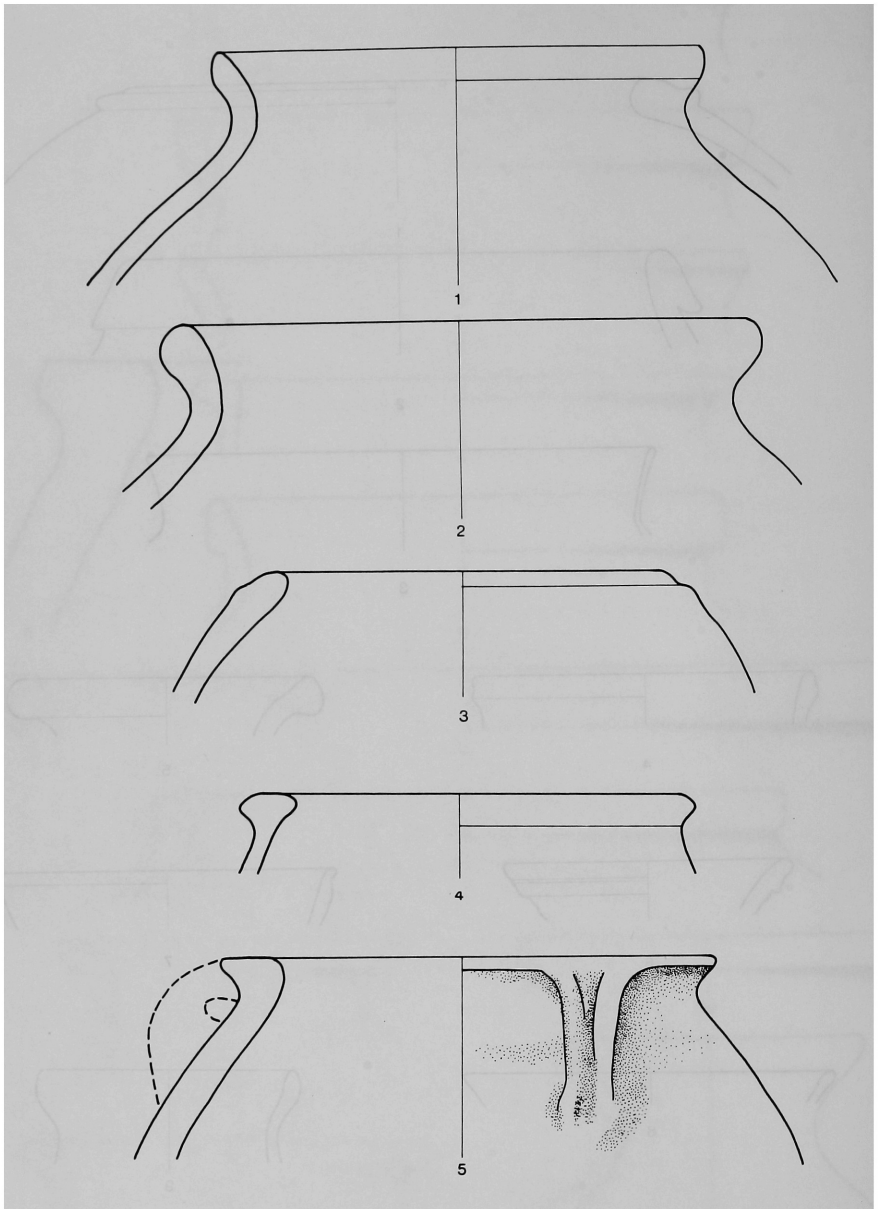


8



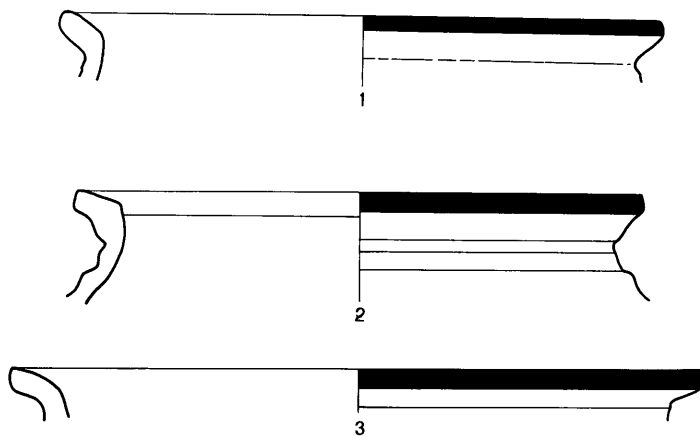
9

Fig. 46 First Millennium BC pottery



**Fig. 47** *First Millennium BC pottery*





*Fig. 48 First Millennium BC pottery*

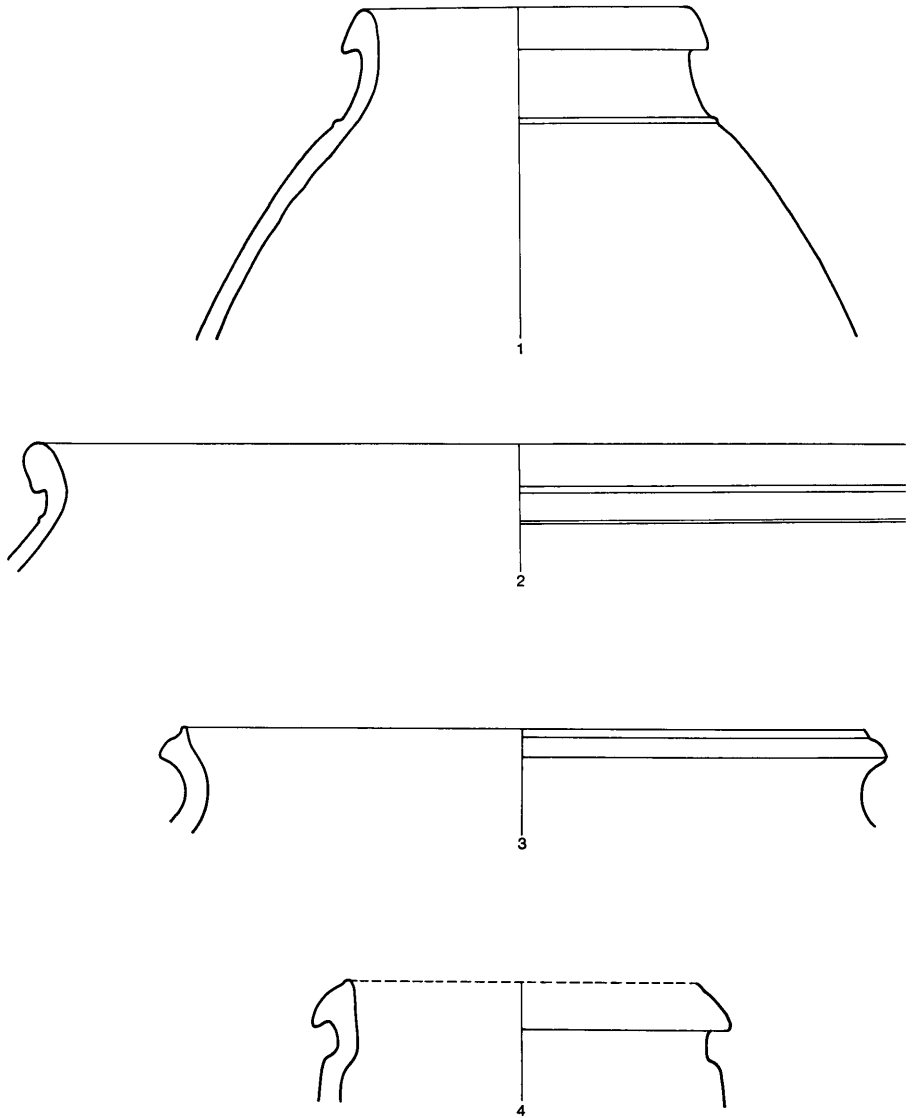


Fig. 49 First Millennium BC pottery

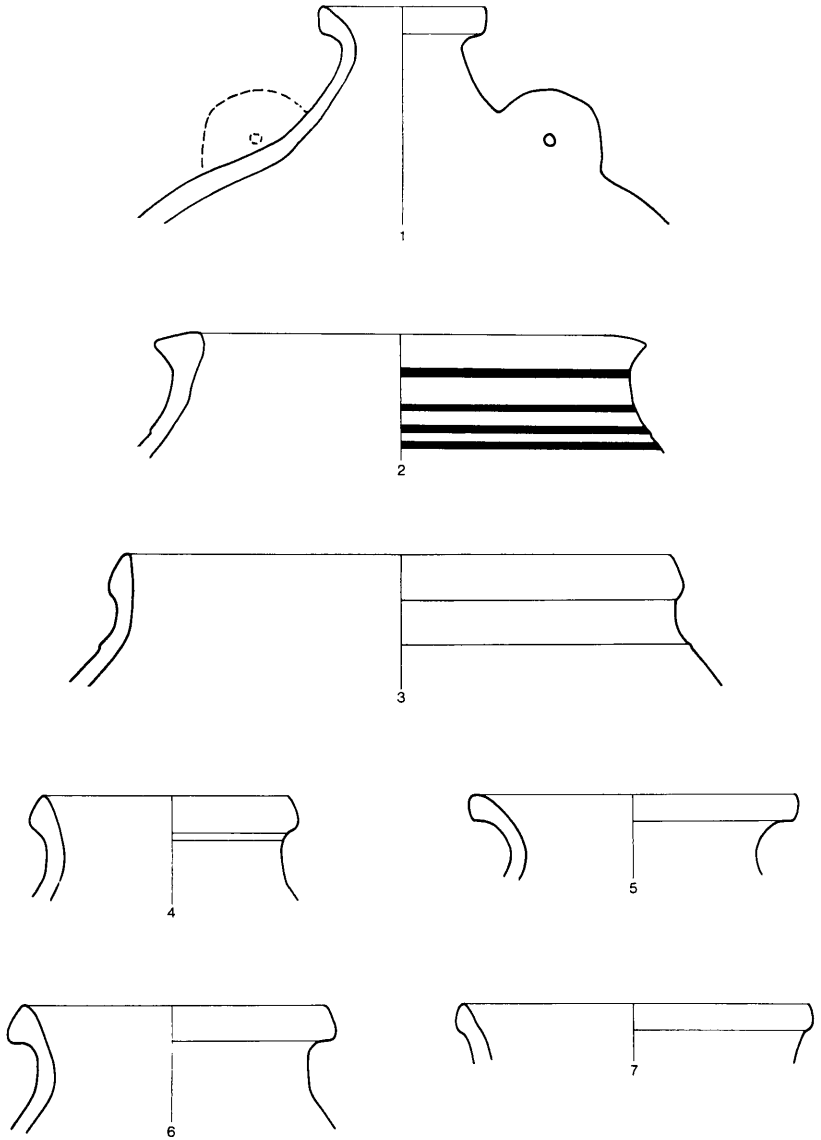
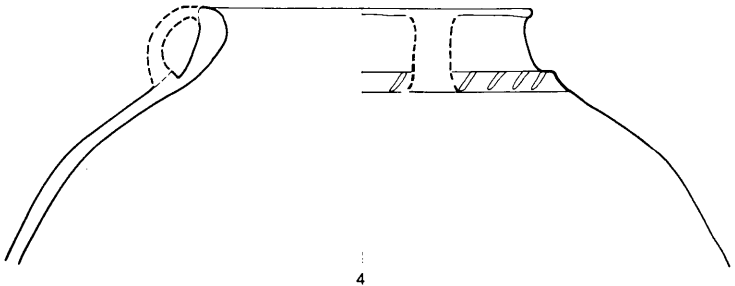
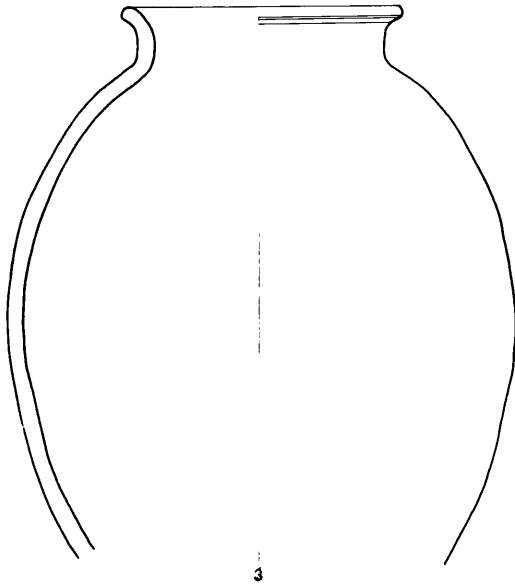
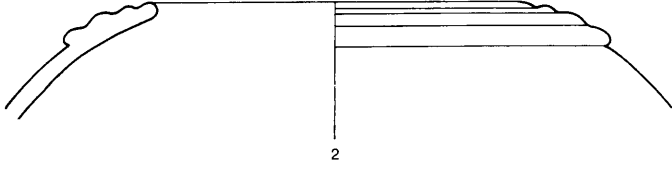
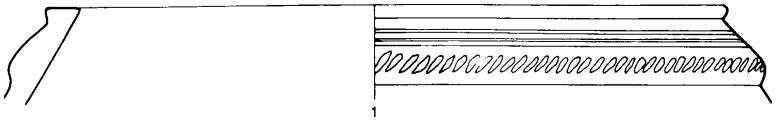


Fig. 50 First Millennium BC pottery



*Fig. 51 First Millennium BC pottery*

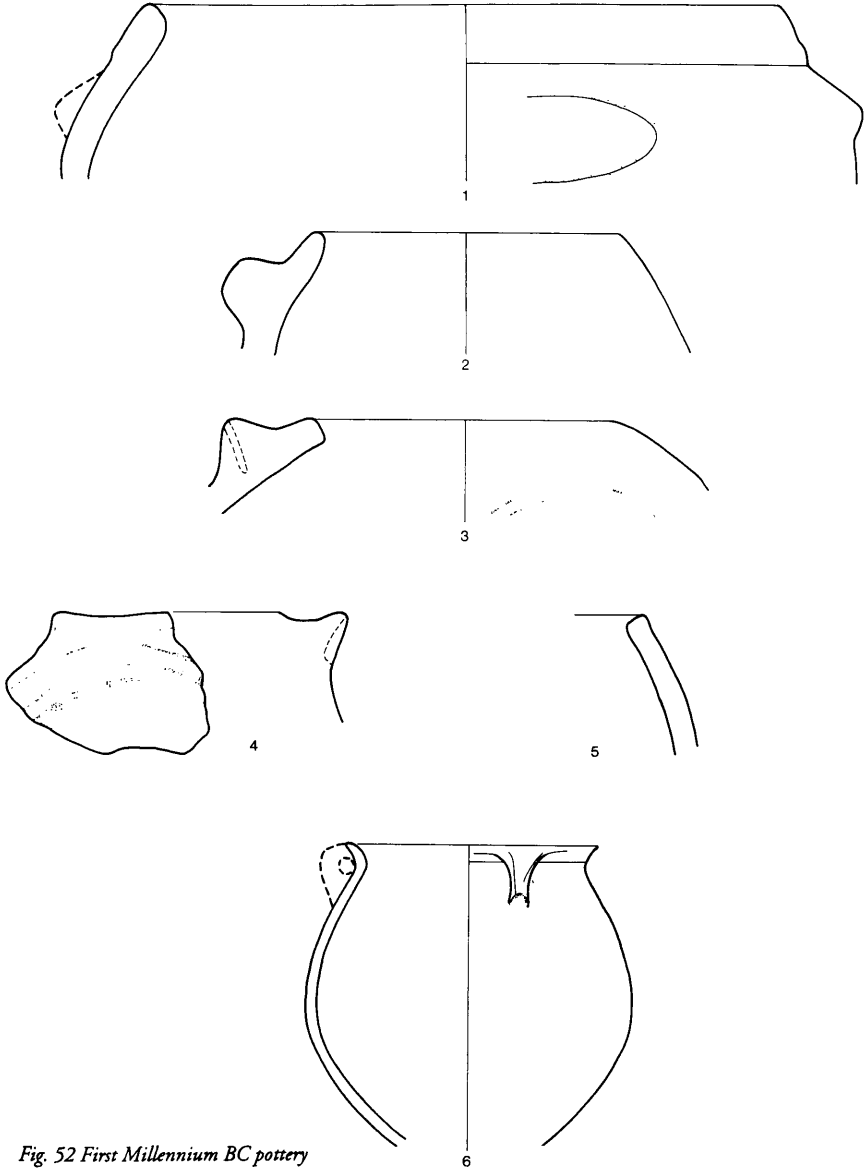
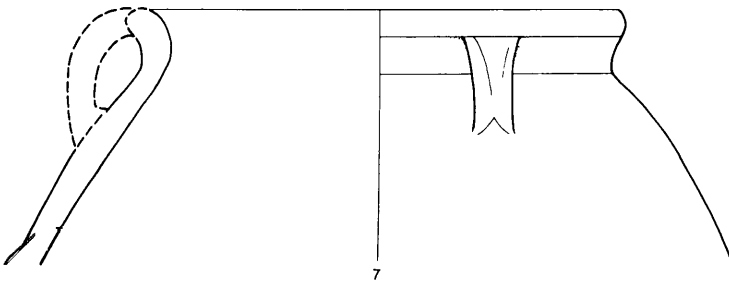
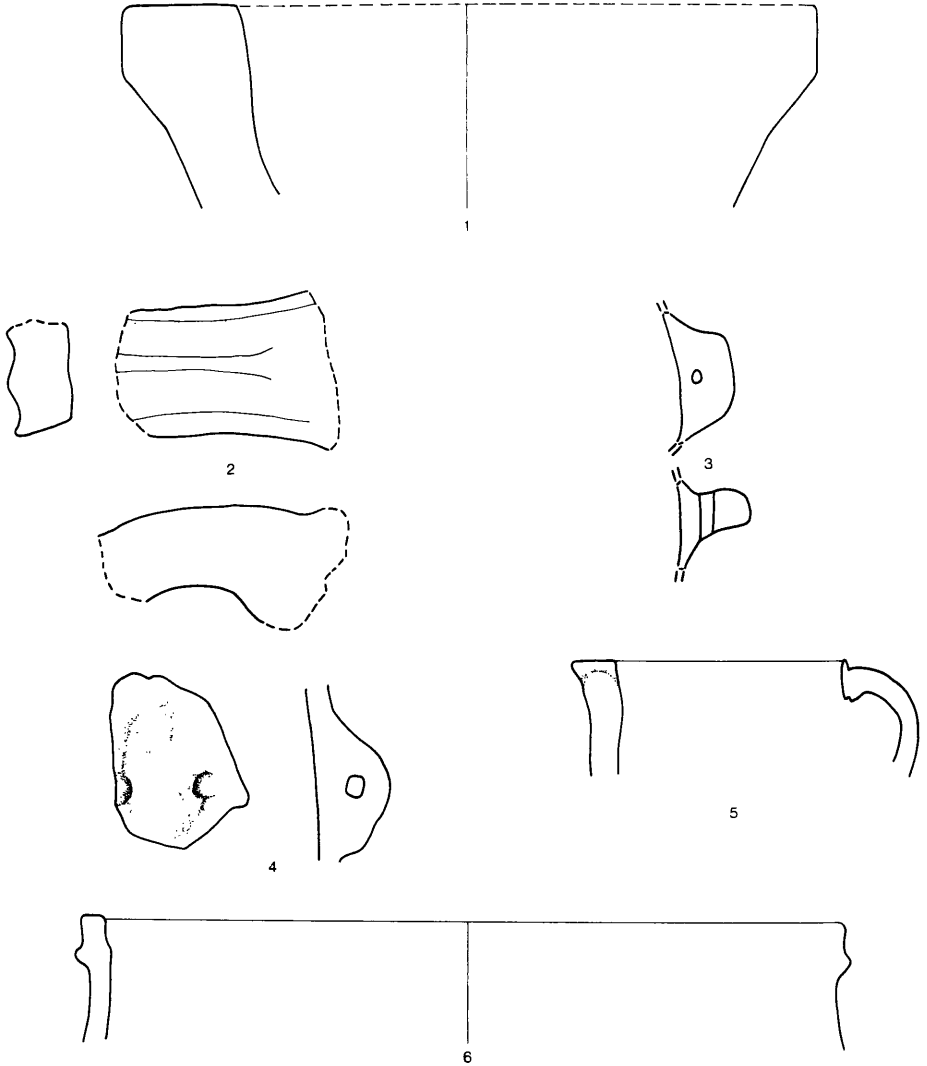


Fig. 52 First Millennium BC pottery





*Fig. 53 First Millennium BC pottery*

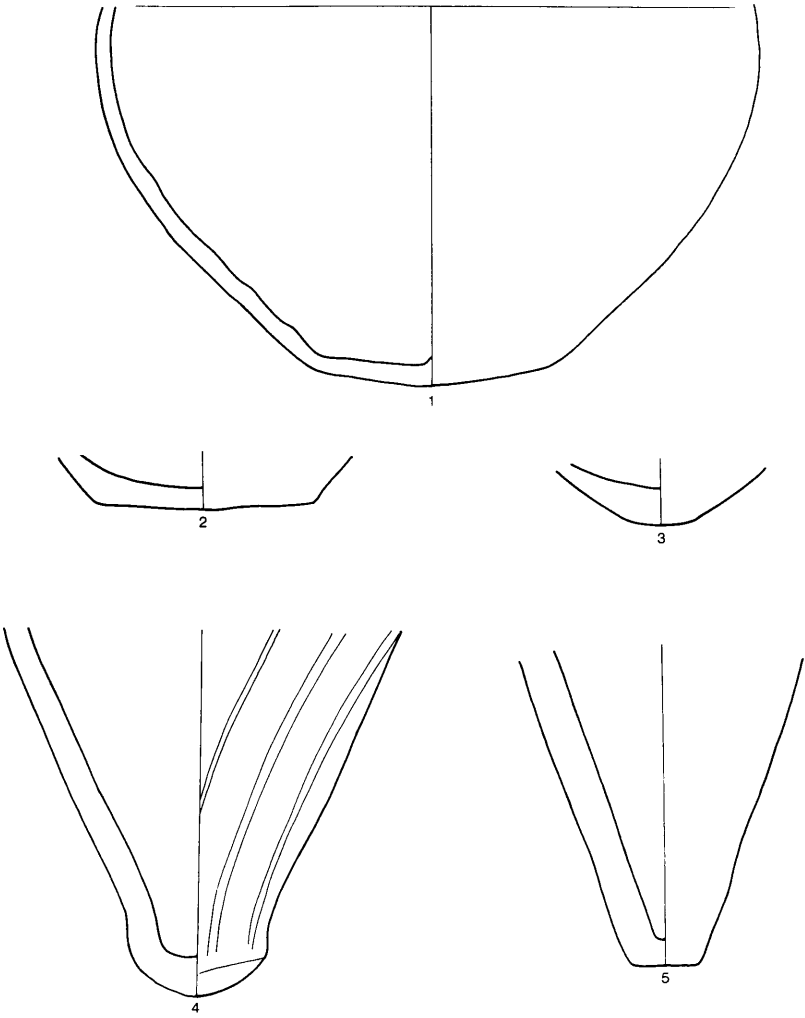
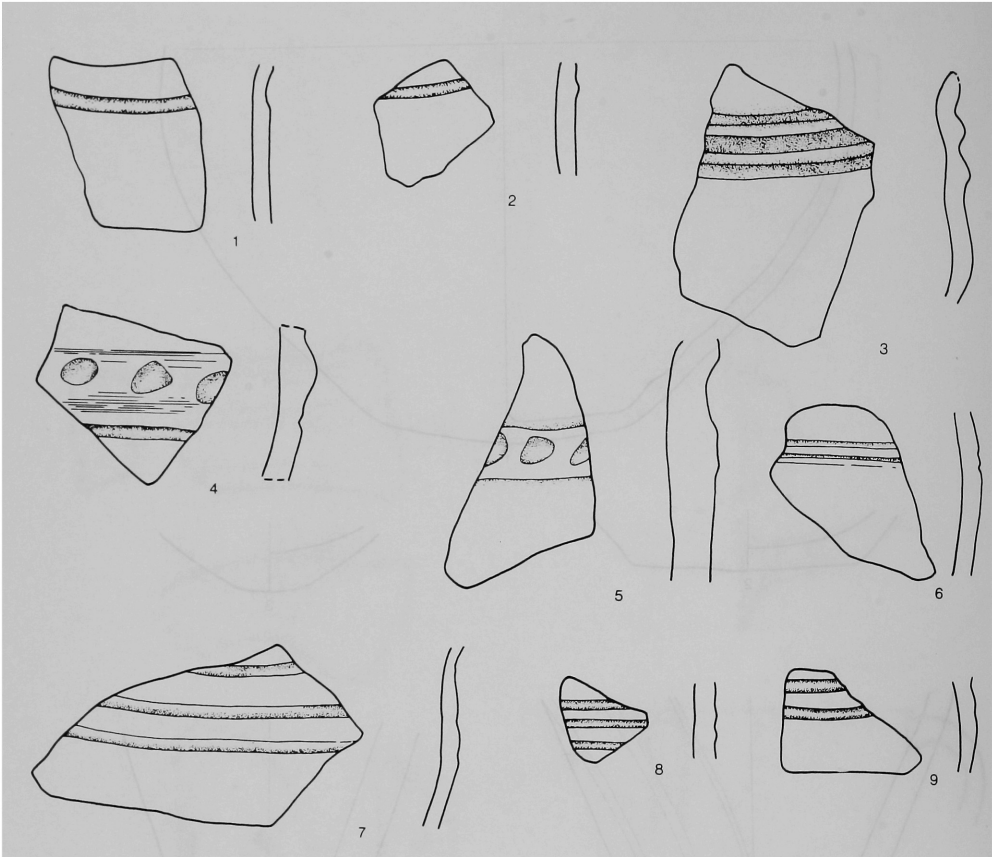


Fig. 54 First Millennium BC pottery



*Fig. 55 First Millennium BC pottery*



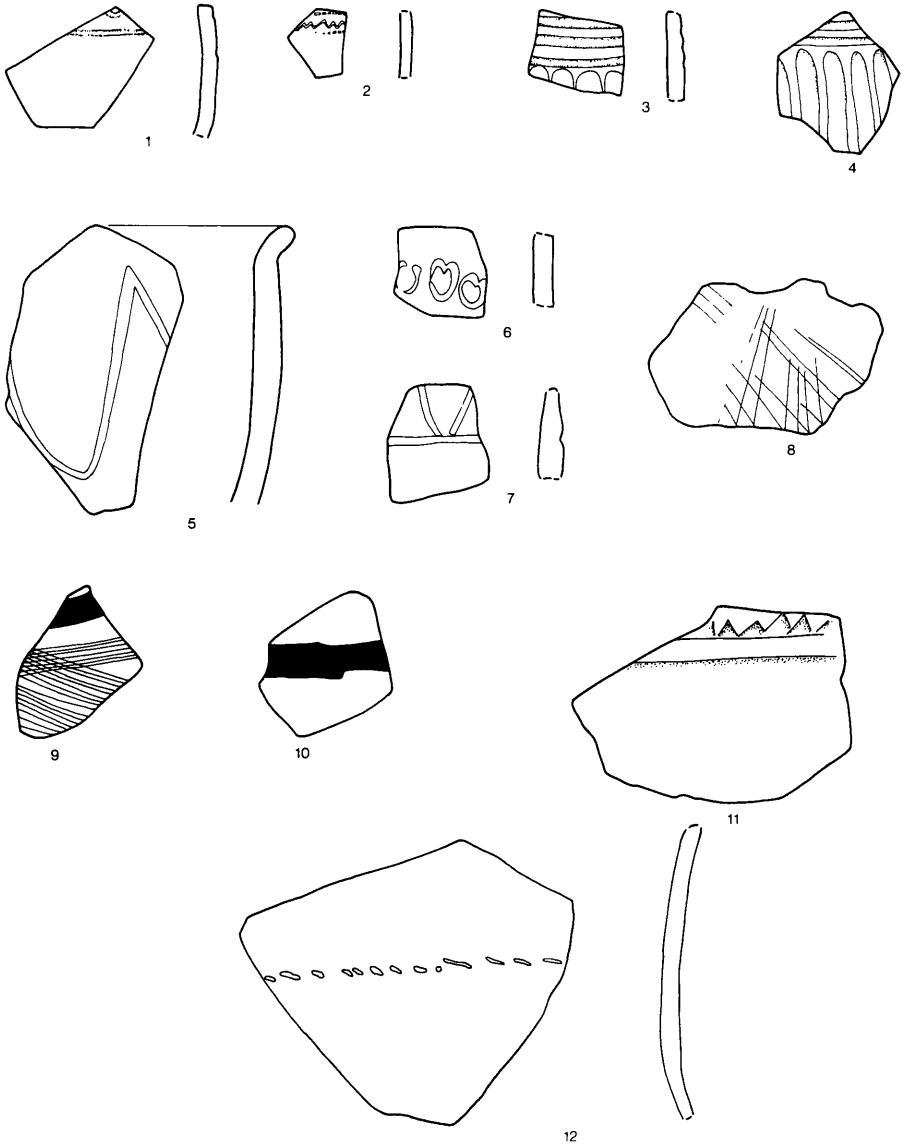
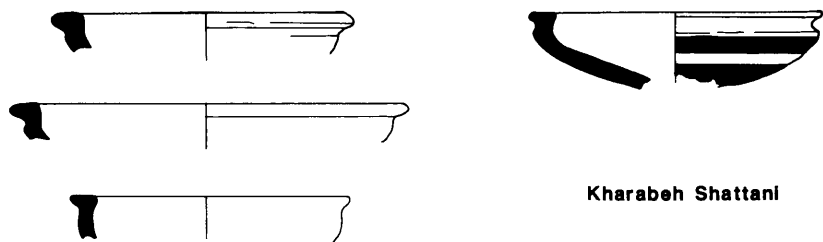
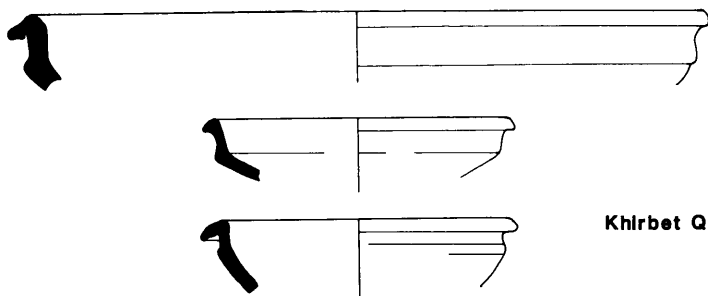
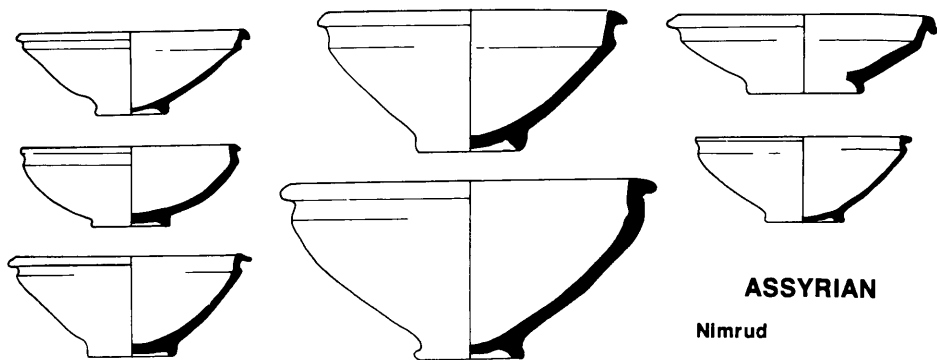


Fig. 56 First Millennium BC pottery



## EARLY HELLENISTIC

Nimrud



## HELLENISTIC

Nimrud

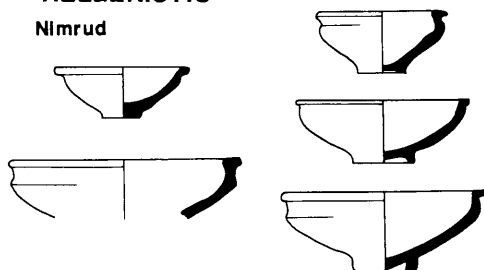
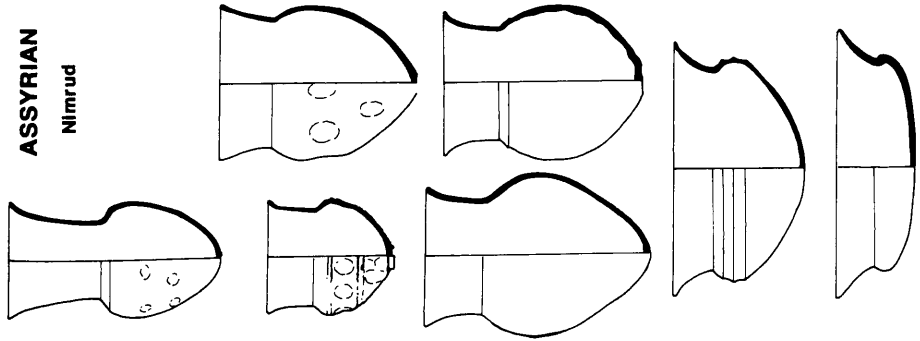
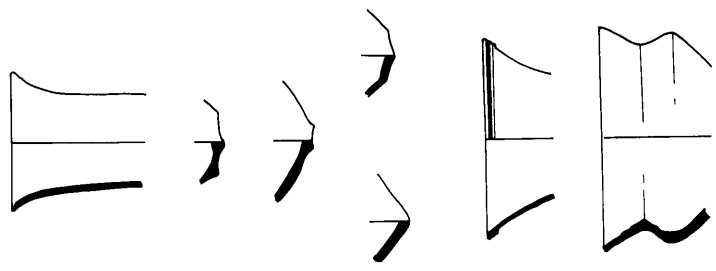


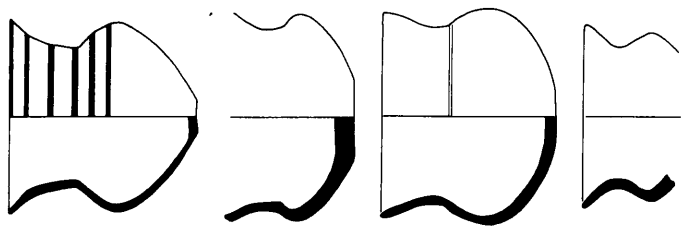
Fig. 57 First Millennium BC schematics



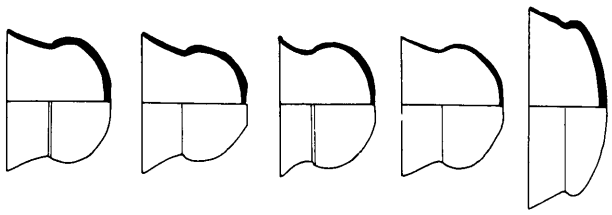
**ASSYRIAN**  
Nimrud



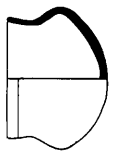
Khirbet Qasri



Kharabeh Shattani



**LATE & POST ACHAEMENID**  
Pasargadae



**HELLENISTIC**  
Nimrud

Fig. 58 *The First Millenium B.C. Pottery*

# Wider Implications of the Achaemenid Period Ceramics

*St. John Simpson*

## § 6.1: INTRODUCTION

The archaeological definition of post-Assyrian and Achaemenid sites and ceramics continues to be a major problem in Mesopotamia, as in other regions of the Near East (Kuhrt 1990, 186; Moorey 1980; Stern 1982). Within this area our understanding of Achaemenid material culture stems primarily from excavations at Babylon, Tell ed-Der, Kish, Nippur and Ur (Gibson *et al.* 1975; Haerinck 1980; McCown & Haines 1967; Moorey 1978; Reade 1986; Woolley 1962), as well as from archaeological surface surveys in central and southern Iraq (Adams 1965, 130-1, Fig. 13; Adams 1981, 231; Adams & Nissen 1972, 104; Gibson 1972, 159-60, 164-5, Fig. 35).

However, it is unclear to what extent the ceramic types found in central and southern Mesopotamia and generally used to identify Achaemenid sites in this region are valid in dating contemporaneous sites in northern Mesopotamia. There is a strong possibility (see below) that certain factors have led to regional variation in and differences between the ceramics of this date in northern and central/southern Mesopotamia. The rather tantalising presence of Achaemenid small finds at sites such as Nimrud, Khorsabad and Nineveh (Moorey 1980, 131; Kuhrt 1990, 186-7) also implies that the presumed associated ceramics have not been adequately distinguished from those of earlier and later periods at these sites. Although this is undoubtedly partly due to problems in the excavation of post-Assyrian deposits at, for instance, Nimrud (Oates 1958, 124), it may also partially reflect methodological problems concerning the isolation of certain ceramic types considered to be

diagnostic of different periods when in fact there may be a gradual evolution in vessel morphology and technology through time. The latter hypothesis can only be tested through more careful and rigorous examination of large, well-stratified, excavated assemblages.

As Late Assyrian ceramics themselves become better understood – particularly as a result of recent investigations at Nimrud, and Qasrij Cliff and Khirbet Khatuniyeh in the Saddam Dam Salvage Project (Curtis *et al.* 1989; Curtis & Green 1987; Lines 1954; Oates 1959; Rawson 1954) – it should become easier to distinguish sites or contexts of post-Assyrian and Achaemenid date in northern Mesopotamia. The publication of the short-lived site excavated in the same Project at Khirbet Qasrij, less than 1.5 km north of Kharabeh Shattani (Fig. 1), now also offers a major advance in our understanding of what seems to be an immediately post-Assyrian or sixth century assemblage (Curtis *et al.* 1989; also Simpson 1990b). Elsewhere in the Project probable post-Assyrian or Achaemenid graves have been excavated at Tell Jigan and Tell Rijim Omar Dalle (Fig. 1, Bielinsky 1987; Ii & Kawamata 1985, 183-4, Pl 36, 220 – Grave 22), but it is unclear in these instances whether they were associated with (unidentified) occupation horizons or whether they are indicative of more transient settlement in the area. In addition, within Iran itself current research on Median and Achaemenid ceramics should help refine our understanding of the local regions in particular, against which the Mesopotamian evidence may be compared or contrasted (Brown 1990; Levine 1987; *cf.* also Haerinck 1983).

However, it should also be borne in mind that recent excavations at Nippur, coupled with a re-examination of earlier survey ceramic and numismatic evidence from the same area and improved knowledge of Hellenistic material culture, suggests that much of what has in the past been termed Achaemenid is in fact Hellenistic in date, and that what was previously described as Hellenistic is also characteristic of the Parthian period (Gibson 1972, 159-60, 164-5, Fig. 35; Gibson 1974). This suggests that, in ceramic terms, the Achaemenid period actually represents a continuation from and development of the earlier Iron Age traditions rather than a purely innovative phase (but *cf.* also Fleming 1989).

This partial re-evaluation is reinforced by the steadily growing body of important archaeological data deriving from Hellenistic sites. Comparison of the excavated material from the southern Mesopotamian sites of Larsa, Nippur and Seleucia (Gibson *et al.* 1975; Lecomte 1989; Valtz 1984), as well as Failaka at the head of the Gulf (Bernard, Gachet & Salles 1990; Hannestad 1983; Simpson 1988), with that from more northern sites, such as Balawat, Nimrud and Tell Abu Sheetha (Oates and Oates 1958), and those recently excavated in the Saddam Dam Salvage Project (Curtis, Green & Knight 1988; Roaf 1983, 76-7, Fig. 6), indicates a common repertoire of ceramic forms but a marked contrast in the preferred regional type of surface treatment. Whereas classes of vessel such as bowls with simple incurving rims, 'fish plates' and 'pilgrim flasks' now appear throughout Mesopotamia, the use of blue-green alkaline glazes is restricted to the south and contrasts with the decorative use of reddish paint in the north.

## § 6.2: THE EVIDENCE FROM KHARABEH SHATTANI

The Achaemenid ceramic assemblage from Kharabeh Shattani is important because of its affinities with late Iron Age (Achaemenid) ceramics from elsewhere, and yet the significant absence of certain features generally associated with assemblages of this period in Mesopotamia.

### *Fine wares*

Amongst the Achaemenid ceramics from Kharabeh Shattani, perhaps the most distinctively late Iron Age types are a small number of fine ware goblets or bowls (beakers) with outward flaring rims

(Figs 37.6 & 2; 36.9 & 10). This type of vessel – similar in form to certain metal vessels (*cf.* Abka'i-Khavari 1988) – is represented at Abu Qubur (Gasche *et al.* 1989, 27-8, Pl. 8:6-11) and in the possible late Achaemenid levels 5-4 at Ville Royale II at Susa (Miroshedji 1978, 224, Fig. 55:1, 225 & 227), the Tall-i Takht at Pasargadae (Stronach 1978, Fig. 106: 1-7, Pl. 173a) and Dailaman: Ghalekuti II Tomb 2 (Sono & Fukai 1968, 34-5, 42, Pls XLV:1, LXXVII:3).

The use of reddish painted horizontal stripes as exterior decoration on one example from Kharabeh Shattani (Fig. 37.6) is more unusual but is an occasional feature also of certain Late and post-Assyrian ceramics – albeit of different shape – from, for instance Khirbet Khatuniyeh and Khirbet Qasrij in the Saddam Dam Salvage Project, Nimrud and other sites (Curtis & Green 1987; Curtis *et al.* 1989, 49-50, Fig. 40, 271-6, Pl. XIa; Oates 1959, 137, 144-6, Pls XXXVIII:90-1, XXXIX:107; *cf.* also Kletter 1991, 36, Fig. 6; Stern 1982, 125-6). The use of similar red painted decoration on the exterior rims and shoulders of some bowls and jars from Kharabeh Shattani (Figs 33.9, 50.2, 45.11, 48.2-4 & 9; *cf.* also Fig. 56.9 & 10) may be regarded as evidence for wider use of this type of surface treatment in the Achaemenid period. This would therefore seem to represent a combination (or revival) of a form of decoration found on north Mesopotamian ceramics that began in the early second millennium BC with so-called Khabur ware, continued to a certain extent in the Middle Assyrian period, and, as mentioned above, is also found on certain Late and post-Assyrian ceramics (Lloyd 1938, 134 Group XII; Stein 1984). The use of red paint also typifies Hellenistic ceramic fine wares in this region (Hrouda 1962, 71:57 & 75: 32 & 36; Oates and Oates 1958, 126-8, 139-42, Pl. XXIII:1-25); the tradition appears to end in the early third century AD when red paint is sparingly used on the exterior of certain categories of jars (Oates and Oates 1959, 227, 233, 235, Pls LVIII: 61, 64, LIX: 97-98; Venco Ricciardi 1982, 60, tav. 8: 1).

### *Other open forms*

In terms of the other open forms represented at Kharabeh Shattani, there is a marked contrast with Late and post-Assyrian types found at Nimrud and elsewhere (Oates 1959, 132, Pl. XXXV). However, the single fragmentary example found belonging to a bowl with inverted, thickened rim (Fig. 37.5) recalls a type of vessel that was common at Khirbet

Qasrij and occurs in other post-Assyrian and Achaemenid contexts (Curtis *et al.* 1989, 47, Figs 28-9: Nos. 79-100). In addition, there are Achaemenid comparanda from levels I-II in Area WA 12 at Nippur for the admittedly rather simple bowl forms illustrated by Fig. 4.1-7 (Gibson *et al.* 1975, 14-6, Figs 41, 49 – Cat. Nos. 120337, 040127); Fig. 32.2 is a type also attested from Achaemenid contexts at Nippur, Susa and Uruk-Warka, and is attributed to the late fifth or early fourth century BC at Tell ed-Der (Haerincck 1980, 67-8, 72, Pl. 10: 10). The distinctive 'hammer head' bowl rim profile from Kharabeh Shattani may also be late Iron Age judging by comparanda from Tell Abou Danné in the Aleppo region (Lebeau 1983, 253, 468-9 – Type BL 30).

#### *Closed forms*

A number of the closed vessel rim forms at Kharabeh Shattani (for example Fig. 49.1) exhibit parallels with Late and post-Assyrian and Neo-Babylonian types (e.g. Curtis *et al.* 1989; Northedge & Falkner 1987, Fig. 9: 24-30), and are also reflected in Neo-Elamite jar profiles from level 13 at Ville Royale II at Susa (Miroshedji 1978, 225, Fig. 50:9; also Gasche *et al.* 1989, 28, 30-1, Pls 10, 12). In addition, the fragment of a jar with flaring rim and constricted neck (Fig. 44.11) is paralleled from a probably Achaemenid context at Nippur (Gibson *et al.* 1975, Fig. 49 – Cat. No. 020120; WA 12, level II, floor 2). The more elaborately tooled rims of many of the jar forms from the site exhibit a contrast; although 'folded' jar rim profiles are generally considered to be typical of the Hellenistic period the less exaggerated forms from Kharabeh Shattani have more in common with post-Assyrian comparanda (Curtis *et al.* 1989, 38-9, Fig. 37: 227-40).

The range of holemouth forms found at Kharabeh Shattani (Fig. 47.3, 45.5) is rather distinctive, and is broadly similar to examples published from Iron II-III levels at Tell Abou Danné (Lebeau 1983, 478-81), but the latter lack close parallels to the more elaborately reeded rims exhibited on several of the examples from Kharabeh Shattani (Fig. 33.7, 46.1); post-Assyrian cooking wares sharing the same forms have been published from Khirbet Qasrij (Curtis *et al.* 1989, 50, Fig. 41: 286-9).

#### *Bases*

The high proportion of flat bases (as opposed to low ring bases) in the Kharabeh Shattani ceramic

assemblage is worth noting, even allowing for a possible under-representation of rounded vessel base fragments owing to non-recognition in ceramic processing. Amphora bases, such as Fig. 54.4 & 5, are not particularly diagnostic of period although possibly late Achaemenid parallels have been published from levels 5-4 at Ville Royale II, Susa (Miroshedji 1978, 224-5, 227, Fig. 55:14-5). The presence of several vessels with very high ring bases (Fig. 36.1-2, 4-5) is noteworthy however: they are a feature of Iron Age ceramic assemblages reported from surface survey at Samarra' (Northedge & Falkner 1987, 162-3, 166, Fig. 9: 20) and excavations at Tell Abou Danné and level III in Area WA 13 at Nippur (Gibson *et al.* 1975, Fig. 48 – Cat. No. 750127; Lebeau 1983, 500-1 – Type BAL 24). They have also been noted from excavations at the Qala'at al-Bahrain in Bahrain, where they were tentatively dated between the thirteenth and eighth centuries BC (Kervran, Mortensen & Hiebert 1987, 88, 91, Figs 8: 4 & 9: 7-8, 10).

#### *Other comments*

A sherd from the plough soil (not illustrated here) probably belongs to a jar with constricted neck. Although its date is uncertain, there are Partho-Sasanian parallels for this type of vessel, and it opens the question of some later activity on the surface of the site. Another fragment (Fig. 50.1) may represent a 'pilgrim flask'; the development of this class of vessel in the Achaemenid, Hellenistic and Parthian periods has been outlined by Stoenach (1978, 261). A sherd with a rather distinctive rim form (Fig. 49.3) may date to the Parthian period judging by comparanda from Tell Barri in north-east Syria (Parmegiani 1987, Figs D: 20A & F: 212). Similarly, the single fragmentary jar-rim with groove running along the top (Fig. 38.5) probably belongs to the third century AD; this feature, designed to act as a lid seating, is typical of Late Parthian and eastern Roman ceramics found, for instance, at Ain Sinu in northern Iraq (Oates and Oates 1959, 232, Pl. LVII: 50-4), while more pronounced examples are typical of Parthian contexts at, for instance, Tell ed-Der and Nippur in southern Mesopotamia (Haerincck 1980, Pls 20-1; Keall 1970, Pls IV: 1, VII, 1).

Without examination of the original sherds (Fig. 56.3-4) it is impossible to decide whether the decoration on the exterior is vertical excision (or chattering) or relief-moulded ribs: their date is therefore open to question. A hollow-ended and

roughly heart-shaped tool appears to have been impressed on the exterior of the sherd depicted in Fig. 35.6. The crudely incised hatched triangle decoration on the exterior of the sherd in Fig. 56.8 superficially resembles both Late Uruk and Late Islamic examples also found at sites in the Saddam Dam Salvage Project; vertical registers of crude incision on ceramics are also reported from Neo-Babylonian contexts excavated in Area WA 12/13 at Nippur (Gibson *et al.* 1975, Fig. 47 – Cat. No. 040121) and a similar date is of course possible for this sherd from Kharabeh Shattani.

The sherd shown in Fig. 36.6 probably derives from the upper shoulder of a medium-sized jar; judging by the drawing, a strip of clay seems to have been wrapped around the vessel exterior to form a horizontal rib or ridge which was then decorated when the clay was still relatively soft. The decoration was made as follows: a possibly blunt-ended tool was impressed at regular intervals along the crest of the ridge, and a tool with a wedge-shaped or triangular end was repeatedly impressed into the clay to form two horizontal rows above and below the ridge and each consisting of (slightly overlapping) triangular imprints. The latter are usually deeper impressed on the left-hand side and top edge of each imprint, thus giving the visual impression of a 'running dog-tooth' or zig-zag motif. A similar decorative effect can be seen on a second body sherd found at Kharabeh Shattani (Fig. 56.11). The use of a wedge-shaped tool to create decoration on first millennium BC ceramics in Mesopotamia and Syro-Palestine has been linked by a number of writers to the knowledge and use of a cuneiform script (most recently by Zertal 1989, 80-1). If that were the case, it is surprising that it does not occur on ceramics of a much earlier date: the actual imprints on the tablets and the ceramics are quite different, however, and the implements used are also clearly distinct from one another. Wedge-shaped imprints similar to the latter are incidentally found on Hausa ceramics made in northern Nigeria, where they were made using a piece of calabash (Pitt Rivers Museum, Oxford; presented by H. Balfour, 1930). A 'running dog-tooth' motif of consecutive wedge-imprints occurs on the upper portion of bowls and jars alike in first millennium BC Mesopotamia; in other cases, the intentions may have served a functional purpose (London 1992; Whitehouse 1978). Whereas isolated wedge impressions are usually considered to be diagnostic of the Achaemenid period in Mesopotamia and Syro-Palestine (Gibson

(ed) 1981, 81, Pl. 101: 4; Stern 1982, 134-6), they are also a feature of Hellenistic ceramics from this region (e.g. Oates and Oates 1958, 138, 145, Pl. XXI: 17, 18, 20). The precise date of these two sherds from Kharabeh Shattani thus remains open.

### § 6.3: CONCLUSION

It is clear that given the prevalent occurrence of the 'late' ceramics from Kharabeh Shattani in either topsoil or pit contexts, great caution must be exercised before treating this assemblage as one contemporaneous group. As the notes on individual pieces above make clear, a few sherds of possibly Parthian-Sasanian date were recovered; however, it may be noted that they occurred in plough soil and the uppermost, very disturbed and amorphous deposit, and none was actually ascribed to any of the deep pits. The pits are very similar in form and fills. Ms Goodwin has demonstrated the homogeneity of the bulk of the assemblage in terms of shapes and fabric. The use of selective parallels rather than overall impressions can be potentially highly misleading and often leads to circular arguments in terms of dating. More comparative published material is therefore urgently required before the exact chronological and socio-technological context of this material can be reliably assessed.

Since Ms Goodwin completed her work on the Kharabeh Shattani ceramic assemblage more has become known about the ceramics of other sites in the area. The stylistic affinities of portions of the material from Kharabeh Shattani indeed suggest to the writer a date in the late fifth and early fourth centuries BC, the late Achaemenid period in historical terms, corresponding to iron III in the central-west Iranian archaeological sequence (Brown 1990; Levine 1987). The absence of certain distinctive ceramic types found at this date in southern Mesopotamia or Iran, such as 'eggshell ware', fustoon ware, certain alkaline glazed wares and 'husking trays' (Adams 1965, 130, Fig. 13; Gibson 1972, 159-60, 164-5, Fig. 35; Fleming 1989; Gasche *et al.* 1989; Stronach 1974; *cf.* also Whitcomb 1985, 136, Fig. 52.i), suggests that these may not have been as widely distributed in northern Mesopotamia (or perhaps were not used there at all). The latter region may indeed have formed a distinct 'ceramic province' in the Achaemenid period, but further archaeological evi-

dence is required before this idea can be firmly substantiated.

The absence from Kharabeh Shattani of a further group of ceramics often considered to be typically Achaemenid, namely carinated bowls or jars decorated on the exterior with rosette or other types of 'pushed out' stamp (Adams 1965, 130, Fig. 13; Gibson 1972, Fig. 35; Stern 1982, 132-6) is also significant but may be attributable to a different reason. The evidence for this type of ceramic surface treatment in the late Assyrian and Achaemenid periods is limited to a small number of vessels from Nimrud (Mallowan 1966, Vol. I, 190-1) and poorly stratified contexts or sites that continue into the Hellenistic period, such as Tell Mohammed Diyab and Abu Qubur respectively (Bachelor 1990, 13-4, Pl. 1: 14; Gasche *et al.* 1989). It certainly becomes widespread in Mesopotamia only in the Hellenistic period, when new types of stamp are also introduced, judging by finds from Balawat, Tell ed-Der, Larsa, Nimrud and Nippur (Gibson 1974; Haerinck 1980, 69, 72-3, Pls 13 & 17; Lecomte 1989, 133-5, Pl. 10: 1-2; Oates and Oates 1958, 128-9, 138-9, 144-5, 151, Pls XXI: 19-20, XXII: 1-4, XXIV: 5, XXVII: 4). The absence of this class of vessels from Kharabeh Shattani thus lends support to this suggested pattern of development.

Finally, it is also worth observing that the first millennium BC ceramic assemblage from Kharabeh Shattani also lacks any other examples of clearly Hellenistic type, such as red-painted or blue-green

glazed fine wares, small bowls with simple inturned rims, 'fish plates', or equally characteristic, carefully cut low ring bases (e.g. Gibson *et al.* 1975, Fig. 35:6-7; Hrouda 1962, Taf. 72: 65-72; Oates and Oates 1958, Pl. XXIII). Despite the uncertainty expressed over occasional finds at Pasargadae (Stronach 1978, 184, footnote 5), there does not seem to be any secure evidence indicating that these ceramic types were represented at Achaemenid sites in Mesopotamia or Iran. However, they were common at rural sites of the third and second centuries BC investigated elsewhere in the Saddam Dam Salvage Project, such as Tell Deir Situn, Grai Darki and Tell Mohammed 'Arab (Fig. 1, Curtis, Green & Knight 1988; Roaf 1983, 76-7, Fig. 6), suggesting radical changes through time in the regional ceramic repertoire rather than a simple case of inter-site variability.

The precise nature of the ceramic transition from the Achaemenid to the Hellenistic period is as yet poorly understood; a time-lag between historical events and socio-economic or technological changes may be surmised, as suggested elsewhere for other periods in Mesopotamia. It is hoped that in future closer attention will be paid to the probable changes in ceramic manufacturing technology which accompany the Hellenistic period in the Near East which are reflected in northern Mesopotamia by a shift to sandy, oxidised ceramics as well as new types of vessel morphology and surface treatment.



## The Small Finds

*Stuart Campbell*

### § 7.1 INTRODUCTION

The small finds from Kharabeh Shattani were, with some exceptions, not notable for their quality although they were relatively numerous. The small finds are presented here primarily as a catalogue, with little additional commentary except where there are particular parallels to be drawn or other points of interest.

The catalogue is organised in the five main stratigraphic phases present at the site: Achaemenid, the Early, Middle and Late Halaf phases and Hassuna (§ 2). Note that the terms early, middle and late Halaf refer to the stratigraphic phases of the site only; all probably date from the late phase of the Halaf culture. The poor condition of the stratigraphy of Kharabeh Shattani, particularly in the upper levels, must be re-emphasized. Not only may Halaf artefacts have been redeposited in Achaemenid pits, but Achaemenid artefacts may well be found out of context in levels which are largely Halaf in date, either due to bioturbation or due to parts of Achaemenid pits being undetected. Where an artefact is clearly Achaemenid in date but is intrusive into the Halaf levels (as in the case of some of the metal objects), and where it is clear that there may have been a pit cutting down in the location of its find-spot, it has been included along with the other Achaemenid finds and the pit from which it is likely to have come is included in the catalogue entry where possible.

Different methods of numbering small finds were used in the two seasons at Kharabeh Shattani. In the first season sequential numbers were given to each find regardless of context, the numbers running from 1 to 73. In the second season, finds were

numbered sequentially within each context. It was not felt necessary to revise the numbering for publication as the combination of the three letter context code and small find number provides an unique reference in all cases.

This catalogue was compiled with only partial access to the material. Many of the small finds were drawn and photographed but the rest are only recorded by written descriptions. Although these descriptions are not always as full as might be desired, no artefact has been excluded on grounds of poor recording; it is felt better to publish as full an account as possible. The metal finds from the Achaemenid Phase are discussed in detail in § 8.

There are few objects worthy of individual mention. The possible clay bulla (AAH 24), from a secure Halaf context, is the only possible indication of the more sophisticated administrative functions attested at sites such as Arpachiyah (Mallowan and Rose 1935, Pl.IX). The fragment of a stone palette (AAG 26) is fine in the context of Kharabeh Shattani and is morphologically identical with the Halaf examples from Arpachiyah (for example Mallowan and Rose 1935, Fig. 52, 4) but it cannot compare in the skill and care used to manufacture the finest of the Arpachiyah palettes.

Many of the small finds are stone objects and, rather than describe each one in detail, a simple functional typology has been adopted to aid in their description. Five main combinations of use and object shape were found, although there are a number of instances where more than one type of use is found associated with a single object. Stone tools which do not fall into these groups as described individually.

*Rubbing stones* are stones with polish or linear abrasions on a flat surface.

*Pestles* are elongated stones with wear marks, predominantly from impact, on one extremity. Some of these objects have indications of secondary use, usually rubbing along one side, although their use as pestles accounts for the majority of wear. This secondary use may have been completely distinct from the primary function but it seems probable that they were, to some extent, composite tools. They may have been used first to pound some material and then to rub it to process it further (cf Seeden 1982, 56).

*Whetstones* are elongated stones with polish along the length of the stone.

Rubbing stones, pestles and whetstones are generally natural pebbles, often river pebbles, which are minimally modified. Little care appears to have been taken in their preparation and, probably, little value attached to them as objects. This lack of an inherent value may be reflected in the typically rather light usage evident on them; they may have been used and discarded in a very short time. Many come from relatively secure Halaf contexts but, given the obvious *ad hoc* usage of these objects, there is no reason to assume that they were restricted to that phase and the examples from late pits need not be Halaf in date.

*Mortars* are stones of various sizes characterised by a cup shaped hollow with wear marks within it.

*Querns* are large, carefully shaped, flat stones where one surface has been artificially flattened and heavily abraded.

The common quern type at Kharabeh Shattani is a thin slab of basalt roughly shaped to be oval or sub-rectangular in plan with rounded bases and flat or, sometimes, concave upper surfaces. Alongside obsidian, this is the material which was most obviously imported in quantity to the site. No examples of these querns occur in the Hassuna Phase, although this is probably not significant given the small sample size. They occur commonly in both the Halaf levels and in the fills of the later pits with no apparent morphological distinctions amongst them, although they are usually in a fragmentary state. Obviously those in late contexts may be redeposited but this is not necessarily the case. There are abundant parallels throughout the Halaf sequence from the Yarim Tepe group of sites where virtually identical querns of similar dimensions were found in large numbers (Munchaev and Merpert 1981, Fig. 72, 1-4 and Munchaev, Merpert and Bader 1984, 37).

There are two examples of polished stone chisels and one small stone axe. All are probably Halaf

in date, although one was found in a late deposit. All are similarly small and, in two cases, have evidence of considerable resharpening during their lifetime.

Some types of artefact appear to be ubiquitous in the periods represented at Kharabeh Shattani. Visually identical spindle whorls occur in Hassuna contexts (CBA 1, for instance), in Halaf contexts (BDD 1) and in a situation in an Achaemenid pit which strongly suggested that they were of the same date as the context in which they were found (BBX 1 to 3). In all cases they are biconical, spherical or sub-spherical in shape and pierced near to their centres of gravity. Usually they are relatively low and unevenly fired with minimal tempering. The spindle whorls in the Halaf levels are paralleled in late Halaf levels at Yarim Tepe III (Munchaev, Merpert and Bader 1984, 40) but are dissimilar to the more conical type which predominate at Yarim Tepe II (Munchaev and Merpert 1981, 230 and fig. 53). At Arpachiyah too conical spindle whorls may predominate (unpublished examples in the Iraq Museum) but there are biconical examples as well. The large numbers of spindle whorls which occur in the late pits suggest that many of them are genuinely Achaemenid in date rather than being residual from the earlier deposits at the site.

Clay slingstones occur quite commonly in the Halaf levels; there are four examples from early phase Halaf contexts and a further example from late contexts which presumably derive from Halaf deposits. These are typical objects from a long period in north Mesopotamian prehistory and are similar in shape to those from other sites (for example Munchaev and Merpert 1981, Fig. 82). The Kharabeh Shattani examples were found singly rather than in the large concentrations occasionally found elsewhere.

A large number of pot discs were found at the site. Although they were found both throughout Halaf levels and in late contexts, all diagnostic fabrics were Halaf and it seems likely that they are all Halaf in date. They were not recorded in the field as small finds and are therefore detailed in the following catalogue but they fit within this section and will be dealt with as a group. All appear to have been cut down from larger sherds, probably from broken vessels. They are generally between 42mm and 75mm in diameter but there are rare larger examples, up to a maximum of 180mm. Apart from all being made from fine ware sherds, no particular fabrics or type of vessels seem to have

been favoured. Most of the discs are unpierced. There is no indication of the function of these pot discs and, although they appear to have been common at other sites, there are too few published parallels for detailed comparison. It should be noted, however, that a single example was found sealed by bitumen as a stopper in the neck of a jar at Arpachiyah (Mallowan and Rose 1935, Fig.49, 23) which may be at least one of the uses to which the Kharabeh Shattani examples were put. The heavy abrasion on the edges of some of the pot discs may have been due to the method by which the discs were shaped but it is equally possible that it was through use and that some of the discs provided working edges.

## SMALL FINDS CATALOGUE

### § 7.2 Hassuna Contexts

#### *Clay Objects*

##### **CBA 1**

Grid Ref: 207 280 Level: 97.97m

Dimensions: Diam. 37mm; Ht 29mm; Hole Diam. 5mm

Clay spindle whorl in the form of a flattened sphere.

#### *Bone Objects*

##### **CBD 1**

Grid Ref: 206 280 Level: 97.95 m

Worked bone fragment.

#### *Stone Objects*

##### **CBA 2**

Grid Ref: 209 281 Level: 97.92 m

Stone vessel fragment.

##### **CBB 2**

Grid Ref: 207 294 Level: 97.64 m

Dimensions: L. 45mm; Th. 33mm

Roughly ovoid stone with red ochre stains on one end. The stone is a very pale brown river pebble with possible abrasion marks on one side. The red ochre is adjacent to the possible abrasion marks and is smeared thinly in a rather localized area.

### § 7.3 Early Phase Halaf Contexts

#### *Clay Object*

**AAH 24** (Fig. 61.7)

Dimensions: Diam. 30-35mm; Th. 3mm

A roughly circular fragment of black clay which may have been a sealing. There is no seal impression and it had probably simply been pressed by a finger. There is no indication to what it may have been attached. It comes from one of the more secure Halaf deposits and may be considered to be definitely Halaf in date.

**ABP 10** (Fig. 61.10)

Grid Ref: 207 293

Dimensions: Diam. 33mm; Preserved length 35mm

Fragment of a biconical clay slingstone. The fabric is orange brown with sparse fine white inclusions, probably calcites; it is poorly wedged but is very hard. This is very similar to the complete example **ABP 21** and like it, **ACI 15** and **BBU 1** is from a secure Halaf context.

**ABP 21** (Fig. 61.11)

Grid Ref: 207 293

Dimensions: Diam. 35mm; L. 52mm

Biconical clay slingstone. Hard fired, orange brown fabric with a dark brown to black exterior. Amongst Halaf sites, it compares closely with the examples from Yarim Tepe II (Munchaev and Merpert 1981: Fig. 82).

##### **ACI 15**

Dimensions: L. 29mm; Th. 34mm; Ht 21mm

Fragment of spherical/biconical clay object. Its fabric is dark grey brown, hard fired with sparse fine white grits. It is possibly a slingstone as it is similar in form, colour and firing to the other slingstones from the site.

##### **BBU 1**

Grid Ref: 2074 2890 Level: 99.18 m

Biconical clay slingstone. See also **ABP 10**, **ABP 21** and **ACI 15**.

##### **BCO 2**

Grid Ref: 198 281 Level: 99.08 m

Clay Disc.

##### **BDD 1**

Grid Ref: 204 289 Level: 99.13 m

Clay spindle whorl.

*Stone Objects***AAH 22**

Flat elongated river pebble used as a pestle/rubbing stone. It has abrasions from rubbing just short of one end which also has wear from impact.

**ACJ 16** (Fig. 60.7)

Dimensions: L. 80mm; Th. 54mm

Fragment of a pierced stone. The stone is probably naturally sub-rectangular in shape and has been biconically pierced. No wear marks are visible.

**ACJ 46**

Dimensions: L. 170mm; B. 70mm; Th. 60mm

Fragment of a basalt quern.

**§ 7.4 Middle Phase Halaf Contexts***Objects with burial BCZ***BCZ 1** (Fig. 59.15)

Grid Ref: 208 280 Level: 99.10 m

Dimensions: L. 53mm; W 12mm; Th. 3mm

Fragment of a bone point.

**BCZ 1**

Grid Ref: 208 280 Level: 99.10 m

Dimensions: Rim Diam. 48mm; Ht 20mm; Th. 3mm

Fragment of small limestone vessel. It appears to be of the type of bowl known as 'water bowls' (Bielinski 1987) although the interior profile is rather different from most examples. If it is considered a 'water bowl' it would be, as noted by Bielinski, the first example in a secure Halaf context and a possibly significant link with the later Ubaid.

**BCZ 2**

Grid Ref: 208 280 Level: 99.17 m

Dimensions: L. 13mm; Diam. 6-7mm; Hole Diam. 3-5mm

10 bugle-shaped, bone beads

**BCZ 2** (Fig. 59.5 and 7-10)

Grid Ref: 208 280 Level: 99.17 m

Dimensions: L. 6-10mm; Diam. 4-6mm; Hole Diam. 2-3mm

8 cylindrical bone beads.

**BCZ 2** (Fig. 59.13)

Grid Ref: 208 280 Level: 99.17 m

Dimensions: L. 6mm; Diam. 4mm

Cylindrical red stone bead.

**BCZ 2**

Grid Ref: 208 280 Level: 99.17 m

Dimensions: L. 8mm; Diam. 5mm; Hole Diam. 2mm

Cylindrical stone bead.

**BCZ 3** (Fig. 59.4)

Dimensions: L. 13mm; B. 6-11mm; Hole Diam. 6mm

Black stone, trapezoidal bead.

**BCZ 4**

Dimensions: Diam. 7-8mm; Ht 5mm; Hole Diam. 2-3mm

2 small red penannular beads.

**BCZ 5**

Dimensions: L. 9-11mm; Diam. 3-5mm; Hole Diam. 2-3mm

2 tapering cylindrical dentalium shell beads.

**BCZ 6** (Fig. 59.11)

Dimensions: Diam. 4mm; Ht 2mm; Hole Diam. 1.5mm

2 red stone disc beads.

*Clay Objects***ACG 71** (Fig. 61.5)

Grid Ref: 207 294

Dimensions: Diam. 38mm; L. 37mm; Hole Diam. 5mm

Fragment of a well-made, biconical clay spindle whorl. The fabric is dark brown grey with few visible inclusions. The surface is light brown, probably as the result of a thin slip.

**BBC 4**

Grid Ref: 206 285 Level: 99.35 m

Curved, elongated object of fired clay.

*Stone Objects***AAE 37** (Fig. 60.13)

Dimensions: L. 98mm; B. 41mm; Ht 38mm

Fragment of a long narrow river pebble used as a whetstone. The upper surface is flattened through wear and is glossy with heavy polishing.

**AAG 26** (Fig. 60.2)

Dimensions: L. 41mm; B. 40mm; Th. 2mm; Rim ht 9mm

Fragment of a stone palette. The stone is a distinctive hard, cream limestone with red mottling. It has been carefully smoothed. Both the top of the rim and the left edge in the illustration have been carefully finished. The other edges are broken. There are a number of objects from Arpachiyah (Mallowan and Rose 1935, Fig.52, 4) which are very similar in form and size but seem to be rather better finished than this example. There is also an example from the late Halaf at Yarim Tepe III (Merpert and Munchaev 1984, Fig.13, 1) which, unlike this example, may have a central perforation.

**AAG 73** (Fig. 60.3)

Dimensions: Diam. 120mm; Th. 13mm

Fragment of a ground stone bowl. It is made from a very soft ferigenous limestone or siltstone. Its surface colour is a dull yellow but beneath the surface, and possibly its original colour, it is a very striking saffron. Its shape is typical of the Halaf with a narrowed rim and, like BCZ 1, it is probably of the 'water bowl' form but unlike most of these its point of widest diameter is not at the rim but on the upper body. It is slightly more upright than the examples of this type at Arpachiyah (Mallowan and Rose 1935, Fig. 44, 8-10 and 17-18) but not exceptionally so.

**AAG 52**

Dimensions: Th. 70mm

Two fragments of a basalt quern.

**ABG 11** (Fig. 60.5)

Dimensions: Th. 43mm; W 34mm; Hole Diam. 12mm

An oval pierced stone which has been smoothed and polished before being biconically pierced. It is much more carefully made than other pierced stones from Kharabeh Shattani but there is no evidence for its purpose.

**ABG 17** (Fig. 60.9)

Grid Ref: 205 294

Dimensions: Diam. 31mm; L. 170mm

Fragment of the upper part of a conical stone pestle. It has been shaped by pecking and then heavily smoothed. The lower part of this artefact appears to have broken off in use and the upper part, this small find, reused. The base of the upper part re-

tains traces of the breakage and remains slightly hollowed from it but it has also been heavily worn smooth by subsequent use, probably as some sort of rubbing stone.

**ABG 18**

Grid Ref: 205 294

Dimensions: Th. 40mm

Fragment of a basalt quern.

**ADJ 36** (Fig. 60.10)

Dimensions: Diam. 62mm; L. 68mm

Cylindrical stone pestle of black vesicular basalt.

The artefact seems to have been shaped by pecking, then heavily smoothed. Only the lower end as illustrated has clear wear marks, apparently from pounding, but both ends may have been utilized.

**ADJ 39**

Dimensions: L. 200mm; B. 120mm; Th. 50mm

Fragment of a basalt quern stone, consisting of a right angled corner.

**ADJ 61**

Dimensions: Diam. 80mm

Rubbing stone made from a flat, natural stone with polish on one surface.

**ADJ 62**

Dimensions: Diam. 50mm

Spherical chert pounder. Such objects are common on earlier sites in the north of Iraq such as Jarmo, where they are termed hammer stones (Moholy-Nagy 1983, Fig.129, 11; Fig.141, 1), and Nemriq, where they are termed bolas (Kozlowski 1989, Fig.5). From these parallels it might be considered to derive from the Hassuna deposits. However, there are objects, identical to those referred to, from the Halaf site of Shams ed-Din (Seeden 1982, Fig. 33-35) and this example probably dates from the Halaf occupation of Kharabeh Shattani.

**BBC 1**

Grid Ref: 195 286 Level: 99.66m

Dimensions: L. 75mm; B. 63mm; Th. 8mm

Chipped stone point.

**BBC 2** (Fig. 60.4)

Grid Ref: 208 288 Level: 99.52m

Dimensions: Rim Diam. 70mm; Ht 35mm

Fragment of a ground stone vessel. This small pot is well and evenly made. It may perhaps be related

to the type of bowl found in the Ubaid at Tell el-Saadiya; this Bielinski's type 4 and its occurrence in an Halaf context would contradict his suggestion that this type is specific to the Ubaid (Bielinski 1987, 265 and Fig. X,4).

### BBQ 1

Grid Ref: 209 285 Level: 99.21m

Polished stone chisel.

### BCC 2 19

Grid Ref: 213 282 Level: 99.41m

Dimensions: L. 74mm; B. 21mm; Th. 9.8mm

Ground stone chisel. This is oval in section and relatively narrow for its length. Its cutting edge is slightly bevelled and only 12mm wide. There is some indication of hammering on the butt.

### BCC 3

Grid Ref: 197 280 Level: 99.56m

Stone with hourglass perforation.

## § 7.5 Late Phase Halaf Contexts

### *Clay Objects*

#### ABC 1 (Fig. 61.9)

Grid Ref: 205 290

Dimensions: Diam. 39mm; Ht 34mm; Hole Diam. 5.5mm

Spherical clay spindle whorl. This is well made and high fired.

#### ABC/ABG 72 (Fig. 61.6)

Grid Ref: 205 294

Dimensions: Diam. 35mm; L. 35mm; Hole Diam. 4.5mm

Spherical clay spindle whorl. It is rather roughly made but is evenly pierced in the centre and would be well balanced. It has been fired in a very variable atmosphere, its fabric ranging in colour between light brown and dark grey.

#### BCB 2 (Fig. 61.8)

Dimensions: L. 51mm; Ht 26mm

Animal Figurine. Fragment of a clay animal figurine. The head is broken off entirely. The legs are schematic stumps.

### *Stone Objects*

#### AAC 32

Grid Ref: 208 297

Fragment of a sub-rectangular basalt quern stone.

#### AAC 51 (Fig. 61.12)

Dimensions: L. 440mm; B. 332mm; Ht 172mm;

Hollow Diam. 228mm; Hollow depth 128mm; Hole Diam. 68mm

Stone mortar, probably made from a river boulder. The central cup has been deeply ground and there is a hole in the base. This hole may have been made through use, but it is probably part of the original design.

#### ABC 3

Dimensions: L. 110mm; B. 75mm; Th. 60mm

Stone pestle made from a sub-spherical natural stone with heavy wear on one side.

#### ACC 34

Dimensions: L. 140mm; B. 70mm; Th. 25mm

Fragment of stone quern.

#### ADC 35 (Fig. 60.12)

Dimensions: Diam. 62mm; L. 76mm

Small, squat, cylindrical stone pestle made from black vesicular basalt. The base of the pestle is slightly convex and shows traces of extended use.

#### ADC 41

Dimensions: L. 100mm; B. 70mm; Th. 50mm

Stone pestle, from large natural pebble, with wear at one extremity.

#### ADC 42

Dimensions: Diam. 60mm

Spherical stone with wear marks; possibly a pestle.

#### ADC 63

Dimensions: L. 140mm

Whetstone made from a thin, natural pebble with rubbing marks on one side.

#### ADC 64

Dimensions: Th. 50mm

Small fragment of a basalt quern.

#### ADF 66 (Fig. 60.11)

Dimensions: L. 214mm; Diam. 62-70mm

Stone pestle. It has been shaped by pecking and subsequently extensive grinding to a relatively smooth surface. There are extensive indications of wear on the base, possibly mixed pounding and grinding. The opposite end has been damaged, possibly due to hammering during use.

**ADF 67**

Dimensions: Th. 60mm  
Fragment of a basalt quern.

**ADF 68**

Dimensions: Diam. 160mm  
Mortar made from a natural stone with 40mm deep hollow worn into the centre.

**ADI 54**

Pestle made from a natural stone.

**ADI 55**

Dimensions: Ht 40mm  
Fragment of a rubbing stone made from a natural river pebble.

**ADI 65**

Fragment of a rubbing stone made from a natural pebble; heavy rubbing marks on one side.

**ADL 19 (Fig. 59.12)**

Grid Ref: 202 298  
Dimensions: L. 12mm; Diam. 7-8.5mm; Hole Diam. 2-5mm  
Fragment of a stone bead. The bead is made in a soft, dark green stone with blue-green veins in it. It is biconically pierced and highly polished.

**ADL 20 (Fig. 60.8)**

Dimensions: Diam. 110-146mm; Th. 44mm; Hole Diam. 10-26mm  
Pierced stone, probably limestone. It appears to have been roughly shaped by flaking and it has been pierced from both sides.

**ADL 53**

Dimensions: L. 80mm  
Natural pebble used as whetstone.

**BBE 1**

Grid Ref: 197 284 Level: 99.75 m  
Several small obsidian flakes found together.

## § 7.6 Achaemenid Contexts and Unknown Contexts

### *Clay Objects*

**JC-? 25 (Fig. 61, 3)**

Dimensions: Diam. 36mm; Ht 32mm; Hole Diam. 4.5mm

Spherical clay spindle whorl. This is almost an exact sphere and is more carefully made and more highly fired than is normal with this class of artefact at Kharabeh Shattani.

**AAF 27 (Fig. 61.4)**

Dimensions: Diam. 34mm; Ht 32mm; Hole Diam. 4mm  
Fragment of a sub-spherical clay spindle whorl. It is roughly made with a light brown fabric and few visible inclusions. It is relatively low fired.

**ABF 4**

Grid Ref: 204 293  
Fragment of a biconical clay spindle whorl.

**ACN 14 (Fig. 61.2)**

Dimensions: Diam. 53mm; Ht 38mm; Hole Diam. 10mm  
Large clay spindle whorl. This is made from a light green fabric with no visible grits, medium fired. It is a flattened sphere in shape and slightly larger than the typical spindle whorl from Kharabeh Shattani.

**BBB 2**

Pit: BAR  
Grid Ref: 202 287 Level: 99.97m  
Dimensions: Diam. 44mm max.; 22mm minimum.; existing length 31mm; Hole Diam. 10mm  
Fragment of pierced clay cup-like object. It may be a tuyere or, perhaps, a different variety of spindle whorl.

**BBX 1**

Dimensions: Diam. 48mm; Ht 30mm; Hole Diam. 9mm  
Clay spindle whorl. This is almost certainly Achaemenid in date as it was found the bottom of pit BAX together with BBX 2 and 3.

**BBX 2**

Dimensions: Diam. 38mm; Ht 34mm; Hole Diam. 9mm  
Clay spindle whorl. As with BBX 1, this is almost certainly Achaemenid in date.

**BBX 3**

Dimensions: Diam. 53mm  
Clay spindle whorl. As with BBX 1, this is almost certainly Achaemenid in date.

**BCG 1** (Fig. 61.1)

Grid Ref: 209 280 Level: 99.50 m  
 Dimensions: Diam. 41x44mm; Ht 34mm; Hole  
 Diam. 4mm  
 Biconical clay spindle whorl.

**BCG 2**

Grid Ref: 209 280 Level: 99.50 m  
 Clay spindle whorl.

**BCK 1**

Grid Ref: 209 284 Level: 99.32 m  
 Dimensions: Diam. 40x36mm; Ht 34mm; Hole  
 Diam. 5mm  
 Clay spindle whorl.

**BCS 2**

Grid Ref: 209 281 Level: 98.53m  
 Dimensions: Diam. 38x36mm; Hole Diam. 6mm  
 Clay spindle whorl.

**BCY 1**

Grid Ref: 209 281  
 Dimensions: Diam. 36mm; Ht 25mm; Hole  
 Diam. 7mm  
 Clay spindle whorl.

**BBF 1**

Pit: BAY  
 Grid Ref: 195 289 Level: 99.52m  
 Figurine leg?. Possibly part of the 'hearth furniture'  
 found in this pit.

**BBC 5**

Pit: BAO  
 Grid Ref: 204 289 Level: 99.40m  
 Clay slingstone.

**BBC 6**

Pit: BAP  
 Grid Ref: 207 288 Level: 99.33m  
 Dimensions: Maximum Diam. 43mm; Ht 33mm;  
 Hole Diam. 6mm  
 Clay spindle whorl fragment.

*Metal Objects***BBB 1** (Fig. 59.1)

Grid Ref: 198 205 Level: 99.92m  
 Dimensions: L. 12.5mm; W 7.7-5.8mm  
 Bronze horse trapping. See § 8 for discussion.

**BBB 5**

Grid Ref: 200 287 Level: 99.75 m  
 Fragment of an iron sickle blade (see § 8).

**BBC 3**

Grid Ref: 199 288 Level: 99.50 m  
 Fragment of copper.

**BBC 7**

Grid Ref: 197 288 Level: 99.33 m  
 Fragment of copper. This is relatively quite low in  
 the stratigraphy of the site and its presence within  
 what is essentially an Halaf deposit cannot be ex-  
 plained by an intrusive pit. It may have been  
 carried down from Achaemenid layers by animal  
 burrowing but it is possible it may be contem-  
 porary with the surrounding Halaf deposits.

**BBD 1**

Grid Ref: 197 289 Level: 99.39m  
 Fragment of iron sickle blade (see § 8).

**BBJ 4** (Fig. 59, 6)

Grid Ref: 206 289 Level: 98.15 m  
 Dimensions: Maximum Diam. 59mm; Hole  
 Diam. 43mm; Ht 23mm  
 Bronze macehead. See § 8 for discussion.

**BBO 1**

Grid Ref: 201 286 Level: 99.42m  
 Fragment of metal.

**BCB 1** (Fig. 59.2)

Grid Ref: 206 284  
 Dimensions: Diam. 2.5x2.2mm; Th. 2mm  
 Bronze ring. See § 8 for discussion.

**RCS 1** (Fig. 59.3)

Grid Ref: 209 281 Level: 98.62m  
 Dimensions: L. 44mm; Th. 3mm  
 Fragment of copper. See § 8 for discussion.

*Bone Objects***BBJ 1** (Fig. 59.14)

Grid Ref: 206 287 Level: 99.47m  
 Dimensions: L. 49mm; B. 16mm; Th. 9mm  
 Fragment of a bone tool. Only the point is pre-  
 served.

*Stone Objects***Surface 13** (Fig. 60.1)

Dimensions: L. 45mm; B. 37mm; Th. 10mm



Small stone axe, almost certainly of Halaf date. It has been carefully smoothed and polished with a almost symmetrical profile. It has some edge damage, probably through use, and has been quite heavily resharpened.

**ABE 2**

Rubbing stone made from a flat pebble.

**ABJ 30**

Dimensions: L. 80mm; B. 70mm; Th. 70mm  
Sub-spherical stone which has evidence of use as both a pestle and as a rubbing stone.

**ABJ 31**

Dimensions: L. 280mm; B. 206mm; Th. 40mm  
Fragment of a quern. Like other examples from Kharabeh Shattani it is made from dark grey vesicular basalt. It appears to have been roughly pecked to shape during manufacture to give a flat upper surface, a rounded base and, from the surviving fragment, was probably oval in plan. The centre has been subjected to heavy grinding in use, forming a shallow, smoothed hollow.

**ABK 29**

Dimensions: L. 100mm; B. 80mm; Th. 40mm  
Fragment of a basalt quern.

**ABR 44**

Dimensions: L. 240mm; B. 170mm; Th. 34mm  
Complete oval quern made in the normal dark grey vesicular basalt. The upper surface is flat and the base is rounded. The upper surface is heavily but evenly smoothed through extensive use.

**ACA 33**

Grid Ref: 209 296  
Dimensions: L. 212mm; B. 130mm; Th. 52mm  
Fragment of a roughly rectangular grey vesicular basalt quern. It has been roughly shaped and the bottom is curved. The top has been heavily ground down, probably partly through use but, since the wear is not localised to any particular part of the stone (such as down the centre), it is probable that it had also been flattened during manufacture.

**ACB 6**

Dimensions: L. 185mm; B. 66mm; Th. 14mm  
Stone whetstone.

**ACB 8**

Grid Ref: 209 295  
Fragment of a basalt quern.

**ACF 50**

Dimensions: Diam. 460mm; Ht 315mm; Hole Diam. 225mm; Hole depth 168mm  
Mortar made from light yellow limestone block. The mortar has been shaped by pecking and smoothing and the central hollow is deep. It is heavily worn with linear abrasions running around it. It is possible that rather than being a mortar this object is a discarded door socket, which might accord better with the horizontal linear abrasions.

**ACF 58**

Dimensions: B. 80mm  
Natural pebble which has been used as a pestle.

**ACF 59**

Two fragments of natural pebbles, both of which appear to have been used as whetstones.

**ACF 60**

Dimensions: Th. 40mm  
Fragment of a basalt quern.

**ACK 43**

Dimensions: L. 70mm  
Fragment of a natural pebble which has been used as a whetstone.

**ACK 48**

Dimensions: L. 80mm; B. 70mm; Th. 50mm  
Three fragments of basalt querns. The dimensions given are those of the largest fragment; the other two were much smaller.

**ACN 40**

Whetstone, made from a natural elongated pebble with heavy polish on one flattened side.

**ACN 47**

Dimensions: L. 140mm and 100mm  
Two stone whetstones.

**ACN 69**

Two fragments of natural pebbles which have been used as rubbing stones.

**ACN 70**

Natural stone with heavy battering at one end where it has been used as a pestle.

**ACP 56**

Large natural pebble which has been used as a pestle.

**ACT 38**

Fragment of an oval basalt quern.

**BBJ 2**

Grid Ref: 207 288 Level: 99.56 m  
Fragment of a stone bowl or mortar.

**BBJ 3**

Grid Ref: 207 288 Level: 99.26 m  
Fragment of a stone bowl.

**BCA 1 (Fig. 60.6)**

Dimensions: Diam. 50mm; Ht 57mm; Th. 17mm  
Fragment of a stone bowl.

**AAA 57**

A long natural pebble used as a whetstone.

**BBB 3**

Grid Ref: 207 288  
Pit: BAP  
Fragment of a basalt quern.

*Other Objects***ABE/ABK 5**

Frit (?) Ornament

**List of Small Find Illustrations**

*Fig. 59*

Number		Scale
1.	BBB 1	1:2
2.	BCB 1	1:2
3.	BCS 1	1:2
4.	BCZ 3	1:2
5.	BCZ 2	1:2
6.	BBJ 4	1:2
7.	BCZ 2	1:2
8.	BCZ 2	1:2
9.	BCZ 2	1:2
10.	BCZ 2	1:2
11.	BCZ 6	1:2
12.	ADL 19	2:1
13.	BCZ 2	1:2
14.	BBJ 1	1:2
15.	BCZ 1	1:2

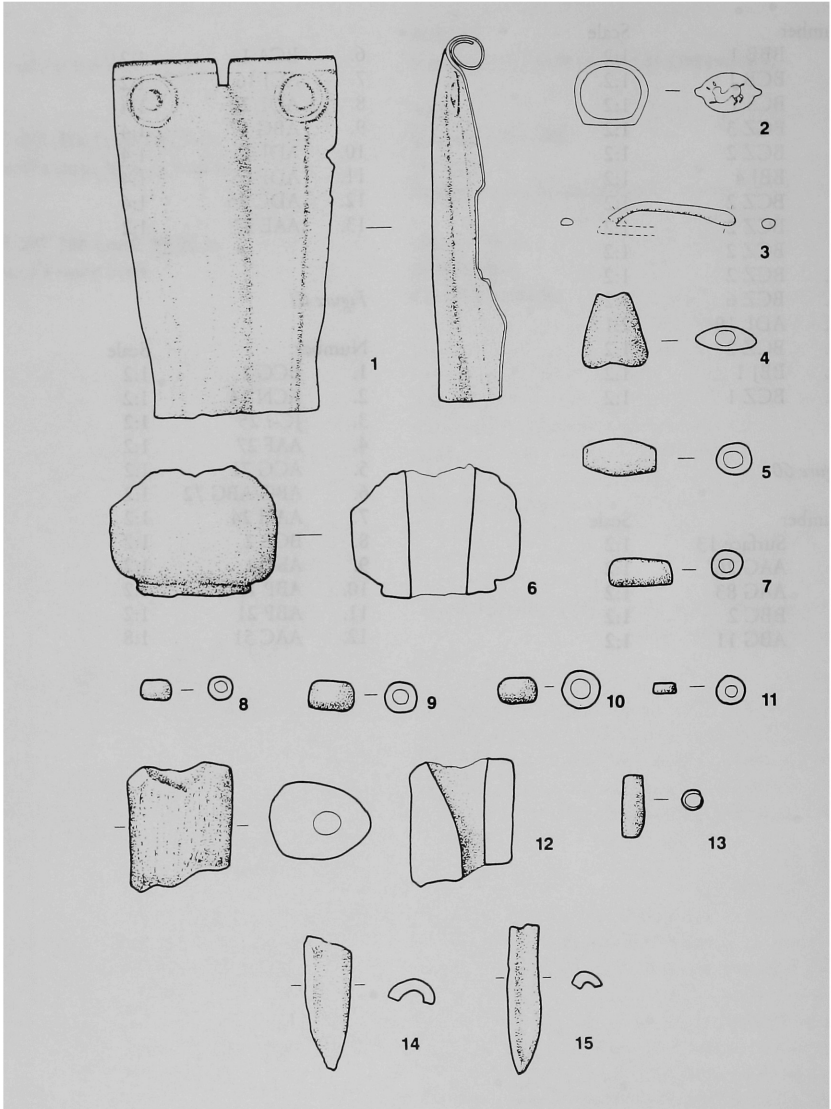
*Figure 60*

Number		Scale
1.	Surface 13	1:2
2.	AAG 26	1:2
3.	AAG 83	1:2
4.	BBC 2	1:2
5.	ABG 11	1:2

6.	BCA 1	1:2
7.	ACJ 16	1:2
8.	ADL 20	1:4
9.	ABG 17	1:4
10.	ADJ 36	1:4
11.	ADF 66	1:4
12.	ADC 35	1:4
13.	AAE 37	1:2

*Figure 61*

Number		Scale
1.	BCG 1	1:2
2.	ACN 14	1:2
3.	JC-? 25	1:2
4.	AAF 27	1:2
5.	ACG 71	1:2
6.	ABC/ABG 72	1:2
7.	AAH 24	1:2
8.	BCB 2	1:2
9.	ABC 1	1:2
10.	ABP 10	1:2
11.	ABP 21	1:2
12.	AAC 51	1:8



*Fig. 59 Halaf and First Millennium BC small finds*

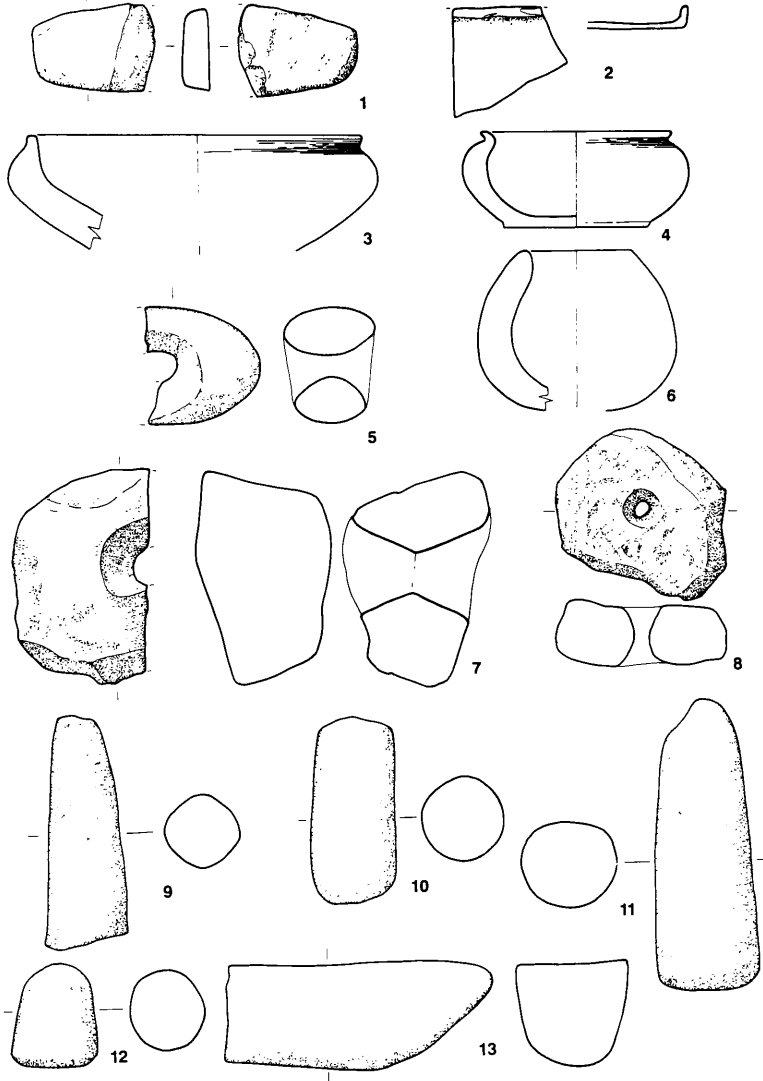


Fig. 60 Halaf and First Millennium BC small finds

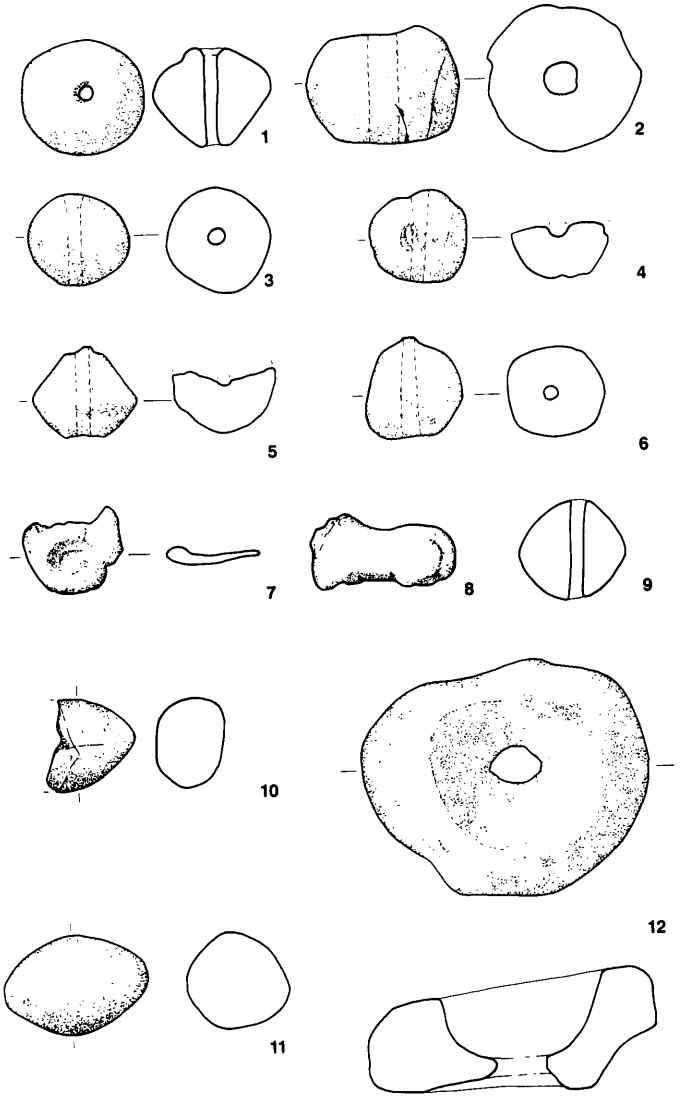


Fig. 61 Halaf and First Millennium BC small finds

## The Achaemenid Period Metalwork

*Dianne Rowan*

**BBB 1** (Fig. 59.1)

Grid Ref: 198 205

Level: 99.92m

Dimensions: L 125mm; W 77-58mm.

**Description:** A fragment from a piece of bronze sheet metal which is approximately rectangular in shape, although tapering slightly inwards at the broken edge. In section the piece is concave. The fragment is decorated with two vertical repoussé lines, which each terminate in a circle. The decoration is symmetrical. A central ridge runs the length of the plaque. At the unbroken edge the piece rolls around under itself. A small section has been cut through the top of this roll. The plaque may have been hinged at this end, presumably to allow movement. The function of this fragment cannot be established from the context in which it was found, nevertheless it may be possible to show that this piece from Kharabeh Shattani is one part of a forehead plaque from a horse harness.

Unfortunately there are no published examples from Iraq to compare with this piece. However there are plaques from Iran which may provide useful parallels. From the excavations at Baba-Jan (Goff 1969, 123, Fig. 7:3) in Iran a plaque was found at the brow of the skeleton of a horse. The plaque was made of bronze and was rectangular in shape tapering slightly inwards before flaring outwards. In length it was approximately 200mm. The plaque is dated to the seventh century BC. Two similar shaped and sized plaques can be found in the collection of "Ancient Persian Bronzes" in the Ashmolean Museum in Oxford, although their exact provenances remain unknown (Moorey 1971b, 138-139, Pl. 29:159-160). Both pieces are made of sheet bronze and are decorated in the same

kind of repoussé groove and circle style as illustrated on the Kharabeh Shattani piece. They are 235mm and 212mm in length and 142mm and 104mm in width. Further examples are allegedly from Iran from Ziwiye (Godard 1950, Fig. 96,97). These are 240mm and 215mm in length. They bear a strong resemblance to the Kharabeh and Ashmolean examples except that they are made of silver and their decoration is much more ornate. One of the pieces (Godard 1950, Fig. 96) has a single groove and circle decoration. The plaques from Iran were attached to the rest of the harness by means either of a hinge, the Ziwiye piece, for example, has a small tube running along one edge, or by means of thongs of leather or thin wire being passed through holes, for example the Ashmolean pieces (Moorey 1971b, 138-139, Pl. 29:159-160). The evidence from Baba-Jan, and of their shape, size, hinge or hole apparatus and on depictions from Assyrian palace reliefs (Barnett 1960 Pls 59 and 84) all indicate that they are forehead plaques from horse harnesses.

Forehead plaques have been found in Syria at Tell Tainat, (Kantor 1962, 96-97, Pls XI-XV), Anatolia (Moorey 1971b, 138-139) and even Armenia at Karmir Blur, (Barnett 1959, 15, Fig. 13). The shapes of these plaques and their decoration seem to differ from region to region. The Syrian plaques tend to be triangular in shape as opposed to the Iranian and Anatolian predilection for trapezoidal shapes. The Kharabeh Shattani example most resembles the pieces from Iran in shape and size. Were the Iranian pieces to be broken at the same point, they would then resemble the surviving portion of the Kharabeh Shattani example in size, i.e. between 110-130mm. In decoration the Iranian examples bear a very close resemblance, though the

groove and circle repoussé work appears the opposite way round to that on the Kharabeh Shattani example.

The only significant difference between these plaques is in the attachment apparatus. It is possible that this example had a different function to the other cited examples; that is it may have been a part of a much larger and more elaborate piece in which case the rolling was a means of attachment to other pieces. It is possible that a thin strip of metal wire or leather was slotted through the roll.

Because of the absence of any examples from Iraq we are obliged to use the Iranian frontlets as guidance in dating the Kharabeh Shattani plaque. The Iranian frontlets provide a *post quem* of the eighth century BC.

#### BBB 5 (not illustrated)

Grid Ref:200 287

Level: 99.75m

Dimensions: L 160mm; W at tang 15mm; W of blade 25mm.

Description: Badly corroded iron sickle blade. The blade is broken at the tang.

#### BBB 1 (not illustrated)

Grid Ref:197 289

Level: 99.39m

Dimensions: L 83mm; W 30mm.

Description: Fragment of an iron sickle blade. It is not possible to discern how this blade was originally attached to the haft.

In the first half of the second millennium BC in Iraq there appears to have been two types of sickle blade (Moorey 1971a, 76-77). These are distinguished by the way in which the blades are hafted rather than any difference in the form of the blade. In the first type the tang of the blade was first pushed through the handle before then being beaten back over. Examples are found at Tell Asmar (Frankfort 1946, Fig. 106), Nippur (McCown & Haines 1967, Pl. 154:12), Kish (Langdon 1924, Pl. XX:5), Babylon (Koldewey 1914, 263, Fig. 183) and finally Tell Sifr, (Moorey 1971a, 76-77). In the second type the tang is riveted and examples of this are rarer in Iraq, one was found at Gawra (Speiser 1945, Pl. XLVIII) and one was found in Syria at Brak (Mallowan 1947). Examples of both types are made of copper. Iron sickle blades came into popular use in Iraq in the first millennium BC probably towards the later half of that period when "there can be no doubt

that Iron was a common material and widely used" (Curtis *et al.* 1979, 382). In their basic form and design they are little different from the earlier blades. They have the same crescentic blade and were attached by roll hafting or riveting. Published examples from sites in Iraq are difficult to locate and to date precisely. A number of iron blades were found at Nimrud though not all have been published. One example which is thought to have been Neo-Assyrian has been published (Curtis *et al.* 1979, 377, Fig. 16). In length it is 140mm and has a short tang which is believed to have been riveted, although the rivet holes have been entirely corroded over. Another example from Nimrud (Unpublished N.753. British Museum 140246) still has an intact and rolled tang. Unfortunately the blade may not necessarily be Neo-Assyrian in date since it was found in the topsoil, but it does show that both types of hafting appeared at Nimrud.

The distribution of iron sickle blades is by no means restricted to Iraq with examples being found in Iran, Israel, Trans-Jordan, and Egypt. Examples from Iran are found of several periods. For example, there are two blades found at Baba-Jan which are dated to the eighth-seventh centuries BC (Goff 1978, 39, Fig. 15:17 and 18) and a blade from Pasargadae which is dated to the fifth century BC (Stronach 1978, 182, Fig. 95:15, Pl. 164e). They range in length from 94mm to 178mm and are either riveted or "rolled". The example from Pasargadae (94mm in length) has three rivets still in position, however one of the examples from Baba-Jan (Goff 1978, Fig. 15:17) has a short broken tang which may have snapped at the point where the tang had started to roll around (the second example has no tang remaining to indicate the method of attachment). Iron sickle blades found in Israel date from the tenth century onwards as at Hazor (Yadin *et al.* 1958, Pls 82:5, 149:21, 152:7; Yadin *et al.* 1960, Pls 59:30, 106:7, 20, 22, 34; Yadin *et al.* 1961, Pls 100:6, 258:19-21) to the fourth century as at Ashdod (Porath 1974, 54 Pl. XIV:8, Fig. 6:7 and 8).

In almost all cases the examples are so badly corroded or fragmentary that it is difficult to know how they were attached. The evidence from Nimrud and Iran illustrates that rivet hafting and roll hafting were used contemporaneously proving that no one type of attachment was peculiar to a place or period. Because of a relatively universal standardization in sickle blades it is not possible to pinpoint any one period in time to which the Khara-



beh Shattani blades belong. Only a detailed metal-graphic analysis of the blades could help (Curtis *et al.* 1979). Such an analysis would indicate the stage of iron-working technology achieved by the smiths in producing these examples. Such information could show whether the blades represented an earlier or later stage of such technology. At best all that can be said is that these sickle blades probably date to a period after the eighth century when the iron industry was better established and when bronze was rarely used for agricultural tools (Curtis *et al.* 1979, 382).

**BBJ 4** (Fig. 59, 6)

Grid Ref; 206 289

Level; 98.15m

Dimensions; max. diam. 59mm; diam. of hole 43 mm; Ht. 23mm.

Description; A broken spherical object with a central vertical hole made of cast bronze. The upper side has a slightly rolled lip; the lower side is broken. This was probably the bulb from a bronze macehead. A similar type was found at Tell Muhammed, Baghdad, Iraq. There are two copper maceheads from this site which are now in the British Museum (WAA.22455-6) and these examples have the same plain bulb and rolled lip as the piece from Kharabeh Shattani. They are dated to the Old Babylonian period on the basis of inscriptions found upon them which bear the name of Hammurapi, King of Babylon. If the Kharabeh Shattani example is a macehead of this type then a date of sometime in the early second millennium BC would be feasible. There is no evidence of second millennium BC use of the site and the context of this object is secure at the base of an Achaemenid period pit. The attributes that give this object its character are very basic, it is quite possible that similar types were long-lived and that it dates to the Achaemenid period. On the other hand it is, at least, plausible that this is a stray, earlier piece.

**BCB 1** (Fig. 59.2)

Grid Ref; 206 284

Dimensions; Diam. 2.5mm x 2.2mm; Th. 2mm.

Description; A copper/bronze ring with a flat, leaf-shaped bezel and a stirrup-shaped hoop. The bezel is engraved with the figure of a crouching animal, possibly a lion.

Rings of this shape were popular in Greece from the fifth century through to the third century BC. The commonest materials were silver and

bronze, the latter being produced at a much cheaper cost and probably used more frequently for the practical business of sealing (Boardman and Vollenweider 1978, 29). The shape of the bezel and the hoop are paralleled by early to middle fifth century examples from Greece (Boardman 1970, 33 Fig. 6:27 and 32), whereas on the later examples from the fourth and third centuries, the bezel tends to broaden into a full oval or circle (Boardman and Vollenweider 1978, 29 and 33; Boardman 1970, 322).

Regular contacts with the Achaemenid Empire resulted in the popularity of these leaf-shaped bezel rings reaching beyond Greece and into the Empire. Examples of these rings or impressions left by them, have been found in Syria, at Deve Huyuk (Moorey 1980, nos. 323-326), Kamid El Loz (Poppa 1978, no. 56), in Israel at Adit (Johns 1933, Pl. XXXVII:904-563, Pl. XXVII, 713), in Iraq at Ur; the Persian Coffin Hoard (Woolley 1962, nos. 70ff), Nippur; the Murashu archives (Legrain 1925, Pl. XXXVI ff), and in Iran at Persepolis; the Treasury (Schmidt 1957, nos. 46, and 79), and Parsagadae (Stronach 1978, Fig. 92).

The corrosion of the metal make the identification of the engraved animal difficult. The animal appears to be partly crouching with its head turned back. The closest parallels to the Kharabeh Shattani example are from Greece and date to the fifth century (Boardman and Vollenweider 1978, Pl. XVIII:99 and 100, Boardman 1967, Pl. 7:N30 and N34). In each of these rings animals described as lions or wingless griffins are engraved with the same emphasized, S-shaped curvature to their bodies as the Kharabeh Shattani ring. In the case of N30 and N34 (Boardman 1967) the lions have their heads turned and facing backwards. There are many Greek rings of this type with devices of other types of animals, such as hares, which are found partly crouching (Boardman 1967, Pl.:N35) and it has been suggested that the popularity of such was due to the suitability of the motif for the shape of the ring. Heavier rings than these leaf-shaped examples tended to have a wider range of subjects (Boardman 1970, 322).

It seems clear that the shape and motif of the Kharabeh Shattani example are, at the least, Greek inspired if not Greek produced. Workshops attended by Greek craftsmen were set up throughout the Achaemenid Empire, although mainly in Asia Minor and at the Persian Royal Court (Boardman and Vollenweider 1978, 40) to supply the imperial markets with jewellery and other luxury items. The

craftsmen either copied Greek motifs or adapted them to a more Achaemenian taste. When the devices remained faithful to their Greek counterparts the bodies of the animals were well modelled with attention paid to anatomical detail. However, when the craftsmen adapted these devices by mixing them with more local motifs, the detailed treatment was lost and the animals appear stiff. It is conceivable that the Kharabeh Shattani ring was produced in one of these workshops, although the crudeness of the engraving and the absence of detail would suggest that the ring was produced in the "mixed style" rather than the pure "greek style"

(Boardman 1970, 312). It is thus more likely to have been produced locally. The dating of the ring depends upon the length of time it took for Greek fashion to spread through the provinces and establish itself. It seems likely therefore that the ring belongs to a period within the fifth or fourth century BC.

**BCS 1** (Fig. 59.3)

Grid ref; 209 281

Level; 98.62m

Description: Fragment of a copper/bronze pin.

# The Faunal Assemblage

*Paul Croft*

---

## § 9.1: INTRODUCTION

The small faunal sample recovered from Kharabeh Shattani consisted mainly of very fragmentary and heavily encrusted pieces of bone. The sample was, moreover, chronologically mixed to a very great degree, thus further reducing its capacity to sustain all but the most tentative, low-level interpretation. In view of these factors it seemed most appropriate that this report should consist essentially of a presentation, in a series of tables, of the more useful data derived from the faunal sample. The possible significance of these data is also briefly discussed.

This report is primarily concerned with that small proportion of the animal bones (including a few scattered human bones) which may fairly securely be attributed to one of the three major periods of occupation on the site viz the Hassuna, Halaf and Achaemenid periods. Data for these three small subsamples is presented in greater detail in the tables than for those animal remains which are not attributable to any specific period of occupation.

In fact a majority of the faunal remains from the site (approximately 80% by weight) derive from contexts which contained a mixture of Halaf and Achaemenid material. This is because the Achaemenid period pits were not clearly distinguishable in the upper Halaf deposits which as thus potentially contaminated with later Achaemenid period material. At the same time the 1st millennium pits when isolated has fills which contained a significant quantity of derived Halaf pottery and, presumably, bones. However, since bones from such mixed contexts are essentially undatable it was not felt worthwhile to offer more

than summary details of them (bone weights and counts of identified fragments by taxon). The exception to this general rule is a complete skeleton of a dog which, although deriving from a mixed context, must be presumed to date to the later of the two periods in question, namely the Achaemenid period, because it was complete and in a late pit.

Identifications are based on a brief examination of the material, conducted in the field and without recourse to comparative specimens. The bone weights given in the tables below include encrustation and soil which could not readily be extracted from the medullary cavities of long bones, and are therefore approximate, being generally somewhat inflated. At the outset it must be stressed that since the identifications were made without access to comparative material some of the identifications are less confident than they might otherwise be. In particular it is possible that the material attributed to caprines may include a small proportion of gazelle remains.

## § 9.2: DISCUSSION

The composition of small subsamples for the Hassuna and Halaf periods (31 identified specimens in each case) suggest that caprines were the most numerous food animal and that lesser numbers of pigs and cattle were also eaten in both periods (Tables 9.1 & 9.3). However, in view of the far greater body size of cattle than of caprines, it seems probable that any disparity in their relative contribution to human diet was less pronounced than might be suggested by the disparity in numbers of identified fragments for each taxon.

For instance, the seven identified fragments of cattle bone in the Halaf period subsample might well represent as much, or indeed more, meat than the eighteen caprine fragments. Almost equal weights of bones of large and smaller mammals in both the Hassuna and the Halaf subsamples (Tables 9.2 & 9.4) emphasize the point that caprine-dominated animal economies should not necessarily be inferred.

The presence of a single unambiguous gazelle bone in the Hassuna subsample suggests that this animal was at least occasionally hunted, and the two pieces of cattle bone which are attributable to this period seem also to represent a wild-type, presumably hunted, animal. The single measurable Hassuna cattle bone, the burnt proximal articulation of a metacarpal, is rather large for domestic cattle but falls comfortably within the size-range of *Bos primigenius* (Table 9.5). The other cattle bone from the Hassuna period, an unmeasurable scapula blade fragment, also seems large for domestic *Bos taurus*.

Cattle remains from post-Hassuna contexts also include specimens which would seem large for domestic cattle, but a number of others are sufficiently small that they must represent domestic stock. It may be that domestic cattle only began to be kept at Kharabeh Shattani sometime after the Hassuna occupation there, but it seems probable that the hunting of wild cattle outlasted the end of this period, continuing at least into Halaf times.

A small quantity of equid remains derives entirely from mixed Halaf/Achaemenid contexts. These indicate the presence of a small equid, most

likely the onager (*Equus hemionus*). Metrical data are presented in Table 9.6.

All of the faunal remains represented in Table 9.7 derive from contexts which potentially contain a mix of Halaf and Achaemenid bones with possible very occasional Hassuna residuals. Since caprine remains in the small Halaf subsample outnumber those of pigs by about three times (Table 9.3) and outweigh them by more than four times (Table 9.4), their much more equal representation amongst these potentially mixed samples, many from the fills of Achaemenid period pits, (roughly equal weights, with caprine bones only about half as numerous again as those of pig) may possibly indicate the greater importance of pigs in the Achaemenid period, although still within a mixed animal economy.

The only fact about the Achaemenid period at Kharabeh Shattani which emerges clearly from an examination of the animal bone is that the dog was present. A complete skeleton of a dog, found in articulation in pit BCJ, represents the only animal remains which are firmly attributable to the Achaemenid period. Since this pit, as with all the pits, contained a mixed assemblage of Achaemenid and Halaf cultural material, the other animal bone found in it is not attributable to one period or the other, but a whole articulated skeleton cannot be seen as derived. The teeth are quite heavily worn and several joints show indications of a degree of arthritis, so this must have been a fairly aged individual. The weight of the skeleton was 1036g, and metrical data derived from it are presented in Table 9.8.

Table 9.1 Bones of the Hassuna period (Notes 1 &amp; 2)

Context	Taxon	Element and comments
CBA	caprine	Radius, shaft frag, burnt.
CBB	caprine	Tibia, fused, dist. (Bd23.4) Os malleolaris.
CBH	pig	Humerus shaft, infant, burnt.
	cattle	Scapula blade frag.
	caprine	Tibia, fused, dist.
	pig	L. humerus shaft. L. humerus, fused, dist. (Bd41.8 BT32.2 H26.9 h19.5) R. humerus, fused, dist. (Bd41.8 BT32.4 H27.5 h19.2) Metapodial II or V, unfused shaft.
CBI	caprine	Horncore frag, burnt. R. mandible frag with dp3 (f) M1 (g) M" (E). L. mandible frag with P4 (E) M1 (h) M2 (g) Metatarsal shaft frag.
	pig	Skull frag, infant/juvenile.
CCB	caprine	3 x upper molars. *R. humerus, fused, dist. (Bd26.5 H17.7 h13.7) L. humerus, fused, dist. (H17.9) R. humerus, shaft frag. *Radius, fused, prox, burnt. (Bp24.6 BFp22.5) Femur, dist frag. Patella. *R. astragalus. (GL127 GLm24.9 D114.6 Bd5.9) *L. astragalus. (GLm24.2 Bd16.1) Naviculo-cuboid frag. *metapodial dist frag.
	caprine	*Humerus, fused, dist. (Bd31.5 BT31.2 H19.1 h15.0)
	gazelle	Upper 3rd molar. (L19.7 B12.3)
	cattle	Metacarpal, prox, burnt. (Bp70.7 Dp41.3)
	Total 31 identified frags (cattle 2, caprine 22, pig 6, gazelle 1)	

- \* Those caprine bones marked with an \* were identified (in the light of the criteria of Boessneck (1969)) with more or less confidence as representing the remains of sheep. No caprine remains were specifically identified as representing goat.

Table 9.2 Distribution of Hassuna animal bones by weight (grams)

Context	Identified				Unidentified	
	cattle	caprine	pig	gazelle	cattle size	caprine/pig/gazelle size
CBA		8			121	15
CBB		20				5
CBG						3
CBH	217	6	142			34
CBI		56	16			22
CCB		69				47
CCC						1
CCE				10		8
CCF		25			25	15
CCI	150					
Total	367	184	161	10	146	150
Identified 722g Unidentified 296g Total 1018g						

Table 9.3 Bones of the Halaf period

Context	Taxon	Element and comments
ADF	cattle	Calcaneum, unfused.
		Calcaneum, dist frag. (II51.5)
	caprine	Metatarsal, abraded. (Bp>52.5 Dp>49.4)
		Phalanx 1, dist frag.
pig	3 x upper molars.	
	Atlas vertebra.	
	Mandible frag.	
ADJ	caprine	Mandible frag. with M1 (b/c).
		Scapula, unfused dist.
	pig	Mandible frag.
		2 x lower molars.
BBM	caprine	Tibia, fused, dist. (Bd25.7)
		Tibia, unfused, dist.
	pig	Phalanx 2, fused. (GLpe20.6 Bp15.7 Dp14.8 SD12.2)
BBP	caprine	Maxilla frag with M2-3.
		Lower M3. (L23.6 B7.9)
BBT	caprine	Mandible with P2.
		Upper molar.
	pig	Tibia, fused dist. (Bd26.8).
BBU	caprine	Temporal frag.
		Radius, immature shaft.
		Upper molar.
BBV	cattle	Mandible frag with P3-4, M1-1-2. encrusted.
		Lower molar.
	caprine	Phalanx 3. (DLS57.0* MBS22.8*)
BCZ	cattle	Astragalus, burnt.
		Metacarpal, unfused dist. end of shaft.
	bird	Metatarsal, prox frag.
		2 x tiny long bone shaft frags.
Total 31 identified frags (cattle 7, caprine 18, pig 6)		

Table 9.4 Distribution of Halaf animal bones by weight (grams).

Context	Identified				Unidentified	
	cattle	caprine	pig	bird	cattle size	caprine/pig/gazelle size
ADF	190	39	7		51	35
ADI					13	
ADJ		24	3			17
BBM		40				7
BBP		25				
BBT		25	30			50
BBU		30				8
BBV	20	2				3
BCZ	81			1		
Total	291	185	40	1	64	120

Identified 517g Unidentified 184g Total 701g

Table 9.5 Measurements of cattle bones

1	2	3	4	5	6
Has	Metacarpal	Bp	CCI	70.7	66-88
Has/Hal/Ach	Naviculocuboid	GB	BCY	48.9	60-73
Hal/Ach	Humerus	Bd	BCO	86.0	90-118
	Radius	Bp	BCB	85.4	91-120
	Metacarpal	Bp	BBC	(68.0)	66-88
	Tibia	Bd	BBC	77.4	68-90
	Phalanx 1	Glpe	BBC	62.5	61-80*
			BBC	67.2	
			BCO	59.5	
			BCT	66.1	
	Phalanx	GL	BCC	41.0	42-52
			BDE	37.5	

## Key to Table 9.5

1 Period Has = Hassuna, Hal = Halaf, Ach = Achaemenid

2 Element

3 Dimension

4 Context

5 Measurement. The figure in parentheses is an estimate.

6 Size range of wild cattle given by Stampfli 1983, table 28.

\* The size range for phalanx 1 is based on maximum length measurements, whilst the dimension recorded on the Kharabeh Shattani material was the greatest length of the peripheral half. These two dimensions are not directly comparable, GLpe having a somewhat lesser value on any given specimen than greatest length.

Table 9.6 Measurements of equid bones\*

Context	Element	Dimensions and measurements
ACH	phalanx 1	GL64.0 Bp37.6 BFp34.9 Dp26.8 SD22.7 Bd31.2 BFd30.5
ACN	innominate	SH30.0 SB13.9 LA52.1 LAR 45.3
	phalanx 2	GL34.5 Bp34.6 BFp31.9 Dp22.3 Sd28.9 Bd29.9
BBC	phalanx 2	BFp31.2
BCD	tibia	Bd48.7 Dd30.8
BCH	scapula	SLC51.3

\*NB all of these equid bones come from potentially mixed Hala/Achaemenid samples.



Table 9.7 Bones not attributable to period: distribution by weight (grams) and number of identifiable fragments (in parentheses).

Context	IDENTIFIED					UNIDENTIFIED	
	Cattle	Equid	Caprine	Pig	Human	Large	Small
AAD			13(1)				
AAF	24(2)	25(2)	8(1)	26(11)		8	
AAG			14(2)				5
AAH			7(1)	11(1)			25
AAJ			15(2)	6(1)			2
ABC	23(1)		14(1)			18	24
ABN			10(2)	10(1)		47	22
ABR							14
ACF	4(2)	4(1)		32(5)			85
ACH		45(1)					
ACJ	80(3)		4(1)	106(8)			50
ACK		60(1)	7(1)	8(2)		26	9
ACN		86(3)	23(3)	325(18)			
ACP			8(1)				12
ADB		26(1)	24(1)				21
ADC	109(2)	43(1)	25(2)	7(1)		239	58
ADD							15
BBB	199(2)		184(10)	11(1)		410	77
BBC	872(15)	2(1)	577(39)	345(19)	17(1)	698	355
BBD	60(1)		28(3)	12(1)		9	12
BBF	55(2)		175(9)	32(1)		12	77
BBG			47(1)			13	3
BBH	12(1)		15(1)				17
BBJ			35(3)	60(3)	230(2)	29	14
BBQ	72(2)		121(8)	73(3)		51	64
BBS			27(2)				2
BBX			16(2)				11
BCA	142(3)	24(1)	8(1)	15(2)		68	7
BCB	1125(14)	43(1)	102(9)	134(9)	40(3)	240	165
BCC	1046(17)	13(1)	496(37)	410(14)	5(1)	917	262
BCD	28(1)	75(2)	45(4)	238(7)		290	43
BCG			20(3)				12
BCH		91(1)	30(3)			4	28
BCJ	34(1)		60(9)	115(4)		128	98
BCM			25(1)	15(1)			15
BCO	206(5)		74(9)	294(9)		439	107
BCP							3
BCQ				1(1)		12	3
BCS						42	2
BCT	41(1)		8(1)				11
BCX			7(1)	11(1)		49	2
BCY			18(2)				12
BDE	15(1)		15(2)				20
BCY	27(1)						
Totals							
Weight	4174	512	2322	2279	318	3741	1772
Fragments	(77)	(15)	(180)	(114)	(18)		

Identified 5614g Unidentified 5513g Total 11127g

Table 9.8 Metrical data for the Achaemenid dog skeleton

Cranium.		
(17)	Length of premolar row	52.6
(18)	Length of carnaissal (P4)	21.2
(18a)	Breadth of carnaissal	11.6
(19)	Length of carnaissal alveolus	20.0
(20)	Length of first molar	15.2
	Breadth of first molar	17.7
Mandible		
(11)	Length of premolar row, P1-4	40.6
(12)	Length of premolar row, P2-4	35.3
(13)	Length of first molar	23.5
	Breadth of first molar	10.1
(20)	Height of mandible between P2 and P3	24.4
Post-cranial		
Axis	LCDe>59.0 LAPa62.3 BFcr32.3 BFcd19.3 H39.2	
Sacrum	BFcr29.6 HFcr12.7	
Humerus	GL186.0 Bp29.8 Dp42.8 SD13.5 Bd34.1 BT25.4 H22.9 h14.3	
Radius	GL175.0 Bp19.1 SD15.0 Bd25.3	
Ulna	GL205.0 SDO 22.5 DPA 28.6 BPC18.9	
Pelvis	SB10.5 SH20.1 LAR23.7	
Femur	GL207.0 Bp40.2 DC20.6 SD14.2 Bd36.6	
Tibia	GL211.0 Bp36.3 SD14.3 Bd25.0	
Astragalus	GL29.5	
Calcaneum	GL50.2 GB20.7	

## NOTES

1. Bone measurements, given in parentheses, have been taken according to the specifications of von den Driesch (1976) with the following exceptions:  
H = medial height of the trochlea of the distal humerus (Ducos 1968, 175)  
zh = minimum height of trochlea of distal humerus at the central constriction (Ducos 1968, 175).  
II = maximum distance between the most dorsal point on the articular facet for the os malleolare and the olantar edge of the cuboid articular facet of the calcaneum (Ducos 1968, 176 & fig 27).  
The abbreviations prox. and dist. refer to the proximal and distal ends of bones. Measurements marked by an asterisk are estimates. All measurements are in millimetres.
2. The wear stages indicated (in parentheses) for caprine mandibular teeth are those of Payne (1973), beginning at "a" (enamel wear only). E = tooth erupting through bone. For pig mandibular teeth the stages of Grant (1975) have been employed.

# The Human Remains

*Dianna Bolt*

---

## § 10.1: CATALOGUE

**BAT: BBY** (Figs 11 and 12)

Female in her mid-40's.

Period: Halaf, Achaemenid or intermediate (§ 2.5).

The surviving bone was robust or large in proportions, indicative of an active life of manual labour. At the same time a moderate amount of osteoporosis, probably senile osteoporosis, affected both the bones of the axial skeleton and those of the appendicular skeleton. Both right and left parietals also showed thinning, most likely due to osteoporosis. Unfortunately, very little of the joint surfaces survived, so that no information was available about arthritis. Only the maxillary teeth survives and these were all extremely worn, ranging from 5 to 5++ on Brothwell's scale (Brothwell 1981). There was no sign of ante mortem tooth loss. Very little was observed of calculus deposits (Dobney and Brothwell 1987), which were confined almost exclusively to LM3 (RM3 was missing post mortem) and ringed the crown. There was one alveolar abscess or infection of the bone surrounding the teeth above LP3.

Few measurements could be made, but the cranium could be reconstructed enough to determine the maximum length (192 mm) and breadth (130 mm), yielding a cranial index of 67.7, that is in the dolichocephaly range. The right tibia was measured and yielded a platycnemic index of 46, which is well within the hyperplatycnemic index. This means that the tibia was very narrow, a genetically inherited trait.

The sex of the skeleton was determined as female from the skull morphology and measurements of the long bones; the pelvic bones, alas, were ab-

sent. The age at death in the mid-40's was determined from the skull sutures (Meindt and Lovejoy: 1985), and by dental wear.

**BAL: BCZ** (Figs 6, 9 and 12)

Male about 40 years of age.

Period: Halaf (§ 2.3)

The skeleton was robust, but slight osteoporosis was affecting at least the lumbar vertebrae. Unfortunately not enough of the thoracic vertebrae survived to tell if they were also affected. There was fairly good recovery of teeth, which were in general quite worn (on Brothwell's (1981) scale ranging from 3+ to 5). There were slight (Grade 1) calculus deposits on the teeth, the lower incisors displaying rather more (Grade 2). A slight degree of periodontitis also affected both maxillae and mandible. Unfortunately, no cranial measurements were possible, but the left tibia was measured and found to have a platycnemic index of 59.5, which is well within the hyperplatycnemic range.

The age was determined by the closure of skull sutures (following Meindl and Lovejoy 1985) and by dental wear. The gender was determined from skull morphology and long bone measurements.

## § 10.2: GENERAL DISCUSSION

It is of course risky, not to say impossible, to generalise about the population on the basis of two rather imperfectly preserved skeletons. For these two individuals we can at least draw a few tentative conclusions. Their diet was probably a very gritty one, but low in carbohydrates and probably high in protein, most likely from meat sources. Both

skeletons were of robust stock, but both suffered from some degree of osteoporosis, perhaps indicating a lack of calcium or vitamin C, or both, in the diet. Both shared a somewhat unusual trait of very narrow, almost blade-like, tibiae (platycnemia) which should be useful in comparing them to other populations of this area when such information becomes available.

It should, however, be noted that these two individuals may belong to 2 quite separate periods of occupation, although the similarities between them outlined by the above contribution may be suggestive. [Editor]

## Kharabeh Village

*St. John Simpson & Trevor Watkins*

---

### § 11.1: INTRODUCTION

The site, surmounted by a recent mud-brick village (which makes its appearance on the cover-photograph of *Volume 1*), was visited in March 1982, and a small number of sherds (including Fig. 62.18) was collected. In 1983 a small sounding was excavated at the north end of the village as part of the University of Edinburgh investigations carried out at the nearby site of Kharabeh Shattani under the auspices of the British Archaeological Expedition to Iraq (B.A.E.I.). This report now supersedes the brief notes published elsewhere on this excavation (Killick & Black 1985, 234; Nashef 1987; Watkins 1987, 221; Watkins (ed) 1987, 151; *Volume 1*, 11). The village was situated a few hundred metres east of the main excavated site of Kharabeh Shattani, on the opposite side of a dry wadi.

The excavations were supervised by Carl Phillips and recorded by Trevor Watkins, who wrote the following section. The pottery from the sounding has been examined by St. John Simpson, who has contributed all but these opening paragraphs on the excavation.

### § 11.2: THE EXCAVATIONS

Remains of earlier settlement stretched throughout the contemporary village, but the only spot where excavations could be mounted was at the northern end of the village, where the deposits extended a little beyond the area of the modern settlement. The excavation consisted of a single sounding, 2m x 2m in area. Its objective was simply to sample the

deposits with a view to obtaining very basic knowledge of the date of earlier settlements on the site.

The excavation and recording methods were those employed on the main excavation. Five contexts were identified, which were labelled VAA to VAE. The artificial deposits within the area of the excavated sounding were found to be approximately 2m in depth. Ceramics were the only artifacts recovered, and these were hand-picked as seen in the soil.

The uppermost 0.15m (VAA) was a compact, trampled, weathered grey soil. There was no sign of contemporary artefacts within it, and it was concluded that the stratum represented the weathered surface of earlier settlement. Below VAA the deposit was a less compact, darker grey soil with more sherds in evidence. This stratum (VAB) was about 0.33m deep, and became gradually browner with depth; in the lower part of the stratum the material was clearly less weathered and homogenized, for a few lumps of decaying brick could be detected.

The third stratum (VAC) was a soft brown soil, the red-brown colour of local mud-brick; the deposit was approximately 0.5m deep. The lowest stratum (VAD) consisted of orange-brown bricky material. A pit (VAE) was identified in one corner of the square, perhaps a quarter of its circular area falling within the trench. The fill of the pit was a distinctly greyish brown, amorphous soil. The pit certainly cut through the two lower strata, VAD and VAC, but it is difficult to see from which level it was cut because of the homogenization of the upper deposits; one must conclude that the pit was later than stratum VAC, but there is no evidence to show that it was later than VAB. No diagnostic pottery was found in the fill of the pit.

As the following analysis of the ceramics shows, the site was occupied twice, first in the late Sasanian period, and again in the late Islamic period. Together with the short-lived recent occupation, which was ended by the building of the Saddam Dam, Kharabeh village offers a history of settlement neatly symmetrical with that of the neighbouring site which we have called Kharabeh Shattani. Each was occupied at three different periods at widely separated intervals.

### § 11.3: THE CERAMICS

The relevant numbers of pottery diagnostics, with their Figure numbers, are given below according to each excavated context. Individual recorded sherds were numbered within the context; thus VAB 1 to VAB 14 are the fourteen diagnostics from context VAB.

Context	Diagnostics	Illustration
VAA	3	Fig. 62.1, 13
VAB	14	Fig. 62.2-4, 8-9, 14-17
VAC	6	Fig. 62.6-7, 11-12
VAD	2	Fig. 62.5, 10

#### *Processing methodology*

The total quantity of ceramics recovered from these limited excavations was very small and in fragmentary condition. All rims, bases and decorated body sherds were considered to be potential diagnostics and recorded. A total of 25 potentially diagnostic sherds were drawn and/or catalogued (hereafter described in this report as diagnostics): seventeen are illustrated here, along with one sherd collected from the surface of the site (Fig. 62.1-17, 18 respectively). The illustrations were redrawn by Gordon Thomas from pencil originals completed in Iraq, with the exception of Fig. 62.17-18, which were drawn by the writer (St.J.S.).

The diagnostics were re-examined by the writer during a B.A.E.I. study season at Tel 'Afar in 1987<sup>1</sup>. During this time, the catalogue descriptions were partially revised following close macroscopic examination of the ceramic fabrics as exposed in fresh deliberate breaks caused with pliers. These sherds were then re-grouped according to a more

meaningful and rigorously described – yet flexible – set of fabric definitions. It was felt these should facilitate comparison with other ceramic assemblages and would reflect more accurately the distinctive chronological differences noted by the writer and others between ceramic fabrics of different periods in this Project<sup>2</sup>.

All of the diagnostic ceramic sherds from Kharabeh Village were grouped according to the following five categories:

- A. Fine plain ware.
- B. Medium plain ware.
- C. Coarse plain ware.
- D. Cooking ware (not represented at Kharabeh Village).
- E. Glazed ware.

These categories were each sub-divided in turn, according to the relative proportion of grit (sand) or vegetable (organic) inclusions. These sub-groups were assigned individual fabric type numbers, where appropriate. Thus each of the above five categories (or main fabric groups) was sub-divided into five fabric types, in turn defined as:

- Type 1.* Grit, the temper consisting wholly of grit inclusions, probably added in the form of fine sand.
- Type 2.* Vegetable, the temper consisting wholly of burnt-out vegetable (or other undefined organic) remains.
- Type 3.* Grit and Veg., the temper being mixed Grit and Vegetable, but predominantly Grit.
- Type 4.* Veg. and Grit, being similar to Type 3 but with a predominantly Veg. temper.
- Type 5.* Grit/Veg., there being approximately equal proportions of each type of temper.

However, possibly due to the very small size of the Kharabeh Village ceramic sample, not all of these types were represented in each of the main fabric group categories. Where appropriate, each of the fabric types that was represented was in turn

<sup>1</sup> The writer is grateful to the British School of Archaeology in Iraq for travel grants in 1985-86 and 1986-87 for the purpose of studying Sasanian and Islamic pottery from recent excavations in Iraq.

<sup>2</sup> Ceramic reports dealing with larger groups of Late Sasanian and Islamic pottery from B.A.E.I. work at Babneet Village and Qara Dere (directed by Dr Michael Roaf) and British Museum excavations at Khirbet Deir Situn (directed by Dr John Curtis) are currently in preparation. These are based on a ceramic processing methodology where equal importance is attached to form or surface treatment, diagnostic and plain body sherds alike.

sub-divided according to closer definitions of the temper and ware (and numbered consecutively .1 onwards within each fabric type). Italicized portions of these more detailed fabric sub-type definitions indicate characteristic features. The total overall classification, as far as it applies to the Kharabeh Village ceramics, is outlined and then described in greater detail below:

A. Fine plain ware

Type 3. G & V: .1, .2

B. Medium coarse plain ware

Type 3. G & V: .1, .2, .3, .4, .5

Type 4. V & G: .1

C. Coarse plain ware

Type 1. G: .1

Type 2. V: .1

Type 4. V & G: .1

D. Cooking ware

Not represented.

E. Glazed ware

Type 4. V & G: .1

Thus, at a glance, the Kharabeh Village ceramic diagnostics can be seen to be dominated by plain wares, particularly by a range of G & V tempered medium and coarse plain wares. It is now necessary to examine a more detailed breakdown of this classification to see a quantified assessment of numbers of diagnostic sherds within each of the above fabric groups, types and sub-types.

## § 11.4: THE CERAMIC FABRIC GROUPS

A. *Fine plain ware*

Type 3. G & V

- .1 Numerous fine calcareous grits and occasional fine veg. temper. Light brownish buff ware. Paler surfaces. Hard fired. 1 sherd: VAB 9 (Fig. 62.16).
- .2 Numerous fine dark grits, rare medium – fine calcareous grits, and occasional fine veg. Light reddish brown ware. Partial light brownish buff core. Light brownish buff surfaces. Hard fired. 1 sherd: VAB 5 (Fig. 62.2).

B. *Medium coarse plain ware*

Type 3. G & V

- .1 Numerous fine – medium dark (including occasional red), rare fine calcareous, grits and some fine veg. Light greenish buff ware. Paler surfaces. Hard fired. 1 sherd: VAC 4 (Fig. 62.3).
- .2 Numerous fine – medium dark, and rare fine calcareous, grits. Some fine veg. Light greenish buff ware. Paler surfaces. (Similar to, but coarser than, Medium Coarse Plain ware Type 3.1). Hard fired. 2 sherds: VAB 6, VAC 6 (Figs X: 4, 12).
- .3 Numerous fine – medium calcareous and some fine dark grits. Some fine veg. Light brownish buff ware. Paler surfaces. 1 sherd: VAD 1 (Fig. 62.5).
- .4 Numerous mixed fine – medium dark & calcareous grits and some fine veg. Colour of ware varies:- Grey-brown with paler, light brownish buff, surfaces. Hard fired. 2 sherds: VAC 1 (not illustrated), VAD 2 (Fig. 62.10).- Light reddish brown with paler buff surfaces. Hard fired. 2 sherds: VAB 7 (Fig. 62.17), VAC 3 (Fig. 62.6).
- .5 Numerous mixed medium – fine calcareous & dark grits and some fine veg. Light brownish buff ware. Paler slip. (Similar to Medium Coarse Plain ware Type 3.4). Hard fired. 2 sherds: VAB 11 (not illustrated), VAB 14 (Fig. 62.9).

Type 4. V & G

- .1 Numerous fine – medium veg. & some fine dark grits. Colour of ware varies:- Light reddish brown with paler surfaces. Hard fired. 1 sherd: VAA 2 (not illustrated).- Light grey-brown buff with paler, light greenish buff, surfaces. Hard fired. 1 sherd: VAB 10 (Fig. 62.14).- Slightly yellowish, light greenish buff with paler surfaces. Hard fired. 1 sherd: VAB 8 (Fig. 62.15).- Olive greenish buff with paler surfaces. Hard fired. 1 sherd: VAA 3 (Fig. 62.13).

C. *Coarse plain ware*

Type 1. G

- .1 Numerous medium, and occasionally large, to fine mixed grits. Colour of ware varies:- Light brownish buff with (partial) light grey core and light reddish brown surfaces. 1 sherd: VAB 12 (not illustrated).- Dark reddish brown with thick dark grey/black core in outer three-quarters of vessel-wall; reddish-brown mottled (oxidised) patches on exterior. Brittle feel (but distinct from Roman and Sasanian – Abbasid

brittle ware cooking pots). 1 sherd: VAB 4 (not illustrated).

#### Type 2. V

- .1 Numerous coarse – fine veg. Colour of ware varies:- Light reddish brown with buff surfaces. Moderately hard fired. 1 sherd: VAA 1 (Fig. 62.1).- Light reddish brown with dark brown surfaces. 1 sherd: VAC 5 (Fig. 62.11).- Greenish buff with paler surfaces. 1 sherd: VAB 2 (not illustrated).

#### Type 4. V & G

- .1 Abundant coarse veg. Occasional medium calcareous grits. Light reddish brown surfaces. 1 sherd: VAB 3 (Fig. 62.8).
- .2 Numerous medium veg. Rare large grits. Dark brown ware with darker surfaces. 1 sherd: VAC 2 (not illustrated).

#### E. Glazed ware

#### Type 4. V & G

- .1 Dense fine – medium veg. and some fine dark grits. Slightly yellowish light greenish buff ware with paler surfaces. Thin grass green glaze, slightly bumpy in texture, on the interior. 1 sherd: VAB 13 (not illustrated).

### § 11.4: SUMMARY OF RESULTS

Two distinct periods of occupation are indicated at Kharabeh Village by the different ceramic fabric types, diagnostic vessel forms and surface treatment: namely, Late Sasanian (fifth – seventh centuries AD) and Late Islamic (post-Ilkhanid – Ottoman/post-Ottoman). These are discussed separately below, along with brief reviews of recent archaeological research on these periods. Two other sherds could not be securely identified chronologically.

#### Late Sasanian Ceramics

The study of Sasanian ceramics is an under-developed subject in a field dominated by the history, architecture, sculpture and fine arts of this period. However, as growing attention is now being paid to more everyday aspects of Sasanian material culture, there is gradually increasing recognition of the value of Sasanian ceramic studies. The best stratified, dated and published groups of

Sasanian ceramics are from sites in lowland Mesopotamia, namely Tell Baruda – Coche (Venco Ricciardi 1967; 1984; 1985), Kish (Harden 1934; Moorey 1978, 122-46 and *fiche*) and Tell Mahuz (Venco Ricciardi 1971), plus less closely dated material from Tell Abu Sarifa (Adams 1970), Küyünjik – Nineveh (eg. Mallowan 1933, 177, Pl. LXXVII), and archaeological surface surveys in central and southern Iraq (Adams 1965, 131-2, Fig. 14:12; 1981, 231-4; Adams & Nissen 1972, 104; Gibson 1972, 160-1, 166-7, Fig. 36; Finster & Schmidt 1976; *cf.* also Wenke 1976).

Recent international archaeological participation in dam salvage projects in Iraq has resulted in the investigation of a number of Sasanian sites in the Hamrin basin (eg. Kamada & Ohtsu 1988; al-Kasar 1979; Kawamata 1981; 1990; 1991; Valtz 1985, 69-70), the Qadisyya Dam Project on the middle Euphrates (Killick 1988; Northedge 1988), and the Saddam Dam Salvage Project on the upper Tigris (see below). Late Sasanian material is now also being reported from sites in northeast Syria, such as Tell 'Ajaja, Tell Barri and Tell Mohammed Diyab, plus the North Jazira Irrigation Project in northern Iraq and the Cizre-Silopi plain of south-east Turkey (Bernbeck & Pfalzner 1988, 161-4; Lyonnet 1990, 77, 113, Figs 29-30, Pl. VIII A; Pecorella 1987, 109-10, Figs 54-5; Ball, Tucker & Wilkinson 1989, 18, 37-9, Fig. 26:40-56; *Algate et al.* 1991, 199; *cf.* also Meijer 1986, 45, 59, Fig. 8 b).

#### *The evidence from Kharabeh Village (Fig. 62.3-7, 9, 10, 12, 17, 18)*

The Sasanian ceramics from Kharabeh Village are of interest, despite the very limited sample size, when compared with other material of this date from northern Iraq. Firstly, they all seem to consist of wheel-thrown medium coarse plain wares tempered with mixed grit (sand) and vegetable matter (but predominantly the former), and were mainly hard fired in an oxidising atmosphere. As such they are visually distinct from late Parthian and Early Islamic ceramic fabrics represented at other sites within this salvage project. This accords with the much larger Late Sasanian ceramic corpora excavated at the nearby sites of Khirbet Deir Situn and Qara Dere (Fig. 1c, see footnote 2), as well as evidence from elsewhere in Iraq and northeast Iran (eg. *cf.* Falkner 1988, 6; Northedge 1988, 77-82; Trinkaus 1986).

All of the Sasanian sherds originally belonged to closed (jar) forms: these also predominate in Late



Sasanian ceramic assemblages elsewhere, but it is likely that this is purely coincidental given the recognition of contemporary bowl forms from, for example, Khirbet Deir Situn and Qara Dere. In terms of precise morphological parallels, VAB 1 (Fig. 62.3) is paralleled in the 1986 Samarra' survey Sasanian pottery corpus (Falkner 1988, Fig. 18 – No. 182; *cf.* also Ball, Tucker & Wilkinson 1989, Fig. 26-No. 43, Type 10). The occurrence of horizontal incised lines, executed while rotating the pot on the wheel-head, on the upper shoulders of two or more jars is again similar to Late Sasanian pottery from Khirbet Deir Situn.

The most distinctive of the Sasanian ceramics from Kharabeh Village are the two sherds, originally belonging to medium sized jars, that were impressed on the exterior with circular die stamps of a type now recognised as being Late Sasanian in date and characteristic of sites in northern and central Mesopotamia (VAB 7: Fig. 62.17, Surface: Fig. 62.18). These impressions were executed using different dies which are, however, similar to one another in that they both represented a stag facing left (when impressed). The terminology used here for describing stamped pottery follows that given by Lady Briscoe (1983). Similar stamped pottery has been excavated at a number of sites within the Saddam Dam Salvage Project, including Khirbet 'Aqar Babira (Sürenhagen 1987 a, b), Babneet, Tell Fisna (Numoto 1988, Fig. 34: 398-9), Tell Jambur (Toma 1987), Tell Jigan (Ii & Kawamata 1985, Fig. 11: 180-3, Pl. 34: 207-8), Khirbet Deir Situn (Curtis 1989) and Qara Dere (Roaf 1983). More important is the discovery that VAB 7 (Fig. 62.17) was impressed with exactly the same tool as fragmentary ceramic vessels found at three other sites in this Project, namely Babneet, Khirbet Deir Situn and Qara Dere (Roaf 1983, 79, 81, Fig. 9:1). This observation was confirmed by direct comparison of the actual sherds. In addition, other die links have been found on Late Sasanian pottery linking these three sites with Tell Jigan (Ii & Kawamata, 1985) and possibly Khirbet 'Aqar Babira and Tell Jambur (Sürenhagen 1987, a, b; Toma 1987).

Judging by the impressions (where it is sometimes possible to see the grain of the actual die), it seems likely that the dies themselves were carved from wood: given the probable short life of individual dies (as they would have been susceptible to wear), this group of Late Sasanian sites can therefore be regarded as being wholly or virtually contemporary. It is as yet unclear whether these ceramics were manufactured in and distributed

from a single centre (perhaps within the Project area), or whether they were made and sold by a travelling potter (or potters). The same applies, of course, to other ceramics represented at these sites: it is hoped that future technical analyses will throw more light on this problem.

However, this is the first occasion known to the writer where contemporaneity between archaeological sites has been plausibly demonstrated from Mesopotamia on the basis of ceramics alone. This technique of matching Late Sasanian dies, briefly alluded to elsewhere (Watkins 1987 (ed), 151), has been successfully used in studying Anglo-Saxon ceramics from England (Briscoe 1983; *cf.* also Riddler 1986), and has been suggested as a means of defining classical Greek pottery workshops (Gill 1990) but has not been previously employed within a Mesopotamian context. Attention has focused elsewhere in the Near East on the possible role of stamped vessels within archaeological ceramic assemblages and the relationship between their iconography and that of contemporary glyptic (Helms 1987 a, b; Ibrahim 1978, 117-21; Mazzoni 1984) but this new approach offers enormous potential in the seriation of the associated ceramic assemblages and can be extended to other periods when types of stamped pottery were being produced (*cf.* Simpson 1988, 31-2).

### Late Islamic Ceramics

There have been virtually no studies published as yet of archaeologically provenanced Islamic pottery from northern Iraq, although brief comments were made by Gerald Reitlinger (1938, 156) following his participation with Seton Lloyd in their 1938 Liverpool University Nielson Expedition three-week survey of sites in the 'Afar – Sinjar plain and north Jazira (*cf.* also Reitlinger 1951). However, recent archaeological investigations carried out in northern Iraq and northeast Syria have included more conscious efforts to record sites and material culture of this period. As part of this increasing archaeological interest in the Islamic period, there is also gradually growing recognition of Late Islamic ceramic assemblages from Iraq and elsewhere. Hitherto, local regional studies have been reliant on archaeological surface survey evidence from southern Iraq (Adams 1965, 134; 1981, 240-1; Adams & Nissen 1972, 67; Gibson 1972, 161, 170-1, Fig. 37), accidental finds resulting from the excavation of earlier remains at the

same sites (Gibson 1981, 81-2, 100, 102-4, Pl. 55; Martin 1988, Fig. 43:4-8; Moorey 1978, Fiche 1.B01; Northedge 1988, 110-4, Pls XV.a, XVI.a) and ethnographic observations (eg. Matson 1974; 1983, 623, Figs 223-6).

More recent work in northern Iraq, northeast Syria and eastern Turkey demonstrates that Late Islamic sites in this region are characterised in ceramic terms by the presence of dark green monochrome glazed wares, often with minor firing defects, wheel-thrown medium plain wares with predominantly vegetable tempered fabrics and decorated with rouletting, combing, or (more rarely) in moulded relief, and coarse vegetable tempered handmade wares usually decorated with incision (eg. Algaze 1989, 246). A minor, perhaps chronologically short-lived, category of the last group involves the use of inset glazed spots or 'eyes' (Curtis 1989, 8-9). The occasional presence of clay tobacco pipe bowl and glass bracelet fragments at these sites again betray their late date. Further study is needed, however, before sites can be more closely dated within this period and greater attention should be paid to the differing proportions of ceramic fabrics and types and the precise types of clay pipe bowl (Simpson 1990a).<sup>3</sup> The Late Islamic pottery from Kharabeh Village is discussed below.

#### *The evidence from Kharabeh Village*

A total of twelve demonstrably Late Islamic diagnostic sherds were recovered at Kharabeh Village.

#### *Medium coarse plain wares (Fig. 62.13 - 15)*

Four diagnostic sherds of Late Islamic medium coarse plain ware vessels were excavated (VAA 2-3, VAB 8, 10: Medium Coarse Plain ware Type 4.1). The fabric of these was essentially similar to Late Islamic medium coarse plain wares recovered from other sites in this Project; similar fabrics are also found on more recent ceramics produced in Iraq. One of the Kharabeh Village sherds consisted of a ring base (VAA 2: not illustrated) and two belonged to vessels decorated on the exterior with combined horizontal and wavy comb incision (VAA 3: Fig. 62.13, VAB 8: Fig. 62.15).

The fourth sherd (VAB 10: Fig. 62.14) was the most distinctive, being decorated on the exterior with parallel horizontal rows of pattern-wheel rouletting. The terminology concerning different types of rouletting is that used by Healey (1976, 2-3).

The width of the roulette impressions indicates the use of a 7mm high wheel, presumably mounted on a stick (cf. Anderson 1984, 187-8, Pl. 24). The material used for the roulette itself is uncertain but given the slightly blurred impressions (which contrast with those created by metal cog-wheel notch rouletting found on *hubbs* (water jars) recently made in Iraq) it may have been made of wood, which would be susceptible to use-wear (cf. Levy 1985). Incidentally, it should be possible to calculate the diameter of the roulette wheels used to decorate these ceramics if care is taken in future to examine the impressions for evidence of damaged or irregular teeth (cf. Bellamy & Le Patourel 1970, 116-7, footnote 33).

Pattern-wheel and notch rouletting, usually executed in parallel horizontal rows as the vessel was turned on the wheel, is a typical decorative feature of Late Islamic wheel-thrown medium coarse plain wares in northern Mesopotamia. Its precise chronological parameters are unknown, but it may be restricted to Ottoman and later sites. Fragments of pattern-wheel roulette decorated small or medium sized jars very similar to that evidently represented at Kharabeh Village have been found at the Saddam Dam Salvage Project sites of Bardiya 15 (also known as Tell Amran: Ball, Simpson & Tucker forthcoming) and Khirbet Deir Situn (Curtis 1989). Other types of rouletting have been found on Late Islamic pottery at the following sites in this Project: Göz Giran and Khirbet Jem Laklak (Ball, Simpson & Tucker forthcoming), Hatarra 2 (excavated by Dr Paolo Fiorina of the Centro Scavi di Torino, to whom I am extremely grateful for permission to examine this material), Tell Jigan (Li & Kawamata 1985, 214, Pl. 34: 206), Khirbet Deir Situn, and Qara Dere (Fig. 1c) (Roaf 1983, Fig. 9:6), plus 'Ana on the middle Euphrates (Northedge 1988, 112-3, Fig. 51: 8), Tell al-Hawa on the North Jezira (Ball, Tucker & Wilkinson 1989, 38-39, Figs 16: 26-28, 27: Type 81), Nineveh (unpublished, British Museum, WAA. Smith 2228, 2346) and Tekrit (Berlin, Pergamon Museum, Sarre 3783, Sarre & Herzfeld 1920, Vol. IV, Abb. 387).

#### *Coarse plain wares (Fig. 62.1, 8, 11)*

As in the Levant, Late Islamic sites in Mesopotamia characteristically possess a high proportion of coarse handmade wares among the ceramic assemblages. However, in contrast to the so-called 'pseudo-prehistoric' or other styles of handmade painted pottery found in southern Mesopotamia,

<sup>3</sup> Clay pipe bowls were not recovered from Kharabeh Village.

the Levant and Arabia, those from northern Mesopotamia are usually decorated with incision; larger vessels also bear applied relief bands and are occasionally impressed with fingertips. Within the Saddam Dam Salvage Project, relatively large assemblages of this sort of pottery were recovered from Hatara 2, Khirbet Deir Situn and Qara Dere.

Seven diagnostic sherds of coarse plain ware pottery were excavated at Kharabeh Village: all were handmade and can be attributed a Late Islamic date (VAA 1: Fig. 62.1, VAB 2-4: Fig. 62.8, not illustrated, VAB 2, VAC 2: not illustrated, VAC 5: Fig. 62.11). The comb incision on one of these sherds (VAC 5: Fig. 62.11) is more widely paralleled by Late Islamic coarse wares at Hatara 2.

#### *Glazed wares (not illustrated)*

As mentioned above, (rather poisonous looking) dark green monochrome glazed wares are typical of Late Islamic sites in northern Mesopotamia. Light (sky) blue and bright yellow monochrome glazed wares are also frequently found at these sites. The single glazed sherd recovered from Kharabeh Village (VAB 13: not illustrated) falls into another category that is nevertheless of recent or modern date: it was light (grass) green in colour. The fabric of this sherd appeared very similar to that of Medium Coarse plain ware Type 4.1 (especially VAB 8: Fig. 62.15), also of Late Islamic date.

#### *Date uncertain (Fig. 62.2, 16)*

Two sherds could not be certainly ascribed either a Late Sasanian or Late Islamic date: both were fine plain wares that were, nevertheless, rather distinctive in appearance (VAB 5: Fig. 62.2; VAB 9: Fig. 62.16). It is uncertain whether they represent uncommon (hence currently unrecognised) fine wares (perhaps imports) contemporary with one (especially the earlier) of the two periods otherwise represented at Kharabeh Village, or whether they are somehow residual from an earlier (perhaps Hellenistic – Parthian) period at or close to the site.

### § 11.6: CONCLUSION

Two distinct periods are represented in the albeit very limited sample of fragmentary ceramics excavated at Kharabeh Village, viz. Late Sasanian and Late Islamic. The nature of the occupation in these respective periods is, of course, unknown owing to the small size of the excavated sounding. The ab-

sence of any Early or Middle Islamic material suggests a substantial chronological break, of eight hundred years or more, between the two periods represented here.

The fortuitous location of Late Islamic occupation above a Late Sasanian horizon at Kharabeh Village is curiously similar to the situation at the nearby site of Qara Dere (Fig. 1c). Early Islamic sites are known from the vicinity, however, as eighth-tenth century ceramics were excavated at Babneet, 2.5km to the northwest of Kharabeh Village, and at Bir Hami, about 1km to the south, as well as from the surface of one area at Khirbet 'Aqar Babira (Killick & Black 1985, 228; Sam'an 1988; cf. also Curtis *et al.* 1989, 51). Nevertheless, in terms of identified settlements, this period was generally rare in the Saddam Dam Salvage Project and adjoining North Jazira (pers. comm., Mr Tony Wilkinson), a pattern that has also been noted in the Euphrates valley north of Urfā, in the area of Kurban Höyük (Wilkinson *et al.* 1990, 126-9, 132-3). In contrast, there seems to have been a dramatic revival in the density and size of settlements in these areas by the twelfth century, although this particular portion of the Upper Tigris valley seems to have been favoured less than the area closer to the Mosul – Cizre road, where a Middle Islamic *khan* has been excavated at Tell Baqaq 3 (Younis 1987).

In the Ottoman and post-Ottoman periods, there seems to have been a greater dispersal of rural settlement throughout the area covered by the Saddam Dam Salvage Project: Babneet Village certainly existed by the late nineteenth century as Hormuzd Rassam spent a night there in 1880 (Rassam 1897, 390-1). Late Islamic encampments employing stone footings were established nearby at Khirbet Khatuniyeh, Qara Dere and Wadi Khatkhun (Curtis 1986, 14-15; Curtis & Green 1987, 73-4; Killick & Black 1985, 234-6, 238-9; Roaf 1983, 79-81), and mud-brick villages were constructed at Qasrij Cliff and Ronak as well as at Kharabeh itself.<sup>4</sup> Recent inhabitants of Kharabeh Village claimed that they originally lived nearer the Tigris, where they still owned and tended a number of fields (*Volume 1*, 11): the date of and reason for any such move and foundation of Kharabeh Village are unknown. Although it is possible that the Late Islamic sherds excavated at this site derived from the recent village, it is more likely that

<sup>4</sup> Qasrij village was said to have been founded in 1945 by inhabitants from Babneet (Curtis *et al.* 1989, 19).

they were associated with an immediate mud-brick predecessor.

### 3.7 CATALOGUE OF ILLUSTRATED SHERDS (FIG. 62)

- 1 VAA 1. Jar. Wheel-thrown. Rim sherd: int. rim diam. 110mm. Coarse plain ware type 2.1. Prob. Late Islamic (fabric).
- 2 VAB 5. Open bowl (?). Wheel-thrown. Rim sherd: int. rim diam. possibly c. 150mm. Angle approximate only. Fine plain ware type 3.2. Date uncertain.
- 3 VAB 1. Jar. Wheel-thrown. Rim sherd: int. rim diam. 100-120mm. Medium coarse plain ware: type unrecorded. Prob. Late Sasanian (form).
- 4 VAB 6. Jar. Wheel-thrown. Rim sherd: int. rim diam possibly c. 170mm. Medium coarse plain ware type 3.2. Prob. Late Sasanian (fabric).
- 5 VAD 1. Jar. Wheel-thrown. Rim sherd: int. rim diam. c. 160-180mm. Medium coarse plain ware type 3.3. Prob. Late Sasanian (fabric).
- 6 VAC 3. Jar. Wheel-thrown. Rim sherd: int. rim diam. c. 80-110mm. Medium coarse plain ware type 3.4. Prob. Late Sasanian (fabric).
- 7 VAC 4. Jar. Wheel-thrown. Rim sherd: int. rim diam. c. 150-230mm. Medium coarse plain ware type 3.1. Prob. Late Sasanian (fabric).
- 8 VAB 3. Closed vessel. Handmade. Rim sherd: int. rim diam. possibly c. 200mm. Coarse plain ware type 4.1. Smoothed surfaces. Prob. Late Islamic (fabric and form).
- 9 VAB 14. Jar. Wheel-thrown. Rim sherd: int. rim diam. c. 90mm. Medium coarse plain ware type 3.5. Worn surfaces. Prob. Late Sasanian (form).
- 10 VAD 2. Closed vessel. Wheel-thrown. Body sherd: wall thickness 8mm. Angle uncertain. Medium coarse plain ware type 3.4. Four or more horizontal parallel incised grooves on the exterior. Prob. Late Sasanian (fabric).
- 11 VAC 5. Closed vessel. Wheel-thrown. Body sherd: wall thickness 11.5mm. Angle uncertain. Coarse plain ware type 2.1. Ext. incised with horizontal and wavy or diagonal combing using a tool with five or more teeth. Ext. surface subsequently chipped. Prob. Late Islamic (fabric and surface treatment).
- 12 VAC 5. Closed vessel. Wheel-thrown. Body sherd: wall thickness 8mm. Angle uncertain. Medium coarse plain ware type 3.2. Five or more horizontal parallel shallow incised grooves on the ext, made with a blunt-ended tool. Surfaces rather worn. Prob. Late Sasanian (fabric).
- 13 VAA 3. Closed vessel. Wheel-thrown. Body sherd: wall thickness 12mm. Angle uncertain. Medium coarse plain ware type 4.1. Ext. smoothed and incised with wavy combing using a tool with seven or more teeth. Surfaces rather worn. Prob. Late Islamic (fabric).
- 14 VAB 10. Closed vessel. Wheel-thrown. Body sherd: wall thickness 6mm. Angle uncertain. Medium coarse plain ware type 4.1. Ext. smoothed, and impressed with two horizontal rows of pattern-wheel rouletting. Late Islamic (fabric and surface treatment).
- 15 VAB 8. Closed vessel. Wheel-thrown. Body sherd: wall thickness not recorded. Angle uncertain and possibly other way up. Medium coarse plain ware type 4.1. Ext. smoothed, and incised with horizontal and wavy combing using a tool with seven or more teeth. Break pattern on ext. suggests a broken-off strap handle. Prob. Late Islamic (fabric).
- 16 VAB 9. Closed vessel. Wheel-thrown, with clear rotation marks on the interior. Body sherd: wall thickness 5mm. Angle uncertain. Fine plain ware type 3.1. Ext. burnished all-over, and painted with an evenly applied stripe in reddish-brown paint. Date uncertain.
- 17 VAB 7. Closed vessel. Wheel-thrown. Body sherd: wall thickness 7.5mm. Angle uncertain. Medium coarse plain ware type 3.4. Ext. smoothed, and impressed with a circular die stamp bearing a stag facing left (when impressed) with a fire altar in front and streaming ribbons behind [not visible on this sherd but reconstructed from identical die stamps from other sites]. Late Sasanian (fabric and surface treatment).
- 18 Surface. Closed vessel. Wheel-thrown. Body sherd. wall thickness 7mm. Angle uncertain. Medium coarse plain ware: type unrecorded. Ext. smoothed, and impressed with a circular die stamp bearing a stag facing left (when im-

pressed). Late Sasanian (fabric and surface treatment).

### 3.8 CATALOGUE OF SHERDS NOT ILLUSTRATED

VAA 2 Ring base. Wheel-thrown. Sherd: base diam. uncertain. Medium coarse plain ware type 4.1. Dark grey / black matt paint on ext. Prob. Late Islamic (fabric).

VAB 2 Hole-mouth jar. Handmade. Rim sherd: int. rim diam. possibly c. 180mm. Wall thickness 12mm. Coarse plain ware type 2.1. Smoothed surfaces. Prob. Late Islamic (fabric).

VAB 4 Flat base. Wheel-thrown. Sherd: base diam. c. 160mm. Wall thickness 8mm. Coarse plain ware type 1.1. Ext. smoothed but no int. surface finish. Prob. Late Islamic (fabric).

VAB 11 Closed vessel. Wheel-thrown. Body sherd: wall thickness 10mm. Medium coarse plain ware type 3.5. Pair of probably vertical lugs on

ext. with two horizontal rows of partial vertical (?) incised combing between, and on either side of, the lugs. Ext. smoothed but no int. surface finish. Prob. late Sasanian (fabric).

VAB 12 Rim sherd: diam. and angle uncertain. Wall thickness 8mm. Coarse plain ware type 1.1. Prob. Late Islamic (fabric).

VAB 13 Possibly from near base of closed vessel. Body sherd: wall thickness 12mm. Glazed ware type 4.1. Worn horizontal filling on exterior surface. Late Islamic (glaze).

VAC 1 Jar. Wheel-thrown. Rim sherd: int. rim diam. 100mm. Wall thickness 6mm. Medium coarse plain ware type 3.4. Traces of horizontal shallow incised groove on ext. Prob. Late Sasanian (fabric).

VAC 2 Shallow flat-based platter. Complete profile: basal diam. 70mm. Wall thickness varies from 8-10mm. Coarse plain ware type 4.2. Prob. Late Islamic (fabric).

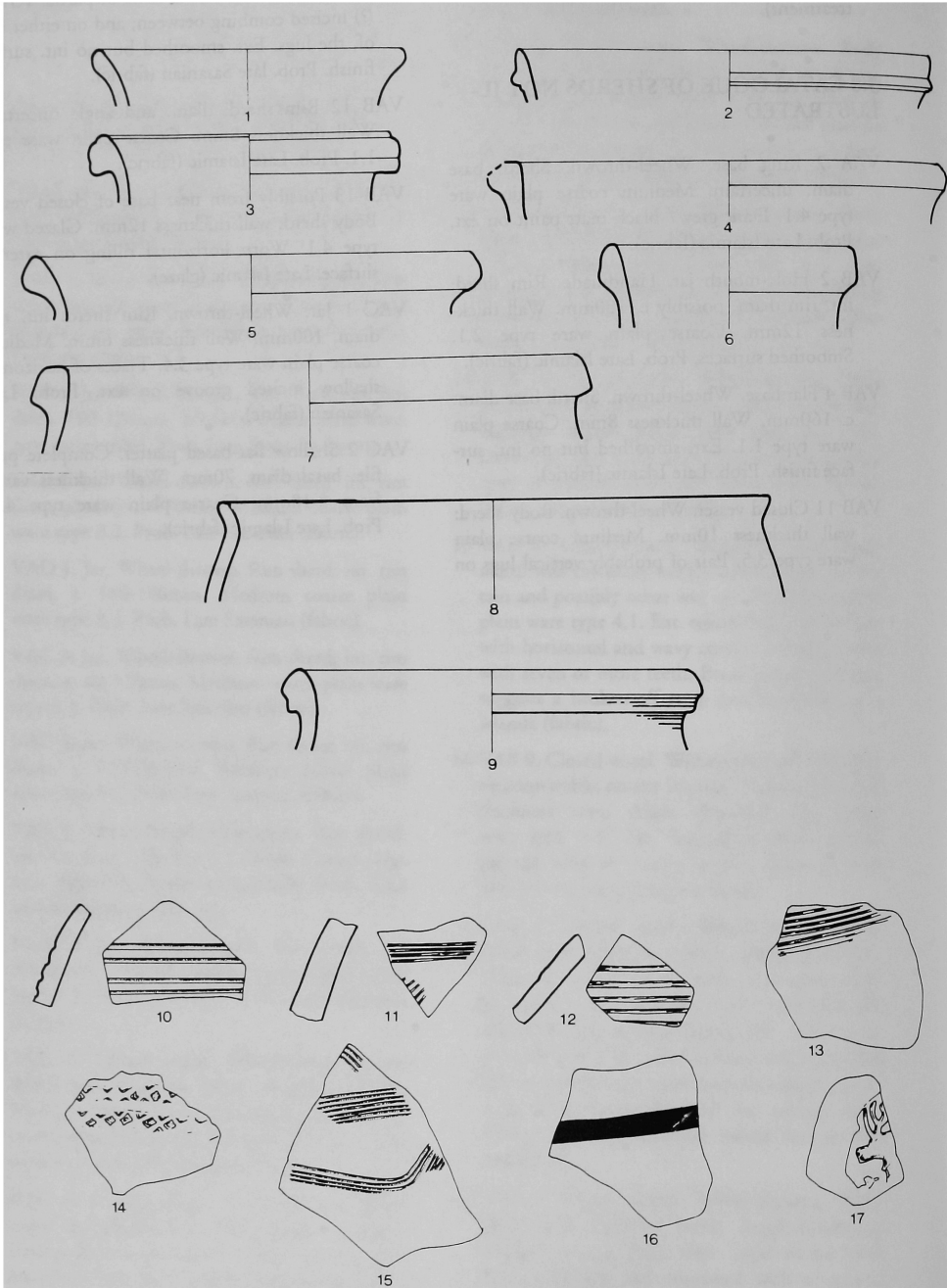


Fig. 62 Kharabeh Village pottery

## Summary and Discussion

*Douglas Baird, Stuart Campbell & Trevor Watkins*

### § 12.1: INTRODUCTION

This section offers readers two things. On the one hand it serves as a summary of the results of the excavations at Kharabeh Shattani and the consequent research, which may be useful to readers who do not wish to read the detailed account. On the other hand we offer some discussion of the significance of those results, seeking to place Kharabeh Shattani into the contemporary context of research.

The site was excavated over two short seasons in the spring of the years 1983 and 1984. An intended third season in the spring of 1985 was overtaken by the completion of the dam and the drowning of the site. Kharabeh Shattani lay three or four kilometres from the left bank of the Tigris, in the rolling flanks of the valley. The main site, which was situated in the 'peninsula' at the confluence of two seasonal wadis, gave no evidence of being a mound, but in fact proved to consist of three, distinct, superimposed occupations. Under the nearby village of Kharabeh Shattani soundings revealed the existence of an earlier settlement (described here as Kharabeh Village), originally of late Sasanian date, reoccupied in the late Islamic period. It was envisaged from the outset that the Halaf culture material, especially the pottery, would be a useful assemblage for further research, and one of us (SC) has been involved with the project from the start for that purpose. Similarly, when the post-Assyrian material was found to be present in some quantity, it was arranged that an Edinburgh student should undertake its classification and description as the basis for an MA thesis. Finally, although the sample was all too small, the Sasanian material from the Kharabeh village sounding has been adopted as research material.

The three phases of occupation on the main site were of Achaemenid period, the late Halaf culture and the proto-Hassuna culture. Of the latest phase

almost no stratified settlement remains survived; most of the material recovered came from superficial, eroded and ploughed soils, below which were found a number of large, circular pits. The late Halaf phase settlement was present everywhere below the first millennium BC remains, represented by a layer less than one metre thick. Both these phases were explored over as large an open area as was feasible within the available time and resources. The earliest phase was, unlike the later phases, quite unexpected. It was discovered in the second season only when a late pit was found to have penetrated what had been thought to be a virgin, natural subsoil, and cut into underlying Hassuna culture deposits. This earliest phase, which would have been the objective of the third season of excavation, was only sounded in two small trenches.

### § 12.2: THE PROTO-HASSUNA PERIOD OCCUPATION

The earliest occupation attested on the site of Kharabeh Shattani belongs to the Proto-Hassuna period (§ 3). At the present time this would be dated to the first half of the sixth millennium BC uncalibrated (Watkins and Campbell 1987). Several clear building phases are represented in two small soundings at Kharabeh. Both *tauf* and stone architecture were present on the site (Fig. 3). Only one building was exposed to the extent of revealing even part of a plan; CAB (§ 2.1) was represented by parts of two cell-like units (Fig. 3.3). Similarities in size between these units and comparable entities at other sites suggested that these either belonged to an elongated block of cells, standing independent of complexes of larger rooms, as at broadly contemporary Umm Dabaghiyah

(Kirkbride 1975, Pl. 1) or slightly later Yarim Tepe I (Merpert and Munchaev 1973a, 96-98), or a group of cells directly attached to what was probably a domestic complex, as at broadly contemporary Tell Sotto (see § 3; Bader 1987, 161) or Yarim Tepe I (Merpert and Munchaev 1973a, 96-98). It has been suggested on account of their size and the lack of doors that such cells were used for storage (§ 2.1; cf. Kirkbride 1975, 4). Elsewhere these structures were constructed of *tauf*, but at Kharabeh stone foundation construction presumably reflects a local adaptation, similar to the buildings of Tell Hassuna itself (Lloyd and Safar 1945). Aside from this detail, Kharabeh demonstrates once again the remarkable consistency of these very similarly sized cell units over considerable geographical distances (Merpert and Munchaev 1973a, 99 and Kirkbride 1975, Pl. 1).

The Proto-Hassuna ceramic assemblage is dominated by vegetable tempered wares, predominantly coarse but with a small proportion of finer fabrics. Bowls are the most common form of vessel, particularly simple conical bowls, but various types of jars and pots are also present along with husking tray fragments. Only one example of applied decoration was found, in contrast to other Proto-Hassuna sites, where it is a characteristic feature. Instead painting is the most common decorative technique, with a small but significant incised component. The high quality of some of the painted sherds and the presence of incised decoration make it possible to suggest that the assemblage dates from near the end of the Proto-Hassuna period, when traits of the subsequent Archaic Hassuna ceramic style were beginning to appear.

The faunal sample is very small, but, significantly, hunting does not appear to be unimportant as a contributor to the meat component of the diet, if the wild status of the cattle is correctly inferred from the morphology (§ 9). Thus cattle and gazelle (and possibly also pig and sheep) were hunted. In addition domesticated sheep were probably herded. It is interesting that equids do not appear in this sample, albeit small, given their importance at broadly contemporary Umm Dabaghiyah (Kirkbride 1975, 9, and see below). It may be that ecological circumstances within the catchment of Kharabeh did not favour equid to the same extent as further S in the N Mesopotamian steppe. Alternatively hunting practice, preference and range may have been different.

The significance of the site during this first phase of its occupation lies in its demonstration of the relatively widespread distribution of early manifestations of specific features of an 'early' Hassuna cultural complex. Other sites with similar ceramics in the same part of the Tigris valley are

Tell Jigan (excavated by the Japanese) and Tell Abu Dhahir (excavated by the British Archaeological Expedition in Iraq).

### § 12.3: THE FIRST INTERLUDE

A thick sterile deposit separating the Proto-Hassuna from the Halaf culture levels indicates a period of abandonment (Fig. 5). By reference to 'absolute' chronology established by Radiocarbon dates from other sites (Watkins and Campbell 1987), we know this period to have been a lengthy one. This does not imply that the deposition of the deposit DBA occurred over a long time span, however. The factors contributing to its deposition are unclear, but we can suggest that the local topography was altered to some extent by these developments (§ 2.2). It is of general importance to note that the natural stratum DBA indicates that the topography and agricultural soils in this area of the Tigris valley may be altered quite considerably by deposition during the later prehistoric period; prehistoric landscapes may have been quite different from those today.

### § 12.4: THE HALAF PERIOD OCCUPATION

There is more information about the character of the Halaf site, which was more extensively exposed. Unfortunately, this information is of poorer quality because of the degree to which the site was disturbed by Achaemenid period pits, bioturbation and general soil homogenization processes (§ 1). As well as leading to the mixing of the artifactual assemblages of different phases (and periods) this may have contributed to difficulties in identifying stratigraphic developments and architectural elements within the Halaf sequence (§ 2.3).

On the basis of this rather poor quality evidence three major Halaf stratigraphic phases were identified, each probably involving within itself a sequence of developments (§§ 2.3 and 2.4). On the basis of the ceramic assemblage all three phases belong within the late Halaf period (§ 4). This period should be dated towards the middle of the fifth millennium BC uncalibrated (Watkins and Campbell 1987).

The earliest phase of the Halaf site was characterized by sparsely distributed evidence of specific activity. This consisted of relatively broad, shallow pits, a possible rectilinear structure and the accumulation of occupation and material presumably derived from adjacent structures (§ 2.4, Fig. 4).



The second phase had three structures of small internal area, of which two probably (and a third possibly) fulfilled a storage function; in addition there was a notable number of oven bases (§ 2.4, Fig. 9). A burial may also belong to this phase (Fig. 12), and a number of pits probably post-date the structures. A relatively sparse distribution of features and structures characterized this area of the site during this second phase of development (§ 2.4, Fig. 9). In particular there was only one small entity, BAB, which might be considered a dwelling.

The third phase had two relatively large structures that might readily be considered ordinary dwelling units and a more diverse range of other entities than earlier phases, including stone-lined cuts, pavings, ovens and parts of other disturbed structures for storage or domestic use (§ 2.4, Fig. 10). Even in this last phase there were relatively extensive areas exhibiting no surviving signs of specific activity, although this was more likely to be a function of the disturbance to which the upper portions of stratigraphy were subjected. A burial in these upper portions of the Halaf stratigraphy may also be Halaf in date (§ 2.5 and 10).

### Discussion

Many of the structural components of the Halaf site at Kharabeh closely replicate features found on other Halaf sites. There is a range of relatively small to relatively large, circular *tholoi*, some probably domed. There is also a series of relatively thin rectangular (some cellular) structures, probably for storage (*cf.* Merpert and Munchaev 1973a, 110 and Merpert and Munchaev 1987, 25 and Fig. 10). 'Floors' for any of these structures were ill-defined and appeared to consist only of the surface of the underlying deposit. None had any surviving evidence of original floor fixtures. Thus whilst there is no evidence of the use to which these structures were put it would seem plausible that the two largest entities of the latest phase, were some sort of domestic dwellings and that the smallest rectilinear entities were for storage. BAB, the smallest *tholos*, may have been for either purpose. Similarly sized structures elsewhere have been identified as habitations (at Yarim Tepe II; Merpert and Munchaev 1973a, 110-111) or as storage structures (at Sabi Abyad; Akkermans 1987, 26-27). A particular type of oven, which must be in some way related to those at Arpachiyah (Mallowan and Rose 1935, 14-15), occurs at Kharabeh in numbers, both associated with and separate from specific structures. 'Tracks' may be related to those recovered at Arpachiyah (§§ 2.3 and 2.4; Mallowan and Rose 1935, 18-19).

These and other features at Kharabeh share certain constructional idiosyncracies not noted at other Halaf sites. Clearly certain constructions on the site were very closely related to each other. This is one factor which suggests to us that the site was occupied over a relatively short time span. Thus the 'tracks' ADR and BCI used paving slabs of similar size, laid in a comparable manner and were of similar overall dimensions. At Arpachiyah the tracks were of similar dimensions, that is approximately 1m or so wide, and were constructed of cobbles laid in clay (Mallowan and Rose 1935). There are several instances at Kharabeh where up-rights were used to line cuts (ABW/ABZ) and presumably to protect the base of *tauf* walls (ADE, and an ambiguous example, BCL). This practice is not documented elsewhere on Halaf sites. The mixture of stone and *tauf* construction characterized by BBR and BDC is unusual. On the other hand the oven bases are very similar to those from Arpachiyah and Shams ed-Din, but all those at Kharabeh share the notable absence of any base for superstructures, preserved in distinctive styles at Arpachiyah (Mallowan and Rose 1935, 14-15) and Shams ed-Din (Al-Radi and Seeden 1980, Fig. 46), of clay at the former and stone at the latter. Arguments *e silentio* are always dangerous, but the absence of such types from the ovens at Kharabeh may indicate a different type of superstructure. The E-shaped structures ABQ and BBL are very similar to each other. ABQ presumably represents a cellular storage structure enclosed in some unknown manner on its W edge. Although these are analogous in general terms to structures on other sites, the only specific parallel is to be found in level VI at Yarim Tepe II (Merpert and Munchaev 1973b, Pl. IX, 2, structure 201), where there seems to be an identical structure in *tauf*.

The limited evidence of specific activity and the thinness of the Early Phase deposits suggest that this phase was relatively short-lived. An increase in the density of presumed dwelling units or increase in the area given over to such units from the Early to Late Phase seems indicated. Change through time in the intensity of use of this area of the site might be taken to imply either a shift in location of dwelling units around the site, or increased packing of dwelling units on the site overall. This latter interpretation may be attributed to incrementation of the settlement's population by immigration or the expansion and consequent proliferation of co-resident groups within the settlement.

As one of us (Watkins 1987) has noted, even at their densest in the final Halaf phase, storage, processing and particularly dwelling units were relatively sparsely distributed across the excavated area; correspondingly, the extensive areas of open

space were not clearly demarcated by any surviving material indicators. Comparative information on settlement layout is uneven. There are several small, short-lived sites which are similar to Kharabeh Shattani in several regards. However, only Yarim Tepe provides reliable information from a larger, long-lived site. At Arpachiyah information is only available from the central area, which can be considered exceptional, and from Hijara's stratigraphic soundings, which provide too small an area. Even at Yarim Tepe it is clear that within the area excavated in some phases there was considerable variation in the distribution and density of structural units.

Nevertheless some useful, albeit tentative, points can be made. There was no evidence for the repeated reconstruction of particular buildings on the same spot over relatively lengthy periods as at other periods in N Mesopotamian prehistory and perhaps to an extent as on other Halaf sites, for example Yarim Tepe II and III (Munchaev and Merpert 1973b, 10; Merpert, Munchaev and Bader 1976, 45) and in the central area at Arpachiyah, which is exceptional in other ways. These may be general features which Kharabeh shares with some Halaf sites and which contrast it with others. At Yarim Tepe II, for example, buildings were densely distributed in most of the excavated area throughout the life of the settlement (Merpert, Munchaev and Bader 1976, 46; Merpert and Munchaev 1987, 23), although at any one time there were also some restricted areas of open space. The distribution of structures in any one phase at the site of Shams ed-Din, in particular, bears some similarities to Kharabeh. Potential dwelling units were not densely distributed in the excavated area of this site, nor were any reconstructed on the same spot during the life of the settlement (Al-Radi and Seeden 1980, Figs 31-33). Ovens and storage entities at Shams ed-Din were relatively common, whilst open areas were not clearly demarcated in any surviving, visible manner (Al-Radi and Seeden 1980, Figs 31-33). The early Halaf site of Sabi Abyad also gives the impression of an open scatter of buildings, amongst which putative storage structures may have been relatively important (Akkermans 1987, 27). Whilst exposures are not so extensive at Umm Qseir, the relatively isolated position of the Halaf *tholos* recovered there seems clear (Hole & Johnston. 1986-87).

The loosely configured settlement structure of Kharabeh clearly invites explanation. While it may be ascribed in part to the poor conditions of preservation of the Halaf deposits on the site, it cannot be wholly so, since it is in the Early and Middle Phases, where preservation was at its best and where, at the time of their excavation, later distur-

bances had been clearly identified and isolated, that this phenomenon was most marked. Explanation must take account of the degree to which these phenomena are typical of Halaf settlement as a whole, particular to certain sites, or exclusive to Kharabeh. Many rather specific details of the constructions at Kharabeh suggest that its occupants were behaving in ways very typical of the inhabitants of a range of other Halaf settlements. Overall, however, it is suggested as an hypothesis that Kharabeh may characterise one particular segment of the Halaf culture settlement system, presenting us with a village formed from rather widely spaced domestic dwelling units and a notable lack of reconstruction of structures on the same spot. Kharabeh shares these features with Shams ed-Din, Sabi Abyad and Umm Qseir, and these sites may be contrasted with Yarim Tepe II and III, Tell Aqab and Arpachiyah, which are more conventional tell-settlements. The character of the demarcation of space in settlements, shared by all Halaf communities, could then be seen to reflect to some extent the common character of the relationships and interaction around the site between the different co-resident groups on the site. We may not be able to be more specific than this. The possible association between dwelling unit density and the practice of reconstruction may reflect the character of and constraints on the fissioning or replication of sub- or co-resident groups within the community. Since perceived property rights are likely to be reflected in the character of the demarcation of space and there is no contrast in this sphere it seems unlikely to be a factor. Pressure on space may be related to population size; that the contrast between sites with and without evidence of reconstruction is associated with the contrast of differing densities of dwellings suggests that the size of the population of the settlement unit or differentiation between residential groups may be a factor.

If the grave BAT (§ 2.5) in the upper part of the stratigraphy is Halaf in date, as certain features shared by the individual buried there and in BAL suggest (§ 10), a range of features may be said to characterize the treatment of human remains on the site during this period. Disarticulated human remains were recovered from the Early Phase pit BDD (§ 2.3), apparently not part of a deliberate burial. Flexed inhumation also occurred (Fig. 12). Inhumation occurred both in simple pits with grave goods (BAL; § 2.3, Fig. 12), including a stone vessel as at other Halaf sites (Merpert and Munchaev 1987, 25-26), and possibly in a built grave (coffin) (BAT; § 2.5, Figs 8 and 12).

The Halaf levels at Kharabeh Shattani provide a relatively large sample of Halaf pottery. Although

the paucity of well stratified deposits causes difficulty, there is every indication that the ceramic assemblage is internally very consistent throughout the Halaf occupation and must date from within a single ceramic phase. The fine wares were very largely produced in a single consistent fabric. A wide range of forms is present, particularly bowls, and from the evidence of rim sherds around 76% of all fine ware vessels were decorated. A wide range of typically Halaf painted motifs was used in simple and more complex combinations. Together with the painted decoration there is a very small but important group of incised and impressed decoration which always occurs on typical Halaf fabric and sometimes in combination with painted Halaf motifs. These forms of decoration, unusual in the Halaf period, may be connected with their appearance in large numbers in the possibly contemporary northern Ubaid in the Hamrin (e.g. Jasim 1985, 130).

A combination of specific parallels at other sites and the presence of these incised and impressed sherds suggest that the Halaf at Kharabeh Shattani dates from the latter half of the Halaf sequence (in the traditional Middle or Late Halaf) and almost certainly towards the end of that period. In view of such a date, the almost complete lack of bichrome and polychrome pottery at Kharabeh is surprising (less than 0.25% of decorated pottery is painted in two colours). At Tell Arpachiyah, Tell Aqab, Chagar Bazar and, particularly, in the Hamrin and at Choga Mami such decoration is a consistent feature at the end of the Halaf sequence. However, its absence at Kharabeh Shattani is matched at Umm Qseir and Shams ed-Din, which are similar to Kharabeh Shattani in terms of size and length of occupation. It is suggested that this can be best explained by differential access to or interest in the more sophisticated aspects of the technology of firing and pigments.

Exploitation of animals in the Halaf period probably involved the herding of caprines. As the morphologically wild cattle remains recovered from contexts which contain both Halaf and Achaemenid period material most likely belong to the Halaf culture period, we may infer that cattle may have been hunted and possibly onager (as may of course some caprines and pig) (§ 9). Equid remains cannot be identified with certainty in the well-contexted Halaf sample, but at least some from the mixed contexts may be Halaf in date (§ 9). In view of the similarities noted between Kharabeh Shattani, Shams ed-Din and Umm Qseir in other regards it should be pointed out that there is no evidence that this resemblance extends to the faunal assemblage. The latter two sites seem to have exploited wild animals to a quite significant degree.

While the sample from Kharabeh Shattani is very small (§ 9), there is no indication that exploitation of wild animals was of similar significance.

Most of the Halaf small finds are typical of what we know from other Halaf sites. There are a few categories which are unrepresented which are worthy of comment. There are no human figure fragments at all and only a single animal figure. There are no seals and only a single possible unsealed bulla (AAH 24) which might indicate more sophisticated administrative techniques. Given the impoverishment of the assemblage in these regards, it is perhaps surprising to find four stone bowls, one of which is unique in its material (AAG 73), of a quality only paralleled at the much larger and more extensively excavated sites of Arpachiyah and Yarim Tepe. Other smaller Halaf sites such as Shams ed-Din and Umm Qseir also lack specific types of Halaf artefact, particularly the less utilitarian. However, it should be noted that it is not the same types that are missing at every site. Umm Qseir, for instance, has no stone bowls but does have several seals and also possesses figurine fragments. Nonetheless, it can be suggested that, even allowing for the larger samples available from Arpachiyah and Yarim Tepe, in some regards there is differential access to or use of specific components of the total repertoire of the Halaf material culture at Kharabeh and other, small, short-lived sites.

Contrasts in the density of dwelling units and in facets of the material culture may signify variation in what is in other ways a remarkably homogeneous cultural zone. Granted the dispersion across the whole Jezirah of these small, low, single-period sites with less than the total repertoire of characteristic artefact types, it seems clear that they do not represent a regional variant. Factors contributing to this particular form of patterning might be varying population size, to which pressure on space might be related, the character of differentiations within the population (i.e. variations in the economic and social organization of the groups concerned), or perceived property rights. Fluctuations in on-site population could also be a factor in such a phenomenon and would themselves also be likely to reflect the communities' economic and social organization. For example, such fluctuations might be attendant on the practice of transhumant pastoralism, and this might also be an important factor in models built on variation in economic or social organization. There are hints that the herding of caprines was an important subsistence activity at Kharabeh and indeed at other Halaf sites. Unfortunately we have little indication of the degree to which the practice was integrated into a mixed farming economy such as was certainly practised at some Halaf sites.

In terms of a normative understanding of culture it appears that Kharabeh was well integrated into the Halaf cultural system. There are two modes for the maintenance of cultural continuity. In one mode contemporary communities engage in dynamic communication in ways that reinforce common cultural practice. In diachronic terms, on the other hand, within individual communities (or local groups of communities) deeply encultured behavioural modes are transmitted across the generations. Clearly the two modes are not mutually exclusive but operate simultaneously, perhaps with different degrees of relative importance in different cultural situations.

Before considering the position of Kharabeh Shattani in relation to a synchronic, dynamic communication system, we should note that location and environment may also be significant as constraining factors in synchronic communication. However, Kharabeh Shattani is located within the geographical core of the Halaf culture distribution and can in no way be thought to be restricted in its ability to engage in dynamic communication by reason of its marginality. Another sense of marginality is that of a physical environment of limited economic potential: environmental marginality might be thought to inhibit economic activity with repercussions on the production of certain kinds of culturally distinctive goods, and a reduction in the economic ability to participate in dynamic communication. Again, the location of Kharabeh Shattani in the Tigris valley and within an area of relatively good annual rainfall cannot be described as marginal.

It is clear that Kharabeh Shattani participated at some levels within a dynamic communication system. A relatively high proportion of the chipped stone on the site was obsidian, and it is inherently highly unlikely that this material, which was available only at a very considerable distance and outside the Halaf culture area, was obtained directly from source. The same is true for the two *dentalium* shell beads (BCZ 5, § 7). Material for certain ground stone artifacts, especially basalt, originated outwith the immediate locale of Kharabeh (§ 7), and may represent the product of an embedded procurement system, that is procurement embedded within the pursuit of other activities (Binford 1979, 259). Further evidence for a dynamic communication model is the pottery, of which quite a large proportion seems to have been imported to the site (although over what distance is unclear) (*Volume 1*, 60-62), and a small proportion almost certainly was imported over some considerable distance (*Volume 1*, 61).

This evidence suggests that, as with other Halaf sites, Kharabeh Shattani was integrated into a

strong dynamic exchange and communication system, although not perhaps to the same extent as some other sites. Where there are differences, it is not a question of divergence (which might be explained in terms of localised cultural drift), but rather of absence. Kharabeh Shattani is notable for the absence of some but not all of the finer products of such Halaf systems. Thus, as remarked above, polychrome pottery was completely absent and bichrome occurred only very sporadically (§ 4). The repertoire in other areas of the material culture is also limited in comparison with sites like Arpachiyah and Yarim Tepe II and III. There are few indications at Kharabeh of some of the administrative activities well documented at other Halaf sites; there is only one fragment of what may be a clay bulla, AAH 24 (§ 7).

Thus while Kharabeh appears well integrated into the Halaf cultural system both in terms of certain preferred behavioural practices and the contemporary communications and exchange network, it can be contrasted in certain respects with what have been considered classic Halaf sites such as Arpachiyah and Yarim Tepe II/III. These contrasts would associate a relative poverty in certain aspects of material culture with particular features of site configuration and development and thus link Kharabeh Shattani with late Halaf sites such as Shams ed-Din (Al-Radi and Seeden 1980) and Umm Qseir (McCorriston 1992). We have suggested that population size or fluctuation and economic organization may be factors in some of these phenomena; these sites do not have long sequences, which may also contrast them with Yarim Tepe II/III, Tell Aqab or Arpachiyah. The quality of material products, sophistication of administrative features, lengths and character of occupation and size of or presence of differentiated populations are all likely to reflect the long term stability and productive capacities of the communities concerned. For whatever reasons, then, it may be said that Kharabeh belonged to a class of Halaf sites with a lower or less stable order of productive capacity than sites such as Yarim Tepe and Arpachiyah. In conclusion we should emphasise that there is already enough evidence to indicate that this cultural pattern should not be envisaged as a two-tier system. There are important cultural differences within the sub-group of long-lived Halaf settlements, as there are within the sub-group of relatively short-lived, loosely configured settlements: the material culture differences between Halaf sites are much more subtle than can be described in a simple bipartite division into two groups.

## § 12.5: THE ACHAEMENID PERIOD OCCUPATION

The final occupation of the site occurred during the Achaemenid period, probably in the fifth to earlier fourth centuries BC. The interlude between this and the previous prehistoric occupation is not documented on the site, unlike that between the Proto-Hassuna and Halaf period occupations; it seems probable that there was erosion of the surface of the site between the Halaf and the Achaemenid occupations, and there was certainly a degree of disturbance and mixing at the interface. All that survived of the site in recognisable form of this final period was a series of sub-surface features. The excavated area of the site seems to have been densely pocked with pits. There are two groups, distinguished both on morphological grounds and by the character and sequence of their fills. The larger group of bell-shaped and cylindrical pits may plausibly be interpreted as for storage use. The majority seem to belong to one phase but there are hints of an earlier set of activities on the site involving the cutting of only a few pits. The pottery recovered, which has been the main source of evidence for dating the occupation, also seems to be a consistent assemblage indicative of a single, relatively short phase of use.

The consistency of the final fills and the lack of intercutting amongst these later two main groups of pits may indicate that, by the end of this phase in the life of the Achaemenid period site in this area, these features stood open together. If that were the case, then there would have been little room for conventional domestic (or larger) structures in much of the area. This area of the settlement may therefore have had a specialized aspect. If our inferences about the function of the largest group of pits is correct this aspect would have been one of storage. Of course, if there were a shifting pattern of opening and closure of the features, with the repeated final filling with structural debris representing a convenient mode of levelling, the presence of built structures in this area contemporary with some of the features would be a possibility; against that hypothesis it has to be said that no trace of any *in situ* structural remains was encountered, despite almost desperate efforts to locate some.

We do at least know that such a concentration of large pits was not typical of every part of sites of the broad post-Assyrian period in the neighbourhood from the evidence of Khirbet Qasrij (Curtis *et al.* 1989), a site only 1.5km N of Kharabeh (Fig. 1c). We also know that at some sites of a broadly contemporary period, albeit in different geographical settings, such as Tell ed-Mazar (Yassine 1988,

78-79) there were dense concentrations of what were clearly storage pits in certain areas of the site; some were brick-lined silos, while others without brick linings were of exactly the same size and shape. A number of putative storage pits belonging to the Hellenistic period at nearby Tell Mohammed 'Arab (Roaf 1984, 144) had constricted necks of similar diameters to those at Kharabeh, but with a more pronounced bell-shaped profile their basal diameters were considerably larger (Curtis *et al.* 1989, 10). Curtis *et al.* (1989, 10) also mentions a group of Hellenistic 'grain silos' from the site of Grai Darki in the Saddam Dam area (Fig. 1b). The Late Assyrian site of Qasrij cliff (1.5km approx. to the N of Kharabeh) consists of a large pit, considerably larger than the Kharabeh examples, for which a storage function is inferred (Curtis *et al.* 1989, 10). What are believed to be storage facilities were clearly a common and important component of the late first millennium BC sites in this part of N Iraq.

That settlement was located close to the pits at some point in the life cycle of the site is suggested by the wide variety of finds recovered from the different fills. These included spindle whorls, grinding equipment, and metal artifacts – jewellery, horse trappings, weapons and domestic, possibly agricultural tools (§§ 7 and 8). There are two alternative sources for the derived mud brick characteristic of the upper fills of the pits. The building debris may have derived from superstructures covering the pits, which is a plausible alternative if we envisage the function of these pits as related to storage. The broadly contemporary pits at Tell ed-Mazar had such superstructures (Yassine 1988, 78-79). The concentrations of large limestone slabs in the upper fills of some pits, BBD, BBJ and BCK, in appropriate reverse stratigraphic position, seem likely to represent debris of foundations too substantial to belong merely to superstructures for the pits. On the whole it seems more likely that this structural debris derived from more familiar structures somewhere close by. Unfortunately, from the information from Kharabeh we cannot necessarily assume that the site was a conventional village settlement, but we do not have enough information from other sites of this rather poorly documented period to place the site in a satisfactory context. The importance of storage facilities here is, however, interesting and instructive.

## § 12.6 KHARABEH VILLAGE SOUNDING

The very limited sounding on the edge of Kharabeh Shattani village, about 200m N of the main

site, yielded evidence of two distinct periods of earlier occupation, the first in the late Sasanian period (5th to 7th centuries AD) and the second in the late Islamic period (post-Ilkhanid to Ottoman). The information obtained from the sounding is limited to a very small assemblage of diagnostic ceramics; while the uppermost level was surprisingly uncontaminated by material from the contemporary village and contained only pottery of earlier, Islamic date, pottery from the Islamic and the Sasanian periods was found together in the lower strata except those at the very bottom of the sounding. However, the two lowest strata were part of the fill of a pit, which contained only one datable (Sasanian), diagnostic sherd.

The Sasanian ceramics all seem to consist of wheel-thrown, medium coarse, plain wares, tempered with sand and some vegetable matter in conformity with the pottery from other sites of similar date recently excavated in the Saddam Dam area (and being prepared for publication by St.J. Simpson). Two sherds in particular were decorated by stamping with circular dies depicting a stag. One of the dies was also used at three other sites in the Dam Project, indicating the potential of the die-stamped pottery of this period for providing a very tightly controlled pottery chronology, and the extent of the circulation or trade in ceramics. The equally small group of Late Islamic sherds is difficult to date precisely, not only because of its paucity but also because of lack of information about locally made ceramics of this broad period in N Mesopotamia. The sherds which might be diagnostic of particular stages within the Late Islamic period seem to indicate a recent date (though the villagers living at Kharabeh Shattani in the 1980s said that they had recently settled the site). Thus, like the main site, Kharabeh Village had been settled three times at intervals. While Kharabeh Shattani is one of a number of Late Sasanian sites in the area, there is a notable shortage of Early Islamic sites. The renewal of occupation in Late Islamic times, perhaps within the Ottoman period, also fits with the pattern in the immediate area and more widely in N Mesopotamia.

## § 12.7 CONCLUDING REMARKS

Between the two locations on either side of the wadi, at Kharabeh Shattani village itself and in the field opposite the village, there were six distinct and separate phases of occupation, most of which received less investigation than they merited. It was never the intention to do more than discover the dates of any settlements below the contemporary village, but it was intended to carry out more in-

tensive work on the earliest occupation of the proto-Hassuna period. In view of the conditions of preservation and the limited potential of excavating a series of pits, it is arguable that little more would have been learned from further excavation on the Achaemenid period remains, and that doubling or trebling the amount of pottery recovered would not have been cost-effective employment of the limited funding. The Halaf deposits were the best explored, which is in part a function of their preservation and of our preparedness. The proto-Hassuna deposits were discovered only during the course of what proved to be the final season on the site, and, not surprisingly, the presence of an occupation of that date had not been detected from surface evidence. In the event, the rapid filling of the lake behind the dam during the winter following our second season removed any possibility of capitalising on these sealed and well-preserved deposits. In any case, all that would have been possible, if a further season could have taken place, was a programme aimed at digging (part of) the area already opened through the Halaf deposits in order to obtain some fairly arbitrary view of the architecture of the settlement, but controlled samples of pottery and other portable artefacts and of the botanical and zoological materials.

Nevertheless, most of what was found has been turned to a useful purpose. The proto-Hassuna ceramic assemblage is a coherent, if rather small, group, and we hope that its detailed study and publication will prove a service to the recognition of what is becoming an increasingly commonly noted culture-group in N Mesopotamia. In a somewhat similar way the publication of the Achaemenid period ceramics will be the most useful result of our work in the final phase of occupation on the main site. It is extraordinary to notice that, when the material was being excavated, washed, sorted and pondered over, there was nothing with which to compare it. At much the same time other excavators on other sites within the project area were finding similar, though not identical, material; as the references added since Jacqui Goodwin completed her original study show, the concentration of archaeologists in the project area has brought light to one the most profound dark ages in N Mesopotamian archaeology and history. At this stage, and with the material recovered from a series of sites which no-one knew how to identify in advance, we can only publish what we have and lay the foundations for proper research in the future. The limited potential of the material from the Achaemenid remains at Kharabeh Shattani means that the site can only assist in the reconstruction of the settlement pattern of the period and its history when taken in

conjunction with all the other sites which are final Assyrian, post-Assyrian and earliest Hellenistic.

The Halaf culture period, by contrast, is much better documented and studied. The site was small, not long occupied nor deeply stratified, and the area of our excavation was relatively restricted, but our work on the Halaf occupation at Kharabeh Shattani can be brought into play in relation to existing understanding of the culture of the period and can be seen to make its own contribution to furthering the debate. We hope that the discussion of the Halaf occupation at Kharabeh Shattani may also be seen as a contribution to the understanding of the working of culture in general.

Before closing this discussion it deserves to be remarked that the settlement type represented by Kharabeh Shattani owes its recognition to the phenomenon of salvage archaeology on the large scale required when massive dam projects are planned for the major rivers of the Near East. While there were plenty of conventional tell-sites in the area of the Saddam Dam Project, there were also many sites which were not betrayed by the surface relief and which could only be found through intensive survey of the area for surface sherds. The salvage archaeology project, which located many more sites than were previously credited to that particular part of the Tigris valley, and which provided for some sort of investigation for most if not all of those sites, will give us a view of a quite unfamiliar settlement pattern when all the reports are published. At present it is enough to draw attention to the fact that relatively short-lived occupations such as those which make up the intermittent history of Kharabeh Shattani are quite common in the re-

gion. They cannot be regarded as an unusual and marginal phenomenon; rather, the short-lived, single-phase settlement may well prove to be the norm, or at least an alternative norm, in this part of the Tigris valley.

Another aspect of this still unfamiliar settlement pattern may well prove to be the rhythm which emerges when the occupations and gaps between occupations are summed from the accumulated excavation reports. At present the evidence is subjective and confined to those archaeologists who have worked in the area. However, it deserves mention that the periods represented at Kharabeh Shattani were also found to be represented elsewhere among the sites in the project, while the periods not represented at Kharabeh Shattani (for instance, the later Hassuna period and the Ubaid period, or the Late Assyrian period) are generally not represented elsewhere in the locality. The long-term history of this part of the Tigris valley seems likely to consist of an ebb and flow of settlement, rather as there were found to be periods of dense occupation followed by periods of extremely sparse settlement in the area of the Diyala valley behind the Hamrin Dam, NE of Baghdad. Some might say that such regions thus demonstrate their peripheral situation relative to the important cultural centres: others might reply that these regions are important to us both because they are proving to be more sensitive indicators of change than the core areas and because they present us with significant cultural questions to tackle, thereby offering us the promise of deeper understandings of the workings of history and prehistory.

## BIBLIOGRAPHY

- Abel, M. and Barrios, A.  
1928 'Fouilles de L'Ecole Archeologique Francais de Jerusalem a Neirab du 12 Septembre au 6 Novembre, 1927', *Syria* IX, 187-206.
- Abka'i-Khavari, M.  
1988 'Die achämenidischen Metallschalen', *AMI* 21, 91-137.
- Adams, R. McC.  
1965 *Land behind Baghdad: a history of settlement on the Diyala plains*, The University of Chicago Press, Chicago.  
1970 'Tell Abu Sarifa: a Sassanian-Islamic Ceramic Sequence from South Central Iraq', *Ars Orientalis* 8, 87-119.  
1981 *Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*, The University of Chicago Press, Chicago.
- Adams, R. McC.. & Nissen, H. J.  
1972 *The Uruk Countryside: The Natural Setting of Urban Societies*, The University of Chicago Press, Chicago.
- Algaze, G.  
1989 'A New Frontier: first results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988', *Journal of Near Eastern Studies* 48: 4, 241-81.
- Algaze, G. et al.  
1991 'The Tigris-Euphrates archaeological reconnaissance project: A preliminary reports of the 1989-1990 seasons', *Anatolica* 17, 175-240.
- Akkermans, P.M.M.G.  
1987 'A Late Neolithic and Early Halaf village at Sbi Abyad, northern Syria', *Paléorient* 13, 23-40.
- Akkermans, P.M.M.G. (ed.)  
1989 *Excavations at Tell Sabi Abyad*, BAR International Series 468, Oxford.
- Amiran, R.  
1967 *Ancient Pottery of the Holy Land*, New Brunswick, New Jersey.  
1972 'Achaemenian Bronze Objects from a tomb at Khirbet Ibsan in Lower Galilee', *Levant* 4, 135-8.
- Anderson, A.  
1984 *Interpreting Pottery*, Batsford, London.
- Bachelot, L.  
1990 'Les fouilles de Tell Mohammed Diyab (1987 et 1988)', in Durand, J.-M. (ed.), *Tell Mohammed Diyab: Campagne 1987 et 1988*, S.E.P.O.A.: Cahiers de N.A.B.U. No.1, 9-46.
- Bader, N.O.  
1989 Древнейшие Земледельцы Северной Месопотамии, *Earliest Cultivators in Northern Mesopotamia: The Investigations of Soviet Archaeological Expedition in Iraq at Settlements Tell ell Magzaliya, Tell Sotto, Kültepe*, Nauka, Moscow.
- Bader, N. O., Merpert, N. I. and Munchaev, R. M.  
1981 'Soviet expedition's surveys in the Sinjar valley', *Sumer* 37, 55-95.
- Ball, W., Simpson, St. J. & Tucker, D. forth. 'Surveyed sites' in Ball, W. (ed.), *Ancient settlements in the Zummar Region. Excavations carried out in the Saddam Dam Salvage Project by the British Archaeological Expedition to Iraq*, Volume 1.



- Ball, W., Tucker, D. & Wilkinson, T.J.  
1989 'The Tell al-Hawa Project: Archaeological Investigations in the North Jazira 1986-87', *Iraq* 51, 1-66.
- Barnett, R.D.  
1959 'Further Russian Excavations in Armenia (1949-1953)', *Iraq* 21.  
1960 *Assyrian Palace Reliefs*, London.
- Bashilov, V.A., Bolshakov, O.G. and Kouza, A.V.  
1980 'The earliest strata of Yarim Tepe 1', *Sumer* 36, 43-64.
- Bellamy, C. V. & Le Patourel, H. E. J.  
1970 'Four Medieval Pottery-Kilns on Woodhouse Farm, Winklesley, near Ripon, W. Riding of Yorkshire', *Medieval Archaeology* 14, 104-25.
- Bernard, V., Gachet, J. & Salles, J.F.  
1990 'Apostilles en marge de la céramique des Etats IV et V de la forteresse', in Calvet, Y. & Gachet, J.(eds.), *Failaka: fouilles françaises 1986-1988*, Maison de l'Orient; Travaux de la Maison de l'Orient, No.18, Lyon, 241-84.
- Bernbeck, R. & Pfälzner, P.  
1988 'Stratigraphie und Keramik', in Mahmoud, A., Bernbeck, R., Kuhne, H., Pfälzner, P., Röllig, W., Die Ausgrabung auf dem Tell 'Ajaja / Sadikanni 1982', *Mitt. Deutsch. Arch. Inst. Damaszener Abt.* 3, 141-84.
- Bielinsky, P.  
1987 'Preliminary report on the third season on Tell Rijim Omar Dalle', in *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches*, State Organization of Antiquities and Heritage, Baghdad, 24-32.
- Binford, L.  
1979 'Organization and formation processes; looking at curated technologies', *Journal of Anthropological Research* 35 (3), 255-273.
- Boardman, J.  
1967 'Antike Kunst', *Jahr Gang*, Heft 1, 10.  
1970 *Greek Gems And Finger Rings, Early Bronze Age To Late Classical*, Thames And Hudson, London.
- Boardman, J. and Vollenweider, M.L.  
1978 *Catalogue of the Engraved Gems and Finger Rings I, Greek and Etruscan*, Oxford University Press, Oxford.
- Boessneck, J.  
1969. 'Osteological differences between sheep (*O. aries* L.) and goats (*C. hircus* L.)', in Brothwell, D.R. & Higgs, E.S. (eds) *Science in Archaeology* (2nd ed.), Thames & Hudson, London, 331-358.
- Borowski, O.  
1987 *Agriculture in Iron Age Israel*, Eisenbrauns, Indiana.
- Briscoe, T.  
1983 'A classification of Anglo-Saxon pot stamp motifs and proposed terminology', *Studien zur Sachsforschung* 4, 57-71.
- Brothwell, D.R.  
1981 *Digging Up Bones*, (3rd ed.), British Museum (Natural History), London.
- Brown, S.C.  
1990 'Media in the Achaemenid period: the Late Iron Age in Central West Iran', in Sancisi-Weerdenburg, H. & Kuhrt, A. (eds.), *Achaemenid History IV: Centre and Periphery*, Proceedings of the Groningen 1986 Achaemenid Workshop Nederlands Instituut voor het Nabije Oosten, Leiden, 63-76.
- Carriere, B. and Barrios, A.  
1927 'Fouilles de L'Ecole Archéologique Française de Jerusalem a Neirab, 1926', *Syria* VIII, 126-142.
- Clairmont, C.  
1955 'Greek pottery from the Near East', *Berytus* XI, 85-141.
- Cook, J.M.  
1983 *The Persian Empire*, London.

- Crowfoot, J.W., Crowfoot, G.M. and Kenyon, K.  
1957 *Samaria Sabaste III: The Objects*, London.
- Culican, W.  
1965 *The Medes and the Persians*, London.
- Curtis, J.  
1986 'Scramble as 30ft flood bursts over BM excavation site', *British Museum Society Bulletin* 51 (March), 14-17.  
1989 'Case of the missing column', *British Museum Society Bulletin* 60 (Spring), 7-9.  
1979 'Neo-Assyrian ironworking technology', *Proceedings of the American Philosophical Society* 123, 369-390.
- Curtis, J. E., Green, A.R. & Knight, W.  
1988 'Preliminary report on excavation at Tell Deir Situn and Grai Darki', *Sumer* 45, 49-53.
- Curtis, J.E. & Green, A.R.  
1987 'Preliminary Report on Excavations at Khirbet Khatuniya, 1985', in *Researches on the Antiquities of the Saddam Dam Basin Salvage and other Researches*, State Organization for Antiquities and Heritage, Baghdad, 73-77.
- Curtis, J. *et al*  
1989 *Excavations at Qasrij Cliff and Khirbet Qasrij*, British Museum Western Asiatic Excavations I, Saddam Dam Report 10, British Museum Publications, London
- Dandamayev, M.A.  
1977 'Achaemenid Babylonia', in Diakonoff, I.M.(ed.) *Ancient Mesopotamia*, Moscow, 296-311.
- Davidson, T.E.  
1977 *Regional Variation within the Halaf Ceramic Tradition*, Unpublished PhD, University of Edinburgh.
- Davidson, T.E and Watkins, T.  
1981 'Two seasons of excavations at Tell Aqab in the Jezirah, north east Syria', *Iraq* 43, 1-18.
- Denkdoer, H.  
1954 *The Art and Architecture of the Ancient Orient*, Hardmondsworth, London.
- Directorate of Antiquities and Heritage, Iraq  
1988 'Directorate of Antiquities and Heritage 1987: projects and achievements', *Sumer* 45, 81-93.
- Dittrick, J. and Suchey, J.M.  
1986 'Sex determination of prehistoric Central Californian skeletal remains using discriminant analysis of the femur and humerus', *American Journal of Physical Anthropology* 70, 3-9.
- Dobney, K. and Brothwell, D.R.  
1987 'A method of evaluating the amount of dental calculus on teeth from archaeological sites', *Journal of Archaeological Science* 14, 343-51.
- Driesch, A. von den  
1976 *A guide to the measurement of animal bones from archaeological sites*, Peabody Museum Bulletins 1.
- Ducos, P.  
1968 *L'origine des animaux domestiques en Palestine*, Publications de l'institut de prehistoire de l'universite de Bordeaux, Memoire 6.
- Falkner, R.  
1988 'Report on the surface pottery from the 1986 survey season at Samarra', Circulated manuscript.
- Finster, B. & Schmidt, J.  
1976 'Sasanidische und Frühislamische Ruinen im Iraq', *Mitt. Deutsch. Arch. Inst., Baghdader Abt.* 8, 1-169.
- Fleming, D.  
1989 'Eggshell Ware Pottery in Achaemenid Mesopotamia', *Iraq* 51, 165-85.
- Fox, R. Lane  
1973 *Alexander the Great*, London.

- Frankfort, H., Lloyd, S. & Jacobsen, T.  
1946 *The Gimilsin Temple and the Palace of the Rulers at Tell Asmar*. Oriental Institute: Chicago.
- Fuji, H. *et al.*  
1982 *Preliminary Report of Excavations at Gubba and Songor*, Tokyo.
- Fukai, S. and Matsutani, T.  
1981 *Telul eth-Thalathat* Vol. IV, Tokyo.
- Fukai, S., Horiuchi, K. and Matsutani, T.  
1970 *Telul eth-Thalathat* Vol. II, Tokyo.
- Furumark, A.  
1972 *Mycenaean Pottery, Volume 1, Analysis and Classification*, Stockholm.
- Gasche, H. *et al.*  
1989 'Abu Qubur 1987-1988, chertier F. La Résidence Achéménide', *Northern Akkad Project Reports*, 4
- Ghirshman, R.  
1954 *Village Perse-Achemenide*, Memoirs de la Mission Archéologique en Iran, Tome XXXVI, Paris.
- Gibson, M.  
1967 *Excavations at Nippur, 11th Season*, Oriental Institute Communications No. 22, Chicago.
- Gibson, McG.  
1972 *The City and Area of Kish*, Coconut Grove, Miami, Field Research Projects.  
1974 'Coins as a tool in archaeological surface survey', Kouymjian, D.K. (ed.), *Near Eastern Numismatics, Iconography, Epigraphy and History: Studies in Honor of Gelrge C. Miles*, American University of Beirut, 9-13.
- Gibson, McG. (ed.)  
1981 *Uch Tepe I: Tell Razuk, Tell Ahmed al-Mughir, Tell Ajamat*, Chicago/Copenhagen: The Universities of Chicago & Copenhagen, Hamrin Report 10.
- Gibson, McG. *et al.*  
1975 *Excavations at Nippur, Eleventh Season*, Oriental Institute Communications No.22, Chicago.
- Gill, D.W.J.  
1990 'Stamped palmettes and an Attic black-glazed oinochoe', *Oxford Journal of Archaeology* 9: 3, 369-72.
- Godard  
1950 *Le Tresor de Ziwiye*, Haarlem.
- Goff, C.  
1969 'Excavations at Baba-jan, Second Preliminary Report', *Iran* 7.
- Grant, A.  
1975 'Appendix B: The use of tooth wear as a guide to the age of domestic animals - a brief explanation', in B. Cunliffe, *Excavations at Portchester castle 1: Roman Reports of the Research committee of the Society of Antiquaries* 32, 437-450.
- Gray, G. Buchanan  
1965 'The Foundation and Extension of the Persian Empire', in the *Cambridge Ancient History* Vol IV Chapter I, 11-25, Cambridge.
- Gustavson-Gaube, C.  
1981 'Shams ed-Din Tannira: The Halafian pottery of Area A', *Berytus* 24, 9-182.
- Haerincq, E.  
1980 'Les tombes et les objets du sondage sur l'enceinte de Abu Habbah', in Meyer, L. de (ed.), *Tell ed-Der III: Sounding at Abu Habbah (Sippur)*, Leuven, Peeters, 53-79.  
1983 *La céramique en Iran pendant la période parthe (ca.250 av. J.C. à ca.225 après J.C.): typologie, chronologie et distribution*, *Iranica Antiqua*, Supplement II, Gent.
- Hamilton, R.W.  
1966 'A Silver Bowl in the Ashmolean Museum', *Iraq* 28, 1-17.
- Hamlin, C.  
1975 'Dalma Tepe', *Iran* 13, 111-128.

- Hannestad, L.  
1983 Ikaros, the Hellenistic Settlements, Volume 2: the Hellenistic Pottery from Failaka, with a Survey of Hellenistic Pottery in the Near East, *Jutland Archaeological Society Publications XVI*, 2, Aarhus.
- Harden, D.B.  
1934 'Excavations at Kish and Barghuthiat 1933: II, The Pottery', *Iraq* 1, 124-36.
- Healey, R.H.  
1976 *A Glossary of Medieval Pottery Decoration*, C.D.R.G. Publication No. 2, Spalding.
- Helms, S.  
1987a 'A note on some 4th millennium stamp seal impressions from Jordan', *Akkadica* 52 (March/April), 29-31.  
1987b 'A note on EB IV "Symbols" from Palestine/Transjordan', *Akkadica* 52 (March/April), 32-34.
- Henrickson, E.F. and Vitali, V.  
1987 'The Dalma tradition: prehistoric inter-regional cultural integration in highland western Iran', *Paleorient* 13/2, 37-46.
- Herodotus  
*The Histories*, Tr. Aubrey de Selincourt, 1954, Penguin, Harmondsworth.
- Herzfeld, E.E.  
1941 *Iran in the Ancient East*, Oxford.
- Hole, F. and Johnston, G.A.  
1986-87 'Umm Qseir on the Khabur: preliminary report on the 1986 excavation', *Annales Archéologiques Arabes Syriennes* 36/37, 172-220.
- Hrouda, B.  
1962 *Tell Halaf IV: Die Kleinfunde aus Historischer Zeit*, Walter de Gruyter, Berlin.
- Ibrahim, M.M.  
1978 'The Collared-Rim Jar of the Early Iron Age', in Moorey, P.R.S. & Parr, P.J. (eds.), *Archaeology in the Levant: Essays for Kathleen Kenyon*, Aris & Phillips, Warminster, 116-26.
- Ii, H. & Kawamata, M.  
1985 'The Excavations at Tell Jigan by the Japanese Archaeological Expedition: a preliminary report on the first season of work', *Al-Rafidan* 5-6, 151-214.
- Jasim, S.A.  
1985 *The Ubaid Period in Iraq: Recent Excavations in the Hamrin Region*, BAR International Series 267, Oxford.
- Johns, C.N.  
1933 'Excavations at Atlit (1930-1), The South-eastern Cemetery', *Q.D.A.P.* Vol II, Oxford University Press, London.
- Kamada, H. & Ohtsu, T.  
1988 'Report on the excavations at Songor A - Isin-Larsa, Sasanian and Islamic graves', *Al-Rafidan* 9, 135-72.
- Kantor, H.  
1962 'A Bronze Plaque with Relief Decoration from Tell Tainat', *Oriental Institute Museum Notes* 13, *Journal Of Near Eastern Studies*.
- Kasar, A. al-  
1979 'Tell Abu Sh'af', *Sumer* 35, 470-1.
- Kawamata, M.  
1981 'Telul Hamediyat', *Al-Rafidan* 2, 97-98.  
1990 'Telul Hamediyat near Tells Gubba and Songor: Part II' (in Japanese) *Al-Rafidan* 11, 175-88.  
1991 'Telul Hamediyat near Tells Gubba and Songor: Part III', *Al-Rafidan* 12, 249-59.
- Keall, E.J.  
1970 *The significance of Late Parthian Nippur*, The University of Michigan, PhD dissertation: UMI.
- Kervran, M., Mortensen, P. & Hiebert, F.  
1987 'The occupational enigma of Bahrain between the 13th and 8th century BC', *Paleorient* 13/1, 77-93.
- Killick, A.  
1984 'Hellenistic Pit Groups from Tell Mohammed 'Arab'.

- Killick, R.  
1988 'Neo-Assyrian to Early Sasanian pottery', in Northedge, A., Bamber, A., Roaf, M. et al, *Excavations at 'Ana, Qal'a Island, Iraq* Archaeological Reports 1, Aris & Phillips, Warminster, 54-75, Pl. XII.
- Killick, R. & Black, J.  
1985 'Excavations in Iraq, 1983-84', *Iraq* 47, 215-39.
- Kirkbride, D.  
1972 'Umm Dabaghiyah 1971: a preliminary report', *Iraq* 34, 3-19.  
1973a 'Umm Dabaghiyah 1972: a second preliminary report', *Iraq* 35, 1-7.  
1973b 'Umm Dabaghiyah 1973: a third preliminary report', *Iraq* 35, 205-209.  
1974 'Umm Dabaghiyah: a trading outpost?', *Iraq* 36, 85-92.  
1975 'Umm Dabaghiyah: a fourth preliminary report', *Iraq* 37, 3-10.
- Kletter, R.  
1991 'The Rujm El-Malfuf Buildings and the Assyrian vassal state of Ammon', *BASOR* 284, 33-50.
- Koldewey, J.  
1914 *The Excavations At Babylon* 1.
- Kozlowski, S.K.  
1989 'Nemrik 9, A PPN site in northern Iraq', *Paleorient* 15/1, 25-31.
- Kozlowski, S.K. and Kempisty, A.  
1990 'Architecture of the pre-pottery neolithic settlement in Nemrik, Iraq', *World Archaeology* 21/3, 348-62.
- Kuhr, A.  
1990 'Achaemenid Babylonia: sources and problems', in Sancisi-Weerdenburg, H. & Kuhr, A. (eds.), *Achaemenid History IV: Centre and Periphery* Proceedings of the Groningen 1986 Achaemenid Workshop, Nederlands Instituut voor het Nabije Oosten, Leiden, 177-94.
- Langdon, S.K.  
1924 *Excavations at Kish I. 1924*, Paris.
- Layard, A.H.  
1853 *Discoveries in the Ruins of Nineveh and Babylon*, London.
- Lebeau, M.  
1983 *La céramique de l'âge du fer II-III à Tell Abou Danné et ses rapports avec la céramique contemporaine en Syrie*, C.N.R.S., Editions Recherches sur les Civilisations, Cahier No.12, Paris.
- Lecomte, O.  
1989 'Fouilles du sommet de l'E.babbar (1985)', in Huot, J.-L. et al, *Larsa: Travaux de 1985*, C.N.R.S., Editions Recherches sur les Civilisations, Mémoire No.83, Paris, 83-147.
- Leenders, R.  
1989 'The Red Wash Ware ceramic assemblage in Syria: a review', in Haex et al. (ed.), *To the Euphrates and Beyond: Archaeological Studies in Honour of Maurits N. van Loon*, A.A.Balkema, Rotterdam, 89-101.
- Levine, L.  
1987 'The Iron Age', in Hole, F. (ed.), *The Archaeology of Western Iran: Settlement and Society from Prehistory to the Islamic Conquest*, Smithsonian Institution Press, Washington DC, 229-50.
- Levy, A.H.  
1985 'Two Bronze Rouletting Tools', *Israel Exploration Journal* 35, 181-82, Pl. 19:D-F.
- Lindahl, A.  
1986 *Information through Sherds: a case study of the early glazed earthenware from Dalby*, Lund Studies in Medieval Archaeology 3, Scania, Lund.
- Lines, J.  
1954 'Late Assyrian pottery from Nimrud', *Iraq* 16, 164-167.
- Lloyd, S.  
1938 'Some ancient sites in the Sinjar district', *Iraq* 5, 123-42.

- Lloyd, S. & Safar, F.  
 1945 'Tell Hassuna - Excavations by the Iraq Government Directorate General of Antiquities in 1943-4', *Journal of Near Eastern Studies* 4, 255-289.
- London, G.  
 1992 'Reply to A. Zertal's "The wedge-shaped decorated bowl and the origin of the Samaritans"', *BASOR* 286, 89-90.
- Loud, G. and Altman, C.B.  
 1938 *Khorsabad II: The Citadel and the Town*, Chicago.
- Lyonnet, B.  
 1990 'Prospection archéologique de la site de Tell Mohammed Diyab', in Durand, J.-M. (ed.), *Tell Mohammed Diyab: Campagnes, 1987 et 1988*, Cahiers de N.A.B.U. 1, SEPOA, Paris, 71-115, Pls V-VIII.
- MacAlister, R.A.S.  
 1912 *The Excavations of Gezer 1901-1905 and 1907-1909 Vol III*, London.
- Mallowan, M.E.L.  
 1933 'The Prehistoric Sondage of Nineveh, 1931-1932', *Liverpool Annals of Archaeology & Anthropology* 20, 1-4, 127-77, Pls XXXV-LXXIX.  
 1936 'The Excavations at Chagar Bazar, and an Archaeological Survey of the Habur Region, 1934-35', in *Iraq* 3, 1-59.  
 1947 'Excavations at Brak and Chagar Bazar', *Iraq* 9, 1-266.  
 1950 'Excavations at Nimrud: 1949-1950', *Iraq* 12, 147-183.  
 1956 'Excavations at Nimrud (Kalhu) 1955', *Iraq* 18, 1-22.  
 1957 'Excavations at Nimrud (Kalhu) 1956', *Iraq* 19, 1-25.  
 1966 *Nimrud and its remains*, Vol. 1, London.
- Mallowan, M.E.L. and Rose, J.C.  
 1935 'Excavations at Tell Arpachiyah, 1933', *Iraq* 2, 1-178.
- Martin, H.  
 1988 *Fara: A Reconstruction of the Ancient Mesopotamian City of Shuruppak*, Chris Martin & Associates, Birmingham.
- Matson, F.R.  
 1974 'The Archaeological Present: Near Eastern Village Potters at Work', *American Journal of Archaeology* 78, 345-47.
- Matson, F.R.  
 1983 'The Banahilk Potter', in Braidwood, L.S., Braidwood, R.J. et al., *Prehistoric Archaeology along the Zagros Flanks*, Oriental Institute Publications, Volume 105, The University of Chicago, Chicago, 615-620.
- Mazzoni, S.  
 1984 'Seal-Impressions on Jars from Ebla in EB IV A-B', *Akkadica* 37 (March/April), 18-45.
- McCorrison, J.  
 1992 'The Halaf environment and human activities in the Khabur drainage, Syria', *Journal of Field Archaeology* 19/3, 315-333.
- McCown, D.E. and Haines, R.C.  
 1967 *Nippur 1: Temple of Enlil, Scribal Quarter and Soundings*, Oriental Institute Publications Vol LXXVIII, Chicago.
- Meijer, D.J.W.  
 1986 *A survey in northeastern Syria*, Historisch-Archaeologisch Institut te Istanbul, Leiden.
- Meindt, R. and Lovejoy, C.O.  
 1985 'Ectocranial suture closure', *American Journal of Physical Anthropology* 68, 57-66.
- Merpert, N.I. and Munchaev, R.M.  
 1973a 'Early Agricultural Settlement in the Sinjar Plain, Northern Iraq', *Iraq* 35, 97-113.  
 1973b 'Excavations at Yarim Tepe 1972. Fourth Preliminary Report', *Sumer* 29, 3-16.

- 1984 'Soviets expedition's research at Yarim Tepe III settlement in northwestern Iraq, 1978-1979', *Sumer* 43, 54-68.
- 1987 'The earliest levels at Yarim Tepe I and Yarim Tepe II in northern Iraq', *Iraq* 49, 1-36.
- Merpert, N.I., Munchaev, R.M. and Bader, N.O.  
 1976 'The investigations of Soviet expedition in Iraq, 1973', *Sumer* 32, 25-61.  
 1977 'The investigations of Soviet expedition in Iraq, 1974', *Sumer* 33, 65-104.  
 1978 'Soviet investigations in the Sinjar plain 1975', *Sumer* 33, 27-70.  
 1981 'Investigations of the Soviet expedition in northern Iraq 1976', *Sumer* 37, 22-54.
- Miroschedji, P. de  
 1978 'Stratigraphie de la période néo-élamite de Suse (c.1110-c.540)', in *Paléorient* 4, 213-28.
- Moholy-Nagy, H.  
 1983 'Jarmo artefacts of pecked and ground stone and of shell', 289-346, in Braidwood, L.S. et al, *Prehistoric Archaeology along the Zagros Flanks*, OIP 105, University of Chicago, Chicago.
- Moorey, P.R.S.  
 1971a 'The Loftus Hoard of Old Babylonian Tools from Tell Al Sifr', *Iraq* 22, 61-86.  
 1971b *Catalogue of the Ancient Persian Bronzes in the Ashmolean Museum*, Clarendon Press, Oxford.  
 1975 'Iranian troops at Deve Hüyük in Syria in the earlier fifth century BC', *Levant* 7, 108-117.  
 1978 *Kish Excavations 1923-1933*, Clarendon Press, Oxford.  
 1980 *Cemeteries of the First Millennium B.C. at Deve Hüyük, near Carchemish, salvaged by T.E. Lawrence and C.L. Woolley in 1913*, BAR International Series 87, Oxford.
- Munchaev, R.M., Merpert, N.J.  
 1981 *Earliest Agricultural Settlements of Northern Mesopotamia*, Nauka, Moscow.
- Munchaev, R.M., Merpert, N.J. and Bader, N.O.  
 1984 'Archaeological Studies in the Sinjar Valley, 1980', *Sumer* 43, 32-53.
- Nashef, K.  
 1987 'Harab Sattani, Dorf', *Archiv f. Orientforschung* 34, 232.
- Northedge, A.  
 1988 'Middle Sasanian to Islamic Pottery', in Northedge, A., Bamber, A., Roaf, M. et al, *Excavations at 'Ana, Qal'a Island*, Iraq Archaeological Reports 1, Aris & Phillips, Warminster, 76-114.
- Northedge, A. & Falkner, R.  
 1987 'The 1986 survey season at Samarra', *Iraq* 49, 143-73.
- Numoto, H.  
 1988 'Excavations at Tell Fisna', (in Japanese), *Al-Rafidan* 9, 1-72.
- Oates, D.  
 1957 'Ezida: The Temple of Nabu', *Iraq* 19, 26-39.  
 1961 'The Excavations at Nimrud (Kalhu) 1960', *Iraq* 23, 1-14.  
 1962 'The Excavations at Nimrud (Kalhu) 1961', *Iraq* 24, 1-25.  
 1968 *Studies in the Ancient History of North Iraq*, London.
- Oates, D. & Oates, J.  
 1958 'Nimrud 1957: The Hellenistic Settlement', *Iraq* 20, 113-157.  
 1959 'Ain Sinu: a Roman frontier post in northern Iraq', *Iraq* 21, 207-42.
- Oates, D. and Reid, J.H.  
 1956 'The Burnt Palace and the Nabu Temple: Nimrud Excavations 1955', *Iraq* 18, 22-39.
- Oates, J.  
 1959 'Late Assyrian Pottery from Fort Shalmaneser', *Iraq* 21, 130-146.
- Oppenheim, Baron M. von  
 1931 *Tell Halaf*, Tr. by Gerald Wheeler, London.
- Parmegiani, N.  
 1987 'The Eastern Sigillata in Tell Barri/Kahat', *Mesopotamia* 22, 113-28.

- Payne, S.  
1973 'Kill-off patterns in sheep and goats: the mandibles from Asvan Kale', *Anatolian Studies* XXIII, 281-303.
- Pecorella, P.E.  
1987 'Tell Barri: un sito sul limes nell'area del Habur (Siria) (Scavi 1980-1984)' *Mesopotamia* 22, 101-11.
- Peltenburg, E.J.  
1984 'Kharabeh Shattani 1984', in *Edinburgh University Department of Archaeology Annual Report* 1 Oct. 1983 - 30 Sept 1984.
- Pope, A.U.  
1938 *A survey of Persian Art from Prehistoric times to the present day*, London.
- Poppa, R.  
1978 *Kamid El Loz, 2. Der Eisenzeitliche Friedhof Befunde Und Funde*, Rudolf Habelt Verlag GmbH, Bonn.
- Porath, J.  
1974 'A Fortress Of The Persian Period', *Atiqot* 7.
- Al-Radi, S. and Seeden, H.  
1980 'The AUB Rescue Excavations at Shams ed-Din Tannira', *Berytus* 28, 88-126.
- Rassam, H.  
1897 *Asshur and the Land of Nimrod: Being an account of the discoveries made in the ancient ruins of Nineveh, Asshur, Sepharvaim, Calah, Babylon, Borsippa, Cuthab, and Van, including a narrative of different journeys in Mesopotamia, Assyria, Asia Minor, and Koordistan*, Eaton & Mains/Curtis & Jennings, New York/Cincinnati.
- Rawson, P.S.  
1954 'Palace Wares from Nimrud: technical observations on selected examples', *Iraq* 16, 168-172.
- Reade, J.  
1986 'A hoard of silver currency from Achaemenid Babylonia', *Iran* 242, 79-89.
- Redmount, C.  
1990 'Ware It's At: Typology of Ceramic Fabrics', *American Centre for Oriental Reserach Newsletter* 3 (November), 8.
- Reitinger, G.  
1938 'Medieval Antiquities West of Mosul', *Iraq* 5, 143-56.
- Reitinger, G.  
1951 'Unglazed Relief Pottery from Northern Mesopotamia', *Ars Islamica* 15, 11-22.
- Rice, P.M.  
1987 *Pottery Analysis: A Sourcebook*, University of Chicago Press, Chicago.
- Riddler, I.D.  
1986 'Pottery Stamps - A Middle Saxon Viewpoint', *Medieval Ceramics* 10, 17-22.
- Roaf, M.  
1983 'A Report on the work of the British Archaeological Expedition in the Eski Mosul Dam Salvage Project from November 1982 to June 1983', *Sumer* 39, 68-82.  
1984 'Excavations at Tell Mohammed 'Arab in the Eski Mosul Dam Salvage Project', *Iraq* 46, 141-56.
- Rostovtzeff, M.  
1941 *Social and Economic History of the Hellenistic World* Volume 1, Oxford.
- Sam'an, A.-S.  
1988 'Bir Hami', (in Arabic), *Sumer* 45, 104-109.
- Sarre, F. & Herzfeld, E.  
1920 *Archäologische Reise im Euphrat- und Tigris-Gebiet*, Dietrich Reimer, Berlin.
- Schmidt, E.F.  
1939 *The Treasury of Persepolis and other discoveries in the Homeland of the Achaemenians*, Oriental Institute Communications No. 21, Chicago.  
1957 *Persepolis II, Treasury and other Discoveries*, Oriental Institute Publications Vol. 69, Chicago.



- 1970 *Persepolis III The Royal Tombs and other Monuments*, Oriental Institute Publications Vol. 70, Chicago.
- Seeden, H.  
1982 'Ethnoarchaeological Reconstruction of Halafian Occupation Units at Shams ed-Din Tannira', *Berytus* 30, 55-95.
- Shepard, A.O.  
1954 *Ceramics for the Archaeologist*, Washington.
- Simpson, St.J.  
1988 'Review of Lise Hannestad, Ikaros: the Hellenistic settlements. The Hellenistic pottery from Failaka', *Bulletin of the Institute of Archaeology, London* 25, 122-24.  
1990a 'Ottoman clay pipes from Jerusalem and the Levant: a critical review of the published evidence', *Society of Clay Pipe Research* 28 (October), 6-16.  
1990b 'Iron Age crop storage and ceramic manufacture in rural Mesopotamia. A review of the British Museum Excavations at Qasrij Cliff and Khirbet Qasrij in Northern Iraq', *Bulletin of the Institute of Archaeology, London* 27, 119-40.
- Smith, S.  
1965 'Ashurbarnipal and the fall of Assyria', in the *Cambridge Ancient History* Vol. III, 113-131 (Cambridge)
- Sono, T. & Fukai, S.  
1968 *Dailaman III. The Excavations at Hasani Mahale and Ghalekutii 1964*, The Tokyo Iraq-Iran Archaeological Expedition Report 8, The Institute of Oriental Culture, Tokyo.
- Speiser, E.A.  
1945 *Excavations At Tepe Gawra I*, University of Pennsylvania Press.
- Stampfli, H.R.  
1983 'The fauna of Jarmo with notes on animal bones from Matarrah, the 'Amuq and Karim Shahir', in L.S. Braidwood, R.J. Braidwood, B. Howe, C.A. Reed & P.J. Watson (eds), *Prehistoric Archaeology along the Zagros Flanks University of Chi-*  
*cago, Oriental Institute Publications* 105, 431-499.
- Stein, D.L.  
1984 'Khabur ware and Nuzi ware: their origin, relationship and significance', *Assur* 4/1 (March).
- Steinberg, A. & Kamilli, D.C.  
1984 'Paint & Paste Studies of Selected Halaf Sherds from Mesopotamia', in Rice, P.M. (ed), *Pots and Potters*, Institute of Archaeology, UCLA Mongraph XXIV
- Stern, E.  
1982 *Material Culture of the Land of the Bible in the Persian Period: 538-332 BC*, Warminster.
- Stronach, D.  
1974 'Achaemenid Village I at Susa and the Persian Migration to Fars', *Iraq* 36, 239-248.  
1978 *Pasargadae: A report on the excavations conducted by the British Institute of Persian Studies from 1961 to 1963*, Oxford University Press, Oxford.
- Sürenhagen, D.  
1987a 'Hirbet Aqar Babira 1985', in *Researches on the Antiquities of the Saddam Dam Basin Salvage and other Researches*, State Organization for Antiquities and Heritage, Baghdad, 129-31.  
1987b 'Hara'ib 'Aqar Babira', *Archiv f. Orientforschung* 34, 175-7.
- Tarn, W.W.  
1965 'Alexander: The Conquest of Persia', in the *Cambridge Ancient History* Vol. VI, 352-386, Cambridge.
- Thompson, R.C. and Hamilton, R.W.  
1932 'The British Museum Excavation on the Temple of Ishtar at Nineveh, 1930-1', *Liverpool Annals of Archaeology and Anthropology* 19, 55-116.

- Thompson, R.C. and Hutchison, R.W.  
 1929 'The Excavations on the Temple of Nabu at Nineveh', *Archaeologica* 79, 103-148.  
 1931 'The site of the Palace of Ashurnasirpal at Nineveh, excavated in 1929-30 on behalf of the British Museum', *Liverpool Annals of Archaeology and Anthropology* 18, 79-112.
- Thompson, R.C. and Mallowan, M.E.L.  
 1933 'The British Museum Excavations at Nineveh 1931-32', *Liverpool Annals of Archaeology and Anthropology* 20, 71-186.
- Thureau-Darugin F. and Dunand, M.  
 1936 *Til-Barsip*, Paris.
- Toma, K.  
 1987 'Excavations at Tell Jambur', in *Researches on the Antiquities of the Saddam Dam Basin Salvage and other Researches*, State Organization for Antiquities and Heritage (Arabic section), Baghdad, 10-25.
- Trinkaus, K.M.  
 1986 'Pottery from the Damghan Plain, Iran: Chronology and variability from the Parthian to the Early Islamic Periods', *Studia Iranica* 15, 23-88.
- Tuffnell, O.  
 1963 *Lachish III The Iron Age*, Oxford.
- Valtz, E.  
 1984 'Pottery from Seleucia on the Tigris', in Bourcharlat, R. & Salles, J.-F. (eds.), *Arabie orientale, Mésopotamie et Iran méridional de l'âge du fer au début de la période islamique*, Editions Recherches sur les Civilizations, Mémoire No. 37, Paris, 55-75.  
 1985 'The Yelkhi countryside', in Quarentelli, E. (ed.), *The Land Between Two Rivers: Twenty years of Italian archaeology in the Middle East: The Treasures of Mesopotamia*, Il Quadrante Edizioni, Torino, 69-71.
- Venco Ricciardi, R.  
 1967 'Pottery from Choche', *Mesopotamia* 2, 93-104.
- 1971 'Sasanian Pottery from Tell Mahuz (North Mesopotamia)', *Mesopotamia* 5-6, 427-82.  
 1982 'La ceramica partica', in Pecorella, P.E. & Salvini, M. (eds.), *Tell Barri/Kahat 1: Relazione preliminare sulle campagne 1980 e 1981 a Tell Barri/Kahat, nel bacino del Habur*, Consiglio Nazionale delle Ricerche Istituto per gli studi micenei ed egeo-Anatolica, Roma, 55-75.  
 1984 'Sasanian Pottery from Choche (Artisans' Quarter) and Tell Baruda', in Bourcharlat, R. & Salles, J.-F. (eds.), *Arabie Orientale, Mesopotamie et Iran Meridional de l'Age du Fer au Debut de la Période Islamique*, Editions Recherche sur les Civilisations, Paris, 48-57.  
 1985 'Coche', in Quarentelli, E. (ed.), *The Land Between Two Rivers: Twenty years of Italian archaeology in the Middle East: The Treasures of Mesopotamia*, Il Quadrante Edizioni, Torino, 100-106, 133-36, 202-208.
- Vries, K. De  
 1977 'Attic Pottery in the Achaemenid Empire', *American Journal of Archaeology* 81, 544-548.
- Wampler, J.C.  
 1947 *Excavations at Tell en-Nasbeh: II The Pottery*, Berkley.
- Watkins, T.  
 1983 'Eski Mosul Project, north Iraq', in *Edinburgh University Department of Archaeology Annual Report*, 1 Oct. 1982 - 30 Sept. 1983.  
 1987 'Kharabeh Shattani: an Halaf culture exposure in northern Iraq', in Huot, J.-L. (ed.), *Préhistoire de la Mésopotamie la Mésopotamie préhistorique et l'exploration récente du djebel Hamrin*, C.N.R.S., Paris, 221-30.  
 1990 'The origins of house and home?', *World Archaeology* 21/3, 336-347.
- Watkins, T. (ed.)  
 1987 *From the Pieces of the Past: an Introduction to Archaeology*, University of Edinburgh; Department of Archaeology, Edinburgh.

- Watkins, T., Baird, D. and Betts, A.  
1989 'Qermez Dere and the early aceramic neolithic of north Iraq', *Paleorient* 15/1, 19-24.
- Watkins, T. & Campbell, S.  
1986 *Excavations at Kharabeh Shattani*, Volume 1, University of Edinburgh, Department of Archaeology, Occasional Paper No. 14, Edinburgh.
- 1987 'The chronology of the Halaf culture', in Aurenche, O., Evin, J. and Hours, F. (eds), *Chronologies in the Near East: Relative and Absolute Chronologies 16,000-4,000 BP*, BAR International Series 379, Oxford, 427-464
- Wenke, R.J.  
1976 'Imperial Investments and Agricultural Developments in Parthian and Sasanian Khuzestan: 150 B.C. to A.D. 640', *Mesopotamia* 9/10, 31-221.
- Whitcomb, D.S.  
1985 *Before the Roses and Nightingales: Excavations at Qasr-i Abu Nasr, Old Shiraz*, The Metropolitan Museum of Art, New York.
- Whitehouse, D.  
1978 'Home-baking in Roman Italy: a footnote', *Antiquity* 52, 146-7.
- Wilkinson, T.J.  
1990 'Soil development and early land use in the Jezira region, Upper Mesopotamia', *World Archaeology* 22, 87-103.
- Wilkinson, T.J. *et al.*  
1990 *Town and country in southeastern Anatolia: Vol. I: Settlement and Land Use at Kurban Hoyuk and Other Sites in the Lower Karababa Basin*, Oriental Institute Publications, volume 109, Chicago.
- Woolley, C.L.  
1916 'A North Syrian Cemetery of the Persian Period', *Liverpool Annals of Archaeology and Anthropology* 7, 115-129.
- 1962 *Ur Excavations IX: The Neo-babylonian And Persian Periods*, London.
- Xenophon  
*Cyropaedia*, tr. by Henry Graham Dakyns, Everyman's Library.  
*Oeconomicus* tr. by E.C. Marchant 1959, Loeb Classical Library No. 168, London.  
*The Persian Expedition*, tr. by Rex Warner 1949, Penguin, Harmondsworth.
- Yadin *et al.*  
1958 *Hazor I*, The Hebrew University, Jerusalem.
- 1960 *Hazor II*, The Hebrew University, Jerusalem.
- 1961 *Hazor III-IV*, The Hebrew University, Jerusalem.
- Yassine, K.  
1988 *Archaeology of Jordan*, Amman.
- Younis, N.  
1987 'Excavations at ... Baqaq 3', *Researches on the Antiquities of the Saddam Dam Basin Salvage and other Researches*, State Organization for Antiquities and Heritage, Baghdad, 50-59 in Arabic section.
- Zertal, A.  
1989 'The Wedge-shaped Decorated Bowl and the Origin of the Samaritans', *Bulletin American Schools of Oriental Research* 276 (November), 77-84.















