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## EXCAVATIONS AT ‘ĀNA

Report on the excavations of the British Archaeological Expedition to Iraq in 1981-2
This was a rescue project in the basin of the Qadisiyya Dam recently completed at Haditha. Qal'at 'Ana is an island in the stream of the Euphrates, the site of the ancient and medieval city of A Ana, since the $17^{\text {th }}$ century downgraded to a village and palm-gardens, while the town moved to the right bank. 'Ana, on the Middle Euphrates some 150 km below the modern Iraqi-Syrian border, a very beautiful place, was the centre of an autonomous governorate under the Assyrians, a border fortress under the Parthians, Romans and Sasanians, and a caravan town and bedouin centre under Islam.

## EXCAVATIONS AT

## ‘ĀNA

## QAL'A ISLAND

by
ALASTAIR NORTHEDGE, ANDRINA BAMBER, and MICHAEL ROAF with contributions by Dr. Bahija Isma'il, J.A. Black, Robert Killick, Michael Charles \& David Kennedy


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## CONTENTS

List of Tables ..... iv
List of Figures ..... iv
List of Plates ..... vi
Foreword by Dr. Mu'ayyad Sa'id Bassim, Director-General of Antiquities ..... ix
Introduction ..... x
Chapter 1 History of "Ana ..... 1
(i) 'Ana in the Cuneiform Sources, by Dr. B. K. Isma'il, M. D. Roaf, \& J. A. Black ..... 1
(ii) 'Āna in the Classical Sources, by David Kennedy \& Alastair Northedge ..... 6
(iii) 'Āna in the sources of the Islamic Period, by Alastair Northedge ..... 9
Chapter 2 Topography, Archaeology and Environment of 'Ana, by Alastair Northedge, with a contribution by Michael Charles ..... 14
General Topography of 'Āna ..... 14
Topography and Recent Geomorphology of the Qal'a Island ..... 15
Monuments of the Qal'a ..... 15
The Congregational Mosque and the Minaret ..... 17
The Islamic Palace ..... 20
The Bridge ..... 20
The Street Pattern of the Island City ..... 20
Agriculture of the Island ..... 21
The Nā'ūr ..... 21
Agriculture and Vegetation, by Michael Charles ..... 22
Chapter 3 The Stratigraphy of the Excavations, by Alastair Northedge ..... 25
Aims and Methodology of the Excavation ..... 25
Summary of the Occupational History ..... 28
Description of the Excavations ..... 28
The Occupational Sequence ..... 28
Trench R4 7C/D ..... 28
Trench R5 5D ..... 33
Trench Q4 2H ..... 37
Trench Q3 6B ..... 37
Trench N5 3A ..... 38
Area N4: Excavations under the corner of the Congregational Mosque ..... 38
Area K2 10J \& K3 1.I: Excavations in the Village ..... 42
Topographical Features ..... 50
The Embankment Wall: R3 5C ..... 50 ..... 50
The Ancient Main Avenue: Area G3 ..... 52
Area J3 ..... 52
Trench R4 7C/D ..... 52
Chapter 4 Neo-Assyrian to Early Sasanian pottery, by Robert Killick ..... 54
Neo-Assyrian Pottery, 9th-early 8th centuries BC ..... 54
Neo-Assyrian Pottery, mid/late 8th century BC ..... 65
Parthian Pottery ..... 65
Early Sasanian Pottery, 3rd century AD ..... 71
Chapter 5 Middle Sasanian to Islamic Pottery, by Alastair Northedge ..... 76
Middle Sasanian Pottery, 4th-5th centuries AD ..... 76
Late Sasanian and Umayyad Pottery, 6th-8th centuries AD ..... 77
Early Abbasid Pottery, late 2nd/8th century ..... 82
Samarran Pottery, 3rd/9th century ..... 83
4th/10th to early 5th/11th century Pottery ..... 94
Mid to Late 5th/11th century Pottery ..... 94
6th/12th century Pottery ..... 102
7th/13th century Pottery ..... 102
7th/13th -8 th/ 14 th century Pottery ..... 103
Early Modern (Ottoman) Pottery, 9th/15th-13th/19th centuries ..... 112
Modern Traditional Pottery ..... 114
Chapter 6 Glass, by Andrina Bamber ..... 115
Samarran Abbasid Glass, 3rd/9th century ..... 116
Other Early and Middle Islamic Glass ..... 125
Chapter 7 Small Finds, by Andrina Bamber ..... 126
Metalwork ..... 126
Iron Nails ..... 126
Copper and Bronze ..... 126
Clay ..... 127
Glazed Bricks ..... 127
Figurines and other Clay ..... 127
Stone and Bone Objects ..... 134
Plaster ..... 134
Afterword ..... 135
Complete Catalogue of Small Finds ..... 136
Bibliography ..... 140
Arabic SectionForeword by Dr. Mu'ayyad Sa'id Bassim, Director-General of AntiquitiesArabic Summary
TABLES

1. Terminology of periods used in the report. ..... xi
2. Governors of Suhu. ..... 5
3. Periods represented in the phases of each trench. ..... 27
4. Correlation of trench phases for the Neo-Assyrian to Early Sasanian periods. ..... 55
5. Numbers and proportions of sherds found. ..... 55
6. Frequency of illustrated pottery types. ..... 74

## FIGURES

1. Map of the Middle Euphrates showing the position of 'Ana. viii
2. Sites of the Qādisiyya Dam Salvage Project, showing Assyrian sites. 2
3. The Euphrates road in the Islamic period. 10
4. The area of 'Āna, Rāwa, and the Qal'a Island. 14
5. The Qal'a Island at 'Ana showing the principal features of the island. 16
6. General plan of the Congregational Mosque. 18
7. Niches of the Minaret (after Sarre \& Herzfeld 1911, Abb. 301). 19
8. Irrigation and field layout at the southern end of the island. 23
9. The southern end of the Qal'a Island showing the locations of the trenches excavated by the British Archaeological Expedition. ..... 26
10. Plans of excavated remains in trench R4 7C/D. (a) Phase 2, (b) Phase 3, (c) Phase 4, (d) Phase 5. ..... 29
11. Plans of excavated remains in trench R4 7C/D. (a) Phase 6, (b) Phase 7, (c) Phase 8, (d) Phases 9-10. ..... 31
12. Sections of trench R47C/D. (a) south section, (b) north section, (c) west section. ..... 32
13. Sel ..... 33
14. Sections of trench R5 5D. (a) north section, (b) west section, (c) east section, (d) south section. ..... 34
15. (a) Plan of excavated remains in trench Q 42 H . ..... 35
(b) Plan of excavated remains in trench Q3 6B, Phase 2.
16. Plans of excavated remains in trench Q3 6B. (a) Phase 4, (b) Phase 5. ..... 36
17. Sections of trench Q 36 B , (a) north section, (b) east section. ..... 37
18. Sections of trench N5 3A. (a) south section. (b) east section. ..... 39
19. Plans of excavated remains in square N4. (a) Phase 1, (b) Phase 2, (c) Phase 3, (d) Phase 4. ..... 40
20. Sections in square N4. (a) west section of 8 C and 8 D (A-A on fig. 19), (b) north section (B-B), east section (C-C) ..... 41
21. Plans of excavated remains in trench K3 1J. (a) Phases 1 and 2. (b) Phase 3. ..... 43
22. Plans of excavated remains in trench K3 1J. (a) Phases 5, 6 \& 7, (b) Phases 8, 9, 11, \& 12. ..... 45
23. Section in trench K 31 J : east section (A-A on figs. 21-2). ..... 46
24. Sections in trench K3 1J. (a) south section, (b) west section. ..... 48
25. Sections in trench K3 1J. (a) north section, (b) section visible in the side of Pit 31 (B-B on fig. 22). ..... 49
26. Trench R3 5C: (a) plan of Phase 1, (b) plan of Phases 2 and 3, (c) south section ..... 51
27. Sketch section illustrating the development of the path in area G3. ..... 53
28. Neo-Assyrian pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D. ..... 59
29. Neo-Assyrian pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D. ..... 61
30. Neo-Assyrian pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D. ..... 63
31. Neo-Assyrian pottery from R4 7C/D Phase 5. ..... 64
32. Parthian pottery from R4 7C/D Phase 4. ..... 67
33. Parthian pottery from R4 7C/D Phase 4. ..... 69
34. Parthian pottery from R4 7C/D Phase 4, and pottery from R4 7C/D Phase 3b. ..... 70
35. Early Sasanian pottery from R4 7C/D Phase 3a. ..... 72
36. Partho-Sasanian pottery from Q3 6B Phases 3-2. ..... 73
37. Middle Sasanian pottery from K3 1J Phase 9 (Group 1). ..... 79
38. 1-18: Late Sasanian and Umayyad pottery from N4 (Group 2). 19-26: Early Abbasid pottery from N4 (Group 3). ..... 81
39. Samarran Abbasid pottery from pit K3 1J: 31 (Group 4). 1-8: glazed wares. 9-12: Brittle Ware. ..... 85
40. Samarran Abbasid Thinwares from pit K3 1J: 31 (Group 4). ..... 87
41. Samarran Abbasid medium and storage wares from pit K3 1J: 31 (Group 4). ..... 89
42. Samarran Abbasid pottery from the J3 house (Group 5). ..... 93
43. Pottery probably dating to the 4 th/10th and early 5 th/11th centuries (Group 6). ..... 95
44. 5th/11th century pottery from pit K2 10J: 1 (Group 7)-glazed wares. ..... 97
45. 5th/11th century pottery from pit K2 10J: 1 (Group 7)-monochrome glaze and unglazed wares. ..... 99
46. 6th/12th century pottery from K3 1J Phase 5 (Group 8). 1-7: glazed wares. 8-16: unglazed wares. ..... 101
47. 7th/13th century pottery from K3 1J Phases 3 and 4 (Group 9)-glazed wares.
48. 1-7: 7th/13th century unglazed pottery (Group 9). 8-11C: 7th/13th-8th/14th century pottery from R4 7C/D (Group 10) ..... 107
49. 7th/13th-8th/14th century glazed and unglazed pottery (Group 10). ..... 109
50. Pottery from the Early Modern occupation and abandonment of K3 1J Phase 3 (Group 11)- glazed wares. ..... 111
51. Pottery from the Early Modern occupation and abandonment of K3 1J Phase 3 (Group 11)- unglazed wares. ..... 114
52. Abbasid glass from K3 1J pit 31. ..... 119
53. Abbasid glass from K3 1J pit 31. ..... 121
54. Glass from other contexts. ..... 123
55. Metal small finds. ..... 129
56. Baked clay small finds. ..... 131
57. Miscellaneous small finds. ..... 133

Plate I
a. View of the stream of the Euphrates incised into the limestone steppe, looking downstream with the promontory of Rāwa and the fort of Midhat Pāshā in the foreground. RAF photo dated January 1939 (British Museum).
b. Anah in 1836. From F. R. Chesney, Narrative of the Euphrates Expedition 1835-7.

## Plate II

Vertical air view of the Qal'a Island, taken by the RAF on 19th January 1939 (British Museum).
Plate III
a. Panoramic view of the Qal'a looking upstream from the minaret.
b. Panoramic view of the Qal'a looking south from the minaret in 1908 (Bell Archive, negs. J230a-b).

## Plate IV

a. The minaret in 1908 (Bell Archive, neg. J223).
b. The minaret after restoration.
c. General view of the Congregational Mosque.

## Plate V

a. The north end of the Qal'a Island, showing the site of the Palace.
b. The projecting belvedere in the Palace.
c. Interior of the belvedere.
d. Pier of bridge across the moat, excavated by the State Organisation for Antiquities and Heritage.

## Plate VI

a. Panoramic view of the bridge piers in 1908 (Bell Archive, negs. J228a-b).
b. Abandoned house of the modern village.
c. Interior of reception room from abandoned house of the modern village, illustrating arched niches.

Plate VII
a. Abandoned $n \bar{a}{ }^{\top} u \bar{r} r$ on the Shāmiyya bank.
b. Working $n \bar{a} \bar{u} u$.
c. Metal nā̄ūr bucket.
d. Early Modern ceramic näāur bucket, without base and used as a flue for oven 20 (K3 1J).

## Plate VIII

a. Trench R4 7C/D Phases 9-10, showing line of Neo-Assyrian street with threshold and channel, looking southeast.
b. Trench R4 7C/D Phase 5, late Neo-Assyrian building, street line and drain.
c. Trench R4 7C/D Phase 4, Parthian drain.

## Plate IX

a. Area N4. General view of a house dated to the late Umayyad or early Abbasid period built over by the second period of the Congregational Mosque.
b. Engaged pier of denticulated form in the N4 house.
c. Half-round engaged pier in the N4 house.
d. Area N4. Mud-brick wall with stone socle.

Plate $X$
a. Trench K3 1J, Phase 2 modern building.
b. Trench K3 1J, Section through Parthian, Sasanian and Islamic deposits before excavation of the trench.
c. Trench K3 1J, pit K2 10J:1 dated to the 5th/11th century.

## Plate XI

a. Trench K3 1J, Neo-Assyrian to Sasanian mud-brick mound cut into by Islamic pits.
b. The central path, raised above the surrounding gardens.
c. Area G3. Successive build-up of street surfaces on the main avenue.

## Plate XII

a. Neo-Assyrian beaker, fig. 28 no. 19.
b. Parthian glazed ware from R4 7C/D Phase 4, fig. 32.
c. Part of Parthian twin-spouted vessel from R4 7C/D Phase 4, fig. 33 no. 77.
d. Parthian incised jar sherds from R4 7C/D Phase 4, fig. 33 nos. 74-5.

## Plate XIII

a. Honeycomb ware sherds.
b. Early Abbasid incised thinware sherds from N4, figs. 38.19 \& 21.
c. Abbasid thinware jar, decorated with "chattering", from K3 1 J pit 31, fig. 40.1.
d. Abbasid moulded cup sherd, green glaze, from K3 1J pit 31, fig. 39.5.

Plate XIV
a. 5th/11th century spotted splash bowl sherds from pit K2 10J: 1, figs. 44.1 \& 4 .
b. 5th/11th century spotted splash bowl sherd from pite K2 10J: 1, fig. 44.3C.
c. 5th/11th century spotted splash bowl sherd with red slip-painted design from pit K2 10J: 1, fig. 44.5C.
d. 5th/11th century thinware jar from pit K2 10J: 1, fig. 44.6.
e. 5th/11 th century commonware from pit K2 10J: 1, figs. 44.8-9.

Plate XV
a. Bowl with blue-green glaze and black spiral decoration in-glaze, 7th/13th century (Group 9), fig. 47.10.
b. Tell Minnis ware lustre bodysherd (fig. 47.4), and Raqqa ware spout (fig. 47.1).
c. Sgraffito sherds.
d. Early Modern glazed sherds with blue-green glaze and underglaze painted designs, figs. 50.2C \& 50.5 .

Plate XVI
a. Sherds of modern local pottery.
b. Figurine T219, Parthian.
c. Figurine T75, unstratified.
d. Part of Early Modern painted plaster plaque, probably from over a doorway (T13).


1. Map of the Middle Euphrates showing the position of 'Ana.

## FOREWORD <br> by Dr. Mu'ayyad Sa id Bassim Director-General of Antiquities

In the course of the rescue excavations in the area of inundation behind the Qadisiyya Dam at Haditha, the British Expedition, with the aid of the State Organisation for Antiquities and Heritage, undertook work on the Qal'a Island in the historic city of 'Ana, scheduled to be included within the area flooded by the waters of the dam basin.

Although the excavations lasted for only one season, they achieved results complementary to the Iraqi excavations on the island, in the area surrounding the minaret of the island's mosque. It was proved in the British excavations that the oldest levels about which information could be gained by sondages and test trenches were Assyrian, even if there were older remains to be found. It has been shown that one of the stelae discovered in "Ana refers to Hammurabi, not as a king in 'Ana, but as an ancestor from whom was descended Ninurta Kudurri Usur, ruler of Suhu and Mari ( 750 BC ).

The history of settlement in "Ana stretches through the Hellenistic and Islamic periods (the period of the Uqailid Amirate) up to the beginning of this century, when occupation on the island began to diminish, concurrently with expansion of settlement on the southern bank of the Euphrates, and increasing migration to the city, because of agricultural conditions which did not allow for expansion and development on that strip of river-bank.

The island ended up by becoming nothing more than a small group of gardens, with a very small settlement in the upper third of the island.

There is no doubt that the Iraqi and British survey and excavations on the island have resulted in fundamental new information. But the prevailing conditions-the rise of the water-level in the Qadisiyya Dam basin-have brought about an end to the excavation of this historic island. As a result, much of the remains continue to lie buried on the island, which has not yet revealed all of its secrets to us.

## INTRODUCTION

This report deals with the contribution of the British Archaeological Expedition to Iraq in the winter of 1981-2 to the Qādisiyya Dam Salvage Project, in conjunction with the State Organisation for Antiquities and Heritage, Baghdad.

Qal'at 'Ana, the island site in the Euphrates of the ancient and medieval town at 'Ana, is without doubt one of the most important archaeological sites to be flooded by the Qādisiyya Dam, with a continuous occupational sequence up to modern times, beginning at the latest in the Neo-Assyrian period, but probably in the Old Babylonian period, or even earlier. One season of excavations was carried out, and our aims were consequently limited. The State Organisation for Antiquities and Heritage has been conducting an extensive campaign of excavations on the island, and has uncovered much fine architecture, and extremely exciting finds. Our aim was to make a stratigraphic analysis of as much of the island's sequence of occupation as possible.

This report is divided into seven chapters: the first deals with the history of Ana, from the point of view of the Cuneiform, the Classical, and the Islamic sources; the second with the topography, archaeology and environment of the island; the third with the stratigraphy of the excavations; the fourth with the pottery from the Neo-Assyrian up to the early Sasanian period; the fifth with the middle Sasanian to Islamic pottery; the sixth with the glass, and the seventh with the small finds. We are greatly indebted to the other authors, Dr. Bahija Khalil Ismail, Jeremy Black, Robert Killick, Michael Charles and David Kennedy for their contributions.

The main campaign lasted from October 1981 to January 1982. It was directed by Michael Roaf, and the Field Director was Alastair Northedge. The team consisted of Andrina Bamber, Ben Buxton, Timothy Crump, Robert Killick and Jane Killick (Archaeologists), Susan Roaf (Architect), Michael Charles (Archaeobotanist), Victoria Southwell (Photographer), and Sd. Abd al-Majīd al-Hadīthī (Representative of the State Organisation for Antiquities and Heritage).

A short study season was conducted in October 1982 by Alastair Northedge and Andrina Bamber. The representatives of the State Organisation for Antiquities and Heritage were Sd. Mizhir, and Miss Imān 'Awād Jāsim.

The majority of the members of the expedition participated in the drawing of the pottery and small finds, and they were prepared for publication by Andrina Bamber and Alastair Northedge.

The excavations were undertaken as part of the Qādisiyya Dam Salvage Project, sponsored by the State Organisation for Antiquities and Heritage, Baghdad, which paid the wages of the workmen and provided the excavation equipment. We would like to thank the President of the State Organisation, Dr. Mu'ayyad Sa'id Bassìm; the Director-General of the Western Region, Dr. Baqir al-Hussaini, as Director of the Qadisiyya project; Sd. Ratib Faraj, and Sd. Qahtan al-'Izzi, Directors of the Centre of the Project in 'Ana; Sd.Mahir, head of the expedition of the State Organisation at Qal'at 'Ana, and our representatives, for all their assistance and constant support.

The British Archaeological Expedition to Iraq excavations at Qal'at 'Ana were sponsored by the British School of Archaeology in Iraq, and a grant to support the work was made by the British Academy. Without this generous support our excavations at 'Ána would have been impossible.

## A Note on Conventions

The Arabic transcription used is that of the Encyclopaedia of Islam, with the usual changes, thus " $q$ " instead of " $k$ ", " $j$ " instead of "dj", and "sh", "kh" instead of "sh", " $k \underline{h}$ " etc. The definite article of names has usually been omitted, but not always (e.g. "Walid" rather than "al-Walid"). The names of archaeological sites are given as spelt by their excavators, even when this is a formally incorrect transliteration.

Dates associated with Islamic history are quoted with the hijrī date first, separated by a stroke from the date according to the Christian era, e.g. 117/735. Otherwise dates are only given in the Christian era.

Alastair Northedge<br>Andrina Bamber<br>Michael Roaf

October 1986

# Table 1 Terminology of Periods used in the Report 

| Period | Subdivision | Date ( $\mathrm{BC}, \mathrm{AD}$, or $\mathrm{AH} / \mathrm{AD}$ ) |
| :---: | :---: | :---: |
| Neo-Assyrian |  | 1000-600 в.с. |
| Achaemenid |  | 550-330 в.С. |
| Hellenistic |  | 330-150 в.С. |
| Parthian |  | 150 в.C.-226 A.D. |
|  | Late Parthian | 2nd century a.d. |
| Sasanian | Early | 3rd-4th centuries A.D. |
|  | Middle | 4th-5th centuries A.D. |
|  | Late | 6th-7th centuries A.D. |
| Early Islamic | Umayyad | 11/632-132/750 |
|  | Early Abbasid | 132/750-early 3rd/9th century |
|  | Samarran | Early-late 3rd/9th century |
|  | Post-Samarran (4th/10th century) | 4th/10th century-early |
| Middle Islamic | 5th/11th century | Mid-late 5th/11th century |
|  | 6th/12th century (Late Abbasid) | Early-late 6th/12th century |
|  | 7th/13th century (Late | Late 6th/12th century-mid |
|  | Abbasid) | 7th/13th century |
|  | 8th/14th century (Il-Khanid) | Late 7th/13th century8th/14th century |
| Early Modern (Ottoman) | Early Ottoman | 10th/16th-11th/17th century |
|  | Late Ottoman | 12th/18th-13th/19th centuries |
| Modern |  | 19th-20th centuries A.D. |

Key to symbols used in the sections

? sand
WU mud-brick
WIIT mortar
\& plaster

# Chapter 1 <br> HISTORY OF ‘ANA 

Part (i): 'Ana in the Cuneiform Sources<br>by Dr. B.K. Ismail, M.D. Roaf \& J.A. Black

The Early History of 'Ana
The early history of Ana is not well known. Most of the few published texts referring to the town are uninformative and were written outside the province of Suhu, of which 'Ana was one of the chief towns; and the texts from 'Ana and its neighbourhood which have been found in the course of the Qadisiyya Dam Salvage Project are still unpublished. Often there is only the mere mention of the name. Sometimes the texts state that 'Ana was attacked, or include the name of the ruler; but of the internal politics, the social structure, and most of the political history, our knowledge is virtually nil.

Several mentions of a place called Hanat, in letters of the period of Zimri-Lim (c.1782-1759 8c), are probably the earliest references to 'Ana (Groneberg 1980/Rep. geogr. 3: s.v. Hanat; Huffmon 1965: 200f). A slightly later text suggests that Hanat was part of the region of Suhu (see below). In any case it should not be confused with the region of Hana, which lay further upstream (see Unger 1932/RLA: 104, s.v. Anat). One letter from Mari records travel provisions for a journey to Hanat by the king Zimri-Lim (Burke 1963/ARM 11: 250), while another states that he was staying there (Dossin et al. 1964/ARM 13: 43). Elsewhere in the letters Hanat is mentioned as a source of gossip about events in Babylonia (Birot 1974/ARM 14: 124). An official of the king reports his arrival at Hanat in connection with the expulsion downstream of some exiles (ARM 6 71). The king gives judgement in a legal case 'in the temple of Hanat' (or: 'at Bit-Hanat') (ARM 8 85). From these references it seems probable that Hanat was within the kingdom of Zimri-Lim, although most likely near its southern border.

The place-name Hanat is often written preceded by the divine determinative, ${ }^{d} \mathrm{Ha} a \mathrm{na}-\mathrm{at}{ }^{k i}$. A deity Hanat was worshipped at Mari and is mentioned in the Mari texts-a goddess, as is clear from the name of a woman in Old-Babylonian Sippar, Ummi-Hanat ('Hanat-is-my-mother', Ungnad 1907/VAS 8: 3) (for details see Huffmon 1965: 200f). It is very likely, although it cannot be proved, that the place Hanat is identical with the later Anat, and thus the same as modern 'Ana. It cannot be demonstrated either that the goddess Hanat is named after the place Hanat or vice versa. A stele of the eighth century bc dedicated to a goddess 'Anat, powerful queen' has been found on the island of 'Ana. Some words beginning with a vowel in Standard Babylonian are found written with h - in western dialects of Akkadian corresponding to ayin in West Semitic languages. However, there is no decisive evidence that the possibly local goddess Hanat/Anat is the same as the goddess of war 'Anat, 'At or 'Atah, whose worship was widespread in Syria, Palestine and Egypt from the middle of the second millennium BC.

With Hammurapi's annexation of Mari in 1759, Hanat must have fallen under Babylonian control. A letter addressed probably to the king or a high official in Babylon appears to confirm this (Frankena 1966/AbB 2: 88). The date is uncertain, but certainly within the reign of Hammurapi or one of his successors. The letter deals with events taking place when a certain Sin-iqisham was šäpir Sühi, a title conveniently translated as Governor of the province of Suhu, and it records a conspiracy against the state which was witnessed by Yadiri, son of Issi-Dagan, and six men of Hanat, and reported to the military official (UGULA MAR.TU) Zimri-Hanata, who from his name might well also be a native of Hanat. The latter in turn reported the matter to Sin-iqisham. From this it seems likely that Hanat lay within the jurisdiction of the governor of Suhu, and was under Babylonian control. The association of Hanat with Suhu makes its identification with later Anat and 'Ana more certain.

## 'Āna and the Assyrians

The next appearance of 'Ana in the cuneiform sources is as 'the town Anat (A-na-at) of the land Suhu' in an inscription of Tiglath-Pileser I (1115-1077 вc: Weidner 1957-8/AfO 18: 350; Grayson 1976/ARI 2: 27), which records his successful campaign against the ahlamû Aramaeans. Further on in the same text another (?) campaign against Suhu is described when Tiglath-Pileser conquered 'all the cities of the land Suhu'. His son Ashur-bel-kala ( $1074-1057$ Bc) again attacked the Aramaeans and 'brought about their de[feat from the town An]at of the land Suhu ... as far as Rapiqu of Karduniash' (Grayson 1976/ARI 2: 58). But Suhu does not seem to have been brought under Assyrian rule, and the Aramaeans probably continued to control the Middle Euphrates for the following 150 years. Adad-nerari II (911-891 BC)

2. Sites of the Qādisiyya Dam Salvage Project, showing Assyrian sites.
claimed to have inflicted a crushing defeat on the ahlamû Aramaeans, and recorded that he received tribute from the Suhu people (Grayson 1976/ARI 2: 87).

His son and successor Tukulti-Ninurta II ( $890-884 \mathrm{BC}$ ) described in considerable detail his march through Suhu, probably in 885 BC , following the Euphrates upstream and crossing before Hit to the right (western) bank. This was, at least in Suhu, a peaceful procession apparently with the purpose of collecting tribute. He 'approached the city Anat of the land Suhu-Anat lies (on an island) in the Euphrates. He pitched camp (and) spent the night before Anat. He received bountiful tribute from Iluibni, governor of the land Suhu: three talents of silver, 20 minas of gold, an ivory couch, three ivory chests, 18 tin bars, 40 furniture-legs of meskannu-wood, a bronze bath-tub, linen garments with multicoloured trim, purple wool, oxen, sheep, bread (and) beer' (Grayson 1976/ARI 2: 102). This seems to suggest that Anat was then the principal town of Suhu and the governor's seat. The governor E-namhe-zer-ibni may belong to this earlier period, when 'Anat was the governor's residence; for his name ('The-temple-E-namhe-has-produced-a-descendant') suggests that he was a native of 'Anat, where the temple of this name was located.

Shortly after, at the beginning of the reign of Ashur-nasir-pal II (883-859 BC), Ilu-ibni came personally to Nineveh, bringing tribute of silver and gold, in order to 'save his life together with (that of) his brothers (and) his sons' (Grayson 1976/ARI 2: 125). It may have been at this time that Kudurru was able to establish himself as governor of Suhu in place of Ilu-ibni. However, it was not until four years later in 878 bC that Ashur-nasir-pal marched towards Suhu to re-establish Assyrian hegemony over that province. He came downstream on the left bank and 'spent the night before the city Anat', and then moved on towards 'the city Suru, the fortified city of Kudurru, Governor of the land Suhu'. According to Ashur-nasir-pal the fighting lasted for two days within the city (probably modern Sur Tilbis), and resulted in a victory for the Assyrians over a combined force of Babylonians and Suhians, with the capture of fifty cavalrymen as well as 3,000 Babylonian troops and their commanding officer, and the brother of the king of Babylon. Kudurru and seventy of his soldiers only managed to save their lives by taking to the river Euphrates, where perhaps they found a refuge in the island fortress of Talbish, in the vicinity of Suru (Grayson 1976/ARI 2: 138). Ashur-nasir-pal set up a stele at Suru, but his victory was incomplete, for not only did it fail to remove Kudurru, but also after the battle of Suru the Assyrian army did not continue downstream to conquer the whole of Suhu.

The following year, or perhaps somewhat later, 'all the men of the land Laqu, the city Hindanu (and) the land Suhu' rebelled and crossed the Euphrates. Ashur-nasir-pal took to the field and defeated this combined army (Grayson 1976/ARI 2: 138f). In this campaign the Assyrian army was operating in the area of Haridu (Khirbet ed-Diniyeh), upstream from 'Āna, so possibly only northern Suhu revolted. Maybe at some stage Kudurru and Ashur-nasir-pal came to an agreement in which Kudurru was confirmed in his governorship and agreed to pay tribute. In any case later in Ashur-nasir-pal's reign Kudurru was depicted giving tribute to the king outside Balawat, on one of the sets of Balawat Gates (Grayson 1976/ARI 2: 181; Oates 1974: 175), and in the Banquet Stele from Nimrud it is recorded that Ashur-nasir-pal 'received five live elephants as tribute from the governor of the land Suhu and the governor of the land Lubdu', which he took with him on his campaigns. Dignitaries of Suhu were invited to the feast celebrating the rebuilding of Kalhu, and the men of Suhu formed part of the population of the new city (Grayson 1976/ARI 2: 173, 175f).

According to texts found in recent excavations of the Iraqi State Organisation for Antiquities and Heritage at Sur Jur'eh, at Duwali and on the island of 'Ana, Kudurru and his son Adad-nadin-zeri, his descendant Iqisha-Marduk, and the latter's son Shamash-resh-usur and grandson Ninurta-kudurri-usur all styled themselves Governor of Suhu and Mari. On the Black Obelisk of Shalmaneser III (858-824 BC) is depicted the 'tribute of Marduk-apal-usur of Suhu, silver, gold, vessels of gold, ivory, javelins, byssus (fine linen cloth), multi-coloured garments and linen' (Strommenger 1964: pl. 208; Luckenbill 1926-7/ARAB 1: para. 592; CAD s.v. busu D). This Marduk-apal-usur may possibly be the same as the author of a letter found at Hama in Syria (no. 6 A 334, see Ingholt: 115 ff \& n.10; Laessøe 1956: 60-7). In the reign of Adad-nerari III ( $810-783 \mathrm{BC}$ ), the powerful governor of Rasappa Palil-irish (also read as Nergal-irish) claimed to be governor as well of the town AAna and the land Suhu in both the Sab'a Stele and in the Rimah Stele (Luckenbill 1926-7/ARAB 1: para. 736; Page 1968: 142). Palil-irish remained governor of Rasappa throughout the reigns of Adad-nerari III and Shalmaneser IV (782-773 BC) and was the limu official in 803 and 775 BC . It seems possible that there were moves to reduce his governorate, for a fragmentary stele found outside the Temple of Ishtar in Nineveh promises that Rasappa province shall include Hindanu and that no successor of Adad-nerari shall remove Palil-irish from the post of governor there (Thompson \& Mallowan 1933/AAA 20: 113, cited in Page 1968: 153). We should probably assume that the hereditary governors of Suhu kept their power and that Palil-irish was exaggerating his own importance.

Shamash-resh-usur has been known for a long time, because of a stele of his found in the 'museum' in the North Palace at Babylon (Weissbach 1903/Misc.: 9-14). In this stele Shamash-resh-usur described the improvements he had carried out in Suhu, including the construction of a new city, Gabbaridu
(possibly Sur Jur'eh), the building of a canal, planting palm-trees and the introduction of bee-keeping. Most unusually the stele is dated to the thirteenth year of his governorship rather than the regnal year of the Assyrian king, once again showing the relative independence of Suhu from the central Assyrian government. The new texts reveal that this governor also built settlements at Dur-Shamash-resh-usur and at Kar-Shamash-resh-usur.

Ninurta-kudurri-usur, the son of Shamash-resh-usur, ruled Suhu for at least seven years. A number of fragmentary tablets of his annals have recently been excavated. The first year of his reign overlapped the term of office of Sin-shallimanni, governor of Rasappa and limu for 747, who became governor after 775 and had retired by 737. In this first year of his reign, which must have fallen between these two dates, Ninurta-kudurri-usur defeated Shamagamnu, an Aramaean chief, 'an insubmissive slave of Suhu, of Assyria and of my fathers'. Probably in commemoration of this victory he rebuilt E-namhe, the akitutemple of 'Adad, Apladad and the gods who dwell in Anat' on the island of 'Ana. The god Apladad was a particular favourite of this governor. There are also records of building operations at Gabbaridu, Udada, the restoration of the palace of an earlier governor, E-namhe-zer-ibni, on the island of Rahilu downstream from 'Ana, and of the founding of Dur-Ninurta-kudurri-usur and Kar-Apladad, the latter complete with a governor's palace and temple of Apladad. But of special interest is the stele found reused in the mosque of 'Ana, dedicated to the goddess Anat and originally erected in her temple E-shuzi-ana by Ninurta-kudurri-usur. It commemorates the suppression of a rebellion against the rest of Suhu by the men of "Ana, in which they had apparently joined forces with the Assyrians and invited them to ©Ana.

The latest mention of "Ana in cuneiform records occurs in the closing years of the Assyrian empire in 616 BC . Suhu paid tribute to King Nabopolassar of Babylon, but three years later rebelled. In the year after the fall of Ashur and before the fall of Nineveh, Nabopolassar marched up the Euphrates and captured Rahilu. 'He encamped (against) the town of 'Anat, he brought the siege engines up to the wall and made an attack on the city and [captured it (?)] ... [the king of] Assyria and his army came down and ... the king of Akkad (Babylonia) and his army. (The latter) [returned home]' (for text see Grayson 1975/Chronicles: 93). Presumably 'Ana was incorporated into first the neo-Babylonian and then the Achaemenid empires; but neither Xenophon nor the historians of Alexander mention it.

## The Town of 'Ana

From the texts little can be gleaned about the geographical situation of Anna. It was one of the chief towns of the country of Suhu and, at least during the early neo-Assyrian period (i.e. before the governor Kudurru, c. 883 BC), it was probably the capital (see Brinkman 1968/PHP-B: 183f). The boundaries of Suhu in the second millennium are uncertain, but in the first millennium it stretched some 250 km along the Euphrates from Rapiqu (probably in the vicinity of Ramadi) to the borders of Hindanu (plausibly identified with Jabiriyya near the modern Iraqi border with Syria) ('Abd al-Sahib al-Har 1980). In the first millennium BC the main settlement of Ana was on the island, and from the evidence of the excavations the whole of the island was covered with buildings. There were temples of Anat and Adad there (see above, and Kohler \& Ungnad 1913/ARU: 641.3), and Adad was a popular deity with Shamash-resh-usur and his son (Adad is depicted on the Babylonian stele of Shamash-resh-usur).

The wealth of "Ana and the governors of Suhu must have come from two main sources: from the natural resources of the region, and from trade passing through the territory. Shamash-resh-usur planted palms throughout Suhu, Tiglath-Pileser I mentioned the orchards of Suhu, and sweet wine of Suhu is referred to in a number of texts from the time of Nebuchadrezzar II (Langdon 1912/VAB: 490.i.24, 154.iv.52) and Darius I (Ungnad 1909/VAS 6: 121.3) (See also Dougherty 1920/YOS: 650.7, cited by CAD s.v. karānu (Nbn)). Bee-keeping was introduced by Shamash-resh-usur. Donkeys, mules and dromedaries are listed as part of the levy of Suhu in the late eighth century bC (Saggs 1953: 136 no. 17 (letter from Kalhu)). Elephants, horses, oxen, sheep, wool and linen are recorded as part of the tribute or booty acquired by the Assyrian kings from Suhu. While it is unlikely that the gold, silver, tin, precious stones, or indeed most of the ivory mentioned in the lists of tribute was actually produced in Suhu, the ruler would have derived a substantial income from the exploitation of the bitumen springs at Hit. It is also possible that both ivory and textiles were worked in Suhu (Schroeder 1920/KAV: 106.5, cited by Brinkman 1968/PHPK-B: 184).
'Ana lay at the junction of two important trade routes, the first following the course of the Euphrates river from the West to Babylonia, and the second across the Arabian desert from Tema and on across the Jazira to the heartland of Assyria proper. (A legal document from Nineveh may refer to a road from Kurba-il to Anat (Kohler \& Ungnad 1913/ARU: 194.15).) Tolls and taxes on this trade no doubt provided an important part of the revenue of the rulers of 'Ana. A text from Sur Jur'eh describes the interception of a caravan from Tema and Shaba'(i.e. the Sabaeans, originating from Yemen) which tried to avoid paying its dues to the ruler of Suhu by taking a diversion to Hindanu.

Little can be said about the population of Ana. One may surmise that in the later part of the second millennium and the first millennium the majority were Aramaeans, but in the eighth century bc Ninurta-
kudurri-usur was leading his forces against tribal Aramaeans, as had his father and the Assyrians earlier. A cylinder seal with an inscription in alphabetic script related to the earliest proto-Arabic scripts from north Arabia is 'said to have come from the region of 'Anah' (Albright 1952: 42f). The relations between the settled population of 'Ana and the nomad tribes which controlled the surrounding steppe must always have played a vital role in the prosperity of the town.

## Table 2 Governors of Suhu

E-namhe-zer-ibni*
appears from his name (named from the temple of Adad and Apladad at Anat) to have been a native of Anat, and therefore perhaps belonged to this earlier period when the governor's seat was at Anat.

Ilu-ibni
Kudurru* |
Adad-nadin-zeri*
$1 ?$
U-a-a-mu
।
Iqisha-Marduk*
1
Shamash-resh-usur*
1
Ninurta-kudurri-usur*
went to Nineveh in 883.
accession between 882 and 878 , ruled until perhaps 859 .

## In addition

?Marduk-apal-usur
?Palil-irish
accession before 750 , ruled at least 13 years.
accession after 775, before 737, ruled at least 7 years.

The dynasty of Kudurru (allied in 878 with Nabu-apal-iddina, King of Babylon) claimed descent from the Kassite prince Tunamis-Sah 'son of Hammurabi, king of Babylon'.
In an inscription of his first year, Ninurta-kudurri-usur mentions the governor of Rasappa Sinshallimanni. The Eponym Canon gives different names as governor of Rasappa in 775 and 737. Sinshallimanni was limu in 747.
The names marked with an asterisk (*) are attested with the title 'Governor of Suhu and Mari'.

# Part（ii）：‘Ana in the Classical Sources by David Kennedy and Alastair Northedge 

The Form of the Name in the Classical Sources
The name is preserved in both Greek and Latin as well as in contemporary Palmyrene，Parthian and Syriac：

| Greek： | ＇Ava日 ${ }^{\text {a }}$ | （Isidoros of Charax， |
| :---: | :---: | :---: |
|  | Ava日 | （Preliminary Report of the Excavations at Dura－Europos，Fifth Season 1934：Inscr．416；pp．112ff）； |
|  | ？Betavva？ | （Ptolemy Geog．V．17．5；cf．Dillemann 1961： 121 ＝Beth Ȧna？）； |
|  | ？Ava日a | （Arrian，Parthica［ed．Roos 64］preserved in Stephen of Byzantium）； |
|  | ＇Ava日av | （Res Gestae Divi Saporis，line 12） |
|  | （ ¢ $_{\text {a }}$ | （Zosimus III．14．2）； |
| Latin： | Anatha | （Amm．Marc．XXIV．1．6）； |
|  | ？Anatha／Aratha？ | （Notitia Dignitatum Or．XXXIII．20，11；cf．Dussaud 1927：275）； |
| Parthian： <br> Palmyrene： | ＇nty | （Res Gestae Divi Saporis，line 5）； |
|  |  | （Dunant 1971：no．51）； |
|  |  | （Dunant 1971：no．58）； |
|  |  | （CIS II： 3973 from Palmyra）； |
|  |  | （Cantineau 1933：178－80 from Umm as－Selabikh）； |
|  |  | （RTP 329）； |
| Syriac： | rev | （Hoffmann 1880：30）； |
|  | die | （Wright 1870－2： 1135 col．1）． |

Discussion in：Cantineau 1933：178ff；Chaumont 1984：96f；Dussaud 1927：275；Gawlikowski 1983： passim；Gregory and Kennedy 1985：176－9，408；Kettenhofen 1982：50f；Musil 1927：345－9；Paschoud 1979： 122 n．39；Starcky 1949：81－5．

## The History of＇Āna in Classical Times

We have no record of＂Ana during the Hellenistic period．It fell within the area of the Seleucid Empire， but，like Dura－Europos upstream，would have passed into Parthian control in the late second century B．C．．Undisturbed thereafter for several generations，it would only have been in the mid－second century A．D．that it began to feel the direct effects of Roman advances on the Middle Euphrates and in northern Mesopotamia，including，ultimately（below），brief periods under her rule．From the fifth century onwards it seems to have been firmly in Sasanian control．

Nor do we have information for＇Ana under Parthian rule．However，for Dura－Europos，a Greek foundation but with a largely Semitic population，we have papyri which shed some interesting light on civic institutions in both Hellenistic and Parthian times and which tells us something of Parthian control in the region（Welles et al．1959：6f），perhaps of general relevance to＇Ana too．Thus，we hear of royal judges，a bailiff and collector，and member of the order of bodyguards（P．Dura 18）；in A．d．121，an arcapetes（feudal holder of a city）and a phrourarchos（garrison commander）at Phaliga，upstream；and a tax－collector and governor of Mesopotamia and Parapotamia，and arabarch（all P．Dura 20）．

However，the curiosity in this region of the Middle Euphrates both for the late Parthian and subsequent Roman periods，is the position of Palmyra，a city under Roman domination at least as early as the reign of Tiberius but playing a crucial commercial role in the economic life of both empires．The evidence from Palmyra comes from inscriptions．Thus，Palmyrene texts of A．D．30／1（Inv．X：145）， another，undated but perhaps third century（Dunant 1971：no．58）as well as a tessera（RTP 329），all refer to a deity，Du＇anat，which Starcky（1949：81－5）has recognised as＇the One（god）of Anat＇（Teixidor 1979：68，102）．Further evidence of the the influence of this god of Anatha，and indeed his actual name， is provided by a Greek dedicatory inscription from Dura－Europos．Set up in A．D． 54 by individuals who appear to be members of an association（of merchants？），it is dedicated to Apladad，＇called god of the village of Anath on the Euphrates．＇The names of the dedicants－though all but one are Semitic－are uncommon at Dura，raising the attractive possibility that they are a closely－knit group of outsiders， probably from＇Āna（Preliminary Report of the Fifth Season of Exacavations at Dura－Europos 1934：114； Milik 1972：138；Lipinski 1976：70）．Apladad means＇Son of Hadad＇，an Assyro－Babylonian deity known in the region since at least the sixth century b．c．（Lipinski 1976）．

The martial appearance of Du＇anat／Apladad on the Dura dedication may explain his popularity amongst Palmyrenes．Thus，three other inscriptions，all in Palmyrene，reveal their military presence at ‘Ana．Earliest is one of A．D． 132 from Palmyra（CIS II：3973）which names＇Obaidu ．．．a Nabataean who was a cavalryman in the stronghold and in the camp at＇Ana＇（following the revised translation of Lipinski 1976： 73 and n．164）．Another text，dated to after A．D． 188 and probably late second／early third century，was erected＇by the cavalrymen of the unit of Gamla and of＇Ana＇．Finally，for 225，we have a
mutilated text from the caravanserai of Umm as-Selabikh, on the Palmyra to Hit route, set up by a 'strategos of 'Ana and of Gamla' and mentioning his lieutenant Khaphathout (Cantineau 1933: 178-80). Gamla is probably to be identified with modern Gmeyla/Jumaila, now a suburb of 'Ana 4 kms downstream (Cantineau 1933: 178-80). The strategos in Palmyrene texts clearly has a military function and is not simply the magistrate of most Greek cities (Ingholt 1976: 124-7).

From these and other inscriptions (see especially Starcky 1963; and cf. now Matthews 1984: 168f; Teixidor 1984: 24) we can see how Palmyra seems to have maintained her own military forces at strategic points along the caravan routes, even within the Parthian Empire.

AAna first experienced Roman military power in the reign of Trajan (A.D. 98-117). The forces of that emperor would have passed by on their march to Ctesiphon in 115 ; indeed, we may have an allusion to that event in a fragment of Arrian's Parthica [ed. Roos: 64, where we are told that Anatha is also called Tyros]. The same is likely to have recurred under Marcus Aurelius when the forces of L. Verus marched down the Euphrates in 164/5. More importantly, on this occasion the Roman frontier was advanced, the fortress of Dura-Europos, 130 kms upstream of ${ }^{\text {Ana }}$, passing into Roman hands.

What became of 'Ana during the subsequent century is a problem. Firm ground is provided by the great trilingual inscription of Shāpūr I (most conveniently in Honigmann and Maricq 1953). For his second campaign in, probably, 256, commencing his list of Roman fortresses seized, is Anatha. Precisely when it had changed hands is unknown but not, perhaps, beyond deduction.

Rostovtzeff (1943-4: 25, n.25) believed that a papyrus of 208 (P. Dura 60B), naming outposts along the river below Dura-Europos and ending downstream of it with Belesi Biblada-identifiable perhaps with Ertaje above 'Ana (Gregory and Kennedy 1985: 176-9; cf. 408)-showed that the change of ownership must have come after that date. Following Olmstead (1942: 256), he suggested the campaign of Severus Alexander (222-35) as a possibility rather than that of Gordian III (238-44).

New light has been shed on the question in recent years by archaeological field-work. Excavation at Hatra has produced two Latin inscriptions of Gordian III naming military units, but also another Latin dedication dated to June 235 (Oates 1955; revised by Maricq 1957), only a few months after Severus Alexander's death. We already had a milestone-rare for Mesopotamia-in that same emperor's name, coming from just west of Singara (Fiey 1952; cf. Gregory and Kennedy 1985: 397). Excavation at 'Ain Sinnū, east of Singara, had revealed occupation also dated to this reign (Oates 1968: 80-92). To this we may now add the evidence of Roman military occupation at Bījān Island below 'Āna (Postgate and Roaf 1981: 194; Gawlikowski 1983: 62-grafitti, mainly in Palmyrene, but including one in Latin) and, most significantly at Kifrin. Occupation at the latter is dated by the excavators to the Severan period (Invernizzi 1986). Moreover, they have attractively suggested its identification with the Beccufrayn named as an outpost on Dura papyri (P. Dura 100, 101 and 82) as early as 219 (Pennacchiati forthcoming; Invernizzi forthcoming). In short, Dura may indeed have passed into Roman hands as early as Severus Alexander; perhaps earlier still either in the course of Caracalla's expedition or even as part of the military build-up which we know was taking place at Dura c.209-16 (Welles et al. 1959: 25). If so, the third, perhaps even the second of the Palmyrene texts discussed above, would belong to a period when regular Roman forces were also present (cf. Gawlikowski 1983: 61f), and may explain why the detachments of the latter named in the Dura papyri seem so modest for such a large fortress (see plan in Invernizzi 1986).

One may plausibly surmise the retention of Ana by the Sasanians after c.256. In 363 when Julian's army arrived it was certainly then a Persian fortress. However, we should not automatically assume it had been Persian throughout the preceding century. There were ample opportunities for it to have changed hands, however briefly; for example, during the expeditions to Ctesiphon of Odenathus, Carus and, especially as we shall see, Galerius.

Ammianus gives a fascinating account of the arrival of Julian's army in 363 (Amm. Marc. XXVI.1.6-10; cf. Lib. Or. XVIII.218; cf. Zosimus III.14.2 who calls what must be the same place, Phathousas). The Persian garrison agreed to leave, being transferred to Chalcis in Roman Syria. Amongst the inhabitants the Romans discovered a very old man, a former Roman soldier, left there, sick, many years before during the campaign of Galerius. The abundant supplies found in the city proved of great value to Julian's army during the subsequent crossing of a desert region.

The name Anatha, with a variant Aratha, appears in the Notitia Dignitatum (Or.XXXIII.20,11). Dussaud (1927: 275) may be correct in regarding the identification with the Anatha below Dura, as impossible at that date. Two Anathas, however, might undermine confidence in the identification of some of the other references above. Moreover, as we have seen, there is nothing improbable about a brief occupation in the course of a campaign and an anachronistic memory of one of these may be what is preserved in the Notitia.

To be slotted into broadly this period is the account of Ma'in, the Christian general of Shāpūr II (309-79), who built for himself a hermitage 3.5 kms outside the city on the bank of the Euphrates (Hoffman 1980: 30; Wright 1870-2: 1135 col .1 ). It has been suggested-without much justification-that it lay on the site of the later Muslim shrine of Jami al-Mashhad.

Ana was incorporated into a reorganised Sasanian administrative system from the 4th century onwards. Shāpūr II (A.D. 309-379) built a series of frontier defences in the west, mainly intended for defence against the bedouin (Frye 1977: 9-10) and ‘Ana was constituted part of the district of Firūz Shāpūr (al-Anbār), which was called Shādh Fīrūz, a district that included 'Anna, Hīt and Anbār (Morony 1982: 24). The 4th century defences were extended into a Sasanian version of the Roman limes by Khusrau Anūshīrvān (A.D. 531-578), and forts attributed to this scheme have been identified (Finster \& Schmidt 1976). According to Yāqūt: 2.476 (and repeated elsewhere):

> The khandaq (moat or fosse) of Shāpūr is in the plain of Kūfa. Shāpūr dug it between himself and the Arabs for fear of their depredations. It was reported that Hīt and 'Ānāt were joined to the district of Anbār. Then when Anūshïrvān ruled he was informed that certain tribes of the Arabs were attacking what was near the desert of the Sawād. Then he ordered the marking off of a wall belonging to a town called al-Nasr which Shäpür had built and fortified to protect what was adjacent to the desert. And he (Anūshirvān) ordered a fosse dug from Hît and passing through the edge of the desert to Kāzime and beyond Basra reaching to the sea. He built on it towers and pavilions, and he joined it together with fortified points. The reason for that was to hinder the people of the desert from the Sawād. Because of the fosse Hīt and Annāt were separated from the district of Shāh [sic] Fir

Thus, according to Yāqūt, in the 6th century Anūshīrvān changed the administrative arrangements of the 4th century, and Ana became a frontier district, outside the main Sasanian defences, although clearly on the eastern side of the Euphrates border, and exposed to Roman and tribal attacks. That it was still very much within the operational range of Roman troops in the sixth century is illustrated by the account of Theophylactus Simocatta (Historiae IV.10.4, V.1.2, V.2.3) that in A.D. 591 Varamus sent troops to the fortress of Ana to prevent Khusrau Parviz returning to Mesopotamia. The troops, however, killed their commander and went over to the Sasanians.

In the three centuries before Islam, a Christian community appeared at 'Ana. As noted above, there was a hermitage outside the city in the fourth century A.D.. In a list of Monophysite bishops under the Catholikos of Tikrit in A.D. 629, there was a see at AAna, with jurisdiction over the Christian Arabs of Bani Taghlib (Honigmann 1954), but this bishopric is not known before that date. The chain of bishops seems to have continued until A.D. 935 at least (Trimingham 1979: 176). The monastery of Mar Serjis, known in the Islamic period, was also probably founded before the Muslim conquest.

# Part (iii): 'Ana in the Sources of the Islamic Period by Alastair Northedge 

## The Form of the Name in the Islamic Period

In Arabic three different spellings of the name 'Ana are found: in the early period عانات ('Anāt) is found in Tabarī (1/3261, 3/1395), Ya'qūbī Tārīkh (2/383), Ibn Khurdādhbih (Ibn Khurdādhbih: 74), and in early Arabic poetry. A shortened form ${ }^{\circ}$ ( ${ }^{\circ} \bar{n} n a$ ) is also found in Ibn Khurdādhbih (mid 3rd/9th century), and in the geographers of the 4th/10th century, al-Istakhrī, Ibn Hawqal, and al-Muqaddasī. While the occurrence of this second form in Ibn Khurdädhbih might be the result of a copyist's or editor's emendation, the shortened form was obviously general by the 4th/10th century, and is the standard spelling of the Middle Islamic period. In the Ottoman period the spelling was further shortened to عنه ('Ana). Today the Ottoman spelling continues, but the local pronunciation has the long first vowel of the medieval period. Local written forms often include an alif written superscript (غنه).

## The Location of the City of 'Ana

The early Islamic sources tell us that the town was located on an island in the Euphrates (Ibn Khurdādhbih: 233; Iștakhrī: 77), and that it was one of the forts of the Euphrates (husūn al-Furāt) (Balādhurī: 179). Ibn Hewqal, Kitāb Ṣürat al-Arḍ: 338-9 (4th/10th century) has a very brief description:

[^0]Yāqūt (d. 621/1224), Mu'jam al-Buldān: 3/594-5 has two entries, one for 'Ānāt, and one for 'Āna. In the first an island settlement is implied, and in the second it is stated that 'Ana overlooks the Euphrates
 compiled partly from first-hand experience, and partly from other first-hand or otherwise sources, and it seems likely that we have two strata of description connected with the earlier and later spellings of the name. The qal'a referred to is no doubt the island, but the settlement overlooking the Euphrates should be on a high point, perhaps the later site of Rāwa; possibly we see here the beginnings of a move from the island. A later author, Abū 'l-Fidā' (671/1273-732/1331), Taqwïn al-Buldān (Abū 'l-Fidā': 62), returns to describing AXna as a small town on an island, but this may be a description derived from an earlier literary source.

The earliest traveller from Europe that we know of, Rauwolff (1564), notes the town on the island, and, in addition, a town on the right bank. Visiting 'Āna in 1615, Pietro della Valle described an unwalled town lying on both banks of the Euphrates, which was crossed in boats. On each bank the town had a single street over five miles long, and there was a fort on the island. Philip the Carmelite in 1629 confirms this layout, as does Tavernier (1638), who also notes 'a fine mosque' on the island. As we know the topography today, there is insufficient river plain on the left bank of the Euphrates opposite 'Ana to accommodate della Valle's description of a town on both banks. It seems more likely that this description refers to a complex of AAna, Rāwa and the island. Very little is known about the older history of 'Ana's twin town of Rāwa. It is likely that to an outsider the complex of settlement might appear to be one town.

However by 1908 when Gertrude Bell (1908) visited 'Ana, the island settlement had declined, and the mosque had been abandoned. The remaining settlement on the island (for configuration see fig. 2) seems to have been abandoned about 50 years ago. The mosque of the latest village has an abandonment inscription dated to 1933.

## The History of 'Ana in the Islamic Period

According to Abū Yūsuf's Kitāb al-Kharāj, 'Āna first surrendered to Khālid b. al-Walīd in 12/633 in the course of a campaign against the tribe of Taghlib (Abū Yūsuf: 85-7; Musil 1927: 299, 301-2). An agreement was made that neither the monasteries nor the churches would be demolished; that wooden clappers could be sounded except at the time of Muslim prayers; and they could hold processions. In exchange three days hospitality and a safe conduct were to be granted to the Muslims.

Later, after the conquest of Iraq, 'Ānāt and Tilbis were conquered by 'Umair b. Sa'd after a campaign in the Jazīra, in which he took control of Rās al-'Ain and Qarqisiyā. This was probably in 20/642. A sulh (treaty) was made on the same terms as that of Qarqisiyā (Balādhurī: 179).
'Āna and Hīt were accounted part of the Jazīra rather than Iraq, as part of the 'amal al-Furāt (Ibn Khurdādhbih: 74) or nähiyat al-Furāt (Muqaddasī: 54). Although Morony (1982: 24) is of the opinion that the detaching of 'Ana and Hït from al-'Irāq, to which they had belonged in late Sasanian times, should be dated to the caliphates of Mu‘āwiya b. Abī Sufyān (41/661-60/680) or Yazīd b. Mu‘āwiya (60/680-64/683), it was clearly prefigured in Anushirvan's boundary changes (supra). The grouping of 'Ana with the towns of the Euphrates continued as late as Evliya Çelebi (11th/17th century), who describes ${ }^{\AA}$ Ana as belonging to the province of Raqqa (quoted in Musil 1927: 349). The return of Ana to

3. The Euphrates road in the Islamic period.
the control of Iraq belongs to the 19th century, when 'Ana was constituted a qadä', attached to the vilayet of Baghdad (EI2: s.v. 'Ana).

In theory "Ana remained part of the Abbasid Caliphate until the end of the dynasty in 656/1258. However during the 4th/10th century, political power in the Jazira and the Syrian Desert began to pass to the tribes. In 294/906 and 316/928 the Qarāmita (otherwise known as the Carmathians), who were based in the eastern Arabian oasis of al-Hasa, were raiding the nearby town of Hīt (Tabari: 3/2258; Ibn Miskawaih: 1/180-3). Although there is no specific information, 'Ana was probably on the fringes of the area controlled by the Hamdanids, from the Jazīra tribe of Taghlib, notably Naṣir al-Dawla of Mosul (317/929-358/969) or Saif al-Dawla of Aleppo (333/945-356/967). But the Caliph al-Muttaqi (329/940-333/944) passed through 'Ana on his way from al-Raḥba (Mas'udi: 8/358). In 399/1008-9 Ibn Muḥkān gained control of Āna, lost it in a rebellion, and then regained it, only to be assassinated by Șāliḥ b. Mirdās, amīr of Kilāb, who took over 'Āna and Raḥba (Ibn al-Athīr: 9/148), and control by Ibn Mirdās is mentioned again in 414/1023-4 (Ibn al-Athīr: 9/162).

However Abbasid control was attenuated rather than lost. In the reign of al-Muqtadi (467/1075-487/1094), in the course of the panic created by the Assassins' successful murders of high statesmen such as Nizām al-Mulk (d. 485/1092), the inhabitants of 'Ana were accused of being Bātiniyya, i.e. Isma īīs or Assassins. The local notables had to undergo an examination by the Abbasid wazir Abu Shujā' at Baghdad. As they denied the accusation nothing was done (there is no evidence of the truth of the accusation; it may simply have been a slander).

The Saljuq Sultan Tughril Beg entered Baghdad in 447/1055. Three years later, in the course of the rebellion of the Turkish general al-Bașāṣirī (450/1058), who declared allegiance to the Fatimids by having the khutba recited in their name at Baghdad, the Caliph al-Qā'im was captured and exiled to the middle Euphrates for a period of six months (Ibn al-Athir: 9/440-5). Baṣāsiirì was subsequently defeated and killed by the Saljuq Sultan Tughril Beg, and the Caliph brought back to Baghdad. In Ibn al-Athīr the place of exile is called Hadīthat AAna. And in Yāqūt: $3 / 595$ this name has been identified with 'Āna. Although this event has been commonly associated with 'Āna, apparently Yāqūt has confused the matter; for the meaning of Ibn al-Athīr seems to be the modern town of al-Haditha, and this expression means Hadītha on the Euphrates, i.e. Hadīthat 'Ana, rather than Hadīthat al-Mawsil, which lies on the Tigris. In the same year, on Tuesday 10th Shawwal 450 (30th November 1058) ‘Ana was damaged by an earthquake, which also affected Baghdad, Hamadhan, Wasit and Tikrit.

The second half of the 5th/11th century saw the extension of of Saljuq power over the Euphrates. In 499/1057 Tughril was campaigning in the Jazīra, and in 463/1071 Alp Arslān was in northern Syria. However Saljuq policy seems to have been to tolerate the Arab tribal amirs as vassals; the 'Uqailid Sharaf al-Dawla Muslim (453/1061-478/1078) sought a grant of the governorates of al-Anbār, Hït, and other places, from the Sultan; he ultimately ruled almost all the area from Baghdad to Aleppo. However a switch to Fatimid allegiance led to his expulsion from Mosul by the Saljuqs.

Nevertheless a local line of 'Uqailid amirs survived in ‘Ána and Hadītha after him. The first of these was al-Muhārish b. al-Makhallā (450/1058).

In 497/1103 a group of Turkomans took the towns of Ana and Haditha, which had previously been in the possession of the clan of Bani Ja ish. Saif al-Dawla Sadaqa b. Mazyad, of the Mazyadids of Hilla, helped the clan to regain control, but they lost it again when the Mazyadid returned to Hilla (Ibn alAthīr: 10/252). Subsequently the local 'Uqailids continued; they were Sulaiman b. al-Muhārish (499/1105-516/1122), and his son after him, who was deposed in 536/1141 (Zambaur 1927).

The combination of Saljuq suzerainty, and local control by Arab amirs, was replaced by the Atabeg 'Imād al-Dīn Zengī b. Āq Sunqur of Mosul, who occupied 'Āna in 538/1143-4 (Ibn al-Athīr: 11/64). ‘Ana remained in Zengid control for at least the next half-century. The inscription of Zengī b. Mawdūd of $589 / 1193$ in Jāmi` al-Mashhad belongs to a member of the branch of the family resident in Sinjār (Herzfeld 1914). However by 579/1183 Saladin had extended his control over the Jazirra, reducing the Zengids to a vassal status. Following Saladin's death in 589/1193 Ayyubid iqtā's (grants of taxation rights to amirs) spread over the Jazira, but 'Ana may have changed from Zengid to direct Ayyubid control as late as 617/1220, when al-Malik al-Ashraf arrested Ibn 'Imād al-Dīn, lord of Qarqisiya, and took Qarqisiya and 'Āna into his own control (Ibn al-Adīm: 3/190).

In 635/1237-8 ‘Ana was allotted as an iqt $\bar{a}$ 'to al-Malik al-Mujāhid, lord of Hims, under the suzerainty of al-Malik al-Şālih b. al-Malik al-Kāmil (Ibn al-Adīm: 3/241). But in the following year 'Āna was promised to al-Malik al-Jawād Yūnus by al-Malik al-S̄āliḥ as part of an exchange for Damascus; alJawād Yūnus then sold 'Ảna to the Caliph al-Mustanṣir (Abū 'l-Fidā’, Mukhtasar: 4/438, 460f). Two years later (638/1240-1) Āna was still the property of the Caliph, when the Khwārizmiyya, Central Asian mercenaries left over from Jalāl al-Dīn Khwārizmshāh's roving army of ten years before, descended upon 'Ana and remained for some months: Caliphal territory here acted as a sanctuary for the Khwarizmian army, which had recently been defeated by the Ayyubid al-Malik al-Șāliḥ (Ibn al-Adīm: 3/259). In 647/1249 al-Malik al-Mu'azzam Turānshāh was in 'Āna (Maqrīzī, Sulūk: 528), and in 651/1253-4 al-Malik al-Nāṣir Dawūd, formerly lord of Karak in Jordan, was in 'Ána and Hadïtha for a period before settling in Anbār (Abū 'l-Fidā', Mukhtasar: 4/530f).

This joint Ayyubid and Caliphal rule was then terminated by the Mongol conquest of Baghdad by Hūlāgū in $656 / 1258$. Subsequently 'Ana was in the Mongol sphere, although the failure of the Mongols at 'Ain Jālūt ( $658 / 1260$ ), and in later invasions, to conquer Syria, meant that 'Āna once more became a border point between Mamluk Syria, and Mongol or post-Mongol Iraq. Qalqashandī (d. 821/1418), Subh al-A'shä (tr. Gaudefroy-Demombynes 1923: 259) says that 'Ana belonged to the Tatar state (i.e. the Mongol Il-Khāns), but that its people, out of sympathy for the Mamluks, protected agents who lit signal fires to warn of a Mongol invasion. In one such invasion in 702/1302-3, described by Rashīd al-Din (Rashīd al-Dīn: 144-5), the Il-Khān Ghāzān arrived at 'Ana on 2nd March 1303. 'There is', says Rashīd al-Dīn, 'no more delightful place in the whole world'. Ghāzān's favourite wife accompanied him as far as 'Ana, and he spent a week in the neighbouring desert hunting ostriches. At Anna the historian Vasṣāf presented the Il-Khān with the first three volumes of his history. The invasion was not a success.

We have little information about the post-Mongol period, and it is not certain who controlled 'Ana during the nearly two centuries that passed between the death of Abu Said in 736/1335 and the Ottoman conquest of Baghdad by Sulaiman the Magnificent in 941/1534. Ana probably paid theoretical allegiance to the succession of Jalayirid, Qara Qoyunlu, Timurid, Aq Qoyunlu and Safavid rulers of Baghdad, while in practice the area was ruled by the local tribal amirs. The emergence of the most famous dynasty of the tribal amïrs of 'Ana, the Abü Rīsha family, may predate the Ottoman conquest.

Abū Rīsha was the hereditary name of the shaikhs of the Mawālī. The family had been founded by the legendary Hamad Abū Nu'air in the 9th/15th century. The Mawāl̄̄, who traced their descent back to an Umayyad prince, at that time were one of the most powerful tribes. The Abū Rishas founded a state which stretched from Qal'at Ja'bar as far as Haditha, with their capital at AAna. European travellers from Cesare Frederici (1563) and Tavernier (1638) knew of Abū Rīsha, Amir of Ana, who called himself King of the Arabs.

The wealth of the Abū Rishas depended on the increase of the India trade along the Euphrates road between Aleppo and Basra in the 10 th/16th and 11 th/17th centuries, following the arrival of the Portuguese in the Indian Ocean. Ana was then the meeting point of roads from Basra, Baghdad and Mosul, to Aleppo, Tripoli and Homs. The Abū Rīshas maintained a customs station at Āna. According to Teixeira (1604), the customs charge in 'Ana was 5 ducats per camel load for high-value goods such as spices or cloth, and 1 ducat per load for goods of lesser value such as dates. A small proportion of this was paid to the Turks. John Eldred (1583) gives the toll as $£ 40$ Sterling for a camel load.
The Ottomans appointed the Abū Rīsha as Bey of the Sanjaqs of Dair and Raḥba (modern-day Deir ez-Zor), Salamiyya (in Syria), 'Ana and Hadītha.

In return the Mawalī provided military assistance. For the Georgian campaign of 1578, the Serasker obtained 3-4000 camels, forage for horses and other provisions from the Mawāli. The reconquest of Baghdad by the Safavids in 1623 led to the installation of a Persian garrison at $\AA$ Ana, but within two years it had been expelled by the Abū Rīsha shaikh, Mutlaq. Philip the Carmelite in 1629 saw the town half-ruined as a result. The Ottoman attempt to retake Baghdad in 1629-30 was supported by Abū Rīsha, but shortly afterwards Muṭlaq changed sides, was removed from his position by Khusrau Pasha of Mosul, and replaced by another Abū Rīsha, Sa'd b. Fayyād. In the final recapture of Baghdad by the Ottoman Sultan Murad IV in 1048/1638-9, Abū Rīsha sent Bedouin cavalry and a supply train of 10,000 camels (Longrigg 1925: 66, 68, 71). An allied force of 300 Mawālī cavalry in the winter of 1665/6 were thrown back by the Muntafiq at Kūt al-Mu'ammir.

The inscription on the early Ottoman turba at Jāmi' al-Mashhad contains a reference to Abū Rīsha, and has been identified as a mausoleum of the dynasty (Tutunjī 1976: 144). The Ottoman period of the Islamic palace at Qal'at 'Ana, excavated by the State Organisation for Antiquities and Heritage, may also be their work (see chapter 2).

In the second half of the 11th/17th century the Ottomans set up and deposed Abū Rīsha amīrs frequently. When the long-distance trade declined, the Mawäli became a robber tribe. In 1720 the Pasha of Raqqa, with help from Karaman and Aleppo, and at the same time the Pasha of Baghdad with support from Diyarbekir, Mosul and Shahrizor, planned to attack the Mawäli; but this attack was not undertaken, perhaps because of the Persian war which began in 1723.

The power of the Mawālī was broken by the 'Anaza in the second half of the 12th/18th century. A delegation of 'Anaza were murdered while guests of the Mawālī. It was said, Bait al-Mawālī bait al-'aib'The house of the Mawālī is the house of shame'. As a result the Mawālī were pushed away from 'Äna, and moved into northern Syria, where they are to be found today.

After about 1750 a Turkish administration was reintroduced, rudimentary at first. In the middle of the 19th century 'Āna was constituted a qada' under the vilayet of Baghdad, and a garrison fort was built at Rāwa by Midhat Pasha (Wälī of Baghdad 1869-72). Ottoman control was then terminated by a British military occupation in March 1918 (EI2: s.v. Ana).

## Economy and Population

The economic role of 'Ana in Islamic times had three different aspects: as a staging post on the

Euphrates road from Baghdad to Aleppo, as an agricultural centre, and as an urban market for the tribes.

During Late Antiquity the Euphrates had not been as developed a transit route as it later became in Islamic times. In Balādhuri's traditions of the conquest, 'Ana was as much of a frontier fortress as it had been to Julian. 'Ana's role in the transit trade is signalled by the appearance of the town in stories connected with travel between Iraq and Syria. In 150/767 the governor of Qinnesrin and the 'Awāṣim, Ṣālih b. 'Alī, a cousin of Abū Ja'far al-Manṣurr, the second Abbasid Caliph, was summoned to the court at Baghdad, and died on his way back at 'Ȧna (Ya'qūbī: 2/383). Hārūn al-Rashīd's wet-nurse died at 'Ana on her way to Raqqa (Musil 1927: 348).

In the Abbasid period the road became better defined; in Tabarī it is called 'tarīq al-Shām' and 'tariq al-Furāt' (Tabarī: 3/2237, 2278). The route followed the Shāmiyya (right) bank, as does the modern road. It is significant in this connection that the surviving remains of the bridge that appears to have once joined the Qal'a with the river-bank (infra), did so to the right bank, and there is no clear evidence of a bridge to the Jazīra (left) bank. As long as the bridge was in commission, it facilitated the use of the island town as a stopping point for caravans. Without it, the development of a major settlement on the right bank was inevitable, leading to a consequent decline of the island.

The route continued to be of great importance, as we have reviewed under the history of 'Ana, and therefore a source of profit, well into Ottoman times. Indeed Chesney's expedition down the Euphrates in 1835-7 was intended to explore the possibility of opening a mail route to India via the Euphrates (Chesney 1850).

The evidence that we have, suggests that in medieval times agriculture was much the same as today's, with some variations in cropping; that is, there were irrigated gardens along the river banks, and on some of the islands in the stream. Ibn Hawqal (4th/10th century) mentions orchards. In 748/1347 Ibn Battūṭa (Ibn Batṭūta: 304), travelling up the Euphrates, thought the district 'one of the richest and most fertile in the world'. This can be interpreted to mean that there were many irrigated gardens. The use of the modern traditional water-lifting device in the area, the na'u$r$ or undershot water-driven wheel, can be traced in the texts back to the 6th/12th century on the Euphrates, and elsewhere in Iraq to the 4th/10th century (Samarraie 1976: 26) (see also Chapter 2).

In the early period ‘Ana was well-known for wine, and was mentioned in the dīwäns of Imru 'l-Qais, al-Akhṭal, and Alqama (Musil 1927: 346). Al-Shābushtī, Kitāb al-Diyarāt (d. 390/1000), mentions vineyards, gardens and wine-presses at the monastery of Mār Serjīs. Although the wine of 'Ana continued in the literary tradition (e.g. Yāqūt: 3/595), there is no evidence that wine production in reality extended beyond the early Islamic period. Pietro della Valle in the 17th century refers to gardens of palms, oranges, lemons, figs, olives, pomegranates, and others, i.e. a similar range to that found today.

Lastly the tribes. To the north 'Ana faces the Jazira steppe, and to the south the northern reaches of the Syrian desert. This geographical position tells us that it was a natural centre for the tribes. However our information about the relationship of 'Ana with the tribes in the pre-modern era is primarily related to the issue of the tribal amir and political control at 'Ana. With the decay of Abbasid power in the 4th/10th century, we find the tribes controlling Ana. With the exception of the period of the Zengids, Ayyubids and the last years of the Abbasid Caliphate in the 6th/12th and 7th/13th centuries, ©Ana remained under tribal control until the 19th century.

The northward movement of the Shammar from Arabia in the mid-11th/17th century, and the 'Anaza in the $12 \mathrm{th} / 18$ th century was in part responsible for forming the tribal map of the late Ottoman period. By the beginning of this century the town was flanked by the tribal area (dīra) of the Anaza sections in the Syrian desert, and to the east by the Shammar Jarbā' in the Jazira, while the river banks are the area of the settled cultivating and sheep-breeding Dulaim.

On the related issue of the composition of the population at $\neq A n a$ in Islamic times, we have relatively little information. At the two ends of the chronological spectrum, the picture is clear.

In Julian's time the population does not seem to have been tribal. At the end of Antiquity, and extending into early Islamic times, there was a substantial Christian component. Note Shābushtirs account of the monastery of Mār Serjis. The bishops at 'Āna from the 7th to the 10 th centuries ad had jurisdiction over Banī Taghlib, and this indicates an increasing importance for the Arab tribes, even before Islam. Banī Taghlib converted to Islam in the reign of the Caliph al-Mahdī (158/775-169/785). Until 1949-50, there was also a Jewish community, which possessed two synagogues, the ruins of which survive.

By the 19th century there was one group of Muslim tribal Arabs on the river (Dulaim), and others (Shammar Jarbā', 'Anaza, etc.) in the steppe. At any rate in the course of the Islamic period the earlier population was completely replaced by Muslim tribal Arabs, as happened in many places on the fringes of the Syrian desert. Very probably this occurred quite early; references to wine, monastery and bishops cannot be associated with dates later than the middle of the 4th/10th century, and for the following two centuries the tribal amirs had power at 'Ana. It seems likely that the pre-Islamic population was eroded in this period; while the components of the tribal population also changed over the centuries.

# Chapter 2 <br> TOPOGRAPHY, ENVIRONMENT AND ARCHAEOLOGYOF ${ }^{〔} \bar{A} N A$ <br> by Alastair Northedge with a contribution by Michael Charles 

## General Topography of ${ }^{\text {Anna }}$

The middle Euphrates is generally characterised by a river flood-plain lightly incised into the surrounding steppes of the Jazira and the Syrian Desert. On either side of the river the terrain is composed of bare gently rolling hills, which at 'Ana are composed of limestones of Oligocene date (Buday 1980: 248-9). On either side of 'Ana the flood-plain is broad and open, but at 'Ana the floodplain narrows to $800-1000 \mathrm{~m}$ between limestone cliffs. At this point the plateau of the steppe is about 60 m above the surface of the river, which is itself about 500 m wide, narrowing to a minimum of 280 m at Rāwa. There are a number of alluvial islands in the stream, several of which are cultivated, and one, the Qal'a Island, is the site of the ancient and medieval city of 'Ana.

Up till the time that the valley was flooded by the lake behind the Qädisiyya Dam, settlement in the immediate area of Ana consisted of two main towns, 'Āna and Rāwa, and the ancient site of 'Ana on the Qal'a Island, which is located at approximately $34^{\circ} 27^{\prime} \mathrm{N}$ and $42^{\circ} 01^{\prime} \mathrm{E}$.

The modern town of 'Ana consisted of a strip of garden cultivation about 9 km long, and 2-300 m broad, on the right bank of the Euphrates. The residential and market quarters of the town were interspersed among the garden cultivation in three main areas, at the west, in the middle around the police headquarters and the municipality, and at the eastern end. In 1912 Musil collected the following names for the quarters of 'Āna (Musil 1927: 20). From west to east they are: Bait al-Kuhlī, al-Humrān, al-Sāja, al-Seraya, Jumaila, al-'OJja, al-Sharīa (also called al-Dalābḥa), al-Sadda, and al-Hadāhda.

To the west of Ana, there is a V-shaped bend in the river, where the river rounds the limestone promontory of Rāwa (fig. 4). On top of the promontory the reforming Ottoman wälī of Baghdad, Midhat Pāshā, built a fort in 1872 (pl. Ia), already abandoned by the time of Musil's visit in 1912, and now sadly disappeared. The town of Rāwa lies behind the site of the fort to the north. Before the flooding of the dam, Rāwa was linked to the Baghdad road on the right bank by a pontoon bridge.


## Topography and Recent Geomorphology of the Qal'a Island

The Qal'a is an alluvial island in the stream of the Euphrates at the east end of the modern town of 'Ana. The island is of a tear-drop form 950 m long and a maximum of 200 m wide (pl. II). The island rises in the centre to circa 13 m above the surface of the river, approximately 138 m above Mean Sea Level (MSL). The natural composition of the island is alluvial green sand and mud, although there may be a core of the limestones of which the surrounding steppe is formed; however there was no visible evidence of such a core of rock. The outline of the island has been stabilised by the addition of stone embankment walls. Our excavations in trench R3 5C examined two phases of this embankment wall, attributing this section to the Partho-Sasanian period, although there also seemed to be an earlier section nearby, possibly of neo-Assyrian date.

According to the textual sources, Cuneiform, Classical and Islamic, the ancient and medieval city was located on an island, and the Qal'a is the obvious candidate. Urban settlement developed within the embankment walls with close-packed successive deposits of occupational material in a fashion similar to a typical archaeological tell. In one trench, for example, eight successive building periods were encountered in a depth of 2.90 m (R47C/D). All our trenching encountered occupational remains, and it seems that the island was fully occupied by buildings for most of its history as an urban settlement. However, as has been indicated in the historical section, at a point in the Early Modern period, probably in the 11 th $/ 17$ th or 12 th/ 18 th centuries, the settlement of the island began to shrink to a village, and the town on the right bank began to develop into the most important centre of Ana.

By the early part of the 20th century the village was reduced to three groups of houses adjacent to the long central path of the island (fig. 5; pls. II-III). These buildings are made of rubble limestone and gypsum mortar (juss), with at least one, utilised by the expedition, of mud-brick plastered with stucco. According to local informants the buildings were abandoned about 40 years ago, and the village mosque carries an abandonment inscription dated to 1933. In our view however some of the buildings must have been occupied within the last ten years, and were abandoned more as a result of the prospective flooding of the valley by the Qādisiyya dam.

The land abandoned by the shrinkage of the settlement was turned into gardens irrigated by $n \bar{a}^{\prime} u \bar{u} s$, the typical current-driven water-wheels of the region (see infra). For irrigation the land surface had to be levelled. Towards the centre of the island the occupational deposits were cut into, and the debris was probably transported to the banks of the river to create terraces. On the whole the process only affected cultivated plots of land; the paths of the island, with one exception, follow the earlier profile, and may represent a trace of the street pattern of the former city. The buildings of the recent village have also been isolated on the higher parts of the original profile. It seems likely that the cutting of the garden terraces was a piecemeal process, and a few pieces of potential garden land were not treated in this way, including the site of the congregational mosque. Buildings of the village both predate and postdate the cuttings. Much of this work therefore is quite recent (see discussion of K3 1J).

The effect has been to remove much of the later deposits from the centre of the island, although this has brought the added advantage that earlier deposits have been brought close to the surface. We surmise from limited evidence (N5 3A) that the deposits close to the river bank have been masked by the dumping of material excavated.

There has also been a process of accretion to the island in historical times, on the east and west sides, and at the downstream end. These areas are marked by long narrow strips of lower lying land (see fig. 5). Part of this seems to be alluvial in character, particularly the extension to the downstream tail of the island. Part is the product of waste dumping over the sides of the island in ancient times: this land could ultimately be used. And part may be the product of terracing the island.

## Monuments of the Qal'a

The main architectural remains visible before the start of excavations were a palace (qasr) of Islamic date at the upstream end of the island, the congregational mosque ( $j a \bar{a} i^{i}$ ) in the centre of the island, and the piers of a bridge linking the Shämiyya (right) bank and the Qal'a. The first two of these have been excavated by the expedition of the State Organisation for Antiquities and Heritage. The expedition of the State Organisation under the direction of Sd. Māhir Muhammad Jalāl also excavated a monumental building of the first millennium b.c. We summarise here for the convenience of the reader the archaeological evidence from the other parts of the island, to put our own work in context.

## First Millennium BC remains

To the north of the mosque in area M4 the Expedition of the State Organisation excavated the foundations of a rectangular monumental building of the first half of the first millennium BC. It probably faced onto a central street roughly on the line of the present street and measures about 25 by 50 m . The

building consists of rooms round two courtyards. The foundations are massive, often going down more than a metre and being more than a metre wide and made of massive stones. The function of the building is not known but some fragments of reliefs and inscriptions (including one of Ninurta-kudurriuṣur son of Shamash-resh-uṣur) have been found in its ruins. Several other fragments of reliefs and inscriptions have been found elsewhere on the site in secondary contexts. One relief shows Ninurta-kudurri-uṣur with his hand raised in a gesture of worship in front of a deity of which only the staff is preserved. This scene is shown below what is probably a register with the symbols of the gods and is accompanied by a long and partly illegible inscription of Ninurta-kudurri-uṣur. Another shows a figure wearing an Assyrian type of conical crown with the flywhisk held by his attendant visible behind him: this presumably represents a governor of Suhu. Another relief shows two horsemen riding over the bodies of defeated enemies, while at the edge of the block, rather larger than the other figures, is depicted a scribe writing on a clay tablet with a stylus shaped like the cuneiform sign for 1 (Roaf \& Killick 1983: 204).

## The Congregational Mosque and the Minaret (fig. 6; pl. IV)

The octagonal minaret is the most famous feature of the island to the visitor's eye, surviving as it has in almost complete condition. The mosque at its foot, however, was only preserved as a heap of ruins, until its excavation during 1979-80 by Sd. Nādhir al-Rāwī on behalf of the State Organisation for Antiquities and Heritage. In 1982 the remains were removed to allow examination of the pre-Islamic deposits below it. The phasing of the building was worked out by another of the present authors, Michael Roaf. The discussion is the responsibility of the author of the chapter.

## The Congregational Mosque

As excavated the remains represent the ruins of a mosque with walls and piers built of rubble and gypsum mortar (juss) standing to a height of 1 to 2 metres. There appear to be traces of at least five building periods.

Period 1: The first mosque was a small closed building, measuring $12.8 \times 8.8 \mathrm{~m}$. It was built of mudbrick, reinforced by sections of rubble and mortar construction. An arcade of two round rubble and mortar piers across the centre supported the roof (one of these piers had a rebuild), while the mihräb, which was external and 1.4 m deep, was also made of rubble and mortar. The qibla is $171^{\circ}$, some $17^{\circ}$ to the east of the correct qibla from 'Ana of approximately $188^{\circ}$. Sd. Nädhir reported that the mosque is dated to the Umayyad period by coins.

A house was added to this Period 1 mosque on the west side (see Chapter 3, Area N4: Excavations under the corner of the Congregational Mosque). This house continued in occupation during Period 2 of the mosque.

Period 2: In Period 2 the small mosque of Period 1 was demolished and replaced by a large mosque measuring $30.5 \times 32 \mathrm{~m}$. This was built of rubble and mortar. The prayer hall had three arcades of round piers, and there was an arcade around the remaining three sides. The main entrance was to the east onto what was probably the ancient main avenue, and part of the west wall overlay the west wall of the Period 1 mosque, resulting in a bend in the wall.

Surprisingly this mosque had a more inaccurate qibla than the earlier mosque. This qibla is $153^{\circ}$, pointing directly down-river in a south-easterly direction.

It is quite common for early mosques to have an incorrect qibla, and this can often be attributed to lack of accuracy in determining the direction of Makka. This can explain even quite wide divergences, such as that of the earliest Congregational Mosque at Wāsit, which has a qibla of $233^{\circ}$ (Creswell 1969: $1 / 132-8$, fig. 73). In other cases it has been suggested that due south, the direction of the sun, has been taken as the qibla, as in the Great Mosque of Cordova (Creswell 1940: 146). Neither of these explanations can satisfy the situation here, where a later mosque has a more inaccurate qibla than an earlier one on the same site. We suggest rather that as the new mosque is aligned with the main avenue, it was lack of space on the crowded island site that most probably brought about this eccentricity. A similar situation may be recognised at Sāmarrā’ in the mosque of al-Karkh (Shaikh Walī) (Northedge 1985).

Dating: Although there is no direct dating evidence for this mosque, the house excavated adjoining the mosque in area N4 continued in use, and the mosque thus may well be of the 3rd/9th century.

Period 3 : In a second period of construction with round piers, the mosque was extended to the west, making a total of $40.5 \times 30.5 \mathrm{~m}$. There is a sub-phase of rebuilding in this period, when some of the piers were rebuilt with square bases.

Period 4: In this period, the last major reconstruction of the mosque, the prayer hall was reduced in depth from 3 bays to 2 bays, and completely rebuilt using octagonal piers with square bases.

The minaret is connected with this period of the mosque; the foundation trench cuts through the construction of Period 4. It is possible that the cut dates to the restoration of the minaret in the 1930s,

Period 1
House contemporary
with Periods 182 (N4)
Period 2
Period 4
Period 5
6. General plan of the Congregational Mosque.
but otherwise the implication is that the minaret is somewhat later than Period 4, though very similar in design. Under the dating discussion on the minaret, we suggest that it may be of the 6th/12th century, which also gives us an approximate date for Period 4.

Period 5: During the last period of its life, most of the piers of the prayer hall were rebuilt in rectangular form with rough rubble and mortar construction. This implies a new roof for the hall.

This rebuilding is not dated, nor do we know the date of abandonment, but the mosque had been reduced to a heap of ruins by the beginning of the 20 th century. However its sanctity continued to be recognised, for the site was not excavated away to create an irrigated garden.

7. Niches of the Minaret (after Sarre \& Herzfeld 1911, Abb. 301).

## The Minaret

The minaret (de Beylié 1907; Bell 1908: fig.56; Viollet 1909: pl.IV; Sarre \& Herzfeld 1911: 2/319-321, Abb. 300-1, Taf. cxxxvii) is located in the northeast corner of the mosque. It is built of limestone rubble and gypsum mortar, and is octagonal in plan, 4.6 m across, with a square base 5.4 m square. The base was restored in 1933, and the stucco facade of the lower part renewed. A door on the southern face leads into a spiral staircase, which provides access to a drum at the top with four windows and a rounded dome-like top.

The facades of the main octagonal section have eight tiers of blind niches, pierced in places by windows to light the spiral staircase. Each tier has a different pattern of niche from the next, but within each tier the design is repeated around the eight facades. The niches are different versions of lobed and simple arches, framed by miniature engaged piers. In two tiers there is a pair of niches on each facade.

Dating: The foundations of the minaret, as it stood in 1981-2 after the mosque had been excavated, had a foundation trench cut through construction of Period 4 of the mosque, and would thus seem to be an addition to it. However it was possible that this foundation cut was a product of the restoration of 1933, which included new foundation work, and the minaret was contemporary with Period 4. At any rate the octagonal form of the piers of the Period 4 mosque are strikingly similar to the octagonal plan of the minaret, and are most probably closely related in date.

The minaret has usually been attributed to the 'Uqailid amirs resident in 'Ana in the 5th/11th and 6th/12th centuries, because the niches are similar to those of the mausoleum of Imām al-Daur, which has an inscription naming Muslim b. Quraish al-'Uqailī (d. 478/1085). Blind niches, especially those
flanked by decorative engaged piers, are very common in Early and Middle Islamic architectural decoration, and it is apparent that these at Ana come from a conservative tradition, for at least two of the styles of niche head can be parallelled at Ukhaidir (late 2nd/8th century) and Qaṣr al-Ashiq, Sāmarrā’ (c. 878-882 AD). But the overall range of features, proportions and style of arches is closer to Raqqa-Qass al-Banāt and the Baghdad Gate, both of which appear to belong to the 6th/12th century, the period of the Zengids (Creswell 1940: 42-5, fig.32; Khalaf 1985; Toueir 1985). The theme of tiers of niches on a minaret is also repeated on the square minaret of the Congregational Mosque of Aleppo (483/1089-90). We would suggest a date possibly at the end of the 5th/11th century, or more likely early in the 6 th/12th century, perhaps one of the last 'Uqailids, for the minaret and period 4 of the mosque.

## The Islamic Palace (pl. V)

The Islamic palace, or qasr, has also been excavated by the expedition of the State Organisation for Antiquities and Heritage. Until its excavation the site had been covered by a palm garden, watered by two $n \bar{a} \bar{u} \bar{u} r s$, Nā'ūr al-'Auj on the west side, and Nā'ür al-'Adiliyya on the east.

The site is a rough quadrilateral at the upstream end of the island, which measures approximately 130 $\times 160 \mathrm{~m}$. Walls of rubble limestone and juss protect the palace from the river, and these walls have semi-circular buttresses at irregular intervals, two of which were certainly towers. It was also divided from the remainder of the island by a fosse, which was presumably filled with water, and thus a moat. The State Organisation for Antiquities and Heritage excavated the foundations of a bridge crossing this moat. The palace itself survives only in foundation except for a semi-circular tower facing the river, although at the time of Gertrude Bell's visit in 1908 a two-storey section stood at the northeast corner. The latest phase is Ottoman, and may have belonged to the Abū Risha's, the shaikhs of the Mawāl̄̄, who dominated the Middle Euphrates in the 10th/16th and 11th/17th centuries.

## The Bridge (pl. VIa)

There are also sixteen piers of a bridge linking the Shāmiyya (right) bank and the Qal'a surviving in the middle of the branch of the Euphrates which passes southwest of the island. No trace of the bridge abutments can be seen on the banks, and it is evident that the bridge was abandoned long ago. The piers have a rounded upstream face, a squared downstream face, and a flat seat for wooden beams of the bridge. Several piers have additions, and there is more than one design of pier, indicating that the bridge was repaired, and probably in use for a long time. The masonry of limestone and juss resembles the local Islamic construction, and we suggest that it belongs to the Middle Islamic period (5th/11th-8th/14th centuries).

It has also been suggested that there was a bridge to the Jazira bank, but there was no evidence for this visible at the time of our excavations.

## The Central Path and the Street Pattern of the Island City

The central path of the island (fig. 5) roughly bisects the island lengthways. For much of its length the land on one or both sides of the path has been cut away for levelling agricultural land (pl. XIb). This unusual high isolated location suggested not merely that it predated the gardens, but that it may represent the line of a street from the time of urban occupation of the island, and possibly that of the ancient main avenue. For example both the 1st millennium monumental building and the Congregational Mosque are located on it. Our discoveries supporting this suggestion are discussed in detail in Chapter 3.

A pattern of paths which resembles a grid is also visible (fig. 5), and it has been further hypothesised that this pattern may in part be related to the ancient and/or Islamic street pattern. The slow decline of the island town, and the piecemeal excavation of the levelled palm gardens, would lead almost inevitably to private property boundaries, and thus the urban street pattern, being retained in large part. The paths of the island with one exception have preserved the original profile of the urban settlement at the time of its abandonment, and although we were unable to confirm the hypothesis through lack of time, the potential of the evidence of path patterns for elaborating town-plans of former settlements seemed impressive (see Chapter 3 for detail).

## Other archaeological remains excavated

Following removal of the remains of the mosque in 1982, the excavations of the State Organisation encountered remains of the Roman and Hellenistic periods. Three hoards with Seleucid coins were found; one contained 617 coins, another 250 coins, and the third in a small jar, 75 coins of the late 2 nd century вс. Many graves have been excavated often in pottery coffins. One grave contained a rich collection of Hellenistic gold jewellery including earrings, a head band, and beads as well as two stamp seals (one made of turquoise and the other with the figure of a man showing Hellenistic influence) and a Late Assyrian cylinder seal depicting a human figure and a winged animal (Roaf \& Killick 1983: 204).

## Agriculture of the Island

At a point in the Early Modern period, probably in the 11 th/17th or 12 th/18th centuries, the settlement of the island began to shrink to a village, and the town on the right bank began to develop into the most important centre of "Ana. The land abandoned by the shrinkage of the settlement was turned into gardens irrigated by $n \vec{a} \vec{u} r$ s.

## The Nä: $\bar{u}$ ( $p l$. VII)

The $n \bar{a} \bar{u} r$, or current-driven wheel, is the traditional water-lifting device of the Iraqi middle Euphrates. In the area of 'Ana there are large numbers of the remains of support walls along the river banks, and there were at the time of our excavations a number of wheels still working. On the island itself there were only two $n \vec{a} \vec{u} r s$ in working condition, and only one in use (for locations see fig. 5), but there were at least seven other places where the support walls for a $n \vec{a} \bar{u} r$ survive. The following $n \vec{a} \vec{u} r$ names are known from the island (for locations see fig. 5): Nā‘ūr al-Ādiliyya, Nā ${ }^{\prime}$ ūr Bustān al-Balad, Nā’ūr Shābukhtān, Nā'ūr Bustān Sharqī, Nā'ūr 'Alāqa, Nā'ūr Zawīl, Nā'ūr Shāqulī, and Nā‘ūr al-'Auj.

The $n \bar{a} \bar{u} \bar{u} r$ wheels are mounted on bearing walls of small limestone rubble and water-resistant gypsum mortar. Mountings for three wheels in parallel are quite common, though none operate like that today. Schiøler reports five wheels in parallel at Hīt (Schiøler 1965: 15). The water is raised a height of 6-8 m, and poured into channels leading to the field-system. The pouring trough and first part of the channel are often raised on an aqueduct supported by pointed arches.

The $n \bar{a} \bar{u} r$ itself consists of a wooden wheel of about $8-10 \mathrm{~m}$ diameter, with approximately 24 spokes (pl. VII $a-b$ ). Four rectangular paddles covered with wooden slats are attached at right angles to the wheel, to permit the current to drive the wheel. Water is collected by galvanised metal buckets (pl. VIIc) attached to the rim, and sometimes there is a double rim with two rows of buckets.

In pre-modern times ceramic jars were used on the wheels. An example seen by Schiøler at Hìt had a narrow waist, and a button base to facilitate lashing onto the wheel (Schiøler 1965: fig. 71). We also found examples of this kind of pot in our excavations (figs. 41.4, 45.11, 46.14, 49.11C, 51.9; pl. VIId), and it was evident that these finds represent our main evidence for the older history of the nā'u $\bar{u}$ at ${ }^{\text {A Ana. }}$ The earliest of the examples from 'Ana (fig. 41.4) comes from an Islamic pit fill of the Samarran period (3rd/9th century), and the type continues through the Islamic period.

However Schiøler has shown that pots of similar appearance were also used for the animal-driven säqiya in Egypt, with the earliest evidence dating to the 4th-5th centuries A.D. (Schiøler 1965: 169). The earliest evidence for this kind of jar in Syria at Dibsi Faraj-also on the Euphrates-is of a similar date: the Byzantine period (Harper 1980: fig. E, nos. 74-7). One of the bases illustrated (no. 75) has an incised cross.. It is not certain, of course, whether these are pots from animal- or current-driven wheels. Middle Islamic nā̄ūr pots are also known from the excavations at Hamā (Riis \& Poulsen 1957: 269, fig. 998; Schiøler 1965: fig. 74).

The historical sources tend to confirm the archaeological evidence that the current-driven wheel is an introduction of the Byzantine or Early Islamic period to the Fertile Crescent. Although this type of wheel was also found in Islamic Spain, these sources only tell us about quite a limited distribution in the Near East in medieval times: on the Nahrawān canal east of Baghdad (Ibn Rusta: 4th/10th century), on the Tigris north of Mosul, in the western part of Bādūrāyā west of Baghdad and on this part of the middle Euphrates (Ibn al-Jawzi: 7th/13th century)(Samarraie 1972: 26), and, of course, the famous $n \bar{a}^{\top} \bar{u} r s$ of Hamā. Perhaps this restriction reflects the lack of fast-flowing surface water in the Near East. The earliest reference to the $n \bar{a} \bar{u} \bar{u} r s$ of Hamā is quoted by Yāqūt from Aḥmad b. al-Țayyib (A.D. 885) (Schiøler 1965: 60). The walls of the present 22 m wheel at Hamā carry an inscription of the 8 th $/ 14$ th century.

The earliest detailed description of a $n \bar{a}^{r} \bar{u} r$ is from Iraq by al-Būzajānī (5th/11th century). He states that the standard $n \bar{a}^{\prime} \bar{u} r$ carries 80 tankards. The capacity of each tankard is 15 ratls ( 7.65 lt ) of water, and thus the outflow is about 1200 ratls ( 612 lt ) to each completed circle. It can be operated day and night continuously at an average speed of 250 revolutions per hour, and can irrigate, night and day, 1 jarib ( 1.47 ha ) per hour (Cahen 1949-51: 130; Samarraie 1972: 26).

While the present-day type of $n \bar{a} \bar{u} \bar{u} r$ was evidently fully established by the 5 th/ 11 th century, there is no evidence that any of the n $\bar{a}{ }^{\prime} \bar{u} r$ rs or support walls to be seen today at "Ana go back any further than the Ottoman period (e.g. pl. Ib, IIIb).

## Agriculture and Vegetation by Michael Charles

Since the abandonment of the island as a city site, it has been reshaped as an agricultural area, with orchards and small fields or gardens irrigated by $n \bar{a}^{\prime} \bar{u} r$, for which much of the island has been levelled. Some of the orchards are now (1982) poorly managed with the dead date palm leaves being left on the trees, and no thinning out of young seedlings.

During the study only one $n \vec{a} \bar{u} r$ was working; it stood on the lower east side of the island, and fed all of the southern tip, covering roughly an area of $600 \mathrm{~m}^{2}$, with the water running a maximum distance of 100-125 metres from source, and falling 2-3 metres in its course.

A brief survey of the agriculture and vegetation was conducted during the winter of 1981-2. All the 'fields' fed by the $n \vec{a} ' \bar{u} r$ were mapped, and the crops, trees and, where identifiable, the wild plants recorded. Fields outside this area which had been cropped in the previous summer were also examined. The survey was restricted to those plants visible in the winter months, which often made identification difficult or impossible, as they were in the seeding stage or had not flowered. We were also able to gain some information from the local residents. I am grateful to Susan Roaf for translating and helping in the mapping of the fields and irrigation channels.

Ana is in the desert plateau region of Iraq, and the vegetation of the plateau that overlooks Ana is typical of the sub-desert zone as described by Guest (1966). The zone is characterised by low rainfall, up to 150 mm , spread more or less evenly through the winter months (November to March), a cold winter with temperatures below $10^{\circ} \mathrm{C}$ in January, a critical temperature at which plant growth generally ceases, and very hot summers with four months having a mean temperature greater than $30^{\circ} \mathrm{C}$.

A study of the vegetation of the 'Ana-Rāwa area was carried out by Weinert and al-Ani (1977), and they identified two major plant associations on the plateau and surrounding hillsides:

1. The Achillea conferta-Poa sinaica association, with small tufted perennials greening and flowering in the winter, followed by a number of quick growing annual grasses and herbs in the spring; this association occurs mainly on the limestone plateau and uplands.
2. The Scariola orientalis-Thymus musilii association, which occurs on the upland wadis and limestone depressions where a longer growing season was afforded by the moister conditions resulting from run-off water. The topography also makes these areas prone to considerable erosion, which is potentially damaging to the plant communities after the heavy rain storms of the winter and early spring.
The area is quite heavily grazed by the sheep and goats of the villagers and the migrant bedouin, and this has allowed certain species that are not eaten, due to their unpleasant taste and poisonous nature, to invade successfully. Peganum harmala is one example of such a plant.

Along the banks of the Euphrates and on the riverine islands, a third, quite distinct, hydrophytic association was observed, consisting primarily of low willow and poplar forest with tamarisk thickets and large clumps of prosopis. This so-called Salix acmophylla-Populus euphratica association (Weinert \& al-Ani 1977) has a lush under-cover of perennial and annual grasses, composites and other herbs, along with the hydrophytic reeds and rushes.

Given the low rainfall that is received by the area, successful agriculture can only be achieved by irrigation of the orchards and fields. On the island the water was raised from the fast-flowing Euphrates by means of $n \bar{a} \bar{u} \bar{u}$ s (or water-wheels), most of which were out of action by 1981, and transported around the island in small channels that branch intricately to reach the various walled orchards and gardens. The irrigation system is on a fairly small scale which can be managed quite easily, once established, by a few workers who control the water flow to each area by means of small dams across the channels. The accumulation of a grey-green sand is quite pronounced in the bottom of the channels, and this must be dug out at regular intervals. The channels themselves vary considerably in shape and size. The initial stretch running from the $n \bar{a} \bar{u} \bar{u}$ is often along a series of carved stone blocks, and these are also used along other parts of the route, where the normal mud banks are unsuitable. Small sections are also stonelined. The mud-banked canals are approximately $20-30 \mathrm{~cm}$ deep and $30-40 \mathrm{~cm}$ wide, and are usually quite squarely cut. They often run alongside the small footpaths, and a stone covering is placed where the channel cuts across the path. A number of the orchards/fields were originally walled off, and where these still stand the entry-hole for the water is pot- or stone-lined. The channels of the southern end of the island were not raised above the normal ground level, the land sloping gently down to the south and the west, but for some of the other fields further up the island the water channels stand up to 1.5 metres above the ground level, and these were constructed of earth, sometimes with a stone lining.

The method of irrigation used for the different crop and fruit-tree species varies according to the cultivation techniques employed, the water requirements of the plant, and their individual characters. The three methods observed were:

8. Irrigation and field layout at the southern end of the island.

1. Basin irrigation, with a single entry point into a basin surrounded by low earth banks. The basin is flooded to the desired depth, and the water left to percolate into the soil. This was used for various fruit trees, and for small patches of alfalfa and broad bean intermixture.
2. Small fields or orchards with a zip-like arrangement of interlocking ridges through which the water travels on a twisting course. This appears to be used primarily for fruit trees, which are planted either on the ridges or in the furrows between. The arrangement of ridges fits around the trees, and changes as they mature, producing an elaborate pattern of variably sized basins and ridges. They are generally closed systems, which are flooded as in basin irrigation.
3. A ridge and furrow system used for the row crops such as the cereals, legumes and vegetables. The crops are planted along both sides of the ridges, which run at right angles away from the water channel. The channel would normally be breached at several places, and the sheet of water generated would flow down the slope to the other end of the field. On this island however the irrigation again seems to be carried out by flooding.
Agriculture is predominantly carried out in the form of orchard agriculture, with several layers or storeys of plants. The upper layer consists of date palms, whose high canopy provides protection from the extremes of the Iraqi climate for the middle layer of smaller fruit trees, several of which would not be able to grow in more exposed settings. In rough order of abundance on the island, these fruit trees are: apricot, pomegranate, various citrus species, olive, apple, pear, fig, azarole, mulberry, and grape.

The third, lowest, plant layer comprises vegetable, cereal, and legume crops, including red ard green peppers, broad beans sown alone, or in small basins with alfalfa, onions, wheat and barley. The summer crops, okra, aubergine and melon tend to be grown in small clearings, as they have a greater sunlight requirement.

This use of several layers of plants is efficient in its utilisation of solar radiation, water and fertiliser. The growing of nitrogen-fixing leguminous crops, and the return of nutrients by leaf-litter breakdown, the incorporation of dung from grazing livestock, and the benefits of regular soil tillage, combine to produce a well-balanced ecosystem. The year-round vegetation cover serves to lower soil temperature, which helps to maintain a higher moisture content. Saline conditions are less likely to arise; soil microbial activity also benefits, and thus the top soil layers are homogenised and the organic matter from the surface is worked in evenly (Buringh 1960). The wide range of crops grown provide food and other materials throughout the year.

Although the original planting system has been confused by the recent lack of management of the orchards, there does still seem to be differences between the areas to each side of the main path that runs up the centre of the island for most of its length. To the northeasterly side, which receives considerably less sunlight, the fruit trees are mainly the evergreen citruses and the olive, along with the ubiquitous date palm, apricot and pomegranate, whilst to the southwesterly sunward facing side the evergreens are replaced by the deciduous apple, pear and fig.

This division in the island is also reflected in the field construction. On the southwesterly side there is a series of two or three quite broad terraces, a $30-60 \mathrm{~cm}$ drop at each step down. The upper broader terrace has date palm orchards with an under storey of apricots and pears, and on the lower narrower ones are found cereal and vegetable crops under a few apple and fig trees. The narrower area to the northeast of the path consists of a single cultivated level, bordered by a vertical 3-4 metre drop down to a narrow untilled strip. All the cuts at the southern end of the island have been carefully stone-faced, and along the southwestern side the water passes down well-constructed stone or pottery-lined niches. Some have been repaired recently with tin cans.

The whole southern end of the island is sheathed by reed beds of Phragmites sp. and Arundo sp., growing up to 3 or 4 metres, together with some smaller rushes and sedges, Juncus sp., Cyperus sp., and Typha sp . The southernmost tip of the island is a spit of deposited silt about 50 metres long that has accumulated in the lee of the land. It was rapidly being colonised by tamarisk, willow, poplar and the reed species. This land increase may also have been deliberately encouraged by the building of small piers or groynes that protrude from the western side, and behind which much silt has accumulated.

Inland, the crop weed flora resembles, at least superficially, that of the irrigated land of Southern Mesopotamia. A more detailed study was not possible due to the lack of plants in flower at the time. The perennials, camel thorn and prosopis, were common, along with a number of annual and perennial grasses, e.g. Poa sinaica, Imperata cylindrica, Cynodon dactylon (perennials), Hordeum marinium, Polypogon monspeliensis, and a number of Avena and Bromus species (annuals); representatives of the compositae included Carduus pycnocephalus (Thistle), Lactuca serriola (Prickly Lettuce), Souchus oleraceus (Saw Thistle), Xanthium strumarium (Cocklebur), and Centaurea solstitialis (Star Thistle). Other common species were Capsella bursa-pastorius (Shepherd's Purse), Urtica dioica, Chenopodium murale (Goosefoot), Fumaria (Fumitory) and Galium (Bedstraw) species.

# Chapter 3 <br> THE STRATIGRAPHY OF THE EXCAVATIONS by Alastair Northedge 

## Aims and Methodology of the Excavation

The excavation set out to sample the occupational history of the Qal'a, and, if possible, to relate the stratigraphy to the topographical features of the island. However the work was intended to be limited in scope, and to be completed in one season.

A grid of 50 m squares was set out at $45^{\circ}$ to the Iraq Grid, such that our grid ran approximately along the length of the island (fig. 9). It may be noted here that the Iraq Grid from which our grid was derived is the older Iraq Universal Transverse Mercator grid, which has been replaced since 1979 by a new grid, which differs from the older grid by some 400 m in the eastings and 200 m in the northings. For convenience the upstream direction of the grid was called north for the purposes of trench description, although the grid in fact pointed northwest. The 50 m grid was then subdivided into 5 m squares. The location of trenches was described firstly by a letter and number grid representing the 50 m squares (e.g. Q4), and then by a second letter and number grid for the subdivision into 5 m squares (e.g. Q4 2H).

The grid was then used to sample occupation in different parts of the island. Five $5 \times 2 \mathrm{~m}$ sondages were set out at the downstream end of the island (Q36B, Q4 2H, R3 5C, R4 7D, and R5 5D) (fig. 9). Two of these (R47D and Q3 6B) were expanded into $5 \times 5 \mathrm{~m}$ and $5 \times 4 \mathrm{~m}$ squares respectively. In the central part of the island one $5 \times 2 \mathrm{~m}$ sondage was dug on the west side (N5 3A), and a sampling of the sealed material underneath the congregational mosque excavated by Sd. Nādhir al-Rāwī was made (N4 8C/8D/9B) (figs. $6 \& 19$ ). Lastly a ruined building of the recent village was selected adjacent to a cut which had been made for terracing an irrigated garden ( K 210 J and K 31 J ), and this was excavated to determine the recent stratigraphy.

## Methods of Excavation and Recording

Trenches were set out by reference to measurement from the minaret of the congregational mosque. They were oriented with the grid by compass, except N4, where exigencies of the excavation prevented this: the relationship of N 4 to the grid is depicted in fig. 19.

Levels were based on an arbitrary datum of 10.00 m on the first step of the minaret. We know of no benchmark on the island; but it subsequently emerged that this datum lies at approximately 138 m above mean sea level, plus or minus 1 m .

Excavation was carried out by Egyptian workmen, and by the site supervisors, using large picks, small picks and trowels. All finds which were observed were kept, but no attempt was made to sieve excavated soils. Some experimental flotation for seeds was conducted by Michael Charles. No check was conducted on how adequate the recovery rate of finds was: this depended on the conscientiousness of the excavator.

Each deposit excavated as a single unit was given a separate number, in a single running series for each trench. This number series was intended as a description of the ground, and any feature, such as wall, floor, pit or permanent installation, as well as soil deposits, was included. These elements were called excavation units, and when well excavated, they correspond to the natural or occupational deposits as they were laid down in the past, but usually they do not match exactly the layers drawn on the sections. The written form was, for example, K2 10J: 6. The progress of the excavation was recorded on day-sheets, and each unit described on a specially printed form.

The pottery sherds were brought from the trenches in bags, to be called 'batches', and these were numbered in a running series preceded by a 'P', e.g. K2 10J: P16. Each of these was assigned to a specific excavation unit. Each soil deposit might produce a number of batches, and this sub-division made possible a later check, if a stratigraphic change were missed. Object numbers were given to all other finds-bone, small finds and samples-and this form was a running number series preceded by a ' $T$ '. At the end of the season the more important finds were given ANA numbers and transferred to the Museum. The remainder of the finds have, to date, been stored at the site.

9. The southern end of the Qal'a Island showing the locations of the trenches excavated by the British Archaeological Expedition.

Table 3 Periods Represented in the Phases of Each Trench

K2 10J/K3 1J

1. Modern
2. Modern
3. Middle Islamic/

Early Modern
4. 7th/13th century
5. 6th/12th century
6. 5th/11th century
7. Samarran
8. Late Sasanian
9. Middle Sasanian
10. Early Sasanian
11. Late Parthian
12. Parthian
13. Neo-Assyrian
14. Neo-Assyrian
15. Neo-Assyrian

Q3 6B

1. Modern
2. Late Sasanian
3. Late Parthian
4. Neo-Assyrian
5. Neo-Assyrian

R4 7C/D

1. Modern
2. 8th/14th century
3. Early Sasanian
4. Parthian
5. Neo-Assyrian
6. Neo-Assyrian
7. Neo-Assyrian
8. Neo-Assyrian
9. Neo-Assyrian
10. Neo-Assyrian

N4

1. Early Abbasid
2. Umayyad
3. Late Sasanian
4. Late Sasanian

N5 3A

1. Modern
2. 8th/14th century
3.?

Q4 2H

1. Modern

R5 5D

1. Modern
2. Early Islamic
3. Neo-Assyrian

R3 5C

1. Modern/Islamic
2. Parthian/Sasanian

## Summary of the Occupational History

The maximum depth of deposits excavated was 7 metres. The earliest deposits were Neo-Assyrian, and although the end of the deposits was reached at no point, no residual material was recovered that could be conclusively dated earlier than this period. Deposits characterised by Neo-Assyrian pottery were encountered in four different trenches, R4 7C/D, R5 5D, Q3 6B, and K3 1J. In two of these, R4 7C/D and K 31 J , depths of 1.8 m and 2.2 m respectively were observed, with four successive surfaces in each. Only in R4 7C/D was significant architecture uncovered-a street and gateway, possibly associated with a building decorated with glazed bricks.

Nothing was found that could be dated to the Hellenistic period. In both R4 7C/D and K3 1J Parthian deposits directly overlay the Neo-Assyrian, while in R5 5D the transition was to Early Islamic. In K3 1J the Parthian deposits had two phases, and neither was necessarily contemporary with the Parthian of R47C/D.

The Sasanian period was recovered from R4 7C/D in limited and rather unclear deposits, from three phases of K3 1 J , and two phases of N4. These had mud-brick and rubble architecture, with earth surfaces. Significant changes in the pottery were noted, defined primarily by the development of Brittle Ware.

In spite of the damage done to the Islamic deposits by the later terracing of the island for irrigated agriculture, stratified Islamic deposits were excavated in all the trenches except Q3 6B and Q4 2H—the latter had unstratified material. Occupation covering the whole of the Islamic sequence to the present day was excavated. It is unfortunate that the recovery of stratified pottery groups did not reflect all the periods. Undoubtedly further excavation would achieve that.

The Umayyad and Early Abbasid periods were represented by two phases of N4, unfortunately with little pottery. The Sāmarrā' period was represented by pit 31 in K3 1J, and the J3 section. Pit K2 10J: 1 dated to the later 5th/11th century. The 6th/12th century appeared in the Phase 5 pits of K3 1J. The early to middle 7th/13th century was found in K3 1 J floor 23, and a slightly later 7th/13th or 8th/14th century occupation in R4 7C/D and N5 3A. Continuity from the Middle Islamic into the Early Modern period was recovered from the Phase 3 building level of K3 1J. This was succeeded by a building of the modern village (K3 1J: Phase 2).

## Description of the Trenches: The Occupational Sequence

The trenches are discussed in order from the south (downstream) end of the island, to the north (upstream). In each trench the phases are numbered from the top down, but are normally described in their order of development.

## R4 7C/D (figs. 10-12:pl. VIII)

A $5 \times 5 \mathrm{~m}$ square, expanded from a $5 \times 2 \mathrm{~m}$ sondage on the east side of the central path, at a point where the path describes a curve to the southwest. The square thus lay on the straight line of the path. It was dug to a maximum depth of 2.94 m , but the bottom of the deposits was not reached. Nevertheless we found no artefacts that could provide convincing evidence of earlier occupation not reached.

Ten phases were distinguished:
Phases 6-10 (fig. 11: pl. VIIIa)
These phases consist of the development of one basic layout, that is, a street running north-south, with a building on the east side, and at least a wall on the west.

Phase 10 (fig. 11d; pl. VIIIa) The earliest construction visible is a massive wall on the east side, of limestone rubble masonry, more than 1.6 m wide (the east face was not found) and surviving to a height of 1.8 m . It clearly belonged to a building of some importance.

Phase 9 In this period the phase 10 wall was revetted with a further wall of 1 m wide, of limestone rubble masonry, and the street took the form that was reached at the end of the excavation. At the south end there was a gateway 1.8 m wide with a threshold stone $1.3 \times 1.5 \mathrm{~m}$. To the north the street widened to 2.6 m . The surface was a mixture of earth, sand and stones, and there was a stone-lined channel with a cross-section of $30 \times 10 \mathrm{~cm}$. Adjacent to the north section the base of the channel included three bitumen-covered mud-bricks $30 \times 30 \mathrm{~cm}$. These may have been part of an unexcavated and earlier more monumental surface.

Phase 8 (fig. 11c) The street was relaid with a new surface, approximately 40 cm higher. The surface was partly earth and partly rubble paving.

Phase 7 (fig. 11b) A new earth surface 40 cm higher.
Phase 6 (fig.11a) A new rubble paving on the north side, 30 cm higher. The paving is broken off 2.5 m from the north section.

10. Plans of excavated remains in trench R47C/D. (a) Phase 2, (b) Phase 3, (c) Phase 4, (d) Phase 5.

Dating The pottery of phases 6 to 10 was dated to the Neo-Assyrian period (see Chapter 4: nos. 1-48). We speculate that the glazed brick fragments found in Phase 5 belong to a building associated with this period.

## Phase 5 (fig. 10d; pl. VIIIb)

This phase comprised a rebuild of the phase 6-10 street. On the north side a gateway was built 2 m wide. The walls forming the gateway are 1.25 m wide, of unmortared large rubble masonry. They only survive to a height of one course, and may have been the base of a mud-brick superstructure. The gateway could be closed, for a socket stone was found. Further construction on the east side seems to be a continuation of the previous building there. The passageway seems to have had an earth surface with a sub-surface packing of small rubble stones. However on the west side the earth surface gave way to an area of stone paving, composed of irregular limestone fiags.

In the centre of the passageway was a covered channel, of cross-section $30 \times 40 \mathrm{~cm}$, built of unmortared rubble masonry with no sealing plaster. The base of the channel was the Phase 6 paving, and it is impossible to judge the direction of flow; however it was probably north to south, if we compare it with the Phase 4 channel.

The pottery of the rubble packing, although not great in quantity, suggests that this phase is also NeoAssyrian (see Chapter 4: nos. 49-56). The packing also contained 6 residual fragments of glazed brick (Chapter 7).

Phase 4 (fig. 10c; pl. VIIIc)
In this period the main feature of the square was a further channel (21) with a cross-section of $40 \times 40$ cm . The channel was unsealed and open-topped, with the exception of one stone, possibly placed as a crossing-point. The direction of flow was north to south, as the base drops after passing over the Phase 5 wall in the northwest corner. Associated with it were earth surfaces running up to a section of rubble walling on the east side.

At the end of its life the channel had been filled with a dump containing a quantity of pottery, including a number of reconstructable forms, of Parthian date (see Chapter 4: nos. 57-89).

## Phase 3 (fig. 10b)

This phase was divided into two sub-phases: (i) a surface (18) 'gravelled' with potsherds and running over the Phase 4 channel (21). The pottery of this sub-phase was substantially similar to that of Phase 4. (ii) fill deposits, whose upper surface had been removed by Phase 1 ploughing. The deposits were associated with a section of rubble and mortar walling $1.60 \times 0.60 \mathrm{~m}$. The pottery of this deposit (Chapter 4: nos. 90-102) contained a few sherds of early Brittle Ware, and thus probably dated to the 2nd or 3rd centuries AD. Linked with this sub-phase was an incomplete torpedo jar placed upside down, and packed around with stones. This feature was also noted in the Sasanian deposits of K3 1J Phases $9-10$, where a jar in a similar situation was found. Although a final explanation has not yet been suggested, it seems probable that the feature is connected with drainage of waste water.

## Phase 2 (fig. 10a)

In the northeast of the square a corner of a building constructed of rubble limestone set in a hard gypsum mortar containing river pebbles was found: this with minor variations was the typical Islamic form of construction at the site. On the south side of the square a Phase 3 wall (3) was included in a shallow basin, possibly for a rubbish dump. This had a low surround of mortar and a few rubble stones. The surfaces of most of this phase are eroded: here as in most of our other trenches, the top of the occupational deposits was cut off in an approximately level line, at the base of the Phase 1 agricultural soils.

Dating The pottery from inside the building probably belongs to the late 7th/13th or 8 th $/ 14$ th centuries (Chapter 5: Group 9). However there was also evidence of unstratified early Islamic pottery.

## Phase 1: Irrigated Garden

The site had been levelled for an irrigated garden, recently abandoned, which contained date-palms and ground crops. The garden was cut approximately 1 m into the earlier profile of the site at this point, if we compare the raised position of the central path lying on the west side of the square.

11. Plans of excavated remains in trench R4 7C/D. (a) Phase 6, (b) Phase 7, (c) Phase 8, (d) Phases 9-10.

12. Sections of trench R47C/D. (a) south section, (b) north section, (c) west section.

A sondage of $5 \times 2 \mathrm{~m}$ on the west side of the island, 33 m west of $\mathrm{R} 47 \mathrm{C} / \mathrm{D}$, and 33 m from the river bank. The occupation excavated at this site consisted of four main phases.

Phases 3-4 (fig. 13b)
Phase 4 The earliest remains excavated consisted of a sandy deposit (26), probably representing a surface earlier than the bricky fill of Phase 3 above it. The pottery was Neo-Assyrian.

Phase 3 Under the floor make-up of the Phase 2 Islamic building was encountered a hard brown fill up to 90 cm deep. This resembled mud-brick in texture, but no individual bricks were distinguishable. An unmortared rubble wall (13) was associated. The fill was characterised by Neo-Assyrian sherds which appeared to have been worn by water action. Presumably this was a deliberately laid fill of mud brought from the river bank. The point of the fill was no longer clear, as whatever had been built on top had been eroded either before or by later occupation.

Phase 2: Early Islamic Building (fig. 13a)
A cross of four bonded rubble and mortar walls, $45-50 \mathrm{~cm}$ thick-probably the equivalent of a cubit ( $d h i r a{ }^{a}$ ). Of these, wall 2 and wall 5 have foundations in the same construction, $50-60 \mathrm{~cm}$ deep. The north-east space was an exterior surface; the north-west and south-west spaces were probably covered rooms. The walls of the north-west space were plastered, and the original floor surface was hard and chalky, probably 'gravelled' with chalk. Later a second facing was added to wall 5 , and in addition a 20 cm wide partition was built 30 cm from wall 2 . Between the two there was no deliberate fill, rather part of an Early Islamic jar was recovered from it: we concluded that the arrangement was a bin. Later still the floor was relaid with an earth surface 20 cm higher. Lastly a pit (pit 12), 45 cm deep and 80 cm across, was dug in the floor.

a

b

13. Plans of excavated remains in trench R5 5D. (a) Phase 2, (b) Phase 3.

14. Sections of trench R5 5D. (a) north section, (b) west section, (c) east section, (d) south section.

15. (a) Plan of excavated remains in trench Q 42 H .
(b) Plan of excavated remains in trench Q3 6B, Phase 2.

16. Plans of excavated remains in trench Q3 6B. (a) Phase 4, (b) Phase 5.

The south-west room also had a hard chalky floor, and this was relaid twice. Contemporary with the second of these floors, the east wall of the room (11) was widened, possibly for a bench.
Dating Only small quantities of pottery were recovered from this phase. However there was a general context of Early Islamic pottery, and only one Middle Islamic sherd was found. In addition a splash glaze and a blue-green glaze sherd were found in the mortar of wall 2 . This implies a 3rd/9th or 4th/10th century date. From pit 12, marking the later part of the occupation, only one sherd was recovered, the flaring rim of a splash sgraffito bowl (illustrated in fig. 43), and this might be suggested to belong to the end of the 4th/10th century, or the early 5th/11th century.

## Phase 1: Irrigated Garden

The surface at this site had also been levelled for an irrigated garden at approximately the same level as that of R47C/D. The depth of agricultural soil was 40 cm , but the stump of wall 2 was only a few centimetres beneath the surface.

## Q4 2H (fig. 15a)

A sondage $5 \times 2 \mathrm{~m}$, lying 15 m east of the central path, and north of R47C/D. Agricultural soil containing Middle Islamic and earlier pottery was encountered to a depth of 90 cm . Two circular stonelined pits were observed: one was fully excavated to show an inside diameter of 70 cm , and three courses of lining. Not dated.

$$
\text { Q3 } 6 B \text { (figs. 15b, 16-17) }
$$

A square of $4 \times 5 \mathrm{~m}$ on the east side of the central path approximately 40 m from the east bank of the island. The trench was excavated to a depth of 2 m . Five occupational phases and a final agricultural phase were were noted.

Phase 5 (fig. 16b) Two parallel unmortared rubble walls on a north-south axis 1.30 m apart, with an earth surface joining the two.

17. Sections of trench Q3 6B, (a) north section, (b) east section.

Phase 4 (fig. 16a) A pavement (13) of baked bricks, circa $32 \times 32 \times 7 \mathrm{~cm}$, on the same alignment as the preceding phase. The pavement was cut by a pit (16) approximately 1 m in diameter and circa 70 cm deep. The southern limit of the pavement was also cut by a shallow depression or channel.

Phase $3 b$ A hard earth surface (10) over the northern half of the trench. In the centre of the trench area the floor was covered by a thin layer of green sand and an orange material, which was either crushed brick or baked earth, e.g. from a fire. However there was no ash.

Phase $3 a$ A plaster floor (8) that originally lay over much of the trench area. It was however cut away approximately 1.60 m from the east section, and on the south side cut into an L-shape.

Phase 2 (fig. 15b) A rubble stone wall (4) and an associated series of floors to the south. Laid up against wall 4, there was evidence of fire, possibly a domestic oven.

Phase 1: Irrigated Garden A garden of date-palms and ground cultivation. The depth of agricultural soil was circa 50 cm .
Dating The pottery of the earliest two phases excavated in this trench (Phases 4 \& 5: fig. 16) was equated with that of the earliest phases of R4 7C/D (Phases 6-9), where a clearer assemblage suggested a date in the Neo-Assyrian period, probably 9th-8th centuries вс. The latest occupational phase (Phase 2: figs. 15b, 17) included a Honeycomb Ware sherd (cf. Chapter 5, Group 2, fig. 38.18, pl. XIIIa), but no obvious Islamic pottery. Based on this find, Phase 2 should then probably be dated to the Late Sasanian period ( 6 th century AD), or the Umayyad period ( $41 / 661-132 / 750$ ). The intervening floor surfaces of Phases 3 a and 3 b would appear from their pottery (fig. 36, nos. 103-112) to be assignable generally to the Partho-Sasanian period.

## N5 3 A (fig. 18)

A $5 \times 2 \mathrm{~m}$ sondage lying 61 m west of the minaret of the congregational mosque, and 20 m from the river bank. The sondage was dug to a depth of 3.4 m , and then it was abandoned as too difficult to dig because of the depth of the agricultural deposits.
Three phases were observed:
Phase 3 A band of greenish river sand.
Phase 2 A rubble and gypsum mortar wall standing to 1.20 m . As the wall had no particularly good facing, it seems likely that it was a foundation wall, and the superstructure of the building had been demolished. Laid against this was limestone rubble, and in one place a rough spill of mortar, possible excess from building operations: this was probably the foundation fill for the building, and contained the dating pottery.
Phase 1 An irrigated garden, recently abandoned. The agricultural soil was $1.2-1.4 \mathrm{~m}$ thick. On top of the agricultural deposits soil had been dumped, probably from previous excavations.
Dating The pottery of Phase 2 foundation fill was Middle Islamic in date, and included Raqqa and sgraffito wares (for illustrated sherds, see Chapter 5, Group 8; fig. 47.2C-3C, pl. XVb). The agricultural and dump deposits also included quantities of Sasanian pottery.

## N4: Excavations under the Corner of the Congregational Mosque (figs. 19-20; pl. IX)

In the south-west corner of the Congregational Mosque, which was excavated for the Expedition of the State Organisation for Antiquities and Heritage by Sd. Nādhir al-Rāwī, an earlier house was uncovered. This was cut by the qibla wall (facing Makka), and west wall of the fourth period of the mosque, and also by the foundations of arcades A and B, belonging to the same period, construction which was characterised by octagonal piers of mortared rubble.
Soundings were made in four places through the floors of the house. The intent was to establish a date for the building, and to sample the earlier stratigraphy beneath it.
(i) N4 8 D A sounding $2 \times 3.12 \mathrm{~m}$ in the central room of the house between arcade A and the qibla wall. This fell in the corners of squares N4 8C/8D/9C/9D. For convenience it was called N4 8D.
(ii) $N 48 C$. A sounding $2 \times 1.90 \mathrm{~m}$ in the same room on the north side of arcade A , maintaining the same west section line.
(iii) N4 8C A scrape of the floor of the eastern room on the north side of arcade A. This room appeared to have an earth floor, and 5 cm was removed to obtain a contemporary pottery sample. This also fell within N4 8C.
(iv) N4 $9 B$ A penetration of the floor of the corridor south of arcade B over an area of $1 \times 1.80 \mathrm{~m}$. This encountered a recent tunnel dug horizontally into the foundations of the mosque from outside the west wall.
The excavation, which penetrated to a maximum depth of 1.8 m in N 48 D , uncovered a sequence of four buildings, including the exposed house. Of these the two lowest (Phases 3 and 4) were only found in N4 8D, while the third did not appear to extend into N4 8D.

18. Sections of trench N5 3A. (a) south section. (b) east section.

## Phase 4 (fig. 20a)

A yellowish earth floor (17) sloping down to the south, with a striated texture, presumably from the treading of mud. On the south side it was linked to a mud-brick wall (18), surviving to two courses above an unmortared rubble foundation, which projected 10 cm above the floor. At right angles in the east section there was the rubble foundation of a further wall 1 m long (fig. 20c). A line of stones on the north side (14) may also have been connected with a wall (fig. 20b). A bone and shord deposit on floor 17 provided the main evidence dor dating this and the subsequent phase.

Phase 3
A second period of building on virtually identical lines to Phase 4. This is a mud-brick wall on the south side, with bricks $37 \times 11 \times ? \mathrm{~cm}$, and no mud plaster. It was cut by the qibla wall foundation of the mosque, and is linked to an earth surface (15) (fig. 20a). There is no rubble foundation, but the wall is set into the top of the earlier Phase 4 wall. A very irregularly built wall in the east section (13), with bricks of $38 \times 11 \times ? \mathrm{~cm}$, connects with it in a straight joint (fig. 20c). At the end of the period the building collapsed into a solid block with a surface circa 70 cm above floor 15 .

19. Plans of excavated remains in square N4. (a) Phase 1, (b) Phase 2, (c) Phase 3, (d) Phase 4.

20. Sections in square N4. (a) west section of 8 C and 8 D (A-A on fig. 19), (b) north section (B-B), east section (C-C)

Phase 2
N4 8D had no trace of the Phase 2 building, which was rather located in N4 8C and N49B. There was evidence of two rooms. On the west side there was a plaster floor, found in both 8 C and 9 B , with north and south walls 3.0 m apart. A layer of storage sherds was used as packing beneath the floor (N49B) (fig. 20a). It was subsequently cut in a straight line in N 48 C leaving a mud surface. The north wall, under arcade $\mathbf{B}$, had a rubble and mortar socle, with a trace of mud-brick above. On the south side there was a mud-brick wall partly cut by arcade A. The bricks of this wall were laid level, but there were two sloping layers of mud plaster. The construction of this wall was buttressed with two rubble and mortar piers set into the wall. On the east side traces of a second room plastered with gypsum were visible, but this was not excavated to floor level.

## Phase 1

The floors of the Phase 1 building are laid $45-55 \mathrm{~cm}$ higher than the Phase 2 surfaces. The foundations are either laid on the Phase 2 floors, or cut into the contemporary surface by 10 cm . Construction is of two kinds: rubble and mortar, and mud-brick. The two rubble and mortar walls are 65 cm and 20 cm wide respectively, with gypsum plaster facings. The width of the mud-brick walls is two bricks of approximately $37 \times 11 \times 34 \mathrm{~cm}$, with a gypsum plaster facing, built on an unmortared foundation of two courses of medium limestone rubble, c. 40 cm deep, and a rubble and mortar socle, 35 cm high (pl. IXd).

Where a gypsum plaster floor was laid, it was 3 cm thick, with a packing of pebbles 4 cm deep. The make-up underneath the floor was of straw-tempered mud and pieces of mud-brick.

Two rooms, measuring $3.3 \times 6.0 \mathrm{~m}$, and $3.2 \times 5.1 \mathrm{~m}$ respectively, and part of a third, were exposed south of arcade B. Adjacent to the arcade there was a corridor; both completely exposed rooms opened onto it, and there was also a staircase. The partly exposed room on the west side may have been the majlis or reception room; it had a denticulated engaged pier to support an arch (pl. IXb). Further rooms of the period were excavated by the Expedition of the State Organisation for Antiquities and Heritage on the north side of arcade B, including two half-round engaged piers (pl. IXc).

## Dating

Apart from Phase 1, the only source of dating was pottery, and this was small in quantity, unfortunately so in view of the well-stratified nature of the sequence. Caution is therefore essential because of the small number of sherds involved.

Phase 1: The Phase 1 building had been added to the small mosque of Period 1, dated by Sd. Nādhir to the Umayyad period, and continued in use when the large mosque of Period 2 was built. This large mosque is most probably Abbasid in date. The remains of the building were enclosed in the foundations of the fourth period of the mosque. From this structural evidence a date late in the Umayyad period, or early in the Abbasid period seems probable. Note that the construction of both this phase and Phase 2 is virtually identical with the small mosque of period 1.

The pottery evidence (for discussion see Chapter 5, Group 3; fig. 38.19-26) tends to confirm this dating. Early Islamic thinware was found in construction and occupation: one sherd in the make-up of plaster floor $8 \mathrm{C}: 1$, and one in the earth floor of the eastern room have parallels at al-Ukhaidir.

Phase 2: This can only be dated by the appearance of a Brittle Ware sherd (illustrated in Chapter 5, Group 2; fig. 38.2) in the destruction debris of the Phase 3 building. It is parallelled in ware and rim shape at Dibsi Faraj (Harper 1980: 335, fig. D) probably to the Umayyad period. Phase 2 may therefore be Umayyad.

Phase 3 and 4: The pottery is discussed in Chapter 5, Group 2, and suggested to be of Late Sasanian date ( c . 6th century AD ), based in part on the relative chronology of this area.

## K2 10J and K3 1J: Excavations in the Village (figs. 21-25; pls. X-XIa)

In view of the widespread destruction of the later deposits of the urban settlement by the terracing of the island for irrigated gardens, a site where occupation had continued until recent times was selected in the middle of the modern village 20 m east of the central path. This site was adjacent to a point where the deposits had been cut into to a depth of 2.9 m for the levelling of an irrigated garden. This cut was not, as was usually the case, revetted with a rubble wall, but had rather collapsed. The cut was first cleaned and drawn (fig. 23, pl. $\mathrm{X} b$ ). Then a $5 \times 2 \mathrm{~m}$ sondage ( K 210 J ) was dug at the base of this section to a depth of 50 cm , in order to have some idea of the date of the deposits underlying the garden. Next, a ruined modern building (Phase 2) on the upper part of the site was cleaned and surveyed (fig. 21a, pl. Xa ). Lastly a $5 \times 5 \mathrm{~m}$ square was excavated below the building.

The square was excavated to a maximum depth of 7 m at the base of pit 31 , but the base of the occupation deposits was not reached. The stratigraphy of the site was extremely complex, and fifteen major phases of activity were distinguished. These phases may be ranged in three groups:

21. Plans of excavated remains in trench K3 1J. (a) Phases 1 and 2. (b) Phase 3.
(i) The development of a mud-brick mound from the Neo-Assyrian period until early in Islamic times (Phases 8-15). This was extensively pitted in the Islamic period.
(ii) A building level of the Middle Islamic to Early Modern period (Phases 3-4), characterised by rubble and mortar construction, and fills of limestone and mortar rubble.
(iii) The modern building (Phase 2), its collapse, and the cutting of the deposits for the irrigated garden (Phase 1).
Of these groups, (ii) and (iii) were completely excavated, including all the pits dug into the mud-brick mound. However the group (i) deposits were only briefly sampled in the course of excavating pit 31, when steps 1 m wide were cut into the earlier deposits to gain access to the lower parts of the pit.

## Phases 13-15 (fig. 25b)

Deposits visible in the section of pit 31. Phase 15 was a broken plaster floor with a tread of mud overlying it. This was succeeded by 80 cm of greenish river sand. It is difficult to explain a loose deposit of this kind as a deliberate fill: it was more likely a flood deposit. This was followed by two successive floors, 60 cm apart, associated with a wall (Phase 14). Lastly a third surface, 20 cm higher, had an ashy deposit (Phase 13). These deposits were all characterised by Neo-Assyrian pottery, comparable to that of R47C/D Phases 6-10.

Phases 11-12 (figs. 22b, 23b)
Phase 11 This was marked by a mud-brick wall surviving to one course of bricks ( $30 \times 30 \times 14 \mathrm{~cm}$ ), 60 cm wide and 2.6 m long, with a rubble foundation 30 cm deep (wall 10J: 6). Associated with this wall was an ashy floor (62)(fig. 25b.

Phase 12 Underlying this building level at the north and south ends of wall $10 \mathrm{~J}: 6$ were foundations of an earlier building phase (Phase 12). Possibly but not certainly linked with Phase 12 was a jar lying on its side and cut by pit 31, 50 cm below the Phase 11 floor (pl. XIIb). It seemed probable that it was part of the contents of a pit that predated floor 62.

Dating The dating for Phase 12 was provided by a bronze coin found adjacent to the jar. This coin was not properly legible, but it appears to be Roman early Imperial, i.e. probably of the 1 st century AD. The pottery from Phase 11 has kindly been looked at by Prof. Invernizzi and Elisabetta Valtz of the University of Turin, and described as similar to the pottery of the Italian Mission's nearby site of Kifrin, that is, the end of the 2 nd and the beginning of the 3rd centuries AD.

Phases 8-10 (fig. 22b)
Phase 10 The Phase 11 construction was overlain by brown earth deposits containing a shallow stonefilled pit ( 75 ), 40 cm deep and 1.10 m across.

Phase 9: Overlying Phase 10, a fragment of a building consisting of a mud-brick wall (73) with two rubble walls at right angles: 55, measuring $80 \times 30 \mathrm{~cm}$ and standing up to 4 courses high, and 74, a rubble block aligned with 55 . The associated floors were striated earth ( $56-58$ ), and during the period of occupation the surface rose 60 cm .

During Phase 10 a torpedo jar (illustrated in fig. 37) was placed upside down and supported in position by a mud-brick pot-stand. This continued as a feature during the new architecture of Phase 9, but was destroyed by Phase 8.

Phase 8: After the Phase 9 building was abandoned, a series of earth surfaces was deposited over the remains, associated with a fragment of rubble walling (49)-possibly a mud-brick wall foundationadjacent to the north section. From this level was dug a pit (72) 80 cm deep and 80 cm in diameter, which was later cut by pit 31 .

Dating The pottery from Phase 9 is discussed in Chapter 5, Group 1, and is there assessed as Middle Sasanian (4th-5th centuries AD). Very little pottery was recovered from Phase 8, but from ware and colour it resembled the Late Sasanian pottery of N4. Phase 10 included pottery later than Phase 11, and thus may be 3rd-4th centuries AD.

Phase 7 (figs. 22a, 25b; pl. XIa)
The principle feature is pit 31 , a roughly circular pit of 1.20 m diameter, which descends 4.80 m with approximately parallel sides. The pit was cut from earth surfaces overlying Phase 8 (floor 47) and was dug as far as the soft greenish river sand of Phase 15 . The top metre of the pit fill contained small limestone rubble, and a dark brown soil flecked with white. The remainder of the fill was dark brown, but there was little rubble: the soils became increasingly compacted. The dark brown soil was interpreted as the decay of organic rubbish. The sides of the pit were not eroded by water action, nor was there evidence of silting. We concluded that the pit was filled within a short time of its excavation, possibly between one winter and the next, or, allowing for dry winters, within five years.
It was difficult to interpret pit 31 as a simple rubbish pit. Its depth of 4.8 m would have been difficult to dig. We suggested that the excavator had intended to dig a well, and abandoned it as dangerous when

22. Plans of excavated remains in trench K3 1J. (a) Phases 5, 6 \& 7, (b) Phases 8, 9, 11, \& 12.

$\qquad$
he reached the loose greenish sand. Alternatively he may have thought that he had reached the natural sand of the river level, and that unfortunately the well was dry. At any rate it was never lined and was subsequently used as a rubbish pit.

Dating The pottery from pit 31 is discussed in Chapter 5, Group 5, and the glass in Chapter 6. One bronze coin was recovered: although this was illegible, it was struck on the flat Islamic style of blank. The pottery group has many parallels at Sāmarrā’, and may be considered contemporary (3rd/9th century).

Phase 6 (fig. 22a; pl. Xc)
The principal feature was again a pit (K2 10J: 1), roughly circular, 1.65 m deep and 1.10 m in diameter. This pit was also dug from earth surfaces overlying the mud-brick mound, and filled with a dark brown soil and some small limestone and mortar rubble. This was probably a rubbish pit. Flotation of a sample showed grape-pips.

Dating The pottery is dated to the second half of the 5th/11th century (Chapter 5, Group 7).

## Phase 5 (fig. 22a; pl. XIa)

A building on the west side. Two walls were found, surviving to one course of rubble masonry: wall 38 was mortared, $1.7 \times 0.6 \mathrm{~m}$, and wall $37,2.0 \times 0.69 \mathrm{~m}$, divided by a doorway 50 cm wide. This doorway opened onto the surfaces into which pits 31 and K2 10J: 1 were dug; however the linkage was cut by the foundation trench of wall 12 (Phase 3).

The original construction had an earth floor (44). Subsequently a second floor (42) was added; in this second floor four pits were dug: pits $30,43,48$ and 51 . Pit $30: 1.20 \mathrm{~m}$ in diameter, depth 40 cm . Pit 43 : Diameter 90 cm with a straight edge against wall 38. Pit 48: not investigated. Pit 51: Oval in shape, 1.5 m long and cut by the foundation trench of wall 12. All these pits were filled with small limestone and mortar rubble, with some dark brown soil.

Dating We were unable to date the construction of the building, and it was possibly contemporary with or earlier than Phase 6. The second floor included sherds similar in fabric to the contents of the pits: Pits 30,43 and 51 contained pottery significantly different from Phase 6 , including early blue-green glaze fritwares. We suggest a date in the 6th/12th century for the final period of occupation of the building (Chapter 5, Group 7).

## Phase 4

A rubble spread (23) with an earth surface, with a maximum depth of 25 cm and covering an area of 1.6 $\times 1.8 \mathrm{~m}$. It overlies pit 31 . There was a possibility that this surface was the earliest associated with the Phase 3 building level. Although the surface was cut by the foundation trench of wall 12, we were not able to exclude the suggestion entirely.

Dating The pottery included Raqqa Ware underglaze painted in blue and black, and lustre decoration on white-glazed fritware. We concluded that the phase belonged to the 7 th/13th century (Chapter 5 , Group 9).

Phase 3 (figs. 21b, 24a, 25a)
A building level over the whole area of K31J. On the east side was an enclosure: we were not certain that it had been roofed. Two rubble and mortar walls were found: wall 12 (width: 50 cm ; excavated length: 3.5 m ) and wall 13 (width: 40 cm ; excavated length: 1.4 m ). Both walls were founded on the mudbrick mound, into which wall 12 is cut by 20 cm . The floor (21) was built by laying a rubble fill 45 cm deep, and then tamping with a thin layer of earth. In the north section oven 77 was built on this surface. Pit 29 was cut into the floor: unfortunately this was missed in the digging, and the precise dimensions are not known (section on fig. 23).

To the west lay a series of four rubble platforms revetted by single-faced walls. The first of these was in the southeast corner (25); this stood 40 cm high with a plastered rubble facing (15). A pit (33), 80 cm across and 1.10 m deep, was later dug into it. A second platform (10), facing north and 40 cm high, was then added. Later oven 20 was sunk into it. The oven sat on the rubble fill of an earlier pit (26), whose contents were not dateable. Then platform 32 was built on the west side, and this was faced with a rubble and mortar wall (16), whose foundation trench cut into pit 30 of Phase 5. Lastly platform 10 was extended 1.2 m to the north, and faced with a rough rubble wall bonded with small quantities of mortar.

Ovens:(i) Oven 20: The oven was constructed on a raft of rubble bonded with mud. The superstructure was of baked mud, 55 cm in diameter at the base, and tapering to 45 cm at the maximum surviving height of 30 cm . The oven was set into the ground, and the mud of its construction plastered onto the surrounding rubble. There was a flue at the base, and this was made from a pot with its base removed. This was probably a $n \bar{a}^{\top} \bar{u} r$ pot (fig. 50.9 ; pl. VIId).

This was almost certainly a tannür (bread oven), in which a fire was lit in the bottom, and bread baked on the curved upper surfaces of the oven.

$a$

24. Sections in trench K3 1J. (a) south section, (b) west section.
(ii) Oven 77: 55 cm in diameter, and surviving to a height of 23 cm . Almost identical to oven 20 , except that it stood above the surface.
Dating Phase 3 has a considerable degree of change and development during its period of occupation, and thus was probably occupied for a lengthy period of time. The terminus post quem for the beginning of the phase is provided by the pottery contained in the mortar of wall 12. This included Raqqa Ware, early fritware, and a high ring base parallelled at Qasr al-Hair East, that is, pottery which need not be dated later than the 7th/13th century. One of the later elements of the occupation, pit 33, contained a high ring base of Ottoman date, and the $n \bar{a} \bar{u} r$ pot used as a flue in oven 20 was not of the fabric used in the Middle Islamic period. We suggest that construction began late in the Middle Islamic period, possibly in the 7th/13th or 8 th/14th centuries, and continued into Early Modern times, perhaps the 10 th/ 16 th or 11 th/ 17 th centuries.

The transition to the following Phase 2 (modern) lacked the silting on the surfaces that would indicate an abandonment at the end of Phase 3. However it was possible that the buildings collapsed without a period of standing abandoned, and the site could have been left open for a period before the Phase 2 building was constructed.

Phase 2: Modern Building (figs. 21a, 24;pl. Xa)
The Phase 2 building was a rectangle $3.95 \mathrm{~m} \times 9 \mathrm{~m}$, of which only the eastern end was excavated. There was a doorway 1 m wide at its eastern end opening to the north onto a space surfaced in places with patches of plaster. It was constructed of small to medium limestone rubble, bonded with mud mortar that had largely decayed to a fine dusty powder; and there were traces of mud plaster on the interior walls. The interior floor was surfaced with earth, laid on a rubble make-up $35-40 \mathrm{~cm}$ deep. The building was added on to the compound to the west, whose east wall it shares.
a

b

25. Sections in trench K3 1J. (a) north section, (b) section visible in the side of Pit 31 (B-B on fig. 22).

Subsequently a deposit built up which was approximately 50 cm thick (Unit 1 on fig. 24b) inside the building, and $35-40 \mathrm{~cm}$ thick in the space to the north, composed of a dark brown soil. Then the building collapsed, leaving rubble inside and outside, and walls standing to a maximum of 2.1 m . During this period the alley on the south side rose by approximately 40 cm . We interpreted the development of soil deposits as resulting from the long-term use of the building as an animal pen. The alternative possibility that the building had stood abandoned for a long period without a roof was rejected on the grounds that the exposure of the mud mortar and plaster to the weather would have induced a collapse at an earlier stage.

Dating The dating of the Phase 2 building depended on two factors (a) that it had been in use for some time (as shown by the rise of the adjacent alley level by 40 cm ). and (b) that there were no obviously modern sherds in the make-up below the building. Pottery identified as modern by the local inhabitants or industrially produced porcelains only appeared in deposits postdating the construction. We concluded therefore that, although described as 'modern', the building was in fact quite old, at least of the 19th century, if not earlier.

## Phase 1: Irrigated Garden (fig. 21a)

A re-entrant area between the alley on the south side and a building block on the north side was excavated away to make an irrigated garden, to a depth of 2.9 m . The cut faces were revetted on the north and south sides with rubble walling, but in the area of our excavation no trace of a wall was found.

Opposing views were held by different members of the team on whether the cut predated or postdated the construction of the Phase 2 building. The cut certainly postdated Phase 3, and allowed for the existence of the Phase 2 building. However the relationship of the original Phase 2 path surface (Unit 9 on fig. 24a) and the cut was obscured by subsequent collapse of the unsupported face. On the whole the second possibility, that the cut postdated the Phase 2 building and was contemporary with its use, seemed a better explanation. Indeed the cut may be very recent, as its western boundary, that is, the section we worked on, bears no relation to the land divisions of a cadastral survey map of 1924.

## Stratigraphy and the Topography of the Qal'a

We were able to make observations about two of the topographical features of the island: (i) the embankment wall, and (ii) the ancient and Islamic street pattern.

## The Embankment Wall (R3 5C) (fig. 26)

As noted earlier, the development of the outline of the island in historical times is a complex one, involving dumping into the river and alluvial accretion to the island. In the course of this process much of the ancient embankment wall has become buried, and new embankment walls have been built further out. At one point however on the southeastern side of the island, adjacent to the Nā'ūr Bustān Sharqī, a possibly ancient embankment wall was still exposed. This was constructed of large rounded rubble limestone blocks, up to 80 cm across. To the northwest this wall was covered by an extension, which was revetted by walls of small limestone rubble.

A sondage, $5 \times 2 \mathrm{~m}$ (R35C), was dug into the extension in order to assess the date of the original wall. Three phases of development were distinguished.

Phase 3: Embankment Wall 1 A rubble wall, 2.5 m wide, which consisted of facing blocks c .50 cm across, a rubble core, and an inside face that was barely distinguishable from the rubble fill packed with hard brown clay that lay behind the wall.

Phase 2: Embankment Wall 2 A rebuild of the earlier wall 2.3 m wide, on a diverging line. The rubble stones were smaller, a maximum of $30 \times 20 \mathrm{~cm}$, and the exterior face is plastered with a hard lime plaster. During the life of this phase, material was dumped outside the wall, marked by slope lines on the section (fig. 26c).

Phase 1: Extension The top of the earlier walls and deposits was cut off in a straight line, in a fashion similar to the base of the agricultural soils in the other trenches. This was presumably the product of ploughing. The average depth of the extension deposits was 1.1 m . There were three sub-phases: (i) a rough one course line of stones (4) and soils to the west. (ii) a band of sand and recent agricultural soils overlying it, and (iii) a dump of sand on the present-day surface.

Dating The lowest deposits excavated inside Embankment Wall 1 contained both Neo-Assyrian and Parthian sherds. But as we did not penetrate deeply into the fills, we thought it possible that these represented fills associated with Embankment Wall 2, and that Embankment Wall 1 was in fact NeoAssyrian in date. Embankment Wall 2 contained Parthian storage sherds in its core. The dump deposits outside the wall, and the fills backing the second wall, contained Parthian and Sasanian pottery. We were not able to date the extension satisfactorily: most of the sherds in these layers were Sasanian. However the purpose of the extension was clearly for agriculture, and there was no further intensive occupation. The sherds therefore could not be reliable evidence for dating.

26. Trench R35C: (a) plan of Phase 1, (b) plan of Phases 2 and 3, (c) south section.

The central path of the island (fig. 5) roughly bisects the island lengthways. For much of its length the land on one or both sides of the path has been cut away for levelling agricultural land (pl. XIb). This unusual high isolated location suggested not merely that it predated the gardens, but that it may represent the line of a street from the time of urban occupation of the island, and possibly that of the ancient main avenue. For example the Congregational Mosque is located on it. We were able to examine the suggestion at three different points: (i) in area G3 (for location, see fig. 5) on the west side of the path, where the revetment of a cut had fallen away. (ii) in area J3 on the east side of the path, where there was also a visible section (for location, see also fig. 5); and (iii) in R4 7C/D where the present form of the path makes a curve to the southwest.

## Area G3 (fig. 27; pl. XIc)

The vertical cut at the edge of the central path here was cleaned and drawn schematically. The section showed a series of surfaces visible to a depth of 2.37 m below the present path level, uninterrupted by walls or pits. The surfaces were built up in 8 distinct successive phases.

Phases 6-8: Build-up of successive earth surfaces 1.0 m deep, with an especially distinctive red-brown (Phase 6), and a grey-brown layer (Phase 7). There was Parthian pottery at the base, and Parthian and Sasanian sherds higher up.

Phase 5: 18 cm thick fill of small limestone rubble, pieces of gypsum plaster, and Sasanian storage sherds.

Phase 4: A plastered surface with a make-up of 10 cm of green sand. Possibly Abbasid.
Phase 3: A mortared rubble make-up 37 cm thick, with a plastered surface. Abbasid and 5th/11th century sherds in the fill suggest a Middle Islamic date.

Phase 2: 16 cm of striated earth surfaces, representing later use of the Phase 3 surface (Middle Islamic-Early Modern).

Phase 1: Modern earth surface with 55 cm of deliberately laid fill.

## Area J3 (fig. 5; pl. XIb)

The successive development of surfaces in G3 was not visible in J3. Rather the cross-section of a room with mortared rubble walls was discovered. There were three successive plaster floors, and from the make-up of the lowest a sealed group of Samarran Abbasid pottery (Chapter 5, Group 5; fig. 42) was recovered. The appearance of a cross-wall in the section after scraping suggested that this could be the stub of a house adjoining the street.

## R47C/D

As discussed earlier, R4 7C/D has evidence of four street levels of the Neo-Assyrian period (Phases 5-9: figs.10d, 11 \& 12a-b;pl. VIII $a-b$ ). The Parthian Phase 4 (fig. 10c; pl. VIIIc) continues the tradition of drainage channels of the earlier phases, and could also represent a street line with an earth surface similar to G3 Phases 6-8. However in the modern period the path has moved to the west at this point, and there was no evidence of how the passage might have developed after the Parthian period.

## Discussion

The central path then probably does represent a continuous development in some form from the NeoAssyrian period. The point could be taken further: it is possible that more ancient and/or Islamic streets underly the pattern of paths depicted in fig. 5, for the pattern does bear a resemblance to a grid of streets.

The slow decline of the island town, and the piecemeal excavation of the levelled palm gardens, would lead almost inevitably to private property boundaries, and thus the urban street pattern, being retained in large part. This point is supported by the observation, noted earlier, that the paths with one exception have preserved the original profile of the island.

Such grids of streets are, of course, not unknown in the Islamic period, for example at Sāmarrā'. But, like the Hippodamian street grids of the Classical world, they were only laid out when a city was planned anew on a monumental scale. But there are no known events at 'Ana in Islamic or Classical times with which such a replanning might be connected, while there is already evidence of monumental construction in the Neo-Assyrian period both on the island (see Chapter 1, Pt. (i); Chapter 2, square R4 7C/D, and Chapter 7: glazed bricks), and in the surrounding district, as excavated at Sur Jur'eh (Roaf et al. forthcoming), and Sur Tilbis. It is possible that there is here the unusual evidence of a street pattern being preserved right through from the Neo-Assyrian period to the modern day.

The partial preservation of ancient ways till today is familiar from the archaeology of the English landscape, and the modern street pattern of the old city of Damascus has been used by Sauvaget to reconstruct the street grid of Roman times. However the ability of palm gardens to reflect earlier urban patterns has not been noted before. There is a parallel example in the oasis of al-Jawf in Sa'udi Arabia, where the line of an ancient city wall is preserved in the path pattern, with at least one standing section (not yet published).

27. Sketch section illustrating the development of the path in area G3.

# Chapter 4 <br> POTTERY FROM THE NEO-ASSYRIAN TO EARLY SASANIAN PERIODS by Robert Killick 

## Context

The pottery described here represents the corpus of pre-Islamic pottery up to the Early Sasanian period found in the B.A.E.I. excavations on Qal'at 'Àna. It came from three trenches, designated R4 7C/D, Q3 6B, and R5 5D, which were stratigraphically isolated from one another. The correlations between the phases of these trenches as well as a provisional dating are given on Table 4.

R4 7C/D was a $5 \times 5 \mathrm{~m}$ trench which was given nine phases. Phase 1 was agricultural, and Phase 2 Islamic. Phase 3 was an ill-defined phase in the archaeological record, consisting of layers of fill. Phase 4 was defined by its relationship to a water channel, and Phase 5 was a building level with a second water channel. Phases 6-9 were all associated with consecutive pavements of the major stone building found in the trench.

Q3 6B, $5 \times 4 \mathrm{~m}$, was assigned five phases. Phase 1 was agricultural, and Phase 2 was material associated with the top-most walls of the trench. Phase 3, with two subdivisions, represented different layers of occupation in the trench, but had no associated architecture. Phases 4 and 5 were the two lowest building phases.

R5 5D had pre-Islamic material in only two excavation units, numbers 10 and 26, which came from a $1 \times 1.5 \mathrm{~m}$ trench against the lowest walls found. The upper units were Islamic.

## Treatment of Pottery

The pottery reached the sherd-yard in plastic bags. A running series of numbers for the bags from each trench was employed in addition to the excavation unit number. In the sherd-yard the pottery was washed and a preliminary sort carried out. Sherds were recorded by bag number: sherds from each bag were counted, and feature sherds sketched on loose-leaf paper, together with comments on fabric. Featureless body sherds, once counted, were on the whole immediately discarded.

Because the sample was small, it was possible to wait until the excavations had been phased before dealing further with the material. All feature sherds from a phase were assembled and any sherds which looked distinctive or appeared frequently enough to be considered a type were drawn and photographed. Each drawn sherd was given a drawing number and details of ware, temper, etc., were recorded on a card index.

The same problems which were encountered in dealing with the Late Sasanian and Islamic material also apply to this earlier pottery (see Chapter 5). The main problem was the possibility of large numbers of residual sherds in the excavations. In certain cases, it was possible to identify these without difficulty: Many sherds from R5 5D, for example, were water-worn, which suggests that they had been redeposited from the river-bank or bed. In other cases distinctive type-fossils of one phase appeared in a later phase and were obviously out of context. Nipple bases of Assyrian type (no. 34), for example, were also found in higher levels in association with torpedo bases of Parthian or Sasanian date. However, other residual sherds, especially of types which did not occur frequently, may well have been overlooked.

The size of the pottery sample, with the number of sherds by phase, is shown on Table 5.112 sherds are illustrated, the remaining feature sherds being amorphous, fragmentary or repetitive.

## The Pottery Corpus

R4 7C/D Phases 9-6; Q3 6B Phases 5 \& 4; R5 5D Units 10 \& 26 (figs. 28-30)
The pottery from the four lowest phases of R4 7C/D, Phases 9-6, from the two lowest phases of Q3 6B, Phases 5 and 4, and from Units 10 and 26 of R5 5D, formed an homogeneous collection which was easily distinguished from the pottery out of the upper levels by virtue of a difference of ware and form. This material is illustrated on the first three pottery plates (figs. 28-30), and within the trench R4 7C/D it represented the material associated with the substantial stone building found in the bottom of the trench.

Table 4. Correlation of Trench Phases for the Neo-Assyrian to Early Sasanian periods

| R4 7C/D | Q3 6B | R5 5D | Period |
| :--- | :--- | :--- | :--- |
| Phase 1 | Phase 1 |  | Agricultural |
| Phase 2 |  |  | Islamic |
| Phase 3 | Phase 2 |  | Sasanian |
| Phase 4 | Phase 3 |  | Late Parthian |
| Phase 5 |  |  | Assyrian, mid-8th-7th century |
| Phase 6 |  |  | Assyrian, 9th-mid-8th century |
| Phase 7 | Phase 4 | Units 10 \& 26 | Assyrian, 9th-mid-8th century <br> Phase 8 |
| Phase 9 5 | Assyian, 9h-mid-8th century |  |  |
| Phase |  |  | Assyrian, 9th-mid-8th century |

Table 5. Numbers and Proportions of Sherds Found

| Trench | Phase | No. of sherds found | \% of total sample |
| :--- | :---: | :---: | :---: |
| R4 7C/D | 3 | 3442 | 33 |
|  | 4 | 1517 | 15 |
|  | 5 | 1276 | 12 |
|  | 6 | 408 | 4 |
|  | 7 | 828 | 8 |
|  | 8 | 785 | 7 |
| Q3 6B | 9 | 83 | 1 |
|  | 2 | 378 | 4 |
|  | 3 | 480 | 5 |
| R5 5D | 4 | 617 | 4 |
| Totals: | Units $10 \& 26$ | 648 | 1 |
|  |  | 10376 | 7 |
|  |  |  | 100 |

Fabric
Most of the sherds were of a soft pink or green fabric with a predominance of vegetable temper. A second common fabric was a cream/buff surface, sometimes slipped, on a pink clay. Most of these sherds were also vegetable tempered, but four of the illustrated examples were of grit temper (nos. 10, 42, 44 \& 46). There were a few examples of sherds with a brown clay and surface, and grit temper (nos. 21,28 \& 39), and some with a grit and vegetable temper (nos. 8 \& 30).

## Carinated Bowls

Seven examples were found of bowls with a rounded rim, and high swollen, carination (nos. 1, 2 \& 3). Six of these were vegetable tempered with rim diameters in the $12-18 \mathrm{~cm}$ range. This bowl shape is reported at Nimrud (Oates 1959: pl. xxxv. 2 \& 3), Tell Halaf (Hrouda 1962: pl. 61.159), and at Nippur (Gibson 1978: fig. 63.2 \& 7). At Nippur the time range for this shape is said to be Late Kassite/postKassite. At other sites it is labelled Neo-Assyrian. One small carinated bowl (no. 2) was grit tempered with a red wash all over, and there was one small even-walled vessel with a beaded rim of particularly fine manufacture (no. 9).

## Deep Bowls

Four examples were found of deep bowls with everted rims, and with high carination (nos. 10,11 \& 12). They were of diverse wares. One example had a pink clay, buff slip and grit temper (no. 10), while another was green and tempered with grog and vegetable (no. 11). Similar examples were found at Nimrud and were said to form, with many variations, the most common Late Assyrian bowl type (Oates 1959: pl. xxxv. 23 \& 24).

## Bowls with folded, grooved rim

There were two examples of this rim type (nos. 13 \& 14). It is another type common at Nimrud (Oates 1959: pl. xxxv.25) and found again at Tell Halaf (Hrouda 1962: pl. 61.156) and also Assur (Haller 1954: pl. 6aa, ab \& ac). It was also very common, with many variations, at Sur Jur'eh (Roaf, Killick \& Roaf, forthcoming), and may be expected to have been found at other Assyrian sites in the Haditha area.

## Shallow Dishes

There were three sherds of shallow dishes with out-turned or swollen rims. The illustrated example (no. 18) was of a buff clay with a yellow glaze in and a pale green glaze out, which was darker on the rim. It should be noted that this example does not come from a well-stratified context, and that two similar unglazed examples came from Phase 5 of R47C/D, which is later than the main occupation of the large stone building assigned to the Assyrian period.

## Beaker

One complete beaker was found with a plain rim, slightly out-turned, and with carination above a flat string-cut base (no. 19: pl. XIIa). This is a common type in the Heditha region, and has been found at Tell Yimniyeh and Khirbet Diniyeh, but it was not found at Sur Jur'eh. It may therefore belong to the earlier part of the Assyrian sequence in the area. Outside the Haditha region, the closest parallel can be found at Nippur (McCown \& Haines 1967: pl. 100.20) with a time range of Kassite to Assyrian/Neo Babylonian, with the greatest frequency in the Neo-Assyrian period. It is also fairly similar to a beaker from Tell Halaf, which is published only as a photograph (Hrouda 1962: pl. 65.56), and assigned to the Aramaean levels of that site.

## Plain Jars

On the whole the jars from these levels were amorphous and unremarkable. Fabric and temper was much the same as for the bowls, either a pink clay and surface, or a green one with a predominance of vegetable temper. Some examples had a buff slip. Many of the jar rims appeared neckless and probably belonged to sweliing-bodied pots with round bases similar to no. 20. That example had a wide neck with a thickened rim slightly pointed to form a lip and a swollen, round body, which unfortunately could not be joined to the round base of which it was undoubtedly part.

The most common rim type was a plain band rim (nos. 22 \& 23), sometimes slightly pinched (no. 20). There were also some bevelled rims (no. 24). Comparisons are not particularly illuminating. A roundbodied pot with an external ridge below the rim appears at Tell Halaf (Hrouda 1962: pl. 69.181), and many sherds from the Makhmur plain have similar rims (Amin 1950: pl. vi).

## Coarse Storage Jars

Rims and body sherds of thick storage jars were of green clay, quite coarse with lots of vegetable temper. There were examples with heavy turned-out rims (no. 30), bevelled rims (no. 26) and plainer rims (no. 31). Such storage jars are ubiquitous.

## One-handled Jar

The most distinctive jar profile was a complete rim and neck of a one-handled jar (no. 32). This was grit tempered with a pink/red clay and surface. It had a bevelled rim with an external ridge on the neck, two ridges at the base of the neck, and three more lower down on the body. There was a single, quite flat handle attached to the top of the rim. This jar has a good parallel at Tell Halaf (Hrouda 1962: pl. 64.46) where it is placed within the Aramaean pottery corpus.

## Flat Bases

The most common flat base was a simple string-cut type, very undiagnostic and not illustrated. There were examples of flat, slightly raised bases with flaring sides (nos. 46 \& 47), and one with angular side walls (no. 43).

## Nipple Bases

Nipple bases were relatively common on Qal'at ‘Ana (nos. 34 \& 35). They were always vegetable tempered, without slip and had thick walls. Such bases have a wide distribution: they have been found at Tell Halaf (Hrouda 1962: pl. 60.145), Assur (Haller 1954: pl. 5.1), Nimrud (Oates 1959: 133-4), and at Nippur (Gibson 1975: fig. 46). At Nippur their context is Kassite/Middle Babylonian. They are also found at many sites in the Hadītha region, such as Bijan and Khirbet Diniyeh. Only one example was found at Sur Jur'eh, where the most common base was a longer, squat type.

These bases belonged to a variety of vessel forms. The thicker variety with sloping sides appear to belong to large coarse storage jars, while some with straight sides are apparently from drinking cups. It is also a base form found on thin palace ware vessels. All the examples from Qal'at 'Ana have rather thick sidewalls, and they may have been off storage jars rather than beakers.

## Ring Bases

There was a small number of low ring bases, between 5 and 20 cm in diameter (nos. 38, 39, 40 \& 41). All were vegetable tempered. A variant was a ring base with an angular bottom to the jar (nos. 40 \& 41), a type also present at Nimrud (Oates 1959: pl. xxxv.4), and noted at Sur Jur'eh.

## Miniature Bases

There were three examples of a distinctive miniature vessel, measuring 3 cm base diameter (no. 42). All had a fine pink clay, buff slip all over, grit temper and were finely made. The bases were grooved with straight, thick side walls. There does not at the moment seem to be any close parallels for this type, which does not fit into the 'istikan' type found at Nimrud.

## Tall Solid-footed Base

A single example was found of a tall solid-footed base (no. 48). This looks Babylonian and at Nippur it is noted that such bases continue into post-Kassite/Assyrian levels (Gibson 1978: fig. 66 \& Table 4). Some examples have also been found at Khirbet Diniyeh.

## Dating

In the description of this assemblage, parallels have been cited with such relatively far-flung sites as Nimrud, Assur and Nippur. Such comparisons are not satisfactory: they deal with material of a late and special character in the first place-late 7th century pottery from the Assyrian capital-from undatable contexts in the second, namely graves, and from southern Babylonia in the third. Of all the sites outside the Haditha region, Tell Halaf is the only one where good comparisons can be found, and the value of the chronological sequence at that site is limited. Nevertheless, some of the pottery from Qal'at 'Ana, notably the complete beaker (no. 19) and the single-handled jar (no. 32) find their closest parallels in material dated to period 1 at Tell Halaf (Kapara period), which is labelled Aramaean and dated to the 10 th or 9 th centuries BC.

Within the Qadisiyya Dam Salvage Project a number of sites of the Assyrian period have been excavated. The material presented here from Qal'at 'Ana has its best comparisons at some of these sites, and it should be possible to slot our material into a precise chronological framework, when the archaeological and epigraphic material from all these other sites is published.

Excavations elsewhere on Qal'at AAna by the State Organisation for Antiquities and Heritage have produced evidence of an extensive occupation of the island in the Neo-Assyrian period, with new inscriptions dating to the 9th and mid-8th centuries BC. It is therefore to this period that we may tentatively assign the predominantly vegetable tempered ware, and the pottery shapes found in phases $6-9$ of R47C/D, Phases 4 and 5 of Q36B, and in units 10 and 26 of R55D.

Fig. 28 Neo-Assyrian Pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D

1. Green surface, green clay, vegetable temper. Water worn.

Rim diam.: 16 cm .
R4 7C/D Phase 8: Unit 36, sandy fill.
2. Red wash all over, pink clay, grit temper. Fine ware.

Rim diam.: 18 cm .
R47C/D Phase 7: Unit 74, below floor.
3. Cream surface, pink clay, vegetable temper.

R5 SD Unit 10, fill.
4. Green surface, green clay, vegetable temper. Water worn.

Rim diam.: 11 cm . Base diam.: 4 cm . Height: 4.8 cm .
R4 7C/D Phase 8: Unit 36, sandy fill.
5. Green surface, green clay, vegetable temper.

Rim diam.: 29 cm .
R4 7C/D Phase 7: Unit 74, below floor.
6. Green surface, green clay, vegetable temper.

Rim diam.: 14 cm .
R47C/D Phase 8: Unit 36, sandy fill.
7. Buff surface, buff clay, vegetable temper.

R5 SD Unit 26, fill.
8. Green surface, brown clay, grit and vegetable temper.

Rim diam.: 9 cm .
R4 7C/D Phase 8: Unit 31, paving.
9. Red/brown surface, red/brown clay, sparse grit temper. Fine ware.

R4 7C/D Phase 7: Unit 72, below floor.
10. Buff slip all over, pink clay, grit temper.

Rim diam.: 19 cm .
R4 7C/D Phase 7: Unit 72, below floor.
11. Brown surface, brown clay, vegetable and grog temper.

Rim diam.: 28 cm .
R4 7C/D Phase 8: Unit 31, paving.
12. Green surface, green clay, vegetable temper.

Rim diam.: c. 24 cm .
R47C/D Phase 8: Unit 31, paving.
13. Red surface, red clay, sparse vegetable and grit temper.

Q3 6B Phase 4: Unit 18, fill.
14. Buff surface, pink clay, vegetable temper.

Rim diam.: 19 cm .
Q3 6B Phase 4: Unit 18, fill.
15. Green/grey surface, green/grey clay, fine grit temper. Brown paint and burnish inside.

Rim diam.: 21 cm .
Q3 6B Phase 4: Unit 19, pit.
16. Red surface, red clay, fine grit temper.

Rim diam.: 20 cm .
R4 7C/D Phase 6: Unit 60, broken paving.
17. Buff surface, buff clay, grit and vegetable temper.

R5 5D Unit 26, fill.
18. Buff surface, buff clay, fine vegetable temper. Yellow glaze inside, pale green glaze out, dark green glaze on top of rim. Rim diam.: 20 cm . Drawn from single profile.
Q3 6B Phase 4: Unit 18, fill.
19. Pink surface, pink clay, fine vegetable temper with sparse sand.

Rim diam.: 7.8 cm . Height: 9.4 cm . Base diam.: 4.1 cm .
R4 7C/D Phase 6: Unit 65, paving.

R47C/D PHASES 9-6, Q36B PHASES 5-4, R55D

28. Neo-Assyrian pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D.

Fig. 29 Neo-Assyrian Pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D
20. Buff/pink surface, probably slipped, pink clay, vegetable temper.

Rim diam.: 10 cm .
R4 7C/D Phase 7: Unit 66, below floor.
21. Red/brown surface, red/brown clay, sparse grit and white grit temper. Rim diam.: 13 cm .
Q3 6B Phase 4: Unit 16, fill.
22. Green surface, green clay, vegetable temper. Water worn.

Rim diam.: 11 cm .
R5 SD: 10, fill.
23. Green surface, green clay, vegetable temper. Water worn.

Rim diam.: 11 cm .
R5 5D: 10, fill.
24. Green surface, green clay, grog temper.

Rim diam 18 cm .
R47C/D Phase 8: Unit 31, paving.
25. Buff surface, pink clay, vegetable temper. Very water worn.

Rim diam.: 8 cm .
R5 5D: 10, fill.
26. Green surface, green clay, heavy vegetable and grit temper.

R4 7C/D Phase 7: Unit 66, below floor.
27. Green surface, brown clay, sparse grit temper. Hand made.

Rim diam.: 6.8 cm . Drawn from single profile.
R4 7C/D Phase 8: Unit 35, below paving.
28. Brown surface, brown clay, grit temper. Polished on outside.

Rim diam.: 8 cm .
R47C/D Phase 9: Unit 37, earth fill.
29. Green surface, green clay, vegetable temper. R4 7C/D Phase 7: Unit 66, below floor.
30. Green surface, brown clay, grit and vegetable temper.

R4 7C/D Phase 7: Unit 29, below floor.
31. Green surface, green clay, vegetable and sparse grit temper. Bitumen on outside.
R5 5D: 26,fill.
32. Pink surface, pink clay, grit temper.

Rim diam.: 6.4 cm .
Q3 6B Phase 4: Unit 18, fill.
33. Buff slip all over, brown clay, grit and vegetable temper. Incised decoration.
R4 7C/D Phase 7: Unit 66, below floor.

29. Neo-Assyrian pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D.
34. Green surface, pink clay, heavy vegetable and grog temper. Q3 6B Phase 3b: Unit 16, pit.
35. Green surface, green clay, grit and vegetable temper. R4 7C/D Phase 7: Unit 72, below floor.
36. Buff surface, pink clay, vegetable temper. Very water worn. R5 5D: 10, fill.
37. Cream slip outside on pink surface, pink clay, fine vegetable temper. R5 5D: 10, fill.
38. Brown surface, possibly slipped, brown clay, vegetable temper. Base diam.: 9 cm .
R4 7C/D Phase 8: Unit 31, paving.
39. Brown surface, brown clay, grit and vegetable temper.

Base diam.: 4.8 cm .
R4 7C/D Phase 7: Unit 71, paving.
40. Red/brown surface, brown clay, grit and vegetable temper.

Base Diam. 4.9 cm .
R4 7C/D Phase 7: Unit 71, floor.
41. Buff slip all over, brown clay, grit and vegetable temper.

Base diam.: 7 cm .
R4 7C/D Phase 8: Unit 31, paving.
42. Buff slip all over, pink clay, grit temper.

Base diam.: 2.9 cm .
R4 7C/D Phase 7: Unit 71, floor.
43. Buff slip all over, brown/buff clay, vegetable temper.

Base diam.: 5 cm .
R4 7C/D Phase 8: Unit 31, paving.
44. Cream surface, possibly slipped, grit and sparse vegetable temper.

Base diam.: 7.2 cm .
R5 5D: 26, fill.
45. Green surface, green clay, vegetable temper.

Base diam.: 7.8 cm .
R4 7C/D Phase 8: Unit 36, fill.
46. Buff slip all over, red clay, sparse grit temper.

Base diam.: 6 cm .
Q3 6B Phase 4: Unit 18, fill.
47. Green surface, green clay, vegetable temper and sparse grit.

Rim diam. 5.5 cm .
R5 5D: 26, fill.
48. Green surface, pink clay, vegetable temper.

Base diam.: 7.5 cm .
R4 7C/D Phase 8: Unit 36, sandy fill.

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30. Neo-Assyrian pottery from R4 7C/D Phases 9-6, Q3 6B Phases 5-4, and R5 5D.


## 31. Neo-Assyrian pottery from R4 7C/D Phase 5.

Fig. 31 Neo-Assyrian Pottery from R4 7C/D Phase 5
49. Buff surface, buff clay, heavy vegetable temper. Rim diam.: 11 cm . Drawn from a single profile. R4 7C/D Phase 5: Unit 41, fill.
50. Cream slip out, pink clay, fine grit and vegetable temper. Rim diam.: 8 cm .
R4 7C/D Phase 5: Unit 33, remains of flooring.
51. Green surface, green clay, vegetable temper. Nearly vitrified. Rim diam.: 10 cm .
R4 7C/D Phase 5: Unit 33, remains of flooring.
52. Cream surface, pink clay, fine grit temper. Rim diam.: c. 8 cm .
R4 7C/D Phase 5: Unit 26, earth fill.
53. Green surface, green clay, vegetable temper. Rim diam.: 11 cm .
R4 7C/D Phase 5: Unit 39, stone and brick fill.
54. Pink surface, pink clay, fine grit and vegetable temper. String cut base. Base diam.: 4 cm .
R4 7C/D Phase 5: Unit 33, remains of flooring.
55. Pink/buff surface, pink/buff clay, fine grit temper. Base diam.: c. 2.6 cm .
R4 7C/D Phase 5: Unit 40, remains of flooring.
56. Grey surface, grey clay, vegetable and sparse grit temper. Burnished out.
R4 7C/D Phase 5: Unit 41, stone and brick fill.

In the archaeological record, those levels immediately above the major building designated by Phases 9-6, and associated with a water channel, were ascribed to Phase 5. A ceramic change may also be noticed here. Together with the soft vegetable tempered ware of the lower phases, there were many grit tempered sherds with different forms.

## Bowls

There were four plain rounded rims with shallow carination (not illustrated). All were grit tempered with a little sand added. One other bowl had a flat rim with an external groove below, which found a single parallel in Phase 3a of Q3 6B (no. 103).

## Jars

The most common jar rim was a band rim (no. 53). Examples of this type occur both with a green, vegetable-tempered fabric, and with a pink or buff fabric and grit temper.

## Bases

There were five plain ring bases with angular jar bottoms similar to those from the lower levels. One swollen ring base of grey fabric with exterior burnish was found (no. 56), and some stubby, elongated bases off large storage jars (no. 55).

## Glaze and Decoration

A single glazed sherd was found with a yellow glaze on a buff clay (not illustrated). Surface decoration was restricted to two sherds with incised lines, and one sherd with triangular incisions on the rim (not illustrated).

## Dating

The sample of pottery from this level was very small. However an initial comparison with the pottery from a second Assyrian site in the Haditha area, Sur Jur'eh (Roaf, Killick \& Roaf, forthcoming), suggests that R4 7C/D Phase 5 may be contemporary with the major period of occupation at Sur Jur'eh, which has been securely dated to the mid/late 8th century BC.

## R4 7C/D Phase 4 (figs. 32-4)

These were sherds associated with a second water-channel, and may therefore be considered as a group. Most of the jars and bowls from these phases were of pink clay with a buff surface and grit temper.

## Bowls

Four examples of glazed bowls were found in this phase (pl. XIIc). One had a plain rounded rim with slight carination, and a crazed white and pale blue glaze all over (no. 59). A second example was similar, but with corrugations on the inside (no. 57). The third example was thin-walled with a plain rim, and a pale blue and mottled black glaze all over (no. 58). Adhering to the outside of this vessel were fragments of a second identical bowl. The two had been wedged together, which may have brought about their shattering. There were two examples of deep bowls with an external ridge (nos. 66 \& 67), and one bowl sieve with an internal groove (no. 60). One complete profile of a bowl with with an in-sloping rim and ring base was recovered (no. 62).

## Jars

Nearly all jars were of pink or buff clay and surface with grit temper and occasionally a cream slip. Two jars were green and overfired, and two hole-mouthed pots were tempered with large grits.

There were three decorated jars: one example with a bevelled rim had a row of finger impressions below the rim, and two grooves and a band of combed incision on the body (no. 75). A second example was a two-handled jar with a row of large finger impressions on the rim and a band of combing running just below the handle (no. 74). A sherd from a second similar vessel was found.

Other types included band rims, bevelled rims, and turned back rims, on large thick storage jars, many of which were splashed with bitumen.

There were fragments of the base and lower body of a twin-spouted amphora of buff clay with with fine grit temper (no. 77). It had raised relief near the spouts and incised lines of chevrons across the base. This may have been rouletted decoration. It appears similar to an example from Seleucia (Debevoise 1934: fig. 177), and dated to the 1 st-2nd centuries AD. Haerinck has collected all known examples of this vessel type and concluded that the majority may be dated to the Achaemenid and Parthian periods (Haerinck 1980: 52).

Fig. 32 Parthian Pottery from R4 7C/D Phase 4
57. Pale orange surface inside, red outside, buff clay, no temper. Crazed white/pale blue glaze all over. Rim diam.: 19.6 cm . Drawn from single profile.
R4 7C/D Phase 4: Unit 25, earth fill.
58. Yellow/buff surface, yellow/buff clay, no temper. Pale blue glaze all over, mottled black in places. Fragment of second, similar vessel adhering to outside.
Rim diam.: 19 cm . Drawn from a single profile.
R4 7C/D Phase 4: Unit 22, contents of upper water channel.
59. Buff surface, yellow/buff clay, fine vegetable temper. Crazed white/pale blue glaze all over. Rim diam.: 21.5 cm . Drawn from a single profile.
R4 7C/D Phase 4: Unit 22, contents of upper water channel.
60. Buff surface, buff clay, grit temper.

Rim diam.: 7.1 cm . Base diam.: 6.6 cm . Height: 7.2 cm . Drawn from a single profile.
R4 7C/D Phase 4: Unit 22, contents of upper water channel.
61. Cream surface, pink clay, vegetable temper.

Rim diam.: 12.3 cm . Base diam.: 8 cm . Height: 4.4 cm . Drawn from a single profile. R4 7C/D Phase 4: Unit 25, fill of upper water channel.
62. Green surface, green clay, vegetable temper and some grit.

Rim diam.: 14.4 cm . Height: 3.9 cm . Base diam.: 5.5 cm .
Drawn from a single profile.
R4 7C/D Phase 4: Unit 22, contents of upper water channel.
63. Buff surface, green to pink clay, vegetable temper.

Rim diam.: 11 cm .
R4 7C/D Phase 4: Unit 22, earth fill.
64. Cream surface, red clay, grit temper.

Rim diam.: c. 28 cm .
R4 7C/D Phase 4: Unit 17, floor.
65. Cream slip all over, pink clay, heavy grit temper.

R4 7C/D Phase 4: Unit 25, earth fill.
66. Cream surface, possibly slipped, pink clay, vegetable temper.

Rim diam.: c. 30 cm .
R4 7C/D Phase 4: Unit 25, earth fill.
67. Pink surface, pink clay, vegetable temper with sparse white grit.

Rim diam.: c. 28 cm .
R4 7C/D Phase 4: Unit 23, earth fill.

32. Parthian pottery from R4 7C/D Phase 4.

Fig. 33 Parthian Pottery from R4 7C/D Phase 4
68. Cream slip outside, pink clay, vegetable and large grit temper.

Rim diam.: 12 cm .
R4 7C/D Phase 4: Unit 25, earth fill.
69. Buff slip all over, pink clay, fine vegetable and sparse grit temper.

Rim diam.: 9 cm .
R4 7C/D Phase 4: Unit 25, earth fill.
70. Green surface, green clay, vegetable temper.

R4 7C/D Phase 4: Unit 7, wall.
71. Cream slip outside; pink clay, vegetable and grog temper.

Rim diam.: c. 26 cm .
R4 7C/D Phase 4: Unit 25, earth fill.
72. Buff surface, pink clay, vegetable and grog temper. Bitumen adhering to outside. Rim diam.: c. 22 cm .
R4 7C/D Phase 4: Unit 17, fill.
73. Green surface, green clay, vegetable temper. Overfired.

R4 7C/D Phase 4: Unit 35, contents of upper water channel.
74. Cream surface, possibly slipped outside, buff clay, sparse large grit temper. Band of large finger impressed decoration on rim, and combing on shoulder below handle.
Rim diam.: 16.5 cm . Drawn from a single profile.
R4 7C/D Phase 4: Unit 22, contents of upper water channel.
75. Buff slip outside, pink clay, sparse large grit temper. Row of finger impressed decoration on rim, groove on shoulder, and band of combing.
Rim diam.: 12 cm .
R4 7C/D Phase 4: Unit 22, contents of upper water channel.
76. Green surface, buff/pink clay, vegetable and sparse grit temper.

Rim diam.: 14 cm . Drawn from a single profile.
R4 7C/D Phase 4: Unit 25, earth fill.
77. Buff surface, buff clay, fine grit temper. Reconstructed from sherds. Twin-spouted amphora with three ridges of incised decoration around each spout, and irregular bands of rouletted chevrons (perhaps incised by a rocker stamp).
R4 7C/D Phase 4: Unit 22, contents of upper water channel.

33. Parthian pottery from R47C/D Phase 4.


78



R47C/D PHASE
34. Parthian pottery from R4 7C/D Phase 4, and pottery from R4 7C/D Phase 3b.

Fig. 34 Parthian Pottery from R4 7C/D Phase 4, and Pottery from R4 7C/D Phase $3 b$
78. Buff surface, buff clay, grit temper. Bitumen lined.

Base diam.: 14.5 cm . Drawn from a single profile.
R4 7C/D Phase 4: Unit 22, contents of upper water channel.
79. Buff slip all over, pink clay, grit temper.

R4 7C/D Phase 4: Unit 22, contents of upper water channel.
80. Buff surface, pink clay, grit temper.

R4 7C/D Phase 4: Unit 22, contents of upper water channel.
81. Brown surface, brown clay, vegetable temper. Bitumen lined. R4 7C/D Phase 4: Unit 24, earth fill.
82. Buff surface, buff clay, grit and vegetable temper. R4 7C/D Phase 3b: Unit 18, floors.
83. Pink surface, pink clay, heavy vegetable temper. Bitumen lined. Rim diam.: 10 cm .
R4 7C/D Phase 3b: Unit 18, floors.
84. Pink surface, pink clay, grit temper. Bitumen lined.

Rim diam.: 8 cm .
R4 7C/D Phase 3b: Unit 9, floors.
85. Buff surface, pink clay, grit temper.

Rim diam.: 12 cm .
R4 7C/D Phase 3b: Unit 18, floors.
86. Buff surface, pink clay, vegetable temper. Bitumen lined.

R4 7C/D Phase 3b: Unit 18, floors.
87. Pink surface, pink clay, vegetable and sparse grit temper.

Rim diam.: 12 cm .
R4 7C/D Phase 3b: Unit 18, floors.
88. Cream slip outside, pink/buff clay, heavy grit temper.

Rim diam.: 24 cm .
R47C/D Phase 3b: Unit 18, floors.
89. Green surface, green clay, grit and vegetable temper. Bitumen lined.

Base diam.: 5.5 cm .
R4 7C/D Phase 3b: Unit 18, floors.

## Bases

There were three 'torpedo' bases and a number of body sherds from these vessels. There was also one blunt elongated base with an incised line outside above the base (no. 81).

## Handles

There were three jar rims with handles off the top of the rim, and one fragment with a handle slightly below the rim (not illustrated).

## Dating

Distinctive sherds in this phase were: Jars with finger impressions on the rim, examples of torpedo bases, and shallow bowls with white/pale blue glaze. Similar glazed bowls were found at 'Ain Sinu (Oates 1968: fig. 21, nos. 22 \& 23), and at Shahr-i Qūmis (Haerinck 1983: fig. 5.1-3). These are dated by Haerinck to the Late Parthian period ( $0-225 \mathrm{AD}$ ), and, at the moment, this seems to be the best date for the Phase 4 assemblage from ‘Ảna.

R4 7C/D Phase 3 (fig. 35)
The fabric of vessels from this phase is still almost entirely a a pink clay with buff surface, occasional cream slip, and always grit temper. Some sherds were heavily grit tempered with a sand-paper like finish.

## Bowls

There were two small fragments of Brittle Ware: well ribbed with an exterior groove below a plain rounded rim (not illustrated). Both had a lot of grit temper. There were some larger bowls: a deep-sided bowl with a slightly turned-out rim and internal groove (no. 96), and one with a heavy turned-out rim (no. 97).

A fragment was found of the base of a lustrous black varnished plate with rouletting and a central palmette design (no. 102). It was part of a low ring base, and had a ring of rouletted incision superimposed over a second partial ring with a central palmette design which was barely visible. This is a well-known Hellenistic ware at such sites as Nimrud (Oates 1968: 122), and Tell Halaf (Hrouda 1962: pl. 81.109). It should probably be considered residual in this context.

## Jars

Nearly all jars were bulbous storage jars with slightly swollen rims (nos. 82 \& 91), or with a more pronounced swelling (no. 84). Many were bitumen-splashed inside, over the rim and also outside. There were some band rims, a 'pie-crust' rim (no. 92), and a band rim with a groove (no. 93).

## Bases

There were a few ordinary ring bases, one of which was glazed white on a yellow/buff clay, some 'torpedo' bases and one grooved blunt base (no. 101).

## Glaze and Decoration

Twenty-eight glazed sherds were recorded. Most frequent was a white glaze on buff or yellow clay ( 13 pieces), and a blue-green glaze on yellow clay ( 6 pieces). There were examples of simple zigzag and wavyline incision, some band combing and one jabbed decorated sherd. One large storage jar had raised lozenges on the shoulder.

## Dating

This phase marks the first appearance of Brittle Ware. In addition to the two pieces already remarked upon, there were two out-turned jar rims in Brittle Ware (not illustrated). The Brittle Ware may be compared with that found at 'Ain Sinu (Oates 1968: fig. 23), where it is dated to the first third of the third century ad (see also Chapter 5, Group 1). This date is confirmed by comparisons with the pottery from the nearby site of Kifrin.

35. Early Sasanian pottery from R4 7C/D Phase 3a.

Fig. 35 Early Sasanian Pottery from R4 7C/D Phase 3a
90. Buff surface, pink clay, grit temper. Bitumen inside and over rim. R4 7C/D Phase 3a: Unit 5, floors.
91. Red surface, red clay, grit temper. Bitumen lined. R4 7C/D Phase 3a: Unit 5, earth layers.
92. Cream slip outside, buff clay, grit temper.

Rim diam.: 14 cm . R4 7C/D Phase 3a: Unit 55, below flooring.
93. Buff surface, buff clay, grit temper.

Rim diam.: 12 cm . R4 7C/D Phase 3a: Unit 54, below flooring.
94. Buff surface, pink clay, grit temper.

R4 7C/D Phase 3a: Unit 54, below flooring.
95. Buff surface, buff clay, grit temper. Bitumen lined. Rim diam.: 12 cm .
R4 7C/D Phase 3a: Unit 5, earth layers.
96. Buff surface, pink clay, grit temper.

Rim diam.: 28 cm .
R4 7C/D Phase 3a: Unit 5, earth layers.
97. Buff surface, pink clay, grit temper. R4 7C/D Phase 3a: Unit 5, earth layers.
98. Pale pink surface, pink clay, grit temper. Rim diam.: 14 cm .
R4 7C/D Phase 3a: Unit 49, earth layers.
99. Grey surface, grey clay, heavy grit temper

Rim diam.: c. 20 cm .
R4 7C/D Phase 3a: Unit 5, earth layers.
100. Buff surface, buff clay, heavy grit temper. Bitumen inside. Base diam.: 7 cm .
R4 7C/D Phase 3a: Unit 55, below flooring.
101. Pink surface, pink clay, grit temper. Yellowed bitumen inside. R4 7C/D Phase 3a: Unit 55, below flooring.
102. Pink surface, pink clay, no temper. Black 'glaze' all over. Decoration inside: one partial row of rouletting overlaid by second complete row around a central design of palmettes.
Base diam.: c. 11.7 cm .
R4 7C/D Phase 3a: Unit 55, below floor.

36. Partho-Sasanian pottery from Q3 6B Phases 3-2.

Fig. 36 Partho-Sasanian Pottery from Q3 6B Phases 3-2
103. Cream slip all over, pink clay, vegetable temper.

Rim diam.: c. 30 cm .
Q3 6B Phase 3c: Unit 11, fill above red-brick pavement.
104. Buff surface, pink clay, grit and vegetable temper. Grey slip inside, inside polished.

Rim diam.: c. 28 cm .
Q3 6B Phase 3b: Unit 9, fill above orange layer.
105. Dark brown surface, dark brown clay, sparse grit temper.

Rim diam.: 10 cm .
Q3 6B Phase 3b: Unit 9, fill above orange layer.
106. Buff surface, buff clay, no temper. Pale blue/white glaze all over.

Rim diam.: c. 13 cm .
Q3 6B Phase 3b: Unit 10, orange layer.
107. Green surface, green clay, grit temper. Outside scraped while still wet.

Rim diam.: 26 cm .
Q3 6B Phase 3b: Unit 10, pit.
108. Sealing wax red all over, red clay, sparse grit temper. Traces of burnishing.

Rim diam.: c. 29 cm . Drawn from a single profile.
Q3 6B Phase 3b: Unit 16, pit.
109. Buff slip outside, red clay, sparse vegetable and grit temper. Outside scraped while still wet. Rim diam.: c. 21 cm .
Q3 6B Phase 3a: Unit 15, wall.
110. Buff surface, buff clay, grit temper. Row of incised holes on rim and incised wavy lines on body. Rim diam.: 16 cm .
Q3 6B Phase 2: Unit 30, fill.
111. Buff surface, probably slipped, pink clay, grit temper.

Rim diam.: c. 14 cm .
Q3 6B Phase 3a: Unit 8, plaster floor.
112. Yellow/buff surface, yellow/buff clay, fine grit temper.

Rim diam.: c .5 cm .
Q3 6B Phase 2: Unit 3, fill.

Table 6. Frequency of Illustrated Pottery Types



# Chapter 5 <br> MIDDLE SASANIAN TO ISLAMIC POTTERY AND STONE VESSELS by Alastair Northedge 

We present in this section the pottery and stone vessels from about the middle of the Sasanian period until the Ottoman period. The material comes primarily from trench K31J, but also from N4, N5 3A, R4 7C/D, and J3. The division of the two parts of this study in the middle of the Sasanian period reflects the fact that two main occupational sequences were excavated: R4 7C/D from the Neo-Assyrian until early in the Sasanian period, and K3 1 J from the middle of the Sasanian period until modern times.

## Methodology and Presentation

The methods of processing the sherds recovered used for this study were the same as those described in the previous chapter.

As the quantity of sherds and size of deposits from each period were small, the material is presented as the contents of a series of specific deposits, either one deposit or a group of deposits from each period. The discussion of each of these pottery groups consists of a discussion of the context, the pottery, and an analysis of the dating.

In addition various sherds from outside the stratigraphy under discussion are included, labelled ' $\mathbf{C}$ ' for 'comparative material' in the figure numbers and catalogue, to enable us to present the whole range of a particular ware in one place.

In studying the pottery of a site with a long occupational history, such as Qal'at 'Ana, one of the main difficulties is that of residual pottery, that is, the appearance of older pottery in a later deposit, as a result of movement subsequent to breakage of the vessel concerned, or, occasionally, through survival of an old vessel for a lengthy period of time before breakage. Each phase as excavated will include contemporary pottery, plus examples from any preceding phase. In practice the number of sherds from the earliest phases to be found in the late phases is relatively small. Although the quantity of sherds from any one earlier phase may be small, the large number of such earlier phases on a site such as Qal'at 'Ana mean that the most recent phases contain pottery that is nearly all residual, with only a few contemporary sherds. This problem would appear to be particularly acute on sites with stone construction, for earlier dressed and undressed blocks were recovered for re-use in later buildings, a process which leads to extensive disturbance of the earlier deposits.

Where the sample of sherds from any one phase is large, and the range of types and wares relatively limited, a variety of statistical methods are available to establish to a reasonable degree of probability the date of any one type. Where the sample from each phase is small, and the range of types and wares large, as here, a strict statistical approach is of little value. Rather it seemed most valuable to take a specific deposit, and to discuss its contents, in relation to outside evidence.

A principle of 'first appearance' was adopted, that is, anything found in an earlier deposit was excluded from a later one. Two dangers were unavoidable: one, that continuity of production without change over more than one phase would be missed; and two, that a type could be dated later than it ought to be, simply because it was not found in its contemporary deposit. Where we have thought that these problems occurred the possibility is discussed. The opposite problem to residual pottery, that of later pottery working its way down into earlier deposits, was only rarely observed.

## The Pottery Corpus

Group 1: Middle Sasanian Pottery from K3 1J Phase 9

## Context

The pottery comes from a series of earth surfaces (K3 1 J : $56-8) 60 \mathrm{~cm}$ deep, representing the development of floor surfaces in a fragmentary building of mud-brick and rubble masonry. The deposit is well-stratified: it overlies Phase 11, a mud-brick building whose pottery (cf. Chapter 4: R4 7C/D Phase 3a) was comparable with the nearby site of Kifrin, dated to the beginning of the 3rd century A.D., and Phase 10, a pit (75) containing pottery (not discussed) perhaps of a slightly later date. After the building was abandoned, earth surfaces containing pottery similar to Group 2 (Late Sasanian) covered the remains.

## Description

The glazed wares consisted of the neck of a jar in yellowish buff ware, glazed in yellowish green, with an appliqué button next to the handle stub (fig. 37.15), and a buff low ring base with whitish blue glaze inside (fig. 37.16).

The deposit included Brittle Ware, from a minimum of four separate but similar vessels (fig. 37.17-19). These were cooking pots of red ware, with ribbed bodies, an everted thickened rim, and two handles attached to the rim. The fabric is medium-fired without black cores, but fig. 37.18 shows an example which has turned black through reduction in the kiln. Although here described as Brittle Ware, the fabric is much softer than the fine hard metallic wares of Dura Europos (Dyson 1968), and 'Ain Sinū (Oates 1968: fig. 23), dated to the beginning of the 3rd century, and is more akin to the Brittle Wares of the Early Islamic period (Group 4). Although it may perhaps be suggested that these are products of north Syria, parallels there are lacking. It is most likely that these pots are later versions of the Dura and 'Ain Sinū Brittle Wares, predating the introduction of the cooking pot with the handles on the shoulders in the Byzantine period (cf. Group 2, fig. 38.3. For complete examples cf. Harper 1980: fig. D, nos. 62-4; Thalmann 1978: fig. 38.3).

The medium wares vary in thickness between 5 and 13 mm , with a fired colour of buff (fig. 37.1), light brown (fig. 37.2, 4, 13), buff surface with a pink core (fig. 37.5-7, 10-12, 14), and a dull red (fig. 37.3) All of these have a pronounced mineral temper of sand or grit, which is however not so obvious as the 'sandpaper' surface texture of the later Sasanian material. The forms include a recessed lid, probably with a central knob (fig. 37.1), parallelled at Choche (Ricciardi 1967: fig. 179-81), and Kish (Moorey 1978: Fiche 2/G08 1932.640), a flat base bowl (fig. 37.2), found in glazed form at Choche (Ricciardi 1967: fig. 172). Jar forms include a vertical neck with broad ribbing (fig. 37.3), everted and club rims. Round (fig. 37.11) and flat (fig. 37.12) bases are found, also familiar from Choche. Surface decoration included wavy line incising (fig. 37.13) and lines of impressed dots (fig. 37.14).

The group includes a torpedo jar (fig. 37.18). Whole forms are up to a metre long with a pointed base. Similar jars were also found in Parthian and Abbasid deposits.

## Dating

The group bears a general degree of resemblance to the pottery from Choche, dated to the middle of the Sasanian period, and rather less so to that of Kish, suggested to be of the 5th century A.D.; but at neither of those sites was Brittle Ware found. Several factors suggest that this group also belongs to the middle of the Sasanian period, that is, the 4th or 5th centuries A.D. Firstly the stratigraphic position sandwiched between Late Parthian/Early Sasanian material, and later deposits that still predate the Arab conquests. Secondly the Brittle Ware, which seems to be a development of the early 3rd century form, but is not yet the Byzantine type; and lastly the absence of Honeycomb Ware discussed in Group 2 as probably a Late Sasanian phenomenon.

## Group 2: Late Sasanian and Umayyad Pottery from N4

## Context

The material presented here comes from the two lowest buildings (Phases 3 and 4) of a sequence of four buildings excavated under the corner of the Congregational Mosque. The latest of the four (Phase 1) is built up against, and shortly postdates the first period of the mosque (Umayyad). Most of the material comes from above the floor of the earliest (Phase 4) building, and thus probably dates to shortly before the construction of the Phase 3 building; but some belongs to the destruction of the latter building. Thus the pottery is associated with a building (Phase 3) which is two phases earlier than a building which cannot be later than the Early Abbasid period.

## Description

Glazed wares were not found in this deposit.
Brittle Ware was represented by the rim of a high-necked vessel with handles on the shoulders (fig. 38.3). The ware is a well-fired hard red ware, with a dark grey surface. Most probably this belongs to a type with a plain unribbed body and pointed handles (cf. Harper 1980: fig. D, no. 61), to judge from the ware which resembles both that of survey sherds found in the Aleppo area (Northedge 1981), and the later ledge-handled cooking pots of the Abbasid period (figs. 39.9, 39.10C). The sherd would thus probably be Umayyad, as is also suggested by parallels at the Umayyad and Early Abbasid site of Tulul al-Ukhaiḍir (Finster \& Schmidt 1976: Abb. 45.0-s). However considerable variety of the ware in these vessels has been found, and the possibility cannot be excluded that it comes from a vessel with a ribbed body, of Byzantine date (Harper 1980: fig. D, nos. 62-4). The sherd belongs to the collapse of the Phase 3 building.

Medium wares of the group are buff, or a dull red colour, with a strongly pronounced grit or sand temper. Bitumen lining is common. Forms include a recessed lid (fig. 38.1), a deep bowl with a squared

The description consists first of the sherd number from the field records, secondly its description and dimensions, and thirdly its find spot. In certain cases the figure number is followed by the letter " C ", for comparative material, that is, the sherd is not from the deposit under discussion, but is included to show the typological range of a particular ware.

## Fig. 37 Group 1: Middle Sasanian Pottery from K3 1J: Phase 9

1. DP516. Part of lid, probably formerly had central knob handle. Pinkish buff with grit temper. Rim diam.: 13 cm .
K3 1J: 57.
2. DP510. Bowl. Light brown ware with grit temper.

Rim diam.: 13 cm . Height: 4.7 cm .
K3 1J: 57.
3. DP496. Jar rim. Dull red with inclusions of lime and grit temper. Bitumen lined.

Rim diam.: 11 cm .
K3 1J: 56.
4. DP508. Part of jar with slightly everted rim and handle stub. Brown with grit temper.

Rim diam.: 14 cm .
K3 1J: 56.
5. DP513. Rim. Buff surface, pink core, with grit temper. Bitumen lining.

Rim diam.: 15 cm .
K3 1J: 57.
6. DP511. Rim. Buff surface, pink core. Rim diam.: 11 cm .

K3 1J: 57.
7. DP500. Rim. Buff surface, pale brown core, grit temper, trace of bitumen on rim.

Rim diam.: 14 cm .
K3 IJ: 58.
8. DP509. Rim. Reddish brown, grit temper, trace of bitumen on rim.

Rim diam.: 13 cm .
K3 1J: 57.
9. DP515. Rim. Buff surface, pink core, bitumen lining inside and over rim.

Rim diam.: 14 cm .
K3 1J: 56.
10. DP498. Storage jar rim. Dark buff surface, dull red core, sand temper. Bitumen lining.

Rim diam.: 15 cm .
K3 1J: 56.
11. DP519. Round base. Buff surface, pink core. Bitumen lined.

K3 IJ: 56.
12. DP507. Flat base. Buff and pink surface, dull red core, sand temper, bitumen lined.

K3 1J: 56.
13. DP518. Decorated jar sherd with incised wavy and horizontal lines, light brown, sand temper.

K3 1J: 58.
14. DP517. Decorated jar sherd with rows of impressed dots, buff surface, pink core.

K3 1J: 58.
15. DP514. Neck of jar, yellowish buff ware, yellowish green glaze inside and out. Appliqué button adjacent to handle stub. Diam.: 11 cm .
K3 1J: 57.
16. DP512. Base, buff ware, whitish blue glaze inside.

Base diam.: 12 cm .
K3 1J: 58.
17. DP494(a). Brittle ware cooking pot, red ware with lime and sand inclusions. Everted rim. Probably two handles to the rim, cf. 37.18.
Rim diam.: 14 cm .
K3 1J: 56 \& 58.
18. DP534. Handle of Brittle Ware cooking pot, black ware.

K3 1J: 58.
19. DP494(b). Body of Brittle Ware vessel, red ware with lime and sand inclusions. Ribbing on body. Max. Diam.: 26 cm .
K3 1J: 56 \& 58.
20. DP532. Torpedo jar, buff surface, brown core, sand temper.

Rim diam.: 14 cm . Extant Height: 47 cm .
K3 1J: 56, found placed upside down, and supported by a mud-brick pot-stand.
Reproduced at half the scale of the other vessels.

37. Middle Sasanian pottery from K3 1J Phase 9 (Group 1).

Fig. 38 Group 2: Late Sasanian and Umayyad Pottery from N4

1. DP406. Part of lid, probably with central knob handle missing, light brown ware, grit temper. Rim diam.: 15 cm .
N4 8D: 16, on Phase 4 floor.
2. DP39. Base of moulded lamp, buff surface, pink core, lime and sand inclusions.

N4 8D: 16, on Phase 4 floor.
3. DP27. Rim of Brittle Ware cooking pot with handles on the shoulder. Dark grey surface, dark red core, lime and sand
inclusions.

Rim diam.: 14 cm .
N4 8D: 12, in mud-brick collapse of Phase 3.
4. DP41. Rim of deep bowl, dull red ware with lighter surface, grit temper.

Rim diam.: 20 cm .
N4 8D: 16, make-up under Phase 3 floor.
5. DP42. Rim, buff ware, grit temper.

Rim diam.: 14 cm .
N4 8D: 12, in mud-brick collapse of Phase 3.
6. DP37. Jar rim, buff ware, grit temper, bitumen-lined.

Rim diam.: 14 cm .
N4 8D: 16, on Phase 4 floor.
7. DP24. Base, dull red ware, grit temper, finger impression.

N4 8D: 16, make-up under Phase 3 floor.
8. DP43. Flat base, buff surface, pink core, grit temper. Base diam.: 25 cm .
N4 8D: 12, mud-brick collapse of Phase 3.
9. DP48. Jar rim, buff ware, grit temper.

Rim diam.: 11.5 cm .
N4 8D: 16, on floor of Phase 4.
10. DP35. Rounded ring base of jar, buff surface, light brown core, lime and sand inclusions, traces of bitumen.

Base diam.: 12 cm .
N4 8D: 12, in collapse of Phase 3.
11. DP30. Torpedo jar rim, dull red ware, grit temper, bitumen lined.

Rim diam.: 14.5 cm .
N4 8D: 16, make-up under Phase 3 floor.
12. DP29. Torpedo jar rim, dull red ware, grit temper, bitumen lined.

Rim diam.: 12 cm .
N4 8D: 16, make-up under Phase 3 floor.
13. DP31. Torpedo jar rim, dull red ware, grit temper, bitumen lined.

Rim diam.: 15 cm .
N4 8D: 12, collapse of Phase 3.
14. DP16. Base of torpedo jar, dull red ware, grit temper, bitumen lined.

N4 8D: 16, make-up under Phase 3 floor.
15. DP407. Bitumen painted design on a dull red sherd.

N4 8D: 16, on Phase 4 floor.
16. DP403. Square stamp impression on sherd with buff surface, pink core and grit temper.

N4 8D: 16, on Phase 4 floor.
17. DP46. Sherd decorated with lines of impressed dots. Grey-green fabric, grit temper, possibly overfired.

N4 8D: 16, on Phase 4 floor.
18. DP452. Honeycomb Ware sherd, grey, grit temper. Thumb-moulded ridges and incised lines.

N4 8D: 16, on Phase 4 floor.

## Group 3: Early Abbasid Pottery from N4

19. DP33. Shoulder of Thinware jar, compact light buff fabric, no visible temper. Combing strokes in a zigzag pattern. N4 9B: 1, Phase 1 house deposit disturbed by tunnel.
20. DP20. Base of Thinware jar, whitish buff surface, pale brown core, no temper. Base diam.: 7 cm .
N4 8C: 3, make-up of Phase 1 floor.
21. DP45. Thinware sherd, buff fabric 2 mm thick, decorated with incised flowers, circles, and lines of punctured dots. N4 8C: 2, floor of eastern room in Phase 1 house.
22. DP22. Jar rim and handle, grey-green, sand and some vegetable temper.

Rim diam.: 15 cm .
N4 9B: 1, Phase 1 house deposit disturbed by tunnel.
23. DP34. Club rim of jar, greenish, sand temper.

Rim diam.: 13 cm .
N4 9B:2, Phase 1 house deposit disturbed by tunnel.
24. DP51. Fragment of vertical-sided stone cooking bowl with ledge handles, probably chlorite schist. Chamfering marks on exterior.
Base diam.: c. 40 cm .
N4 8C:2, floor of eastern room in Phase 1 house.
25C. DP484. Base fragment of vertical-sided stone cooking bowl with ledge handles, probably chlorite schist. Surface weathered.
Base diam.: 27 cm .
K3 1J: 2, surface.
26. DP47. Rim of basin, dull red with temper of vegetable and sand. Bitumen lined with drips on the exterior.

Rim diam.: c. 50 cm .
N4 8C: 2, floor of eastern room in Phase 1 house.


Group 3

20

0 $\qquad$ 10 cm
38. 1-18: Late Sasanian and Umayyad pottery from N4 (Group 2). 19-26: Early Abbasid pottery from N4 (Group 3).
rim (fig. 38.4), and jars with thickened rims (fig. 38.6, 9), while the bases are flat (fig. 38.8), rounded (fig. 38.7), and with a rounded ring (fig. 38.10).

The group includes torpedo jars (figs. 38.12-4), all in a dull red fabric with heavy grit tempering, and lined with bitumen. Surface decoration of the heavier wares includes a stamp (fig. 38.16), lines of impressed dots (fig. 38.17), and Honeycomb Ware (fig. 38.18).

The 'honeycomb' effect in this case is a series of parallel ripples produced with the thumb, rather than the more common cellular designs (pl. XIIIa). Both forms of decoration are found together on large eggshaped storage jars with three handles. According to Adams (1981: 234), Honeycomb Ware appears late in the Sasanian period and then continues briefly after the Arab Conquests, but then disappears. However the cellular design also appears combined with figural barbotine decoration on the lower part of an early form of the North Mesopotamian Islamic barbotine jars, termed by Reitlinger 'Style I' (Reitlinger 1951), suggesting perhaps a carry-over from the Honeycomb Ware industry to the North Mesopotamian barbotine jar industry. No sherds of barbotine jars were found by us at 'Ana.

## Dating

We suggest above, that the Brittle Ware of this deposit should be dated to the Umayyad period (41/661-132/750). However it is the only ware of the deposit which we might date with good reason after the Arab Conquests, although torpedo jars, stamp impressions, and Honeycomb Ware also may postdate the Conquest. Appearing in a collapse deposit, the Brittle Ware does not date the remainder of the group, which is probably rather earlier. Nor should we assume that Late Sasanian and Umayyad pottery at Qal'at 'Ana are the same, rather merely that in our excavations no rich deposit of the Umayyad period was found.

The stratigraphy tells us that this group almost certainly predates the first period of the mosque, probably predates the early Brittle Ware, and postdates the Group 1 pottery. In addition the range of Honeycomb Ware, torpedo jars, stamp impressions, and recessed lids, compares closely with Adams' survey criteria for the Sasanian period in southern Iraq, said to be of later Sasanian date (Adams 1981: 234). A date late in the Sasanian period, perhaps 6th-7th centuries A.D. seems the most probable.

Group 3: Early Abbasid Pottery from N4

## Context

The Phase 1 house in N4 was a building added on to the earliest period of the Congregational Mosque, suggested to be Umayyad, but in any case early, and continued in use during the enlargement of the mosque in its second period, probably in the 3rd/9th century. However any material from the later occupation of the house was unavailable to us, as the building had previously been excavated down to its original floors by Sd. Nādhir al-Rāwī of the State Organisation for Antiquities and Heritage.

## Description

Only one glazed sherd was found, a yellowish buff ware glazed with yellow (not illustrated).
Three sherds (figs. 38.19-21; pl. XIIIb) represent Early Islamic 'Thinwares', that is, the fine jars of buff ware that often have surface decoration of moulding or incising (so named in Adams 1970 and Grabar et al. 1978). The illustrated examples show a bodysherd 2 mm thick decorated with incised flowers, circles and punctured dots (fig. 38.21 ; pl. XIIIb), parallelled at Ukhaidir-presumably of the late 2nd/8th century (Husaini 1964: pl. 18), Tulūl al-Ukhaidir, dated to the Umayyad or early Abbasid periods (Finster \& Schmidt 1976: Abb. 51d), and Küfa (Mustafa 1956: fig. 15). Also the shoulder of a jar (fig. 38.19; pl. XIIIb) has a zigzag pattern of comb incising; although the pattern is not precisely parallelled, quite similar combing decoration was found at Ukhaidir (Husaini 1964: pl. 18), Tulūl alUkhaidir (Finster \& Schmidt 1976: Abb. 51a), Sūsa, in a level of the Sāmarrā’ period (Rosen-Ayalon 1974: figs. 64-7), at Abū Sarīfa in the first Islamic level (Adams 1970: fig. 10a, t), and at al-Hira, of the 2nd/8th century (Talbot-Rice 1934: fig. 20.2).
Two rim and neck sherds of large jars in a greenish fabric with a fine grit temper were found in a disturbed deposit (figs. 38.22-3). These may be Sasanian, cf. Ruqbat al-Madā'in (Finster \& Schmidt 1976: Abb. 86a), but similar forms of Umayyad and Early Abbasid date were found at Tulūl alUkhaidir (Finster \& Schmidt 1976: Abb. 42-3).
Two fragments of stone cooking bowls belong to a flat-bottomed vertical sided form with two ledge handles (figs. 38.24, 25C). Complete examples were found at Qal'at Ammān in Jordan, in what must be an earthquake destruction deposit dated to 130/747 (Harding 1951). The stone is soft and grey in colour, and the vessels characteristically have fluting marks from chiselling the exterior. Although frequently called steatite (soapstone), the material is quite probably chlorite schist.
The vessels figure prominently in Early Islamic finds from Saudi Arabia (cf. Rashid 1980: 262-3), and chlorite schist exposures with evidence of mining from the Abbasid period, including blocks and stone vessels, have been found at Wadakh, in the area of al-Dawādmī in Najd, and Ghurāba, near al-Țāif
(Zarins et al. 1980: 27-9, pl. 25). The finds from Wadakh include stands, lamps and cooking bowls, which are similar to, but do not precisely parallel the material from 'Āna and Qal'at 'Ammān. Almost identical vessels to the Umayyad-Abbasid form (with a different, pointed shape of ledge handle) are made today in the area of $\mathbf{S} a^{\prime} d a$ in Yemen.

## Dating

Although some sherds of the group are not well stratified, a date of approximately the second half of the 2 nd/8th century seems to be correct. Apart from the Early Abbasid date of the stratigraphy, the material here is different from, and thus probably predates the contents of groups 4 and 5 , of the Sāmarrā' period.

## Group 4: Samarran Pottery from Pit K3 1J: 31

## Context

The group represents the contents of a pit (K3 1J: 31), 4.8 m deep. The pit seems to have been filled up quickly, and the pottery thus appears to be a contemporary group, that is, the range of pottery in use at one particular time. Nevertheless, some vessels may have been old at the time they were discarded; for example, fig. 40.4 has parallels at Sūsa from the level preceding the introduction of Samarran glazed wares, and is not found at Sāmarra’ itself.

## Description

## Glazed Wares

The typical white glaze bowl of the Sāmarrā’ period, with everted rim and compact creamy buff fabric, is illustrated in fig. 39.2. The section found had no decoration in blue or green, as is common on these bowls. A grey glaze version and ring base were also found (fig. 39.3-4). Early splash ware, with opaque green and yellow glaze on the compact creamy buff fabric of the 'white glaze' tradition (fig. 39.1) was found in the form of a flat plate with the stub of a leg. Parallels at Sūsa (Rosen-Ayalon 1974: fig. 344, 468) and Qaṣr al-Hair East (Grabar et al. 1978: J.7) suggest that the plate was raised on three roundsection legs.

Only an extremely small fragment of green-glazed relief ware was recovered (not illustrated; cf. Lane 1939), a classification to which a small cup with a moulded decoration of chevrons, glazed in green, does not properly belong (fig. 39.5; pl. XIIIc). The fabric of the latter is pinkish, and the moulding resembles that of moulded unglazed Thinwares. Generally similar cups, with different moulded patterns, were found at Sūsa (Rosen-Ayalon 1974: fig. 386; Koechlin 1928: no. 126), at Qaṣr al-Hair East (Grabar et al. 1978: J-3.3), and Hamā (Riis \& Poulsen 1957: fig. 391); but none are very close.

Fig. 39.7 illustrates the ring base of a two-handled jar with a soft yellowish buff fabric, and a pale blue-green glaze; this type is discussed further in Group 5. A tapering thickened rim of a jar with apple green glaze (fig. 39.6), and a flat base with blue-green glaze inside (fig. 39.8) represent types not otherwise known.

## Brittle Wares

One of the most distinctive and characteristic wares of the Abbasid period is the Brittle Ware cooking pot with a plain slightly thickened rim, a rounded base and two triangular ledge handles (fig. 39.9, 39.10C 42.6 ). The fabric is a compact red ware, with sand tempering and occasional lime spalling. Black or dark grey cores are not found, but there is often a dark red or black surface (fig. 42.6). Surface treatment is one or two lines of a zigzag decoration made with a rocker stamp (cf. al-'Osh 1961: ill. 19 for two lines). Broad undulating ribbing was found on a bodysherd; it was apparent from Syrian evidence that a body with broad ribbing was quite common (Northedge 1981). But we did not find examples of a miniature version with a rim diameter of circa 11 cm , which has been found in the area of Aleppo (Northedge 1981: no. 10).
These cooking pots are common in North Syria, found at al-Mīnā (Lane 1937: fig. 5C), Qaṣr al-Hair East (Grabar et al. 1978: B.5, 11), Dibsi Faraj (Harper 1980: fig. D, nos. 65-6), Raqqa (al-'Ush 1961: pl. 4, no. 19), and at 26 sites surface sherded in the area of Aleppo (Northedge 1981: nos. 8-11). They are also found in western Iraq, at Sāmarrä’ (Sarre 1925: Abb. 65; DGA 1940: fig. xxxviii; Northedge 1985: fig. 4.11), Tell Abū Sarīfa (Adams 1970: fig. 5i), Zibliyyāt (author's visit 1977; Adams 1981: no. 700), and Tulūl al-Ukhaidir (Finster \& Schmidt 1976: Abb. 45d, h, l).

Adams (1970: 96) remarks that this and other red wares occur in small numbers at Abū Sarīfa and other sites in the Nippur region. It has not been found in Jordan or Palestine.

The introduction of the ledge-handled cooking pot certainly predates the period of Sāmarrā’, as is shown by the occurrence of the type at Tulūl al-Ukhaidir, where no Sāmarrā' wares have been found. The excavators of Tulūl al-Ukhaidir acknowledge (Finster pers. comm.) that the qast, although built in the Umayyad period, also had some Early Abbasid occupation, while this type is said to be Abbasid at

## Glazed Wares

1. DP385. Fragment of plate, probably on tripod legs. Compact creamy buff fabric, glazed inside and out with green and yellow.
Rim diam.: 22 cm .
2. DP386. Part of bowl with everted rim, compact creamy buff fabric, opaque white glaze.

Rim diam.: 23 cm .
3. DP383. Part of bowl with everted rim, compact creamy buff fabric, grey glaze.

Rim diam.: 22 cm .
4. DP384. Ring base, compact creamy buff fabric, grey glaze inside and out including foot-ring.

Base diam.: 13 cm .
5. DP380. Cup, pinkish fabric, moulded decoration of chevrons and lines, green glaze with lighter patches inside and out except base.
Rim diam.: 11 cm . Height: 3.2 cm .
6. DP382. Jar rim, buff ware, apple green glaze inside and out.

Rim diam.: 13 cm .
7. DP464. Ring base of a two-handled jar, soft yellowish fabric, glazed pale blue-green outside, inside yellowish green with patch of grey. cf. fig. 42.2.
Base diam.: 7 cm .
8. DP381. Base, buff ware with pale brown core, blueish green glaze inside, mostly flaked off. Base diam.: 7.4 cm .

## Brittle Ware

9. DP379. Part of Brittle Ware cooking pot with triangular ledge handles, red ware, sand temper.

Rim diam.: 21 cm .
10C. DP527. Part of Brittle Ware cooking pot with triangular ledge handles, red ware, sand temper, lime spalling, and zigzag decoration of rocker stamp.
Rim diam.: 17 cm .
P4, surface find.
11C. DP523. Brittle Ware bowl with double incurving rim, and horizontal incised lines on the exterior, red ware with some burning outside. These vessels usually had two vertically placed handles attached to the rim.
Rim diam.: 22 cm .
P4, surface find.
12. DP378. Part of Brittle Ware cooking pot, two horizontal strap handles, ribbed exterior, red ware, sand temper.

Rim diam.: 20 cm .

39. Samarran Abbasid pottery from pit K3 1J: 31 (Group 4). 1-8: glazed wares. 9-12: Brittle Ware.

Fig. 40 Samarran Abbasid Thinwares from pit K3 1J: 31 (Group 4).

1. DP325. Jar, rim and handle missing. Flat base, cylindrical body, tall flaring rim, and single handle. Decoration of lightly gouged lines ("chattering"). Compact creamy buff ware with fine matrix. After breakage of the neck the interior was lined with bitumen, with traces outside.
Base diam.: 11 cm . Max. Diam.: 14 cm .
2. DP351. Jar, rim and handle missing. Flat base and cylindrical body. Creamy buff ware with fine matrix. Decoration of lightly gouged lines.
Base diam.: 8 cm . Max. Diam.: 11 cm .
3. DP404. Base of jar, buff ware. Decoration of lightly gouged lines.

Base diam.: 8 cm .
4. DP530. Jar, rounded body, flat base; neck, rim and handle missing. Creamy buff ware with fine matrix. Scheme of decoration: rectangular knife-smoothed patches, two horizontal incised lines with a row of incised circles, a row of incised four-leaved flowers, interspersed with clusters of incised circles.
Base diam.: 7 cm . Extant Height: 11.5 cm .
5. DP531. Part of jar with globular body, and single round-section handle. Buff surface, light pink core. Decoration of circular dimples.
Max. Diam.: 12 cm .
6. DP402. Flaring rim and round-section handle with pointed turban. Buff surface, pale brown core.

Rim diam.: 10 cm .
7. DP405. Incurving rim and oval-section handle, buff ware.

Rim diam.: 14 cm .
8. DP401. Flaring rim with raised ridge, creamy buff ware.

Rim diam.: 9 cm .
9. DP467. Rim, handle and shoulder of miniature form, buff ware.

Rim diam.: 5 cm .
DP536. Flaring rim, buff ware.
Rim diam.: 7 cm .
11. DP535. Vertical rim, ribbed. Creamy buff ware.

Rim diam.: 6.5 cm .
12. Flat base and part of rounded body, creamy buff ware. Base diam.: 7 cm .
13. DP352. Flat base and lower body, faint ribbing, pale brown ware.

Base diam.: 9 cm .
14. Flat base, creamy buff surface, buff core.

Base diam.: 9 cm .
Sherd of moulded closed form, buff surface, pink core. Decoration of vertical lines, dots and circles.

40. Samarran Abbasid Thinwares from pit K3 1J: 31 (Group 4).

Fig. 41 Samarran Abbasid medium and storage wares from pit K3 1J: 31 (Group 4).

1. DP388. Lid, incomplete, recessed knob handle. light brown surface, reddish brown core.

Rim diam.: 11.5 cm . Height: 3 cm .
2. DP349. Jar, single handle, incomplete. Neck and handle removed by saw cut. Greyish green ware. Base diam.: 12 cm . Extant Height: 16.2 cm .
3. DP389. Everted rim of large jar, red-brown ware, fine mineral temper. Three thumb impressions. Rim diam.: 21 cm .
4. DP390. Base of nä ūr pot, light reddish brown surface, red-brown core, sand temper. Base diam.: 8 cm .
5. DP466. Base of stone bowl, hard glossy light grey stone, not identified. Three concentric incised circles. Base diam.: 16 cm .
6. DP528. Oval-section handle, greenish buff ware, turban of three discs.
7. DP396. Rim of torpedo jar, red-brown ware, sand temper, bitumen lining. Rim diam.: 12.5 cm .
8. DP395. Rim of torpedo jar, red-brown ware, sand temper, bitumen lining. Rim diam.: 12 cm .
9. DP397. Rim of torpedo jar, red-brown ware, sand temper, bitumen lining, broad ribbing on body. Rim diam.: 12 cm .
10. DP398. Rim of torpedo jar, red-brown ware, sand temper, bitumen lining, broad ribbing on body. Rim diam.: 12 cm .
11. DP392. Rim and upper body of torpedo jar, red-brown ware, sand temper, bitumen lining, broad ribbing on body. Rim diam.: 13 cm .
12. DP394. Base of torpedo jar, red-brown ware, sand temper, bitumen lining.
13. DP393. Rim of holemouth jar, greenish buff surface, pale brown core, sand temper, bitumen outside and some inside. Rim diam.: 22 cm .
14. DP555. Rim of flat-bottomed basin, buff surface, buff surface, brown core. Rim diam.: c. 54 cm .

41. Samarran Abbasid medium and storage wares from pit K3 1J: 31 (Group 4).

Dibsi Faraj. So there is evidence of production in the Early Abbasid period (132/750-221/836), but no certain proof for the Umayyad period. At the other end of the timescale, there is so far no certain evidence of association with Post-Samarran pottery, i.e. of the 4th/10th century.

An associated form, a bowl with a double incurved rim, a rounded base, and two handles placed vertically (fig. 39.11C), was not found by us in a stratified context. Found at Tulūl al-Ukhaidir (Finster \& Schmidt 1976: Abb. 45g, i), Dibsi Faraj (Harper 1980: fig. C, no. 56), and Qaṣr al-Hair East (Grabar et al. 1978: B.10), it has so far always been associated with the ledge-handled cooking pots, and seems essentially contemporary. The third form of Abbasid Brittle Ware from 'Ana, a cooking pot with two horizontal strap handles, a ribbed exterior and a rounded base (fig. 39.12) is parallelled at al-Mīnā in North Syria (Lane 1937: fig. 5E).
It is apparent that the Brittle Ware industry was very long-lived. Brittle Ware was first identified as a distinctive ware at Dura Europos, from the late 2nd and early 3rd centuries A.D. (Dyson 1968: 60-1, nos. 429-33 and 63, no. 451), and at 'Ain Sīnū (Oates 1968: fig. 23, no. 81). This type of ribbed, hard metallic ware was found at 'Āna in R4 7C/D Phase 3a (Early Sasanian). A later Brittle Ware, of softer firing, but similar form can be seen in Group 1, probably of the 4th or 5th century A.D. In Syria a new form appeared with a narrower neck and vertical handles on the shoulders (Harper 1980: fig. D, nos. 61-4; Northedge 1981: no. 3; Thalmann 1978: fig. 38, no. 3), possibly in the 6th century A.D. A variant of this type with sharp pointed handles and a plain unribbed body, may have been found here in N 4 (fig. 38.3), and has been dated to the Umayyad period at Dibsi Faraj (Harper 1980: fig. C, no. 56), to the Umayyad period or the beginning of the Abbasid period at Tulūl al-Ukhaidir (Finster \& Schmidt 1976: Abb. 45g \& i), and similarly at Qaṣr al-Hair East (Grabar et al. 1978: B/10). The ledge-handled type, more widespread in Iraq than earlier types, was probably the last version.
The ledge-handled cooking pots are very common in North Syria, and clearly are a descendant of Roman Syrian pottery; so we suggest that they may have been a product of an industry somewhere in northern Syria, as they are untypical of Jordan and Palestine.

## Thinwares

The Thinware vessels of this group employ a variety of different fabrics: a plain pale buff; a compact creamy buff fabric with a fine matrix that is very similar to the body of glazed Samarran wares (figs. 40.1-2, 4, 6-11); a buff surface with a pale brown or pink core (figs. 40.5, 15); and a pale brown fabric (figs. 40.13-14).
The most common form, of which parts of a minimum of nine different vessels were counted, was a jar with a cylindrical body, a flat base, one round-section handle, and a tall flaring neck (fig. 40.1-2; pl. XIIIC). The rim and handle were missing from all our examples, but fig. 40.6 shows the probable form of rim and handle with a pointed turban. Decoration is of vertical lines lightly gouged out, which we called 'chattering'. Figs. 40.1-2 (pl. XIIIc) are in creamy-buff ware, 2-3 mm thick. The vessels were thrown in two halves, and the vertical section of the body added from a hand-formed strip of clay. Fig. 40.3 shows a more normal jar construction 4-7 mm thick without the hand-made strip. A miniature version appears in fig. 40.9. The relatively large number of vessels found together may be attributed to their fragility. Parallels are at Sūsa, in Level II associated with white glaze (Rosen-Ayalon 1974: fig. 95-6), where the same exceptionally thin form is found, and at Sāmarrā’ (Sarre 1925: Abb. 3; DGA 1940: fig. xv.1, xxv, xxxix).

In the same creamy buff fabric there is a flat-based jar with a rounded body (fig. 40.4). A parallel at Sūsa in Level III, predating white glaze (Rosen-Ayalon 1974: fig. 162), suggests that this vessel also had a tall flaring neck with a single handle decorated with an appliqué snake. The decoration is of incised flowers and small circles. Variations in the arrangement of flowers and circles was also found at Sūsa (Koechlin 1928: no. 25; Rosen-Ayalon 1974: figs. 166-71).

The evidence from Susa suggests that this last vessel is actually residual in this context, probably an old vessel broken at a late date.

A third style is the globular body of a jar, with slightly flattened sides, and a decoration of dimples created by pushing in an area of the body while still soft. The fabric has a slight pink core, and is parallelled in the excavations of the Abbasid qusūr at Raqqa, dating to the end of the 2nd/8th century or the early 3 rd/ 9 th century (al- - sh 1960: ill.75).

Only a small fragment of a vessel with moulded decoration was found (fig. 40.15), from a jar with a fairly flat top to the body, cf. al- Ush 1961: ill. 1 (from Raqqa). In addition there were sherds of small plain flat-bottomed jars in a pale brown fabric (figs. 40.13-4), probably smaller versions of fig. 41.2.

## Medium and Stone Vessels

A recessed lid with a central knob handle (fig. 41.1) is parallelled at Raqqa (al-Osh 1960: ill. 24), and Dibsi Faraj (Harper 1980: fig. E, no. 72). A greyish-green jar with a flat base (fig. 41.2) has the same form as a polychrome lustre glazed jar in the Chicago Art Institute (Lane 1947: pl. 10b), but in our case the vessel had a neck and single handle, which had been sawn off.

This group marks the first appearance of a distinctive base type-the turned out base with an inserted plug-in a reddish brown ware with a sand temper (fig. 41.4). Schiøler (1973: ch. 6) shows that this form of base was part of a tall cylindrical jar used as a waterwheel pot. Examples from Egypt were used on the säqiya, or animal-driven waterwheel; but similar vessels were used on the $n \bar{a} \bar{u} r$ at ${ }^{\text {Hitt}}$.

The base of a stone bowl (fig. 41.5) was of a well-polished grey stone, harder than the chlorite schist cooking pots of Group 3.

## Storage Vessels

The Abbasid form of the flat-bottomed basin (fig. 41.14, cf. 45.12, 50.10 for form) is parallelled from survey material from the Aleppo area (Northedge 1981: nos. 15-17), and from Qaṣr al-Hair East (Grabar et al. 1978: A-3.5). Torpedo jars were found in some quantity in a reddish brown ware, all lined with bitumen (fig. 41.7-12): they have close parallels at Sāmarrā', where they were found whole in situ (DGA 1940: xx.1-4). Other heavy wares were greyish buff in colour (fig. 41.13), and decorated with wavy line incising.

## Dating

This group is essentially similar to the following one; for discussion and dating see under Group 5.

## Group 5: Samarran Pottery from the J3 House

## Context

The material comes from the rubble make-up of the plaster floor of a house in Area J3. The house was seen in a section exposed under the modern central path of the island. The plaster floor sealed the contents, and a sample was collected from the section.

## Description

Many of the components of the group are similar to the preceding Group 4-torpedo jars, a flaring rim of a Thinware jar, and a Brittle Ware cooking pot with rocker stamp decoration. However the group also included flat lids for water jars, c .40 cm in diameter: fig. 42.9 was thrown on a wheel and had a buff surface and a pink core; fig. 42.10 was hand-made in a reddish brown fabric with two rows of finger impressions and wavy line incising. One example from Sāmarrā' has a central knob handle, and another has a raised rim with no handle (DGA 1940: fig. xvii.5, xxviii; cf. also Grabar et al. 1978: A-5.3).

The blue-green glazed jars (fig. 42.2-3) have a soft yellowish buff fabric, and a translucent glaze, quite different from the opaque blue-green glaze of the Sasanian period. Fig. 42.2 shows two parts of a jar with a ring base and two oval-section handles, parallelled at Sūsa (Rosen-Ayalon 1974: fig. 327), Sāmarrā' (Sarre 1925: Abb. 68, 70; DGA 1940: fig. lvi), and Qaṣr al-Ḥair East (Grabar et al. 1978: F.8a \& 8 b). A variant (fig. 42.1C), with wavy line incising under the glaze and a flat section handle, was found unstratified (cf. Rosen-Ayalon 1974: pl. 34d). A bodysherd with appliqué decoration (fig. 42.4C: unstratified) is of similar body and glaze. This decorated version is widely parallelled: at Siräf (Whitehouse 1968: pl. VIC), Sūsa (Koechlin 1928: no. 67; Rosen-Ayalon 1974: figs. 376-381; Kervran 1977: fig. 25.1), Sāmarrā’ (DGA 1940: pl. lxxxviii), Raqqa (Sauvaget 1948: 39), in Saudi Arabia-the Darb Zubaida (Rashid 1980: 259-60), al-Ahsā̄' (Whitcomb 1978: 98), and sites in the Tihāma (Zarins \& Zahrani forthcoming). There is also evidence of a wider distribution from long-distance trading, from finds in Pakistan at Bambhore (Anon. 1964; Whitehouse 1968: 14), in Malaysia at Pengkalan Bujang (Lamb 1961), and East Africa at Manda (Chittick 1984: 71-6, pl. 26) and Unguja Ukuu (Chittick 1967: 161-3).

Fig. 42.3 utilises the same fabric, but is to be recognised as the end section of a glazed ceramic drainpipe. Blue-green glazed drain-pipes similar to this one are paralleled at Sāmarrā’ (DGA 1940: pl. liii \& lv), where one is to be seen in situ at the time of writing in the Qassr al-Ashiq. There however the buff fabric is harder, probably because they were made locally in Sāmarrā’.

It is true that these blue-green vessels with soft yellowish buff fabric are always the same, wherever found, and are very probably the product of one industry. This is usually thought to have been in southern Iraq (Whitehouse 1979: 49). The introduction of this ware has been dated to 800-825 at Siräf (Whitehouse 1979: 49), and it is missing from late 2nd/8th century deposits at Tulül al-Ukhaidir (Finster \& Schmidt 1976). It is not known when the type ceased production, but it is not known in 4th/10th century assemblages.

## Discussion and Dating of Groups 4 and 5

Groups 4 and 5 have wide parallels at Sāmarrā'-white glaze, splash glaze, blue-green glaze, thinware jars with cylindrical bodies and 'chattering', Brittle Ware cooking pots with ledge handles, torpedo jars, and flat circular lids. These deposits therefore should be at least close in date to the period of the Caliphate at Sāmarrā’ (221/836-279/892), and are very probably contemporary with it.

Fig. 42 Group 5: Samarra Period Pottery from the J3 house
1C. DP521. Jar rim with flat oval handle, yellowish buff ware, dark blue-green glaze inside and out, incised wavy line under the glaze.
Rim diam.: 9 cm .
P4, surface find.
2. DP545 \& 546 . Two parts of a jar, with a ring base, and two oval-section handles, yellowish buff ware, blue-green glaze inside and out. Cf. fig. 39.7.
Base diam.: 7 cm .
3. DP548. End section of glazed drain-pipe with ridge, yellowish buff fabric, blue-green glaze inside and out. Rim diam.: 14 cm .
4C. DP524. Decorated sherd, yellowish fabric, appliqué circles and wavy lines, dark green glaze inside and out. P4, surface find.
5. DP543. Flaring rim of Thinware jar, trace of handle stub, buff ware.
6. DP540. Rim of Brittle Ware cooking pot with triangular ledge handles. Black surface, red core, fine sand temper, zigzag decoration of rocker stamp. Cf. figs. 39.9, 39.10C.
Rim diam.: 23 cm .
DP542. Rim of torpedo jar, dull red ware, broad ribbing, bitumen lining. Cf. figs. 41.7-11.
8. DP549. Base of torpedo jar, reddish brown, sand temper, bitumen lining. Cf. fig. 41.12.
9. DP539. Section of lid, buff surface, red core.

Diam.: c .40 cm .
DP541. Section of lid, reddish surface, brown core, vegetable temper. Incised wavy lines and rows of thumb impressions. Diam.: c .40 cm .

42. Samarran Abbasid pottery from the J3 house (Group 5).

However Whitehouse has pointed out that the publications of the pottery from Sāmarrā' suffer from an important problem in the value of their dating evidence, that the excavators did not take into account the fact that parts of the city continued to be occupied long after the Caliphs departed (Sarre 1925, DGA 1940, Whitehouse 1979). Without doubt the ruins of Sāmarrā' contain a mosaic of areas that were abandoned at different times, some when the Caliph al-Mu'tamid left Sāmarrā' for Baghdad, some still inhabited in the 7th/13th century-for example Karkh Fairuz (Northedge 1985), and the area of the modern city of Sāmarrā’, still inhabited today. The pottery reports of Sarre and the Directorate General of Antiquities are certainly contaminated by later pottery, including some of the the Middle Islamic period (e.g. Sarre 1925: Abb. 158; for similar Middle Islamic types see this report, Group 7, e.g. fig. 47). Our Group 4 is a contemporary group, that is, one which was deposited within a short space of time, and ought to be a pointer to which of the published pottery from Sāmarrä' belongs to one period, and that ought to be the time of the Caliphs, or shortly afterwards.

However the two groups did not include two of the types commonly associated with Sāmarrā': white glaze with lustre decoration, and early sgraffito wares. Although our sample was quite small, the Abbasid deposits of the Samarran period at the nearby island site of Bījān, larger in quantity and variety, also lack sgraffito and lustre decoration (information courtesy of the Polish Archaeological Mission). One monochrome lustre sherd of 4th/10th century date, however, came from an unstratified context at the Qal'a (fig. 43.1).

## Group 6: Pottery probably dating to the 4th/10th or early 5th/11th centuries

## Context

The sherds here described are unstratified surface finds, with the exception of fig. 43.3, which comes from R5 5D pit 12, the last phase of occupation of an Early Islamic building.

## Description and Discussion

(1) Mesopotamian Monochrome Lustre Ware

The flaring rim of a bowl with the compact creamy buff body of Sāmarrä’ ware, white glaze and decoration in greenish brown lustre including a fragmentary inscription in 4th/10th century Kufic (fig. 43.1).
(2) Splashed Ware

A disc base, lead glazed inside and out including base, with splashes of yellow, green and brown (fig. 43.2). It seems to belong to the 4 th/ 10 th or 5 th/ 11 th century (Post-Samarran).
(3) Splash Sgraffito

Two fragments from different traditions of sgraffito ware, but both with spiral incising under splash glaze. Fig. 43.2 is the flaring rim of a bowl, with parallels at Abu Gôsh in Palestine (de Vaux \& Stève 1950), and said to be 10th-11th century a.D. in date. Fig. 43.4 is a ring base: this type is parallelled by a complete vessel in the Iraq Museum, with a sweeping everted rim. Possibly early 5th/11th century.

## Group 7: 5th/11th Century Pottery from Pit K2 10J: 1

## Context

The contents of a pit, K2 $10 \mathrm{~J}: 1,1.65 \mathrm{~m}$ deep. The pit was cut by the excavation of the K3 1J Phase 1 irrigated garden, but little contamination of the remaining contents appears to have occurred. Unstratified material, marked ' C ' on fig. 44, was very probably spilt from the pit in the course of excavating the garden. This pit then has similar stratigraphic value to the Group 4 pit, in being a contemporary group.

## Description

## Glazed Wares

The bowl forms (fig. 44) are homogeneous in style, with vertical rims and ring bases. The ware is buff, or buff surface with a pinkish core, and fine sand tempering. The vessels usually have a white slip and lead glaze on the inside only. There are four basic styles of decoration: manganese purple with a white stripe (not illustrated), spotted splash decoration in green and brown (figs. 44.1-3C; pls. XIVa-b), green and yellow mottled together with no attempt at a design (fig. 44.7); and lastly red slip decorations under the glaze in lines and spots, with spotted splash decoration in green (figs. 44.4-6; pl. XIVc). In addition there is the rim of a small bowl, and the tapering neck of a jar in pinkish buff ware, glazed inside and out in green (figs. 45.1-2).

## Unglazed Wares

Versions of the Early Islamic Thinware jars appear, with flaring rims and turban handles, in a greenish buff ware with a pale pink core (figs. 45.3-6). A small form (fig. 45.6; pl. XIVd) has the cylindrical body of the Samarran period vessels, a flat base of 4 cm diameter, and a round-section handle. The medium

43. Pottery probably dating to the 4 th/10th and early 5 th/11th centuries (Group 6).

Fig. 43 Group 6: Pottery probably dating to the 4th/10th and early 5th/11th Centuries

1. DP525. Rim of Mesopotamian lustre bowl. Compact creamy buff body of Samarra ware, opaque white glaze, greenish brown lustre decoration, fragment of an inscription.
Rim diam.: 23 cm .
P4 surface find.
2. DP549. Base of splash glaze bowl. Buff surface, pink core, fine mineral temper, white slip and clear lead glaze inside and out, coloured with yellow, green and brown.
Base diam.: 4.5 cm .
K 2 surface find.
3. DP450. Flaring rim of splash sgraffito bowl. Buff ware, fine sgraffito design, clear lead glaze inside and out, coloured with yellow and green.
Rim diam.: 26 cm .
R5 5D: 12, pit.
4. DP520. Ring base of splash sgraffito bowl. Buff surface, pinkish core, sand temper, sgraffito design, lead glaze inside and out except foot-ring, in yellow, green and brown.
Base diam.: 13 cm .
P4 surface find.
5. P538. Dark buff surface, light brown core, fine sand temper, incised dashes and semi-circles. J3 surface find.

Fig. 44 Group 7: 5th/11th Century Pottery from Pit K2 10J:1

## Glazed Wares

1. DP191. Bowl with vertical rim and ring base, incomplete. Buff orange ware, white slip, and clear lead glaze inside, spotted splash in green and brown. Lime spalling, and some traces of vegetable content.
Rim diam.: 23 cm . Base diam.: 8.7 cm . Height: 7.8 cm .
2. DP273. Part of bowl with vertical rim. Buff surface, pale pink core, fine mineral temper, no visible slip, spotted splash glaze inside in yellow, green and brown.
Rim diam.: 25 cm .
3C. DP18. Ring base, buff surface, pinkish core, clear lead glaze with spotted splash in green and brown. Base diam.: 13 cm .
K2 10H/J surface clearance, probably spill from pit.
3. DP192. Part of bowl with vertical rim, buff surface, light pink core, sand temper. White slip inside, red slip design underglaze, clear lead glaze with spotted splash in green.
Rim diam.: 24 cm .
5C. DP329. Ring base, dark buff ware, white slip, red slip design underglaze, clear lead glaze, with spotted splash in green. Base diam.: 6 cm .
K2 10H/J surface clearance, probably spill from pit.
4. DP193. Flat base, buff surface, pink core, no visible white slip, spots of red slip underglaze, clear lead glaze inside with spots of green.
Base diam.: 6 cm .
5. DP378. Part of bowl with vertical rim, buff surface, pale brown core, lead glaze in green and yellow inside and over rim. Rim diam.: 33 cm .

6. 5th/11th century pottery from pit K2 10J: 1 (Group 7)-glazed wares.
7. DP196. Rim of small bowl, pinkish buff ware, fine mineral temper, green lead glaze inside and out. Rim diam.: 14 cm .
8. DP194. Rim and shoulder of small jar, brownish buff ware, green lead glaze inside and out.

Rim diam.: 6 cm .
3. DP312. Flaring rim of Thinware jar, oval section handle with pyramid-shaped turban, greenish-buff surface, pale pink core, fine mineral temper.
Rim diam.: 12 cm .
4. DP315. Flaring rim of Thinware jar, oval-section handle with pyramid-shaped turban, greenish-buff surface, pale pink core, fine mineral temper.
Rim diam.: 12 cm .
5. DP314. Flaring rim of Thinware jar, oval section handle, greenish buff surface, pinkish core, fine mineral temper. Rim diam.: 10 cm .
6. DP53. Thinware jar, incomplete. Round section handle, flat base, greenish buff surface, pale brown core. Base diam.: 4 cm . Extant Height: 9.8 cm .
7. DP313. Jar rim, greenish buff ware.

Rim diam.: 12 cm .
8. DP49. Jar, missing handle and rim, found unbroken and filled with plaster. Greenish buff surface, light brown core, mineral temper.
Base diam.: 7 cm . Height: 14.5 cm .
9. DP50. Bottle, missing handles and rim, unbroken. Dark buff surface, pale pink core, sand temper and lime inclusions. Base diam.: 6.6 cm . Height: 24 cm .
10. DP369. Rim of bottle, greenish buff ware, fine sand temper.

Rim diam.: 5.5 cm .
11. DP358. Base of nā̄ $\bar{r}$ pot, greenish buff ware, pale brown core.

Base diam.: 10 cm .
12. DP52. Basin, incomplete, greenish buff ware, sand temper.

Rim diam.: 29 cm . Height: 11 cm .
13. DP14. Storage jar, incomplete, buff ware, bitumen lined, combing on shoulder.

Rim diam.: 11 cm . Max. Diam.: 21 cm . Extant Height: 36 cm . Original height uncertain, but the vessel had a rounded base (not illustrated).
14. DP354. Part of storage jar, dull red surface, brown core, sand temper, bitumen lined with dribble outside.

Rim diam.: 9.5 cm . Extant Height: 17.5 cm .
Possibly residual from the Sasanian period.

45. 5th/11th century pottery from pit K2 10J: 1 (Group 7)-monochrome glaze and unglazed wares.

Fig. 46 Group 8: 6th/12th century Pottery from K3 1J: Phase 5

## Glazed Wares

1. DP409. Rim and base of conical bowl, hard white frit, blue-green glaze inside and out except base

Rim diam.: 18 cm . Base diam.: 8 cm . Height: 6.5 cm .
K3 1J: 51, pit.
2. DP416. Base of cup, hard white frit, white glaze outside except base.

Base diam.: 8.5 cm .
K3 1J: 43, pit.
3. DP408. Everted rim of bowl, yellowish buff ware, blue-green glaze inside and over rim.

Rim diam.: 19 cm .
K3 1J: 51, pit.
4. DP410. Ring base of bowl, dark buff ware, fine mineral temper, blue-green glaze inside.

K3 1J: 51, pit.
5. DP418. Ring base of bowl, dark buff ware, fine mineral temper, blue-green glaze inside.

K3 1J: 43, pit.
6. DP472. Rim of hemispherical bowl, buff surface, pinkish buff core, splash lead glaze of yellow, green and brown inside.

Rim diam.: 25 cm .
K3 1J: 43, pit.
7. DP457. Ring base, reddish brown ware, sand temper, white slip inside, splash glaze of yellow, green and brown.

Base diam.: 14 cm .
K3 1J: 30, pit.

## Unglazed Wares

8. DP454. Rim of large jar, pinched spout (cf. fig. 46.10), greyish buff ware, mineral temper, combed and incised lines.

Rim diam.: 11 cm .
K3 1J: 30, pit.
9. DP419. Rim of large jar, buff surface, pale brown core, bitumen lined.

Rim diam.: 11.5 cm .
K3 1J: 43, pit.
10. DP428. Rim of large jar, pinched spout, two handles, greenish buff surface, buff core, mineral temper, bitumen lining.

Rim diam.: 10 cm .
K3 1J: 43, pit.
11. DP422. Rim, brownish buff ware, wavy line combing.

Rim diam.: 10 cm
K3 1J: 43, pit.
12. DP425. Base of jar, brownish buff ware, mineral temper.

Base diam.: 10 cm .
K3 1J: 43, pit.
13. DP423. Base of jar, brownish buff ware. Base diam.: 9 cm .

K3 1J: 43, pit.
14. DP420. Base of nāūr pot, pale brown surface, reddish brown core, fine mineral temper.

Base diam.: 8.5 cm .
K3 1J: 43, pit.
15. DP461. Folded rim of basin, buff ware, vegetable temper, traces of bitumen.

Rim diam.: c. 40 cm .
K3 IJ: 30, pit.
16. DP411. Everted rim of basin, greenish buff surface, pale brown core, mineral temper, wavy line incising on rim and exterior.
Rim diam.: $\mathbf{3 6} \mathrm{cm}$.
K3 1J: 51, pit.

46. 6th/12th century pottery from K3 1J Phase 5 (Group 8). 1-7: glazed wares. 8-16: unglazed wares.
jars and bottles (figs. 45.8-10; pl. XIVe) retain the flat base of Early Islamic pottery, but are heavier, 7-9 mm in thickness. The $n \bar{a}^{\prime} \dot{u}$ r pot base appears in this period (fig. 45.11), as does the flat-bottomed basin (fig. 45.12). The storage jars (figs. 45.13-4) are long and cylindrical, with a plain out-turned rim and lined with bitumen.

## Dating

Although the relative dating of this unusual group within the sequence is clear, dating it absolutely is quite difficult, because parallels are few. In terms of form, the unglazed wares have more in common with the earlier pottery of the Samarran period, than the later pottery of the 6th/12th and 7th/13th centuries, but are much more coarse than the pottery of the 3rd/9th century. According to Schnyder ( 1974 and pers. comm.) the bowl with the vertical rim was introduced in Azerbaijan between 1030 and 1070 A.D., and spotted splash is also a phenomenon of the 5 th/11th century. However we do not have the sgraffito and champlevé surface treatments of the Azerbaijani pottery. We suggest a date in the middle to late 5th/1 lth century.

Group 8: 6th/12th Century Pottery from K3 1J Phase 5

## Context

The pottery of fig. 45 comes from three pits, K3 1J: 30, 43, and 51, dug into the latest occupation of a building on the west side of K3 1J. Pits 43 and 51 appear from their contents to be contemporary with one another; pit 30 might be a little earlier.

## Description

Group 8 marks the introduction of the artificial frit body, hard, fine and white in colour. One form is a conical bowl with a ring base (fig. 46.1), glazed blue-green inside and out except the base. Other fragments (not illustrated) have incised designs under the glaze. Alternative glaze colours found are celadon green (fig. 47.6) and cobalt blue. The second form is a vertical-sided cup with a ring base: complete examples are known from Hamā (Riis \& Poulsen 1957: fig. 425), and Qaṣr al-Hair East (Grabar et al. 1978: G-1.15-6). There is white glaze on the exterior but no relief decoration. It is possible but not certain that the vessel originally had lustre painting on the outside. A bodysherd of a closed form in a hard white frit with copper-coloured lustre painting (fig. 47.4) found in the later Group 9 deposit ( 7 th/ 13 th century) probably also belongs to this industry: there is an illegible inscription, in a script related to Kufic.

This ware is called by Porter (1981: 3) and Watson (pers. comm.) 'Tell Minnīs' ware, from a site in central Syria, and termed 'Faience Syrienne Ancienne' at Hamā (Riis \& Poulsen 1957: Catégorie VIB). It is most probably a product of Syria, for it is not paralleled elsewhere in Iraq.

Blue-green glaze wares include an everted rim of buff ware (fig. 46.3) and two ring bases in buff and red ware (figs. 46.4-5). The splash glaze sherds are a hemispherical bowl with a buff surface and a pink core (fig. 46.6), and a low ring base in red ware (fig. 46.7). the everted rim of fig. 46.3, and the ring base of fig. 46.7 are paralleled in an earthquake destruction deposit of perhaps about the beginning of the 6th/12th century at Qal'at 'Ammān, Jordan (Northedge 1984: fig. 74.1, 6-8).

The unglazed vessels are mainly in a greyish buff ware, sometimes with bitumen lining. Forms include a $n \bar{a} \bar{u} u r r$ pot base (fig. 46.14), flat-bottomed basins (fig. 46.15-6). The most distinctive form of the period is a large jar with combed decoration on the body, often two handles attached to the rim, and the rim pinched for a pouring spout (fig. $46.8,10$ ).

## Dating

The group appears to predate the introduction of 'Raqqa' ware (for which see Group 9). Although the sample is small, the associated unglazed wares are different from those of the following Group 9, which includes Raqqa Ware. Raqqa Ware was very probably in production by the last decade of the 6th/12th century, as is shown by Rice's finds of Raqqa Ware in the fills of Ayyubid construction in the Citadel of Harrān, probably to be dated to the reign of al-'Adil between 587/1191 and 599/1202 (Rice 1952: 45, 73). The range of pottery is equally quite different from Group 7 above, while some of the glazed earthenwares are paralleled at 'Ammān at about the beginning of the 6 th $/ 12$ th century. It seems most likely that the group is a mix of the first three quarters of the 6th/12th century.

Group 9: 7th/13th Century Pottery from K3 1J: Phases 3 and 4

## Context

The pottery from K3 1J Phase 4 was found in a rubble spread, forming the make-up for an earth surface. The surface possibly predates the construction of Phase 3, a building level over the whole trench. The pottery of the construction of Phase 3 did not appear to differ substantially from that of Phase 4, and the two are here considered together.

## Description

The group includes two kinds of ware with the artificial frit body: Tell Minnis Ware (fig. 47.4, 6), the sherds of which are discussed under Group 8, and Raqqa Ware.

It is quite likely that the production of Tell Minnis Ware began in the Group 8 period, and continued into this period; Qaṣr al-Hair East also seems to provide evidence of this (Grabar et al. 1978: 121, 123) At Qaṣr al-Hair Raqqa Ware was found in the earliest levels of the second occupation: that reoccupation does not appear to have begun until after Raqqa Ware was already in production. Yet Tell Minnis Ware is also found. Our own evidence did not permit us to be certain: the illustrated sherds might have been residual.

Three types of Raqqa Ware were distinguished, all with the pinkish friable frit of Raqqa (pl. XVb): (1) black painted decoration under blue-green glaze. Only a small fragment was found in a residual context (not illustrated). (2) black and blue painting under a clear glaze; the sherd found in Phase 4 (fig. 47.1) is the spout of a lamp with a spherical body and a foot-ring. Figs. 47.2C and 34.3C come from a stratified Middle Islamic deposit in N5 3A, the flat everted rim of a large bowl, and a small ring base with a radial scheme of decoration. This type is coarser than the black underglaze painted ware. (3) Relief moulded decoration under a blue-green glaze. Fig. 47.5 is a fragment of a floor-table, standing on low feet. Complete examples known are triangular, rectangular, or hexagonal (Lane 1947: pl. 45B, 60B; Porter 1981: pl. xxvi), and have two or three holes in the top, probably for holding cups. A similar fragment was found in Rice's excavations at Harrān (Rice 1952: 70).

Both types of fritware described, Raqqa and Tell Minnīs, are most probably of Syrian production. The group also contained a second tradition of fine glazed ceramics, based on a buff earthenware body Fig. 47.10 is a hemispherical bowl with a solid ring base (pl. XVa). A second form has a carination near to the ring base and a straight flaring rim (figs. 47.11-3): this form is a version of one used in 13th century Kāshān wares (e.g. Lane 1947: pl. 85B, 92B). There were three types of decoration in our material: (1) opaque white glaze with black design (fig. 47.14), (2) blue-green glaze with speckled black design (fig. 47.10, 13); and (3) light green glaze with brown design (fig. 47.11-2). The second form is paralleled at Sāmarrā' with black and white decoration (Sarre 1925: Abb. 158), and at Wāsiṭ (Safar 1945: figs. $17.46 \& 18.57$ ), dated to the end of the Abbasid Caliphate. The Wāsit parallels include the oblique radial pattern of fig. 47.10 (Safar 1945: figs. $18.57 \& 19.71$ ), and the pattern also appears on Raqqa wares (Riis \& Poulsen 1957: figs. 535 \& 601; Porter 1981: pl. xvi). This pottery then seems to represent contemporary Iraqi production of fine glazed wares.

Other glazed wares included brown underglaze paint on a high ring base (cf. Grabar et al. 1978: figs. F-1.11 \& F-2.5-6). Lamp fig. 47.9 may be residual.

Unglazed wares are in buff, greenish grey, and buff surface with a pink core. The forms include jars with a simple tapering rim and two handles (figs. 48.1-2C), a flat-bottomed basin (fig. 48.3), and the reintroduction of the ring base (figs. $48.4 \mathrm{C}-5$ ).

## Dating

The dating of this group is related to the production of Raqqa Wares. At Hamā and Qaṣr al-Hair East, blue and black underglaze painted decorations appeared later than other Raqqa Wares, and are said to belong to the second half of the 7th/13th century, and to the 8th/14th century (Riis \& Poulsen 1957: 204; Grabar et al. 1978: 117). It seems more likely, from the Wāsit parallels, dated by Safar to the end of the Abbasid caliphate, i.e. before 656/1258, and the content of Tell Minnis wares, that the group belongs to the earlier part of that period, perhaps the middle of the 7th/13th century.

> Group 10: 7th/13th-8th/14th Century Pottery from R4 7C/D

## Context

Pottery from the corner of a house, excavated as the last occupation phase (Phase 2) of R4 7C/D.

## Description

The group includes wares with sgraffito decorations-with a pink or buff surface, and a pink core. The glaze is lead, coloured with yellow, green and brown ( $\mathrm{pl} . \mathrm{XV} c$ ). The decoration is incised under the glaze, and the incisions coloured in with black paint. Two sherds of hemispherical bowls were recorded (figs. $48.8-9 \mathrm{C}$ ), and two ring bases (figs. $48.10 \mathrm{C}-11 \mathrm{C}$ ). Fig. 48.10 C probably represents part of a figural design, while the remainder have patterns of flowers and radial lines. This type is the late sgraffito of the 7th/13th-8th/14th centuries from the Levant, paralleled at Hamā (Riis \& Poulsen 1957: Catégorie XVb), at Raqqa (Sauvaget 1948: nos. 44-5), at al-Mīnā (Lane 1937: 45-52), and at Qaṣr al-Ḥair East (Grabar et al. 1978: fig. G-3).

Associated was a sherd of Tell Minnīs Ware, possibly residual (not illustrated), a high ring-base with blue-green glaze (fig. 49.1; cf. Grabar et al. 1978: figs. F-1.4b-6, 9a-b), and in addition a sherd of buff earthenware with a white slip, black underglaze painting and cross-hatching in green glaze (fig. 49.2), paralleled at Wāsiṭ (Safar 1945: nos. 48 \& 54) and Kish (Reitlinger 1935: figs. 5-15).

Glazed Wares

1. DP377. Spout of lamp, Raqqa ware, pinkish friable frit. Blue and black painted decoration under clear glaze. K3 IJ: 23, floor make-up.
2C. DP3. Everted rim of bowl, Raqqa ware, friable frit. Blue and black painted decoration under clear glaze. Rim diam.: approximately 42 cm .
N5 3A: 6 , foundation fill.
3C. DP44. Ring base of bowl, Raqqa ware, pinkish friable frit. Blue and black painted decoration under clear glaze. Base diam.: 4 cm .
NS 3A: 6, foundation fill.
2. DP376. Bodysherd of closed form, hard white frit, white glaze inside and out, copper coloured lustre painting outside including an illegible inscription.
K3 1J: 23, floor make-up.
3. DP429. Fragment of floor table, pinkish frit, decoration moulded in relief, blue-green glaze inside and out.

K3 1J: 12, in mortar of Phase 3 wall.
6. DP432. Base of conical bowl, Tell Minnis ware, hard white frit, greyish-green glaze inside and out except foot-ring. cf. fig. 46.1 .

Base diam.: 10 cm .
K3 1J: 12, in mortar of Phase 3 wall.
7. DP433. Rim, buff ware, blue-green glaze inside and over rim.

K3 1J: 12, in mortar of Phase 3 wall.
8. DP430. High ring base, buff surface, pink core, blue-green glaze inside, painted decoration in brown. Base diam.: 7 cm .
K3 1J: 12, in mortar of Phase 3 wall.
9. DP434. Lamp with pinched spout, almost complete, buff ware, deteriorated glaze, possibly yellow.

Length: 8.5 cm . Height: 3.5 cm .
K3 1J: 17, fill of Phase 3 platform.
10. DP332. Hemispherical bowl with solid foot-ring, incomplete. Buff ware, green glaze with speckled black decoration.

Rim diam.: 19.8 cm . Height: 7 cm .
K3 1J: 23 floor make-up (Phase 4).
11. DP414. Base of conical bowl with carination. Buff ware, fine mineral temper, green glaze inside with design in light brown.
Base diam. 8.5 cm .
K3 1J: 25, Phase 3 platform fill.
12. DP331. Base of conical bowl with carination. Buff ware, green glaze inside with design in light brown.

Base diam.: 10 cm .
K3 1J: 23, floor make-up (Phase 4).
13. DP465. Rim of conical bowl. Buff ware, glazed inside and over rim in pale blue-green, black speckled decoration. Rim diam.: 21 cm .
K3 1J: 23, floor make-up (Phase 4).
DP488. Bodysherd, buff ware, opaque white glaze, black decoration.
K3 1J: 23, floor make-up (Phase 4).

47. 7th/13th century pottery from K 3 1J Phases 3 and 4 (Group 9)-glazed wares.

Fig. 48 Unglazed Pottery of Group 9 (7th/13th Century)

1. DP412. Jar rim, dark buff surface, pinkish core, bitumen lined.

Rim diam.: 8 cm .
K3 1J: 23, floor make-up (Phase 4).
2C. DP442. Jar rim and handle, brown surface, reddish core, mineral temper, bitumen lined.
Rim diam.: 16 cm .
$\mathrm{K} 210 \mathrm{H} / \mathrm{J}$ surface clearance.
3. DP415. Flat-bottomed basin. Dark buff surface, red core, fine mineral temper, wavy and straight incised lines.

Rim diam.: c. 50 cm .
K3 1J: 23, floor make-up (Phase 4).
4C. DP121. Jar, incomplete. Buff surface, pink core, sand temper.
Base diam.: 6.5 cm . Extant Height: 11.5 cm .
$\mathrm{K} 210 \mathrm{H} / \mathrm{J}$ surface clearance.
5. DP453. Jar base, buff surface, pinkish core.

Base diam.: 8 cm .
K3 1J: 25, Phase 3 platform fill.
6. DP431. Jar base, red ware, sand temper.

Base diam.: 9.5 cm .
K3 1J: 12, in mortar of Phase 3 wall.
7. DP444. Jar base, buff surface, pink core, sand temper.

Base diam.: 7 cm .
K3 1J: 22, Phase 3 platform fill.

## Group 10: 7th/13th-8th/14th Century Pottery from R4 7C/D

8. DP437. Hemispherical bowl. Buff surface, pink core, fine sand temper. Sgraffito design inside, lead glaze in yellow, green and brown.
Rim diam.: 21 cm .
9C. DP15. Rim of hemispherical bowl. Pink ware, white slip, sgraffito design inside, lead glaze coloured with yellow, green and brown.
Rim diam.: 22 cm .
N5 3A: 6, foundation fill.
10C. DP487. High ring base of bowl. Buff surface, pink core, fine mineral temper, white slip, sgraffito design, lead glaze inside coloured with yellow, green and brown.
Base diam.: 8 cm .
K2 surface find.
11C. DP473. Flat ring base. Pinkish buff ware, sgraffito design inside, lead glaze coloured with yellow and green.
Base diam.: 12 cm .
K2 10H/J, pit underlying Phase 3.

0 $\qquad$ 10 rm

9. 1-7: 7th/13th century unglazed pottery (Group 9). 8-11C: 7th/13th-8th/14th century pottery from R4 7C/D (Group 10).

Fig. 49 7th/13th-8th/14th century glazed and unglazed pottery (Group 10).

1. DP438. High ring base. Buff ware, mineral temper, blue-green glaze inside. Base diam.: 11 cm .
2. DP330. Sherd of hemispherical bowl. Buff ware, white slip inside, glaze disappeared, decoration of black underglaze painting and green coloured glaze.

## Unglazed Wares

3. DP323. Part of jar, greenish buff ware.

Base diam.: 4.5 cm . Max. Diam.: 12 cm .
4. DP436. Flaring neck of jar with oval section handle, and filter of 5 pierced holes. Buff surface, pinkish core, fine mineral temper.
5. DP322. Jar, small ring base. Greyish green ware, sand temper.

Base diam.: 5.9 cm . Extant Height: 17 cm .
6C. DP1. Part of jar, greenish buff ware, sand temper, bitumen lined.
Base diam.: 8.5 cm . Extant Height: 12.5 cm .
N5 3A: 6 , foundation fill.
7. DP435. Recessed base. Greenish buff surface, pinkish core, fine sand temper, bitumen lined.

Base diam.: 9 cm .
8. DP324. Part of jar, upper part removed by saw cut. Light brown ware, four horizontal incised lines.

Base diam.: 7.5 cm . Extant Height: 13.2 cm .
9. DP440. Bodysherd. Greenish ware, sand temper, decoration of double incised lines and hatching.
10. DP441. Knob handle of concave lid, light brown ware, heavy grit temper.

11C. DP6. Base of $n \vec{a} u \bar{u} r$ pot. Greenish buff ware, lime inclusions and vegetable temper.

49. 7th/13th-8th/14th century glazed and unglazed pottery (Group 10).

1. DP493. Rim of large bowl or lid. Buff surface, pinkish core, blue-green glaze inside and traces outside. Rim diam.: 34 cm .
K3 1J: 22, fill.
2C. DP536. Ring base of bowl. Buff surface, pinkish core, black painted design under blue-green glaze.
Base diam.: 8 cm
P4 surface find.
2. DP480. Ring base of bowl, pinkish buff ware, black painted design under green glaze.

Base diam.: 7.5 cm .
$\mathrm{K} 210 \mathrm{H} / \mathrm{J}$ surface.
4. DP479. Ring base of bowl. Buff surface, pinkish core, black painted design under green glaze.

Base diam.: 8 cm .
K2 10H/J surface.
5. DP463. Buff ware, brown painted design under green glaze.

K3 1J: 22, fill.
6. DP443. Ring base. Dark red-brown ware, sand temper, blue-green glaze inside.

Base diam.: 14 cm .
K3 1J: 33, pit.
7. DP460. Ring base. Buff ware, blue-green glaze inside.

Base diam.: 10 cm .
K3 1J: 7, fill.
8. DP490. Ring base. Pinkish buff ware, blue-green glaze inside and out.

Base diam.: 22 cm .
K3 1J: 7, fill.
9. DP447. Ring base. Red-brown ware, sand temper, blue-green glaze inside and drip outside.

Base diam.: 13 cm .
K3 1J: 9, fill.
10. DP350. Flat-bottomed basin, incomplete. Brown ware, mineral temper, wavy line incising. Rivet holes from repair. Rim diam.: 46 cm . Height: 13.8 cm . Reproduced at half the scale of the other vessels.
K3 1J: 11, fill.
11. DP449. Rim of two-handled jar. Buff surface, pinkish core, fine sand temper.

Rim diam.: 6 cm .
K3 1J: 7, fill.

50. Pottery from the Early Modern occupation and abandonment of K3 1J Phase 3 (Group 11).

Unglazed wares were notable for a greenish ware, found in the form of jars (figs. 49.6C-7) with a recessed base and lined with bitumen, and a bottle with a narrow ring base (fig. 49.5). In a similar ware with a brownish core was the flaring neck of a water-jar, paralleled at Hamā (Riis \& Poulsen 1957: nos. 985, 991 \& 993), and at Qaṣr al-Hair East (Grabar et al. 1978: fig. A-6.1). Note the introduction in this period of a Late Islamic form of surface treatment on unglazed vessels, double parallel incised lines with hatching in between (fig. 49.9).

## Dating

In another stratified Middle Islamic deposit (N5 3A), late sgraffito ware was found associated with blue and black underglaze painted Raqqa ware (for illustrated sherds of the deposit see figs. 47.2C-3C, 48.9C, 49.6C \& 49.12C). In addition a sherd of this sgraffito ware (fig. 48.11C) came from a pit underlying Phase 3 of K3 1J, but outside the excavated area. This group is thus of basically similar date to the preceding Group 8. But the stratigraphy does not exclude the possibility that the group is in fact rather later: not all of K3 1J Phase 3 was built at one time.
The radially organised decoration of fig. 49.2, and the flaring jar neck of fig. 49.4 would seem to be more typical of the 8 th/14th century than of the 7 th $/ 13$ th century. This conclusion implies that Levantine sgraffito is a rather late arrival in 'Ana, certainly later than its appearance in the 7th/13th century at al-Mīnā on the Syrian coast, and later than the introduction of blue and black painted Raqqa Ware.

## Group 11: Pottery from the Early Modern Occupation and Abandonment of K3 1J Phase 3

## Context

The pottery discussed in Group 11 comes from later additions (pit 33 \& oven 20) made to the Phase 3 building level of K3 1 J , originally built in the Middle Islamic period, and from the rubble with which Phase 3 was filled when the buildings were abandoned. It should be noted that the content of these deposits was extremely mixed, with a high proportion of residual pottery, dating as far back as the NeoAssyrian period. The material here is that which is different from the earlier deposits.

## Description

## Glazed Wares (pl. XVd)

The main glazed wares recovered were deep bowls with high ring bases, glazed on the inside with bluegreen. The fabrics are a hard red-brown ware (figs. $50.6 \& 50.9$ ), buff, and buff surface with a pink core. There is underglaze painting in black (figs. $50.2 \mathrm{C}-4$ ) and brown (fig. 50.5 ), with designs of radial lines, circles and cross-hatching. Fig. 50.9 is a jar or deep open form glazed on the inside with blue-green. Figs. 50.1 and 50.8 represent large forms, probably bowls.

## Unglazed Wares

The unglazed wares are diverse:
(1) Fine Buff Ware

Fig. 51.8 is part of a pilgrim bottle with decoration impressed by a patterned wheel. Fig. 51.7 has a moulded decoration of stars, and may also have come from a pilgrim bottle. Both have a general resemblance to moulded pilgrim bottles of the 8 th/14th century (cf. Sauvaget 1932).
(2) Coarse Buff Ware

These are jars (figs. 51.1-3 \& 5), two with horizontal strap handles (figs. 51.3 \& 5). Fig. 51.1 has combed decoration.
(3) Greenish Ware

The neck of a large jar with three miniature handles in a group, and incised decoration of parallel lines and hatching (fig. 51.4; cf. fig. 49.9).

## (4) Buff surface and Pink Core Ware

A flat jar base (fig. 51.6), and the neck of a two-handled jar (fig. 50 .11).
(5) Brown Ware

A flat-bottomed basin with double wavy-line incising on the exterior (fig. 50 .10).
(6) Nä'ūr Pot

A cylindrical jar 42 cm long, with the knob base cut off for use as a flue in Oven 20. Its use on the $n \bar{a}{ }^{\prime} u \bar{r}$ wheel can be seen from wear marks, including an oval hole worn through the wall of the pot.

## Dating

The group described probably includes pottery of different dates, for the occupation of the K3 1J Phase 3 buildings, and their abandonment, stretches from the construction of Phase 3 in the 7th/13th century, up to the beginning of the modern Phase 2 building, probably in the 13th/19th century. The blue-green glaze bowls are similar to material kindly shown to me during a visit to the IFEAD excavations at


Fig. 51 Pottery from the Early Modern occupation and abandonment of K3 1J phase 3 (Group 11)

## Unglazed wares

1. DP460. Rim. Buff ware, mineral temper, combed decoration.

Rim diam.: 26 cm .
K3 1J: 22, fill.
2. DP489. Rim. Yellowish buff ware, mineral temper.

## Rim diam.: 15 cm .

K3 1J: 26, pit fill of oven 20.
3. DP491. Rim. Buff surface, pinkish core, fine sand temper.

K3 1J: 7, fill.
4. DP451. Shoulder of jar. Greenish ware, sand temper, three miniature decorative handles, incised double parallel lines and hatching.
K3 1J: 7, fill.
5. DP492. Horizontal strap handle. Buff ware, vegetable temper.

K3 1J: 22, fill.
6. DP445. Base. Dark buff surface, pinkish core, mineral temper. Base diam.: 7.5 cm .
K3 1J: 22, fill.
7. DP481. Buff ware, fine mineral temper, moulded decoration of stars.

K2 $10 \mathrm{H} / \mathrm{J}$ surface.
8. DP448. Part of pilgrim bottle. Buff ware, fine mineral temper, decoration of wheel stamp impressions.

Diam.: 21 cm .
K3 1J: 9, fill.
9. DP556. Nä'ūr pot, base removed by cut, oval hole in body apparently worn in use on a nä'ür. Dark buff surface, reddish brown core, coarse grit temper.
Rim diam.: 15 cm . Height: 41.6 cm . Reproduced at half the scale of the other vessels.
K3 1J: 20, oven, in use as a flue.

Mayadine in Syria, medieval al-Raḥba (Director: Prof. Thierry Bianquis). They are there dated to the Late Mamluk to Early Ottoman periods (9th/15th-10th/16th centuries), and the hatched incised decorations on unglazed ware are also found there. We also had, from an unstratified context, one sherd of an Early Ottoman fritware with white glaze, possibly from a blue and white vessel. The buff pilgrim bottles may be of the 8th/14th century, or could be later variants.

## Group 12: Modern Traditional Pottery

A small collection was also made of the recent traditional pottery of 'Ana (pl. XVIa). These sherds came from surface sherding in the abandoned buildings of the island village.

## Unglazed wares

The Iraqi $h a b b$, an open vessel with pointed base and vertical rounded rim, grey-buff ware, combing and nicked decoration under the rim (pl. XVI $a$, bottom right). There was also a grey-buff, hard-fired sherd from a jar form with wavy and straight combed decoration.

Glazed wares
Three sherds of a large jar with soft yellowish fabric, a flat handle stub and dark blue-green glaze (pl. XVIa, top left). There was also a jar rim in grey-brown fabric with apple green glaze.

## Dating

The habb is commonly in production today as a water-cooler. The remainder have not been in production in recent years, as far as it is possible to tell from visits to local houses in 'Ana.

# Chapter 6 <br> THE GLASS by Andrina Bamber 

## Introduction

During the course of our excavations in 1981-2, a considerable number of glass fragments were recovered. Although many of these were decayed to the core, and some even disintegrated on touch, other pieces ranged from fair to excellent in their state of preservation, including a complete miniature bottle (fig. 53.10), and a near-complete flask (fig. 53.15).

All fragments and splinters recovered were recorded on excavation day sheets, and in the materials register with their findspot numbers. The materials register has brief notes on all fragments such as colour (where perceivable), fabric thickness, patina etc., but only those in a reasonable condition, or of particular interest (due to shape, decoration, technique, etc.) were retained, and form the basis of this study.

Glass was recovered from all excavated areas, the total approximately 185 pieces; nearly $75 \%$ from K3 1J, particularly pit 31 (figs. 52-53). All were from relatively late levels, and some unstratified pieces are included here either because of their interest as part of a group, e.g. bracelets (fig. 54.18-22), or because of their unusual form, e.g. rim (fig. 54.7).

Glass production and techniques were traditional and conservative; so their similarities with vessels or sherds from other excavations need not necessarily indicate contemporary material. No scientific analysis of our material could be made, and examination was limited to observations in the field, though every attempt was made to be as precise as possible about the condition, colour, measurements etc. of the material.

As the sample was relatively small, we cannot follow a typology such as that used by Lamm, based on development through shape and decoration (Lamm 1928). However as much of the glass came from one specific area (K31J), and was found in a good dateable context, that is Pit 31 (see Chapter 5, Group 4), we can suggest that this group be dated to the Sāmarrä' period (approximately 3rd/9th century). The remainder (fig. 54), from their find context, and by comparisons with K3 1 J material, and with possibly contemporary glass from other sources, may give us some idea of the various types of glass in use during the Islamic period.

## General Description of Glass Fabric

Out of all samples collected, most (75\%) were recognisably transparent, though nearly all showed signs of weathering or devitrification: their translucency was noted through breaks, or where the patina had chipped away.

Weathering was creamy-white, speckled gold-white, speckled grey-black, blue-white, but mostly a mottled brown-grey. There were five examples of coloured opaque glass, two white (figs. $54.2-3$ ), violet and white (fig. 54.13), black, white and translucent blue (fig. 54.22), and one light blue (fig. 54.19). The remainder had decayed to the core, and so we were unable to ascertain the transparency of the fabric. On the whole it might be assumed that the majority of our glass was originally transparent, due to the high percentage of clear glass found; as certain decolourizing agents tend to speed up irridescence and the decay process, the badly decayed examples could have originally been transparent and colourless.

Of the transparent sherds, fifty-three had an aqua-tint, and forty-four were brown, ranging from an amber tint to a dark green/brown. Blue was also observed, twenty-six pieces, mainly sky-blue, with ten fragments of a huminous cobalt blue. There were only eight examples of green glass: four leaf-green, three darker olive-green, and one unusual example of bright lime green, a bracelet fragment found in a Middle Islamic context (fig. 54.21).

In general the quality of the fabric seems to have been good; impurities, such as black specks, or bubbling (which was small and compact) were noticed in very few instances, and were not confined to any specific colour variant.

There was little variation in fabric thickness, usually $1-3 \mathrm{~mm}$, with some body sherds as fine as 0.5 mm (figs. 52.26, 27; fig. 53.2). Heavier fabrics are restricted to the occasional base (figs. 52.19 \& 22; figs. $54.4,5 \& 9$ ), or opaque body sherds (figs. $54.2,3 \& 13$ ). No doubt the variation of thickness of
transparent wares can be ascribed to the use to which the vessels were put. The fact that thicker fabrics are rare in our collection could be due, no doubt, to their relative resilience, the smallness of our sample, and the accidents of discovery.
As stated above, K3 1J pit 31, provided an homogeneous body of material, which can be dated to the Samarran period. Approximately ninety-four fragments were recorded. Out of these, one miniature bottle was found complete (fig. 53.10), and a flask could be reconstructed (fig. 53.15).
Of the remainder, we were able to recover enough parts of rims, bases and body walls, and, by comparing these with material of a similar date, published and illustrated elsewhere, we can suggest a range of vessel types in use at that time. For the verbal reconstruction of some vessels, parallels may have been taken from rather earlier examples; however it seems not unlikely that popular and practical vessel shapes continued to be manufactured long after they were first introduced, especially the more common shapes made with simple techniques.

## Material from K3 1J pit 31

Rims (figs. 52.1-17)

There are five probable types:
Type I (nos. 1-8)
Glass pulled upwards and inwards leaving a hollow, probably mould-blown. Mouth diameters from 7.5 cm to 9 cm , suggesting a small, open-mouthed bowl or beaker form. The closest parallels come from Abū Sarīfa and Tulūl al-Ukhaiḍir. At Abū Sarīfa, identical forms were found in Levels VI and V, dated 950-1100 A.D., and 800-950 A.D. respectively (Adams 1970: 119, fig. 15).

At Tulūl al-Ukhaiḍir, comparable material comes from the Main Building and the Mosque with adjoining southern rooms, dated to the Umayyad period (Finster \& Schmidt 1976: 149-150).

Nos. 3, 5, and 7 have an almost vertical body wall, as at Abū Sariifa (Adams 1970: fig. 15 D1-4), and Tulūl al-Ukhaidir (Finster \& Schmidt 1976: 118, Abb. 54c).

Nos. 1, 2, 6, and 8 have an slight outward turn of the body wall, as at Tulūl al-Ukhaidir (Finster \& Schmidt 1976: 118, Abb. 54a \& h). No. 4 has a sharp inward curve, which is found also at Tulūl alUkhaidir (Finster \& Schmidt 1976: 118, Abb. 54e).

So we can suggest that these rims belonged to at least three different vessel shapes: an almost straightsided vessel, perhaps a beaker; a vessel with a bellying-out body, and an open, flatter dish or bowl.

Two rims, nos. 1 and 2, are decorated, the first with vertical ribbing just below the rim, the second with horizontal dimpling. Although no such patterning is mentioned as coming from the comparative material mentioned above, if we look at the mould-blown bowls from Tell 'Umar (Ponzi 1970-1a: figs. 51.136 \& 158), it is possible that more pieces were decorated in this way, but that the pattern has faded out towards the rim, perhaps more likely with this type of drawn up, folded over rim. Similar decorations are also mentioned from Qaṣr al-Ḥair East, and compared with Raqqa 3rd/9th century glassware (Grabar et al. 1978: 139).

Type 2 (Nos. 10-15)
Rounded rim, straight bowl/beaker fragments. Almost vertical body parts, except nos. 11, 12 and 15. The glass is apparently nipped off at the rim, no. 15 with a slight knob at the end.

Parallels are found at Abū Sarîfa, Levels VI, V, and IV, dated 950-1100, 800-950, and 650-800 A.D. respectively (Adams 1970: 17, fig. 15.119), and Tulūl al-Ukhaidiir (Finster \& Schmidt 1976: Abb. 54b, $57 \mathrm{a}-\mathrm{c}$ ). Perhaps parts of beakers or straight-sided bowls, with diameters of $8-12 \mathrm{~cm}$.
Nos. 11, 12 and 15 have a greater outward angle, and comparisons with similar rims from Tell 'Umar (Ponzi 1970-1a: 81, figs. 50.50 \& 53), Hamā (Riis \& Poulsen 1957: 39, fig. 70), and Tulūl al-Ukhaidir (Finster \& Schmidt 1976: Abb. 54d \& f), suggest a shallower wide-mouthed bowl, the diameters of which-13, 14 and 15 cm -seem to confirm this.
Type 3 (No. 9)
Heavy, slightly everted rim, short neck, with oblique flaring body of thin glass, possibly the top of a globular flask or bottle. There are some similar small jars from Samaria (3rd century A.D.) (Crowfoot 1957: 408, figs. 94.17-8), and from Sasanian graves at Tell Māhūz (Ponzi 1968-9: fig. 153.19-23). However the closest parallel was found at Sāmarrā’ (Lamm 1928: 36, no. 141, fig. 23; DGA 1940: 36-39, pl. cxv), with almost the same mouth diameter- 7 cm . An example from Hama is very similar, though without such a heavy external rim form, and is thought to be Early Islamic in date (Riis \& Poulsen 1957: 40, fig. 75). Hanā 'Abd ul-Khāliq's book on Islamic glass has several bottles with the same neck and oblique body profile, and although some are decorated, or have longer necks, their 3rd/9th century date and general configuration are too close to be ignored ('Abd ul-Khāliq 1976: 289, pl. 8d; 257.60;
$244.12-5$ ). 244.12-5).

Type 4 (No. 16)
In-turned, thickened rim, angular on the outside, perhaps from a straight-sided wide-mouthed bowl. This seems to be a variant of the second group. There are some close parallels from Abū Sarifa Levels VI and V (Adams 1970: pl. 7, fig. 15), from Tulūl al-Ukhaidir (Finster \& Schmidt 1976: Abb. 55k \& n; Abb. 57k), and from Tell 'Umar (Ponzi 1970-1a: 85, fig. 51.61), where other similar profiles were formed with an included coil, not found on our examples (Ponzi 1970-1 a: figs. 51.63a \& f).

Type 5 (no. 17)
Round-ended, straight outsplayed rim and body part, perhaps another variant of the second group. It is difficult to see this as a beaker rim due to its sharp angle, though a flat dish is possible. However if compared with the reconstructed goblets from Hamā (Riis \& Poulsen 1957: 37, figs. 43, 56, \& 57; fig. 91), we can suggest that this fragment was originally part of a similar vessel, in which case we have three different goblet types in our collection (figs. 53.8-9). Alternatively, the flat bowl of Tell 'Umar (Ponzi 1970-1a: fig. 51.58), with its outsplayed wall, may be a parallel.

> Bases (figs. 52.18-28; figs. 53.1-7)

Bases were as common as rims; five different types were found:
Type 1 (figs. 52.18, 26-8, and figs. 53.1-7)
Probably mould-blown, most with part of the body curve, which either curves gently outwards (fig. 52.26-8; fig. 53.1), or is almost vertical (fig. 52.18; figs. 53.3-5). Most have a high concavity, except fig. 52.18 , and fig. 53.6, which were almost flat, and figs. 52.26 and 27 , which were broken where this would begin.

Where extant, traces of a pontil mark are visible on the bottom of the bases.
Diameters ranged from 6 to 13 cm , depending on the base diameter and wall curvature; these could have belonged to beakers, bowls or bottles.

No doubt a few could be matched with our rim fragments, but we had none which actually joined.
The form is very common, found over a wide geographic area, and from an early date. For example, similar bases are quite common in tomb groups at Samaria (3rd-5th centuries a.D.) (Crowfoot 1957: figs. 94.9, 10, 17; 95.9, 10, 15-8), and in 4th century Syria-Palestine (Harden 1949: figs. 1.1 \& 8; fig. 2.1). They are also found in Sasanian contexts at Kish (Langdon \& Harden 1934: figs. 4.1-2), and Tell Māḥūz (Ponzi 1968-9: figs. $156.51-4$ \& 57-60; figs. 157.65, 70 \& 72). We have numerous examples from Islamic contexts: Tulūl al-Ukhaidir (Finster \& Schmidt 1976: Abb. 60-1); Tell 'Umar (Ponzi 1970-1a: figs. 52.81i, 82e \& g; figs. 53.89b-c, 83a, j, k \& p); Hamā (Riis \& Poulsen 1957: fig. 27, 72, 76), thought to be 3rd/9th century and 4th/10th century; Qaṣr al-Hair East (Grabar et al. 1978: G1.1c); Tell Abū Sarīfa Level IV, 650-800 A.D. (Adams 1970: pl. 7, fig. 15). Many are described and drawn in Abd ul-Khāliq's Islamic Glass publication, mostly thought to be 2nd/8th century to 3rd/9th century ('Abd ul-Khāliq 1976: 201.41-2; 206.56-7; 207.61-2; 262.79-80; 263.81-4; 265.88-9).

Of our pit fragments, three are decorated. Figs. 53.1-2 may be of the mould-blown 'pillar' type, described by Lamm, and found at Sāmarrā' (Lamm 1928: 39, 44). Examples of this are also known at Qaṣr al-Hair East, dated to the 3rd/9th century (Grabar et al. 1978: G1.19).

Fig. 52.28 shows a more elaborate expanding star pattern, which may have continued onto the body. This compares well with those found at Sāmarrā' (Lamm 1928: Abb. 29 \& 39, nos. 160, 162; Abb. 30; Taf. III, nos. $158-9,161 \& 167$ ). Other decorated bases with different designs were found at Tulūl alUkhaiḍir (Finster \& Schmidt 1976: Abb. 64f \& h), at Tell 'Umar (Ponzi 1970-1a: fig. 48.168), and at Hamā, from about the 3rd/9th century (Riis \& Poulsen 1957: figs. 135-7). Further examples are found in Ábd ul-Khāliq's book, also apparently 3rd/9th century ('Abd ul-Khāliq 1976: 203, 207, 208, nos. 48, 60, 63). Fig. 54.1 from our own excavations is an elaborately decorated base, found in a wall in association with Abbasid pottery, and can also be placed with this group.

Type 2 (figs. 52.20-1)
Two small, flat bases, slight concavity. Diameters of 2 and 3 cm respectively. Part of the body wall survives, and these may have been the bases of miniature bottles with cylindrical bodies. A complete example of such a bottle was found with this group, but with a squared body. There are many parallels from 3rd/9th century material at Sāmarrā’ (Lamm 1928), Tell 'Umar (Ponzi 1970-1a: fig. 50.40), Qaṣr al-Hair East (Grabar et al. 1978: G1.16), and Hamā (Riis \& Poulsen 1957: fig. 83), the last of which are of doubtful context, but may be Early Islamic. Earlier examples are found at Kish, of Sasanian date (Langdon \& Harden 1934: fig. 5.34), whilst miniatures were found at Wāsiṭ, dating to the 6th/12th and 7th/13th centuries ('Abd ul-Khāliq 1976: nos. 127, 131-2). The small size of these two pieces makes comparisons very speculative, and it is possible that they are the remains of lamp stem, as seen at Hamā (Riis \& Poulsen 1957: fig. 129), with parallels in Palestine and Iran, and not found later than the 4th/10th century, although earlier examples are known.

Fig. 52 Glass from K3 1J: Pit 31 (Abbasid)

1. Rim, pulled upwards, folded in to form a hollow. Vertical ribbed pattern. Mould-blown? Transparent brown; dark brown speckled patina.
Rim diam.: 8.5 cm . Extant Height: 1.5 cm . Thickness: 1 mm .
2. Rim, pulled upwards, folded in to form a hollow. Horizontal dimple pattern just below the rim. Mould-blown? Transparent, olive green tint, dark brown patina.
Rim diam.: 9.5 cm . Extant Height: 1.7 cm . Thickness: 0.9 mm .
3. Rim, pulled upwards, folded in to form a hollow. Transparent, aqua tint, brown-black patina. Rim diam.: 8.3 cm . Extant Height: 1.5 cm . Thickness: 1 mm .
4. Rim, pulled upwards, folded in to form a hollow. Horizontal, shallow indent just below the rim. Transparent brown, little patina.
Rim diam.: 10.5 cm . Extant Height: 1.2 cm . Thickness: 0.5 mm .
5. Rim, pulled upwards, folded in to form a hollow. Transparent brown, speckled brownish black patina. Rim diam.: 7.5 cm . Extant Height: 1.1 cm . Thickness: 0.8 mm .
6. Rim, pulled upwards, folded in to form a hollow. Shallow indent below rim. Transparent olive-brown, dark brown patina. Rim diam.: 7.5 cm . Extant Height: 1.5 cm . Thickness: 0.8 mm .
7. Rim, pulled upwards, folded in to form a hollow. Shallow indent below rim. Transparent, brown tint; bluish patina. Rim diam.: 9 cm . Extant Height: 2.2 cm . Thickness: 1 mm .
8. Rim fragment, pulled upwards, folded in to form a hollow. Transparent, aqua tint; dark brown patina. Rim diam.: 9 cm . Extant Height: 1.9 cm . Thickness: 0.9 mm .
9. Rim and part body. Wide-mouthed flask neck? Slightly everted rim, flattened at the top, with a sharp carination at the top and bottom. Outwards sloping shoulder. Transparent brown; heavy mottled black and brown patina.
Rim diam.: 7 cm . Neck Diam.: 6.7 cm . Extant Height: 4 cm . Thickness: $1-3 \mathrm{~mm}(\mathrm{at} \mathrm{rim})$.
10. Rim and body fragments (3). Straight, wide-mouthed beaker or bowl? Transparent, aqua tint; heavy dark brown patina. Rim diam.: 9 cm . Extant Height: 4 cm . Thickness: $1.9-3 \mathrm{~mm}$.
11. Rim and body fragment, slightly in-turning. Wide-mouthed beaker? Transparent, aqua tint; dark brown patina.

Rim diam.: 13 cm . Extant Height: 2.9 cm . Thickness: $1-2.5 \mathrm{~mm}$.
12. Rim and body fragment, slightly incurving. Wide-mouthed beaker? Transparent, aqua tint; very decayed, mottled brown patina.
Rim diam.: 14 cm . Extant Height: 2.3 cm . Thickness: $1.1-2 \mathrm{~mm}$.
13. Rim and body fragments (3). Straight, wide-mouthed beaker. Transparent, aqua tint; decayed, light brown mottled patina. Rim diam.: 8 cm . Extant Height: 4.1 cm . Thickness: $0.7-1.1 \mathrm{~mm}$.
14. Rim and body fragments (2). Straight, wide-mouthed beaker. Probably transparent, decayed to a white core; grey-black flaky patina.
Rim diam.: 12 cm . Extant Height: 4.3 cm . Thickness: $1-3 \mathrm{~mm}$.
15. Rim and body fragment, notched just below the rim, body flaring slightly outwards. Probably a wide-mouthed beaker or bowl with a rounded base. Decayed to a white core.
Rim diam.: 1.5 cm . Extant Height: 2.6 cm . Thickness: $\mathbf{1 - 2 ~ m m}$.
16. Rim fragment, curving inwards. Transparent, aqua tint; mottled grey-brown patina.

Rim diam.: 16 cm . Extant Height: 1.5 cm . Thickness: $1.3-4 \mathrm{~mm}$.
17. Rim and body fragment, sharply everted. Perhaps from a small bowl. Very decayed, seems transparent with an aqua tint; mottled brownish black patina.
Rim diam.: 8 cm . Extant Height: 2.2 cm . Thickness: $0.9-2 \mathrm{~mm}$.
18. Base and body part, slightly concave with pontil mark underneath. Almost perpendicular body line. Transparent, aqua tint; mottled black, and irridescent blue patina.
Base diam.: 9.5 cm . Extant Height: 3.9 cm . Thickness: $1.7-5.8 \mathrm{~mm}$.
19. Base and body fragments (2), heavy flat base, body curving outwards. Probably a flask or bottle base. Very slight concavity in the centre of the base, and an indent at the body curve, perhaps a shallow wheel-cut groove. Transparent, aqua tint; heavy blue-black patina.
Base diam.: 10 cm . Extant Height: 3.4 cm . Thickness: $4.5-7 \mathrm{~mm}$ (base), $2.9-5 \mathrm{~mm}$ (wall).
20. Cylindrical base. Perhaps from a miniature bottle, or lamp. Slight concavity, shallow pontil mark. Decayed to a white core; flaky grey patina.
Base diam.: 2.5 cm . Extant Height: 5 mm . Thickness: 0.9 mm (wall), 3 mm (base).
21. Base, flat, bulge inside towards wall. No pontil mark evident. Possibly the remains of an unguent bottle, or lamp base. Decayed to a white core; heavy pale blue and white patina.
Base diam.: 3 cm . Extant Height: 8 cm .
22. Base, irregular, heavy, and part of the body wall. Possibly from a globular flask or bowl. Transparent, blue tint; dark blue mottled patina. Pontil mark inside.
Max. Diam.: 5.8 cm . Extant Height: 2 cm . Thickness: 2.9 mm (wall), 10 mm (at pontil mark).
23. Base. Irregular dimple base, and part of the body, pontil mark on the bottom. Perhaps the base of a small bowl. Transparent, aqua tint; badly decayed with a mottled brown and blue-white patina.
Max. Diam.: 4.9 cm . Extant Height: 1.2 cm . Thickness: $1-3 \mathrm{~mm}$ (at pontil mark).
24. Base. Small irregular dimple base. Perhaps from a dropper-bottle or small beaker. Pontil mark. Decayed to a white core; mottled brown and grey patina.
Max. Diam.. 2.8 cm . Extant Height: 1.8 cm . Thickness: $0.7-1.3 \mathrm{~mm}$ (at pontil mark).
25. Base, applied ring. Thick, kicked-in, with pontil mark underneath. Beginnings of the body wall, probably globular or pearshaped. Transparent, dark green; little brown patina.
Base diam.: 4.2 cm . Extant Height: 1.5 cm . Thickness: 0.9 mm (wall), 1.3 mm (base).
26. Body fragment. Possibly part of a low bowl with a concave base. Slightly flaring wall, and the beginnings of the base curve. Transparent, aqua tint; grey-black patina.
Max. Diam.: 13 cm . Extant Height: 2.2 cm . Thickness: 0.7 mm .
27. Base fragment. Possibly from a low bowl with a concave base. Transparent, aqua tint; grey-black patina.

Max. Diam. 12 cm . Extant Height: 1.2 cm . Thickness: 0.5 mm .
28. Patterned base and wall curve. Mould blown, concave, with pontil mark underneath. Expanding star pattern, body probably patterned also. Perhaps from an open bowl. Transparent, brown; heavy brown and grey patina.
Base diam.: 9 cm . Extant Height: 2 cm . Thickness: 1.2 mm (wall), 3 mm (base centre).


12

18.

52. Abbasid glass from K3 1 J pit 31.

Fig. 53 Glass from K3 IJ: Pit 31 (Abbasid)

1. Patterned base. Ribbed, mould-blown (pillar-moulded?). Part of the wall curve. Concave with pontil mark on the bottom. Transparent brown; heavy grey-black patina. Probably part of an open bowl or beaker. Base diam.: 9 cm . Extant Height: 1.2 cm . Thickness: 2-3.7 mm.
2. Patterned base fragment. Ribbed, mould-blown (pillar-moulded?). Transparent brown; very decayed, brown black patina. Base diam.: ? Thickness: 0.7 mm .
3. Base fragment. Mould-blown. Part of body curve, sharp, straightening out at the break. High concavity, pontil mark underneath. Probably part of an open-mouthed beaker. Transparent brown; heavy mottled grey-black patina.
Base diam.: 6 cm . Extant Height: 1.7 cm . Thickness: 1.1 mm (wall), 5 mm (base centre).
4. Base fragment, part of body curve, concave. Transparent, green tint; mottled brown patina. Base diam.: 6 cm . Extant Height: 0.9 cm . Thickness: $1-3.9 \mathrm{~mm}$ (base centre).
5. Base fragment, with body curve. Concave. Transparent brown; mottled grey and black patina. Base diam.: 8 cm . Extant Height: 1.15 cm . Thickness: $1-4 \mathrm{~mm}$.
6. Base fragment, with part of body curve, slight concavity. Probably part of a flat bowl. Transparent brown; grey-black mottled patina.
Base diam.: 12 cm . Extant Height: 1 cm (body wall), 0.8 cm (base centre). Thickness: $1-5 \mathrm{~mm}$ (base centre).
7. Base fragment, with part of body curve. Probably the beginnings of concavity. Transparent brown; heavy grey-brown patina. Base diam.: 6 cm . Thickness: $1-2.8 \mathrm{~mm}$.
8. Goblet bowl fragment, with the beginnings of a stem. No rim part, possibly with pontil mark traces on the inside. Transparent, aqua tint; heavy decay, bluish flaking.
Rim diam.: 4.1 cm . Bottom Diam.: 1 cm . Extant Height: 4.3 cm . Thickness: $0.8-6 \mathrm{~mm}$.
9. Goblet stem and part of bowl. Foot broken off. Thick with a narrow hollow from the base end. Possibly made in two parts. Two decorative rings just below the bowl, foot splayed outwards. Very decayed, probably originally clear, and colourless; heavy blue-grey patina.
Foot Diam.: 3.1 cm . Bowl Diam.: 3.6 cm . Extant Height: 4.3 cm . Thickness: 4 mm (bowl), 7 mm (stem).
10. Miniature bottle. Round neck, sub-square body. Pontil mark and slight concavity at the base. Perhaps originally transparent; heavy grey-brown patina.
Rim diam.: 9 mm . Base diam.: 12 mm . Height: 6.8 cm . Width: 2 cm . Thickness: $1.8-2 \mathrm{~mm}$.
11. Spout. Hollow, narrow at the mouth, flaring towards the body end. Probably originally attached to a beaker with a diameter of around 8 cm . Shows transparent aqua at the break; grey, blue and brown speckled patina.
Max. Diam.: 2 cm (body end), 4.9 mm (spout end). Length: 5.5 cm . Thickness: $0.5-2.8 \mathrm{~mm}$.
12. Body fragment. Shallow dimple decoration. Mould-blown? Transparent, brown tint; grey-black patina. Thickness 1 mm .
13. Body fragment. Globular bowl shoulder sherd? Vertical ribbed decoration. Transparent, aqua tint; mottled grey-brown patina.
Thickness: 0.8 mm .
14. Body fragment. Perhaps part of the base curve. Vertical ribbed decoration. Transparent, aqua tint; grey-brown patina. Thickness: 1.6 mm .
15. Flask, reconstructed ( 5 fragments). High cylindrical neck, flattened rim. Rounded shoulder, bellying body. Flat base with an indent just above the base/body curve. Slight concavity at the base centre. Transparent, aqua tint; mottled blue, grey, white patina.
Rim diam.: 2 cm . Base diam.: 5 cm . Body Width: 12.5 cm . Height: 20.3 cm .
16a,b,c. Fragments of a globular body found set in a plaster form. Transparent, cobalt blue; black, yellow purple patina. Thickness: $0.8-1 \mathrm{~mm}$.

## Fig. 54 Early and Middle Islamic Glass

1. J3: T1. Base. Mould-blown. Pattern of tear-drop dimples, and raised connecting lines. Beginnings of the body curve. Concave, with a pontil mark on the bottom. Transparent brown; little grey-brown patina.
Base diam.: 10 cm . Extant Height: 1.4 cm . Thickness: $0.9-6 \mathrm{~mm}$.
Area J3, from a mortared wall with Abbasid pottery.
2. Q3 6B: T23. Body fragment, possibly a shoulder. Horizontal, raised rib decoration, tapering towards the end. Opaque white;

Extant Height: 3.5 cm . Thickness: $3-5 \mathrm{~mm}$.
Q3 6B: 29.
3. Q3 6B: T26. Body fragment. Raised vertical ribbing decoration. Opaque white; some gold patina.
Thickness: $3.7-5.5 \mathrm{~mm}$.

Q3 6B: 32.
4. Q3 6B: T5. Fragment of a goblet foot? Splayed out and flattened at the bottom. Transparent, amber tint; cream patina. Base diam.: 5 cm . Extant Height: 1.3 cm .
Q3 6B: 3.
5. Q4 2H: T19. Applied base ring, with part of the body curve. Glass appears to have been doubled over. High concavity. Body, globular or pear-shaped, perhaps from a small bowl or flask. Transparent, dark blue-green; pale blue and brown speckled
patina.
Base diam.: 5.8 cm . Extant Height: 1.5 cm . Thickness: 3-7.8 mm.
Q4 2H: 2. Unstratified.
Q4 2H: 2. Unstratified.

53. Abbasid glass from K3 IJ pit 31.
6. K3 1J: T12. Handle fragment, with part of the body wall attached. Manufactured from one piece of glass, folded over and stretched to form a central ridge along the top. Oval cross-section. Transparent, aqua tint; brown and cream patina.
Cross-section 1.1 cm . Profile Width: 2.8 cm . Thickness: 1.8 mm (body wall).
K3 1 J : 17, Middle Islamic platform fill.
7. $\mathrm{K} 210 \mathrm{H} / \mathrm{J}$ : T10. Rim fragment, sharply everted with a rounded top. Perhaps from a miniature bowl with a near-closed mouth. Transparent blue; black and pearlised white patina.
Rim diam.: 4 cm . Extant Height: 1.4 cm . Thickness: $1.5-3 \mathrm{~mm}$.
K2 10H/J Unstratified.
8. $\mathrm{K} 210 \mathrm{H} / \mathrm{J}$ : T3. Rim fragment, and part of body. Rim turned in and flattened along the top. Body tapering inwards. Perhaps from a beaker or a squat bowl. Transparent, green tint; blue and cream patina.
Rim diam.: 6 cm . Extant Height: 2.8 cm . Thickness: 3-9.5 mm.
K2 10H/J Unstratified.
9. $\mathrm{K} 210 \mathrm{H} / \mathrm{J}$ : T10. Beaker reconstructed from several rim and base fragments. Sharply everted rim, rounded at the end. Thick, flat base. Two wide, shallow horizontal grooves on the body, just above the base. Transparent, blue tint; speckled blue, cream, grey patina.
Rim diam.: 6 cm . Base diam.: 5.5 cm . Height: 9.15 cm . Thickness: 1.8 mm (body), 6 mm (base).
K2 10H/J Unstratified.
10. Neck fragment, flare towards the rim, and turning more sharply in towards the shoulder. Constriction inside at the neck base. Probably from a small bottle or flask. Decayed to a white core.
Rim diam.: 1.9 cm . Diaphragm Diam.: 6 mm . Extant Height: 2 cm . Thickness: $0.5-5 \mathrm{~mm}$.
K2 10J Unstratified.
11. K2 10J: T4. Base fragment, flat base with a sharp turn to a straight body wall. Perhaps a flat-based beaker. Decayed to a white core.
Base diam.: 11 cm . Extant Height: 1.8 cm . Thickness: 1 mm .
K2 10J: 1, 5th/11th century pit fill (Chapter 5, Group 7).
12. $\mathrm{K} 210 \mathrm{H} / \mathrm{J}$ : T3. Base fragment, flat, sharp turn to a straight body wall. Thickening towards the centre of the base, no signs of concavity. Probably from a flat-based beaker or straight-sided bowl. Transparent, aqua tint; white and blue patina.
Base diam.: 12 cm . Extant Height: 2.2 cm . Thickness: $1.8-5 \mathrm{~mm}$.
K2 10H/J Unstratified.
13. R47C: T16. Rim fragment. Rim turning inwards, and flattened at the top, perhaps the rim of a round bowl. Opaque white with transparent violet. It seems as though rods of opaque white glass were laid horizontally on the body of the vessel, and fused into the violet glass. Some dark green and brown patina.
Rim diam.: 13 cm . Extant Height: 1.9 cm . Thickness: 3-5 mm.
R47C: 4, Middle Islamic (Chapter 5, Group 10).
14. R4 7D: T8. Body fragment. Raised vertical ribbing, rounded at the ends. Opaque white; silvery patina. Thickness: 2-3 mm.
R4 7D: 1 Unstratified.
15. N5 3A: T21. Rim and body fragment. Reconstruction of an open bowl, with tapering sides. Everted rim, a slight ridge just below, and carination on the body. Vertical ribbing pattern, perhaps 'pillar-moulded'. Transparent brown; heavy blue-green mottled patina.
Rim diam.: 11.6 cm . Extant Height: 5.2 cm . Thickness: $1-3 \mathrm{~mm}$.
N5 3A: 6, Middle Islamic foundation fill.
16. N5 3A: T16. Rim fragment, straight, with a notch in to the body, and a flattened top. Transparent, green tint; blue-grey speckled patina.
Rim diam.: 5 cm . Extant Height: 1.7 cm . Thickness: 4-6 mm.
N5 3A: 1, Unstratified.
17. N5 3A: T17. Body sherd. Vertical corrugations (pillar-moulded?). Possibly belongs to no. 15 above. Transparent brown, mottled blue-green patina.
Thickness: $1-2 \mathrm{~mm}$.
N5 3A: 6, Middle Islamic foundation fill.
18. R35C: T10. Bracelet fragment. Tri-partite round cross-section, flat inside. Pressed or moulded decoration on the face of impressed diamonds containing raised knobs, alternating with an impressed diamond outline containing a raised diamond shape with three raised knobs divided by a raised diagonal bar. Probably slightly oval when complete. Transparent, cobalt blue; little irridescence from weathering.
Internal Diam.: 5.2 cm . Extant Length: 6 cm . Width: 8.2 mm . Thickness: 3.5 mm .
R3 5C, Unstratified.
19. Q3 6B: T2. Bracelet fragment. Squared round cross-section, flat on the inside. Grooved on two sides in section. Probably oval in shape. Opaque, light blue; little irridescence.
Internal Diam.: 6.4 cm . Extant Length: 5.5 cm . Thickness: 4 mm .
Q3 6B: 1, Unstratified.
20. R47D: T8. Bracelet fragment. Irregular, semi-circle cross-section, flat on the inside, two sides squared. Groove on the inside. Transparent blue; green patina.
Internal Diam.: 4.4 cm . Extant Length: 1.8 cm . Thickness: 4 mm .
R4 7D: 1, Unstratified.
21. K3 1J: T44. Bracelet fragment. Semi-circular cross-section, flat part inside. Spiral groove decoration. Transparent lime green; little irridescence.
Internal Diam.: 7 cm . Extant Length: 2 cm . Thickness: 4 mm .
K3 1J: 12, Middle Islamic mortared wall (Chapter 5, Group 9).
22. K3 1J: T10. Bracelet fragment. Squared oval cross-section. Made with a marbled rod, or three rods of different coloured glass fused together. Opaque white, black, and transparent dark blue. Cross-section shows similar effect to the cores used for millefiori glassware. Surface pattern comes up as zebra stripes. Flat inside, where the transparent blue is visible.
Internal Diam.: 6.2 cm . Extant Height: 4.2 cm . Thickness: 6 mm .
K3 1J: 9, Early Modern pit fill (Chapter 5, Group 11).

54. Glass from other contexts.

Type 3 (fig. 52.19)
Heavy, flat base, out-curving body, with the beginnings of a slight concavity. When compared to the reconstructed bottle (fig. 53.15), we may say that this was the base of a larger vessel on similar lines. The same profile can be seen in early Islamic levels at Tell 'Umar (Ponzi 1970-1a: fig. 52.73-4), though here they are described as bowls, one of the examples being extant to the rim. From 'Abd ul-Khāliq's work, there are examples of another similar profile, which belong to either ewers or decorated flasks ('Abd ulKhāliq 1976: nos. $53,58, \& 60-2$ ). At Hamā, there were some bottles which seem to be closely related to our base, and which date to around the 3rd/9th century (Riis \& Poulsen 1957: figs. 37-8).

Type 4 (figs. 52.22-4)
Dimple bases, the first two possibly from globular flasks ('Abd ul-Khāliq 1976: 270.111 \& 271.112). The other may be the base of a badly made 'dropper' bottle ('Abd ul-Khāliq 1976: 278.133, nos. 4 \& 5). There is a similarly shaped, though heavy moulded base from Qașr al-Hair apparently closely related to small 3rd/9th century bottles from Iraq and Iran, published by Lacam (Grabar et al. 1978: 262, G1.1d). Our example is much thinner, and, apart from Sasanian 'dropper' bottles, we can find no closer parallels, unless in the miniature bottle from Ḥamā, described as Early Islamic (Riis \& Poulsen 1957: 36, fig. 48).

Type 5 (fig. 52.25)
A ring base with flattened foot, and the beginnings of a globular body. High concavity, and pontil remains. No very close parallels, however similar applied ring bases are found from Sasanian to Late Islamic times in various forms. Sasanian graves at Tell Māḥūz contained globular flasks with applied ring bases, but they are said to be rare (Ponzi 1968-9: fig. 154.31; fig. 156.49). They were also found at Kish, applied to a pear-shaped flask and a globular flask, dated 5th-6th centuries AD (Langdon \& Harden 1934: 135, figs. 5.32-3). Tell 'Umar has has ring bases in Early Islamic and probable Islamic contexts (Ponzi 1970-1a: fig. 54.103-5, 109-10), with parallels from Sāmarrā' (Lamm 1928: 18, Abb. 8.31-2). Qașr al-Hair Type 2 (Grabar et al. 1978: 139), and Middle to Late Islamic tall-necked globular flasks, ewers, with pear-shaped bodies, and round-bellied flasks, all have examples with applied ring bases ('Abd ul-Khāliq 1976: nos. 23, 109, 110, 123, \& 125). We cannot see any closer types, and our own excavations have uncovered another example, from unstratified levels, without the high concavity and flattened foot (fig. 54.5).

## Goblets (fig. 53.9)

No. 9 with a ringed decoration on the stem, just below a rounded conoidal bowl, almost exactly matched at Tell 'Umar (Ponzi 1970-1a: fig. 54.113), this from an Early Islamic context. Two others have the same stem decorations (Ponzi 1970-1a: fig. 54.112, 114), and similar stems were found at Qaṣr alHair East (Grabar et al. 1978: 267, G1.17).

The bowl shape of no. 8 seems unusual; however pieces from Tell 'Umar, Tulūl al-Ukhaidir (Finster \& Schmidt 1976: Abb. 59), Sāmarrā’ (Lamm 1928: Taf. IV.27, pl.CXI), and Hamā of the 8th-9th centuries A.D. (Riis \& Poulsen 1957: figs. 56-7, 89-91), indicate that variety in bowl shape is to be expected

## Miniature bottle (fig. 53.10)

There are many examples from early and later periods (See discussion on type 2 bases). From Qaṣr alHair, miniature bottles were recorded from Early Islamic contexts (Grabar et al. 1978: 143, G1.16), and in similar levels from Tell 'Umar (Ponzi 1970-1a: fig.50.40), Abū Sarífa Level V, dated to 800 to 950 a.D. (Adams 1970: 119), and Sāmarrā' (Lamm 1928: Taf. III, 79).

## Spout (fig. 53.11)

The only parallels we are aware of are that from Sāmarrā' ('Abd ul-Khāliq 1976: 209.57, pl.86), and a second smaller version, also from Sāmarrā’ but broken ('Abd ul-Khāliq 1976: 209.56). It seems as though our spout was attached to the body of a thin-walled beaker, probably with a turned over rim. The body tapers towards the base, which is flattened, then concave. These are dated to the 3rd/9th century, and are described as 'bleeding cups'. The comparison is too close to look for any other vessel to which the spout was attached. The calculated body diameter from the body end of the spout ( 8 cm ) compares well with the complete example from Sāmarrā'.

## Wall Sherds

Type 1 (fig. 54.12)
An example of mould-blown dimpling. Closely parallelled at Tulūl al-Ukhaidir (Finster \& Schmidt 1976), Qaṣr al-Hair East (Grabar et al. i978), Tell 'Umar (Ponzi 1970-1a), Hamà (Riis \& Poulsen 1957), and Sāmarrā' (Lamm 1928). The decoration appears to be a continuation from Sasanian times, as it
found at Tell Māḥūz (Ponzi 1968-9: fig. 157.71-2), and at Kish (Langdon \& Harden 1934: 133, figs. 4, 7, \& 9). In the Islamic period the technique was probably more practised, the fabrics are very fine, and the dimpling shallow.

Type 2 (fig. 53.13)
Shoulder fragment, with vertical ribbing. Perhaps from a mould-blown miniature flask, as found at Hamā (Riis \& Poulsen 1957: 49, fig. 121), this is thought to be Early Islamic.

## Type 3 (fig. 53.15)

Another body wall with vertical ribbing. Perhaps belonging to one of our 'pillar-mould' bases.

## Bottle or Flask (fig. 53.15)

Reconstructed from four fragments, the base is very similar to that of fig. 52.19. The profile simple, a straight long neck with a flaring shoulder to a rounded body which curves in to a flat base. Similar flasks were found at Sāmarrā' and al-Mīnā’, in 9th to 10 th century contexts. Some Qaș al-Hair neck shapes are similar, though not so tall (Grabar et al. 1978: 139, G1.18a-e), and a flask from Tell 'Umar has a taller neck (Ponzi 1970-1a: fig. 49.29). Other profiles show the shape to have been fairly common. From Tulūl al-Ukhaidir there were no comparative necks; most were either shorter or with flattened everted rims (Finster \& Schmidt 1976: Abb. 58g \& h; Abb. 58a, b, k). Bottle-necks from Hamā, particularly fig. 77, were dated by comparisons to the 9 th or 10 th century A.D. (Riis \& Poulsen 1957: 41).

## Body Fragments (fig. 53.16a-c)

Included here as they belonged to a globular body wall, and were of a fine cobalt-blue colour. These were found in a plaster casing, apparently accidental, and not a mould as first thought. It may have been part of a globular flask similar to that at Tell 'Umar (Ponzi 1970-la: fig. 52.87a). On our piece there is no obvious rim or base curve, so that there may have been a globular base. A rim found just on top of the plaster was of a different fabric: it had decayed to the core and disintegrated. Very similar to our second group of rims, but inturning like those from Tulūl al-Ukhaidir, with a diameter of 10 cm (Finster \& Schmidt 1976: Abb. 54d, f \& h).

## Early and Middle Islamic Glass

The rest of the glass was from other excavated areas, of different dates, but may provide some interesting comparative material. The details are found in the catalogue, and discussion here will be limited. Fig. 54.1 has already been discussed with the mould-blown patterned bases from K3 1J: 31.
Only one handle fragment, fig. 54.6, was found, in a Middle Islamic context (see Chapter 5), and the form is very simple, seeming merely to echo those found on our pottery types.
The sharply inverted rim from K2 10H/J (fig. 54.7), was from an unstratified level, and we have been unable to find any comparable shapes. But we thought it may have come from a miniature bowl.
Fig. 54.8 was also unstratified; however such rim shapes are discussed by Abd ul-Khāliq, and are thought to be 3rd/9th century. They are classed as 'ink pots' ('Abd ul-Khāliq 1976: 202.44, 47).
Fig. 54.9 is a reconstructed beaker from unstratified levels in $\mathrm{K} 210 \mathrm{H} / \mathrm{J}$, and has an unusually sharply everted rim, which may have been used as a hanging lamp (Lamm 1928: 35-6, 43, Abb. 28.157).
Fig. 54.13. R4 7C: 4. Rim sherd, found in a Middle Islamic level, which appears to have very close parallels to Hamā in both colour and profile. These were thought to have come originally from Egypt, though without any more specific date (Riis \& Poulsen 1957: 64, figs. 189-90).

Figs. 54.15 \& 17. Found in Middle Islamic contexts, though the decoration appears to continue the traditions seen in Early Islamic vertical ribbing. The shape, however, may be an innovation, as we have not found this sharply everted rim and tapering body in our Early Islamic group.

Fig. 54.18-22. Bracelets. These are difficult to date, as they are found all over the Middle East and elsewhere, from the Early Islamic period continuing well into the 8th/14th century (Grabar et al. 1978: 145). Nos. 18-20 were unstratified, whilst 21 was from a Middle Islamic context. The latter was of an unusual lime green colour, and had a grooved and twisted decoration. The decorative technique is simple, and parallels are found in many excavations. From Harrān a very similar one was found in Ayyubid contexts (Rice 1952: 72, fig. 18.26), and the level in which our fragment was found (K3 1J: 12) also had a fragment of a ceramic floor-table (fig. 47.5), which is almost identical to that found at Harrān (Rice 1952: 70.15).
There was no evidence of glass manufacture from our excavations, although a great deal of kiln slag was recovered from the upper levels of R47C/D.

# Chapter 7 <br> SMALL FINDS <br> by Andrina Bamber 

## Introduction

Due to the relatively limited nature of our excavations at Qal'at 'Ana, both in time and in area covered, the bulk of the finds consisted of pottery. However other artefacts were recovered, particularly glass, as discussed in Chapter 6, and items made of metal, baked clay, stone, bone and plaster.

All small finds recovered during the course of the excavations were recorded on day sheets, and in the materials register, with their locations. They were given an object number preceded by a ' T ', as was the glass, and the register has brief notes describing the material, general appearance and dimensions of the object. No scientific analysis could be made of the objects, though fortunately those illustrated and discussed here were of easily identifiable materials.

As our sample was small, this report is mainly descriptive, covering those items which may be of interest for comparative purposes, and some unusual finds. Most were from contexts which could be well dated from the associated pottery, and parallels have been drawn from similarly dated objects, or earlier examples from other excavations.

## The Finds

## Metalwork

Iron Nails (fig. 55.1-9)
The iron nails are included here as they were found in levels from Sasanian to Middle Islamic times. Nos. 2 and 3 are Middle Sasanian, whilst nos. 1 and 4 are probably later Sasanian. All were badly corroded, rather squat and seem poorly made. The Abbasid pit (K3 1J: 31) had several pieces of corroded iron, and two complete nails (nos. 5 \& 6). No. 5, though corroded, shows a square crosssection, and the nail head was also squared, whilst no. 6 was oval in cross-section. Heavily corroded, it was approximately half the size of no. 5.

Nos. 7-9 were from Middle Islamic levels, the latter well preserved with a square cross-sectioned shaft and rounded héad, tapering towards one end. The other two nails were badly corroded, no. 7 rather squat, and no. 8 , broken at the top, seems to have been very long and thick.

Iron (fig. 55.10)
Fig. 55.10 may be the remains of a harness bit-a flattish iron bar, turned over at one end to enclose the link of a copper chain, of which only two links are preserved. The Late Sasanian level in K3 1J produced an iron bolt (fig. 55.11), made from one piece, the rod of which was curled over and wrapped twice around the shaft.

## Copper and Bronze

Several copper or bronze objects were found in the Abbasid pit K3 1J: 31. Fig. 55.12 seems to be part of a clip or brooch fastening. One piece of metal is turned over at the top end with slight flanges and a rectangular hole: it tapers to a point part way down the shaft. The longer side has a flattened base with a rectangular cross-section. Fig. 55.13 is an iron nail with a copper/bronze washer, and no. 14 is a decorative stud. The hole at the top of the stud seems to be from natural metal corrosion; however that in one side looks deliberate, and may have been the means by which it was attached to another object.

The crescent-shaped ear-ring (fig. 55.15) is a very common form; similar fragments were found elsewhere during our excavations. Such simple ear-rings are found in excavations all over the Middle East from earlier periods (e.g. Tell Māhuuz, Ponzi 1970-1b: 391, fig. 86.82a; Nippur, McCown \& Haines 1967: pl. 151.5), and are still being made in the same fashion today

The function of the object in fig. 55.16 is uncertain; it was made of copper or bronze, and the rectangular holes cut into the sides of the circular body are reminiscent of a bell. It was found in a poorly stratified context, though the amount of metal corrosion seems to indicate that it was fairly old, and from the findspot may be of Early Modern date.

## Glazed Bricks

Our glazed brick fragments illustrated in fig. 56 were from the Assyrian levels in R4 7C/D. Many fragments of glazed and unglazed brick came from these levels (see full small find catalogue). They had been used as foundation or make-up fills for later construction. Only three of the fragments retained enough of the original surface to be presented here. The glaze had deteriorated, and the original colours and design were difficult to ascertain. However from that which remains we were able to compare our bricks with the better preserved brick panels from elsewhere.

It seems not unreasonable to suggest that those found at 'Ana were part of the same traditions of glazed bricks found at Khorsabad, Babylon and Nimrud. As our bricks were found in the levelling fills for later buildings, we are unable to say what type of structure they came from originally, or when they were made. The first two fragments (fig. $56.1 \& 2$ ) seem to have the same guilloche or scroll design (reconstructed in fig. 56.4). The same designs on glazed brickwork were found at Nimrud, on a panel dedicated to Shalmaneser III (Reade 1963: 38-47, pl.IX), and on ivory plaques (Mallowan 1966: fig. 212). The motif is simple, and it is not unlikely that it continued as a popular border design over an extended period of time. The design on the third fragment (fig. 56.3) cannot be reconstructed; it may have been either part of a decorative border or of a larger central motif.

We had no complete bricks, so that the original dimensions are difficult are difficult to use in any kind of comparisons; however the face height of fig. 56.1 at 9 centimetres corresponds closely to those of Nimrud- 10 cm (Reade 1963: 38-47), and fig. 56.3 could be conceived of as having originally been the same.

## Figurines and Other Clay Objects

From the total area excavated only three figurines were recovered, all from trench R47C/D. Two of these (fig. 56.5 \& 7) came from Parthian or Sasanian levels (see Chapter 4, R4 7C/D Phase 4), the third (fig. 56.6) from a surface layer, and thus unstratified (pl. XVI $b-c$ ).

All three were of fired clay; fig. 56.6 may have been slipped, none were complete though the figures depicted were identifiable. They appear to have been made in one-sided open moulds, with the finished effect of figures in relief on a flattened ground (see Van Buren 1930 on 'tongue' moulds). Fig. 56.6 \& 7 had flattened backs, whilst 56.5 was flat then pulled out towards the base.

The first (fig. 56.5) is of a female musician playing the double flute (mutbak) (pl. XVIb). The origin of this type of figurine seems to date back at least as far as Babylonian times (Koldewey 1914), though our example is most like those described as 'Greek style' or 'Greco-Parthian' found at Babylon (Koldewey 1914: 272-86). Similar figurines were found at Nippur, though these were hollow, and one is of a male musician playing the double flute. They are said to be 'Hellenistic' from the Seleucid period (McCown et al. 1978: pl. 72.3-4). At Seleucia itself several figurines of female musicians and pairs of musicians playing or holding various instruments have been noted. The closest to our figurine are found in Van Ingen 1939: pl. XL.293-4, and pl. XLI.298-300 (pairs of musicians), where they are said to be Seleucid or Parthian, and in Invernizzi 1968-9: fig. 136, where they are called Parthian or Sasanian.

The draped figurine shown in fig. 56.6 (pl. XVIc) was unstratified, but it seems to compare well with examples of draped figures from elsewhere, also of Parthian or Sasanian origin. This particular piece was well worn, but it had a well rounded, draped form suggestive of the 'draped female' type found at Seleucia-called Seleucid and Parthian (Van Ingen 1939: pls. IX.66, X.71-3, XI.79-80; Invernizzi 1968-9: fig. 130-1); and at Uruk (Invernizzi 1970-1: fig. 73).

Fig. 56.7 appears to represent a soldier wearing a tunic or toga and the top of a calf-length boot can just be made out on the left leg. Similar 'soldiers' were discovered at Seleucia (Van Ingen 1939: pls. XXVIII.193-5, XXIV.20; Invernizzi 1968-9: fig. 133), where these were thought to have been produced in Parthian and Sasanian times. Soldier figurines were also found at Uruk, where they are said by Invernizzi to be rare (Invernizzi 1970-1: 339; Ziegler 1962: 121, Taf. 37.468-70).

The function of the figurines from 'Ana is uncertain: they may have been votive, prophylactic, decorative, or toys for children. As we had only three incomplete examples, which were not associated with any specific structure such as a temple, house, tomb etc., we can only speculate.

The wheel illustrated in fig. 56.8 came from an earth drain in R47C/D, and dated from the associated pottery to the Neo-Assyrian period (9th to early 8th centuries B.C.: see Chapter 4, R4 7C/D Phase 9). Comparable model wheels have been discovered at many other sites in the Middle East, some still part of the complete vehicle, usually model chariots or carts (Moorey 1978: Fiche 2 nos. 280-1, 291; Langdon 1924: pl. VII.3; Andrae 1922: 105, pl. 61c-e; Andrae 1938: Taf. 38b). The find was originally thought to be either a clay spindle whorl or model chariot wheel, but the description and illustration of a model wheel from Nippur (McCown \& Haines 1967: 94, pl. 149.12) is so similar as to make the identification of our object as a model wheel most likely. This was our only example, and no other part of a vehicle to which it may have been attached was found.

The majority of close parallels appear to be of earlier date, and it is possible that this wheel was from

Fig. 55 Metal small finds

1. N4 8D: T5. Iron nail. Corroded, possibly originally with a square cross-sectioned shaft. Length: 4.9 cm . Head diam.: $2.3-2.5 \mathrm{~cm}$. Mid-shaft diam.: 1 cm . N4 8D: 2, Late Sasanian.
2. K3 IJ: T50. Iron nail. Corroded, possibly originally with a square cross-sectioned shaft. Length: 6.6 cm . Head diam.: $1-1.4 \mathrm{~cm}$. Mid-shaft diam.: 0.6 cm .
K3 1J: 56, Middle Sasanian.
3. K3 1J: T52. Iron nail. Broken, badly corroded.

Extant Length: 3.6 cm . Top Diam.: $0.6-0.8 \mathrm{~cm}$. Mid-shaft diam.: 0.6 cm .
K3 1J: 58, Middle Sasanian.
4. N4 8D: T3. Iron nail. Heavily corroded.

Length: 6.4 cm . Head diam.: $1.8-2 \mathrm{~cm}$. Mid-shaft diam.: $1-1.1 \mathrm{~cm}$. N4 8D: 2, Late Sasanian.
5. K3 IJ: T26. Iron nail. Corroded, square cross-section shaft.

Length: 8.5 cm . Head diam.: $2.5-2.9 \mathrm{~cm}$. Mid-shaft diam.: $1-1.2 \mathrm{~cm}$.
K3 IJ: 31, Abbasid pit fill.
6. K3 IJ: T66. Iron nail. Heavily corroded.

Length: 4.7 cm . Head diam.: $0.65-1.1 \mathrm{~cm}$. Mid-shaft diam.: 0.5 cm .
K3 IJ: 31, Abbasid pit fill.
7. K3 IJ: T15. Iron nail. Corroded, possibly originally with a square cross-section shaft.

Length: 6 cm . Head diam.: $1.2-1.4 \mathrm{~cm}$. Mid-shaft diam.: 1-1.2 cm.
K3 1J: 19, Middle Islamic.
8. K2 10J: T5. Broken iron nail. Badly corroded, with adhering limestone and charcoal pieces. Head broken off. Extant Length: 11.7 cm . Top Diam.: $1.2-1.3 \mathrm{~cm}$. Mid-shaft diam.: $1.4-1.5 \mathrm{~cm}$. K2 10J: 1, 5th/11th century pit fill.
9. R4 7D: T221. Iron nail. Some corrosion, square cross-section shaft.

Length: 11.1 cm . Head diam.: 2.3-2.9 cm. Mid-shaft diam.: $0.5-0.6 \mathrm{~cm}$. R4 7D: 53, Middle Islamic pit fill.
10. K3 1J: T57. Iron bar with two links of a copper or bronze chain attached. Made from a flat piece of iron, folded over and enclosing one link of the chain. May have been part of a harness bit.
Length: 3.8 cm . Base $0.4 \times 0.9 \mathrm{~cm}$. Chain Diam.: 1.6 cm . Thickness: 0.2 cm .
K3 1J: 65, Abbasid pit fill.
11. K3 1J: T47. Iron bolt? Corroded, made from one rod of metal, turned over in a loop, with the end wrapped twice around the shaft just beneath the loop.
Length: 6.2 cm . Loop Diam.: $0.2-0.3 \mathrm{~cm}$. Mid-shaft diam.: $0.5-0.7 \mathrm{~cm}$.
K3 15: 42, Late Sasanian.
12. K3 IJ: T35. Copper or bronze clip? Corroded, made from a flattish strip of metal, folded over at the top with a rectangular hole and slight flanges. Top part tapers to a point part way down the shaft.
Length: 33.3 cm . Shaft $0.25 \times 0.5 \mathrm{~cm}$.
K3 1J: 31, Abbasid pit fill.
13. K3 1J: T41. Iron nail with a copper or bronze washer. Heavily decayed, washer very thin, at about 1 mm . Length: 1.85 cm . Head diam.: 1.2 cm . Mid-shaft diam.: 0.5 cm . Washer Diam.: 1.7 cm .
K3 1J: 31, Abbasid pit fill.
14. K3 1J: T59. Copper or bronze decorative stud. Heavily corroded with a lump of decayed metal inside. Pierced on one side and broken at the top.
Height: 1.5 cm . Max. Diam.: 2.4 cm . Thickness: 0.9 cm .
K3 IJ: 65, Lower levels of Abbasid pit 31.
15. K3 IJ: T63. Copper or bronze ear-ring. Corroded, with a new break. Crescent-shaped, thick in the middle and tapering towards the ends.

K3 IJ: 67, Lower levels of Abbasid pit 31.
16. K2 10J: T12. Copper or bronze object. Hollow, with four rectangles cut into the body, and a knob at the top. Function uncertain, but may be a bell.
Height: 2.4 cm . Max. Diam.: 2.7 cm . Min. Diam.: 2.4 cm .
K2 10J: 2, Unstratified.

55. Metal small finds.

Fig. 56 Baked clay small finds

1. R4 7D: T82. Glazed brick fragment. Glaze very decayed, colours now showing cream-white design outline, inside spirals alternately brownish yellow and pale yellow. Design indistinct and guilloche pattern suggested. Straw-tempered clay, surface colour orange-brown.
Extant Height: 9 cm . Width: 9.5 cm . Depth 10.5 cm .
R47D: 26, Earth fill, Assyrian.
2. R47C: T62. Glazed brick fragment. Very decayed, similar to the above.

Extant Height: 5.3 cm . Width: 7.2 cm .
R4 7C: 17, Grey earth floor, Neo-Assyrian.
3. R4 7D: T52. Glazed brick fragment. Brown, straw-tempered. Glaze very decayed and much of the surface flaked off. Design possibly geometric, with hollow triangle in pale brownish yellow. The rest shows cream-white with a few flecks of green.
Extant Height: 7.6 cm . Width: 9 cm . Depth 12 cm .
R47D: 20, Earth fill, Neo-Assyrian.
4. Reconstruction of the guilloche pattern on nos. 1 and 2.
5. R4 7D: T219. Figurine. Mould-made figurine of baked clay, pale greenish buff surface and core, fine grit temper. Female musician playing the double flute (mutbak?). Naked upper body, long skirt with wide belt. Head missing, feet damaged. Reverse rounded.
Extant Height: 8.2 cm . Width: 4.2 cm . Thickness: 3.4 cm .
R4 7D: 22, Contents of upper water channel, Parthian.
6. R4 7C: T75. Figurine. Mould-made figurine of baked clay. Pink-buff, much fine grit temper, surface paler than the core. Female figure draped in a robe. Arms, head and the upper part of the body missing. Reverse flat.
Extant Height: 6.8 cm . Width: 5 cm . Thickness: 1.9 cm .
R4 7C: 1, Unstratified.
7. R47C: T76. Figurine. Mould-made figurine of baked clay. Brown surface and core, some very fine micaceous grits, probably coming from the clay itself. Only the lower part of the knee-length tunic and legs are preserved. The top of a mid-calf length boot is visible on the left leg. Feet missing. Rounded reverse.
Extant Height: 3.7 cm . Width: 2.4 cm . Thickness: 2 cm .
R4 7C: 16, Mud floor, Parthian or Sasanian.
8. R47C: T93. Model wheel. Baked clay, pink-brown micaceous fabric, surface pale buff. Max. Diam.: 4.6 cm . Min Diam.: 4.3 cm . Thickness: $0.5-3.1 \mathrm{~cm}$.
R4 7C: 34, Earth drain, Neo-Assyrian, 9th-early 8th century b.c.
9. R5 SD: TI6. Gaming piece (?). Intact, pointed conical form of baked clay. Fine temper, light buff surface. Height: 2.7 cm . Max. Diam.: 2.6 cm . Min. Diam.: 2.5 cm . R5 5D: 9, Plaster floor, Islamic.


8.
56. Baked clay small finds.


Fig. 57 Miscellaneous small finds

1. Q3 6B: T31. Stone Weight (?). Pierced sugar-loaf shaped stone weight. Pecked, then smoothed with a rasp, probably limestone. Four incised symbols: an arrow, a six-spoked wheel, a crescent, and a ' V '.
Height: 7.7 cm . Max. Width: 4.4 cm . Min. Width: 4.2 cm .
Q3 6B: 34, Wall, Neo-Assyrian.
2. N5 3A: T8. Carved bone handle (?). Proximal half of a sheep/goat tibia. Traces of a smooth cut at the proximal end as well as the broken part. Broken at the distal end. Rectangular hole on one side, perhaps for a dowel. Below the hole, two horizontal incised lines ( 0.1 cm deep). Below the second line, seven diagonal and a single S -twist diagonal line. Possibly the handle of a knife or tool.
Length: 7.5 cm . Max. Width: 3 cm . Max. Thickness: 2.4 cm .
N5 3A: 3, Compact sand, unstratified.
3. K3 1J: T13. Carved and painted plaster panel. Fragment of a fine white plaster panel; only one corner of the rectangle is preserved, and this has a curved recess in the corner. Carved with a linear, geometric design. Traces of red, and yellow or gold paint preserved at the bottom of triangular recesses.
Height: 12 cm . Width: 9.4 cm . Thickness: 3 cm .
K3 1J: 9, Early Modern fill.
4. K3 IJ: T17. Glazed blue button, faience (?). Circular with six perforations.

Diam.: 1.8 cm . Thickness: 0.5 cm .
K3 1J: 26, Early Modern pit fill.
5. K3 1J: T9. Glazed blue button, faience (?). Broken, very similar to the above, but smaller.

Diam.: 1.4 cm . Thickness: 0.3 cm .
K3 IJ: 4, Wall, Early Modern.
6. R4 7D: T303. Blue bead. Droplet shaped, pierced longitudinally. Apparently of stone.

Height: 9 mm . Max. Width: 8 mm . Min. Width: 2 mm .
R4 7D: 81, Heavy earth fill, Neo-Assyrian period, 9th-early 8th century b.c.
7. Q3 6B: T28. Blue bead. Rounded, pierced through the middle. Possibly stone.

Diam.: 3.5 mm . Thickness: 2 mm .
Q3 6B: 18, Fill, early Neo-Assyrian.
8. K2 10J: T8. Pale blue bead. Cylindrical, pierced longitudinally. Possibly stone.

Length: 6 mm . Max. Width: 5 mm .
K2 10J: 1, 5th/1lth century pit fill.


section AA

3.

4. -8.8 -
5.


57. Miscellaneous small finds.
an earlier level displaced by later rebuilding, or it may be a simple rendition of the later, more elaborate spoked wheel found on Assyrian models (Littauer \& Crouwell 1979: figs. 56-8).

The clay cone (fig. 56.8) came from the plaster floor of an Early Islamic building in R5 5D. We do not know what it may have been used for. Often in excavations single items like this are found, either cone or truncated-cone shaped, and are generally classified as gaming pieces.

## Stone and Bone Objects

An interesting stone object was found in a wall dating to the Neo-Assyrian period (9th to early 8th centuries b.c.): it may be a weight. There are four incised symbols on the body, possibly of some significance, or only decorative. Incised in a very cursory fashion, one could interpret these symbols on the basis of early iconography found in the glyptic art of ancient Mesopotamia.
It is not intended here to make a lengthy study of the antiquity and subsequent history of these symbols; however, it seems of some interest that, if these signs are very rough versions of the 'god symbols', then they have their roots in prehistory (Ebeling \& Meissner 1957-71: 485). The crescent and star signs were certainly used as fill motives on cylinder seals in the Third Early Dynastic period (Frankfort 1939: 62, 73; pls. XIV.c, f, XV.k, n). Later certain symbols became associated with particular deities, who were depicted with their character sign (Seidl 1968), such as the god Sin with a crescent, and Ishtar with the star disk, a rougher version of which may be at the bottom left of our weight (this may, on the other hand, be the sun disk of Šamaš (Ebeling \& Meissner 1957-71: 485).

On occasions the symbol alone was used to represent the god or goddess. The other two symbols on the weight could be seen as coarse copies of the 'spade' or 'triangle on staff', and a thunderbolt. The 'spade' was attributed to (or at least used for) Marduk or Nabu in Assyrian times (Frankfort 1939: 216, pl. XXXIII.b). For earlier representations see Ebeling and Meissner 1957-71: 486, where Marduk is associated with the 'spade' in the Ur and Isin periods. The weather god Adad was generally depicted with a thunderbolt as his character sign. (Frankfort 1939: 215-6, pls. XXII.a, d \& e, XXVII.i).
It is difficult to see our object as having any religious or cultic significance. Certainly the symbols were roughly incised, and over the centuries the gods of the Mesopotamian pantheon went through changes. However one could imagine that the executor of the object had some knowledge of these symbols, but not necessarily of their significance, and thus used them as decoration only.
An unstratified level in N5 3A produced the incised bone object illustrated in fig. 55.2. It was smooth, well made, and had some finely incised decoration. Hollowed out, the most likely use was that of a handle for a knife or tool, an explanation which is further supported by the existence of a well-shaped rectangular hole, probably for a dowel to join the handle to a blade or spike.

## Other Objects

A fragment of carved and painted plaster (fig. 57.3) came from an Early Modern context (see Chapter 5, Group 11). The decoration was deeply cut in a geometric design, and traces of red, and yellow or gold paint were evident on the bottom of triangular recesses. This may have been part of a plaster plaque, decorated with part of an Islamic geometrical design that appears in carved brick form in Iraq in the 6th/12th and 7th/13th centuries, for example in Baghdad architecture of the 7th/13th century (Schmid 1980: Taf. 7, Abb. 26-7; Taf. 9, Abb. 36-9), and continues thereafter until modern times. The choice of a plaster medium is unusual, as these designs appear more commonly in wood or brick. Too little of the fragment remains to decipher a development of the design.
The collection of personal ornaments was very small, some fragments of copper or bronze ear-rings and pins, a ring, and some beads (see complete catalogue). Two very similar button-like objects came from Early Modern levels (see Chapter 5, Group 11). Fig. 57.5 was broken, but apart from being slightly smaller than fig. 57.4, it was identical in other respects, with the same pale blue-green colour and perforations. At the time of discovery fig. 57.5 had some pieces of black cloth in one of the holes.

The final three illustrations are of beads; only one other was found broken, a very simple round bead similar to fig. 57.7. The droplet and round beads (fig. 57.6-7) were from Assyrian levels, and the cylindrical one (fig. 57.8) from a Middle Islamic pit fill. No doubt the paucity of personal ornaments from our excavations is due to the accident of discovery.

## Samples

Apart from the small finds illustrated here, and those noted in the full catalogue, samples were taken of charcoal, shell, bitumen, animal bones, mortar, wood, plaster and metal slag. Unfortunately we were unable to do anything more than just register them, and no scientific analysis has yet been done on these materials. The large amount of metal slag (approximately 70 kg ) was particularly noticeable in this sampling. This slag was found in the upper levels of R4 7C/D, and might lead one to suppose that at least in one part of the island there was a manufacturing industry. What sort of metalwork was done there is uncertain, and no evidence of a work area was found in our restricted areas of excavation.

## Afterword

Since the manuscript of this report was completed, the site of 'Ana has been flooded by the rising waters of the Qädisiyya dam. The State Organisation for Antiquities and Heritage has successfully moved the minaret of the Congregational Mosque to the site of New 'Ana, ready for re-erection. We hope that the State Organisation for Antiquities and Heritage will soon be able to publish the report on its own excavations. We equally hope that it will be possible to publish a study of the recent history, social structure, and traditional architecture of Ana, that is to say, the town on the right bank of the Euphrates-and of Rāwa, a large and worthwhile subject which we were unable to touch upon.

## Complete Catalogue of Small Finds

The catalogue is listed by material, trench and unit, and small finds number.
Abbreviation: Diam.: = Diameter.

| Trench \& | Small | Description <br> Unit No. |
| :--- | :--- | :--- |
| Find No. |  |  |
| Iron |  |  | K2 10H/J $\quad$ T13 $\quad$| Three iron fragments, badly corroded, traces of wood inside. Possibly a hook. |
| :--- |
| K2 10J: 1 |
| K2 10J: 2 |

Note: The coins were cleaned mechanically on site, but not submitted to a laboratory for full cleaning.

| K3 1J: 13 | T26 | Copper/bronze. Conserved, not read. |
| :---: | :---: | :---: |
| K3 1J: 14 | T23 | Copper/bronze. Islamic. |
| K3 1J: 31 | T33 | Copper/bronze. Conserved, not read. |
| K3 1J: 31 | T41 | Copper/bronze. Corroded and illegible. |
| K3 1J: 39 | T60 | Copper/bronze. Faint outline of a head on one side. |
| N4 8D: 2 | T6 | Copper/bronze. Obverse illegible, reverse plain. |
| P4 | T1 | Copper/bronze. Obverse: Head of a bearded man. Reverse: illegible. |
| Q4 2H: 1 | T3 | Copper/bronze. Probably Islamic. |
| Copper/Bron | jects |  |
| K2 10H/J | T4 | Coffee pot lid. Recent. |
| K2 10H/J | T14 | Fragment of copper sheet. Very corroded. |
| K2 10H/J | T23 | Corroded fragment. |
|  |  | Length: 1.9 cm . Width: 1.05 cm . Thickness: $1-4 \mathrm{~mm}$. |
| K2 10J: 2 | T12 | Bell? Fig. 55.16. |
| K3 1J: 1 | T1 | Curled copper band decorated with indented rows of chevrons. Looks like a plumbing fixture. Thickness: 1 mm . Width: 8 mm . Max. Diam.: 3.5 cm . |
| K3 1J: 7 | T8 | Thick copper finger ring? Top end pulled up to a point. Max. Diam.: $\mathbf{3 . 2} \mathbf{~ c m}$. Height: $8-10 \mathrm{~mm}$. Thickness: $\mathbf{3 \mathrm { mm }}$. |
| K3 1J: 14 | T21 | Badly corroded band. Possibly signs of engraving. Extant dimensions $1 \times 1 \times 0.5 \mathrm{~cm}$. |
| K3 1J: 14 | T24 | Corroded brooch pin. Length: $\mathbf{2 c m}$. Thickness: 4 mm . |
| K3 1J: 31 | T35 | Clip? Fig. 55.12. |
| K3 1J: 31 | T41 | Nail and Washer. Fig. 55.13. |
| K3 1J: 63 | T56 | Rusted iron hasp with copper/bronze attached. |
| K3 1J: 65 | T59 | Decorative stud. Fig. 55.14. |
| K3 1J: 65 | T57 | Iron bar with links of copper/bronze. Fig. 55.10. |
| K3 1J: 67 | T63 | Earring. Fig. 55.15. |
| K3 1J: 67 | T67 | Pin fragment. <br> Length: 1.2 cm . Diam.: 0.15 cm . |
| N5 3A: 2 | T3 | Buckle fastening? Flattened, key-shaped, with an oblong hole at the wide end, tapering in two steps at the narrow end. <br> Thickness: $0.3-0.4 \mathrm{~cm}$. Length: 3.7 cm . Min. Width: 0.4 cm Max. Width: 2.8 cm . |
| Q3 6B: 13 | T13 | Pin fragment. <br> Length: 1.2 cm . Diam.: $0.2-0.4 \mathrm{~cm}$. |
| Q4 2H: 1 | T6 | Two fragments of sheet copper. |
| Q4 2H: 4 | T18 | Copper band, looped around and tapered. Thickness: 0.5 cm . Length: 1.95 cm . |
| R47C: 2 | T10 | Fish-hook. Broken and corroded, knobbed at the top and in the centre, tapering to a point at one end. <br> Length: 3 cm . Thickness: $0.1-0.3 \mathrm{~cm}$. |
| R47D: 5 | T181 | Hook with iron nail adhering. Length: 1.9 cm . Diam.: $1-2 \mathrm{~mm}$. |
| R47D: 5 | T189 | Broken pin. Very corroded, knob at one end. Extant Length: 5 cm . Diam.: $0.2-0.5 \mathrm{~cm}$. |
| R4 7D: 69 | T268 | Nail. Badly corroded, squared head. Extant Height: 2.3 cm . |
| R47D: 74 | T283 | Bracelet fragment. No dimensions recorded. |
| R47D: 74 | T288 | Pin end. <br> Extant Length: 1.4 cm . Diam.: $1-2 \mathrm{~mm}$. |
| R4 7D: 75 | T307 | Lump of corroded copper/bronze with an iron nail adhering. |
| R47D: 81 | T304 | Three fragments, (1) perhaps a stud or nail-head, (2) a nail shaft, (3) too corroded to identify. |
| R4 7D: 83 | T309 | Nine fragments, all badly corroded. |
| R5 5D: 1 | T6 | Bronze ring, little corrosion. Oval stone inset, stone missing. Notched pattern around bevel, body with elliptical cross-section. |
| R5 5D: 1 | T8 | Four fragments of a copper band, not joining. <br> Length: $4.1 \mathrm{~cm}, \mathbf{2 . 3} \mathrm{~cm}, 2 \mathrm{~cm}$. Thickness: 5 mm . Width: 9 mm . |
| Other Metal K3 1J: 8 | T2 | Cartridge case. <br> Height: 5.3 cm . Base diam.: 1.2 cm . |
| K3 1J: 8 | T6 | Cartridge case. <br> Height: 5.9 cm . Base diam.: 1.2 cm . |


| Clay |  |  |
| :---: | :---: | :---: |
| K2 10J: 1 | T5 | Broken clay disc. Perforated, flat base, slight concavity at the top. Max. Diam.: 9 cm . Height: $0.9-1.5 \mathrm{~cm}$. Hole Diam.: 1.7 cm . |
| K3 1J: 23 | T31 | Perforated and rounded sherd. Buff surface and core. Fine temper, medium fired. Diam.: 3.6 cm . Thickness: 0.9 cm . |
| K3 1J: 31 | T34 | Pot counter? Buff surface, rounded sherd. Diam.: 2 cm . Thickness: 0.6 cm . |
| K3 1J: 66 | T61 | Broken spindle whorl. Flat base, concave top. Max. Diam.: 3.1 cm . Height: 2 cm . Hole Diam.: 0.8 cm . |
| N5 3A: 12 | T6 | Broken tile. <br> Extant dimensions $18 \times 13.4 \times 5 \mathrm{~cm}$. |
| Q4 2H: 4 | T17 | Baked clay disc. Perforated, bitumen on one side, possibly reused potsherd. Diam.: 3.8 cm . Thickness: 1.2 cm . Hole Diam.: 1 cm . |
| R4 7C: 1 | T3 | Brick. Overfired to green. <br> Extant Dimensions $10.4 \times 11 \times 5.3 \mathrm{~cm}$. |
| R47C: 1 | T75 | Figurine. Fig. 56.6. |
| R47C: 3 | T15 | Burnt brick. Surface orange, core grey. Extant dimensions $8 \times 2.6 \times 3.2 \mathrm{~cm}$. |
| R47C: 5 | T25 | Fragments of burnt clay brick, very crumbly. c. 50 gm. |
| R47C: 5 | T54 | Ceramic waster. Collapsed pot base. Originally buff, grit tempered ware. Mostly vitrified to greygreen, red-brown surface and grey core. |
| R47C: 16 | T76 | Figurine. Fig. 56.7. |
| R47C: 17 | T62 | Glazed brick fragment. Too deteriorated to identify. |
| R47C: 34 | T93 | Model wheel (?) Fig. 56.8. |
| R47D: 1 | T3 | Broken mud-brick. c. 750 gm . |
| R47D: 2 | T145 | Baked clay object. Possibly the base of a very worn pot. |
| R47D: 5 . | T177 | Burnt brick fragment. One side with bitumen. Extant Dimensions $8.4 \times 5.2 \times 2.9 \mathrm{~cm}$. |
| R4 7D: 12 | T106 | Overfired Brick. |
| R47D: 16 | T59 | Three fragments baked brick. Orange-red, rough vegetable temper. Extant Dimensions $7 \times 5 \times 4.2 \mathrm{~cm}, 4 \times 4.5 \times 2.5 \mathrm{~cm}, 5.7 \times 4.2 \times 4.3 \mathrm{~cm}$. |
| R47D: 20 | T52 | Glazed brick. Fig. 56.3. |
| R47D: 22 | T56 | Six fragments brick. No surface, core orange to brown. |
| R4 7D: 22 | T57 | Broken brick. Orange-red, rough vegetable temper. Extant dimensions $14 \times 15.5 \times 10.6 \mathrm{~cm}$. |
| R47D: 22 | T63 | Seven fragments brick. Rough vegetable temper. Brown to red. |
| R47D: 22 | T68 | Two fragments brick. One red with fine temper, the second orange with rough vegetable temper. Extant dimensions $13 \times 11 \times 10.5 \mathrm{~cm}, \& 9.5 \times 9 \times 7.25 \mathrm{~cm}$. |
| R47D: 22 | T65 | Flat, lozenge-shaped burnt brick. Red-orange and dark brown to black. Bitumen on one side. Extant dimensions $19 \times 8 \times 3 \mathrm{~cm}$. |
| R4 7D: 22 | T210 | Clay tile fragment, burnt. <br> Extant dimensions $19 \times 8 \times 3 \mathrm{~cm}$. |
| R47D: 22 | T219 | Figurine. Fig. 56.5. |
| R4 7D: 26 | T132 | Three fragments brick. Fine temper, well-fired. <br> Extant dimensions $7.5 \times 6 \times 7 \mathrm{~cm}, 8.5 \times 6.5 \times 6 \mathrm{~cm}, 8 \times 10.5 \times 6 \mathrm{~cm}$. |
| R4 7D: 26 | T68 | Broken brick, lozenge-shaped, grey surface. <br> Extant dimensions $5.5 \times 3 \times 2 \mathrm{~cm}$. |
| R4 7D: 26 | T84 | Three fragments burnt brick. Red to black, fine temper. Extant dimensions $5 \times 13 \times 3.5 \mathrm{~cm}, 12.4 \times 13 \times 4.6 \mathrm{~cm}, \& 8 \times 2.25 \times 4 \mathrm{~cm}$. |
| R4 7D: 26 | T82 | Glazed brick fragment. Fig. 56.1. |
| R4 7D: 26 | T133 | Brick fragment. Fine mineral temper. Apparently a corner fitting. |
| R4 7D: 30 | T113 | Brick fragment. Dark orange to brown. Fine temper, well-squared. |
| R47D: 31 | T116 | Fragments crumbly mud-brick. |
| R47D: 32 | T119 | Fragments mud-brick. c. 100 gm . |
| R4 7D: 32 | T129 | Fragments of burnt mud-brick. |
| R4 7D: 34 | T90 | Brick fragment. Fine mineral temper, pink-red surface and core. Extant dimensions $6.50 \times 4 \times 5 \mathrm{~cm}$. |
| R4 7D: 35 | T78 | Broken mud-brick. c. 300 gm . |
| R4 7D: 36 | T98 | Broken brick. Fine temper, red surface and core. Extant dimensions $3 \times 4 \times 6 \mathrm{~cm}$. |
| R4 7D: 38 | T102 | Broken brick. Over-fired to green to yellow. Extant dimensions $12.4 \times 13 \times 4 \mathrm{~cm}$. |
| R4 7D: 39 | T123 | Broken brick. Orange-red surface, possibly with remains of glaze. Extant dimensions $10.5 \times 11 \times 4.5 \mathrm{~cm}$. |
| R4 7D: 39 | T135 | Brick, almost whole. Red surface, dark brown to black core. Fine temper, well-squared. Extant dimensions $22.45 \times 10.6 \times 13.9 \mathrm{~cm}$. |
| R4 7D: 39 | T171 | Brick fragment. Fine temper, pink-red surface. Extant dimensions $11 \times 15 \times 14 \mathrm{~cm}$. |
| R4 7D: 41 | T126 | Broken brick. Burnt dark brown and black. Extant dimensions $5 \times 4.5 \times 8.5 \mathrm{~cm}$. |
| R47D: 41 | T125 | Seven brick fragments. All rough vegetable temper, coloured dark brown to orange. One only measurable: Extant dimensions $6.4 \times 5 \times 7.2 \mathrm{~cm}$. |
| R4 7D: 41 | T146 | Brick fragment. Fine mineral temper. Red-orange surface and core. Extant dimensions $10.2 \times 9 \times 8.4 \mathrm{~cm}$. |



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Modern works are referenced by author and date, according to the Harvard notation, with the references placed in the text. The date reference is given after the author's name in the bibliography. In Chapter 1 (a), "Ana in the Cuneiform Sources', the Harvard notation is supplemented by an abbreviation system in the usual format for Assyriological works, as used by the Chicago Assyrian Dictionary. For Classical, Islamic and other pre-modern works, the usual short form of the author's name is used without date reference. But where more than one work of an author is quoted, an abbreviation of the title is used. In the references in the text, where a particular volume of a multivolume work is referred to, this is denoted by by an Arabic numeral followed by a stroke and the relevant page, figure or plate numbers. The same principle has been applied to the volume series of Tabarī, Tärīkh al-Rusul wal-Mulük; for example, series iii, p. 374 is set out as 3/374.

## Abbreviations

BGA Bibliotheca Geographorum Arabicorum.
CAD B The Assyrian Dictionary, vol. 2, Chicago 1965.
CAD K The Assyrian Dictionary, vol. 8, Chicago 1971.
RES Répertoire d'Épigraphie Sémitique, Paris 1900-68.
Other abbreviations to Assyriological works as in CAD

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a


Plate I
a. View of the stream of the Euphrates incised into the limestone steppe, looking downstream with the promontory of Rāwa and the fort of Midhat Pāshā in the foreground. RAF photo dated January 1939 (British Museum).
b. Anah in 1836. From F. R. Chesney, Narrative of the Euphrates Expedition 1835-7.


a


Plate III
a. Panoramic view of the Qal'a looking upstream from the minaret.
b. Panoramic view of the Qal'a looking south from the minaret in 1908 (Bell Archive, negs. J230a-b).

$a$
b


C
Plate IV
a. The minaret in 1908 (Bell Archive, neg. J223).
b. The minaret after restoration.
c. General view of the Congregational Mosque.

a

d
Plate V
a. The north end of the Qal'a Island, showing the site of the Palace.
b. The projecting belvedere in the Palace.
c. Interior of the belvedere.
d. Pier of bridge across the moat, excavated by the State Organisation for Antiquities and Heritage.



Plate VI
a. Panoramic view of the bridge piers in 1908 (Bell Archive, negs. J228a-b).
b. Abandoned house of the modern village.
c. Interior of reception room from abandoned house of the modern village, illustrating arched niches.


Plate VII
a. Abandoned $n \bar{a} \bar{u}^{\prime} u r$ on the Shāmiyya bank.
b. Working $n \bar{a}{ }^{\top} u ̄ r$.
c. Metal $n a^{\top} u ̄ \ddot{r}$ bucket.
d. Early Modern ceramic nā'ür bucket, without base and used as a flue for oven 20 (K31J).


b


C
Plate VIII
a. Trench R4 7C/D Phases 9-10, showing line of Neo-Assyrian street with threshold and channel, looking southeast.
b. Trench R4 7C/D Phase 5, late Neo-Assyrian building, street line and drain.
c. Trench R4 7C/D Phase 4, Parthian drain.

d


Plate IX
a. Area N4. General view of a house dated to the late Umayyad or early Abbasid period built over by the second period of the Congregational Mosque.
b. Engaged pier of denticulated form in the N4 house.
c. Half-round engaged pier in the N4 house.
d. Area N4. Mud-brick wall with stone socle.

a


Plate X
a. Trench K3 1J, Phase 2 modern building.
b. Trench K3 1J, Section through Parthian, Sasanian and Islamic deposits before excavation of the trench.
c. Trench K31J, pit K2 10J:1 dated to the 5th/11th century.


Plate XI
a. Trench K3 1J, Neo-Assyrian to Sasanian mud-brick mound cut into by Islamic pits.
b. The central path, raised above the surrounding gardens.
c. Area G3. Successive build-up of street surfaces on the main avenue.


Plate XII
a. Neo-Assyrian beaker, fig. 28 no. 19.
b. Parthian glazed ware from R4 7C/D Phase 4, fig. 32.
c. Part of Parthian twin-spouted vessel from R4 7C/D Phase 4, fig. 33 no. 77.
d. Parthian incised jar sherds from R4 7C/D Phase 4, fig. 33 nos. 74-5.

a

b

c


Plate XIII
a. Honeycomb ware sherds.
b. Early Abbasid incised thinware sherds from N4, figs. 38.19 \& 21.
c. Abbasid thinware jar, decorated with "chattering", from K3 1J pit 31, fig. 40.1.
d. Abbasid moulded cup sherd, green glaze, from K3 IJ pit 31, fig. 39.5.


Plate XIV
a. $\quad 5$ th 11 th century spotted splash bowl sherds from pit K2 10J: 1, figs. $44.1 \& 4$.
b. Sth 11th century spotted splash bowl sherd from pit K2 10J: 1, fig. 44.3C
c. Sth/11th century spotted splash bowl sherd with red slip-painted design from pit K2 10J: 1, lig. 44.5C.
d. 5 th/11th century thinware jar from pit K 210 J : 1 , fig. 44.6.
e. 5 th/11th century commonware from pit K2 $10 \mathrm{~J}: 1$, figs. 44.8-9.


b


Plate XV
a. Bowl with blue-green glaze and black spiral decoration in-glaze, 7th/13th century (Group 9), fig. 47.10.
b. Tell Minnis ware lustre bodysherd (fig. 47.4), and Raqqa ware spout (fig. 47.1).
c. Sgraffito sherds.
d. Early Modern glazed sherds with blue-green glaze and underglaze painted designs, figs. 50.2C \& 50.5.


Plate XVI
a. Sherds of modern local pottery.
b. Figurine T219, Parthian.
c. Figurine T75, unstratified.
d. Part of Early Modern painted plaster plaque, probably from over a doorway (T13).

| $0 \varepsilon$ | الفخار الاشوري المديث، القرن التاسع ـ بداية القرن الثامن ق.م. <br>  |
| :---: | :---: |
| 70 |  |
|  |  |
| 70 | الفخار الفرثي |
|  |  |
| $v$ | الفخار الساساني المبكر ، القرن الثار الثالث الميلادي |
|  |  |
| V7 | الفخار الساساني الوسيط ، القرون الرابح |
|  | (الحفرة K3 1J الدوره) |
| VV | الفخار الساساني المتأخر والفخار الألموي ، القرون السادس الى الثامن الميلادي |
|  | ( الحفرة (1) |
| Ar | الفخار العباسي المبكر ، اواخر القرن الثاني الهجري/الثامن الميلادي |
|  | (الحفرة N4 ) |
| Ar | فخار سامراء ، القرن (K3 الثالث المجري/التاسع الميلادي |
|  |  |
|  |  |
| $9 \varepsilon$ | بداية المامس المجري/المادي عشر الميلادي (لُقى سطحية) |
| $9 \varepsilon$ | الفخار السلجوقي المبكر ، منتصف الى اواخر القرن المامس الهجري/المادي عشر الميلادي |
|  | (1) K2 10J المفرة) |
| $1 . r$ |  |
|  | (الحفرة K3 1J الدور 0) |
| $1 . r$ | فخار القرن السابع المجري/ الثالث عشر عا <br>  |
| 1.r | فخار القرنين السابع والثامن المجري/الثالث عشر والرابع عشر الميلادي <br>  |
|  | الفخار من العصر المديث المبكر ، القرون التى التاسع |
| Ir |  |
|  | (الحفرة K3 1J الدور الما |
| 110 | زجاج سامراء العباسي ، القرن الثر الثالث الهجر ي/التاسع الميلادي |
|  | (M):K3 1J (الحفرة) |
|  | الزجالج الأسلامي المبكر والوسيط |
|  | الأعال المعدنية |
| Ir | مسامير حديدية |
|  | نحاس وبرونز |
| Ir | الطين |
| ir | طابوق مزج |
|  | دمى ومواد طينية اخرى |
| IrIr | مواد حجر ية وعظمية |
|  | مواد جصية |




 وعدد من قطع المصنوعات المعدنية.

 الجبيدة الصنع ذات







 تحت الطلاء الزجاجي. من ناحية أخرى لا يوجد هنالك فخار عثاني من الأناضول. ومن هذه الفترة وجد أيضأ زنارف جصيه بطلاء مصبوغ.
لقد أعقب هذا الدور بنأية من القرية الجديدة (K3 1J الدور Y). وتم اكتشاف نماذج من فخاريات الفترة المديثة

## فهرس اللقى الأثرية

| رقم الصفحة |  |
| :---: | :---: |
| ro | تعاقب الطبقات السكنية |
| rı | R47C/D |
| r | R5 5D |
| rV | Q4 2 H |
| rV | Q3 6B |
| rı | N5 3A |
| rı |  |
| そr | J K2 10J و |
| 0 . | صفات طو بوغرافية |
| 0 . |  |
| or | G3 الشارع الرئيسي القديم: المنطقة |
| or | J3 المنطقة |
| or | R47C/D |






 المديثة باورة للقطع الذي عمل لاقامة مصاطب البساتين المسقية (K3 1J, K2 10J) ونقبت هذه لتحديد اللتعاتب الطبقي المديث.

 الفترة. ان البقايا المتمثلة بالفخار الاشوري المديث وجدت في ألما
 مع وجود أربعة سطوح متوالية في كل منها. في R4 7C/D نتط تم كشُف بقايا بنائية مهمة - شارع ومديخل ربما يعود الى بناية مزينة بالطابوق المزجج.







 من R4 7C/D.
ان الدور ع من R4 7C/D يتألف من نخار مطمور في تناة نهرية. ان معظم الجرار والأواني من هذا الدور كارئت


 في K3 1J ودوران في N4 تتألف البقايا المعمارية من أبنية مشيدة باللبن والمجر ذات أرضيات ونيات ترابية. وئكن مقارنة







 سمحت الأحوال فبدون شكت ان مزيدأ من التنقيبات سوف غيزا


 الخامس، المجموعة 0).

ان الأراضي التي هجرت نتيجة تقلص المستوطن كاني


 ان مضخات الديزل هي المضضلة في الوقت الحاضر.











 الاخر فربا كان نتاج اقامة مامياطبا مصبا الجزيرة.





 الأموي، الجامع الكبير المبكر في الفترة العباسية (حوالي القرن الثالث المجري/التاسع الميلادي) والمالمع الكبير الثاني ذي الأعمدة المثمنة، والذي يتعاصر تقريبريأ مع المباريارة. ان القصر، بناء رباعي الأضضلاع تقريباً يقع في نهاية أعالي الجزيرة باتجاه برى النـا النر، كان قد نقب أيضاً من تبل بعثة

 النر يعود الى الفترة العثانية. اخر دور هو الدور العثاليو وربا يعود الى أبو ريشة وهم شيوخ الموالي الذين سيطروا على الفرات الأوسط.
توجد هناك ست عشرة دعامة تعود اللى جسر يربط الضفة الشامية والقلعة، لازالت باتية في وسط وسط فرع الفـر الفرات





 الميلادي). لقد أشير اللى وجود جسر يربط ضفة الجزيرة الا ان الدليل على ذلك غير قوي.

# القسم الثاني <br> طبوغرافيا وآثار قلعة عانة 

بقلم الستر نورثج

> الوتـع

يتكون مستوطن عانة في الوقت الـاضر بشكل أساسي من ثلات وحدات وهي عانة وراوه وجزيرة القلعة. ويلغ

㥩









في المندق R3 5C من فحص دورين من هذه الجلدران التي يمكن نسبتها الى الفترة الفرئية ــ الساسانيانية.




 وتت ما من الفترة الأسلامية وربما كان ذلك في القرطن المن اللمادي عشر المجري/السابع عشر الميلادي أو الثامن عشر








بأن انتاج. الحمر استمر اللى ما بعد الفترة الأسلامية المبكرة.

 الحديث مرتبطة بشكل رئيسي بموضوع ع الأمير القبلي والسيطرة السياسية على عانيا

 الميلادي بقيت عانة تحت سيطرة القبائل حتى القرن التاسع عثير











 الاسلام كانوا قد تضاءلوا في هذه الفترة، ومع ذلك فان عناصر السكان القبليين كانوا تد تغيروا على مر القرون أيضاً.





 تجهيزات مؤلفة من عشرة آلاف بعري ان تبيلة عنزة كسرت قوة الموالى في النصف الثاني من القرن الثاني عشر الهجري الثامن عشر الميلادي لقد قام الموالى




 .1911

الاتتصاد والسكان
 الل حلب؛ كمركز زراعي، وكسوق مديني المرا للقبائل.











 فتح طريق بريدي الى المند عبر الفرات






 في النصوص الى القرن السادس المجري/الثاني عشر الميلادي على الفرات. وأمكنة أخرى في العراق الى القرن الرابع المجري/العاشر الملادي.
 الشابشتي في »كتاب الديارات《ه (ت . . سرجيس. ومع ان ثمر عانة استمر يذكر في مؤلفات ادبية (ممل 》معجم البلدانه لياقوت المموى) فانه لا يوجد دليل

ان الممع ين سيادة السلاجقة والسيطرة العلية من تبل الأراء العرب تد أستبدلت بمجيء عماد الدين زنكي بن



 انتشر النوذ الأيرين نوق المزيرة الا ان عانا ربا لم تنغير من التبية الزنكية الى السيطرة الأيويية المبانرة حتى عام
 تحت سيطرته.
 الكامل. ولكن في السنة التالية وعد الملك الصالح باعطاء عانة الى الملك البواد يونس كجزء من من عملية تبادل لقاء













 لدينا معلومات قليلة عن الفترة التي تلت الاحتلال المفولي وليس مؤكدأ من هو الني سيطر على عانة هلالول



 ان أبو ريشة كان هو الأسم الورائي لثيوخ الموالي ولقد كاني انت عاني







 (lovo/alas

 ربا كاذ من أعمالم أيضأ.

 وتت صلاة المسلمين وأن بامكانهم أقامة المواكب. وبالمقابل يبب تخصيص ثلاثة أيام لتضيف المسلمبن وتأمين

 الشروط مَ حدث مع تريسيا. كانت كل من عانة وميت تعتبر جزء من الجزيرة ولا من العراق، كجزء من „عمل الفراته (أبن خرداذبر) أر



 عثر الملادي) الذي وصف عانة على أنيا تعود اللى اقليم الرة عشر الملادي عندما شكلت عانة تضاء ألمق بولاية بغغاد.
 أخرى وخلال القرن الرابع المجري/العاثر الملادي بدأت القوة السياسية في الجزيرة وبادية الشام بالانتقال اللى القائلى
 أنه لا توجد هناك معلومات دقيقة فان عانة كانت تقع على أطراف المطقة التي يسيطر عليط الحمدانيون من تبيلة تغلب

 أخرى الا أنه أغتيل من مبل صالح بن مرداس أمير كلاب الذي سيطر على عانة والرحبة.

 (اتهم سكان عانة خلال أحداث الرعب الذي نتج عن أغتيال كبار موظني الدولة أمثال نظام المك
 الل أنتبار من تبل الوزير العباسي أبو شجاع في بغداد، وبا أنهر أنكروا التهة فان شيئاً لم يكدث (لا يرجد هناك دليلر على حقيفة الأتهام وربا كان بقصد تشويه السمعي).

 وتل من تبل السلطان السلجوقِ طغرل بك وأعيد المليفة ثانية اللم بغداد. ويذكر ابن الأثير ان مكان النفي يسبى
 بع عانة نمن الظاهر أن المسألة كانت قد أختلطت لدى ياتوت. حيث أن المنى الذي يقصده ابن الأثير يـدر مدينة حديثة المديئة وهذا يعني حديثة الواقعة على نر الفرات أي حديثة عانة وليس حديثة الموصل على دجلة. شهد النصف الثاني من القرن النامس المجري/الهادي عثر الملادي امتداد النفوذ السلجوقي على مناطق الفرات



 والمتدة من بغداد اللى حلب. من ناحية ثانية فان البعاده عن الملف الفاطهي أدى الم نفيه من الموصل من تبل




## (ج) تاريٌ عانة في مصادر العصر الاسلامي

بقلم الستر نورثج
شكل الأسم في الفترة الاسلامية



 الناسخ أو الناشر لكن هذه الهججئة الختصرة قد انتشرت واسعأ الها في القرن الرابع المجري/العاشر الميلادي وصار
 الأول الذي عُرف بالفترة الوسطى. وغالبأ ما يشاهد الاسم في الكتابات الملية مكتويأ على الألف بشكل حرف فـر فوي.

## موتع مدينة عانــة

تخبرنا المصادر الأسلامية المبكرة بأن المدينة كانت واتعة في جزيرة فير في نر الفرات وبأنها كانت احدى 》احصون الفراته. ولابن حوقل وصف غختصر لهذه المدينة:
 و"ربة هسنة ذات شيجر وسساكن وجامس،



 يكون على نقطة عالية.
 البلدان«، يعود ليصف عانه على أنها مدينة صغيرة على الجزيرة، ولكن ربا يكون هذا الوصف مشُتق من مصدر أدبي

ان أقدم رحاله أوروبي نعرف عنه هو رورلف (Rauwolff) (£ ألا


 الوصف وكذلك تافرنير (Tavernier) (


 ربما يدور للزائر الخارجي كمدئينة وارينة واحدة.

 المتأخرة يوجد نص مهجور يؤرخ الى عام raral 1 .

## (ب) تاريٌ عانة في العصور الكلاسيكية

بقلم الستر نووثج















 الجاور في جملة (ربما جميلة في جنوب شر شي







 أثري على ذلك - وتم نقل السكان المى مدينة تنسرين في سوريا. أما آمر الـصن نقد منح لقب التربيون (المدانع عن الشعب) وأعطى فيما بعد أمر القيادة في مصر

 الجنود تتلوا آمرهم وألتحقوا بالساسانيين.






 (




## حكـام سومو

كا يلا من السه (سیى من معبد أدد وابلاداد في آنات) بأنه كان من أهالي عانة، وبذلك ربكا يعود الم تلك الفترة المككرة عندما كان مقر
إير - نهي - زير - ابني" الحاكَ في عانة.
غادر الى نينوى في عام ^^^^ ق.م
ايلو - ابني


تسنم الدكم تبل .vo ق.م وaكم ז1 سنة على الأقل.
ثمش - رش - أوصر*
تسنم المكم بعد عام vVo وقبل vrv وحكم v سنين على الأقل.
نينورنا - كردورى - أرصه

وبالاضانة الى ذلك:
صوّر على المسلة السوداء عام اء^ ق.م مردوك - أباك - أوصر
ادعى لقباً مزيفاً (ربما بين • - XVr ق.م)
باليل - ايريش


راسابا المسمى سن - شاليم - آني.

الالماء المُٔشرة أزاءها بعلامة.. تقترن عادة بلقب 》حاك سوهو وماري《.

$$
\begin{aligned}
& \text { كودورو* } \\
& \text { أدد ـ نادن - زيري" }
\end{aligned}
$$

$$
\begin{aligned}
& \text { ايقيشا - هردوك. }
\end{aligned}
$$

لقد كانت عانة احدى المدن الرئيسية لبلاد سوهو خلال العهد المبكر للفترة الاشورية الحديثة على الأقل (أي قبل بكيء الحاكَ كودورو















 تشكل جزء مهماً من عائدات حكام عان



 سيطرت على مناطق السهوب الجاورة لابد وان كان لها وعلى الدوام دورأ كبيرأ في رفامية المدينة وأزدهارها


 أثناء حملاته. لقد تم دعوة وجهاء سوهو اللى ويمة للأحتفال باعادة بناء مدينة كالِ وشكّل رجال سوهو جزاء مكا من أهالي

المدينة الجديدة.



















 اكتشف حديثأ عدد من اللوحات الطينية المكسورة تسجل الأحدا





 كودورى - أوصر وكار ـ أبلاداد وقد أكمل الأخير مع تصر الحاكم ومعبد ابلاداد. من الأشياء المهمة هي المسلة





 عساكره مقابل مدينة آنات وجلب آلات الحصار الى الأسوار وهاجم المّدينة وأسقطها (؟) فوصل (ملا

 الأسكندر كانوا قد تجاهلوا ذكرها.






 السيطرة البابلية. ان الترابط بين هانات وسوهو يبعل مطابقتها مع آنات المتأخرة وعانة المديثة أكثر تأكيدأ.

## عانـة والاشوريون









لقد وصف إبنه وخليفته تكلتى - ننورتا الثاني (• •








انتج - خلفأ) يوحي بأنه كان من أهالي عاني









 انتصاره لم يكن كاملا اذ ليس فنط أنه فشل في تنحية كودودورو ولكن أيضاً لم يستطع الجيس الآشوري مواصلة زحفف






## الأول <br> القسم

## تاريٌ مدينة عانة <br> (أ) عانة في المصادر المسمارية

بقلم

## الدكتورة بهيجة اسماعيل، ج.أ.بلاك ومايكل روف

تاريُ عانة المكر
ان تاريخ مدينة عانة المبكر غير معروف جيداً اذ ان ان معظم النصوص القليلة المنشورة التي تشير المي المدينة غير واضيحة



 السياسي فان معر فتنا بهذه المدينة لا تكاد تُ تُذكر في الو الواقع









 مكرسة الى الآلمة 》آنات الملكة القوية《، ان بعض الكلمات التي تبتدأ بكرف علّة في اللغة البابلية النصحى وجدن

 سوريا، فلسطين ومصر منذ منتصف الألف الثاني ق.م.

## المدخل

يتناول هذا التقرير نتائج أعمال البعثة البريطانية للآثار في العراق في عام
 عانة التي تعود الى القرون القديمة والوسطى هي بلا شك احدى أحى أهم المواقع الأثرية التي تغمرها مياه الماه سد القادسية،
 العتمل الى العهد البابلي القديى وحتى أقدم من ذلك. لقد استغرتّ التنقيبات موسمأ واحدأ فنط وتبعاً لذلك فان أهدافنا كانت عحدودة.
 العمارة ولقى أثرية مثيرة جدأ. لقد كان هدفنا هو عمل تحليل طبقي لمعرفة أكثر ما يُكن عن التعاقب السكني في الجزيرة.
ينقسم التقرير الى سبعة نصول: يتناول الفصل الأول تاريخ عانة من وجهة ونظر نظر المصادر السماوية، الككلاسيكية
 يتناول الفخار حتى الفترة الساسانية المبكرة. والفصل الخامس يتناول الفخار الساسالي المتأخر والأسلامي، أما الفصل السادس نقد خُصص للزجاج لقد أستمرت حملة التنقيبات الرئيسية من تشرين أول 1911 الى الى كانون الثاني 19AY، مع القيام بفعل دراسي تصير في تشرين أول 19Ar



 لمساعدتهم ومؤازرتهم المستمرة. لقد كانت البعثة الأثزية البريطانية اللى قلعة عانة تعمل تحت رعارئ البعثة على اعانة مالية من الأكاديمية البريطانية وبدون هذه المساندة الكريمة لم يكن بامكان بعتنا الجاز مهتها.

## مقدمة

ضمن التنقيات الانقاذية في منظة الغمر خلف سد القادسية في حديثة ـ قامت البعثة البريطانية بمساعدة المؤسسة العامة للآّثار والتراث في العمل في جزيرة القلعة في مدينة عنه التاريخية والتي تقر ر ان تكون ضمن المنطةة المغورة بمياه خزان السد . وبالرغم من ان التنقيبات كانت لموسم واحد فقط الا انها جاءت بنتائج مكملة للتنقيبات العراقية في البزيرة في


 نينو رتا كدوروي اوصر حاكم سوخي ومارِي (. Vo ق. م. ) .


 للد انتهت البزيرة الى ان تصبح جموعة حدائق صغيرة لا اكثر ، مع سكن خفيف جداً في الثلث الاعلى من

 الجزيرة التاريخية . ما ادى الى بقاء الكثير من الاثار مطمورة في الجزيرة التي لم تكشف لنا علا عن كل اسرارها بـرا بعد .

## د ـ مؤيد سعيد

مدير عام الآثار والتراث

التنقيبات البر يطانية في




 اثناء العهود الفرثية والرومانية والساسانية ومدينة للقوافل ومركزاً لتجمع البدو اثناء العصر الاسلامي



[^0]:    'Ana is a small city in the middle of the Euphrates, which a branch of the river surrounds. On the Euphrates there is no city like it on an island surrounded by water. It is a fine village (qarya) with trees, houses, and a mosque (jämi').

