

Further Excavations at Tell Abraq

The 1990 Season

D.T. Potts



Munksgaard

A Prehistoric Mound in the Emirate of Umm al-Qaiwain, U.A.E.: Excavations at Tell Abraq in 1989 (Munksgaard, 1990) presented the first results of a new program of excavation at a large, prehistoric mound on the southern coast of the Arabian Gulf. ***Further Excavations at Tell Abraq*** is a full account of the second season of excavations, conducted in 1990, when many new aspects of the site emerged. Important architectural, ceramic, and glyptic finds were made, dating to the third, second, and early first millennium B.C. In addition, indications of an earlier, Stone Age occupation were recovered, as well as graves and settlement pottery dating to the early centuries A.D. when the occupation of the nearby metropolis of ed-Dur was at its height.

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Contents

Preface and Acknowledgements	9
Early Prehistory	19
The Umm an-Nar Period	
Architectural Remains	21
Umm an-Nar Pottery and Smallfinds	25
The Wadi Suq Period	
Architectural Remains	36
Pottery from the Northern Squares	42
Soft-Stone found North of Locus 40	45
Pottery found South of Locus 40	46
Soft-Stone and Other Vessel Fragments found South of Locus 40	54
Other Smallfinds found South of Locus 40	55
A Stamp Seal found East of Locus 40	56
Pottery found Above and Outside Locus 37	57
Smallfinds found Above and Outside Locus 37	63
Pottery found Within Locus 37	63
Soft-Stone found Within Locus 37	64
Pottery found South of Locus 37	69
Smallfinds found South of Locus 37	70
Groundstone	72
Barbar Red-Ridged Pottery	72
The Iron Age	
Architectural Remains	76
Pottery	78
Bronze Objects	90
Soft-Stone Finds	93

Groundstone	98
Other Smallfinds	102
Late Disturbances	105
Surface Finds and Sections A and B	120
The Eastern Flank of Tell Abraq	123
Conclusion	126
References	129
Appendices	141

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Between 1 January and 31 February 1956 a seasonal survey of
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REPORT TO APPEAR

Preface and Acknowledgements

Between 1 January and 17 February, 1990, a second season of excavations was conducted at Tell Abraç, a prehistoric mound in the emirate of Umm al-Qaiwain. Excavations were made possible through the kind interest of His Highness Shaikh Rashid bin Ahmed al-Mualla, Ruler of Umm al-Qaiwain, who graciously provided food, lodging, tools, and a force of 20 local workmen. His Excellency Shaikh Khaled bin Rashid al-Mualla, President of Diwan Affairs, Amiri Court of Umm al-Qaiwain, showed keen interest in the project, and provided help and support in a wide variety of ways. Mr. Essam Hamza, secretary to the Crown Prince, Shaikh Saud bin Rashid al-Mualla, arranged our visas and accomodation. We owe a great debt of thanks to Dr. Josephine L. Murray (Cambridge and Boxford, Mass.) for it was her generous donation to the project that covered the costs of the team's air travel to the U.A.E. and all other expenses not met by the Diwan. We also acknowledge with gratitude the part played by the Peabody Museum, Harvard University (Cambridge, Mass.), the institution administering the Murray funds, through the good offices of its former director, Prof. C.C. Lamberg-Karlovsky. The Smithsonian Institution (Washington DC) provided supplementary funding for the excavation, and we should like to express our special thanks to its Secretary, Dr. R.McC. Adams. The Danish National Museum (Copenhagen, Denmark), again provided the services of a conservator, paying both his salary and airfare, for which help Prof. Olaf Olsen, State Antiquary, deserves our thanks. In Dubai, Messrs. Per Buchholtz and Tommy Hansen (Viking Life-Saving Equipment, Dubai), helped us with several logistical problems. Peter Hudson Buckle and Partners (Sharjah and Dubai) provided valuable help with surveying and setting in of fixed points on the site. Mr. Hamid Khoory of M.A.H.Y. Khoory (Dubai) generously arranged for the rental of a 4 wheel-drive vehicle for 6 weeks. Mr. Fraser King (Standard Chartered Bank, Sharjah) helped us with our banking. Emirates Photo Marketing (Ajman), provided color-slide film and processing, through the good offices of Mr. M. Venkateswaran. Al-Tayer Motors (Dubai), provided maintenance for our ageing Land-Rover, thanks to Mr. Peter Troth. Arab Business Machines (Dubai),

provided the loan of a Macintosh computer, for which we should like to thank Messrs. Raja Salman and Ibrahim Lughoud. Emirates General Petroleum Corporation (Dubai), provided a contribution towards defraying our local travel expenses, thanks to the kind interest of Messrs. W. von Huth and D. Brown. Cosmoplast (Sharjah), provided 100 stacking plastic trays for the storage of our ceramics and smallfinds, for which we are especially indebted to Mr. Peter Spencer. Without the help of these many individuals, the expedition to Tell Abraç would never have achieved such success. Once again, we thank all of the above for their generosity and kind interest in the project.

This year we were happy to receive a number of distinguished visitors, including His Excellency and Mrs. Bent Kiilerich, Ambassador of Denmark, on a visit from Abu Dhabi; Mr. Richard Spor, Near Eastern archaeology student from the University of Leiden; Prof. Rita P. Wright, of New York University, who stayed with us for 10 days on her way to Harappa; Prof. Andrew Hill, of Yale University, working on a number of fossil-bearing sites at Jabal Dhanna in western Abu Dhabi; the German team of archaeologists from Göttingen working at Shimal in Ras al-Khaimah; the British and French teams working at Julfar in Ras al-Khaimah; and several of the members of the French team working at Mleiha in Sharjah.

For the second year in a row excavations on the mound were directed by Mag. art. Anne-Marie Mortensen (Moesgård), who bore the daily responsibility for managing the workmen and ultimately for drawing most of the plans and sections, with the able assistance of Anne-Mette Sørensen (Copenhagen) and Christian Velde (Göttingen). All three worked wonderfully together, but I must especially thank Anne-Marie Mortensen whose many years of field experience have been a tremendous asset to the Tell Abraç expedition. Anne-Marie Mortensen also arranged for the expedition to borrow a 6 × 6 Rolleiflex from Moesgård, which enabled her to get particularly clear photographs of the architectural features discovered in 1990. Prof. Caroline Lehman (Dubai) assisted in the excavation as a volunteer on numerous occasions. Morten Djørup (Nationalmuseet, Copenhagen), acted as conservator; Hildreth B. Potts (Lejre) served as draughtswoman; and Thilde Mortensen (Hjallerup) looked after our children. Prof. Hans-Peter Uerpmann and Dr. Margrethe Uerpmann were with us for the last two weeks of the excavation, studying this year's rich harvest of animal bones. Dr. Abel Prieur (Université Claude-Bernard and CNRS) studied all of the shells found this year during the last few weeks of the season. The pottery was processed and registered by the author, while smallfind registration was a collective ef-

Fig. 1. Tell Abraq, seen from the north.



fort. Overall responsibility for the conduct of the excavation, and responsibility for the content of this report, reside with the author. Finally, on behalf of the entire team, I must thank my wife Hildy for being far more than a draughtswoman during the excavation. She organized, telephoned, received, dispatched, and generally helped all of the team in countless ways, for which we were all most grateful. She is responsible for all of the published drawings of pottery and small finds, the much less skillfully inked sections and plans having been done by the author from pencilled originals by Anne-Marie Mortensen and Christian Velde.

While the excavations of 1989 were carried out in a step-trench running east-west from the summit of the mound westward towards its western flank¹ (Fig. 1), work in 1990 was conducted in nine, 5 × 5 m. steps within a trench running perpendicular to the 1989 trench (Figs. 2 and 9) and oriented north-south along the eastern side of the summit of Tell Abraq (Fig. 3). Squares were identified by the coordinates of their south-western corner, as 115/107, 115/112, 115/117, 115/122, 115/127, 115/132, 115/137, 115/142, and 115/147. In addition, during the investigation of a large Wadi Suq period enclosure wall (locus 40), three more 5 × 5 m. squares were opened up to the east of 115/137 (120/137) and 115/132 (120/132, 125/132). In discussing the finds from 1990 squares will be referred to only by their number, e.g. 115/127. Numbers following in parentheses represent the coordinates of the findspot, beginning with the eastern coordinate, followed by the northern coordinate, and finally followed by the elevation, e.g. 117.31/136.50, 6.45. As in 1989, excavation was carried out in 20 cm. arbitrary levels except when a recognizable floor, wall, or pit was encountered. The result is,

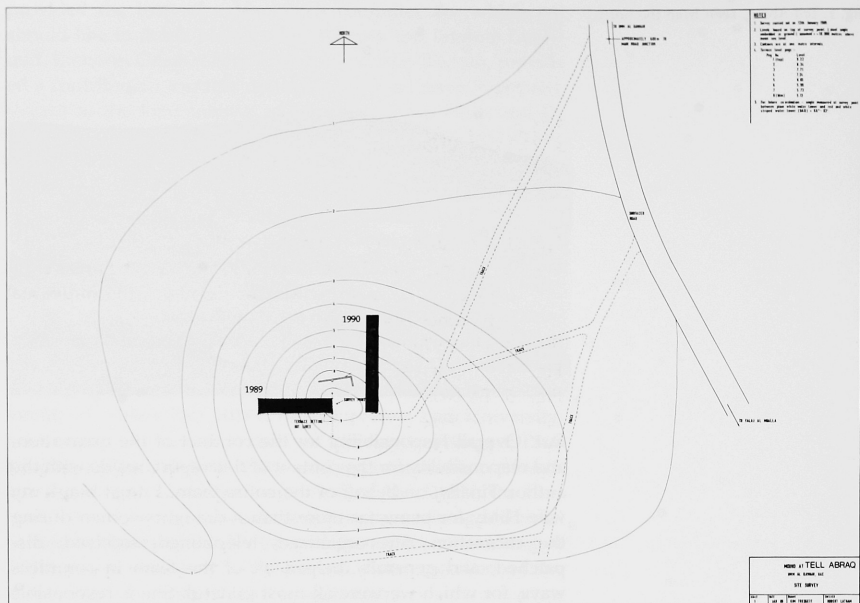


Fig. 2. Plan of areas excavated in 1989 and 1990.



Fig. 3. The 1990 trench.

we feel, increased control over the precision with which the Tell Abraq ceramics can be situated vertically within the excavation. Readers should note that the abbreviation NVT, in the captions to the pottery drawings, denotes “no visible temper”.

Figures

- Fig. 1. Tell Abraq, seen from the north.
- Fig. 2. Topographic plan of Tell Abraq showing the areas excavated in 1989 and 1990 (for details of the individual trenches, see Fig. 8).
- Fig. 3. The 1990 trench.
- Fig. 4. Chipped stone.
- Fig. 5. TA 660.
- Fig. 6. Obverse of TA 159.
- Fig. 7. Reverse of TA 159.
- Fig. 8. A schematic plan of locus 37, showing the location of the parts excavated in 1989 and 1990, along with the 1989 and 1990 trench numbers.
- Fig. 9. The portion of locus 37 excavated in 1990.
- Fig. 10. A plan of the portion of locus 37 excavated in 1990.
- Fig. 11. Square 115/117, west section (90-11).
- Fig. 12. Square 115/117, south section (90-13).
- Fig. 13. Square 115/127, east section (90-18).
- Fig. 14. Umm an-Nar pottery from various squares.
- Fig. 15. TA 2132.
- Fig. 16. TA 1900.
- Fig. 17. TA 1900.
- Fig. 18. TA 432.
- Fig. 19. TA 646.
- Fig. 20. TA 582.
- Fig. 21. TA 582.
- Fig. 22. TA 625.
- Fig. 23. TA 615.
- Fig. 24. TA 615.
- Fig. 25. TA 392.
- Fig. 26. TA 392.
- Fig. 27. Plan of locus 40.
- Fig. 28. Detail of locus 40 in 120/137.
- Fig. 29. Square 115/137, east section (90-28).
- Fig. 30. Square 115/137, west section (90-30).
- Fig. 31. Square 120/132, north section (90-40).
- Fig. 32. Square 120/137, south section (90-43).
- Fig. 33. Square 120/137, west section (90-44).
- Fig. 34. Square 125/132, west section (90-46).

- Fig. 35. Locus 45.
- Fig. 36. Floors running up against locus 40.
- Fig. 37. Postholes in 115/137.
- Fig. 38. Square 115/132, west section (90-23).
- Fig. 39. Wadi Suq pottery, mainly from north of locus 40.
- Fig. 40. Wadi Suq pottery from 115/137 (south of locus 40), 120/137 (north of locus 40), and 125/132 (east of locus 40).
- Fig. 41. The deep sounding in square 115/142.
- Fig. 42. Square 115/142, south section (90-33).
- Fig. 43. Wadi Suq pottery from the deep sounding in 115/142.
- Fig. 44. TA 2177.
- Fig. 45. TA 352.
- Fig. 46. Wadi Suq sherds from south of locus 40.
- Fig. 47. Wadi Suq pottery from south of locus 40 in 115/127 and 120/132.
- Fig. 48. TA 1565.
- Fig. 49. Wadi Suq pottery from south of locus 40.
- Fig. 50. TA 1785. Note particularly the white flecks of shell temper.
- Fig. 51. Painted Wadi Suq pottery from south of locus 40.
- Fig. 52. TA 1874 and 1875 (= Fig. 51:6-7).
- Fig. 53. Storage jars from the area south of locus 40.
- Fig. 54. Pottery from south of locus 40.
- Fig. 55. TA 380.
- Fig. 56. TA 607.
- Fig. 57. TA 549.
- Fig. 58. TA 620.
- Fig. 59. TA 358.
- Fig. 60. TA 358.
- Fig. 61. TA 581.
- Fig. 62. TA 295.
- Fig. 63. TA 519.
- Fig. 64. TA 519.
- Fig. 65. TA 454.
- Fig. 66. TA 454.
- Fig. 67. TA 495.
- Fig. 68. TA 495.
- Fig. 69. Wadi Suq sherds from outside the Umm an-Nar building.
- Fig. 70. Wadi Suq pottery from above the Umm an-Nar building.
- Fig. 71. Wadi Suq pottery from above the Umm an-Nar building.
- Fig. 72. Wadi Suq pottery from above the Umm an-Nar building.
- Fig. 73. Wadi Suq pottery from the upper squares 115/107 and 115/112.

- Fig. 74. TA 2152 (= Fig. 70:1), 2153 (= Fig. 72:4), 2148 (= Fig. 71:12), and 2151 (= Fig. 70:3).
- Fig. 75. TA 1375 (= Fig. 72:3), 1357 (= Fig. 71:4), 1356 (= Fig. 71:7), 1360 (= Fig. 71:6) and 1362 (= Fig. 71:1).
- Fig. 76. TA 653.
- Fig. 77. TA 662.
- Fig. 78. Wadi Suq pottery from locus 61 within the Umm an-Nar building.
- Fig. 79. Wadi Suq pottery from locus 61 within the Umm an-Nar building.
- Fig. 80. Wadi Suq pottery from locus 61 within the Umm an-Nar building.
- Fig. 81. TA 2300 (= Fig. 80:12), 2301 (= Fig. 80:11).
- Fig. 82. TA 674.
- Fig. 83. TA 674.
- Fig. 84. TA 669.
- Fig. 85. TA 669.
- Fig. 86. Wadi Suq sherds from 115/107, area later disturbed by ed-Dur-period graves.
- Fig. 87. TA 1479 and 2158.
- Fig. 88. TA 2005, 1975, 1531 (top row), 2069 and 1518 (bottom row).
- Fig. 89. TA 456.
- Fig. 90. TA 315.
- Fig. 91. TA 509.
- Fig. 92. TA 509.
- Fig. 93. TA 335.
- Fig. 94. TA 341.
- Fig. 95. TA 534.
- Fig. 96. Barbar red-ridged sherds.
- Fig. 97. Barbar sherds TA 2025, 2026, 1922, and 1917 (= Fig. 96: 4, 6, 10 and 9).
- Fig. 98. Square 115/122 with postholes, and 115/127 showing locus 48.
- Fig. 99. Postholes in square 115/122.
- Fig. 100. Locus 48 in square 115/127.
- Fig. 101. Square 115/127, west section (90-20).
- Fig. 102. Square 115/127, south section (90-21).
- Fig. 103. Large Iron Age storage jars.
- Fig. 104. Incised Iron Age jars.
- Fig. 105. TA 2017 (= Fig. 103:1).
- Fig. 106. TA 1675 (= Fig. 103:2).
- Fig. 107. TA 1177 (= Fig. 103:3).
- Fig. 108. TA 1809 (= Fig. 104:6).
- Fig. 109. TA 1794 (= Fig. 110:1).
- Fig. 110. Incised Iron Age sherds.
- Fig. 111. Incised Iron Age sherds.

- Fig. 112. Decorated and other Iron Age sherds.
Fig. 113. TA 1756 (= Fig. 112:1).
Fig. 114. TA 2003 (= Fig. 112:2).
Fig. 115. TA 2147 (= Fig. 112:3).
Fig. 116. Iron Age bowls.
Fig. 117. Iron Age bowls.
Fig. 118. Undecorated Iron Age bowls.
Fig. 119. Undecorated Iron Age storage jars.
Fig. 120. Undecorated Iron Age vessels.
Fig. 121. TA 331.
Fig. 122. TA 353.
Fig. 123. TA 587.
Fig. 124. TA 587.
Fig. 125. TA 228.
Fig. 126. TA 340.
Fig. 127. TA 273.
Fig. 128. TA 165.
Fig. 129. TA 673.
Fig. 130. TA 673.
Fig. 131. TA 672.
Fig. 132. TA 594.
Fig. 133. TA 503.
Fig. 134. TA 503.
Fig. 135. TA 299.
Fig. 136. TA 440.
Fig. 137. TA 440.
Fig. 138. TA 439.
Fig. 139. TA 439.
Fig. 140. TA 483.
Fig. 141. TA 483.
Fig. 142. TA 493.
Fig. 143. TA 493.
Fig. 144. TA 207.
Fig. 145. TA 169.
Fig. 146. TA 470.
Fig. 147. TA 224.
Fig. 148. TA 482.
Fig. 149. TA 178.
Fig. 150. TA 194.
Fig. 151. TA 229.
Fig. 152. TA 217.
Fig. 153. TA 151.
Fig. 154. TA 149.
Fig. 155. TA 150.
Fig. 156. TA 177.
Fig. 157. TA 196.
Fig. 158. TA 198.

- Fig. 159. TA 162.
 Fig. 160. TA 191.
 Fig. 161. TA 241.
 Fig. 162. TA 326.
 Fig. 163. TA 271.
 Fig. 164. TA 183.
 Fig. 165. TA 208.
 Fig. 166. TA 175.
 Fig. 167. TA 257.
 Fig. 168. TA 155.
 Fig. 169. TA 376.
 Fig. 170. TA 376.
 Fig. 171. TA 234.
 Fig. 172. TA 193.
 Fig. 173. TA 368.
 Fig. 174. TA 420.
 Fig. 175. TA 247.
 Fig. 176. TA 247.
 Fig. 177. TA 356.
 Fig. 178. TA 360.
 Fig. 179. TA 367.
 Fig. 180. TA 367.
 Fig. 181. Locus 50 in 115/107.
 Fig. 182. Building remains in 115/107-112.
 Fig. 183. Locus 52 in 115/112.
 Fig. 184. Square 115/112, west section (90-5).
 Fig. 185. Plan of 115/142-147.
 Fig. 186. Locus 56 mudbrick in 115/147.
 Fig. 187. Detail of finger-impressed brick in locus 56.
 Fig. 188. Decorated ed-Dur period sherds.
 Fig. 189. TA 1145 (= Fig. 188:4).
 Fig. 190. TA 1612 (= Fig. 188:6).
 Fig. 191. Undecorated ed-Dur period pottery.
 Fig. 192. TA 152.
 Fig. 193. Graves in 115/107 and 112.
 Fig. 194. Square 115/107, south section (90-2).
 Fig. 195. Locus 64.
 Fig. 196. Burial in locus 64.
 Fig. 197. Locus 46 in 115/107.
 Fig. 198. Locus 46 in 115/112.
 Fig. 199. Detail of Umm an-Nar ashlar in locus 46.
 Fig. 200. TA 455 beads.
 Fig. 201. Locus 59.
 Fig. 202. Detail of skeletal remains in locus 59.
 Fig. 203. Loci 39, 41 and 44 in 115/142.
 Fig. 204. Detail of locus 39.
 Fig. 205. TA 251.

- Fig. 206. Detail of TA 251 and 256 in locus 39.
Fig. 207. TA 187.
Fig. 208. TA 690.
Fig. 209. TA 690.
Fig. 210. TA 576.
Fig. 211. TA 679.
Fig. 212. TA 676.
Fig. 213. Obverse and reverse of TA 675.
Fig. 214. TA 675.
Fig. 215. TA 680.
Fig. 216. TA 681.
Fig. 217. Pottery of uncertain date.

Early Prehistory

The discovery of painted Ubaid pottery and fine, pressure-flaked, flint tools at a site several kilometers north of Tell Abraq² makes it not unlikely that a prehistoric occupation lies buried somewhere near or beneath Tell Abraq. Be that as it may, excavations in 1989 and 1990 have failed to locate any levels older than the third millennium. In 1990, we did, however, find half a dozen pieces of worked flint (Fig. 4) in levels dating to the 2nd and 1st millennium B.C. Without wishing to deny the perfectly legitimate possibility that flint was still used in the region long after copper, bronze, and even iron became available, it must be stressed that the extreme rarity of flint in the trenches excavated both in 1989 and in 1990 tends rather to suggest that, when it does occur, the odd piece of flint at Tell Abraq is out of context. Pieces such as a core (TA 359, Fig. 4:1) from a level

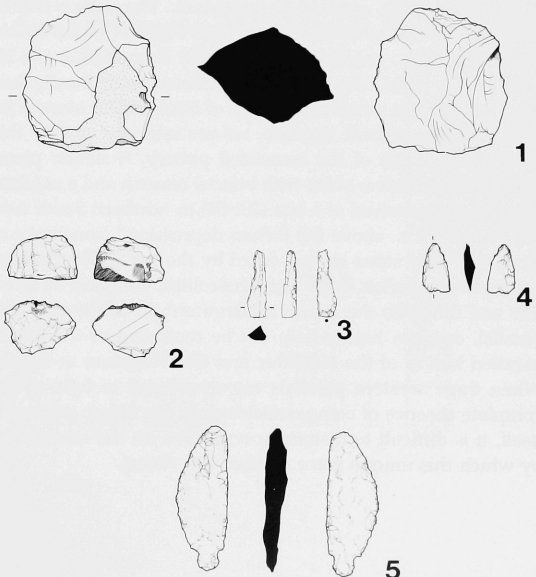


Fig. 4. Chipped stone. 1 = TA 359; 2 = TA 189; 3 = TA 487; 4 = TA 660; 5 = TA 159.



Fig. 5. TA 487 (3.9 × 0.8 × 1.0 cm.).



Fig. 6. Obverse of TA 159 (8.5 × 3.4 cm.).



Fig. 7. Reverse of TA 159.

datable to the Wadi Suq period in 115/132 (115.39/133.27, 6.45); a core (TA 189, Fig. 4:2) from an Iron Age level in 115/122 (117.40/124.54, 4.30); a drill or borer³ (TA 487, Fig. 4:3), found in association with Iron Age pottery while cleaning the exterior of the Umm an-Nar round building (locus 37) in 115/117 (116.18/118.34, 4.56, loc. 37); and the tip of an arrowhead (TA 660, Fig. 4:4 and Fig. 5) from a level containing predominantly Wadi Suq pottery with a small admixture of Umm an-Nar sherds in 115/142 (119.12/145.16, 9.58), could all be prehistoric. The same is true of the fine chalcedony knife (Fig. 4:5 and Figs. 6-7) with lunate blade and short, notched tang (TA 159) from 115/142 (116.10/144.85, 6.93), which was found in a level containing mostly Iron Age pottery with a small admixture of later, ed-Dur storage jar sherds. In the present instance, we are reluctant to date this piece on the basis of the associated pottery. A similar piece, described as a "spear point with bifacial retouch and a notched tang" was discovered at a site (201-54) in northern Saudi Arabia, "some 75 m. above the Sirhan depression", consisting of more than fifty stone circles, dated by the late J. Waechter on the basis of parallels with "the Chalcolithic tradition of Palestine and Sinai" to the fourth millennium⁴. In addition to this parallel, one can hardly help but be reminded of the notch-handled knives of the Neolithic and Old Kingdom in Egypt⁵. When these western parallels are considered in light of the complete absence of comparable finds in the Oman peninsula itself, it is difficult to dismiss speculations on the mechanism by which this unique piece reached Tell Abraq.

The Umm an-Nar Period

Architectural Remains

Without doubt the most important standing architectural monument discovered in 1989 was the second Umm an-Nar building (locus 37), a mammoth construction consisting of stone on the exterior and mudbrick on the interior⁶. When the report on the 1989 excavations was written it was still not possible to determine with any degree of reliability the approximate diameter of the building. One reason for the placement of the 1990 step-trench was, however, to try to expose the eastern side of the round building, thereby making possible its further excavation (see the introduction). Thanks to the astute eye of Anne-Marie Mortensen, the 1990 step-trench was indeed so placed that a portion of the northeastern section of locus 37 was revealed.

Several other round buildings, of course, have already been

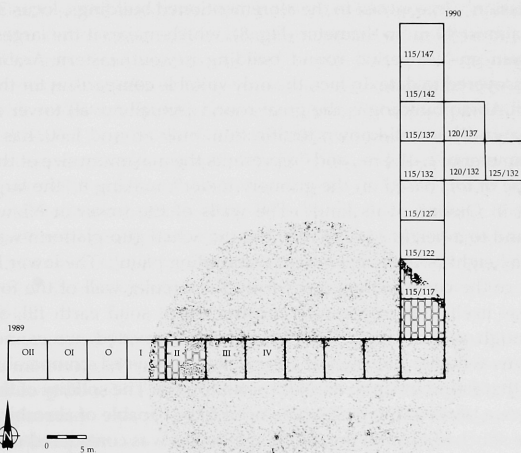


Fig. 8. A schematic plan of locus 37, showing the location of the parts excavated in 1989 and 1990, along with all trench numbers.



Fig. 9. The portion of locus 37 excavated in 1990.

excavated, as a consequence of which their diameters are known. At Hili 8, Building IV measured 22 m. in diameter, while its earlier, roughly square forerunner, known as Building III, was roughly 16 m. on a side⁷. The nearby round building at Hili 1 measured 24 m. in diameter⁸, while further east, at Bat, a round building with a diameter of c. 20 m. has been excavated⁹. Finally, at Maysar 25, in the Wadi Samad, a round building measuring 21.6 m. in diameter was excavated by the German mission¹⁰. In contrast to the aforementioned buildings, locus 37 is almost 40 m. in diameter (Fig. 8), which makes it the largest Umm an-Nar-period round building in southeastern Arabia discovered to date. In fact, the only suitable comparison for the Tell Abraq building is the great round (actually oval) tower at Nizwa. This well-known fortification, built around 1660, has a diameter of c. 41.4 m., and "represents the maximum size of the type of fort based on the gunnery tower", making it "the largest in Oman" of its kind¹¹. The walls of the tower at Nizwa stand to a height of c. 24 m.¹², but the actual gun platform was at a height of 14 m. above the surrounding plain¹³. The lower 14 m. of the construction, apart from the circular wall of the fortress itself, was apparently constructed of solid earth fill, although as the interior has never been excavated, we cannot know whether a system of crosswalls also existed, comparable to that found in Umm an-Nar round towers. The solidity of the Nizwa tower is ascribed to the need to be capable of absorbing the shock of cannon fire, while the height was considered necessary both from a ballistic and from a psychological point of view. One could well imagine that the Tell Abraq tower, 40 m. in diameter and faced with stone, would have commanded the

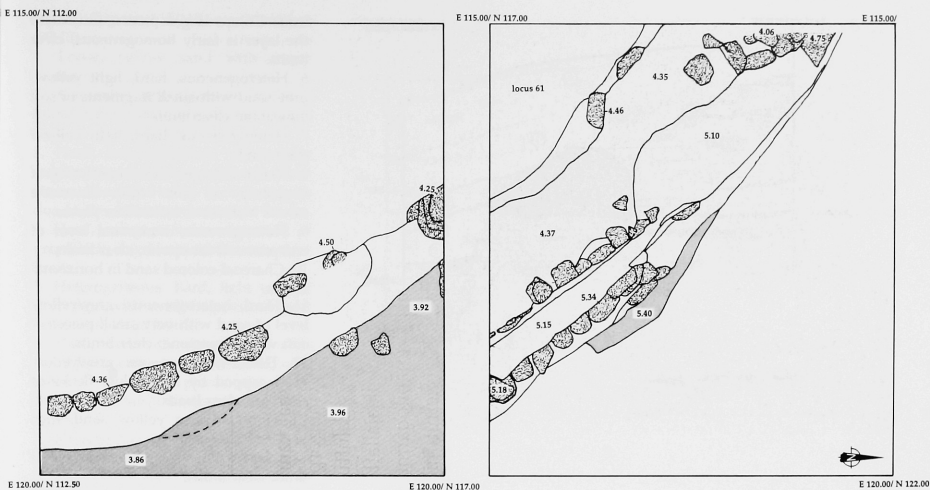


Fig. 10. A plan of the portion of locus 37 excavated in 1990.

respect and awe of all who encountered it on the coast of the Lower Gulf.

The upper part of locus 37 (Figs. 9-12) which was exposed in 1989 consisted of a layer of flakey, white calcareous limestone (locus 15)¹⁴. This year, the same material was encountered in 115/117 between 3.53 and 3.82 m. It was badly eroded along its outer face and as a consequence somewhat irregular in outline. Below this were at least six courses of stone bonded by a hard, white-grey lime mortar. At this point, the wall continued downward for at least three more courses, likewise bonded by hard, white lime mortar, but offset from the line of the main wall above by c. 70 cm. Most probably this marked the upper part of the foundations of the building. Excavations in the square this year were taken to a depth of 5.80 m., at which point the base of the building had not yet been reached. Thus far we can state that, in this area, the building is preserved to a height of at least 2 m. Portions of the mudbrick interior ring-wall of the building (locus 33) were exposed in both 115/117 and 115/112.

As discussed in our report on the 1989 season of excavations, the presence of locus 37 above the earlier, first Umm an-Nar building (loci 24 and 30)¹⁵ – two massive structures of sizeable proportions – accounted for the formation of the high part of Tell Abraç. We can now see that, following the building's abandonment, it stood for a considerable period of time before being covered over entirely by later deposits. The uppermost deposit in the interior of the building, called locus 61, began ap-

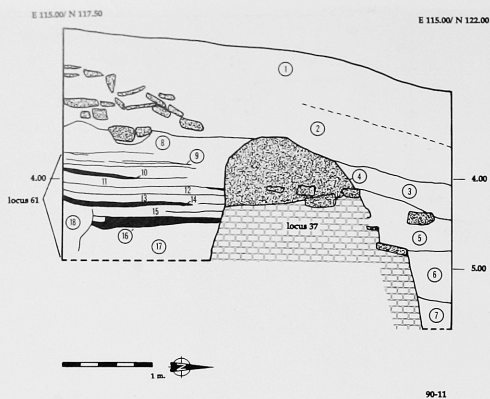


Fig. 11. Square 115/117, west section (90-11).

1. Loose, yellow sand with many stones.
2. Generally homogeneous, yellow/brown sand with a few flecks of charcoal.
3. Hard, heterogeneous, yellow/grey

sand with small pieces of soft limestone; discolored white in some places due to the soft limestone; clear limits.

4. Heterogeneous, white/grey, calcareous limestone (upper surface of the Umm an-Nar building).
5. Hard, dark yellow/grey sand with small fragments of soft limestone; near

locus 37 are larger pieces; elsewhere the layer is fairly homogeneous; clear limits.

6. Heterogeneous, hard, light yellow/grey sand with small fragments of soft limestone; clear limits.

7. Heterogeneous, hard, light yellow/grey sand.

8. Hard, dark grey level consisting of fragments of soft white limestone mixed with sand; striated in places.

9. Homogeneous, horizontal layer of compact soft limestone; clear limits.

10. Charcoal-colored sand in horizontal layers.

11. Hard, heterogeneous, grey/yellow level of sand with very small pieces of soft white limestone; clear limits.

12. Dark, homogeneous grey/yellow sand capped by a red line; flecks of charcoal; clear limits.

13. Homogeneous yellow sand with flecks of charcoal.

14. Homogeneous, charcoal-colored sand; clear limits.

15. Heterogeneous, yellow sand mixed with small stones and rubble, and with one thin striation of charcoal-colored sand; clear limits.

16. Black, homogeneous, ashy lense; clear limits.

17. Dark grey/yellow sand with large pieces of charcoal and soft white limestone.

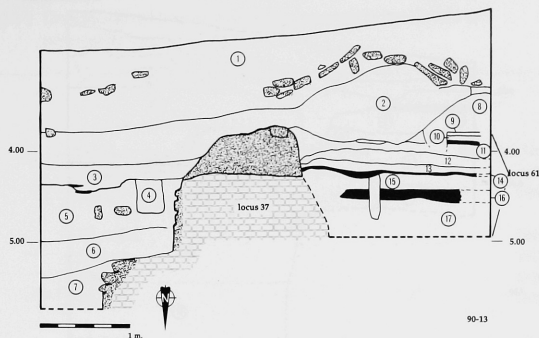
18. Posthole containing heterogeneous, light, loose grey/black sand; clear limits.

pearing at a depth of 4.40 m., and consisted of sandy fill containing enormous amounts of late Wadi Suq pottery, often in the form of very small sherds, along with a great quantity of well-preserved animal and fish bone. The fact that many of the bones were recovered in an unbroken state suggests that the area in which they were found had not been walked upon regularly, for if this had been the case they would have been much more fractured (H.-P. Uerpmann, pers. comm.). For this reason we suggest that the pottery and animal bone recovered in locus 61 represents a trash deposit, not occupational debris, and that the building served as a dump well into the middle of the second millennium B.C. By the beginning of the Iron Age, however, the living deposit around the building had risen to such an

Fig. 12. Square 115/117, south section (90-13).

E 120.00/ N 117.50

E 115.00/ N 117.50



1. Loose, yellow sand with many stones.

2. Generally homogeneous, yellow/brown sand with a few flecks of charcoal.

3. Hard, heterogeneous, yellow/grey sand with small pieces of soft limestone; discolored white in some places due to the soft limestone; clear limits.

4. Hard, compact feature (oven ?) of grey/black, clay-like material; very clear limits.

5. Heterogeneous, hard, light yellow/grey sand with small fragments of soft limestone; clear limits.

6. Hard, dark yellow/grey sand with small fragments of soft limestone; near locus 37 are larger pieces; elsewhere the layer is fairly homogeneous; clear limits.

7. Heterogeneous, hard, light yellow/grey sand.

8. Hard, dark grey level consisting of fragments of soft white limestone mixed with sand; striated in places.

9. Homogeneous, horizontal layer of compact soft limestone; clear limits.

10. Charcoal-colored sand in horizontal layers.

11. Hard, heterogeneous, grey/yellow level of sand with very small pieces of soft white limestone; clear limits.

12. Dark, homogeneous grey/yellow sand capped by a red line; flecks of charcoal; clear limits.

13. Homogeneous yellow sand with flecks of charcoal.

14. Homogeneous, charcoal-colored sand; clear limits.

15. Heterogeneous, yellow sand mixed with small stones and rubble, and with one thin striation of charcoal-colored sand; clear limits.

16. Posthole containing heterogeneous, light, loose grey/black sand; clear limits.

17. Dark grey/yellow sand with large pieces of charcoal and soft white limestone.

extent that the building was no longer visible. Excavations this year recovered almost exclusively Iron Age pottery in 115/117 down to a depth of 5.40 m. Wadi Suq sherds began to appear between 5.60-5.40, and only in level 5.80-5.60 was Wadi Suq pottery predominant, although Iron Age pieces continued to be found.

Umm an-Nar Pottery and Smallfinds

The only square excavated in 1990 in which appreciable numbers of Umm an-Nar sherds began to appear was 115/127 where excavations were taken to virgin soil (Fig. 13). As Table 1 shows,

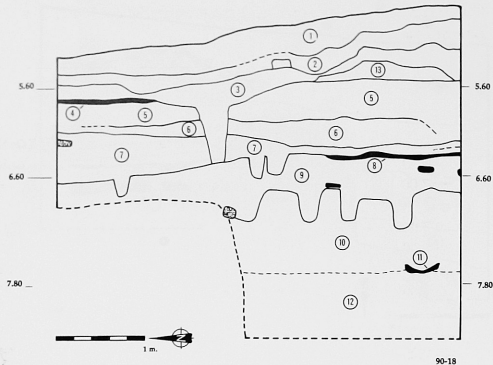


Fig. 13. Square 115/127, east section (90-18).

1. Homogeneous loose yellow sand with some gravel, surface.
2. Loose, heterogeneous, yellow/red sand, with flecks of soft limestone and charcoal; clearly differentiated from 1 and poorly differentiated from 3.
3. Heterogeneous grey/yellow sand with flecks of soft white limestone; poorly differentiated from 2.
4. Heterogeneous, horizontal level of charcoal-colored sand with flecks of charcoal; clear limits.
5. Horizontal level of grey sand containing many small pieces of soft limestone.
6. Homogeneous, compact layer of soft white limestone, clearly differentiated from level 3.
7. Homogeneous, grey/brown sand with some striations.
8. Grey/brown layer, blacker on the top and browner at the bottom; clear limits.
9. Heterogeneous, humus-like, grey/brown to grey/black level with flecks of charcoal and a few bits of soft limestone and bone; postholes descend from this level; clear limits.
10. Homogeneous, light grey/brown sand with charcoal; clearly differentiated from level 13.
11. Fireplace containing large amounts of charcoal in sizable lumps; clear limits.
12. Homogeneous, yellow/brown sand with only a few flecks of charcoal, becoming nearly sterile towards the bottom; no sherds.
13. Homogeneous, compact layer of soft white limestone; clearly differentiated from levels 3 and 5.

stray Umm an-Nar sherds began appearing here between 6.40 and 6.20 m., and were not uncommon between 7.40 and 7.00 m. It was only between 7.80 and 7.40 m., however, that Umm an-Nar sherds became numerous, although even below this level, some admixture with later Wadi Suq pottery was still encountered. (Locus 48 is an enormous Iron Age pit [see below] and no doubt the several Umm an-Nar sherds recovered there originated in the surrounding, much earlier fill). A selection of Umm an-Nar sherds is shown in Fig. 14. All of these pieces belong to well-known categories of Umm an-Nar fineware. The unpainted pieces, or those bearing only traces of paint (Fig. 14:1-4) show the sort of rims found in Umm an-Nar levels at Tell Abraq in 1989¹⁶ and well-represented throughout Oman¹⁷ and the U.A.E.¹⁸ The hatched leaves or lozenges on Fig. 14:5 can be compared with designs on finds from 'Amlah¹⁹; tomb 1059 at Hili²⁰; and tomb A at Hili North²¹. A wavy or zig-zagging line between two sets of horizontal, parallel lines over a frieze of multiple chevrons is seen on Fig. 14:6 (= Fig. 15). This is an extremely common device on painted black-on-red Umm an-Nar pottery, and can be seen, for example, on another piece from Tell Abraq²²; on a vessel from Tarut²³; on a sherd from 'Amlah²⁴; in Tomb B at Ajman²⁵; in tombs A²⁶ and M²⁷ at Hili; and amongst the Umm an-Nar sherds recovered at Rifa'a²⁸ and in City 1 levels on the Qal'a²⁹ on Bahrain. Fig. 14:8 is made of

Table 1. Distribution of Umm an-Nar sherds recovered in Square 115/127, arranged by level

Identification	Square	Level	Locus	Probable Date	TA No.
Umm an-Nar	115/127	6.40-6.20		W. Suq	1512
Umm an-Nar	115/127	7.20-7.00		W. Suq, some Umm an-Nar	1909
Umm an-Nar	115/127	7.20-7.00		-	1924
Umm an-Nar	115/127	7.20-7.00		-	1925
Wadi Suq?	115/127	7.20-7.00		-	1928
Umm an-Nar or Wadi Suq?	115/127	7.20-7.00		-	1932
Umm an-Nar	115/127	7.20-7.00		-	1948
Umm an-Nar	115/127	7.40-7.20		-	2046
Umm an-Nar	115/127	7.40-7.20		-	2051
Umm an-Nar	115/127	7.40-7.20		-	2052
Umm an-Nar	115/127	7.40-7.20		-	2053
Umm an-Nar	115/127	7.40-7.20		-	2055
Umm an-Nar or Harappan?	115/127	7.40-7.20		-	2056
Umm an-Nar	115/127	7.40-7.20		-	2057
Umm an-Nar	115/127	7.40-7.20		-	2058
Umm an-Nar	115/127	7.40-7.20		-	2059
Umm an-Nar	115/127	7.40-7.20		-	2060
Umm an-Nar or Harappan	115/127	7.60-7.40		Umm an-Nar	2108
Umm an-Nar	115/127	7.60-7.40		-	2112
Umm an-Nar or Harappan	115/127	7.60-7.40		-	2113
Umm an-Nar	115/127	7.60-7.40		-	2114
Umm an-Nar	115/127	7.60-7.40		-	2116
Umm an-Nar	115/127	7.80-7.60		-	2195
Umm an-Nar	115/127	7.80-7.60		-	2196
Umm an-Nar	115/127	7.80-7.60		-	2198
Umm an-Nar	115/127	7.80-7.60		-	2199
Umm an-Nar	115/127	7.80-7.60		-	2200
Umm an-Nar or Harappan?	115/127	8.00-7.80		mixed Umm an-Nar and Wadi Suq	2223
Umm an-Nar	115/127	8.00-7.80		-	2224
Umm an-Nar	115/127	8.00-7.80		-	2225
Umm an-Nar	115/127	8.20-8.00		Umm an-Nar	2219
Umm an-Nar?	115/127	8.20-8.00		-	2220
Umm an-Nar	115/127	5.77	48	Iron Age	1510
Umm an-Nar	115/127	8.20-8.00	48	Iron Age	2216
Umm an-Nar	115/127	8.40-8.20	48	Iron Age	2268
Umm an-Nar	115/127	8.40-8.20	48	-	2269

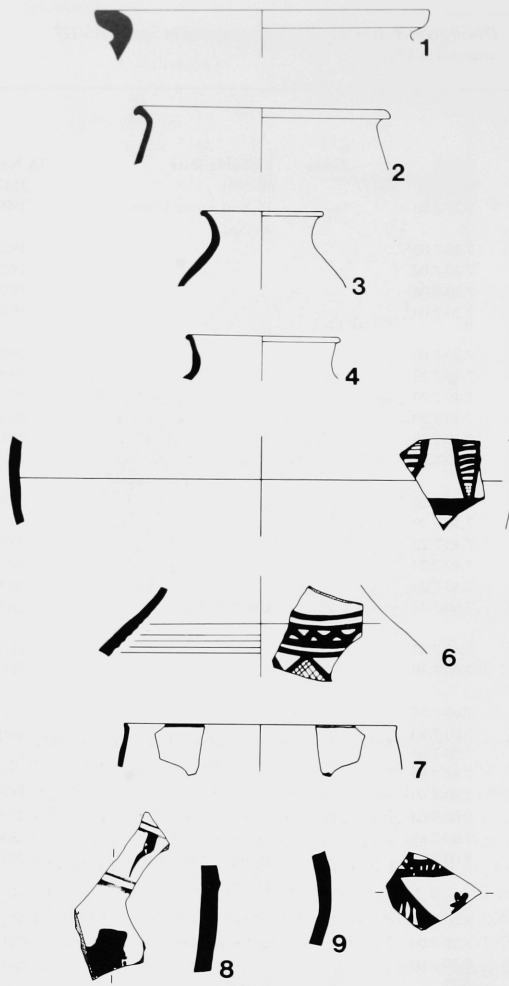


Fig. 14. Umm an-Nar pottery from various squares.

1. TA: 1436 SQUARE: 115/122 LEVEL: 5.40-5.2 DESCRIPTION: hard-fired orange-buff DIA: 22
2. TA: 1932 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: fine tan, NVT DIA: 16
3. TA: 2136 SQUARE: 118-20/142-147 LEVEL: 9.40-9.20 DESCRIPTION: discolored orange gone tan, fine, NVT DIA: 8
4. TA: 1512 SQUARE: 115/127 LEVEL: 6.40-6.20 DESCRIPTION: fine orange, relict black paint DIA: 10
5. TA: 2059 SQUARE: 115/127 LEVEL: 7.40-7.20 DESCRIPTION: coarse orange, some grit, grey interior, black painted
6. TA: 2132 SQUARE: 118-20/142-147 LEVEL: 9.20-9.00 DESCRIPTION: mis-fired red gone grey, very hard, NVT, black painted
7. TA: 2116 SQUARE: 115/127 LEVEL: 7.60-7.40 DESCRIPTION: super fine orange, NVT, red-slipped, black paint DIA: 18
8. TA: 1510 SQUARE: 115/127 LEVEL: 5.77, loc. 48 DESCRIPTION: hard-fired orange, meandering ridges, red-slipped
9. TA: 1501 SQUARE: 115/132 LEVEL: 6.00-5.80, loc. 38 DESCRIPTION: hard-fired red, some chaff, black-on-red DIA: 8

Fig. 15. TA 2132 (= Fig. 14.6).



Fig. 16. TA 1900.

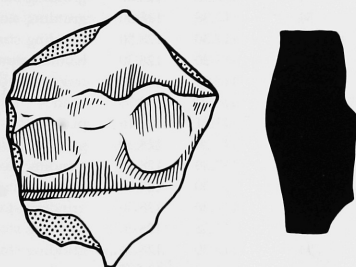


Fig. 17. TA 1900.

finely levigated, well-fired clay, and bears the surface ridges, in addition to some apparently inadvertent splashes of paint, which identify it as belonging to a large class of ridged pottery known in the region during the late third millennium³⁰. Finally, Fig. 14:9 shows hatched bands and a floral or stellar motif which, combined in this way, recall a piece from period II at Bampur³¹. Before leaving the subject of 115/127, attention should also be drawn to the presence in level 7.00-6.80 of a small body sherd of Barbar chain-ridged ware, TA 1900 (Figs. 16-17). As our 1989 report demonstrated, Barbar red-ridged ware was not uncommon in late Umm an-Nar and early Wadi Suq levels on the west side of Tell Abraq³², and such was the case in the deposits excavated in 1990 as well (see below). To my knowledge, however, TA 1900 is the first piece of Barbar chain-ridged pottery discovered in southeastern Arabia. In line with the sequence established for Bahrain and northeastern Saudi Arabia, it should be dated to c. 2400-2100 B.C.³³.

No structural remains of Umm an-Nar date were recovered

in 115/127, the content of which, in the levels containing Umm an-Nar pottery, consisted largely of sand with an occasional patch of ash suggesting at most that ephemeral third millennium fireplaces were located there. Nevertheless, as the list of smallfinds from Umm an-Nar pottery-bearing levels in the square attests (Table 2), the high number of grinding stones

Table 2. Smallfinds from levels in Square 115/127 containing Umm an-Nar pottery

Square	Level	Locus	Coordinates	Object type	Mater.	Dimensions	TA No.
115/127	6.23	54	117.30 128.30	hammerstone	Stone	9.3 × 6.9 × 4.2	432
115/127	6.23	54	117.30 128.30	hammerstone	Stone	5.9 × 5.9 × 4.3	433
115/127	6.23	54	117.30 128.30	grinding stone fragment	Stone	9.2 × 7.5 × 4.9	434
115/127	6.23	54	117.30 128.30	grinding stone fragment	Stone	6.9 × 6.5 × 4.8	435
115/127	6.23	54	117.30 128.30	grinding stone fragment	Stone	8.8 × 7.5 × 3.7	436
115/127	6.23	54	117.30 128.30	grinding stone fragment	Stone	6.8 × 4.7 × 4.2	437
115/127	6.23	54	117.30 128.30	hammerstone	Stone	6.8 × 6 × 4	438
115/127	6.32		118.91 130.68	fragment	Bronze	1.2 × 1.1 × 0.7	458
115/127	6.33		118 130.25	bead	Stone	1.7 × 0.6	454
115/127	6.34		117.21 131.16	pin	Bronze	1.5 × 0.5	457
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	8.4 × 6 × 4.4	444
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	15.1 × 7.5 × 3.8	445
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	11.2 × 6.4 × 11.5	446
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	9.7 × 6.8 × 2.9	447
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	4.9 × 5.4 × 5.9	448
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	5.2 × 4.6 × 3.4	449
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	5.7 × 4.7 × 2.3	450
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	4 × 3.8 × 1.8	451
115/127	6.36	54	117.30 128.30	grinding stone fragment	Stone	5.4 × 5.9 × 6.5	452
115/127	6.36	54	117.30 128.30	hammerstone	Stone	4.2 × 3.4 × 3.1	453
115/127	6.40		115.83 131.70	grinding stone fragment	Stone	8.3 × 5.2 × 3.4	460
115/127	6.44	48	116 129.40	hammerstone	Stone	4.9 × 5.4 × 6.1	328
115/127	6.49		118.96 128.78	grinding stone fragment	Stone	7.1 × 5 × 3	465
115/127	6.55		119.70 130.70	grinding stone fragment	Stone	9.2 × 4.6 × 3.2	478
115/127	6.57		119.29 128.24	grinding stone fragment	Stone	6.7 × 5.2 × 3.5	472
115/127	6.60		117.65 128.11	grinding stone fragment	Stone	9.4 × 4.9 × 2.5	479
115/127	6.61		118 131.45	hammerstone	Stone	8.7 × 6.5 × 4.2	533
115/127	6.62		119.61 130.26	polisher	Stone	5.7 × 4 × 3.5	480
115/127	6.64		117.20 130.29	pendant	Stone	2.2 × 1.9 × 1.9	519
115/127	6.64		117.20 130.86	hammerstone	Stone	7 × 6.2 × 3.8	526
115/127	6.65		118.95 131.30	fragment	Stone	5.3 × 4 × 4	534
115/127	6.66		115.16 130.85	fragment	Bronze	0.6 × 0.5	485
115/127	6.67		119.69 127.81	fragment	Steatite	4.7 × 2.9 × 1	522
115/127	6.67		119.70 127.78	grinding stone fragment	Stone	4.6 × 3.4 × 2.7	521
115/127	6.67		119.88 127.73	fragment	Stone	6.2 × 3 × 1.3	523
115/127	6.70	48	115.77 129.62	whetstone	Stone	2.8 × 2.5 × 0.7	486
115/127	6.77		117.08 131	fragment	Bronze	1.8 × 1.8 × 0.5	528
115/127	6.78		117 128.60	whetstone	Stone	11 × 3.5 × 3	515
115/127	6.78		118.08 130.93	grinding stone fragment	Stone	5 × 5.3 × 2.3	531
115/127	6.78		119.27 129.34	fragment	Bronze	1.5 × 0.7	525
115/127	6.80		117.30 129.05	grinding stone fragment	Stone	4.4 × 4.5 × 3.4	516

115/127	6.80	117.42	129.95	grinding stone fragment	Stone	8.3 × 6 × 3	532
115/127	6.80	118.07	128.44	grinding stone fragment	Stone	3.4 × 3.3 × 3.3	517
115/127	6.83	118.52	131.10	fragment	Bronze	3.6 × 0.6	554
115/127	6.83	119.44	131.56	hammerstone	Stone	5.7 × 6.8 × 2.5	567
115/127	6.85	119.80	128.80	grinding stone fragment	Stone	5.7 × 4.3 × 3.9	538
115/127	6.85	119.80	128.85	grinding stone fragment	Stone	8.4 × 7.6 × 4.6	541
115/127	6.86	119.60	129.18	grinding stone fragment	Stone	18 × 15 × 4.8	544
115/127	6.87	117.02	130.78	grinding stone fragment	Stone	7.2 × 5.1 × 4.2	559
115/127	6.88	118.80	130.37	hammerstone	Stone	4.9 × 5.4 × 3.1	555
115/127	6.90	117.74	130.80	grinding stone fragment	Stone	5.5 × 5 × 2.6	558
115/127	6.90	117.77	131.23	grinding stone fragment	Stone	5.1 × 4.2 × 3.5	560
115/127	6.90	119.57	130.90	hammerstone	Stone	5 × 4.3 × 4.9	566
115/127	6.90	119.69	131.50	hammerstone	Stone	7 × 4.2 × 1.8	569
115/127	6.92	117.97	130.90	fragment	Bronze	1.1 × 0.7	556
115/127	6.92	118.45	128.93	grinding stone fragment	Stone	7.8 × 8.2 × 5.5	545
115/127	6.93	119.06	128.80	hammerstone	Stone	7 × 5 × 4.5	543
115/127	6.93	119.30	130.10	grinding stone fragment	Stone	5.2 × 4.1 × 2.3	565
115/127	6.94	128.67	134.94	pin	Bronze	3.7 × 0.3	581
115/127	6.96	118.62	130.38	fragment	Flint	3 × 1.5 × 0.5	557
115/127	6.97	118	130.14	grinding stone fragment	Stone	9 × 5.3 × 4.4	553
115/127	6.97	116.68	128.40	lid	Steatite	4.5 × 4.5 × 2.5	549
115/127	7.00-6.80			grinding stone fragment	Stone	5.6 × 3.8 × 4.5	546
115/127	7.00-6.80			grinding stone fragment	Stone	5 × 6 × 2.4	547
115/127	7.00	115.90	131.50	fragment	Bronze	1.8 × 1.7 × 0.4	574
115/127	7.00	119.16	130.41	shell crusher	Stone	6 × 4.8 × 3.6	575
115/127	7.00	119.27	131.40	fragment	Bronze	0.9 × 1.7 × 0.6	570
115/127	7.05	117.22	129.55	hammerstone	Stone	7 × 5.3 × 4.7	584
115/127	7.10	119.80	127.76	grinding stone fragment	Stone	6 × 4.5 × 4.5	578
115/127	7.11	117.42	130.63	grinding stone fragment	Stone	4.8 × 3 × 2.4	588
115/127	7.14	118.35	130.61	grinding stone fragment	Stone	5.5 × 5 × 4	595
115/127	7.16	118.08	128.42	fragment	Bronze	2 × 1.1 × 0.8	583
115/127	7.17	117.01	128.45	fragment	Bronze	2.6 × 1.3	580
115/127	7.18	117.95	128.70	sherd	Steatite	5.3 × 5.2 × 0.5	582
115/127	7.20	116.95	131.38	whetstone	Stone	4.4 × 2.4 × 1.2	591
115/127	7.20	118.42	129.94	fragment	Bronze	4.9 × 1.4 × 0.5	592
115/127	7.23	117	131.28	polisher	Stone	6.3 × 5.5 × 3.4	602
115/127	7.28	116.86	131.69	hammerstone	Stone	6.6 × 4.9 × 3.5	600
115/127	7.29	116.76	130.25	grinding stone fragment	Stone	6.5 × 2.7 × 3.1	599
115/127	7.29	118.53	131.48	sherd	Steatite	4.4 × 3.5 × 0.6	607
115/127	7.29	119.15	130.19	fragment	Bronze	3.2 × 1.1	622
115/127	7.31	116.52	130.32	hammerstone	Stone	7.8 × 4.2 × 3.8	608
115/127	7.32	117.44	131.53	hammerstone	Stone	3.3 × 4.6 × 3	604
115/127	7.33	118.01	130.85	grinding stone fragment	Stone	6.2 × 5.5 × 3.4	606
115/127	7.36	118.13	129.95	grinding stone fragment	Stone	3.6 × 3.6 × 2.7	612
115/127	7.36	119.26	129.29	fragment	Steatite	6 xc 2.2 × 1.6	621
115/127	7.37	118.76	129.83	fragment	Steatite	2.8 × 2.4 × 1.3	613
115/127	7.37	118.89	128.55	grinding stone fragment	Stone	4.4 × 3.1 × 2.9	619
115/127	7.39	118.09	128.27	grinding stone fragment	Stone	4.6 × 3.5 × 1.7	618
115/127	7.40	116.58	130.42	base sherd	Steatite	3.2 × 5.7 × 1.3	620
115/127	7.40	118.29	129.21	lid	Steatite	5.2 × 3.7 × 1.3	615
115/127	7.40	118.67	129.92	fragment	Bone	3.8 × 2.1 × 1.3	614
115/127	7.44	119.62	129.18	hammerstone	Stone	3.4 × 3.2 × 2.5	640
115/127	7.56	116.63	128.70	grinding stone fragment	Stone	4.3 × 2.7 × 2	632

115/127	7.58		118.60	127.84	grinding stone fragment	Stone	3.9 × 3.3 × 3	639
115/127	7.64		118.37	127.97	grinding stone fragment	Stone	5.7 × 6.4 × 3.5	636
115/127	7.64		118.79	129.15	sherd	Steatite	6.2 × 4.8 × 0.8	646
115/127	7.67		117.25	130.89	grinding stone fragment	Stone	4.5 × 3.7 × 3.5	643
115/127	7.71		117.68	130.65	fragment	Bronze	0.9 × 0.6 × 0.3	644
115/127	7.71		118.61	127.78	grinding stone fragment	Stone	7.8 × 6.5 × 1.8	647
115/127	7.77		118.41	128.55	fragment	Flint	4.9 × 3.2 × 0.9	655
115/127	7.80		119.94	128.92	fragment	Bronze	1.1 × 0.9 × 0.6	654
115/127	8.00-7.80				fragment	Steatite	3.6 × 2.3 × 1.4	658
115/127	8.00-7.80				grinding stone fragment	Stone	5.8 × 3.4 × 2	657
115/127	8.00		117.16	128.15	grinding stone fragment	Stone	7.7 × 2.6 × 3.2	665
115/127	8.00		117.92	131.02	grinding stone fragment	Stone		661
115/127	8.09		117.95	130.75	fragment	Flint	3.2 × 3.6 × 1.2	666
115/127	8.10		115.93	128.77	hammerstone	Stone	5.7 × 4 × 3.3	664
115/127	8.15		118.76	130.07	grinding stone fragment	Stone	6.7 × 6.5 × 4.5	667
115/127	8.27	48	115.34	130.49	fragment	Bronze	2.7 × 1.3 × 0.4	670
115/127	8.40		117.39	131.82	debitage	Flint	2.9 × 2.4 × 1	585

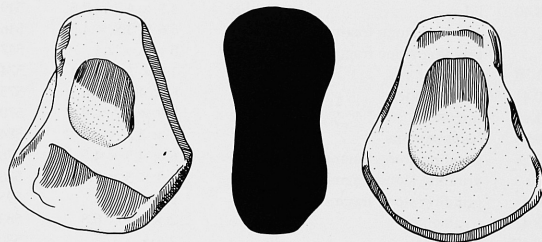


Fig. 18. TA 432 (9.3 × 6.9 × 4.2 cm.).

and hammerstones found in this area clearly reflects the occupational nature of the debris, whether or not architectural remains were absent. Of the groundstone material from this area illustrated here (Fig. 18), TA 432 (117.30/128.30, locus 54, 6.23) is a roughly triangular-shaped hammerstone with depressions on both faces which recalls a piece of much earlier date found in house 1 at Ras al-Hamra 5 on the coast of Oman³⁴.

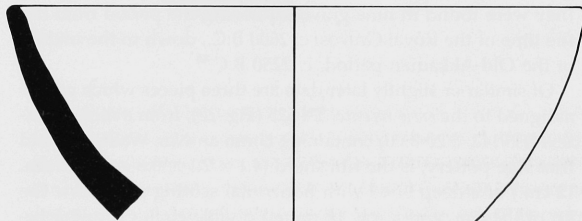
Elsewhere in the 1990 step-trench only a small number of stray Umm an-Nar sherds were recorded. These are listed in Table 3, along with the probable date of the contexts in which they were found (i.e. they are all out of context and found together with younger material).

In view of the fact that so little work was done this year in third millennium levels, only four pieces of Umm an-Nar soft-stone were discovered during the 1990 season. None of these comes from a context which could even remotely be considered primary, but their presence in levels dominated by Wadi Suq and/or Iron Age pottery clearly attests to the presence of

Table 3. *Umm an-Nar sherds from Various Squares excavated in 1990 (not including 115/127, see Table 1)*

Identification	Square	Level	Locus	Probable Date	TA No.
Umm an-Nar	115/117	4.20-4.00		Iron Age	1559
Umm an-Nar	115/122	3.80-3.60		Iron Age	1141
Umm an-Nar	115/122	5.40-5.20		Iron Age/W. Suq	1436
Umm an-Nar or Harappan?	115/132	6.00-5.80	38	mixed, mainly Iron Age	1501
Umm an-Nar	118-120/142, 118-120/147	8.20-8.00		mixed Iron Age, Wadi Suq, Umm an-Nar	1985
Umm an-Nar	118-120/142, 118-120/147	8.20-8.00			1987
Umm an-Nar	118-20/142, 118-20/147	8.40-8.20		mainly Wadi Suq	2215
Umm an-Nar	118-20/142, 118-20/147	9.20-9.00		mainly Wadi Suq, some Umm an-Nar	2129
Umm an-Nar	118-20/142, 118-20/147	9.20-9.00		-	2131
Umm an-Nar	118-20/142, 118-20/147	9.20-9.00		-	2132
Umm an-Nar	118-20/142, 118-20/147	9.40-9.20		all Wadi Suq	2136
Umm an-Nar?	118-20/142, 118-20/147	9.60-9.40		mainly Wadi Suq, some Umm an-Nar	2180
Umm an-Nar	118-20/142, 118-20/147	9.60-9.40		-	2184

Fig. 19. TA 646 (6.2 × 4.8 × 0.8 cm.).



third millennium levels in this area at greater depths than those reached this year, for it is most likely that the finds presented here were dredged up at one time or another from those earlier levels.

Possibly the oldest soft-stone fragment assignable to the third millennium is an undecorated rimsherd from an open bowl, TA 646 (Fig. 19). Similar bowls are known, for example, in the Jamdat Nasr cemetery at Ur³⁵, although it is difficult, on the basis of the greatly reduced drawings published by Woolley, to be certain of exactly which of his types might be comparable to our piece, and consequently of exactly where their date would fall³⁶. The rim of an open, or so-called "bell-shaped"³⁷ bowl (TA 582; 5.3 × 5.2 × 0.5 cm., rim dia. 20 cm.), decorated only by a

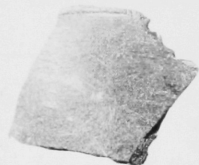


Fig. 20. TA 582 (5.3 × 5.2 × 0.5 cm.).

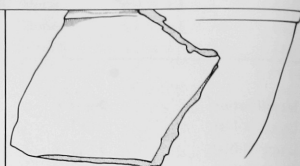


Fig. 21. TA 582.

faint indentation under the lip (Figs. 20-21) was found in a level dominated by Wadi Suq pottery with a small admixture of Umm an-Nar types (in 115/127; 117.95/128.70, 7.18). Open bowls of this sort are known, for example, in the corpus of soft-stone finds from Tarut³⁸. A very similar sherd was found by K. Frifelt among the remains of a disturbed Umm an-Nar grave in the Wadi Suq³⁹. Comparable pieces have also been recovered in southeastern Iran at both Shahdad⁴⁰ and Tepe Yahya⁴¹. Further afield, they are attested in the Royal Cemetery at Ur⁴², where they were found in nine graves spanning the period from the time of the Royal Graves, c. 2600 B.C., down to the middle of the Old Akkadian period, c. 2250 B.C.⁴³

Of similar or slightly later date are three pieces which can be assigned to the *série récente*. TA 625 (Fig. 22), from a mixed context (115/142, 8.20-8.00) containing Umm an-Nar, Wadi Suq, and Iron Age pottery, is the rim sherd (4.1 × 2.1 × 0.6 cm., rim dia. 12 cm.) of a deep bowl with horizontal scoring just below the lip of the rim, and a row of dotted double circles running beneath it. The sherd is generally similar to TA 106, recovered in 1989⁴⁴, although it comes from a much deeper, nearly straight-sided bowl. Vessels of this type are common in southeastern Arabia, and comparanda are known, for example, from Hili North tomb A⁴⁵, Hili tomb B⁴⁶, Hili 8⁴⁷, a recently excavated Umm an-Nar tomb in Ajman⁴⁸, 'Amlah⁴⁹, and Maysar I⁵⁰. They have also been recovered outside of the region, e.g. on Tarut⁵¹, at Tello⁵², at Susa⁵³, and at Mohenjo-Daro⁵⁴.

TA 615 (5.2 × 3.7 × 1.3 cm.), from a context containing Umm an-Nar pottery mixed with Wadi Suq sherds (115/127, 7.40, at 118.29/129.21), is a fragment of the lid of a compartmented vessel (Figs. 23-24). Comparanda can be pointed to at several sites in the Oman peninsula, including tomb A at Hili North⁵⁵, tomb B at Hili⁵⁶, and Tawi Silaim⁵⁷.

A complete vessel, TA 392 (Figs. 25-26), was discovered in an

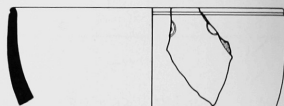


Fig. 22. TA 625 (4.1 × 2.1 × 0.6 cm.).



Fig. 23. TA 615 (5.2 × 3.7 × 1.3).

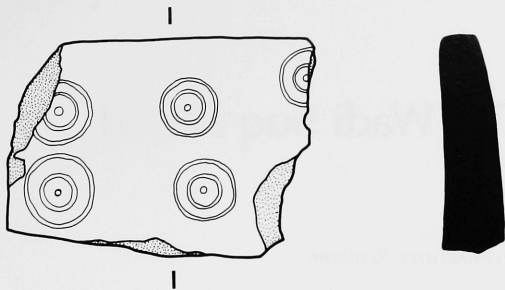


Fig. 24. TA 615.

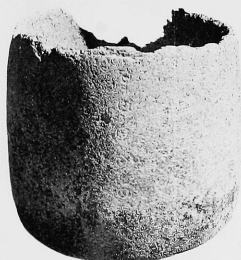


Fig. 25. TA 392 (9.4 × 9.1 × 0.6 cm.).

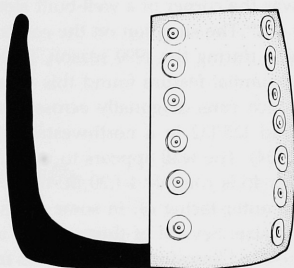


Fig. 26. TA 392.

area of late, ed-Dur-period graves (115/112; 118.75/116.40, 3.30) which makes one suspect that it may have been originally placed in a nearby Umm an-Nar tomb, such as the one discovered on the western side of the site in 1989⁵⁸, from whence it was at some point plundered, and eventually found its way into a grave dating to the first centuries A.D. The vessel is made of a very light coloured, micaceous grey soft-stone, and has nearly straight sides. It is 9.4 cm. high, and has a base diameter of 9.1 cm. and a rim diameter of 8.6 cm. The vessel wall averages 0.6 cm. in thickness. The vessel is decorated with six vertical registers of six or seven dotted double circles, evenly spaced around the exterior of the vessel and running from the rim down to the vessel's slightly rounded base. In 1986 the base of a similar vessel was found on the surface of the southern portion of ed-Dur⁵⁹, where Umm an-Nar pottery was later recovered as well. In addition, a complete and generally similar if slightly more tapering vessel was found on Tarut⁶⁰. The base of a similar soft-stone vessel from Ur bears the inscription "Naram-Sin, king of the four quarters, bowl (from) the booty of Magan"⁶¹.

The Wadi Suq Period

Architectural Remains

The only standing architecture of Wadi Suq date found during the 1989 season was the corner of a well-built stone house (locus 31) in square OII⁶². The situation on the eastern side of the mound, as revealed during the 1990 season, was quite different. The most substantial feature found this year was a large wall (locus 40) which runs diagonally across squares 115/137, 120/137, 120/132, and 125/132 in a northwesterly-southeasterly direction (Figs. 27-34). The wall appears to turn a corner at its eastern end. Locus 40 is roughly 1-1.20 m. thick. It is built of mudbrick with an outer facing of, in some cases, large stone blocks of irregular size. Several of those visible in 120/137 are almost certainly re-used limestone facing stones from an Umm an-Nar tomb, perhaps the one discovered in 1989⁶³. Locus 40 was cut by an irregularly shaped Iron Age pit (locus 45) on the western side of 115/137 which measured roughly 1.8-2 m. in diameter (Fig. 35). The eastern side of this pit was extended and straightened to provide a section through the deposits running up to the south side of locus 40. In this way, we were able to distinguish several hard levels of packed earth, representing successive floor levels, which abutted locus 40 and were clearly contemporary with its use (Fig. 36). To the limited extent that we were able to tell from one season of excavation, however, these are not the interior floors of a room, and locus 40 is not part of a building (although it is still not clear whether locus 62, a wall fragment exposed in 115/142, should be considered part of the same structure). Rather, it seems to be an enclosure wall for the settlement during the late Wadi Suq period (c. 1600-1300 B.C.).

Habitation in this area seems to have taken the form of wooden houses, *barastis*, or tents, for the uppermost floor level (locus 60) associated with locus 40 (cf. Fig. 36), cleared in 115/132 and 115/137, was replete with postholes and occasional pits (Figs. 37-38). This was particularly unexpected as no levels of postholes had been observed on the western side of the mound in 1989. On the eastern side of the mound, however, it is clear

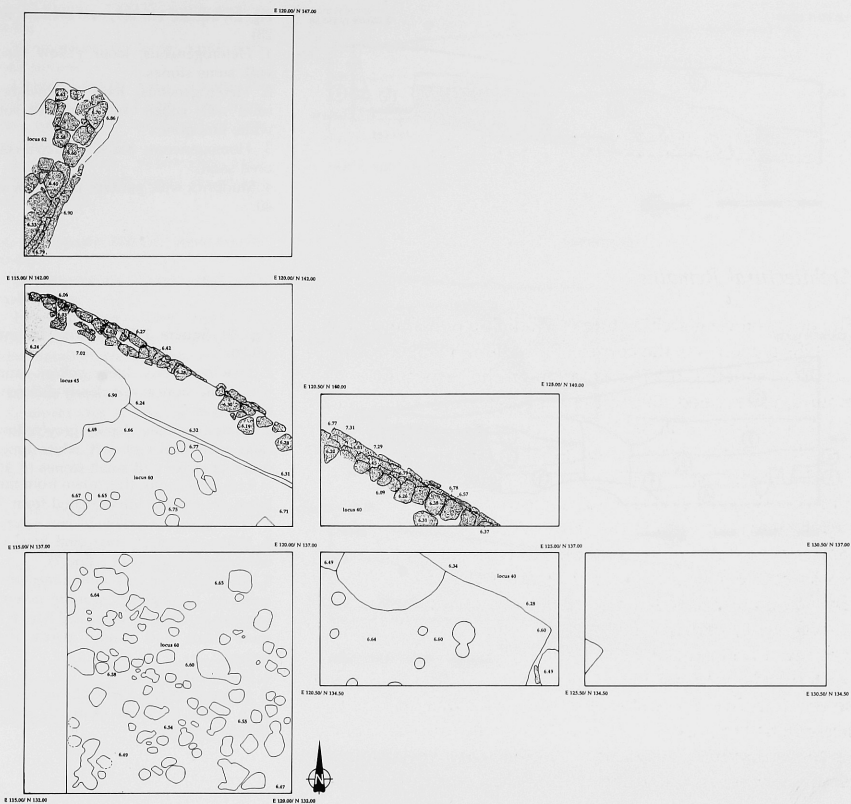


Fig. 27. Plan of locus 40.



Fig. 28. Detail of locus 40 in 120/137.

E 120.00/ N 142.00

E 120.00/ N 137.50

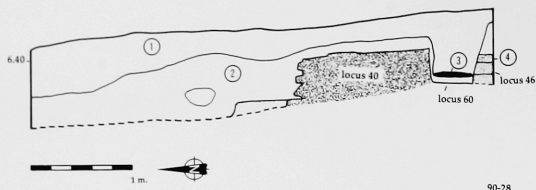


Fig. 29. Square 115/137, east section (90-28)

1. Heterogeneous, loose yellow sand with some stones.
2. Heterogeneous, loose yellow/grey sand with rubble and flecks of soft white limestone.
3. Homogeneous, black, charcoal-colored sand.
4. Mudbrick wall, perhaps part of locus 40.

E 115.00/ N 137.50

E 115.00/ N 142.00

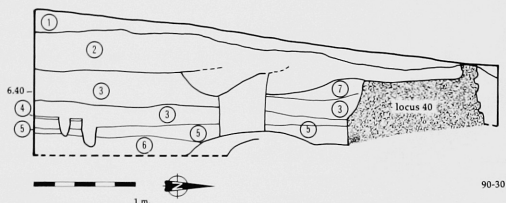


Fig. 30. Square 115/137, west section (90-30)

1. Heterogeneous, loose yellow sand with some stones; not clearly differentiated from 2.
2. Heterogeneous, loose grey/yellow sand with flecks of soft white limestone, charcoal and small stones (c. 10 x 5 cm.); some pits dug down from this level; not clearly differentiated from 3.
3. Homogeneous yellow/brown sand.
4. White, compact horizontal level of soft limestone (part of a floor?)
5. Floor locus 60; soft white limestone, compact, homogeneous, more heterogeneous in the w. section and here it is more black and sandy; partly disturbed.
6. No description.
7. Heterogeneous, yellow/brown sand with many flecks of charcoal; rather diffuse borders.

E 120.50/ N 137.00

E 125.00/ N 137.00

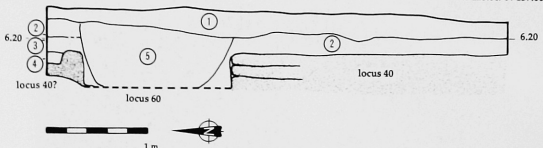


Fig. 31. Square 120/132, north section (90-40)

1. Loose, heterogeneous sand, with many small stones and rubble fragments, including a pit that is part of this layer; clearly delimited.
2. Heterogeneous red/brown sand with flecks of soft white limestone, rubble and some soft pieces of limestone; clearly delimited.
3. Homogeneous, loose red/brown layer with some small flecks of charcoal. Two postholes descend from this level into locus 60; clearly delimited.
4. Heterogeneous yellow/brown to yellow/grey fill with rubble.
5. Pit with loose yellow sand and charcoal; vague limits.

Fig. 32. Square 120/137, south section (90-43)

1. Heterogeneous, loose sand with small stones.
2. Heterogeneous, loose, red/brown sand, with flecks of soft white limestone, small stones, and limestone rubble; some charcoal.
3. Heterogeneous, yellow/grey sand with flecks of soft white limestone; some charcoal.

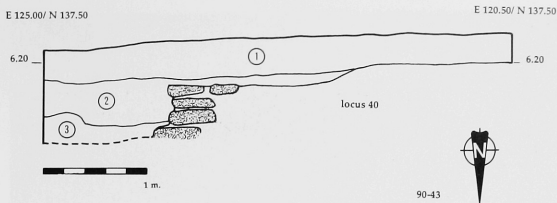


Fig. 33. Square 120/137, west section (90-44)

1. Heterogeneous, loose sand with small stones.
2. Heterogeneous, loose, red/brown sand, with flecks of soft white limestone, small stones, and limestone rubble; some charcoal.
3. Lens of black charcoal.
4. Compact area of mudbrick and soft limestone running up to locus 40, perhaps some sort of pavement or brick-fall.

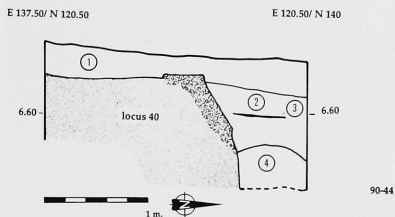


Fig. 34. Square 125/132, west section (90-46)

1. Homogeneous, loose yellow sand (surface); vague border with layer 2.
2. Heterogeneous, loose, red/yellow sand with flecks and larger pieces of soft white limestone and some charcoal.
3. Hard, yellow/grey to red/grey, clay-like layer with a good deal of soft white limestone and small flecks of charcoal; clear limits.

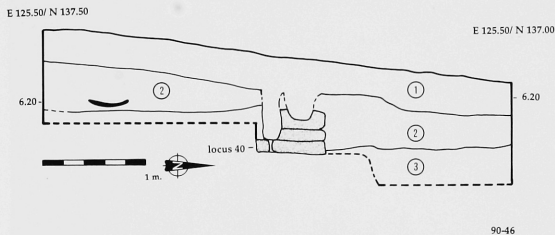


Fig. 35. Locus 45.



Fig. 36. Floors running up against locus 40.



Fig. 37. Postholes in 115/137.

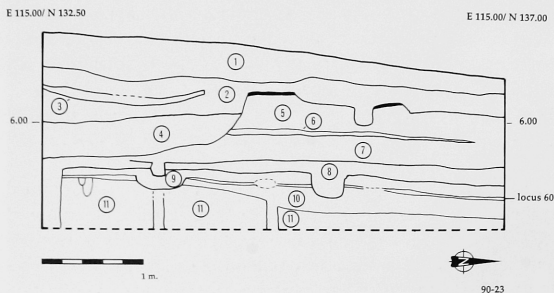
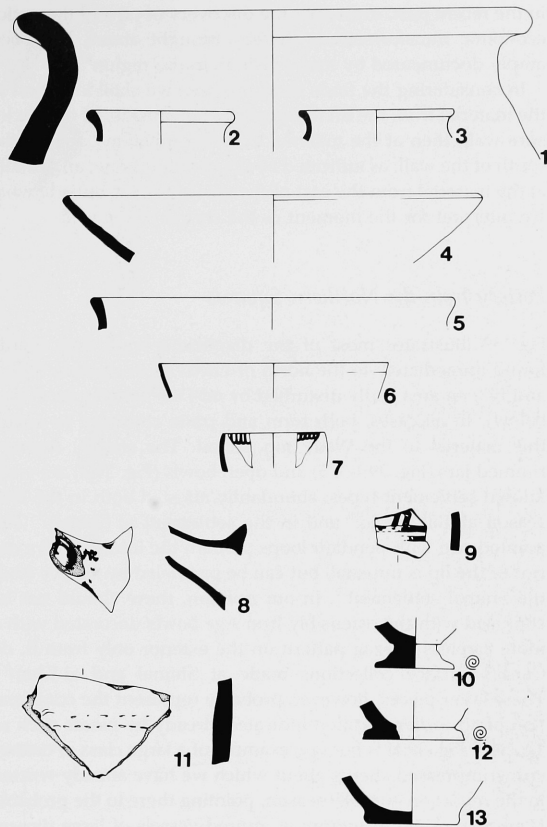


Fig. 38. Square 115/132, west section (90-23)

1. Loose yellow sand with small stones.
2. Heterogeneous, loose, yellow/red sand with flecks of soft white limestone and charcoal; postholes descend from this level.
3. Homogeneous, black/brown sand containing charcoal.
4. Yellow/grey sand with small pieces of mudbrick and soft white limestone.
5. Heterogeneous soft white limestone or mudbrick in large fragments, positioned in a very tumbled-looking way.
6. Homogeneous, soft white limestone, floor level (?).
7. Heterogeneous, hard black/grey sand with many postholes descending from this level.
8. Hard, homogeneous, light black/grey sand.
9. Hard, light black/grey sand (slightly darker than 8) visible only in the west section (perhaps part of level 8); many striations, perhaps representing a floor level.
10. Homogeneous, hard, light-colored grey/black sand.
11. Hard, dark-colored grey/black sand with pieces and flecks of soft white limestone and charcoal.

Fig. 39. Wadi Suq pottery, mainly from north of locus 40.

1. TA: 1454 SQUARE: 115/137 LEVEL: 6.60-6.40 DESCRIPTION: coarse grit and chaff pink grit DIA: 38
2. TA: 1614 SQUARE: 115/142 LEVEL: 6.80-6.60, south of loc. 40 DESCRIPTION: orange-tan grit and fine chaff DIA: 11
3. TA: 1613 SQUARE: 115/142 LEVEL: 6.80-6.60, south of loc. 40 DESCRIPTION: thin, hard-fired orange-tan, NVT DIA: 12
4. TA: 1452 SQUARE: 115/137 LEVEL: 6.60-6.40, DESCRIPTION: brown fine chaff and grit DIA: 32
5. TA: 1306 SQUARE: 115/137 LEVEL: 6.40-6.20, south of loc. 40 DESCRIPTION: gritty tan DIA: 28
6. TA: 2082 SQUARE: 115/137 LEVEL: 7.00-6.80 DESCRIPTION: smooth thin tan, white grit DIA: 18
7. TA: 2084 SQUARE: 115/137 LEVEL: 7.00-6.80 DESCRIPTION: thin orange-tan, fine grit, red paint DIA: 8
8. TA: 1214 SQUARE: 115/137 LEVEL: 6.20-6.00 DESCRIPTION: tan buff, NVT, black-slipped
9. TA: 1453 SQUARE: 115/137 LEVEL: 6.60-6.40 DESCRIPTION: fine tan, NVT, black-on-red
10. TA: 1216 SQUARE: 115/137 LEVEL: 6.20-6.00 DESCRIPTION: black-faced sandy tan, string-impressed
11. TA: 1205 SQUARE: 115/137 LEVEL: 6.40-6.20 DESCRIPTION: hard-fired grey DIA: 6
12. TA: 1204 SQUARE: 115/137 LEVEL: 6.40-6.20 DESCRIPTION: red-brown grit DIA: 8
13. TA: 1617 SQUARE: 115/142 LEVEL: 6.80-6.60 DESCRIPTION: orange-tan grit and fine chaff, grey core DIA: 7.2



that, with the exception of the round building which, we assume, was a fortification not meant for normal habitation, most human occupation must have taken place in perishable structures such as *barastis* for the thick layers of postholes were not confined to the Wadi Suq period, but continued right through the Iron Age. Indeed, settled areas attested principally through post-holes have become much better known in the Oman peninsula during the past few years. Thus, they are clearly visible in the fourth millennium at Ras al-Hamra⁵⁴; in the late third millennium at Ras al-Junayz²⁶⁵; in the second millennium at Tell Abraç and Shimal⁶⁶; in the Iron Age at Tell Abraç (see below); in the later pre-Islamic era at ed-Dur⁶⁷; and in the medieval period at Julfar⁶⁸. That *barastis* were still being constructed

in the recent past, even after the discovery of oil and the socio-economic transformations thereby brought about, has been amply documented by many visitors to the region⁶⁹.

In considering the finds from this area we shall look first at the material from the fill to the north, i.e. outside, of the enclosure wall; then at the material from the inhabited area to the south of the wall, as indicated by the posthole zone; and finally at the material from the east of the enclosure, i.e. outside what we interpret for the moment as the corner of the wall.

Pottery from the Northern Squares

Fig. 39 illustrates most of the diagnostic Wadi Suq sherds found immediately to the north of Locus 40 in squares 115/137 and 142, an area badly disturbed by ed-Dur-period graves (see below). In all cases, both form and paste converge to assign this material to the Wadi Suq period. The simple, flaring-rimmed jars (Fig. 39:1-3, 5) and open bowls (Fig. 39:4) are well-known settlement types, abundantly attested both in the 1989 season at Tell Abraq⁷⁰ and in the settlement at Shimal⁷¹. The painted cup with pendant loops on both the interior and exterior of the lip is unusual, but can be paralleled by a piece from the Shimal settlement⁷². In our opinion, these should not be confused with the ostensibly Iron Age bowls decorated with a more careless zig-zag pattern on the exterior only from B. de Cardi's surface collections made at Shimal and al-Khatt⁷³. These latter pieces, however, probably represent the continuation of an earlier tradition indicated already by pieces such as TA 2084. Fig. 39:11 is but one example of a large class of coarse, string-impressed sherds about which we have already written in the report on our 1989 season, pointing there to the probable Harappan origin of wrapping unfired vessels of large dimensions with string so as to support them during firing⁷⁴. Finally, the same area yielded several examples of string-cut bases from typical Wadi Suq-period goblets (Fig. 39:10, 12). A small selection of typical Wadi Suq sherds found further east, in squares 120/137 and 125/132, is shown in Fig. 40.

One further group of Wadi Suq pottery found north of locus 40 came out of the 2 x 4.5 m. deep sounding excavated along the eastern side of square 115/142, i.e. in 118-120/142 (Figs. 41-42). The deposits here were disturbed, and showed a considerable admixture, even in rather deep levels, of Iron Age and Wadi Suq sherds, along with some Umm an-Nar material. Nevertheless, there are diagnostic Wadi Suq types in this collection which deserve to be illustrated (Fig. 43). The first three sherds on Fig. 43 are typical of the coarser storage jars of the second

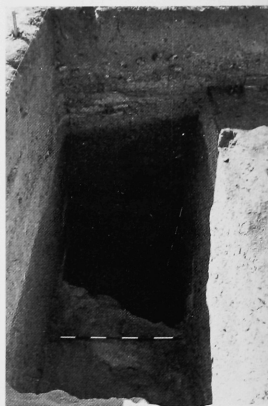


Fig. 41. The deep sounding in square 115/142 (118-120/142).

Fig. 40. Wadi Suq pottery from 115/137 (South of Locus 40), 120/137 (North of Locus 40), and 125/132 (East of Locus 40).

1. TA: 1746 SQUARE: 120/137-120/140 LEVEL: 6.80-6.60 DESCRIPTION: tan chaff and grit, grey core DIA: 54
2. TA: 1780 SQUARE: 120/137-120/140 LEVEL: 7.00-6.80 DESCRIPTION: orange-buff grit and chaff DIA: 48
3. TA: 1753 SQUARE: 125/132 LEVEL: 6.40-6.20 DESCRIPTION: heavy coarse tan grit and chaff, grey core DIA: 32-34
4. TA: 1791 SQUARE: 125/134.5-125/137 LEVEL: 6.80-6.60 DESCRIPTION: orange-tan grit and fine chaff DIA: 9
5. TA: 2081 SQUARE: 115/137 LEVEL: 7.00-6.80 DESCRIPTION: coarse pink chaff and grit, grey core DIA: 12
6. TA: 1786 SQUARE: 120/137-120/140 LEVEL: 7.20-7.00 DESCRIPTION: red-tan chaff and grit DIA: 40
7. TA: 1959 SQUARE: 125/134.5-125/137 LEVEL: 7.00-6.80 DESCRIPTION: smooth grey-tan grit DIA: 40

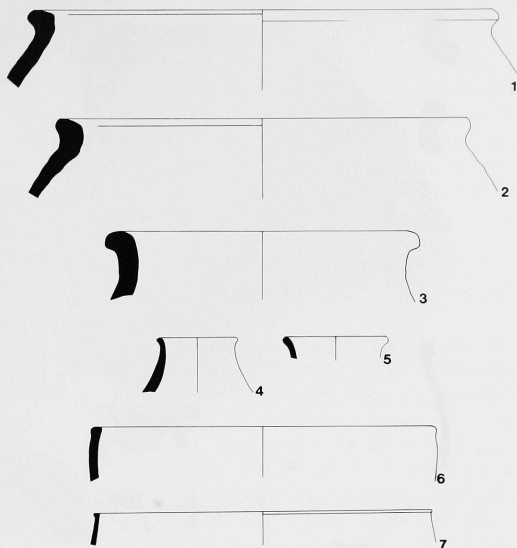
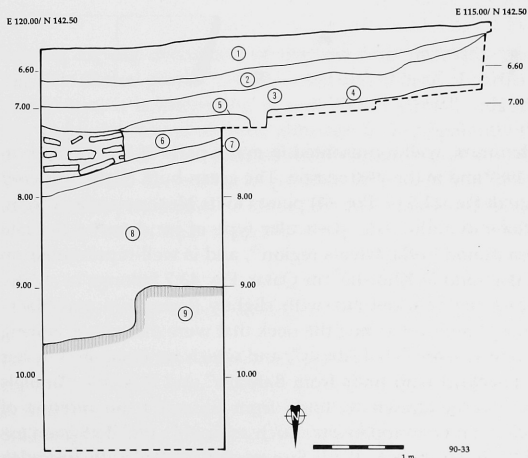


Fig. 42. Square 115/142, south section (90-33).

1. Loose, yellow sand with some stones.
2. Loose, yellow/grey sand with a few flecks of soft white limestone; heterogeneous; diffuse borders.
3. Brown/grey, heterogeneous layer, with large and small fragments of soft white limestone, and mudbrick; clear borders.
4. Black charcoal-colored, striated sand; clear borders.
5. Heterogeneous, dark grey/brown layer with small flecks of charcoal; diffuse limits.
6. Heterogeneous, light grey/brown layer with small flecks of charcoal; diffuse limits.
7. Heterogeneous, light yellow/grey layer with small fragments of stone rubble and charcoal.
8. Heterogeneous yellow/grey sand.
9. Sterile sand.



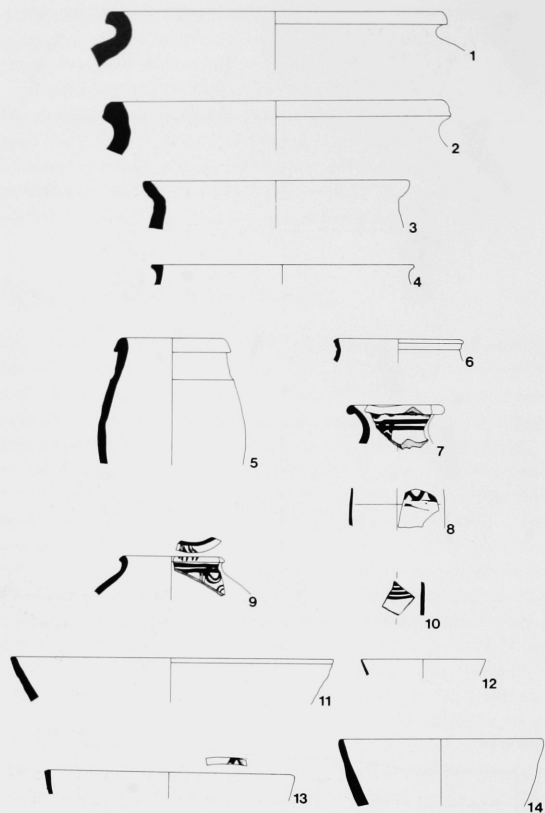


Fig. 43. Wadi Suq pottery from the deep sounding in 118-120/142.

1. TA: 2178 LEVEL: 9.60-9.40 DESCRIPTION: pink chaff and grit, grey core DIA: 38
2. TA: 2179 LEVEL: 9.60-9.40 DESCRIPTION: green-tan chaff and grit, black core DIA: 38
3. TA: 2142 LEVEL: 9.40-9.20 DESCRIPTION: orange chaff and large grit DIA: 30
4. TA: 1983 LEVEL: 8.20-8.00 DESCRIPTION: sandy buff DIA: 28-30
5. TA: 2177 LEVEL: 9.60-9.40 DESCRIPTION: green-buff, chaff and some grit DIA: 12
6. TA: 2122 LEVEL: 9.20-9.00 DESCRIPTION: smooth tan, white grit
7. TA: 1969 LEVEL: 8.00-7.80 DESCRIPTION: red-brown chaff, black painted DIA: 10
8. TA: 2120 LEVEL: 9.20-9.00 DESCRIPTION: thin orange, fine chaff and white grit, black painted
9. TA: 1968 LEVEL: 8.00-7.80 DESCRIPTION: tan-buff, fine chaff, burnished, brown painted DIA: 11
10. TA: 2183 LEVEL: 9.60-9.40 DESCRIPTION: orange-tan, fine grit, brown slipped, black bands
11. TA: 2062 LEVEL: 8.80-8.60 DESCRIPTION: coarse tan chaff and white grit, grey core
12. TA: 2137 LEVEL: 9.40-9.20 DESCRIPTION: super fine thin tan, white grit DIA: 14
13. TA: 2121 LEVEL: 9.20-9.00 DESCRIPTION: sandy red, fine chaff and grit DIA: 28
14. TA: 2138 LEVEL: 9.40-9.20 DESCRIPTION: tan chaff and grit, grey core DIA: 23

millennium, well-represented in many parts of the site both in the 1989 and in the 1990 season. The green-buff, chaff-tempered paste of Fig. 43:5 (= Fig. 44) points to its Mesopotamian origin, as does its form. This particular type of jar dates to the late Larsa period in the Diyala region⁷⁵, and is well-represented on Failaka⁷⁶ and at Khor-Ile⁷⁷ in Qatar. Fig. 43:7 belongs to a category of high-necked jars with slightly flaring rim and black-painted bands encircling the neck that were discovered during the first season at Tell Abraq⁷⁸, and which we compared in our earlier report with finds from Bahrain⁷⁹ and Failaka⁸⁰. Parallels may also be drawn to finds from Shimal⁸¹, the interior of Oman⁸², and Harappan sites such as Rojdi⁸³. Fig. 43:8 is an example of a common Wadi Suq period beaker with irregular,

Fig. 44. TA 2177 (= Fig. 43:5).

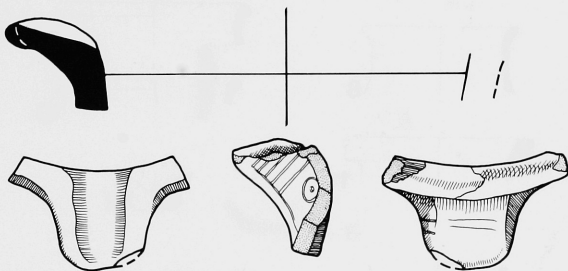


Fig. 45. TA 352 (2.9 × 4.7 × 0.8 cm.).

looping zig-zag decoration of the sort seen on many pieces from the Shimal graves⁸⁴. While not in and of itself of particular importance, it is interesting to note that a virtually identical piece was discovered at Susa, although in an apparently pre-Sargonic context⁸⁵. The painted stripes on the rim of Fig. 43:9, along with the decoration of parallel, horizontal and vertical lines, and opposed pairs of loops, recalls a number of spouted Wadi Suq vessels from Shimal⁸⁶.

Soft-Stone found North of Locus 40

TA 352 (119.28/132.95, 6.28) is a fragment (2.9 × 4.7 × 0.8 cm.) of the rim and open, trough spout of a vessel bearing decoration in both dotted circles and, along the spout, parallel diagonal lines (Fig. 45). The piece finds close parallels at Hili 8⁸⁷, Bidya 1⁸⁸, and Shimal (grave SH 99)⁸⁹.

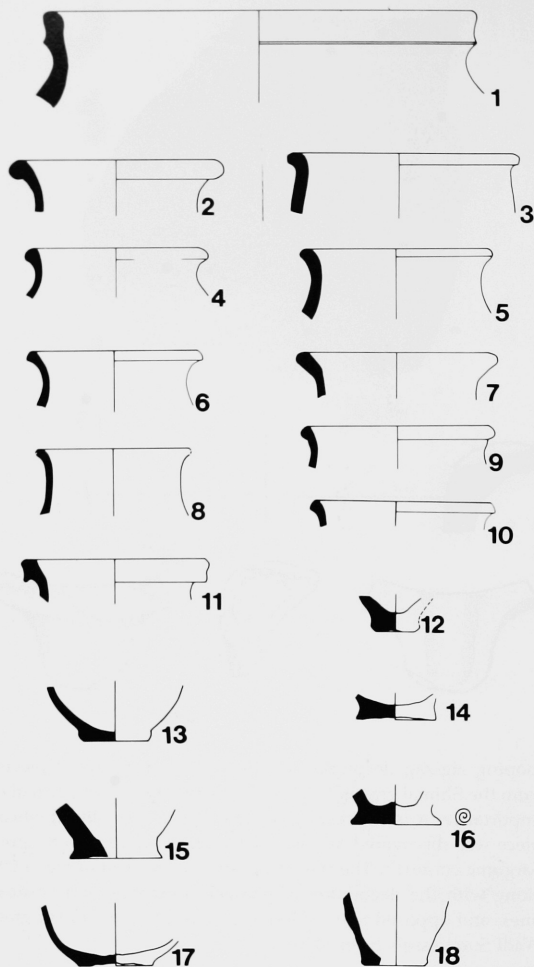


Fig. 46. Wadi Suq sherds from south of locus 40.

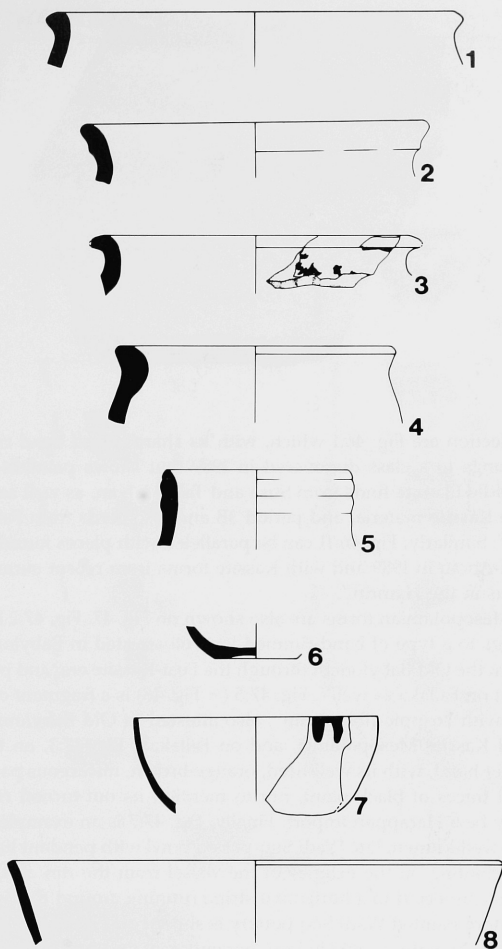
1. TA: 1535 SQUARE: 115/127 LEVEL: 5.40-5.20 DESCRIPTION: red-orange grit and fine chaff, grey core DIA: 28
2. TA: 1935 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: hard-fired tan, smooth, fine chaff DIA: 13
3. TA: 1950 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: sandy buff, fine chaff DIA: 14-15
4. TA: 1943 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: fine tan, white grits DIA: 11
5. TA: 1704 SQUARE: 115/127 LEVEL: 6.60-6.40 DESCRIPTION: light tan grit and chaff DIA: 12
6. TA: 1831 SQUARE: 115/127 LEVEL: 6.80-6.60 DESCRIPTION: green-buff chaff and grit, grey core DIA: 11
7. TA: 1532 SQUARE: 115/127 LEVEL: 5.60-5.40 DESCRIPTION: thin orange-tan grit and fine chaff DIA: 11
8. TA: 1933 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: thin, coarse brown grit, grey core DIA: 10
9. TA: 1881 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: orange-tan fine chaff and white grit DIA: 12
10. TA: 1848 SQUARE: 115/127 LEVEL: 6.80-6.60 DESCRIPTION: fine red-orange, white grits DIA: 11.6
11. TA: 1885 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: sandy grey-tan, grey core DIA: 10-12
12. TA: 1629 SQUARE: 115/132 LEVEL: 6.60-6.40 DESCRIPTION: tan grit and chaff, grey core DIA: 3
13. TA: 1782 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: brown fine chaff and grit DIA: 4.8
14. TA: 1461 SQUARE: 115/127 LEVEL: 5.20-5.00 DESCRIPTION: coarse tan grit and chaff, grey core DIA: 5.4
15. TA: 1627 SQUARE: 115/132 LEVEL: 6.60-6.40 DESCRIPTION: tan grit and fine chaff DIA: 6
16. TA: 1475 SQUARE: 115/127 LEVEL: 5.60-5.40 DESCRIPTION: hard-fired red-tan grit and fine chaff, grey core DIA: 6
17. TA: 1511 SQUARE: 115/127 LEVEL: 6.00-5.80, loc. 48 DESCRIPTION: tan with fine chaff and grit DIA: 5
18. TA: 1415 SQUARE: 115/127 LEVEL: 5.00-4.80 DESCRIPTION: handmade soft brown grit DIA: 4

Pottery found South of Locus 40

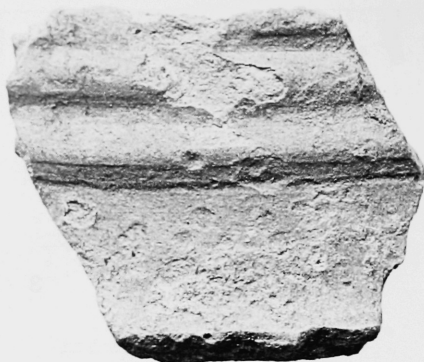
As noted above, south of locus 40 we find a large zone of post-holes in squares 115/132 and 115/127 which continue into the next square to the south, 115/122. Excavation in 1990 in this last-named square did not penetrate beneath the posthole layer of

Fig. 47. Wadi Suq pottery from south of Locus 40 in 115/127 and 120/132.

1. TA: 2115 SQUARE: 115/127 LEVEL: 7.60-7.40 DESCRIPTION: sandy brown, grey core DIA: 26
2. TA: 2050 SQUARE: 115/127 LEVEL: 7.40-7.20 DESCRIPTION: smooth, coarse tan grit
3. TA: 2305 SQUARE: 115/127 LEVEL: 8.80-8.60, loc. 48 DESCRIPTION: hard-fired orange-brown, micaceous, relict black paint DIA: 18-20
4. TA: 1936 SQUARE: 115/127 LEVEL: 7.20-7.00 DIA: 18
5. TA: 1565 SQUARE: 115/127 LEVEL: 5.80-5.60 DESCRIPTION: soft, green-buff, NVT, triple banded rim DIA: 12
6. TA: 1829 SQUARE: 115/127 LEVEL: 6.80-6.60 DESCRIPTION: red with white grit DIA: 5.5
7. TA: 1967 SQUARE: 120/134.5-120/137 LEVEL: 6.60-6.40 DESCRIPTION: fine tan, fine chaff, brown painted DIA: 16
8. TA: 1966 SQUARE: 120/134.5-120/137 LEVEL: 6.60-6.40 DESCRIPTION: handmade smooth thin red grit DIA: 32



Iron Age date, however. The Wadi Suq pottery from the area south of locus 40 is shown in Figs. 46-54. Let us begin by looking at Fig. 46. This shows, for the most part, typical Wadi Suq-period, flaring-mouthed jars of small to medium size along with a selection of various beaker bases. All of these are typical of the assemblages recovered at Tell Abraq in 1989 and in the settlement at Shimal. The only sherds of particular note in this



collection are Fig. 46:1 which, with its sharp-edged band rim, belongs to a class discovered in 1989 that shows parallels to Middle Elamite finds from Susa and Tal-i Malyan, as well as to late Kassite material and period 3B and 4A sherds from Failaka⁹⁰. Similarly, Fig. 46:11 can be paralleled with pieces found at Tell Abraq in 1989 and with Kassite forms from recent excavations in the Hamrin⁹¹.

Mesopotamian forms are also shown on Fig. 47. Fig. 47:2 belongs to a type of band-rimmed jar well-attested in Babylonia from the Old Babylonian through the Post-Kassite era, and present on Failaka as well⁹². Fig. 47:5 (= Fig. 48) is a fragment of a jar with "triple-ribbed rim", also attested in Old Babylonian and Kassite Mesopotamia, and on Failaka⁹³. Fig. 47:3, on the other hand, with its well-fired, orange-brown, micaceous paste and traces of black paint, not to mention its out-turned rim, may be a Harappan import. Finally, Fig. 47:7 is an example of the well-known, late Wadi Suq-period bowl with pendant lines descending on the exterior of the vessel from the rim, in this case connected to a horizontal stripe running around the lip⁹⁴.

More painted Wadi Suq pottery is shown on Figs. 49-51. Fig. 49:1-2 show the relatively rare convention of decorating the lips of open bowls with painted stripes. Comparanda for this type of decoration are, however, known in two cases at Shimal⁹⁵, and on a sherd from the settlement slope at Bat⁹⁶, the Umm an-Nar date of which has been assumed but the form of which recalls Wadi Suq products. Most of the sherds shown in Fig. 51 come from the typical Wadi Suq painted beakers with multiple, parallel bands and wavy lines in varying combinations, so well-represented in the tombs at Shimal, but known elsewhere as well. Fig. 49:3 (= Fig. 50), for example, finds parallels at Bidya

Fig. 49. Wadi Suq pottery from south of locus 40.

1. TA: 2038 SQUARE: 115/127 LEVEL: 7.40-7.20 DESCRIPTION: smooth tan, fine chaff and grit, black painted DIA: 40
2. TA: 1873 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: smooth yellow-orange, fine chaff, black-brown painted DIA: 26
3. TA: 1785 SQUARE: 115/127 LEVEL: 7.40-7.20 DESCRIPTION: fine red-tan chaff and grit DIA: 12
4. TA: 1863 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: red-orange chaff, black painted DIA: 14.5
5. TA: 1724 SQUARE: 115/127 LEVEL: 6.60-6.40 DESCRIPTION: thin tan-buff, fine chaff, red painted DIA: 10
6. TA: 1858 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: thin, fine orange-tan, fine chaff, red-brown painted DIA: 10
7. TA: 1871 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: fine orange, NVT, black painted DIA: 8
8. TA: 1876 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: fine orange, white grit, black painted DIA: 8
9. TA: 1989 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: thin red, fine chaff, white grits, black painted
10. TA: 1904 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: super-fine orange, white grits, black painted DIA: 7
11. TA: 1878 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: fine orange, fine chaff, black painted
12. TA: 2047 SQUARE: 115/127 LEVEL: 7.40-7.20 DESCRIPTION: fine orange-tan, black painted DIA: 8
13. TA: 1877 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: fine orange-tan, fine chaff and white grit, black painted
14. TA: 1626 SQUARE: 115/132 LEVEL: 6.60-6.40 DESCRIPTION: red-tan, fine grit, black painted
15. TA: 1860 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: coarse orange grit and chaff, red painted DIA: 14
16. TA: 1990 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: sandy brown, grey grit, grey core, black painted

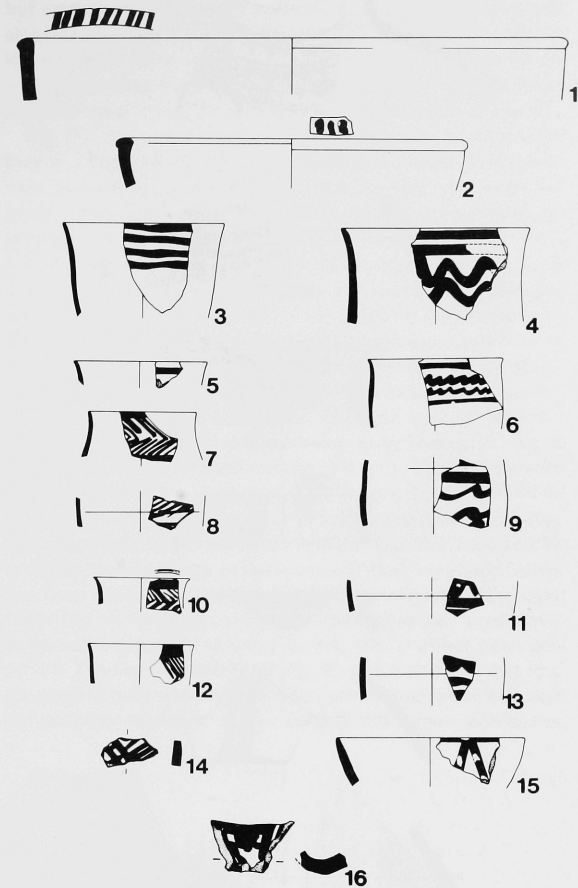


Fig. 50. TA 1785. Note particularly the white flecks of shell temper (= Fig. 49:3).

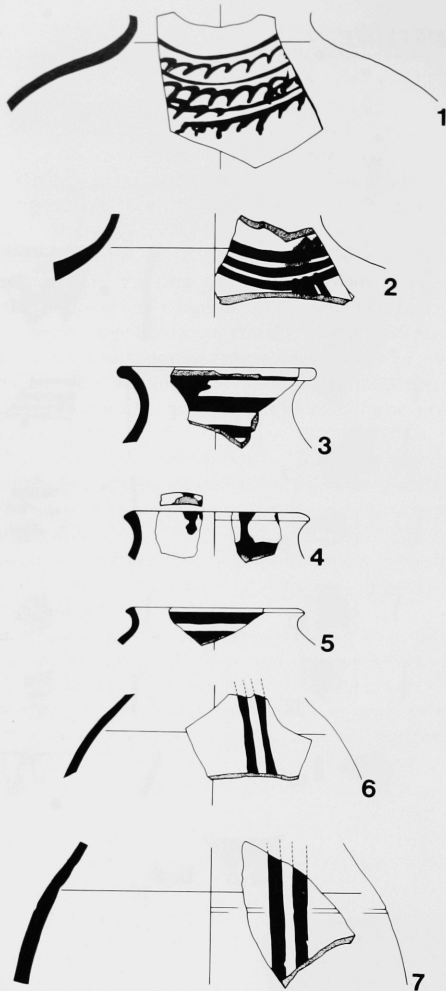


Fig. 51. Painted Wadi Suq pottery from south of Locus 40.

1. TA: 2176 SQUARE: 115/127 LEVEL: 7.77, loc. 65 DESCRIPTION: hard-fired orange-brown, white grit, red slipped, black painted
2. TA: 1926 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: red-brown, fine chaff, grey core, black painted
3. TA: 1911 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: hard-fired red-brown, cream slip, brown painted DIA: 13
4. TA: 2304 SQUARE: 115/127 LEVEL: 8.80-8.60, loc. 48 DESCRIPTION: orange-tan chaff and grit, grey core DIA: 11
5. TA: 1923 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: smooth red, fine chaff, black painted DIA: 11
6. TA: 1874 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: fine red-brown, fine white grit, black painted
7. TA: 1875 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: hard-fired red-brown, fine chaff and white grit, cream slip, black painted

¹⁹⁷, in Fujairah, and at Tawi Sa'id⁹⁸ in Oman; Fig. 49:4 can be compared with pieces from Bidya⁹⁹ and various graves at Shimal¹⁰⁰; while Fig. 49:6 also has parallels at Bidya¹⁰¹ and Shimal¹⁰². Fig. 49: 7-8, 10, and 12, on the other hand, belong to an equally large class of beaker decorated with painted chevrons beneath the rim. Similar pieces are abundantly represented at Shimal¹⁰³, and are known in the Omani interior as well at Tawi Sa'id¹⁰⁴,

but were absent in the 1989 excavations at Tell Abraq. It should also be noted that a comparably decorated, bichrome beaker, is known from Mehi in southern Baluchistan¹⁰⁵. Fig. 49:15, on which opposing diagonal lines run down from the black-lined lip of an open bowl, recalls a piece from period III at Hili 8¹⁰⁶.

Fig. 51:1 may represent one more instance of a category of pottery which, as I suggested in our report on the 1989 soundings, is transitional between the Umm an-Nar and Wadi Suq pottery traditions¹⁰⁷. The paste of TA 2176 is a well-fired, orange-brown, recalling pottery of the late third millennium, but the temper, which includes white grit, is more characteristic of the second millennium. The design, too, is reminiscent of late Umm an-Nar products, such as the category represented by Fig. 14:6, on which wavy or zig-zagging lines are used between sets of parallel, horizontal lines ringing the neck of a jar. Here, however, we find three sloppily applied rows of zig-zags, between individual, horizontal lines. There are no exact parallels for this piece, although a sherd from Wadi Samad 5¹⁰⁸ and a piece from 'Amlah 3¹⁰⁹ are reminiscent of it. Fig. 51:2 may be compared with several pieces found at Tell Abraq in 1989¹¹⁰ in an early Wadi Suq context. Fig. 51:3 can be compared with Fig. 43:7, described above with comparanda. Fig. 51:4 may also be compared with a group of finds from Failaka¹¹¹, on which paint has been carelessly applied in broad bands under the rim, while Fig. 51:5 may, in a somewhat neater fashion, be ascribed to the same group by virtue of its rim, which differs from that of 51:3. The last two sherds on Fig. 51, nos. 6 and 7 (= Fig. 52), are painted body sherds from large, possibly spouted jars, and are probably related to a type already discovered during the



Fig. 52. TA 1874 and 1875 (= Fig. 51:6-7).

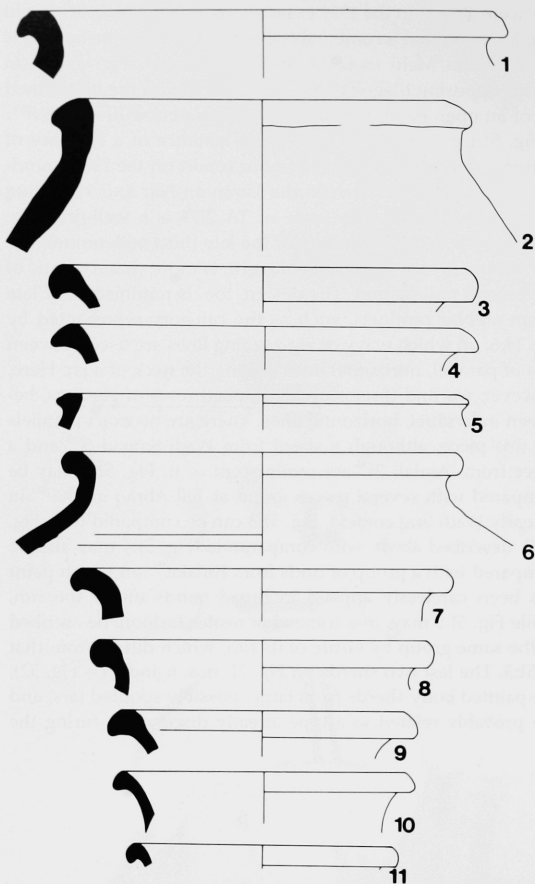


Fig. 53. Storage jars from the area south of locus 40.

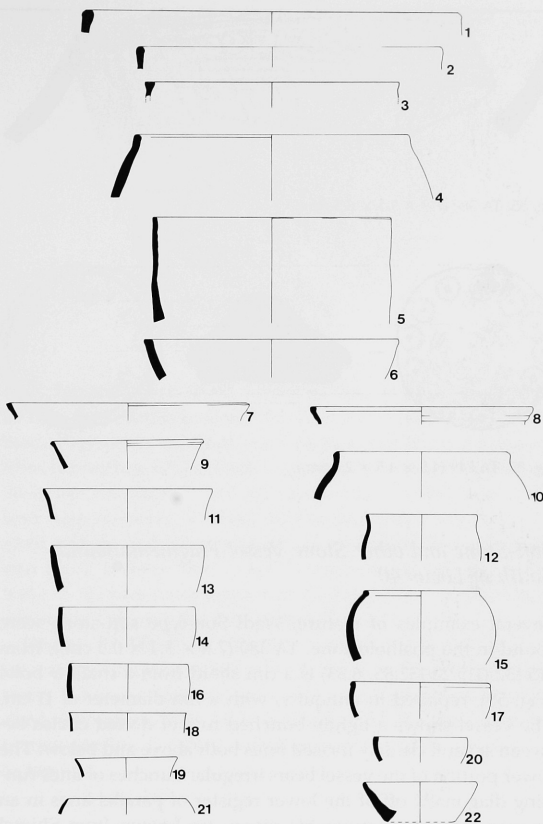
1. TA: 1623 SQUARE: 115/132 LEVEL: 6.60-6.40 DESCRIPTION: hard-fired tan, grey core DIA: 36
2. TA: 1310 SQUARE: 115/132 LEVEL: 5.80-5.60 DESCRIPTION: coarse red-tan chaff DIA: 28
3. TA: 2039 SQUARE: 115/127 LEVEL: 7.40-7.20 DESCRIPTION: sandy orange-brown, fine chaff and grit, grey core DIA: 31
4. TA: 1872 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: smooth orange, fine chaff, grey core DIA: 30
5. TA: 2222 SQUARE: 115/127 LEVEL: 8.00-7.80 DESCRIPTION: sandy tan, grey core DIA: c. 30
6. TA: 1543 SQUARE: 115/132 LEVEL: 6.20-6.00 DESCRIPTION: orange grit and fine chaff, grey core DIA: 30
7. TA: 1721 SQUARE: 115/127 LEVEL: 6.40-6.20 DESCRIPTION: coarse tan grit DIA: 28
8. TA: 1590 SQUARE: 115/127 LEVEL: 6.20-6.00 DESCRIPTION: orange-tan grit, grey core DIA: 25
9. TA: 1838 SQUARE: 115/127 LEVEL: 6.80-6.60 DESCRIPTION: red-brown grit and fine chaff, grey core DIA: 22
10. TA: 1534 SQUARE: 115/127 LEVEL: 5.60-5.40 DESCRIPTION: orange-tan grit and fine chaff DIA: 22
11. TA: 2040 SQUARE: 115/127 LEVEL: 7.40-7.20 DESCRIPTION: sandy tan, fine grit, grey core DIA: 20

1989 season at Tell Abraq¹¹², on which, however, the lines are wavy or zig-zagging. Descending, straight parallel lines are seen on several large, spouted vessels from Shimal¹¹³ and Hili 8¹¹⁴, but in each case there is much more painted decoration surrounding them, while on the examples shown here, it is clear that no further decoration was present immediately adjacent to the lines.

The large storage jars of Fig. 53 are in all respects typical of

Fig. 54. Pottery from south of locus 40.

1. TA: 1996 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: green-tan chaff and grit, grey core DIA: 44
2. TA: 1460 SQUARE: 115/127 LEVEL: 5.20-5.00 DESCRIPTION: tan grit and chaff, red-slipped DIA: 36-38
3. TA: 1995 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: orange-tan grit and chaff DIA: 30
4. TA: 1513 SQUARE: 115/127 LEVEL: 6.40-6.20 DESCRIPTION: red-tan with grit and fine chaff DIA: 32
5. TA: 2221 SQUARE: 115/127 LEVEL: 8.00-7.80 DESCRIPTION: coarse tan grit, grey core DIA: 28
6. TA: 1703 SQUARE: 115/127 LEVEL: 6.60-6.40 DESCRIPTION: orange chaff and grit DIA: 30
7. TA: 1866 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: smooth tan, fine grit DIA: 28
8. TA: 1894 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: orange-tan, white grit DIA: 26
9. TA: 1882 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: orange-tan, fine chaff DIA: 18
10. TA: 1533 SQUARE: 115/127 LEVEL: 5.60-5.40 DESCRIPTION: orange-tan grit and fine chaff DIA: 20
11. TA: 1895 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: thin coarse red, fine chaff and white grit, grey core DIA: 20
12. TA: 1552 SQUARE: 115/132 LEVEL: 6.40-6.20 DESCRIPTION: tan-grey fine chaff and grit DIA: 13
13. TA: 1408 SQUARE: 115/127 LEVEL: 5.00-4.80 DESCRIPTION: red chaff, black core DIA: 18
14. TA: 1544 SQUARE: 115/132 LEVEL: 6.20-6.00 DESCRIPTION: thin tan grit and chaff DIA: 16
15. TA: 1931 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: red, fine chaff and grit DIA: 13.5
16. TA: 1554 SQUARE: 115/132 LEVEL: 6.40-6.20 DESCRIPTION: pink grit and chaff, black painted DIA: 14
17. TA: 1830 SQUARE: 115/127 LEVEL: 6.80-6.60 DESCRIPTION: sandy red grit DIA: 16
18. TA: 1852 SQUARE: 115/127 LEVEL: 6.80-6.60 DESCRIPTION: thin grey-tan, fine chaff DIA: 14
19. TA: 1930 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: fine red, white grit DIA: 12
20. TA: 1532? SQUARE: 115/127 LEVEL: 5.60-5.40 DESCRIPTION: thin orange-tan grit and fine chaff DIA: 11
21. TA: 1991 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: thin orange-buff, fine chaff and grey grit DIA: 14
22. TA: 1465 SQUARE: 115/127 LEVEL: 5.40-5.20 DESCRIPTION: orange-tan chaff and grit, grey core DIA: 13



19. TA: 1930 SQUARE: 115/127 LEVEL: 7.20-7.00 DESCRIPTION: fine red, white grit DIA: 12
20. TA: 1532? SQUARE: 115/127 LEVEL: 5.60-5.40 DESCRIPTION: thin orange-tan grit and fine chaff DIA: 11
21. TA: 1991 SQUARE: 115/127 LEVEL: 7.00-6.80 DESCRIPTION: thin orange-buff, fine chaff and grey grit DIA: 14
22. TA: 1465 SQUARE: 115/127 LEVEL: 5.40-5.20 DESCRIPTION: orange-tan chaff and grit, grey core DIA: 13

the Wadi Suq period, and are common at Tell Abraq¹¹⁵. These, too, are well-represented in the settlement at Shimal¹¹⁶. Likewise, the hole-mouth jars and open bowls of Fig. 54 are diagnostic Wadi Suq products in both form and paste.

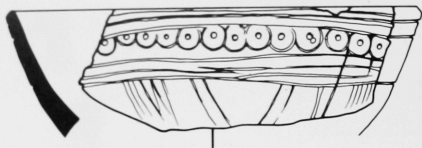


Fig. 55. TA 380 (7.8 × 3.4 × 0.5 cm.).

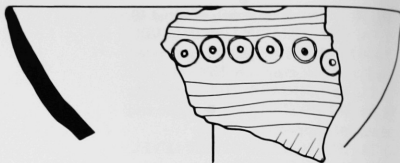


Fig. 56. TA 607 (4.4 × 3.5 × 0.6 cm.).

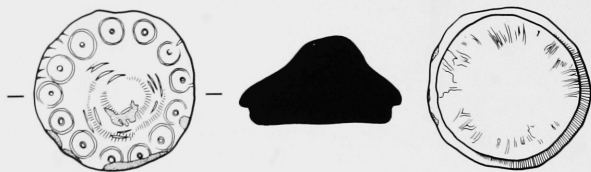


Fig. 57. TA 549 (4.5 × 4.5 × 2.5 cm.).

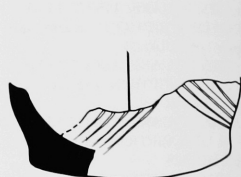


Fig. 58. TA 620 (3.2 × 5.7 × 1.3 cm.).

Soft-Stone and other Stone Vessel Fragments found South of Locus 40

Several examples of mature, Wadi Suq-type soft-stone were found in the posthole zone. TA 380 (7.8 × 3.4 × 0.5 cm.), from 115/132 (115.20/132.85, 6.83) is a rim sherd from a shallow bowl (Fig. 55), repaired in antiquity, with a rim diameter of 11 cm. The vessel shows a tightly bunched row of dotted circles between several crudely incised lines both above and below. The lower portion of the vessel bears irregular bunches of lines running diagonally off of the lower register of parallel lines in an uneven manner. Comparable pieces are known from Shimal tombs 6¹¹⁷, SH 99¹¹⁸ and SH 102¹¹⁹, as well as from settlement area SX at Shimal¹²⁰, phase H at Hili 8¹²¹, and grave 1122 in the Wadi Suq¹²². TA 607 (4.4 × 3.5 × 0.6 cm.) (Fig. 56), from 115/127 (118.53/131.48, 7.29) is generally similar to TA 380 and as such the same parallels can be drawn.

Another piece from 115/127 (116.68/128.40, 6.97) is TA 549 (4.5 × 4.5 × 2.5 cm.), a typical Wadi Suq lid (Fig. 57) with a slightly raised hump for a handle, decorated with random lines and a ring of thirteen dotted circles. This piece finds many parallels throughout the region, e.g. at Hili tomb 1059¹²³; Shimal tombs 1¹²⁴, 2¹²⁵, 6¹²⁶ and SH 103¹²⁷; Bat¹²⁸; Maysar 9, grave 80¹²⁹; and Samad grave 2202¹³⁰.

TA 620 (Fig. 58) is yet another piece of Wadi Suq soft-stone from 115/127 (116.58/130.42, 7.40). It is a small (3.2 × 5.7 × 1.3

Fig. 59. TA 358 (6.3 × 4.2 × 2.7 cm.).



cm.), rounded base sherd with two sets of parallel, diagonal incised lines running down the side of the body towards the base. This rather unusual piece finds a parallel in a fragment from the surface of the Wadi Suq-period settlement at Tawi Sa'id in the Sharqiyah¹³¹. The possibility that it could date to the Iron Age, however, is raised by the similarity of both the incised pattern and the base form on this piece. These features also recall a sherd from Susa¹³² which shows, on the upper body, a characteristic pattern of fluting known in the Oman peninsula¹³³ during the first millennium B.C.

Finally, TA 358 (Figs. 59-60) is a fragment (6.3 × 4.2 × 2.7 cm.) of a vessel from 115/132 (117.31/136.50, 6.45) made of sandstone. It bears a sparsely preserved, curvilinear pattern of incised decoration. This piece appears to be the rim of an extremely shallow yet thick container, perhaps an incense burner or lamp.



Fig. 60. TA 358.

Other Smallfinds found South of Locus 40

The Wadi Suq levels of square 115/127 also yielded a number of miscellaneous smallfinds. These included a square-sectioned (3.7 × 0.3 cm.) bronze pin, TA 581 (Fig. 61) (128.67/134.94, 6.94); a plain, roughly ovoid carnelian bead, TA 295 (Fig. 62) (115.02/

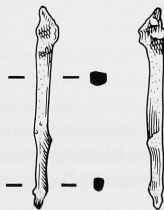


Fig. 61. TA 581 (3.7 × 0.3 cm.).



Fig. 62. TA 295 (1 × 0.8 × 0.6 cm.).



Fig. 63. TA 519 (2.2 × 1.9 × 1.9 cm.).

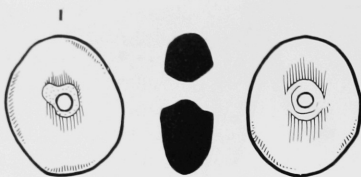


Fig. 64. TA 519.



Fig. 65. TA 454 (1.7 × 0.6 cm.).



Fig. 66. TA 454.



129.58, 5.23); a mottled grey, polished stone bead, TA 519 (Figs. 63-64) (117.20/130.29, 6.64); and a white-grey agate or carnelian bead with thin black veins, TA 454 (Figs. 65-66) (118/130.25, 6.33). A bead virtually identical to TA 454 was found during the third season (1987/1988) of excavations at Ras al-Junayz 2 in what appears to be either a late third or early second millennium context. It is described as a "Harappan style bead of baked carnelian"¹³⁴. In the present case, the material in question could be either a species of agate or carnelian¹³⁵.



Fig. 67. TA 495 (2 × 1 cm.).

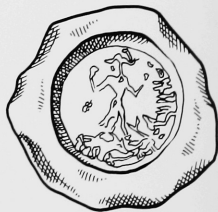


Fig. 68. TA 495.

A Stamp Seal found East of Locus 40

Finally, from 125/132, the area to the east of the corner of the enclosure wall (128.60/134.12, 3.02), we have a black soft-stone stamp seal, TA 495 (Figs. 67-68). The seal is round (dia. 2 cm.),

with a smooth, rounded back perforated longitudinally. It bears crudely incised zig-zag decoration around the lower edge of the obverse. The face of the seal shows a male figure with a hat (?) and tunic standing above one or two (?) animals, one of which appears to be a horned caprid. At first glance, the seal appears to be an imitation of a Dilmun stamp seal, on which a nude male is sometimes shown standing above a bull¹³⁶. If indeed the Tell Abraq seal was inspired by Dilmun glyptic, then it is the first of its kind to have appeared in the region. A parallel for such a practice may be found at Susa, however, where at least seven stamp seals made of bitumen have been interpreted by P. Amiet as Elamite imitations of Dilmun seals¹³⁷.

Pottery Found Above and Outside Locus 37

As noted above, the Umm an-Nar building, locus 37, was apparently used as a dump during the late Wadi Suq period, and it is to this material that we now turn. From outside the building itself comes a scattered amount of Wadi Suq material (Fig. 69), usually mixed with Iron Age sherds. Most of this requires little comment, except perhaps to note the unusual incised markings on Fig. 69:1.

From above the building, in squares 115/112 and, to a lesser extent, 115/107, we have a sizable amount of Wadi Suq pottery, suggesting that the structure probably stood during the middle of the second millennium, or was mounded over, and that the upper surface of it was occupied. A selection of the Wadi Suq sherds found above the southern part of the building in 115/112 is shown in Figs. 70-72 and 73:1-4.

The plain wares of Figs. 70 and 72 require little comment, and all belong to the well-known series of Wadi Suq domestic types. Fig. 71 shows a variety of small cup and beaker fragments. Most of these, such as Fig. 71:7-10, find close parallels in the inventories of the Shimal tombs, to which comparisons in the case of similar pieces have already been drawn above. Fig. 71:1 shows an unusual mode of incised decoration, although the paste is in every way typical of the Wadi Suq period. The rectangular symbols recall a series of similar incisions on several bowls of Kassite date from Khor-Ile in Qatar¹³⁸. Likewise Fig. 71:2 shows the relatively rare device of pendant loops, which makes it comparable to the piece illustrated here as Fig. 46:7 and to which a parallel at Shimal has already been drawn. A unique, lip-spouted bowl from an Umm an-Nar grave at Bat, assigned however by its excavator to the Wadi Suq period, also shows a similar pattern of pendant loops running off the interior and exterior of the lip¹³⁹.

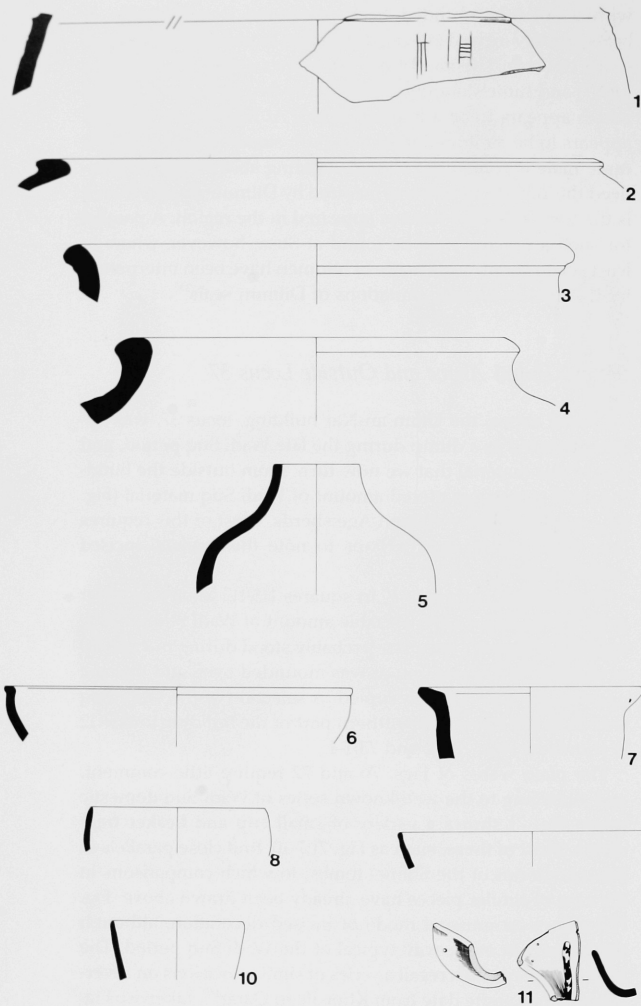
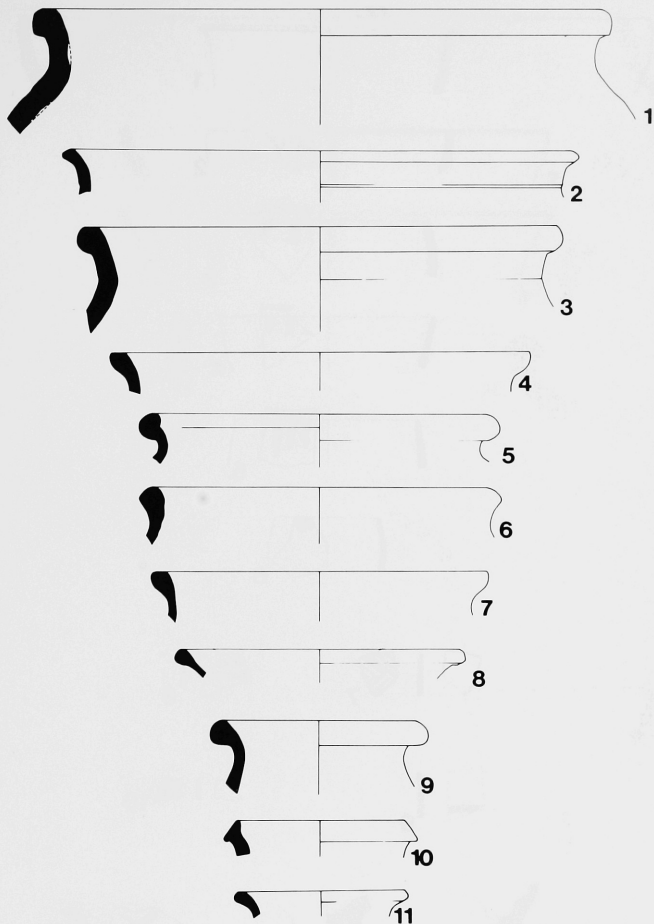


Fig. 69. Wadi Suq sherds from outside the Umm an-Nar building.

1. TA: 2024 SQUARE: 115/117 LEVEL: 5.60-5.40 DESCRIPTION: hard-fired black-brown, grey slip, incised, cordon DIA: c. 50
2. TA: 1319 SQUARE: 115/122 LEVEL: 4.80-4.60 DESCRIPTION: well-fired brown fine grit DIA: c. 50
3. TA: 1254 SQUARE: 115/117 LEVEL: 3.80-3.60 DESCRIPTION: red-orange grit DIA: 44
4. TA: 1599 SQUARE: 115/117 LEVEL: 4.80-4.60 DESCRIPTION: coarse tan grit and fine chaff DIA: 34
5. TA: 1322 SQUARE: 115/122 LEVEL: 4.80-4.60 DESCRIPTION: fine grit tan-grey DIA: 8
6. TA: 2014 SQUARE: 115/117 LEVEL: 5.20-5.00 DESCRIPTION: red-brown grit and fine chaff DIA: 33
7. TA: 1349 SQUARE: 115/122 LEVEL: 5.00-4.80 DESCRIPTION: smooth pink grit DIA: 20
8. TA: 1438 SQUARE: 115/122 LEVEL: 5.40-5.20 DESCRIPTION: smoothed fine red-tan grit DIA: 16
9. TA: 1255 SQUARE: 115/117 LEVEL: 3.80-3.60 DESCRIPTION: handmade smooth red-tan, NVT DIA: 24
10. TA: 1348 SQUARE: 115/122 LEVEL: 5.00-4.80 DESCRIPTION: smooth tan, fine grit DIA: 12
11. TA: 1256 SQUARE: 115/117 LEVEL: 3.80-3.60 DESCRIPTION: plain red-orange, black painted

Fig. 70. Wadi Suq Pottery from above the Umm an-Nar Building.

1. TA: 2152 SQUARE: 115/112 LEVEL:
4.00-3.80 DESCRIPTION: brown coarse
grit and chaff, black core DIA: 49?
2. TA: 1370 SQUARE: 115/112 LEVEL:
3.00-2.80 DESCRIPTION: hard orange,
some grit DIA: 36
3. TA: 2151 SQUARE: 115/112 LEVEL:
4.00-3.80 DESCRIPTION: red-brown
fine chaff and grit DIA: 35
4. TA: 1716 SQUARE: 115/112 LEVEL:
3.40-3.20 DESCRIPTION: red chaff and
grit, black core DIA: 30
5. TA: 1368 SQUARE: 115/112 LEVEL:
3.00-2.80 DESCRIPTION: orange-tan,
grey core DIA: 24
6. TA: 1371 SQUARE: 115/112 LEVEL:
3.00-2.80 DESCRIPTION: coarse gritty
brown, black core DIA: 24
7. TA: 2021 SQUARE: 115/112 LEVEL:
3.80-3.60 DESCRIPTION: red-brown
grit and fine chaff, grey core DIA: 24
8. TA: 1367 SQUARE: 115/112 LEVEL:
3.00-2.80 DESCRIPTION: red-tan fine
grit DIA: 20
9. TA: 2022 SQUARE: 115/112 LEVEL:
3.80-3.60 DESCRIPTION: grey-tan,
hard-fired, NVT DIA: 14
10. TA: 1365 SQUARE: 115/112 LEVEL:
3.00-2.80 DESCRIPTION: smooth, well-
fired orange-tan DIA: 12
11. TA: 1660 SQUARE: 115/112 LEVEL:
3.20-3.00, loc. 55 DESCRIPTION: red-
orange, fine grit DIA: 12



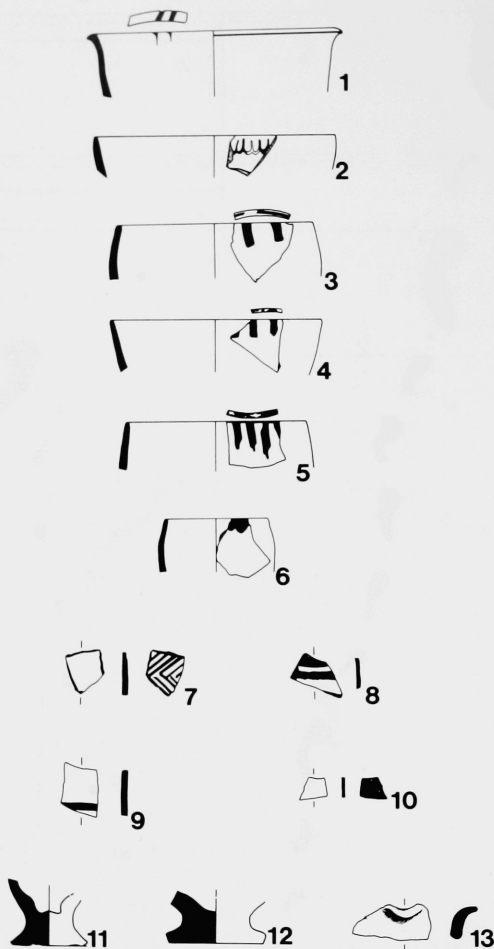


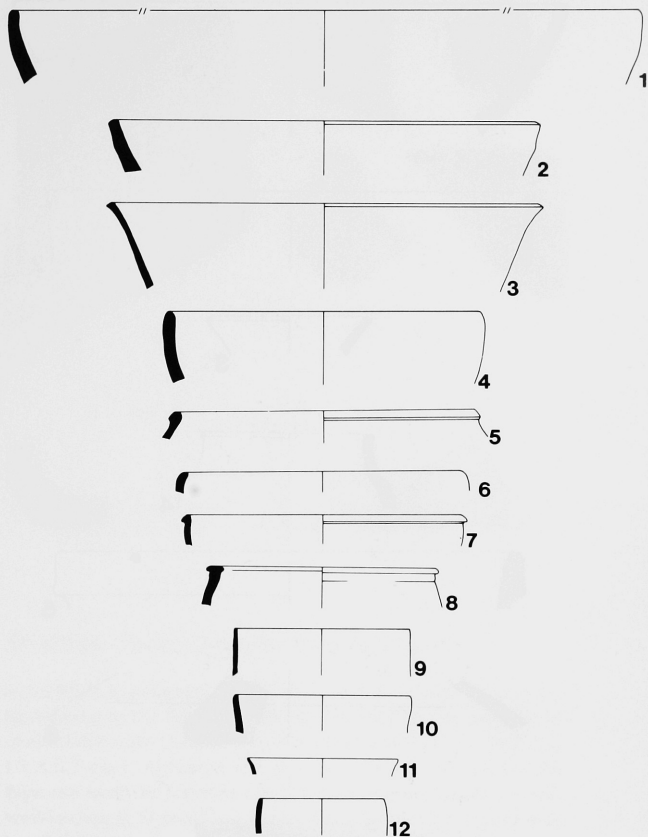
Fig. 71. Wadi Suq Pottery from Above the Umm an-Nar Building.

1. TA: 1362 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: fine smooth orange beaker, black painted DIA: 16
2. TA: 1652 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: smooth, hard-fired tan, fine grit, red painted, pendant lines DIA: 16
3. TA: 1647 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: thin tan, fine chaff and grit, red painted pendant lines DIA: 13
4. TA: 1357 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: fine tan buff, red painted pendant lines DIA: 14
5. TA: 1646 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: thin tan, fine chaff and grit, red painted pendant lines DIA: 12
6. TA: 1360 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: thin orange, some grit, painted DIA: 7
7. TA: 1356 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: fine red, some shell and sand grit, black painted
8. TA: 1358 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: fine orange, black painted diagonal stripes
9. TA: 1361 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: smooth tan, fine grit, black painted
10. TA: 1359 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: fine orange, wavy lines, beaker, painted
11. TA: 1951 SQUARE: 115/112 LEVEL: 3.60-3.40 DESCRIPTION: orange chaff and grey grit DIA: 10
12. TA: 2148 SQUARE: 115/112 LEVEL: 4.00-3.80 DESCRIPTION: orange-tan chaff and grit DIA: 6.7
13. TA: 1373 TA: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: tan chaff and grit, grey core

Fig. 73:4 is yet another example of what appears to be a Mesopotamian type. The rim and shoulder ridge recall a late Larsa and Old Babylonian type from the Diyala region¹⁴⁰, and it is clearly related to a large series of Mesopotamian beaker

Fig. 72. Wadi Suq Pottery from Above the Umm an-Nar Building.

1. TA: 1715 SQUARE: 115/112 LEVEL: 3.40-3.20 DESCRIPTION: red-orange grit and chaff DIA: c. 50
2. TA: 1658 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: sandy orange-tan, fine chaff DIA: 34
3. TA: 1375 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: smooth tan, shell and grit DIA: 34
4. TA: 2153 SQUARE: 115/112 LEVEL: 4.00-3.80 DESCRIPTION: smooth tan, fine chaff and grey grit DIA: 25
5. TA: 1366 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: sandy, rolled orange-tan DIA: 24
6. TA: 1657 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: tan-grey grit DIA: 22
7. TA: 1363 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: fine gritty tan DIA: 22
8. TA: 1650 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: red-orange, fine grit, Barbar? DIA: 16-18
9. TA: 1369 SQUARE: 115/112 LEVEL: 3.00-2.80 DESCRIPTION: thin red gritty DIA: 14
10. TA: 1653 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: thin tan, fine chaff DIA: 14
11. TA: 1659 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: fine orange-tan cup DIA: 12
12. TA: 1661 SQUARE: 115/112 LEVEL: 3.20-3.00, loc. 55 DESCRIPTION: thin, hard tan, fine grit DIA: 10



forms with plain rim and shoulder ridge¹⁴¹. It may also be comparable to some of the examples assigned to Type 57C on Failaka¹⁴². A selection of the Wadi Suq pottery found above the Umm an-Nar building is shown in Figs. 74-75.

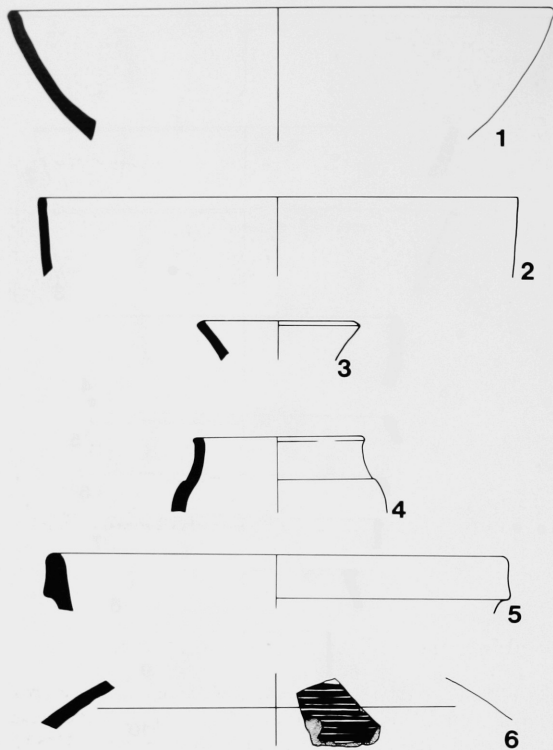


Fig. 73. Wadi Suq pottery from the upper squares 115/107 and 115/112.

1. TA: 2167 SQUARE: 115/112 LEVEL:

4.20-4.00, loc. 61 DESCRIPTION: orange-tan, fine chaff and grit DIA: 36

2. TA: 2244 SQUARE: 115/112 LEVEL:

4.60-4.40, loc. 61 DESCRIPTION: coarse orange-tan chaff and white grit DIA: 32

3. TA: 2233 SQUARE: 115/112 LEVEL:

4.60-4.40, loc. 61 DESCRIPTION: orange-tan chaff and grit DIA: 10

4. TA: 1620 SQUARE: 115/112 LEVEL:

3.40-3.20 east of loc. 51 DESCRIPTION: hard tan chaff, black slipped DIA: 11

5. TA: 2077 SQUARE: 118.10/108.10

LEVEL: 3.40 DESCRIPTION: pink buff grit and fine chaff DIA: 30

6. TA: 1531 SQUARE: 115/107 LEVEL:

3.00-2.80 DESCRIPTION: soft orange-tan, fine sand crystal grit, black-on-red



Fig. 74. TA 2152 (= Fig. 70:1), 2153 (= Fig. 72:4), 2148 (= Fig. 71:12), and 2151 (= Fig. 70:3).

Fig. 75. TA 1375 (= Fig. 72:3), 1357 (= Fig. 71:4), 1356 (= Fig. 71:7), 1360 (= Fig. 71:6 and 1362 (= Fig. 71:1).

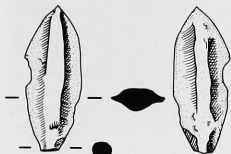


Fig. 76. TA 653 (1.5 × 0.2 cm.).

Fig. 77. TA 662 (5.8 × 3.7 × 1.2 cm.).



Smallfinds Found Above and Outside Locus 37

In addition to ceramics, 115/112 also yielded at least one bronze find dating to the Wadi Suq period. TA 653 (Fig. 76) is the head of an undecorated bronze arrowhead (level 4.18, at 117.79/115.12, 1.5 × 0.2 cm.). Although the tang is missing, the arrowhead type can easily be identified as the rather broad, laureate form, well-known at Shimal¹⁴³ and other sites during the second millennium.

A fragment of Wadi Suq soft-stone from square 115/112 (4.00-3.80), not found directly within locus 61, is TA 662 (Fig. 77). This is the flat base of a bowl, the lower portion of which was decorated with diagonally opposed sets of parallel, diagonal lines and a horizontal groundline. Similar bases can be seen on pieces from grave 1122 in the Wadi Suq¹⁴⁴, the surface of the settlement at Shimal¹⁴⁵, and grave SH 99 at the same site¹⁴⁶.

Pottery Found Within Locus 37

Finally, from directly within the building, i.e. from the deposit which we consider to have been an accumulation of trash with-

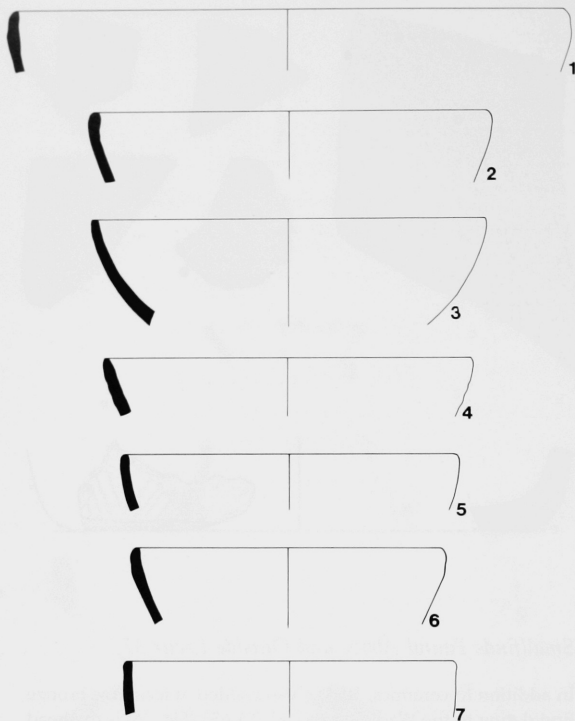


Fig. 78. Wadi Suq pottery from Locus 61 (within the Umm an-Nar building).
 1. TA: 2279 SQUARE: 115/112 LEVEL: 4.80-4.60 DESCRIPTION: orange-tan fine chaff and grit DIA: 50
 2. TA: 2169 SQUARE: 115/112 LEVEL: 4.20-4.00 DESCRIPTION: red-brown, fine chaff and grit, grey core DIA: 36
 3. TA: 2228 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: orange-tan chaff and grit DIA: 36
 4. TA: 2202 SQUARE: 115/112 LEVEL: 4.20-4.00 DESCRIPTION: tan chaff and grey grit DIA: 34
 5. TA: 2285 SQUARE: 115/112 LEVEL: 4.80-4.60 DESCRIPTION: orange-tan chaff and grit DIA: 30
 6. TA: 2287 SQUARE: 115/112 LEVEL: 4.80-4.60 DESCRIPTION: orange-tan chaff and grit DIA: 28
 7. TA: 2235 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: orange-tan chaff and grit DIA: 30

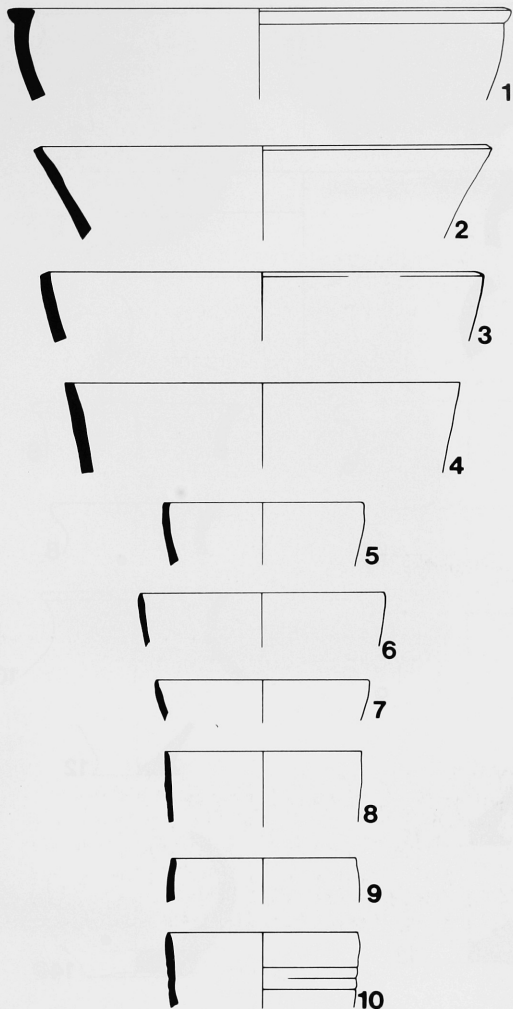
in the walls of the tower itself (locus 61), we recovered a large amount of Wadi Suq pottery, some of which is illustrated here on Figs. 78-80. None of this material is very unusual, with the exception of Fig. 80:14, the string-cut body of a rounded jar which is perhaps comparable to a group of finds from one of the Shimal graves excavated by P. Donaldson¹⁴⁷. A pair of typical Wadi Suq string-cut beaker bases is also shown in Fig. 81.

Soft-Stone Found Within Locus 37

This year locus 61 yielded only two fragments of soft-stone, both of them interesting, however. TA 674 (Figs. 82-83) (116.30/115.14, 4.91) is a sizable fragment (10 × 7.9 × 7 cm.) from the base of a large, carinated jar, the mouth of which would have been much smaller than the base, with straight, inward sloping sides and a base diameter of 26.5 cm. The exterior of the bowl is

Fig. 79. Wadi Suq pottery from Locus 61 (within the Umm an-Nar building).

1. TA: 2239 SQUARE: 115/112 LEVEL:
4.60-4.40 DESCRIPTION: orange-tan
chaff and grit, grey core DIA: 32
2. TA: 2282 SQUARE: 115/112 LEVEL:
4.80-4.60 DESCRIPTION: ultra coarse
friable brown grit, black core
3. TA: 2288 SQUARE: 115/112 LEVEL:
4.80-4.60 DESCRIPTION: orange-tan
chaff and grit DIA: 28
4. TA: 2296 SQUARE: 115/112 LEVEL:
4.80-4.60 DESCRIPTION: friable brown
chaff and grit DIA: 26
5. TA: 2231 SQUARE: 115/112 LEVEL:
4.60-4.40 DESCRIPTION: orange-tan
chaff and grit DIA: 13
6. TA: 2234 SQUARE: 115/112 LEVEL:
4.60-4.40 DESCRIPTION: orange-tan
chaff and grit DIA: 16
7. TA: 2243 SQUARE: 115/112 LEVEL:
4.60-4.40 DESCRIPTION: orange-tan
chaff and grit, grey core DIA: 14
8. TA: 2206 SQUARE: 115/112 LEVEL:
4.20-4.00 DESCRIPTION: fine orange-
tan chaff and white grit DIA: 13
9. TA: 2277 SQUARE: 115/112 LEVEL:
4.80-4.60 DESCRIPTION: thin tan-buff
fine chaff and grit DIA: 12
10. TA: 2290 SQUARE: 115/112 LEVEL:
4.80-4.60 DESCRIPTION: fine orange-
tan chaff and grit DIA: 12.5



decorated with a diagonally running line of dotted circles. Altogether, the piece is unusual, in that the form, which became common in the Iron Age¹⁴⁸, is rarely attested during the Wadi Suq period, except in a much less exaggerated, more rounded

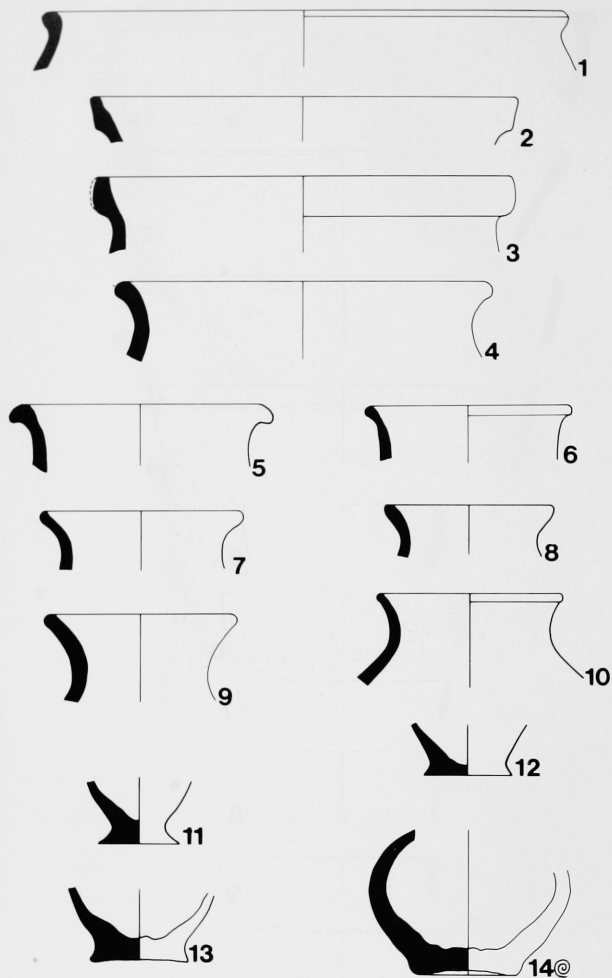


Fig. 80. Wadi Suq pottery from Locus 61 (within the Umm an-Nar building).

1. TA: 2205 SQUARE: 115/112 LEVEL: 4.20-4.00 DESCRIPTION: red-brown fine chaff and white grit DIA: 35
2. TA: 2242 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: orange-tan chaff and grit, grey core DIA: 28
3. TA: 2201 SQUARE: 115/112 LEVEL: 4.20-4.00 DESCRIPTION: brown chaff and grey grit DIA: 28
4. TA: 2246 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: coarse orange-tan chaff and grit, grey core DIA: 24
5. TA: 2240 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: sandy orange-tan grit, black slipped DIA: 16
6. TA: 2237 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: orange-tan chaff and grit DIA: 13
7. TA: 2227 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: orange-tan chaff and grit DIA: 13
8. TA: 2297 SQUARE: 115/112 LEVEL: 4.80-4.60 DESCRIPTION: orange-tan chaff and grit DIA: 11
9. TA: 2204 SQUARE: 115/112 LEVEL: 4.20-4.00 DESCRIPTION: tan-buff chaff and grit DIA: 13
10. TA: 2170 SQUARE: 115/112 LEVEL: 4.20-4.00 DESCRIPTION: grey fine chaff and grit DIA: 12
11. TA: 2301 SQUARE: 115/112 LEVEL: 4.80-4.60 DESCRIPTION: orange-tan chaff and grit DIA: 5.4
12. TA: 2300 SQUARE: 115/112 LEVEL: 4.80-4.60 DESCRIPTION: orange-tan chaff and grit, grey core DIA: 5.8
13. TA: 2253 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: orange-tan chaff and grit, grey core DIA: 6.5
14. TA: 2254 SQUARE: 115/112 LEVEL: 4.60-4.40 DESCRIPTION: orange-tan chaff and grit, grey core DIA: 7

form, and then almost always with four, vertically-pierced nose-lugs set symmetrically in the lower half of the vessel¹⁴⁹. The only Wadi Suq vessel of similar form that I know of is in the Al Ain Museum and comes from grave 14 at al-Qusais¹⁵⁰. This, however, is covered with typical Wadi Suq decoration, consisting of a band of horizontal, incised lines, just beneath the rim; a wide band of four rows of dotted circles; a second

Fig. 81. TA 2300 (= Fig. 80:12) and 2301
(= Fig. 80:11)



Fig. 82. TA 674 (10 × 7.9 × 7 cm.).

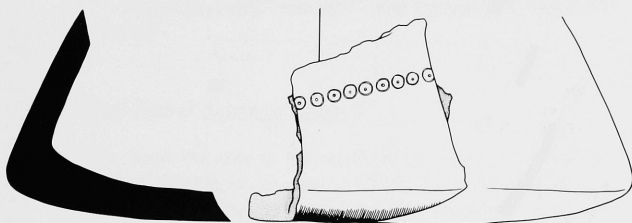


Fig. 83. TA 674.

band of horizontal lines; and bunches of diagonal lines running down to the base. A much smaller, four-sided vessel with rounded base from the ringwall of an Umm an-Nar tower at Bat, although different in form, shows a descending diagonal row of dotted circles¹⁵¹ similar to that on TA 674. The Bat jar was found together with finds dating to both the Wadi Suq period and the Iron Age.



Fig. 84. TA 669 (6.7 × 6 × 1 cm).



Fig. 85. TA 669.

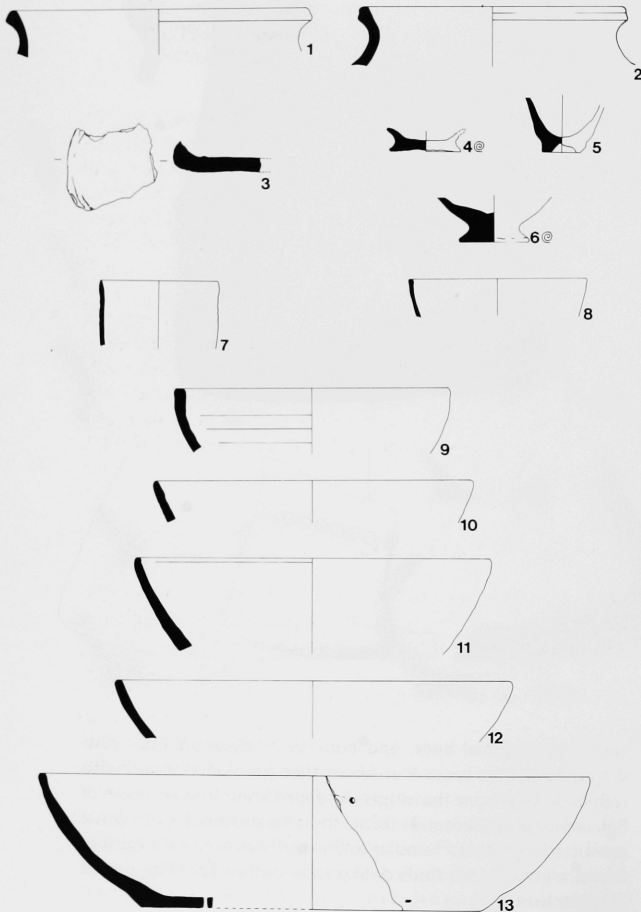
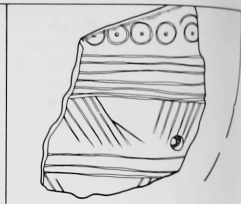


Fig. 86. Wadi Suq sherds from 115/107, area later disturbed by ed-Dur-period graves.

1. TA: 2001 SQUARE: 115/107 LEVEL: 3.20-3.00 DESCRIPTION: orange grit and fine chaff, grey core DIA: 30
2. TA: 1976 SQUARE: 115/107 LEVEL: 3.40-3.20 DESCRIPTION: red-orange, fine chaff and grit, red slip? DIA: 26
3. TA: 2000 SQUARE: 115/107 LEVEL: 3.20-3.00 DESCRIPTION: crude tan chaff and grit
4. TA: 1529 SQUARE: 115/107 LEVEL: 3.00-2.80 DESCRIPTION: red-brown grit and fine chaff DIA: 7.4
5. TA: 2067 SQUARE: 115/107 LEVEL: 3.60-3.40, loc. 51 DESCRIPTION: coarse tan chaff and grit, grey interior DIA: 4
6. TA: 1479 SQUARE: 115/107 LEVEL: 2.60-2.40 DESCRIPTION: orange-tan grit and fine chaff DIA: 7
7. TA: 2006 SQUARE: 115/107 LEVEL: 3.60-3.40 DESCRIPTION: thin red, fine chaff, white grit DIA: 12
8. TA: 1526 SQUARE: 115/107 LEVEL: 3.00-2.80 DESCRIPTION: thin tan grit and chaff DIA: 18
9. TA: 1515 SQUARE: 115/107 LEVEL: 2.80-2.60 DESCRIPTION: tan chaff and grit, grey core DIA: 28
10. TA: 1977 SQUARE: 115/107 LEVEL: 3.40-3.20 DESCRIPTION: coarse tan grit and chaff, white grits, brown slipped DIA: 32
11. TA: 1797 SQUARE: 115/107 LEVEL: 3.40-3.20 DESCRIPTION: tan chaff and grit, grey core DIA: 36
12. TA: 1516 SQUARE: 115/107 LEVEL: 2.80-2.60 DESCRIPTION: tan chaff and grit DIA: 40
13. TA: 1795 SQUARE: 115/107 LEVEL: 3.40-3.20 DESCRIPTION: orange chaff and grit DIA: 34.5



The second fragment from locus 61 (115.28/113.04, 4.68), TA 669 (Figs. 84-85), is the rim ($6.7 \times 6 \times 1$ cm.) of a deep bowl with a diameter of 18 cm. The sherd has a single drill-hole, and the upper edge was filed or cut in antiquity, thus creating a new rim with a diameter of 16 cm. This would seem unnecessary for the repair of the original bowl, but perhaps it was done in order to fit the sherd into a different, slightly smaller bowl? In any case, the piece shows a row of dotted circles running horizontally beneath the rim; a cluster of six incised horizontal lines; a field of diagonally opposed bunches of six lines each; another three horizontal lines; and again an area of diagonally opposed lines. Close parallels for both the shape and decoration of this piece can be found in settlement area SX at Shimal¹⁵²; Shimal graves 6¹⁵³ and 102¹⁵⁴; Hili 8 phase H¹⁵⁵; Bidya 1¹⁵⁶; and Tarut¹⁵⁷.

Pottery Found South of Locus 37

Finally, from the area to the south of the main Umm an-Nar building exposure, i.e. in square 115/107, we have a number of Wadi Suq types from the area later disturbed by several ed-Dur-period graves. The presence of this material here, however, is important, for it suggests that the Wadi Suq occupation of the top of the mound, i.e. over the Umm an-Nar round building, was continuous in this area, despite the fact that late graves have badly damaged the earlier remains in this square.

Fig. 86 shows a selection of common Wadi Suq plainwares, the only examples of note being Fig. 86:3, a fragment of a hand-made lid, generally comparable to a hand-made "rimmed plate" from the Danish excavations on Failaka¹⁵⁸, and Fig. 86:13, the complete profile of a large, Wadi Suq vat or mixing bowl



Fig. 88. TA 2005, 1975, 1531 (= Fig. 73:6), 2069 and 1518.

mended in antiquity. Fig. 87 shows a pair of string-cut, Wadi Suq beaker bases, TA 1479 (= Fig. 86:6) and TA 2158 from 115/112 (4.20-4.00, locus 61). Fig. 88 shows a small group of sherds found this year which are made of a soft, yellow-orange paste, covered with opaque red paint over which black bands have been applied. The use of red paint on these pieces puts one in mind of Umm an-Nar, rather than Wadi Suq ceramics, yet the paste is soft and poorly fired. Technically, therefore, it resembles Wadi Suq ceramics more than Umm an-Nar wares, but it remains for the time being an enigma, even if we place it provisionally within the Wadi Suq period. A superficial similarity to various striped wares from Failaka¹⁵⁹ or Bahrain¹⁶⁰ would not seem relevant, judging by the published descriptions of those examples.



Fig. 89. TA 456 (2 × 1.7 × 0.9 cm.).

Smallfinds Found South of Locus 37

Two interesting fragments of bronze were also recovered in this area. The first is a piece (2 × 1.7 × 0.9 cm.), TA 456 (Fig. 89), which looks like the head of a pin in the form of a bird (115/107, 3.20-3.00, east of locus 51). Zoomorphic-headed pins were widespread throughout the Indus Valley, eastern Iran, Afghanistan, and Soviet Central Asia during the Bronze Age¹⁶¹. Unfortunately, cleaning and conservation by M. Djørup have not revealed any further details of what we believe may be the bird's body and head¹⁶². Finally, we have the rim, TA 315 (Fig. 90), of a small (2.8 × 0.7 × 0.4 cm., rim dia. 6 cm.) cup (118.16/109.04, 3.04).

Although badly disturbed by late graves (see discussion be-



Fig. 90. TA 315 (2.8 × 0.7 × 0.4 cm.).



Fig. 91. TA 509 (7.3 × 6.1 × 1.1 cm.).

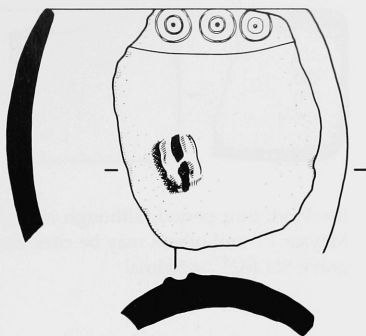


Fig. 92. TA 509.

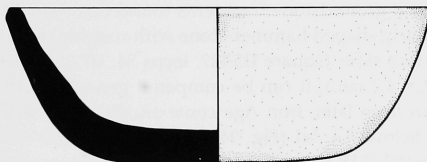


Fig. 93. TA 335 (11.5 × 4.3 × 0.9 cm.).

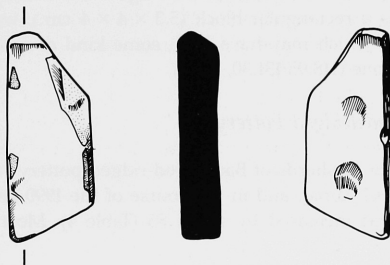


Fig. 94. TA 341 (6 × 2.5 × 1.3 cm.).

low), square 115/107 yielded a diagnostic piece of early second millennium, *série tardive* soft-stone (Figs. 91-92). The sherd comes from a small, deep rather than globular jar, decorated with a single row of dotted double circles beneath the rim, and vertically pierced nose lugs, one of which, in a broken state, can be seen on our fragment. This piece finds close comparanda at many sites, including Hili 3¹⁶³, Shimal tomb 99¹⁶⁴, Maysar 9¹⁶⁵, Bidya 1¹⁶⁶, Tarut¹⁶⁷, Dhahran tomb A-6¹⁶⁸, and Shahdad¹⁶⁹. An undecorated soft-stone bowl, TA 335, was also found in square 115/107 in a context datable to the Wadi Suq period (Fig. 93). Whether it actually dates to this era, or not, is difficult to determine. Completely plain bowls were not very common in

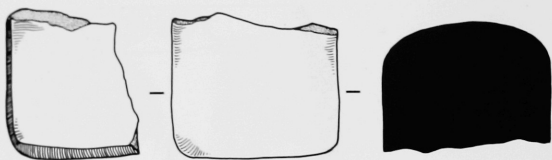


Fig. 95. TA 534 (5.3 × 4 × 4 cm.).

the Wadi Suq period, although at least two are known from Maysar 1¹⁷⁰ and others may be cited from the settlement¹⁷¹ and grave SH 102¹⁷² at Shimal.

Groundstone

Before leaving the Wadi Suq period, it is important to mention a number of groundstone fragments found this year. TA 432 is an irregularly shaped hammer-stone with roughly oval depressions on two sides (square 115/127, locus 54; 117.30/128.30, 6.23; 9.3 × 6.9 × 4.2 cm.). It can be compared generally with hammerstones from later, Iron Age contexts, discussed with comparanda below. TA 341 (Fig. 94) is a small (6 × 2.5 × 1.3 cm.) whetstone (117/135.40, 6.34) for which good comparanda can be found elsewhere on the site in Iron Age levels. Finally, TA 534 (Fig. 95) is a rectangular block (5.3 × 4 × 4 cm.), worked on four sides, which may have been some kind of smoother or rubbing stone (118.95/131.30, 6.65).

Barbar Red-Ridged Pottery

In 1989 over 60 sherds of Barbar red-ridged pottery were recovered at Tell Abraq, and in the course of the 1990 season this number was increased by about 85 (Table 4). Most of these

Table 4. *Distribution of Barbar Red-Ridged sherds in the 1990 Excavations arranged by Square and Level*

Square	Level	Locus	TA No.
118.10/108.10	3.40		2074
118.10/108.10	3.40		2075
118.10/108.10	3.40		2076
115/112	3.00-2.80		1378
115/112	3.00-2.80		1383
115/112	3.00-2.80		1401
115/112	3.20-3.00	55	1649
115/127	5.80-5.60		1566

115/127	6.40-6.20		1722
115/127	6.40-6.20		1723
115/127	7.00-6.80		1999
115/127	7.00-6.80	48	1776
115/127	7.20-7.00		1905
115/127	7.20-7.00		1906
115/127	7.20-7.00		1914
115/127	7.20-7.00		1917
115/127	7.20-7.00		1918
115/127	7.20-7.00		1921
115/127	7.20-7.00		1922
115/127	7.20-7.00		1929
115/127	7.20-7.00		1938
115/127	7.20-7.00		1939
115/127	7.20-7.00		1941
115/127	7.20-7.00		1942
115/127	7.20-7.00		1944
115/127	7.40-7.20		2025
115/127	7.40-7.20		2026
115/127	7.40-7.20		2027
115/127	7.40-7.20		2028
115/127	7.40-7.20		2029
115/127	7.40-7.20		2030
115/127	7.40-7.20		2031
115/127	7.40-7.20		2032
115/127	7.40-7.20		2033
115/127	7.40-7.20		2034
115/127	7.40-7.20		2035
115/127	7.40-7.20		2036
115/127	7.60-7.40		2095
115/127	7.60-7.40		2096
115/127	7.60-7.40		2097
115/127	7.60-7.40		2098
115/127	7.60-7.40		2099
115/127	7.60-7.40		2100
115/127	7.60-7.40		2101
115/127	7.60-7.40		2102
115/127	7.60-7.40		2103
115/127	7.60-7.40		2104
115/127	7.60-7.40		2105
115/127	7.60-7.40		2106
115/127	7.80-7.60		2191
115/127	7.80-7.60		2192
115/127	7.80-7.60		2193
115/127	7.80-7.60		2194
115/127	7.80-7.60		2190
115/127	7.80-7.60	48	2089
115/127	7.80-7.60	48	2090
115/127	8.00-7.80	48	2256
115/132	6.60-6.40		1604
115/132	6.60-6.40		1608
118-120/142-147	8.00-7.80		1970
118-120/142-147	8.20-8.00		1980
118-120/142-147	8.20-8.00		1981

118-120/142-147	8.20-8.00	1982
118-120/142-147	8.40-8.20	2213
118-120/142-147	8.40-8.20	2214
118-120/142-147	8.60-8.40	2212
118-120/142-147	8.60-8.40	2071
118-120/142-147	8.80-8.60	2210
118-120/142-147	8.80-8.60	2211
118-120/142-147	9.00-8.80	2093
118-120/142-147	9.20-9.00	2258
118-120/142-147	9.20-9.00	2117
118-120/142-147	9.20-9.00	2118
118-120/142-147	9.20-9.00	2119
118-120/142-147	9.20-9.00	2130
118-120/142-147	9.40-9.20	2133
118-120/142-147	9.40-9.20	2134
118-120/142-147	9.40-9.20	2135
118-120/142-147	9.40-9.20	2259
118-120/142-147	9.60-9.40	2185
118-120/142-147	9.60-9.40	2186
118-120/142-147	9.60-9.40	2187
118-120/142-147	9.60-9.40	2188
118-120/142-147	9.60-9.40	2189
118-120/142-147	9.80-9.60	2262

sherds, a selection of which is shown in Figs. 96 and 97, came from the deeper levels of 115/127 and the deep sounding in 118-120/142. The rims found are, for the most part, typical of the Bahrain and Failaka Dilmun ceramic collections. Thus, Fig. 96:1 is an example of a rim from the common hole-mouth jar, attested throughout City II levels at Qalat al-Bahrain¹⁷³, in the Barbar temple sequence¹⁷⁴, and on Failaka¹⁷⁵, while Fig. 96:2-6 represent rims from one of the most common classes of jars in the Barbar tradition¹⁷⁶. Fig. 96:7 probably comes from the rim of a jar such as the rare type 12 on Failaka¹⁷⁷, while Fig. 96:8 is the rim of a simple, open bowl, a type also represented on Failaka¹⁷⁸.

Fig. 96. Barbar red-ridged sherds.

1. TA: 1980 SQUARE: 118-120/142-147
LEVEL: 8.20-8.00 DIA: 18
2. TA: 2190 SQUARE: 115/127 LEVEL:
7.80-7.60 DIA: 18
3. TA: 1722 SQUARE: 115/127 LEVEL:
6.40-6.20 DIA: 17
4. TA: 2025 SQUARE: 115/127 LEVEL:
7.40-7.20 DIA: 15
5. TA: 1981 SQUARE: 118-120/142-147
LEVEL: 8.20-8.00 DIA: 13
6. TA: 2026 SQUARE: 115/127 LEVEL:
7.40-7.20 DIA: 12.5
7. TA: 1942 SQUARE: 115/127 LEVEL:
7.20-7.00 DIA: 13
8. TA: 2089 SQUARE: 115/127 LEVEL:
7.80-7.60, loc. 48
9. TA: 1917 SQUARE: 115/127 LEVEL:
7.20-7.00 DIA: 12
10. TA: 1922 SQUARE: 115/127 LEVEL:
7.20-7.00 DIA: 7

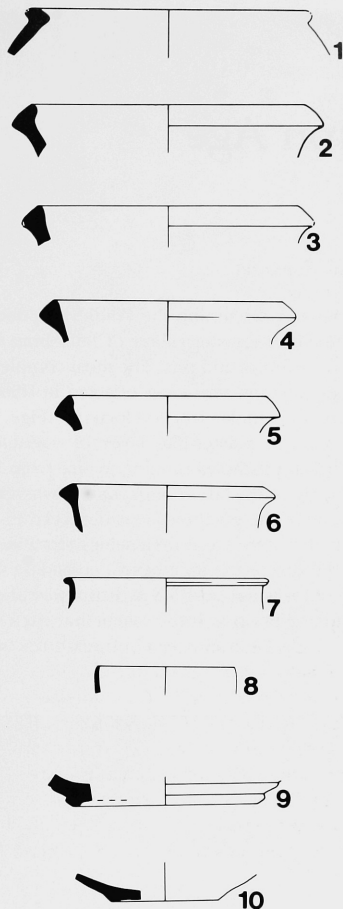


Fig. 97. Barbar sherds TA 2025, 2026, 1922, and 1917 (= Fig. 96: 4, 6, 10 and 9).

The Iron Age

Architectural Remains

As we have seen in discussing the Wadi Suq period, the Iron Age inhabitation of the eastern slope of Tell Abraq was marked exclusively by postholes and pits. The most complete exposure of the Iron Age posthole zone was effected in 115/122, in a deposit of stratified postholes labelled locus 47 (Figs. 98-99). This feature was a hard, plaster-like layer of variable thickness pierced by vertical postholes ranging in size from 10 to 30 cm. in diameter. Some of the larger ones may, however, have been small pits. None of the postholes was observed to slant, but it could be seen that they were themselves stratified, and were the relics of the use of the area over a considerable period of time. Although it was not possible to distinguish the outlines of individual huts or houses, it did seem that each time a new structure was built, i.e. a new level of postholes was isolated,

Fig. 98. Square 115/122 with postholes, and 115/127 showing Locus 48.

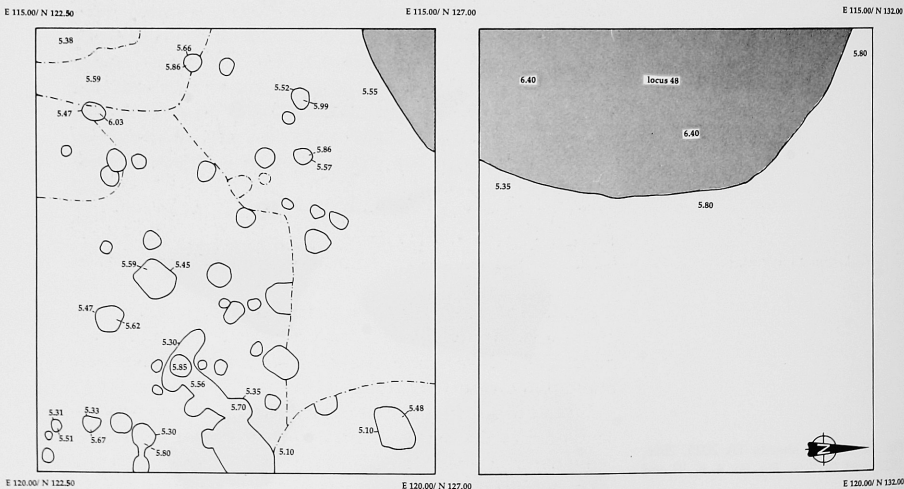


Fig. 99. Postholes in square 115/122.



Fig. 100. Locus 48 in square 115/127.

the surface of the area had been prepared with a new floor. The entire area was covered with loose, ashy sand, which thus also filled the postholes. In several cases, small animal bones were found in individual postholes.

The most puzzling Iron Age architectural feature was encountered in the northwestern corner of square 115/122 and along the west side of 115/127 (Figs. 100-102). Here a large pit, c. 5.5 m. in diameter, had been cut down from the surface of the

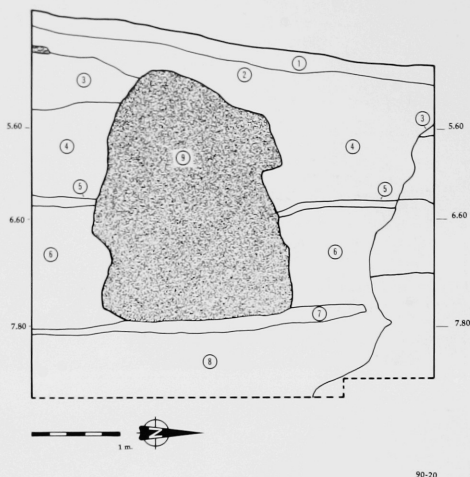


Fig. 101. Square 115/127, west section (90-20).

1. Homogeneous loose yellow sand with some gravel, surface.
2. Loose, heterogeneous, yellow/red sand, with flecks of soft limestone and charcoal; clearly differentiated from 1 and poorly differentiated from 3.
3. Heterogeneous grey/yellow sand with flecks of soft white limestone; poorly differentiated from 2.
4. Locus 48; heterogeneous, yellow sand with flecks of charcoal; diffuse limits.
5. Heterogeneous yellow/grey sand with flecks of soft limestone, clearly delimited.
6. Homogeneous yellow/grey sand, clearly delimited.
7. Horizontal level of grey sand containing many small pieces of soft limestone.
8. Compact, homogeneous layer of soft white limestone, clearly differentiated from 3.
9. Locus 68.

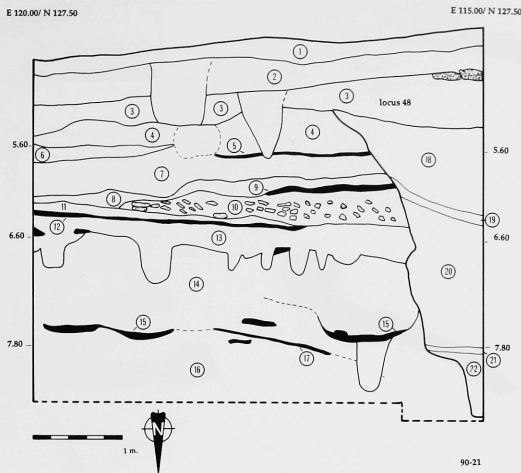
mound. It extended out into 115/127 to a maximum distance of c. 1.90 m. The pit was full of loose sand with sherds and many animal bones. Its date was based on the recovery of typical Iron Age pottery at its base. Apparently set into the pit was a massive stone feature, the eastern side of which was visible in the west section of 115/127. It was built of irregularly shaped stone set in horizontal courses, bonded with a hard, grey gypsum mortar. The stone feature had a maximum width of c. 2.10 m. Curiously enough, it was not built directly upon the base of the pit in which it sits. As the west section of 115/127 (Fig. 101) clearly shows, it rests upon a layer of grey sand containing many small fragments of plaster. Halfway up the pit itself can be seen a clear, horizontal stratum of yellow/grey sand. All of this suggests that the pit stood open and was gradually filled in with horizontally bedded sand over time. The nature of the stone feature, however, remains a mystery. Suggestions have ranged from a kiln, to a well, to a stone tower. Whatever it is, we are obviously looking at the eastern face of it, and only excavation in another square directly to the west of 115/127 will reveal the identity of this feature.

Pottery

We turn now to the Iron Age pottery found during the 1990 season. Generally speaking, the assemblage resembles in all re-

Fig. 102. Square 115/127, south section (90-21).

1. Homogeneous loose yellow sand with some gravel, surface.
2. Loose, heterogeneous, yellow/red sand, with flecks of soft limestone and charcoal; clearly differentiated from 1 and poorly differentiated from 3.
3. Heterogeneous grey/yellow sand with flecks of soft white limestone; poorly differentiated from 2.
4. Heterogeneous, hard, yellow/grey sand with a great deal of soft white limestone.
7. Horizontal level of grey sand containing many small pieces of soft limestone.
8. Homogeneous, compact layer of soft white limestone, clearly differentiated from level 3.
9. Homogeneous, black/brown, charcoal-colored level; clear limits.
10. Heterogeneous, yellow/grey level with large pieces of soft limestone.
11. Homogeneous, grey/brown sand with some striations.
12. Grey/brown layer, blacker on the top and browner at the bottom; clear limits.
13. Heterogeneous, humus-like, grey/brown to grey/black level with flecks of charcoal and a few bits of soft limestone and bone; postholes descend from this level; clear limits.
14. Homogeneous, light grey/brown sand with charcoal; clearly differentiated from level 13, less so from level 15.
15. Fireplace containing large amounts of charcoal in sizable lumps; clear limits.
16. Homogeneous, yellow/brown sand with only a few flecks of charcoal, becoming nearly sterile towards the bottom; no sherds.
17. Homogeneous, light yellow/brown sand; clear limits.
18. Heterogeneous, yellow sand with flecks of charcoal; vague limits.
19. Heterogeneous, yellow/grey sand with flecks of soft limestone; clear limits.
20. Homogeneous, yellow/grey sand; clear limits.
21. Horizontal level of grey sand with many small pieces of soft limestone.
22. Homogeneous, compact layer of soft white limestone; clearly differentiated from levels 3 and 5.



spects that of Rumeilah and the other "classic" Iron Age sites in southeastern Arabia to which parallels are adduced below, as well as possessing a number of interesting parallels to sites in Iran and Bahrain. What is, however, surprising, is the relatively negligible amount of what, in our report on the 1989 season at Tell Abraq, was described as the "western, coastal variant" of the southeast Arabian Iron Age, i.e. the largely coarse, grey/black, grit-tempered, hand-made wares found at Tell Abraq, and on a series of shellmounds from Sharjah to Ras al-Khaimah. Indeed, in describing the finds from 1989, it was stated that, "although some sherds with classic Iron Age attributes, such as incised decoration ... or raised cordons ... were found on the surface of the site, very little decorated material was recovered in excavation. What is more, the coarse, grit-tempered paste of the Tell Abraq wares, together with the predominant grey or black color ... makes the material stand out as a group from the more well-known Iron Age assemblages of the Oman peninsula"¹⁷⁹. Our assessment of the 1989 assemblage still remains valid, but it is clear that by shifting to another area on the site, we encountered a significantly different situation. For just as postholes were abundant in the 1990 trenches, and absent in the 1989 ones, so too did the ceramics from the two areas differ markedly. Until we have exposed more Iron Age habitation levels, however, it would be premature to offer an explanation for this situation. One thing, however, is certain. It would be wrong to make the facile assumption that the coarse-

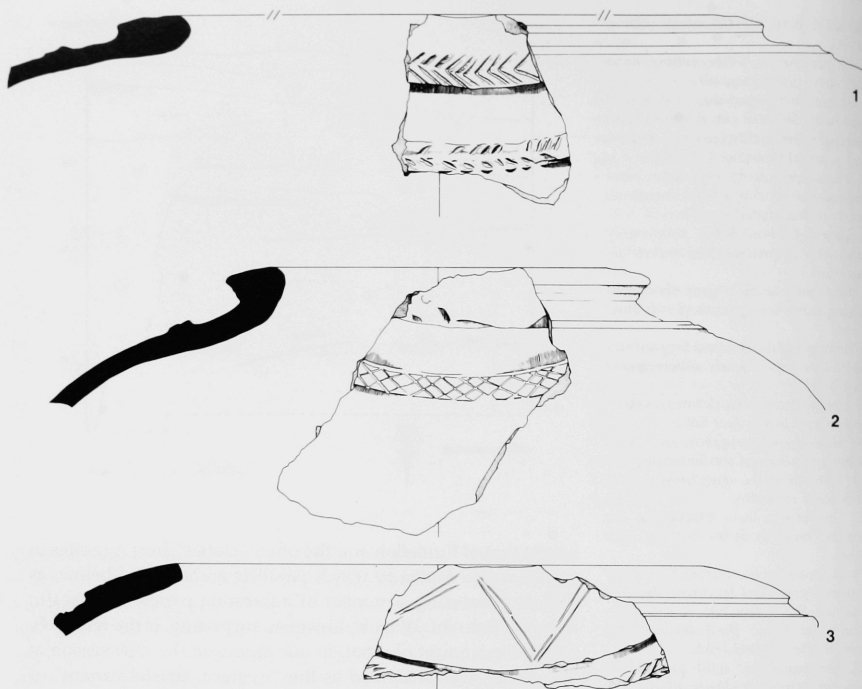


Fig. 103. Large Iron Age storage jars.
 1. TA: 2017 SQUARE: 115/112 LEVEL: 3.80-3.60 DESCRIPTION: heavy black chaff and grit, incised cordons DIA: + 50
 2. TA: 1675 SQUARE: 115/117 LEVEL: 5.20-5.00 DESCRIPTION: coarse red grit, incised cordons DIA: 30
 3. TA: 1177 SQUARE: 115/122 LEVEL: 4.40-4.20 DESCRIPTION: coarse, large orange-pink grit, chaff, incised, rope ridge DIA: c. 50



Fig. 105. TA 2017 (= Fig. 103:1).



Fig. 106. TA 1675 (= Fig. 103:2).



Fig. 107. TA 1177 (= Fig. 103:3).

Fig. 104. Incised Iron Age jars.

1. TA: 1253 SQUARE: 115/117 LEVEL: 3.80-3.60 DESCRIPTION: brown chaff, black slipped DIA: c. 50
2. TA: 1180 SQUARE: 115/122 LEVEL: 4.40-4.20 DESCRIPTION: coarse orange grit and chaff, incised cordons
3. TA: 1054 SQUARE: 115/142 LEVEL: surface DESCRIPTION: brown-slipped, coarse orange-brown
4. TA: 1344 SQUARE: 115/112 LEVEL: 2.60-2.40 DESCRIPTION: tan grit, dark core, incised, brown slipped DIA: 32
5. TA: 1149 SQUARE: 115/137 LEVEL: surface DESCRIPTION: coarse red-brown grit, incised cordons DIA: 26
6. TA: 1809 SQUARE: 115/117 LEVEL: 5.40-5.20 DESCRIPTION: red-orange grit, incised cordons DIA: 20
7. TA: 1053 SQUARE: 115/142 LEVEL: surface DESCRIPTION: heavy brown, grey core, chunk grit, incised cordon
8. TA: 1750 SQUARE: 125/132 LEVEL: 6.40-6.20 DESCRIPTION: sandy red grit, incised DIA: 14

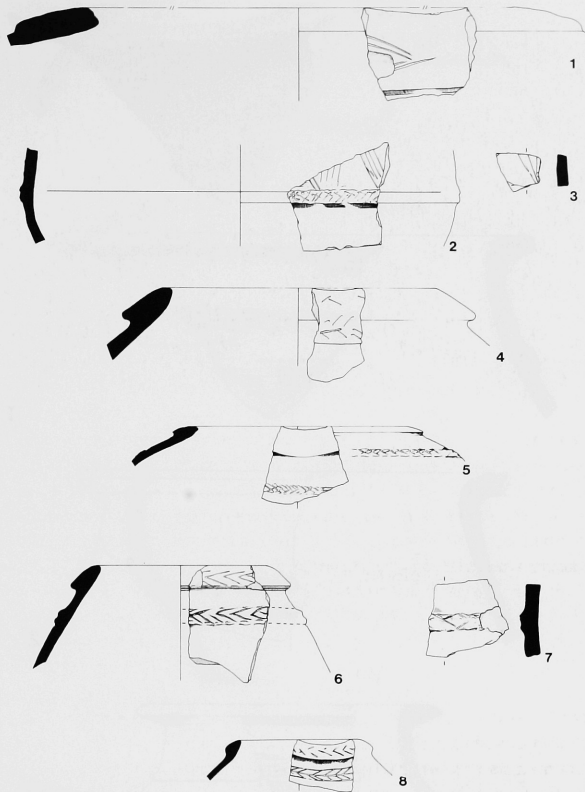


Fig. 108. TA 1809 (= Fig. 104:6).

wares of 1989 derived ultimately from “poorer” dwellings, while the “classic” wares of 1990 came from higher status areas. On the contrary, if the postholes of the 1990 season reflect the presence of simple huts or *barastis*, then it would not seem that these should be attributed to a more well-off component of the site’s Iron Age inhabitants.

Be that as it may, let us turn to the ceramics themselves. A number of enormous storage jars, with girth diameters of 1 m. or more, must have been the source of the large rims shown on Figs. 103-107. Many of these are decorated with incised decoration and raised rope or chain ridges. The incised chevrons on Figs. 103:1 and 104:6 (= Fig. 108) and 8, are comparable to those

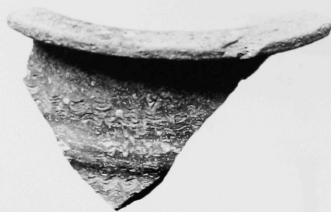
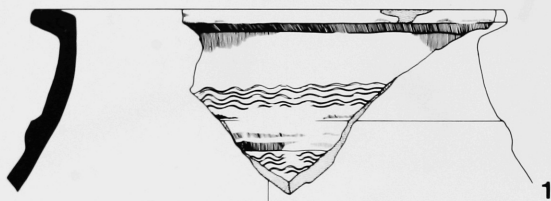
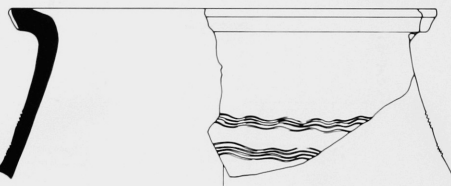


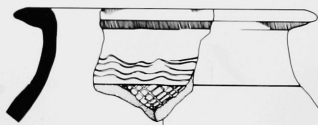
Fig. 109. TA 1794 (= Fig. 110:1).



1



2



3



4



5



6



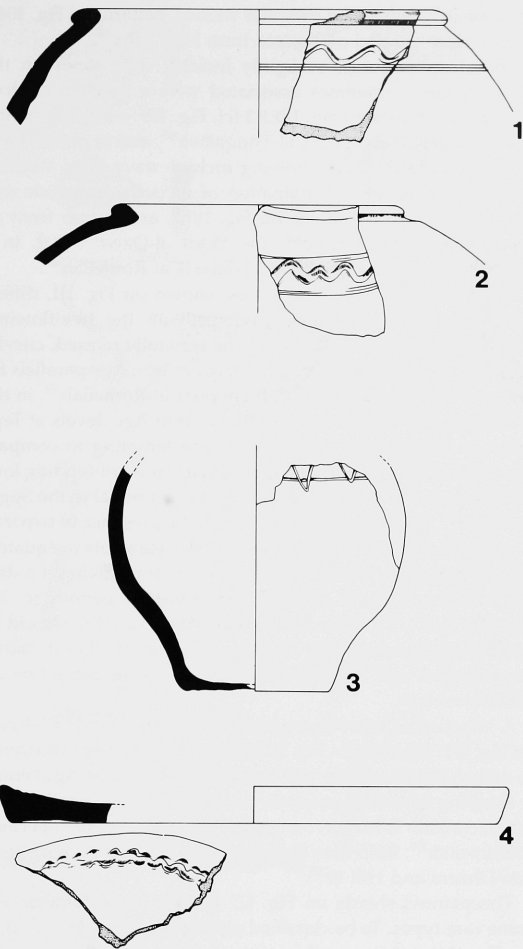
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Fig. 110. Incised Iron Age sherds.

1. TA: 1794 SQUARE: 115/107 LEVEL: 3.40-3.20 DESCRIPTION: orange grit and chaff, incised, cordons, black slipped DIA: c. 27
2. TA: 1763 SQUARE: 120/137-120/140 LEVEL: 6.60-6.40 DESCRIPTION: hard-fired orange chaff, incised DIA: 28
3. TA: 1818 SQUARE: 120/134.5-120/137 LEVEL: 6.00-5.80 DESCRIPTION: hard tan chaff, incised, black slipped DIA: 20
4. TA: 1097 SQUARE: 115/112 LEVEL: 2.20-2.00 DESCRIPTION: coarse red grit, incised
5. TA: 1200 SQUARE: 115/137 LEVEL: 6.40-6.20 DESCRIPTION: grey-buff grit, incised
6. TA: 1201 SQUARE: 115/137 LEVEL: 6.40-6.20 DESCRIPTION: red incised, black-slipped
7. TA: 1050 SQUARE: 115/142 LEVEL: surface DESCRIPTION: coarse red grit, incised DIA: 20

Fig. 111. Incised Iron Age sherds.

1. TA: 1672 SQUARE: 115/117 LEVEL:
5.20-5.00 DESCRIPTION: hard-fired orange,
some grit, incised DIA: 22
2. TA: 1323 SQUARE: 115/122 LEVEL:
4.80-4.60 DESCRIPTION: flakey red
grit, incised DIA: 18
3. TA: 1264 SQUARE: 115/122 LEVEL:
4.60-4.40 DESCRIPTION: badly eroded
tan, NVT, incised DIA: 10
4. TA: 1217 SQUARE: 115/137 LEVEL:
6.20-6.00 DESCRIPTION: chaff-tem-
pered buff, incised DIA: 32



found on sherds from Zahra 2, near 'Arja in Oman¹⁸⁰, Ghali-
lah¹⁸¹, and from a period I context at Rumeilah¹⁸². Cross-hatched
cordons, such as those on Figs. 103:2 and 104:2, 5 and 7, are also
well-known from such sites as Zahra 2¹⁸³, BB15 near Bahla¹⁸⁴,
the hill-fort at An Niba' 1¹⁸⁵, Rumeilah¹⁸⁶, Nud Ziba¹⁸⁷, Qarn Bint
Sa'ud¹⁸⁸, Shimal¹⁸⁹, various sites in the Wadi al-Qawr¹⁹⁰, and al-
Thuqaibah¹⁹¹. The diagonally slanting, parallel lines on Fig.
104:2-3 are also found on a recently published sherd from al-

Thuqaibah¹⁹², while the irregular incised pattern on Fig. 104:4 finds a close parallel on a piece from Nud Ziba¹⁹³.

The close-set bands of lightly incised, wavy lines on the necks of jars, sometimes associated with a hatched cordon, such as are shown on Fig. 110:1-3 (cf. Fig. 109 = Fig. 110:1), find close parallels at Zahra 2¹⁹⁴, al-Thuqaibah¹⁹⁵, and in period I levels at Rumeilah¹⁹⁶. Lids showing incised wavy lines running around the rim, or a combination of incised, concentric and wavy lines, such as we see on Fig. 110:7, are known from al-Thuqaibah¹⁹⁷, Am Dhurra¹⁹⁸, the Wadi al-Qawr¹⁹⁹ and, in a slightly different form, period I contexts at Rumeilah²⁰⁰.

The last group of incised wares, shown on Fig. 111, differs from that discussed above, principally in the free-flowing, somewhat haphazard manner of the generally relaxed, curvilinear, zig-zagging lines applied. There are Iron Age parallels for this sort of material in period II contexts at Rumeilah²⁰¹, in the Wadi al-Qawr²⁰², and in Period III, i.e. Iron Age, levels at Tepe Yahya in southeastern Iran²⁰³. It is also tempting to compare Fig. 111:3 with a vessel showing a similarly inward-tending lower body and incised decoration from a cairn burial in the Soghun Valley²⁰⁴ near Tepe Yahya, although the presence of two iron beads in the cairn (SU 70-58) has led the excavators to equate it with Periods II or I in the local sequence, thus giving it a date between the Seleucid and the early Sasanian periods (c. 200 B.C.-300 A.D.). Whether the lid fragment, Fig. 111:4, should be dated to the late Iron Age (or even later), or whether it should be compared with the other lids cited above, we cannot be absolutely certain.

A selection of relief-decorated and painted sherds is shown on Fig. 112. Fig. 112:1 (= Fig. 113) is the only fragment recovered to date at Tell Abraq of a well-known variety of Iron Age ceramic showing modelled, punctate-decorated snakes in relief. Similar decoration is known on material from al-Qusais²⁰⁵, period I at Rumeilah²⁰⁶, BB15 near Bisyah in Oman²⁰⁷, and perhaps from Am-Dhurra and Hili 14²⁰⁸.

The painted sherds on Fig. 112 include some familiar and some rare types. To be classified among the latter are Fig. 112:2 (= Fig. 114), for the combination of painted decoration and a punctate shoulder ridge are, to my knowledge, unparalleled²⁰⁹. Fig. 112:3 (= Fig. 115) is similarly a unique piece, and may in fact be altogether out of context²¹⁰. The broken body and handle fragment, Fig. 112:4, has been assigned an Iron Age date because of the similarity of the painted decoration to that seen on several bridge-spouted vessels from period I at Rumeilah²¹¹. The next three painted examples, however, are more familiar members of the southeast Arabian Iron Age repertoire. Fig. 112:5 shows a type of Iron Age bowl with a simple rim and

Fig. 112. Decorated and other Iron Age sherds.

1. TA: 1756 SQUARE: 125/132 LEVEL: 6.40-6.20 DESCRIPTION: red sandy grit, raised punctate snake ridge

2. TA: 2003 SQUARE: 115/117 LEVEL: 5.60-5.40 DESCRIPTION: grey grit, rope ridge, black paint

3. TA: 2147 SQUARE: 118-20/142-147 LEVEL: 9.40-9.20 DESCRIPTION: hard-fired grey, vitreous surface, over-fired?raised cordons, red paint

4. TA: 2002 SQUARE: 115/117 LEVEL: 5.60-5.40 DESCRIPTION: fine orange, black painted, red slip

5. TA: 1245 SQUARE: 115/137 LEVEL: 6.60-6.40 N DESCRIPTION: orange chaff, red slipped, black paint DIA: 15

6. TA: 1318 SQUARE: 115/122 LEVEL: 4.80-4.60 DESCRIPTION: fine red, black paint DIA: 6

7. TA: 1251 SQUARE: 115/117 LEVEL: 3.80-3.60 DESCRIPTION: fine vegetal tempered red, black paint DIA: 13.6/7

8. TA: 1542 SQUARE: 115/132 LEVEL: 6.20-6.00 DESCRIPTION: coarse red grit and chaff DIA: 10

9. TA: 1172 SQUARE: 115/142 LEVEL: 7.00-6.80 DESCRIPTION: coarse orange, chunk grit, brown interior DIA: 11

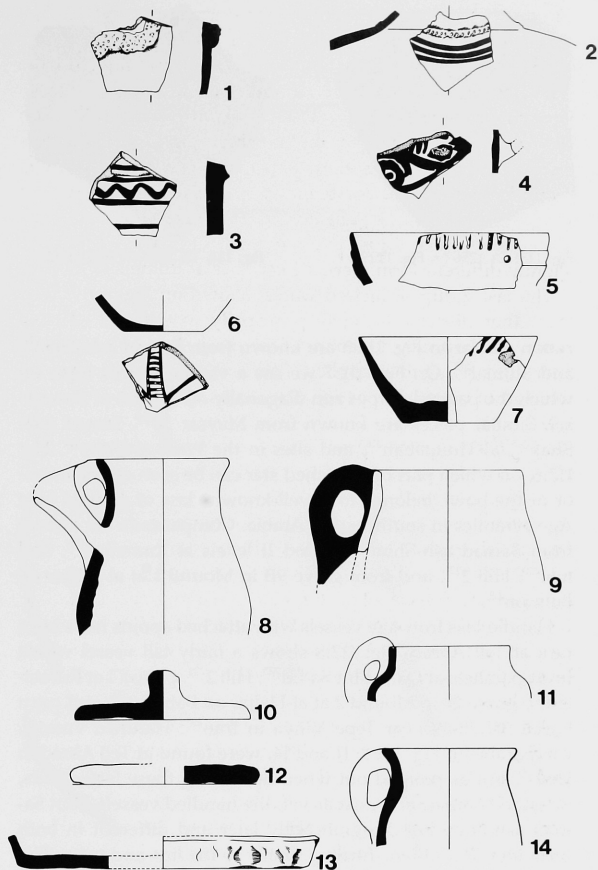
10. TA: 1226 SQUARE: 115/127 LEVEL: 4.20-4.00 DESCRIPTION: coarse friable black grit DIA: 13.2

11. TA: 1291 SQUARE: 115/132 LEVEL: 5.80-5.60 DESCRIPTION: coarse red chaff and grit, black core DIA: 8

12. TA: 1185 SQUARE: 115/122 LEVEL: 4.40-4.20 DESCRIPTION: coarse red-orange grit, incised DIA: 14

13. TA: 1265 SQUARE: 115/122 LEVEL: 4.60-4.40 DESCRIPTION: friable black grit DIA: 22

14. TA: 1725 SQUARE: 115/117 LEVEL: 5.20-3.80 DESCRIPTION: hard-fired red-tan, fine chaff DIA: 10



lightly articulated ridges just below the lip. This type of vessel, without painted decoration, is extremely common on Iron Age sites all over the Oman peninsula (see below). The use of vertical stripes running down the outer lip of the vessel clearly demonstrates the continuation of a tradition dating back to the Wadi Suq period, of which the specimens illustrated here as Figs. 47:7 and 71:3-5 are exemplary. Iron Age vessels with deco-

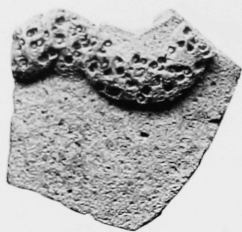


Fig. 113. TA 1756 (= Fig. 112:1).



Fig. 114. TA 2003 (= Fig. 112:2).

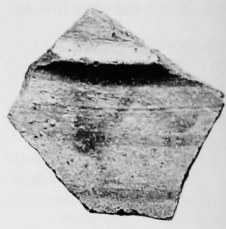


Fig. 115. TA 2147 (= Fig. 112:3).

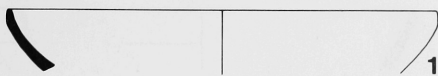
ration similar to Fig. 112:5 are known from Samad ash-Shan²¹² and Shimal²¹³. On Fig. 112:7 we see a variant of this type, on which the painted stripes run diagonally off the rim of the vessel. Similar pieces are known from Maysar 36²¹⁴, Samad ash-Shan²¹⁵, al-Thuqaibah²¹⁶, and sites in the Wadi al-Qawr²¹⁷. Fig. 112:6, on which part of a hatched star can be seen on the interior of the bowl, belongs to a well-known class of painted Iron Age ceramics in southeastern Arabia. Comparanda are known from Samad ash-Shan²¹⁸, period II levels at Rumeilah²¹⁹, Shimal²²⁰, Hili 2²²¹, and from grave 9B in Mound 1 at al-Hajjar on Bahrain²²².

Handle-less Iron Age vessels with attached spouts have been rare at Tell Abraq. Fig. 112:8 shows a fairly tall vessel which finds parallels at Qarn Bint Sa'ud²²³, Hili 2²²⁴, period I at Rumeilah²²⁵, grave 29 in Mound 2 at al-Hajjar on Bahrain²²⁶, and cairn burial SU 70-49 near Tepe Yahya in Iran²²⁷. Handled vessels, comparable to Fig. 112:9, 11 and 14, were found at Tell Abraq in 1989²²⁸, but as pointed out when discussing these latter finds, no good comparanda exist as yet, the handled vessels from Samad ash-Shan being significantly later and different in both form and decoration. Turning finally to the lids and trays, Fig. 112:12 finds close parallels with a piece from Site 118 on the coast of Sharjah²²⁹, and in the Wadi al-Qawr²³⁰, while Fig. 112:13 may be compared with a tray from period III (Iron Age) at Tepe Yahya²³¹.

We turn now to the plain wares. Simple Iron Age bowls are shown in Figs. 116 and 117. It would be tedious to detail all of the available comparanda, but suffice it to say that these simple bowls are present throughout southeastern Arabia from the southern coast of the Arabian Gulf, i.e. Ras al-Khaimah (Shimal), Umm al-Qaiwain (Tell Abraq), and Dubai (al-Qusais); through the interior of Sharjah (al-Thuqaibah, Muwailah), Fujairah (Qidfa, Bithnah), Ras al-Khaimah (Wadi al-Qawr), and Abu Dhabi (Rumeilah, Hili 2, 5 and 6, Qarn Bint Sa'ud); and

Fig. 116. Iron Age bowls.

1. TA: 1729 SQUARE: 115/117 LEVEL:
5.20-3.80 DESCRIPTION: fine red-tan,
red slipped DIA: 28-30
2. TA: 1342 SQUARE: 115/107 LEVEL:
2.60-2.40 DESCRIPTION: tan, black
core, red slipped DIA: 26
3. TA: 1051 SQUARE: 115/142 LEVEL:
surface DESCRIPTION: brown-slipped
red-orange DIA: 22
4. TA: 1577 SQUARE: 115/142 LEVEL:
7.20-7.00 DESCRIPTION: hard, fine
red, red slipped DIA: 24
5. TA: 1060 SQUARE: 115/142 LEVEL:
6.60-6.40 DESCRIPTION: smooth grey
chaff DIA: 22
6. TA: 1541 SQUARE: 115/132 LEVEL:
6.20-6.00 DESCRIPTION: red-orange,
fine grit and chaff, red slip DIA: 18
7. TA: 1630 SQUARE: 115/117 LEVEL:
5.00-4.80 DESCRIPTION: fine red-or-
ange, burnished DIA: 18
8. TA: 1215 SQUARE: 115/137 LEVEL:
6.20-6.00 DESCRIPTION: coarse red
grit DIA: 14
9. TA: 1106 SQUARE: 115/142 LEVEL:
6.80-6.60 DESCRIPTION: handmade
red chaff DIA: 18
10. TA: 1279 SQUARE: 115/117 LEVEL:
4.00-3.80 DESCRIPTION: fine red chaff
and grit DIA: 14
11. TA: 1212 SQUARE: 115/137 LEVEL:
6.20-6.00 DESCRIPTION: coarse black
grit DIA: 16
12. TA: 1447 SQUARE: 115/137 LEVEL:
6.80-6.60 DESCRIPTION: fine orange-
brown, red slipped DIA: 12
13. TA: 1238 SQUARE: 115/132 LEVEL:
5.60-5.40 DESCRIPTION: fine orange,
NVT, red slipped DIA: 14
14. TA: 1284 SQUARE: 115/117 LEVEL:
4.00-3.80 DESCRIPTION: orange NVT,
red-brown slipped DIA: 12



1



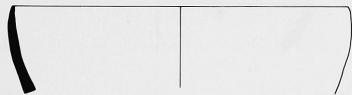
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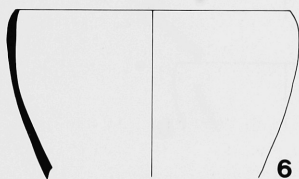
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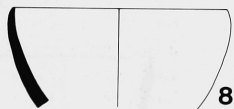
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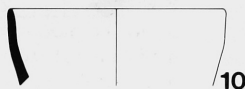
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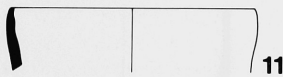
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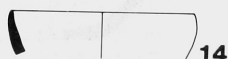
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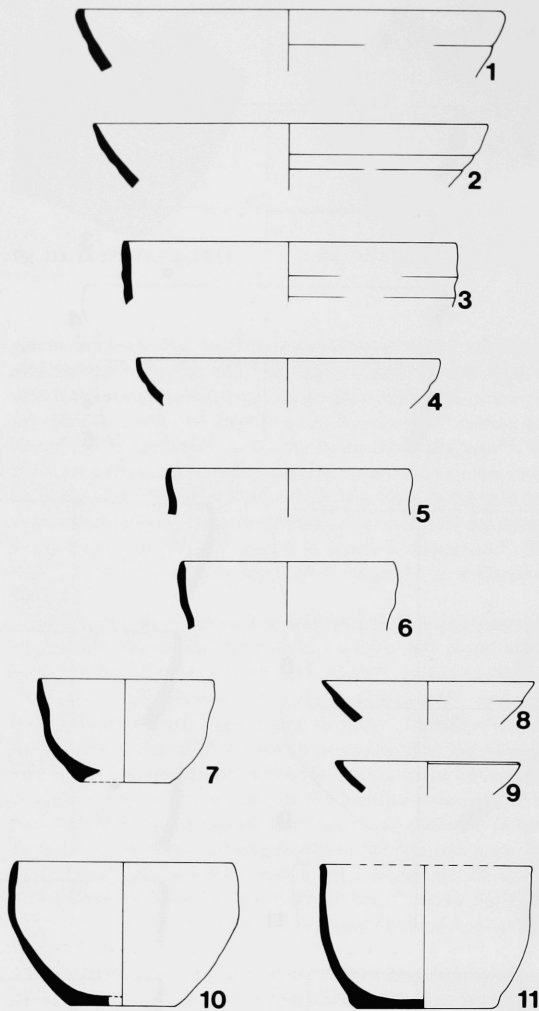


Fig. 117. Iron Age bowls.

1. TA: 1170 SQUARE: 115/142 LEVEL: 7.00-6.80 DESCRIPTION: hard grey, some chaff and grit DIA: 28
2. TA: 1278 SQUARE: 115/117 LEVEL: 4.00-3.80 DESCRIPTION: fine tan, NVT, black slipped DIA: 26
3. TA: 1104 SQUARE: 115/142 LEVEL: 6.80-6.60 DESCRIPTION: thin orange chaff, grey core DIA: 22
4. TA: 1446 SQUARE: 115/137 LEVEL: 6.80-6.60 DESCRIPTION: fine red-orange, red slipped DIA: 20
5. TA: 1123 SQUARE: 115/147 LEVEL: 7.40-7.20 DESCRIPTION: fine red-orange DIA: 16
6. TA: 1288 SQUARE: 115/132 LEVEL: 5.80-5.60 DESCRIPTION: fine orange, red slipped DIA: 14
7. TA: 1109 SQUARE: 115/142 LEVEL: 6.80-6.60 DESCRIPTION: plain tan, NVT, black slipped DIA: 13.5
8. TA: 1411 SQUARE: 115/127 LEVEL: 5.00-4.80 DESCRIPTION: thin red, fine grit DIA: 14
9. TA: 1631 SQUARE: 115/117 LEVEL: 5.00-4.80 DESCRIPTION: fine, hard red-orange, black slipped DIA: 12
10. TA: 1263 SQUARE: 115/122 LEVEL: 4.60-4.40 DESCRIPTION: fine orange, NVT, red slipped DIA: c. 8
11. TA: 1440 SQUARE: 115/122 LEVEL: 5.40-5.20 DESCRIPTION: blackened tan grit, handmade DIA: 14/c. 9

into Oman (Zahra site 2, Bahla), at least as far east and south as Bilad Bani Bu Hassan²³² and the Wahiba Sands²³³.

The coarse, coastal Iron Age bowls so well-attested in the 1989 excavations at Tell Abraq²³⁴ are represented on Fig. 118:1-5,

Fig. 118. Undecorated Iron Age bowls.

1. TA: 1184 SQUARE: 115/122 LEVEL:
4.40-4.20 DESCRIPTION: coarse black
grit DIA: 42

2. TA: 1183 SQUARE: 115/122 LEVEL:
4.40-4.20 DESCRIPTION: coarse black
grit DIA: 38

3. TA: 1324 SQUARE: 115/122 LEVEL:
4.80-4.60 DESCRIPTION: handmade
friable black grit DIA: 32

4. TA: 1321 SQUARE: 115/122 LEVEL:
4.80-4.60 DESCRIPTION: smooth, thin
friable black grit DIA: 18

5. TA: 1669 SQUARE: 115/117 LEVEL:
5.20-5.00 DESCRIPTION: coarse brown
grit, handmade DIA: 30

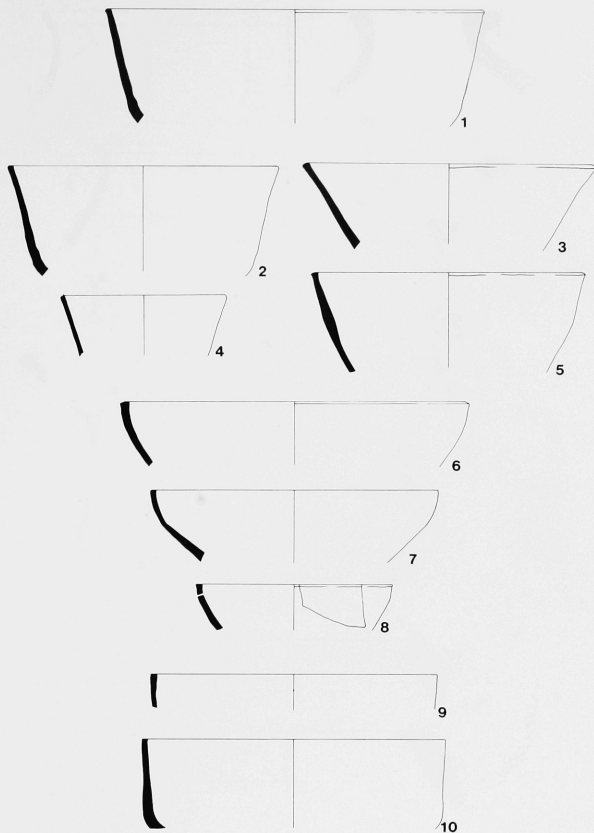
6. TA: 1449 SQUARE: 115/137 LEVEL:
6.80-6.60, loc. 45 DESCRIPTION:
brown chaff and grit, brown slipped
DIA: 38

7. TA: 1667 SQUARE: 115/117 LEVEL:
5.20-5.00 DESCRIPTION: fine orange,
red slipped DIA: 32

8. TA: 1437 SQUARE: 115/122 LEVEL:
5.40-5.20 DESCRIPTION: hard-fired
green-buff chaff, black slip DIA: 22

9. TA: 1052 SQUARE: 115/142 LEVEL:
surface DESCRIPTION: coarse red grit,
incised DIA: 20

10. TA: 1182 SQUARE: 115/122 LEVEL:
4.40-4.20 DESCRIPTION: coarse black
grit DIA: 34



9-10. Fig. 118:6-8, on the other hand, represent a type of classic Iron Age bowl attested at al-Thuqaibah²³⁵ and Rumeilah in period I²³⁶. Large, undecorated storage jar rims, similar to those shown on Fig. 119:1-6, and Fig. 119:7-8, are known from period I at Rumeilah²³⁷, the Wadi al-Qawr²³⁸, and Zahra 2 in Oman²³⁹.

Fig. 120 continues our presentation of undecorated Iron Age jars, and contains a number of pieces which, like a small group presented in our 1989 report²⁴⁰, date without doubt to the latter part of the Iron Age, i.e. that period represented by period II at Rumeilah. Jars such as Fig. 120:9-10 find close parallels at Ru-



Fig. 119. Undecorated Iron Age storage jars.

1. TA: 2018 SQUARE: 115/112 LEVEL: 3.80-3.60 DESCRIPTION: heavy red-tan chaff and grit DIA: 50
2. TA: 1299 SQUARE: 115/112 LEVEL: 2.40-2.20 DESCRIPTION: coarse red grit, red slipped DIA: c. 49
3. TA: 1246 SQUARE: 115/137 LEVEL: 6.60-6.40 DESCRIPTION: heavy tan chaff DIA: c. 36
4. TA: 1190 SQUARE: 115/117 LEVEL: 3.60-3.40 DESCRIPTION: heavy sandy red DIA: 36
5. TA: 1810 SQUARE: 115/117 LEVEL: 5.40-5.20 DESCRIPTION: coarse red grit DIA: 30
6. TA: 1203 SQUARE: 115/137 LEVEL: 6.40-6.20 DESCRIPTION: plain grey-tan, black slipped DIA: 30
7. TA: 1754 SQUARE: 125/132 LEVEL: 6.40-6.20 DESCRIPTION: heavy red grit and chaff DIA: 30
8. TA: 1301 SQUARE: 115/112 LEVEL: 2.40-2.20 DESCRIPTION: coarse tan grit, grey core DIA: 32

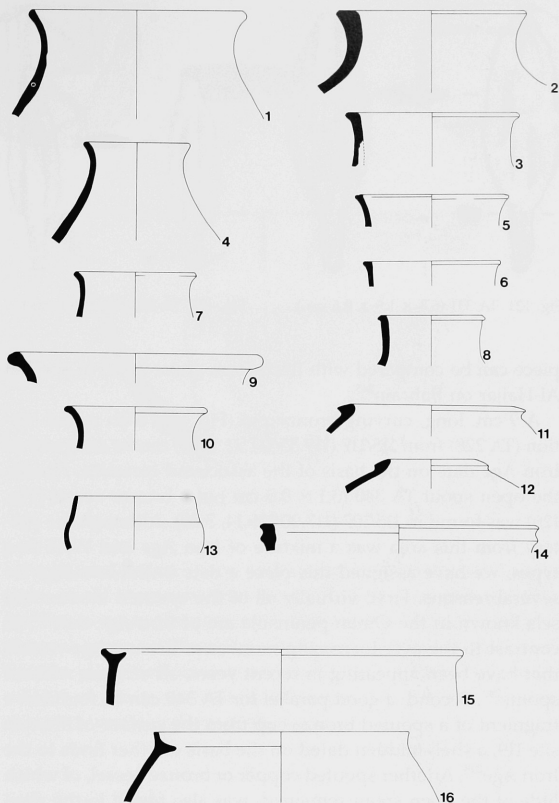
meilah²⁴¹. Fig. 120:13, a rather unusual shape, can also be paralleled by several finds from Rumeilah²⁴². The carinated bowl represented by Fig. 120:14 finds a close parallel in a piece from Rumeilah²⁴³ and in another from the Wahiba Sands²⁴⁴. We can adduce no relevant parallels for Fig. 120:15-16 which, for this reason, may not in fact be datable to the Iron Age.

Bronze Objects

Iron Age bronzes included three projectile points, each of a form markedly different from the rest. TA 331 (Fig. 121) is a

Fig. 120. Undecorated Iron Age vessels.

1. TA: 1671 SQUARE: 115/117 LEVEL: 5.20-5.00 DESCRIPTION: coarse brown friable grit DIA: 25
2. TA: 1584 SQUARE: 115/142 LEVEL: 7.20-7.00 DESCRIPTION: heavy grey-tan DIA: 22
3. TA: 1228 SQUARE: 115/122 LEVEL: 4.20-4.00 DESCRIPTION: coarse red-brown grit DIA: 20
4. TA: 2255 SQUARE: 115/127 (115.40/130.50) LEVEL: 7.82 DESCRIPTION: coarse orange, red grit, red slipped DIA: 12
5. TA: 1426 SQUARE: 115/122 LEVEL: 5.20-5.00 DESCRIPTION: smoothed, gritty black DIA: 16-18
6. TA: 1410 SQUARE: 115/127 LEVEL: 5.00-4.80 DESCRIPTION: plain tan, NVT, black slipped DIA: 16
7. TA: 1290 SQUARE: 115/132 LEVEL: 5.80-5.60 DESCRIPTION: fine grit tan-grey DIA: 14
8. TA: 1575 SQUARE: 115/142 LEVEL: 7.20-7.00 DESCRIPTION: hard-fired tan-orange, fine chaff, relict slip? DIA: 12
9. TA: 1798 SQUARE: 125/134.5-125/137 LEVEL: 6.60-6.40 DESCRIPTION: friable grey grit DIA: 30
10. TA: 1673 SQUARE: 115/117 LEVEL: 5.20-5.00 DESCRIPTION: tan, sandy brown grit DIA: 16
11. TA: 1637 SQUARE: 115/117 LEVEL: 5.00-4.80 DESCRIPTION: coarse tan grit DIA: 19
12. TA: 1079 SQUARE: 115/147 LEVEL: 7.20-7.00 DESCRIPTION: coarse red-brick grit, brown slipped DIA: 10/20?
13. TA: 1574 SQUARE: 115/142 LEVEL: 7.20-7.00 DESCRIPTION: fine, hard-fired red DIA: 14
14. TA: 1144 SQUARE: 115/117 LEVEL: 3.00-2.80 DESCRIPTION: coarse tan grit, grey core DIA: 32
15. TA: 1252 SQUARE: 115/117 LEVEL: 3.80-3.60 DESCRIPTION: handmade orange-red, black slipped DIA: 42
16. TA: 1276 SQUARE: 115/117 LEVEL: 4.00-3.80 DESCRIPTION: red-orange chaff, grey core, black slipped DIA: 30



broad, laureate or foliate-shaped point with a square-sectioned tang and a flattened midrib. It was found in 115/142 (116.80/144.60, 7.04) and measures $6.8 \times 1.9 \times 0.6$ cm. TA 353 (Fig. 122) has a smaller and narrower shape, but likewise shows the typical square-sectioned tang and flattened midrib so common throughout the Oman peninsula. It was found in the area above the Umm an-Nar building in 115/117 (115.60/117.50, 2.80) and measures 5.6×0.4 cm. Finally, TA 587 (Figs. 123-124), from 115/112 (115.30/115.43, 3.50) is a shorter ($3.3 \times 0.9 \times 0.3$ cm.), blunter point with a much less pronounced tang. The first two pieces are exemplary of the widespread bronze arrowheads of the Oman peninsula during the Iron Age, while this latter

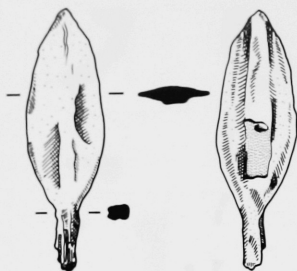


Fig. 121. TA 331 (6.8 × 1.9 × 0.6 cm.).

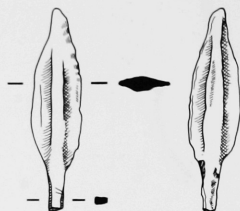


Fig. 122. TA 353 (5.6 × 0.4 cm.).



Fig. 123. TA 587 (3.3 × 0.9 × 0.3 cm.).

piece can be compared with finds from grave 9 A/B in site 1 at Al-Hajjar on Bahrain²⁴⁵.

A 9 cm. long, curving bronze pin (Fig. 125) with round section (TA 228) from 115/117 (119.35/117.71, 4.08) can be assigned an Iron Age date on the basis of the associated ceramics. Finally, the open spout TA 340 (3.1 × 0.3 cm.) of a bronze vessel (Fig. 126) was found in 115/107 (117.90/109.14, 3.05). Although the pottery from this area was a mixture of Iron Age and Wadi Suq types, we have assigned this piece a date in the Iron Age for several reasons. First, virtually all of the spouted bronze vessels known in the Oman peninsula are of Iron Age date²⁴⁶, in contrast to the ever-increasing number of Bronze Age vessels that have been appearing in recent years, all of them without spouts²⁴⁷. Second, a good parallel for TA 340 can be found in a fragment of a spouted bronze cup from the surface of Sharjah site 119, a shell-midden dated on the basis of other finds to the Iron Age²⁴⁸. Another spouted copper or bronze vessel, of which little of the open spout remained, was also found in the ring-wall of one of the round Umm an-Nar buildings at Bat, where it had been re-deposited along with other objects of Wadi Suq and Iron Age date²⁴⁹.

Before leaving the subject of metallurgy, we should not fail to point to the discovery this year of two fragments of soft, ceramic-like material, on each of which a copper residue adheres to one curved side. These were both found in contexts (112/112.50, 2.80-2.60 balk; 115/107, 2.40-2.20) dated ceramically to the Iron Age, although this is no guarantee that the fragments in question should be likewise dated. Pending their eventual analysis, we can at least state provisionally that they appear identical to the fragments found on the surface of the Wadi Samad by the Harvard Survey and described as coming from ceramic crucibles with slag adhering to them²⁵⁰. Subsequent work at Maysar by the German mission suggested that these



Fig. 124. TA 587.

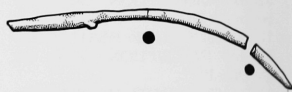


Fig. 125. TA 228 (9 cm. long).

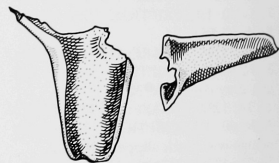


Fig. 126. TA 340 (3.1 × 0.3 cm.).

Fig. 127. TA 273 (5 × 4.7 × 1 cm.).

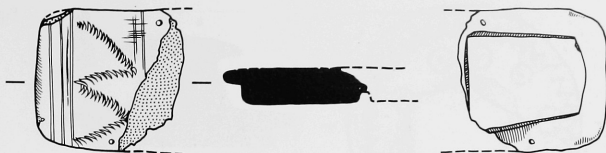


Fig. 128. TA 165 (3 × 1.8 × 0.4 cm.).



Fig. 129. TA 673 (10.5 × 8.3 × 1.3 cm.).

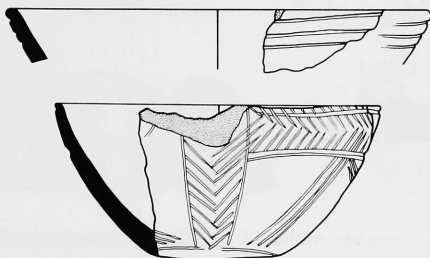


Fig. 130. TA 673.

“crucible fragments” were in fact “pieces of furnace-lining or parts of the furnaces themselves”²⁵¹. This was subsequently confirmed by A. Hauptmann²⁵². The relative frequency of copper and bronze finds at Tell Abraq makes it not unlikely that the site possessed its own metalsmiths, but these fragments, subject of course to their analysis, provide the first real evidence for metalworking in the area.

Soft-Stone Finds

Soft-stone finds of Iron Age date were abundant in 1990. From the posthole area in 115/122 (119.95/126.50, 5.10) comes a fragment (5 × 4.7 × 1 cm.) of a lid (TA 273) showing two drill-holes from ancient repairs (Fig. 127). The fragment is decorated with bands of incised, parallel lines and a pattern of light, zig-zag feathering. Generally similar pieces are known from a period II context at Rumeilah²⁵³, and from a recently investigated cairn burial at Bilad Bani Bu Hassan in the interior of the Ja‘alan region of southeastern Oman²⁵⁴. TA 165 (Fig. 128), from 115/142 (118.93/145.02, 6.96), shows a distinctive pattern of crudely incised, parallel lines beneath the rim (3 × 1.8 × 0.4 cm.) known also on at least three pieces from Iron Age graves in the Wadi Samad²⁵⁵ as well as on a vessel from Fashgha 1 in the southern enclave of Ras al-Khaimah²⁵⁶. TA 673 (Figs. 129-130), from 115/

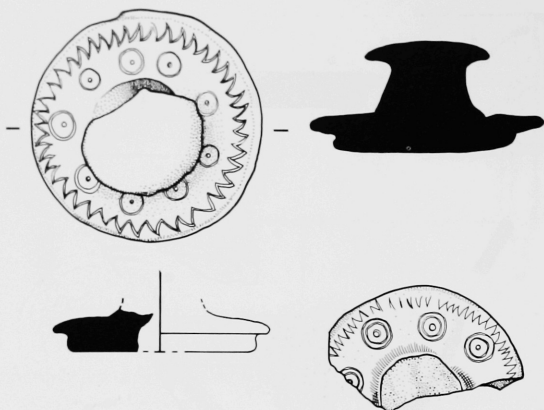


Fig. 131. TA 672 (6.5 × 6.3 × 3 cm.).

Fig. 132. TA 594 (5.5 × 3.2 × 1.4 cm.).

117, is the complete profile of a shallow, open-spouted bowl with herringbone incision beneath the rim and spout, and a pattern of three parallel, diagonal lines, zig-zagging across the body of the vessel. All of the decorative elements found on this piece are well-attested on vessels from other Iron Age sites in the Oman peninsula, although never in exactly the same configuration. A fragment found by Beatrice de Cardi on the surface of one of the Wadi al-Qawr sites shows the same use of the herringbone pattern around the rim and beneath the spout²⁵⁷; a vessel from Ras al-Junayz 2 has a similar pattern of incised, diagonal lines around the body²⁵⁸; while at least two spouted vessels from Fashgha 1 show the use of the herringbone pattern beneath the spout²⁵⁹. An elaborately decorated lid, TA 672 (Fig. 131), from 115/137 (118.80/141.33, 7.01), has a high, flat-topped knob decorated with a dotted circle and lines radiating out from it (6.5 × 6.3 × 3 cm.). The upper surface of the lid itself has a zig-zagging line running around the perimeter, and an uneven line of nine dotted circles making a rough circle around the handle. Similarly shaped handles are well-attested in the Iron Age soft-stone repertoire²⁶⁰, but the combination of dotted circle and zig-zag is unusual, although it is attested on a second piece from Tell Abraç, TA 594 (Fig. 132), which was discovered in cleaning a section in an eroded gully on the northern side of the site, adjacent to the *sabkha* (see below). There is no doubt that the form of these two lids is one normally considered diagnostic of the Iron Age. At the same time, the dotted circle combined with the zig-zag is never attested in the Iron Age soft-stone corpus. Given the fact that the dotted circle is widely used on Wadi Suq lids, and that the form seems best attributed to the Iron Age, we seem to be faced here with a

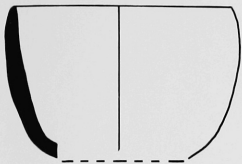


Fig. 133. TA 503 (3.9 × 4.1 × 0.4 cm.).

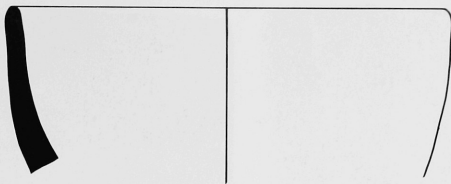


Fig. 134. TA 294 (4.2 × 2.9 × 0.5 cm.).

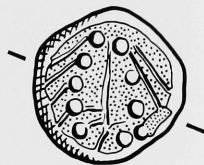
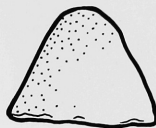


Fig. 135. TA 299 (2.1 × 2.1 × 1.8 cm.).

hitherto unattested lid variant which would then, logically, represent a hybrid of the Wadi Suq and Iron Age traditions. Hence, it is likely to date to the transition between the two periods, c. 1300 B.C.

Finally, it should be noted that simple, undecorated steatite vessels, such as the simple cup (Fig. 133) TA 503 (116.80/121.59, 3.39) (3.9 × 4.1 × 0.4 cm.) and the deep bowl fragment TA 294 (Fig. 134) from square 115/117 (4.80-4.60) (4.2 × 2.9 × 0.5 cm.), were also used during the Iron Age.

The most remarkable soft-stone finds, however, were a stamp seal and four pendants. The seal, TA 299 (Fig. 135), is conoid with a perforation through the upper end. It was found in a posthole in 115/122 (119.40/126.60, 5.43), and measures 2.1 × 2.1 × 1.8 cm. The stone of which it is made is black. The sealing surface is decorated with a central, vertical line, around which two lines of dots are shown along with several diagonal, parallel strokes. While this scene is clearly impressionistic, it is nonetheless somewhat reminiscent of a stylized bunch of dates. Small stamp seals are quite common on Iron Age sites, and in addition to at least half-a-dozen from the settlement near Qarn Bint Sa'ud²⁶¹, seven have been published from Rumeilah²⁶². These, however, are normally pyramidal in shape.

The pendants found this year are, broadly speaking, of two different types. The most sophisticated is TA 440 (Figs. 136-137), a small rectangle of stone measuring 3 × 2.2 × 0.6 cm., with a perforation in one corner. The piece comes from square 115/117 (119.60/118.90, 5.14). The pendant is incised on both sides. One side bears a fantastic figure, apparently part human, part bird or animal. It stands directly in the center of the field with its legs spread and its arms, each bent at the elbow, held high.

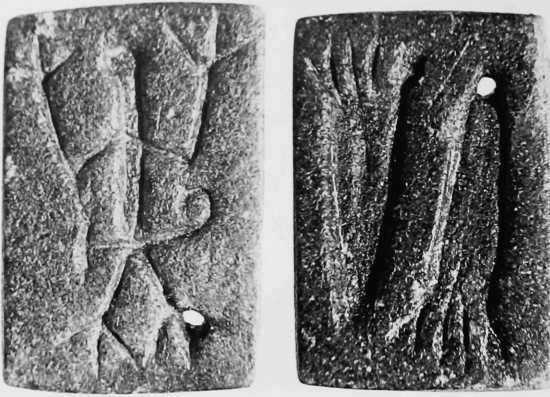


Fig. 136. TA 440 (3 × 2.2 × 0.6 cm.).

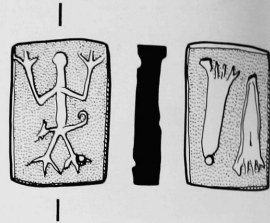


Fig. 137. TA 440.

Both the hands and feet are shown as three-pointed claws. An object with one curved and one straight end (a sword or dagger?) is shown at the waist of the figure, while the head is a simple, unelaborated oval which joins the neck and torso. Both the figure's stance and its claw-like hands and feet are reminiscent of depictions of the Babylonian illness-demoness *Lamashtu*, particularly as shown on so-called *Lamashtu*-amulets, small pendants with *Lamashtu*-depictions on one side destined to guard the wearer against the demoness.²⁶³ The fact that these were particularly common during the Neo-Assyrian and Neo-Babylonian periods, and are thus roughly contemporary with the Tell Abraq find, can hardly be coincidental. The opposite side of TA 440 shows two diametrically opposed right feet. This seems to have been a particularly beloved motif in the region as a whole, for we find it on a Dilmun seal from Bahrain²⁶⁴ and on a flat disc seal from period IVB at Tepe Yahya²⁶⁵.

The same fantastic figure shown on TA 440 is also visible, if somewhat hidden between two trees and less clearly rendered, on one side of TA 439 (Figs. 138-139). This irregularly shaped pendant (2.8 × 2.1 × 0.4 cm.) was found in 115/117 (119.47/118.81, 5.20) in the area outside of the Umm an-Nar tower. It is perforated near the top, and is slightly concave. Apart from the figure between the trees, the opposite side of the pendant is decorated with a simple, criss-crossing pattern of incised lines. A soft-stone pendant of roughly the same shape, if far cruder both in form and incising, is known from SH 102 at Shimal²⁶⁶.

A third pendant, TA 483 (Figs. 140-141), has a more regular, generally rectangular shape (2.5 × 1.8 × 0.6 cm.) with a smooth groove along the upper edge. It was found to the north of the Wadi Suq enclosure wall (locus 40) in square 120/137



Fig. 138. TA 439 (2.8 × 2.1 × 0.4 cm.).

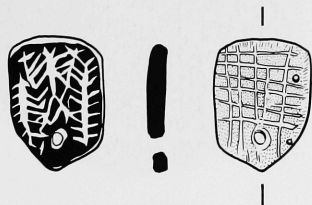
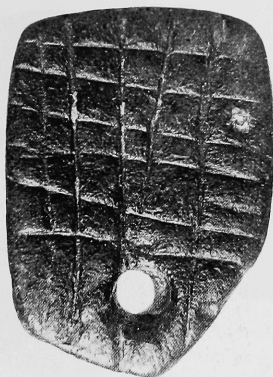


Fig. 139. TA 439.



Fig. 140. TA 483 (2.5 × 1.8 × 0.6 cm.).

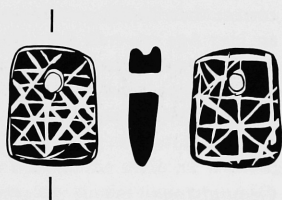


Fig. 141. TA 483.

(124.64/139.12, 6.70). Both sides are decorated with an irregular pattern of parallel and diagonal lines, one side notably more so than the other. In form, TA 483 is generally reminiscent of a soft-stone pendant found at Rumeilah in 1968 by K. Frifelt, although this was decorated on only one side with much more crudely incised lines²⁶⁷. In addition, an unperforated stone of roughly the same shape as TA 483 and with a similar pattern of incised design as that on the "simple" side of our object, is known from F3 on Failaka²⁶⁸.

The fourth and final pendant discovered during the 1990 sea-



Fig. 142. TA 493 (2.6 × 2.3 × 0.6 cm.).

son is TA 493 (Figs. 142-143), likewise from 120/137 (120.68/139.60, 6.88). This roughly oval piece (2.6 × 2.3 × 0.6 cm.) has a pattern of very faint, radiating lines on one side, and a much more deeply cut image of lines on the other. Although numerous interpretations of this scene have been suggested by members of the expedition, I am persuaded that it shows a boat with an open sail above a deep, curving keel. If this interpretation is correct, then TA 493 provides us with the first representation of an Iron Age sea-craft from the Oman peninsula. A unifacial, oval, soft-stone pendant of roughly the same shape is known from a Lizq-period (Iron Age) secondary burial (Nachbestattung 1) in Wadi Samad grave M 803²⁶⁹.

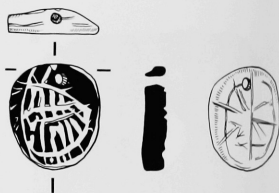


Fig. 143. TA 493.

Groundstone

Groundstone was extremely abundant in contexts datable, on the basis of associated ceramics, to the Iron Age. Typologically and, presumably functionally as well, the finds from 1990 show great variety.

Net-sinkers are to be expected at almost any coastal site in eastern Arabia, and although these are often perforated, they need not be. Even today, unperforated cobblestones from gravel or wadi beds are still used in the region as net-sinkers. These stones, generally round and somewhat flat, are characteristically tied around the middle. The abrasion of the cord or rope to which they are attached gradually wears a groove into the surface of the stone, as is the case on TA 207 (Fig. 144) from 115/122

Fig. 144. TA 207 (5 × 6 × 1 cm.).



Fig. 145. TA 169 (6 × 3 cm.).

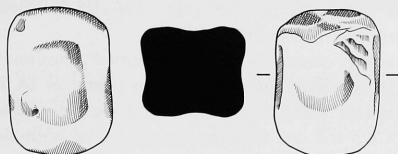


Fig. 146. TA 470 (6 × 5 × 4.3 cm.).



(118.10/122.71, 4.44) (5 × 6 × 1 cm.). Similarly grooved net-sinkers are attested in the region as early as the Umm an-Nar period, when they appear in the settlement on Umm an-Nar island²⁷⁰. Comparable Iron Age examples are known from nearby shell concentrations in Sharjah²⁷¹.

Hammer-stones are understood here as any roughly cubical stone, capable of easily fitting into the palm of the hand, which shows one or more depressions made from pounding. In the case of Tell Abraq²⁷² and contemporary sites in Sharjah²⁷³, these hammer-stones were probably used in the main for cracking and opening shells, whereas generally similar finds from May-sar²⁷⁴, for example, or Tawi Arja²⁷⁵, were used in crushing copper ore. TA 169 (Fig. 145), from 115/137 (6.20-6.00) (6.0 × 3.0 cm.), and TA 470 (Fig. 146), from square 125/132 (125.70/132.98, 5.84) (6 × 5 × 4.3 cm.), both show depressions on four sides, whereas TA 224 (Fig. 147), from 115/122 (115.86/124.67, 4.74) (4 × 4.5 × 3.5 cm.), has depressions on only two sides. The function of comparable, contemporary hammer-stones from the inland site of Rumeilah²⁷⁶ is uncertain. Another, roughly contemporary find of this sort is also known from Hajar bin Humeid in the Wadi Beihan²⁷⁷. Finally, TA 482 (Fig. 148) from square 115/117 (115.20/117.89, 4.40, locus 37) (7.5 × 3.9 × 3.9 cm.) which, in its proportions, appears more like a fragment of a muller or pestle, has an ovoid depression on one side suggest-

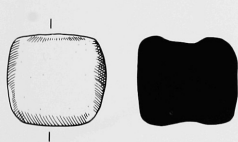


Fig. 147. TA 224 (4 × 4.5 × 2.4 cm.).

ing that perhaps, after the original object, e.g. a pestle, was broken, this fragment was re-used as a hammer-stone.

A second group of what are tentatively identified as hammer-stones consists of generally smaller, rounder pieces without such clear depressions as seen on those just mentioned. To this group we have assigned TA 178 (Fig. 149) (115.35/122.93, 4.35) (4.5 × 4 × 2 cm.), TA 194 (Fig. 150) (116.61/122.73, 4.26) (4 × 4 × 2.5 cm.), and TA 229 (Fig. 151) (118.73/123.40, 4.63) (4.5 × 4 cm.), all from square 115/122.

A stone which cannot be correctly termed a hammer-stone, but which is very much like a muller or pestle, is TA 217 (Fig. 152) from square 115/122 (115.76/126.90, 4.51). The object measures 16.5 × 4.5 × 2 cm. and can be compared with similarly-shaped objects from Umm an-Nar island²⁷⁸, and from a large, recently excavated site in the Wadi Yana'im (Yemen Arab Republic)²⁷⁹.

To the extent that hammer-stones must have been struck against another, equally hard platform, often called an anvil-stone, we may identify TA 151 (Fig. 153), from 115/107 (117.70/109.65, 2.10) (15 × 16 × 6.5 cm.), as such a stone. This may be deduced from the double depression on one surface of this piece, which is an ovoid fragment of what was probably a large ovoid or amoeba-shaped grinding or crushing platform.

Large, flat stone slabs without individual depressions are tentatively identified here as grinding-stones. This applies to TA 149 (Fig. 154) (116.8/160.40, 1.95) (11 × 14 × 4 cm.), TA 150 (Fig. 155) (117.40/108.40, 1.97) (11.5 × 10.5 × 3.0 cm.), TA 177 (Fig. 156) (115.76/140.03, 6.17) (8.5 × 6.5 × 3.7 cm.), TA 196 (Fig. 157) (119.30/123.03, 4.26) (10.6 × 9 × 2.3 cm.), and TA 198 (Fig. 158) (115/117, 3.60-3.40) (9.5 × 12 × 4.2 cm.), as well as many more not illustrated (for complete listing see Appendix 2).

The unequivocal identification of an object as a whetstone is always difficult, unless the tools or weaponry to be sharpened are found in direct proximity to the stone²⁸⁰. At Tell Abraq, three stone objects were recovered this year which all share a distinctive, elongated, trapezoidal shape. These are TA 162 (Fig. 159) (117.30/118.35, 3.02) (4.3 × 1.2 × 0.6 cm.) and TA 191 (Fig. 160) (115/117, 3.60-3.40) (6 × 3 × 1 cm.) from square 115/117, and TA 241 (Fig. 161) from 115/122 (117.30/117.54, 4.33) (10 × 5 × 0.6 cm.). A roughly square fragment, TA 326 (Fig. 162) from square 115/142 (119.63/144.25, 7.03) (3 × 3.5 × 0.9 cm.), may also be part of a whetstone. Finally, TA 271 (Fig. 163), from square 115/112 (116.30/113.80, 2.92) (7.2 × 3 × 1.2 cm.), appears to be a broken fragment of a whetstone which was retouched to fashion a knife or scraper.

Additionally, two long smooth stones may have served as rubbing or polishing stones of some sort. Both TA 183 (Fig. 164)

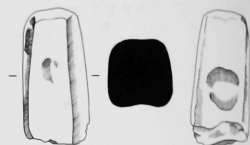


Fig. 148. TA 482 (7.5 × 3.9 × 3.9 cm.).



Fig. 149. TA 178 (4.5 × 4 × 2 cm.).

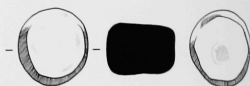


Fig. 150. TA 194 (4 × 4 × 2.5 cm.).



Fig. 151. TA 229 (4.5 × 4 cm.).

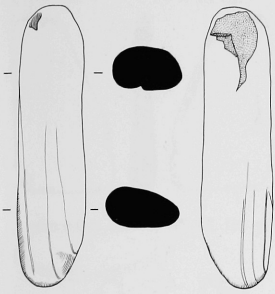


Fig. 152. TA 217 (16.5 × 4.5 × 2 cm.).

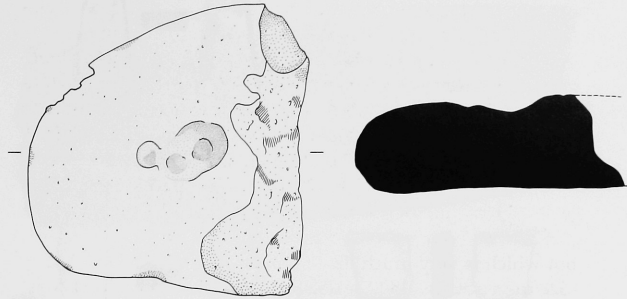


Fig. 153. TA 151 (15 × 16 × 6.5 cm.).

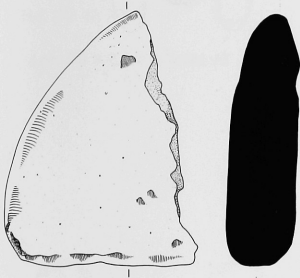


Fig. 154. TA 149 (11 × 14 × 4 cm.).

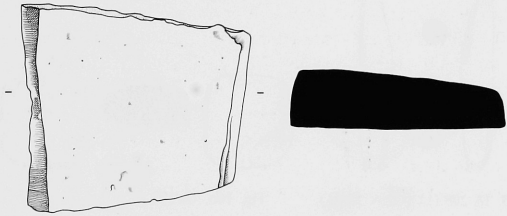


Fig. 155. TA 150 (11.5 × 10.5 × 3 cm.).

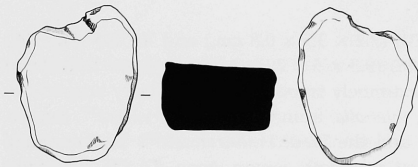


Fig. 156. TA 177 (8.5 × 6.5 × 3.7 cm.).

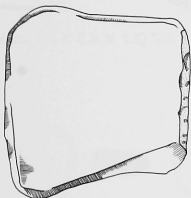


Fig. 157. TA 196 (10.6 × 9 × 2.3 cm.).

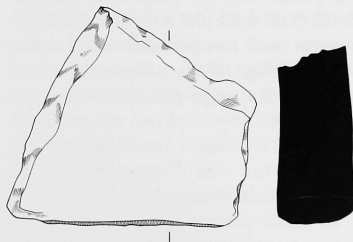


Fig. 158. TA 198 (9.5 × 12 × 4.2 cm.).

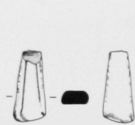


Fig. 159. TA 162 (4.3 × 1.7 × 0.6 cm.).

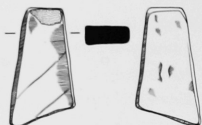


Fig. 160. TA 191 (6 × 3 × 1 cm.).

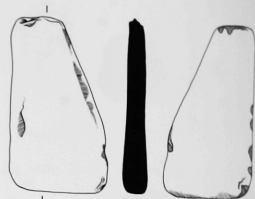


Fig. 161. TA 241 (10 × 5 × 0.6 cm.).

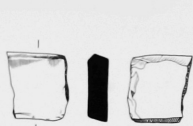


Fig. 162. TA 326 (3 × 3.5 × 0.9 cm.).

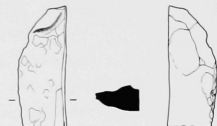


Fig. 163. TA 271 (7.2 × 3 × 1.2 cm.).

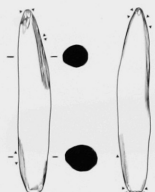


Fig. 165. TA 208 (11 × 2 × 1 cm.).



Fig. 166. TA 175 (5 × 5 × 2 cm.).



Fig. 164. TA 183 (7.2 × 2.5 × 0.8 cm.).

(115.79/123.30, 4.31) (7.2 × 3.5 × 0.8 cm.) and TA 208 (Fig. 165) (118.00/124.50, 4.56) (9.5 × 5 × 2 cm.) from square 115/122 are made of a soft, extremely smooth stone. Similarly shaped objects are known, *inter alia*, from Umm an-Nar island²⁸¹, Rumeilah²⁸², Hugga²⁸³, and the Wadi Hadhramaut²⁸⁴. To these may perhaps be added a smooth square stone, TA 175 (Fig. 166), from square 115/137 (6.00-5.80) (5 × 5 × 2 cm.).

Finally, two anomalous pieces may be presented. TA 257 (Fig. 167) from square 115/122 (5.00-4.80) (5.7 × 4.5 × 1.4 cm.) is a trapezoidal-shaped fragment with two pronounced grooves or gouges on one side. TA 155 (Fig. 168) is a flat quartz disc showing signs of flaking along the edge (115.25/117.55, 2.85) (3.5 × 3.7 × 1.0 cm.).



Fig. 167. TA 257 (5.7 × 4.5 × 1.4 cm.).

Other Smallfinds

We turn now to several other stone finds from Iron Age levels. Like TA 358 of Wadi Suq date, described above, TA 376 (Figs.



Fig. 168. TA 155 (3.5 × 3.7 × 1 cm.).

Fig. 169. TA 376 (6 × 1.8 × 2.1 cm.).

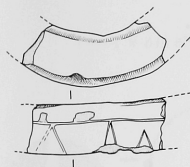


Fig. 170. TA 376.



Fig. 171. TA 234 (6.6 × 4.9 × 1.5 cm.).

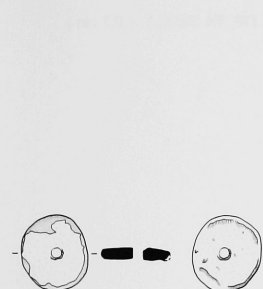


Fig. 172. TA 193 (4 × 4.5 × 0.5 cm.).

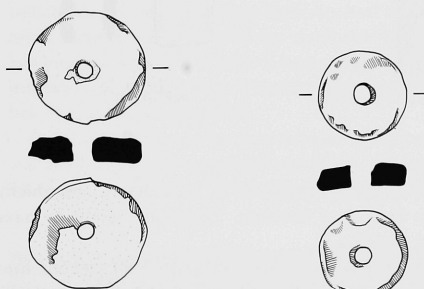


Fig. 173. TA 368 (4.7 cm. dia. × 1.1 cm.). Fig. 174. TA 420 (3.7 cm. dia. × 1.1 cm.).

169-170) is also made of sandstone. It, too, is part of the rim of something, and was decorated on the exterior with incised lines forming a zig-zag pattern. The piece measures 6 × 1.8 × 2.1 cm. and was found in square 115/112 (3.20-3.00).

TA 234 (Fig. 171) is a second, extremely crude fragment of a vessel base made of hard, badly preserved alabaster or calcite. It comes from square 115/132 (116.01/132.80, 5.85, locus 38) and measures 6.6 × 4.9 × 1.5 cm. The interest of this piece lies principally in the fact that, with the exception of a small number of vessels and vessel fragments from al-Qusais in the Dubai and Al Ain Museums²⁸⁵, Iron Age examples of alabaster or calcite are otherwise apparently absent in the Oman peninsula.

Three perforated, ceramic disks, TA 193 (Fig. 172) from square 115/122 (116.44/124.79, 4.40) (4 × 4.5 × 0.5 cm.), and TA 368 (Fig. 173) (118.80/120.80, 4.60) (4.7 × 1.1 cm.) and TA 420 (Fig. 174),

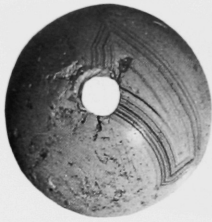


Fig. 175. TA 247 (1.8 x 1.8 cm.).



Fig. 176. TA 247.



Fig. 177. TA 356 (0.8 x 1 cm.).



Fig. 179. TA 367 (3.3 x 0.9 cm.).

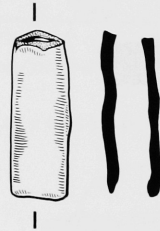


Fig. 180. TA 367.

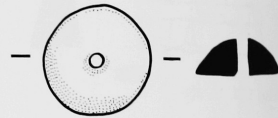


Fig. 178. TA 360 (2.1 x 0.7 cm.).

both from 115/117 (118.47/121.83, 4.95) (3.7 cm. dia., 1.1 cm. thick), were found in Iron Age contexts. These are likely to have served as loom-weights.

Finally, the Iron Age levels excavated in 1990 yielded four beads of differing type. TA 247 (Figs. 175-176), from square 115/122 (118.25/123.86, 4.97), is a circular bead (1.8 cm. in dia.) of white-grey stone with very fine, black veins. It is probably, like TA 454 (discussed above), made of some sort of agate or baked carnelian. TA 356 (Fig. 177) is a plain, nearly round (0.8 x 1.0 cm.) carnelian bead from square 115/117 (118.50/119.60, 4.40). From the same square comes TA 360 (Fig. 178), a semi-conical, soft-stone bead measuring 2.1 x 0.7 cm. (118.46/118.90, 4.40). Finally, from 115/142 (118.20/145.07, 7.22) comes an irregular stone bead (3.3 x 0.9 cm.) with a very wide (.7 cm.), internal bore (Figs. 179-180).

Late Disturbances

In our report on the 1989 excavations at Tell Abraç we noted that no material younger than the small group of sherds contemporary with period II at Rumeilah had been found²⁸⁶. While this is still true of the western side of the site, it did not prove to be the case on the eastern side of the mound, where excavations in 1990 revealed features and small amounts of pottery contemporary with the main period of occupation (1st cent. A.D.) at ed-Dur, c. 7 kms. to the north. Clearly Tell Abraç, which by the late Iron Age had reached sizable proportions, must have stood out from the surrounding countryside as a landmark for centuries after it had ceased to be a settlement of importance. As such, it no doubt attracted at least a small number of families to live there.

Architecturally, we are uncertain as to the precise chronological attribution of the amorphous stone and mud features (loci 50 and 52) in squares 115/107 (Fig. 181) and 115/112 (Figs. 182-183),



Fig. 181. Locus 50 in 115/107.

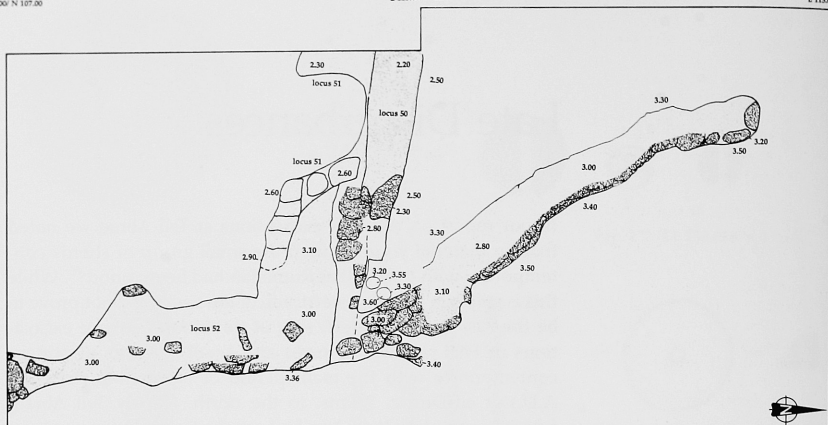


Fig. 182. Building remains in 115/107-112.

Fig. 183. Locus 52 in 115/112.

but they give the impression of having incorporated older building materials, e.g. stones, perhaps of Iron Age date. No clear stratigraphic connection could be established with any of our larger sections which might clarify the date of these features, as a pit (Fig. 184) excavated in 1973 by the Iraqi expedition then working in the U.A.E. severed the northeast end of locus 52. Similarly, when we move north towards the base of the mound, we find a curious alignment of mudbrick (locus 56) in 115/147 (Figs. 185-186) in an area that yielded a significant amount of late pottery. Whether this represents part of a dwelling or not, however, remains unclear. Some of the bricks mea-

Fig. 184. Square 115/112, west section (90-5).

1. Homogeneous, loose yellow sand (surface).
2. Heterogeneous, loose, yellow sand with tumbled stones; clear limits.
3. Heterogeneous, light yellow/grey sand with fragments of soft limestone and some charcoal-colored striations.
4. Homogeneous sandy deposit (locus 55).
5. Heterogeneous, compact, soft white limestone.
6. Heterogeneous, compact, soft white limestone.
7. Light yellow/grey sand with small pieces of soft limestone, small stones, and charcoal; striations may indicate that this is two levels, one with larger pieces of soft white limestone.
8. Charcoal-colored, striated sand containing much charcoal.
9. Charcoal-colored, striated sand containing much charcoal.
10. Charcoal-colored, striated sand containing much charcoal.
11. Charcoal-colored, striated sand containing much charcoal.

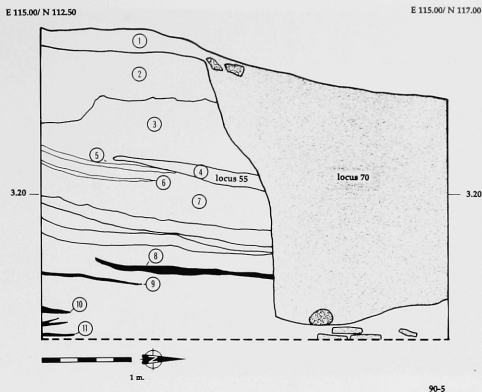


Fig. 185. Plan of 115/142-147.

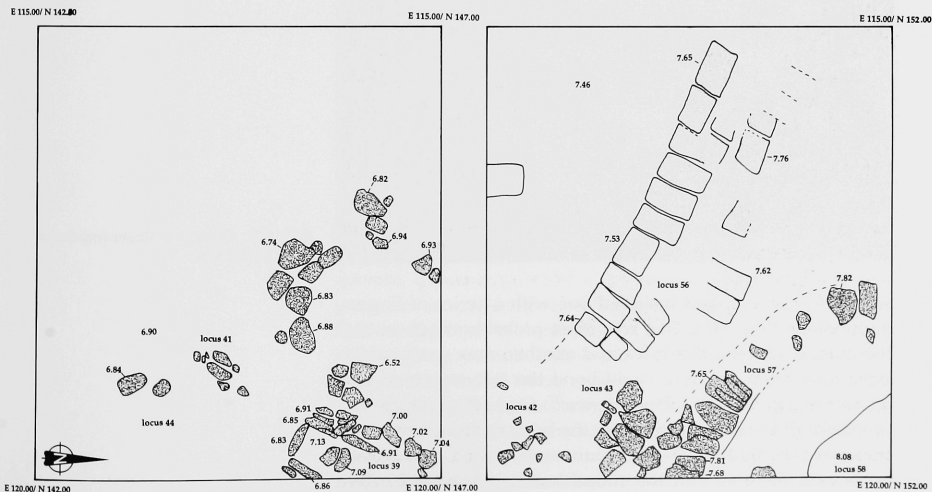




Fig. 186. Locus 56 mudbrick in 115/147.

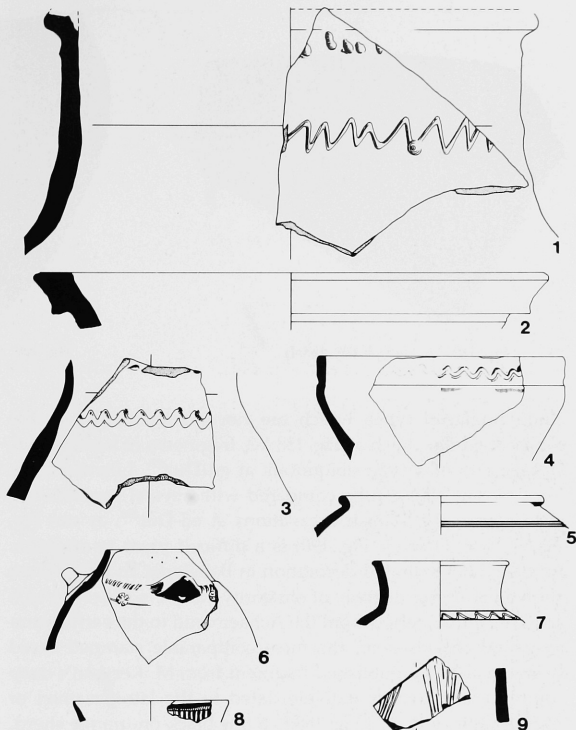


Fig. 187. Detail of finger-impressed brick in locus 56.

sured 55×27 cm., and included one with a series of finger-impressions (Fig. 187). This was most probably made so that the mortar between this brick and another, now gone, which must have been above it, could bond the two together more tightly by gripping the indented area²⁸⁷. Curiously enough, the mudbrick of locus 56, particularly the brick with the finger impressions, recalls a situation encountered by the German team excavating the Umm an-Nar round building Maysar 25. Two

Fig. 188. Decorated ed-Dur-period sherds.

1. TA: 1120 SQUARE: 115/147 LEVEL:
7.40-7.20 DESCRIPTION: hard brown,
some grit, generally fine, chain ridge,
saw-tooth decoration
2. TA: 1122 SQUARE: 115/147 LEVEL:
7.40-7.20 DESCRIPTION: heavy black-
ridged, raised cordons DIA: 46
3. TA: 1061 SQUARE: 115/142 LEVEL:
6.60-6.40 DESCRIPTION: hard-fired
brick red, faint rocker stamping
4. TA: 1145 SQUARE: 115/122 LEVEL:
4.00-3.80 DESCRIPTION: orange, NVT,
incised, red-slipped DIA: 22
5. TA: 1560 SQUARE: 115/117 LEVEL:
4.20-4.00 DESCRIPTION: thinnish tan,
fine sand grit, incised DIA: 18
6. TA: 1612 SQUARE: 115/117 LEVEL:
4.42 DESCRIPTION: grey cooking pot,
stamped, incised DIA: 8
7. TA: 1188 SQUARE: 115/117 LEVEL:
3.60-3.40 DESCRIPTION: plain buff, in-
cised, originally glazed DIA: 12
8. TA: 1103 SQUARE: 115/142 LEVEL:
6.80-6.60 DESCRIPTION: fine orange,
black painted DIA: 14
9. TA: 1155 SQUARE: 115/137 LEVEL:
6.00-5.80 DESCRIPTION: buff, incised,
relict glaze?



Hafit-period graves were located beneath the building and were apparently partially dismantled by the Umm an-Nar-period builders of the round building. So as not to suffer any further disturbance from these unwanted features, or perhaps to secure the "future" of the dead, the upper surface of grave 2 was covered with a mudbrick cap²⁸⁸. The mudbricks used, some of which bore finger-impressions, measured 36 × 40 cm. and thus differ from those found in locus 56, even though the general appearance of the two features is similar. Whether a grave lies in wait beneath locus 56, however, can only be clarified after further excavation.

Regardless of the mystery surrounding these features, there is no doubt that Tell Abraq must have been inhabited by at least a small group of people during the 1st century A.D., for during the 1990 season small amounts of pottery characteristic of the residential areas at ed-Dur were found in the upper levels of nearly all of the squares investigated (Figs. 188-191). These in-



Fig. 189. TA 1145 (= Fig. 188:4).



Fig. 190. TA 1612 (= Fig. 188:6).

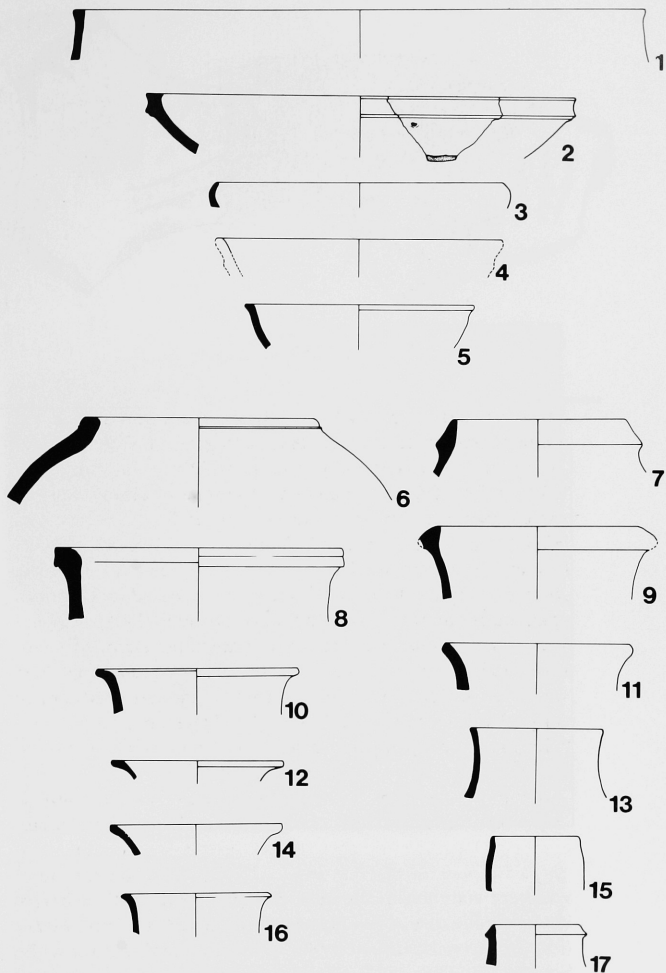
clude unglazed types which are never encountered in the tombs at ed-Dur, such as Fig. 188:1-3, fragments of heavy, black storage jars of a type ubiquitous at ed-Dur²⁸⁹. Likewise, Fig. 188:4 (= Fig. 189) can be compared with several unpublished sherds from the Danish excavations at ed-Dur²⁹⁰, as can Fig. 188:5²⁹¹. Fig. 188:6 (= Fig. 190) is a difficult piece to attribute. Parallels with stamped decoration in Babylonia and Khuzistan showing varying degrees of similarity can be adduced which span the entire period from the Achaemenid to the early Islamic era. At the moment, the most comparable stamped sherd seems to be an unpublished fragment from M. Kervran's deep sounding at Sohar, tentatively dated to the late Sasanian or early Islamic period²⁹². Fig. 188:8, a fine black-on-orange sherd, belongs to a group of painted wares well-represented in period I levels at Tepe Yahya²⁹³ and at ed-Dur²⁹⁴.

A further selection of undecorated ed-Dur period wares is shown on Fig. 191²⁹⁵. Most diagnostic here is the group represented by Fig. 191:11-14. These sherds are made of a friable, thin greyware well-attested at ed-Dur²⁹⁶. Fig. 191:3, on the other hand, appears to be a piece of imitation *terra sigillata*. Before leaving the ceramics of this horizon, we note that a fragment of a terracotta camel figurine (Fig. 192) was found in square 115/142 (119.40/144.45, 6.85). Like the ceramics just discussed, this fragment finds comparanda at ed-Dur²⁹⁷, but it can also be compared with pieces from Thaj²⁹⁸, Ain Jawan²⁹⁹, Qalat al-Bahrain³⁰⁰, Failaka³⁰¹, and Uruk³⁰².

While the finds described above attest to the probable use of Tell Abraq as a minor habitation in the 1st century A.D., it is clear that the upper and lower parts of the eastern slope of the mound were also used as a graveyard. Indeed, at ed-Dur we have found that the intermingling of private houses and graves

Fig. 191. Undecorated ed-Dur-period pottery.

1. TA: 1302 SQUARE: 115/112 LEVEL:
2.40-2.20 DESCRIPTION: soapey
smooth black, fine vegetal and grit tem-
per DIA: 40
2. TA: 1152 SQUARE: 115/137 LEVEL:
6.00-5.80 DESCRIPTION: red, red-
brown slip, fine chaff, repair hole DIA:
30
3. TA: 1069 SQUARE: 115/147 LEVEL:
surface DESCRIPTION: imitation sigil-
lata, red painted DIA: 20
4. TA: 1098 SQUARE: 115/107 LEVEL:
2.20-2.00 DESCRIPTION: coarse
brown, grey stone grit DIA: 20
5. TA: 1105 SQUARE: 115/142 LEVEL:
6.80-6.60 DESCRIPTION: fine gritty tan
DIA: 16
6. TA: 1277 SQUARE: 115/117 LEVEL:
4.00-3.80 DESCRIPTION: grey-tan
chaff DIA: 16
7. TA: 1338 SQUARE: 115/117 LEVEL:
4.40-4.20 DESCRIPTION: light tan
chaff DIA: 12
8. TA: 1124 SQUARE: 115/147 LEVEL:
7.40-7.20 DESCRIPTION: black-ridged,
raised cordons DIA: 20
9. TA: 1300 SQUARE: 115/112 LEVEL:
2.40-2.20 DESCRIPTION: hard grey,
some white grit DIA: 14
10. TA: 1227 SQUARE: 115/122 LEVEL:
4.20-4.00 DESCRIPTION: hard smooth
orange DIA: 14
11. TA: 1107 SQUARE: 115/142 LEVEL:
6.80-6.60 DESCRIPTION: grey grit
DIA: 13
12. TA: 1125 SQUARE: 115/147 LEVEL:
7.40-7.20 DESCRIPTION: smooth grey,
NVT DIA: 12
13. TA: 1178 SQUARE: 115/122 LEVEL:
4.40-4.20 DESCRIPTION: thin grey
DIA: 9
14. TA: 1081 SQUARE: 115/147 LEVEL:
7.20-7.00 DESCRIPTION: thin grey
DIA: 12
15. TA: 1108 SQUARE: 115/142 LEVEL:
6.80-6.60 DESCRIPTION: smooth thin
grey-black, fine chaff DIA: 6
16. TA: 1524 SQUARE: 115/132 LEVEL:
6.00-5.80 DESCRIPTION: thin, hard-
fired grey DIA: 10
17. TA: 1213 SQUARE: 115/137 LEVEL:
6.20-6.00 DESCRIPTION: hard-fired
grey, NVT DIA: 6



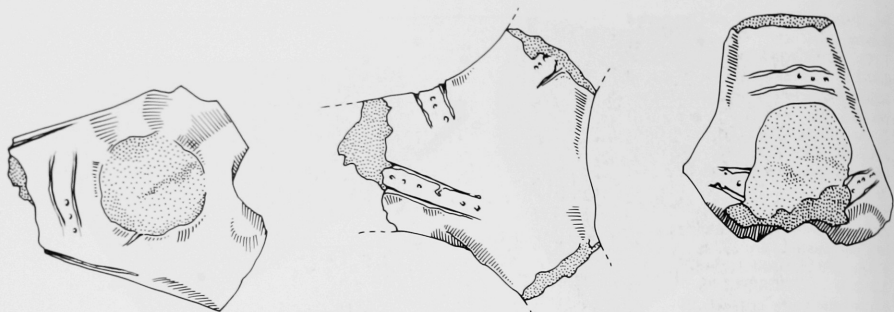


Fig. 192. TA 152 (4.5 × 4.5 × 3 cm).

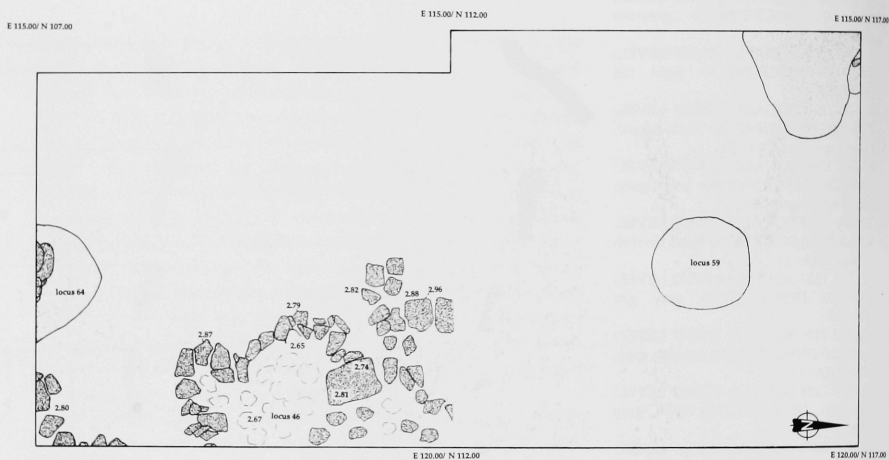


Fig. 193. Graves in 115/107 and 112.

was very common in the later pre-Islamic era, and such was obviously the case at Tell Abraq as well. Squares 115/107 and 112 (Fig. 193) were disturbed by no fewer than four graves, while Squares 115/142 and 147 had at least three and perhaps as many as five graves in them. We will briefly review each of these graves.

Locus 64, in Square 115/107, was clearly visible in the southern section of the square as a vertical shaft, 1-1.20 m. deep, dug down from the surface of the mound through various occupational levels (Fig. 194-195). This led to an amoeba-shaped burial cavity, c. 1.60 m. wide (Fig. 196). Portions of a skeleton were found in the cavity, with the head to the west and the feet to

Fig. 194. Square 115/107, south section (90-2).

1. Homogeneous, loose, yellow sand with stones.
2. Homogeneous, yellow/brown to yellow/red sand with flecks of charcoal; clearly differentiated from layers 4 and 11, less so from layer 1.
3. Posthole/pit with heterogeneous, loose, black/brown loose sand.
4. Heterogeneous, yellow/grey to yellow/brown sand with fragments of soft limestone, some of it striated; clearly differentiated from layers 1, 2, and 3, less so from 5.
5. Heterogeneous, yellow/grey sand with small pieces of soft limestone and small stones; vaguely differentiated from layer 6.
6. Light, heterogeneous yellow/grey sand with small stones and limestone fragments.
7. Homogeneous, charcoal-colored sand.
8. Heterogeneous, light yellow sand with stones of various sizes and large fragments of limestone.
9. Black lense of charcoal-colored sand.
10. Heterogeneous, yellow/brown level with small stones and limestone fragments running up to locus 52.
11. Locus 52.
12. Locus 64.

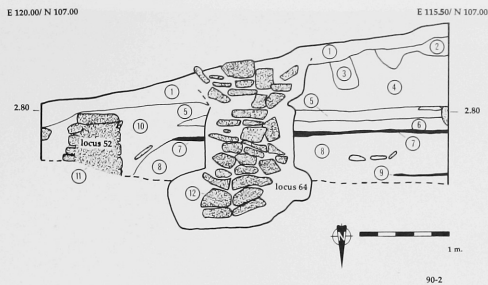


Fig. 195. Locus 64.



Fig. 196. Burial in locus 64.

Fig. 197. Locus 46 in 115/107.



the east. The corpse had been placed on its right side with its arms flexed and its hands in front of its face. The legs were also flexed. Iron fragments (TA 627, 629) on one upper arm may have come from an arm-band, while a bronze ring with iron attached to it was also found (TA 628). A single, perforated shell (TA 630) was found near the feet. After interment, the grave shaft had been blocked up with stones as the section (Fig. 194) clearly shows.

As the plan reveals, locus 46 appeared on the east side of square 115/107 as an irregular cluster of stones (Fig. 197). This concentration continued into square 115/112, as demonstrated by the photograph (Fig. 198)³⁰³, where it was observed that at least two cut limestone ashlars (Fig. 199), undoubtedly plundered from an Umm an-Nar tomb, were found amongst the rubble. It seemed probable that these clusters of stones, although badly disturbed, represented the remnants of several circular graves, comparable to those features (loci 24 and 25) observed on the summit of Tell Abraq in 1989³⁰⁴ and which we are now convinced must be burials. This assumption was confirmed when the stones of locus 46 in 115/112 were removed, revealing a small quantity of badly preserved human bone (a skull and some disarticulated parts of the post-cranial skeleton) and the even worse preserved fragments of at least two iron spearheads (TA 311, 344-347), comparable generally to those

Fig. 198. Locus 46 in 115/112.



Fig. 199. Detail of Umm an-Nar ashlars in locus 46.

known from ed-Dur³⁰⁵. The center of this burial (locus 49) was located at 118.10/114.40, 3.00, and covered an area c. 50 cm. in diameter. The grave also contained a grinding stone fragment (TA 348).

Another grave (locus 53) discovered in 115/112 consisted of the disturbed skeleton of a child placed in loose sand. Originally the grave had been enclosed by several flat stone slabs. The center of the grave was located at 119.30/114.11, 3.47, but unfortunately, before the skeletal remains had been completely cleaned and removed, the entire grave was destroyed by vandals in the night. The remains of a necklace (TA 455), still *in situ*, were, however, identified and 35 small stone beads as well as a single cowrie shell were recovered (Fig. 200).

The last grave identified in square 115/112, locus 59, was

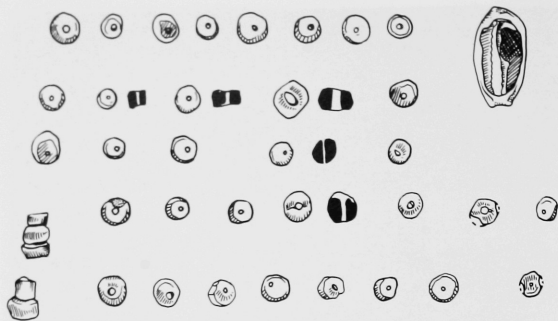


Fig. 200. TA 455 beads (many 0.4 cm. dia.).

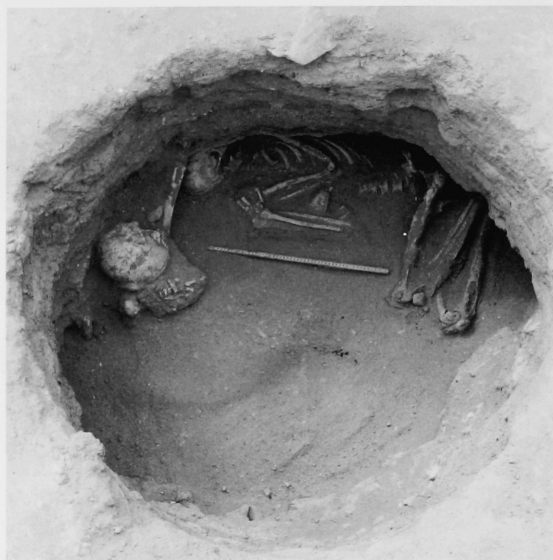


Fig. 201. Locus 59.

found in a nearly circular pit measuring 1.10×1.18 cm., the center of which was at 117.75/115.05, 3.34-4.05 (Fig. 201). The grave contained the remains of two individuals. The skull and some long bones of the southernmost individual were recovered, as well as most of the articulated post-cranial skeleton of the second, westernmost individual (Fig. 202). The latter skeleton was found in a flexed position, lying on its right side, and facing west. The underside of the burial pit had been enlarged by hollowing out its base in order to make room for this individual, thus providing a sheltered niche for the corpse. This

Fig. 202. Detail of skeletal remains in locus 59.

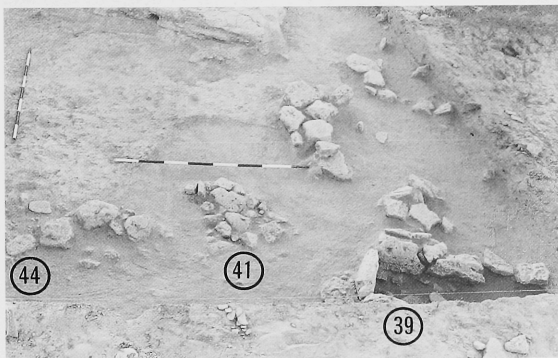
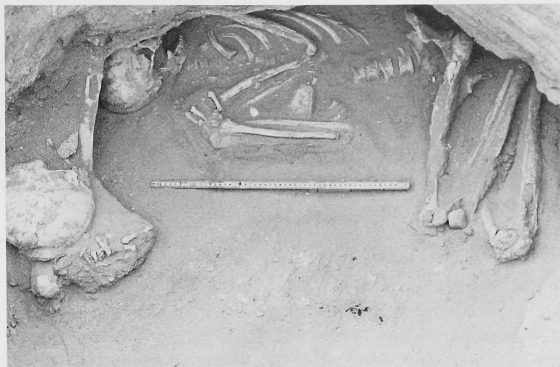


Fig. 203. Loci 39, 41 and 44 in 115/142.

westerly interment obviously disturbed that of the southerly one, and must have post-dated it. The only artifact recovered in locus 59, which had clearly been plundered, was a small fragment of bronze (TA 506, 117.32/115.34, 3.80).

When we move north to square 115/142 we find the remains of at least two or possibly three small stone graves. These can be seen both on the plan of squares 115/142 and 147, and on the accompanying photograph of 115/142 (Fig. 203). Of the graves found in 115/142, locus 39 was by far the best preserved, although it could not be excavated completely as part of it ran into the eastern balk of the square. Like one of the smaller graves excavated at ed-Dur in 1986³⁰⁶, locus 39 was a small chamber constructed of unbonded, upright-standing stone slabs, with interior dimensions of 1.40 × .45 m. Two flat stone slabs found lying horizontally within the grave may have been the remains of some original flooring, for the artifacts found

Table 5. List of Objects found in Locus 39, square 115/142

Object	TA No.	Coordinates	Elevation	Dimensions
whetstone	251	119.93/145.61	7.16	7.3 × 1.4 × 0.3
grinding stone frag.	252	119.70/145.63	7.04	10.5 × 5 × 2.5
perforated stone	253	119.63/145.64	7.05	2.8 × 4
hammerstone	254	119.60/145.95	7.10	4 × 3.5 × 4
hammerstone	255	119.64/145.66	7.03	5 × 2.5 × 2
neck of a glass vessel	256	119.84/145.55	7.08	
glass fragment	317			

within the grave were all discovered above these stones. The grave-goods found in locus 39 are listed in Table 5, and their disposition is shown in Fig. 204. Note particularly that one of the hammerstones in the grave was found standing upright. We also include a close-up of a glass vessel neck (TA 256) and whetstone (TA 251) (Fig. 205) as they appeared *in situ* during excavation (Fig. 206). No skeletal remains were recovered, but this is hardly surprising as the grave lay so close to the surface of the mound.

Locus 41 appeared as a roughly triangular cluster of stones spread over an area measuring c. 70 × 85 cm. which was surrounded by sandy fill. A single bone fragment lodged between the stones, and a small piece of bronze were the only remains discovered.

Locus 44 was an irregular, elongated concentration of stones extending out from the southern balk of the square in a north-south direction and covering an area measuring roughly



Fig. 204. Detail of locus 39.



Fig. 205. TA 251 (7.3 × 1.4 × 0.3 cm.).

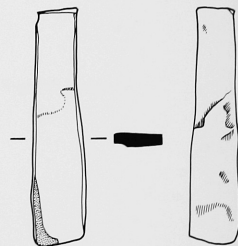
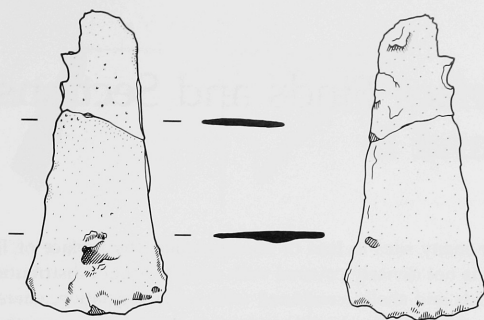


Fig. 206. Detail of TA 251 and 256 in locus 39.

Fig. 207. TA 187 (9 × 2.8 × 0.4 cm.).



1.40 × .60 m. The identification of this cluster of stones as a grave rests solely on the discovery of a fragment of bronze (TA 279) which appears to be part of a ring (119.14/142.98, 6.95).

Moving north into square 115/147, we find another nebulous cluster of 8-10 stones in loose, sandy fill labelled locus 42. Once again, the sole reason for suggesting that this feature is a grave was the discovery of a fragment of bronze (TA 281, 119.77/148.12, 7.49) and an unusual, thin bronze axe-blade (TA 187, 119.38/147.35, 7.48) in the fill between the stones (Fig. 207). Thin blades with a more pronounced blade and butt-end, and narrower middle, are known from Shimal site 2³⁰⁷ and from Nachbestattung 1 in Samad grave M 803³⁰⁸.

The feature designated locus 43 appeared as a small, roughly rectangular "chamber" built of rounded and flat stone slabs. It was badly disturbed at its northeastern corner, and ran into the east section, but it had minimum interior dimensions of 28 × 90 cm. Neither skeletal material nor artifacts, however, were found within it.

Finally, attention is drawn to locus 57, a generally regular, slightly curving alignment of stones set into a pit which seemed to cut the mudbrick feature locus 56. Another deep pit, locus 58, was located in the northeastern corner of the square. Excavations in 1990 could not determine the nature of these features, nor their exact structural relationship to each other, but given the fact that several late graves were clustered in this area, they may not be unrelated to them.

Surface Finds and Sections A and B

Unlike many sites in Iran or Mesopotamia, the surface of Tell Abraq is not densely covered with sherds. A light distribution of sherds and shells, combined with scrub vegetation, characterizes the site. No doubt because of a combination of their durability and our interest in them, sherds of soft-stone were among the most commonly collected surface finds in 1990. The incised rim of a hole-mouth, Iron Age jar decorated with horizontal, vertical, and herringbone-patterned lines (Figs. 208-209), picked up near the northern edge of the site close to the *sabkha*, finds close parallels amongst fragments from al-Qusais³⁰⁹, Qarn Bint Sa'ud³¹⁰, and Fashgha³¹¹, as well as with a piece of unknown provenance in the Ras al-Khaimah Museum³¹². A second soft-stone fragment, picked up on the surface of the northern part of the site (Fig. 210), shows a pattern of incised lines over which a torpedo-shaped area has been gouged out. The curvature of the fragment shows that the piece is a body- or rim-sherd from a small cup, but the thinness of it is unlike most soft-stone vessels of the region, even if the lines on it recall Iron Age patterns of decoration³¹³.

At the end of the 1990 season, while the principal excavators on the mound were busy drawing sections and plans, the workmen were shifted to the northern edge of the site adjacent to the present-day *sabkha*. Here, sometime shortly after 1970, during the construction of the highway linking Ras al-Khaimah and Dubai, the edge of the site was bulldozed, perhaps in an effort to acquire dry fill in an area dominated by wet *sabkha*.



Fig. 208. TA 690 (7.4 × 5.7 × .7 cm.).

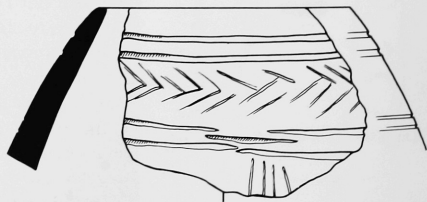


Fig. 209. TA 690.

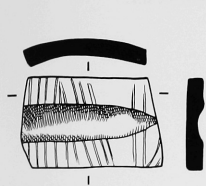


Fig. 210. TA 576 (4.2 × 2.7 × 0.5 cm.).

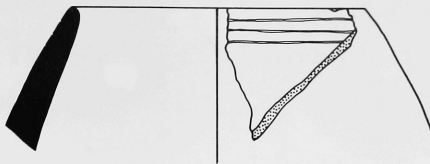


Fig. 211. TA 679 (3.6 × 4 × 1 cm.).

The traces of bulldozer scars were clearly visible on the surface of the site in this area, as was a great deal of pottery and stone remains that had been disturbed by the bulldozing. During the final days of the excavation the workmen cleaned the section in one of the bulldozer scars, the two sides of which were labelled A and B, in order to give us a better idea of the depth of cultural deposit in this part of the site.

Admittedly, no standing architecture was encountered in this area and a discoloration of the sand, indicative of ancient habitation, went no deeper than 50 cms. Nevertheless, the amount of finds recovered here was far from negligible. A second, Iron Age soft-stone rim sherd from a hole-mouth vessel, decorated only with three incised horizontal lines beneath the rim (Fig. 211) was among the finds made in what we called Section A. The absence of any decoration beneath these lines rules out comparison with many published pieces. There are, however, several examples of hole-mouth vessels with sizable, undecorated areas beneath a set of parallel, incised lines. A vessel from Fashgha³¹⁴, as well as one from al-Hajjar (site 1, grave 9B) on Bahrain³¹⁵, show a similar profile and decoration which, when broken, could have looked like TA 679. Finally, TA 676 (Fig. 212) is the fragment of a straight-walled vessel wall and base, on which four incised, vertical lines can be seen.

Section A also yielded a perforated shell or bead (Figs. 213-214). Unlike the shell seals from Bahrain³¹⁶, TA 675, which is polished on both sides, shows a smoothly cut, flat reverse. Thus, it is unlikely to have served as a seal, since there are no indentations on it which could have produced an impression in relief when applied to a sealing surface. Comparable, flat shell beads are known from SH 102 at Shimal³¹⁷, and from one of the graves at Sar (S-245.3) on Bahrain³¹⁸, both of which would date to the second millennium. An example from Dibba may date either to the Wadi Suq period or the Iron Age³¹⁹, while several virtually identical pieces were found by the French mission in cairn 6 at Jabal Hafit³²⁰. Most probably these simple ob-

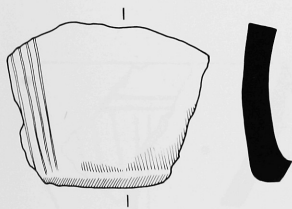


Fig. 212. TA 676 (5.6 × 6.5 × 0.7 cm.).

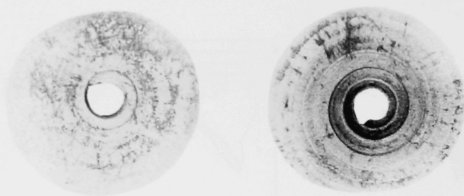


Fig. 213. Obverse and reverse of TA 675 (4.5 × 4.3 × 0.8 cm.).

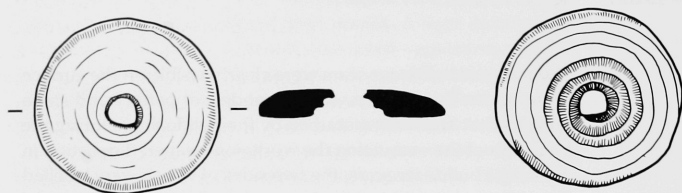


Fig. 214. TA 675.

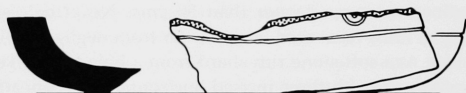


Fig. 215. TA 680 (6.9 × 3.5 × 1.6 cm.).

jects were not restricted to a single period, and equally close comparanda can be cited at late Iron Age Nush-i Jan in Iran³²¹ and in a late pre-Islamic context at Samad ash-Shan³²².

The most important finds in Section B were a pair of soft-stone fragments. TA 680 (Fig. 215) is part of the base of a round-bottomed vessel on which we see only an irregularly incised, horizontal line and, above it, part of a dotted circle that must have been one of a ring of circles running around the base of the vessel. Several possible analogies can be suggested for this piece, including several shallow, spouted lamps from Site 1³²³ and SH 103³²⁴ at Shimal, and a jar from SH 99 at the same site³²⁵. These comparanda make a date around the middle of the second millennium most probable for our piece.

The second fragment of decorated soft-stone from Section B is the rim sherd of a small bowl (Fig. 216). Here, two parallel, horizontal lines run beneath the rim of the vessel, perpendicular to a series of parallel, vertical lines. This piece finds close parallels in Iron Age contexts at Fashgha³²⁶, and with two pieces from mixed contexts in grave M803 in the Wadi Samad³²⁷.



Fig. 216. TA 681 (5.4 × 3.1 × 0.8 cm.).

The Eastern Flank of Tell Abraq

As the foregoing should have made clear, the excavations of 1990 on the eastern flank of Tell Abraq revealed a situation markedly different from that seen on the western slope in 1989. With the sole exception of the Umm an-Nar building (locus 37), none of the features discovered in 1989 could be identified in 1990, and whereas the first season provided what were, in many respects, "clean" stratigraphic columns containing undisturbed ceramic sequences, the second season was a lesson in distortion, disturbance, and bringing order into chaos. Quite obviously, erosion and construction on the eastern side of the site were responsible for the mix of ceramic types found in our trenches. In registering the most diagnostic rims, bases, and decorated body sherds, and with an awareness of the basic ceramic sequence and traditions of the Umm an-Nar period, the Wadi Suq period, the Iron Age, and the period of ed-Dur, it was clear that many contexts were quite badly mixed. For this reason, we have not presented the ceramics here in the same, level by level fashion as we did in our report on the 1989 season. Further, it was important to realize that the registered sherds, although for the most part classifiable and datable, were not necessarily diagnostic of the date of the level in which they were found, for they may have been outnumbered by many unregistered, plain sherds of a different period. Thus, a given level might have contained three registered Umm an-Nar sherds, two registered Wadi Suq sherds, and one registered Iron Age sherd, while in reality, a study of the total assemblage from the level showed that it was 99% Iron Age coarse ware. Because we consider the ceramics of primary importance in establishing and controlling the sequence of Tell Abraq, we have kept all sherds excavated. Under these circumstances, and because of the fact that our diagnostic sherds did not necessarily speak for the date of the levels excavated in 1990, it was possible, after registering and typing the diagnostic sherds, to go back through the collections, level by level, and characterize each one so as to arrive at a more reliable picture of the deposits excavated in 1990, however disturbed they might have been. The results of this relative dating of each level excavated are given in Appendix 1, proceeding square by square, and should

be read in conjunction with the individual discussions of finds whenever the reader may have a question concerning the chronological attribution of a particular find.

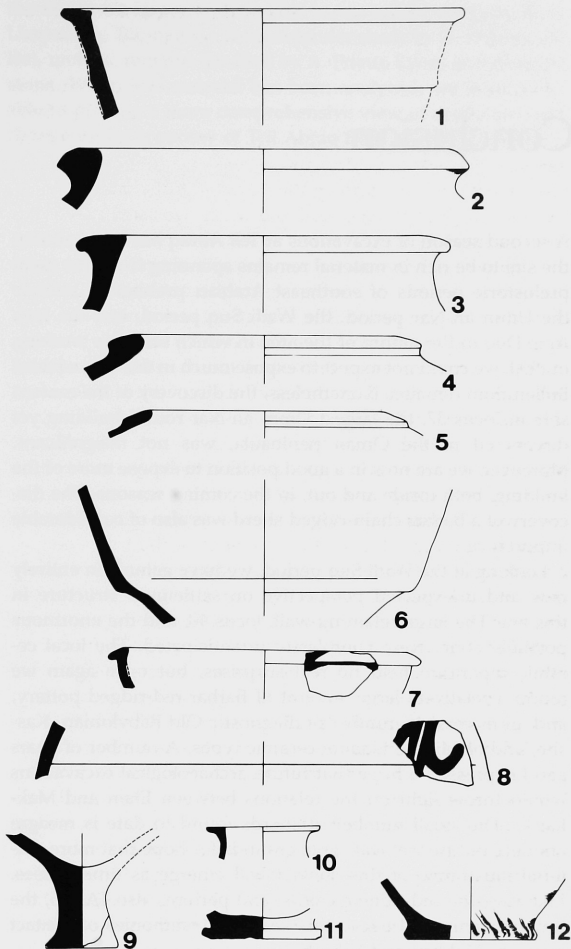
In spite of the mixed nature of the deposits excavated in 1990, it was relatively easy to distinguish Umm an-Nar, Wadi Suq, and Iron Age products. Thus, in illustrating the pottery of each period represented on the mound, we have not hesitated to select pieces which, although they may in fact come from levels older or younger than the date which we ascribe to them, were easily classified. This may seem wanton, and indeed it does not work in the case of many classes of small finds which, because we know less about them, cannot be segregated into chronological groups as easily as pottery, soft-stone, or glyptic. In the case of groundstone, we have dated purely on the basis of the dominant nature of the pottery found with a given piece. But as we have found examples of obvious third millennium soft-stone, e.g. TA 392, in contexts dominated by Iron Age pottery, one should also be aware that such mixture may also apply to those classes of small finds, the chronology of which is less certain. A complete list of all small finds recovered in 1990, arranged by square and elevation, is given in Appendix 2.

Finally, although the well-fired fabrics of the Umm an-Nar period; the vegetal-tempered, softer wares, often with a grey core, of the Wadi Suq period; and the grit-tempered, coarser and heavier fabrics of the Iron Age, can, after some familiarity with them has been gained, usually be distinguished from each other, it would be false to deny that not every sherd can be easily typed and dated. No archaeologist working in a region such as eastern Arabia finds only those types with which he or she is familiar. Often, the question of dating is a relatively narrow one. For example, a rim may recall third millennium forms, but the paste may be more akin to the Wadi Suq period, or a piece may suggest a date in the Iron Age, but in fact come from the second millennium. After returning from the field, it is tempting to compare the nicely inked drawings of these pieces with the often misleading drawings in the archaeological literature, but it should be remembered that if, on the spot, the excavator was in serious doubt about the attribution, it is probably not very wise to ignore considerations of paste and surface coloration and make a facile comparison with a published, greatly reduced drawing in the interest of getting rid of the rough edges on the excavation report.

Some sherds, however, are so problematic that no attribution can be confidently proposed. In the hope that others with an interest in the archaeology of Tell Abraq and the region as a whole may have some useful suggestions regarding them, a dozen of the most interesting, untyped pieces have been

Fig. 217. Pottery of uncertain date.

1. TA: 1350 SQUARE: 115/122 LEVEL:
5.00-4.80 DESCRIPTION: super coarse
grit, raised cordons DIA: 28
2. TA: 1530 SQUARE: 115/107 LEVEL:
3.00-2.80 DESCRIPTION: hard-fired,
smooth tan-grey, fine grit DIA: 26
3. TA: 1547 SQUARE: 115/132 LEVEL:
6.20-6.00 DESCRIPTION: hard-fired,
heavy grey stoneware DIA: 24-26
4. TA: 1171 SQUARE: 115/142 LEVEL:
7.00-6.80 DESCRIPTION: hard-fired
buff DIA: 18
5. TA: 1080 SQUARE: 115/147 LEVEL:
7.20-7.00 DESCRIPTION: coarse brown
grit DIA: 16
6. TA: 1595 SQUARE: 115/117 LEVEL:
4.80-4.60 DESCRIPTION: hard-fired
red, darkened underside, ware like a
modern flower-pot
7. TA: 1429 SQUARE: 115/122 LEVEL:
5.20-5.00 DESCRIPTION: smooth tan,
red slipped, black painted DIA: 20
8. TA: lost
9. TA: 1497 SQUARE: 115/142 LEVEL:
7.00-6.80, DESCRIPTION: hard-fired
red-brown, fine chaff DIA: 5
10. TA: 1500 SQUARE: 115/132 LEVEL:
6.00-5.80, 38 DESCRIPTION: hard-fired
red-orange, relict black paint DIA: 8
11. TA: 1550 SQUARE: 115/132 LEVEL:
6.40-6.20 DESCRIPTION: sandy tan,
fine chaff and grit, brown slip DIA: 8.4
12. TA: 1320 SQUARE: 115/122 LEVEL:
4.80-4.60 DESCRIPTION: handmade,
coarse black grit, pinched DIA: 9



brought together on Fig. 217. Among the possibilities as to date, based both on form and fabric, we may point to Fig. 217:2 and 6, which could be Harappan; and Fig. 217:3 and 10, which should probably be dated to the Umm an-Nar period. Fig. 217:9 recalls the base of what is assumed to be an Iron Age incense burner from Maysar 30³²⁸, while the pinched base of Fig. 217:12 can perhaps be paralleled by an undated fragment from the Sharjah coast³²⁹.

Conclusion

A second season of excavations at Tell Abraq has again shown the site to be rich in material remains spanning the three great prehistoric periods of southeast Arabian prehistory, namely the Umm an-Nar period, the Wadi Suq period, and the Iron Age. Due to the nature of the area in which we were working in 1990, we could not expect to expose much in the way of third millennium remains. Nonetheless, the discovery of the eastern side of locus 37, the largest Umm an-Nar round building yet discovered in the Oman peninsula, was not insignificant. Moreover, we are now in a good position to expose more of the building, both inside and out, in the coming seasons. The discovery of a Barbar chain-ridged sherd was also of considerable importance.

Looking at the Wadi Suq period, we have gained an entirely new and unexpected perspective on settlement structure in this era. The large retaining wall, locus 40, and the enormous posthole zone, were completely unanticipated. The local ceramic repertoire held no real surprises, but once again we found a relatively large amount of Barbar red-ridged pottery, and an increasing number of diagnostic Old Babylonian, Kassite, and/or Middle Elamite ceramic types. A number of years ago I expressed a hope that future archaeological excavations would throw light on the relations between Elam and Makkan³³⁰. The small number of sherds found to date is meagre enough, but they at least give grounds for hope that more material illustrative of this contact will emerge as time passes. Likewise, the red-ridged sherds, and perhaps also TA 495, the unique stamp seal found this year, are testimonies of contact between Makkan and Dilmun.

When we turn to the Iron Age, a period in the region of which little can be said historically, but one in which we know that some ties obtained between local polities and the Assyrian empire³³¹, it is intriguing to consider the series of stone pendants discovered this year, particularly those showing what appears reminiscent of an Assyro-Babylonian Lamashtu-demoness.

The 1990 excavations once again brought to light a considerable amount of material illustrative of the ancient economy of

the site, most importantly animal bones (under study by H.-P. Uerpmann, Tübingen), charcoal (under study by G. Willcox, Jallès), mollusc remains (studied by A. Prieur, Lyon) and groundstone. When this material has been analyzed, we hope to be able to provide a more comprehensive view of continuity and change in the economy of Tell Abraq from c. 2500 to 500 B.C.

Abbreviations

AAE	Arabian archaeology and epigraphy
AOMIM	Boucharlat R, Salles J-F, eds. <i>Arabie orientale, Mésopotamie et Iran méridional, de l'âge du fer au début de la période islamique</i> . Paris: Éditions Recherche sur les Civilisations, 37: 1984.
AUIAE	<i>Archaeology in the United Arab Emirates</i>
BaM	<i>Baghdader Mitteilungen</i>
BASOR	<i>Bulletin of the American Schools of Oriental Research</i>
BBVO	<i>Berliner Beiträge zum Vorderen Orient</i>
BTA	Al Khalifa H, Rice M, eds. <i>Bahrain through the ages: the Archaeology</i> . London: Kegan Paul International, 1986.
CNIP	Carsten Niebuhr Institute Publications
DAFI	<i>Cahiers de la Délégation Française en Iran</i>
EW	<i>East and West</i>
FFF	<i>Failaka Fouilles Françaises</i> (1983, 1984-85, 1986-88)
GJ	<i>The Geographical Journal</i>
JASP	Jutland Archaeological Society Publications
JOS	<i>Journal of Oman Studies</i>
MDP	<i>Mémoires de la Délégation en Perse</i>
OIP	Oriental Institute Publications
OrAnt	<i>Oriens Antiquus</i>
PAFSM	Publications of the American Foundation for the Study of Man
PSAS	<i>Proceedings of the Seminar for Arabian Studies</i>
RA	<i>Revue d'Assyriologie</i>
RIA	<i>Reallexikon der Assyriologie</i>
WVDOG	<i>Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft</i>

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- 88 al-Tikriti WY. The Excavations at Bidya, Fujairah: the 3rd and 2nd millennia BC culture. *AUAE* 5: 1989: Pl. 67B.
- 89 Häser, *Steingefäße*: Abb. 22: 186.
- 90 For full refs., see Potts, *A Prehistoric Mound*: Figs. 87:1 and 89, lower right; Fig. 105:8, and lit. cited there.
- 91 Potts, *A Prehistoric Mound*: Fig. 97:5 and the comments on it.
- 92 Højlund, *The Bronze Age Pottery*: 59, Fig. 196, type 55B, with refs. to finds from ed-Der, Babylon, Nippur, etc.
- 93 Højlund, *The Bronze Age Pottery*: 61-62, type 56A.
- 94 Cf. Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 7-8, 14.

- 95 deCardi, Further Archaeological Survey: Fig. 8:28, surface of Shimal site 40b; Donaldson, Prehistoric Tombs: Fig. 6:43 (site 1) has similar stripes along the rim, but the profile is different.
- 96 Frifelt K. Evidence of a Third Millennium BC Town: Fig. 6, second from the top.
- 97 al-Tikriti, The Excavations at Bidya: Pl. 63B.
- 98 de Cardi, B. Surface Collections from the Oman Survey, 1976. *JOS* 3/1: 1977:Fig. 2:33.
- 99 al-Tikriti, The Excavations at Bidya: Pl. 63A, 64A.
- 100 Vogt & Franke-Vogt, *Shimal* 1985/1986: Fig. 23:7 (SH 103), 32:1 (SH 99); Donaldson, Prehistoric Tombs: Figs. 3:8, 4:9 and 18, 5:32 and 39 (Site 1); de Cardi, The Grave Goods from Shimal Tomb 6: Fig. 5:2, 7, 10, 11, 13; 6:31, 7:56.
- 101 al-Tikriti, The Excavations at Bidya: Pl. 63C.
- 102 Vogt & Franke-Vogt, *Shimal* 1985/1986: Fig. 23:8-9 (SH 103), 32:4 (SH 99); Donaldson, Prehistoric Tombs: Fig. 4:15.
- 103 *Inter alia*, see Donaldson, Prehistoric Tombs: Figs. 3:1-2 and 7, 4:13, 16, 17, and 19, 5:38 (Site 1); Vogt & Franke-Vogt, *Shimal* 1985/1986: Fig. 12: 4 and 10 (SH 102), Fig. 23: 10 (SH 103); de Cardi, The Grave Goods from Shimal Tomb 6: Figs. 5: 3, 9 and 12, 6:21, 24-30.
- 104 de Cardi B, Bell RD & Starling NJ. Excavations at Tawi Silaim and Tawi Sa'id in the Sharqiya, 1978. *JOS* 5: 1979: Fig. 11:35.
- 105 Posselt GL. *Kulli: An Exploration of an Ancient Civilization in South Asia*. Durham: Centers of Civilization, 4: 1986: Fig. XIII. Mehi 7, for a beaker with chevrons between parallel lines.
- 106 Cleuziou, Excavations at Hili 8: Pl. 31:6.
- 107 Potts, *A Prehistoric Mound*: 78-79.
- 108 Hastings et al., Oman in the Third Millennium BCE: Fig. 12ff.
- 109 de Cardi, Collier & Doe, Excavations and Survey: Fig. 19:145
- 110 Potts, *A Prehistoric Mound*: Fig. 71:7, 96:8.
- 111 Højlund, *The Bronze Age Pottery*: Fig. 234, 242, 246 (type 57C)
- 112 Potts, *A Prehistoric Mound*: Fig. 84:11, 90:15, 96:2
- 113 E.g. Donaldson, Prehistoric Tombs: Fig. 8 (Site 1); deCardi, The Grave Goods from Shimal Tomb 6: Fig. 8:61.
- 114 Cleuziou, The Second and Third Seasons: Fig. 35: 1, 3.
- 115 Cf. Potts, *A Prehistoric Mound*: Fig. 98.
- 116 Velde C. Preliminary Remarks on the Settlement Pottery in Shimal. In: Schippmann K, Salles JF & Herling A, eds. *Gulf Archaeology Symposium*. Oxford: BAR, in press: Figs. 5-6.
- 117 de Cardi, The Grave Goods from Shimal Tomb 6: 7: Fig. 12:1.
- 118 Vogt & Franke-Vogt, *Shimal* 1985/1986: Fig. 33:2.
- 119 Vogt & Franke-Vogt, *Shimal* 1985/1986: Fig. 25:2.
- 120 Häser, *Steingefäße*: Abb. 31: 266.
- 121 Cleuziou, The Second and Third Seasons: Fig. 41:5.
- 122 Frifelt, On Prehistoric Settlement and Chronology: Fig. 24a.
- 123 al-Tikriti, *Reconsideration of the Late Fourth and Third Millennium B.C.*: Pl. 141G.
- 124 Donaldson, Prehistoric Tombs: Fig. 12:22.
- 125 Donaldson, Prehistoric Tombs: Fig. 25:24.
- 126 de Cardi, The Grave-Goods from Shimal Tomb 6: Fig. 13:21.
- 127 Vogt & Franke-Vogt, *Shimal* 1985/1986: Fig. 26:2, 4-5.
- 128 Frifelt, Evidence of a Third Millennium B.C. Town: Fig. 4, lower left.
- 129 Weisgerber, Mehr als Kupfer: Abb. 57:1.
- 130 Yule P & Weisgerber G. *Samad ash-Shan: Excavation of the Pre-Islamic Cemeteries*, Preliminary Report, 1988. Bochum: Im Selbstverlag, 1988: Abb. 17:12.

- 131 de Cardi, Bell & Starling, Excavations at Tawi Silaim: Fig. 11:38.
- 132 de Miroschedji, Vases et objets en stéatites: Pl. VIII. The drawing, Fig. 8:1, does not render the fluting correctly which is otherwise obvious on the photograph.
- 133 E.g. Phillips CS. *Wadi Al Qawr, Fashgha 1: The Excavation of a Prehistoric Burial Structure in Ras Al Khaimah, U.A.E.*, 1986. Edinburgh: Department of Archaeology Project Papers, 7: 1987: Figs. 24:5, 28:18.
- 134 Cleuziou, Reade & Tosi, *The Joint Hadd Project*: Fig. 19:3.
- 135 On which see generally Tosi M. *Karneol. RIA* 5: 1980: 448-452. Summers A. An Account of the Agate and Carnelian Trade of Cambay. *Journal of the Bombay Branch of the Royal Asiatic Society* 31: 1851: 320-324, mentions several species of stone which would appear similar to that used for TA 454 and TA 247 (discussed below). These include a type of veined agate called *Doradur*, which is white with dark streaks; and *Mora* or *Bowa Gori*, a type of onyx or carnelian which sometimes occurs in a grey-white form with dark veins.
- 136 E.g. Beyer D. The Bahrain Seals. In: Lombard P & Kervran M, eds. *Bahrain National Museum Archaeological Collections Volume I: A Selection of Pre-Islamic Antiquities from Excavations 1954-1975*. Bahrain: Ministry of Information, 1989: 145, no. 261. I would like to thank Prof. Dr. R.M. Boehmer, German Archaeological Institute, Berlin, for examining photographs and drawings of TA 495 and sending me his comments on this unusual piece.
- 137 Amiet P. *Glyptique susienne, des origines à l'époque des Perses Achéménides*. Paris: MDP, 43: 1972: Nos. 1720-1726; Susa and the Dilmun Culture. *BTA*: 267-268, Figs. 92-95; and *L'âge des échanges inter-iraniens, 3500-1700 avant J.-C.* Paris: Notes et Documents des Musées de France, 11: 1986: Fig. 90:8-10.
- 138 Edens, Protohistory: Excavation on Khor Ile: Fig. 4:11-13.
- 139 Frifelt, On Prehistoric Settlement and Chronology: Fig. 29d.
- 140 Delougaz, *Pottery from the Diyala*: Pl. 184, C.547.320.
- 141 E.g. Ayyoub, *Die Keramik in Mesopotamien*: 84-86, types 1-2.
- 142 Højlund, *The Bronze Age Pottery*: Figs. 238, 240.
- 143 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 19:8; Donaldson, *Prehistoric Tombs of Ras al-Khaimah*: Fig. 26:2
- 144 Frifelt, On Prehistoric Settlement and Chronology: Fig. 24a.
- 145 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig.5:1.
- 146 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 33:2; Häser, *Steingefäße*: Abb. 21: 173-174.
- 147 Donaldson, *Prehistoric Tombs*: Fig. 6:46, 49.
- 148 Lombard P. *L'Arabie Orientale à l'âge du fer*, vols. 1 & 2. Paris: unpubl. PhD. thesis, Univ. of Paris 1, 1985:192, 198, nos. 324, from al-Qusais, and 325, from Qarn Bint Sa'ud; cf. Fig. 101. Cf. Phillips, *Wadi Al Qawr*: Figs. 24:7, 27:15, 30:26.
- 149 E.g. Häser, *Steingefäße*: Abb. 6:108, from Qattarah, or Abb. 23:172 from Shimal tomb SH 99.
- 150 Lombard P. *Aspects culturels de la péninsule d'Oman au début du 1er millénaire av. J.C.* Paris: unpubl. M.A. thesis, Univ. of Paris 1, 1979: Pl. XLV:27
- 151 Frifelt, Evidence of a Third Millennium B.C. Town: Fig. 4, lower left.
- 152 Häser, *Steingefäße*: Abb. 31:266.
- 153 deCardi, The Grave Goods from Shimal Tomb 6: Fig. 12:1, 3.
- 154 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 15:2.
- 155 Cleuziou, The Second and Third Seasons: Fig. 41:5.
- 156 al-Tikriti, The Excavations at Bidya: Pl. 67A.
- 157 Zarins, Steatite Vessels: Pl. 71:246.
- 158 Højlund, *The Bronze Age Pottery*: Figs. 161-162.
- 159 E.g. Højlund, *The Bronze Age Pottery*: Fig. 56.

- 160 E.g. Mughal, *The Dilmun Burial Complex*: Fig. 19:4-5; Højlund, The chronology of City II and III: Fig. 59:11, 13.
- 161 Pittman H. *Art of the Bronze Age: Southeastern Iran, Western Central Asia, and the Indus Valley*. New York: The Metropolitan Museum of Art, 1984:48 with refs. Kohl PL. *Central Asia: Palaeolithic Beginnings to the Iron Age*. Paris: Éditions Recherche sur les Civilisations Synthèses, 14: 1984: Pl. 21b. Amiet P. Nouvelles acquisitions du département des Antiquités orientales. *La revue du Louvre* 1987: Figs. 18-20, cf. Pottier M-H. *Matériel funéraire de la Bactriane méridionale de l'âge du Bronze*. Paris: Éditions Recherche sur les Civilisations Mémoires, 36: 1984: Pl. XXI-XXIII. Pottier M-H. Aspects matériels des cultures de Sibiri et de Mehrgarh VIII (plaine de Kachi, Baluchistan, Pakistan) à la fin du troisième et au début du deuxième millénaires. In: *L'Asie Centrale et ses rapports avec les civilisations orientales des origines à l'âge du fer*. Paris: Mémoires de la Mission Archéologique Française en Asie Centrale, 1: 1988: Fig. 2:7.
- 162 My sincere thanks go to HH Shaykh Khaled bin Rashid al-Mualla for permission to take this piece to Copenhagen for further conservation, and to Mr. Morten Djorup for conserving it at the Nationalmuseum.
- 163 Cleuziou S. Oman Peninsula in the Early Second Millennium B.C. In: Härtel H, ed. *South Asian Archaeology 1979*. Berlin: Reimer, 1981: Fig. 9:1.
- 164 Häser, *Steingefäße*: Abb. 24:203.
- 165 Weisgerber, Mehr als Kupfer: Abb. 47:1 (grave 1101).
- 166 al-Tikriti, The Excavations at Bidya: Pl. 65B.
- 167 Bibby TG. *Preliminary Survey in East Arabia, 1968*. Copenhagen: JASP, 12: 1973: Fig. 33c = Zarins, Steatite Vessels: Pl. 71:40 (Fariq al-Akrash), and 594 (Rufayah?).
- 168 Zarins J, Mughannum AS & Kamal M. Excavations at Dhahran South: The Tumuli Field (208-92), 1403A.H./1983, A Preliminary Report. *Atlat* 8: 1984: Pl. 37:4.
- 169 Hakemi, *Catalogue de l'exposition*: Pl. XIB.
- 170 Weisgerber, Mehr als Kupfer: Abb. 45:3 (described as "Halbfabrikat einer großen Schale") and 46:1 (with a form different from our piece).
- 171 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 47:1-2.
- 172 Häser, *Steingefäße*: Abb. 16:218.
- 173 Cf. Højlund, The chronology of City II and III: Figs. 55-58; Larsen CE. *Life and Land Use on the Bahrain Islands*. Chicago: University of Chicago, 1983: Fig. 48.
- 174 Mortensen P. The Barbar Temple: its chronology and foreign relations reconsidered. *BTA*: Fig. 44.
- 175 Højlund, *The Bronze Age Pottery*: Fig. 74, type 14B.
- 176 Cf. Højlund, *The Bronze Age Pottery*: Figs. 5-16, type 1; Højlund, The chronology of City II and III: Figs. 56-59; Larsen, *Life and Land Use*: Fig. 50a.
- 177 Cf. Højlund, *The Bronze Age Pottery*: Fig. 67.
- 178 Højlund, *The Bronze Age Pottery*: Fig. 96, with refs. to similar pieces found on Bahrain.
- 179 Potts, *A Prehistoric Mound*: 104-105.
- 180 Costa PM & Wilkinson TJ. The Hinterland of Sohar: Archaeological Surveys and Excavations within the Region of an Omani Seafaring City. *JOS* 9: 1987: Fig. 89e.
- 181 de Cardi, Further Archaeological Survey: Fig. 7:1.
- 182 Boucharlat R & Lombard P. The Oasis of Al Ain in the Iron Age: Excavations at Rumeilah, 1981-1983, Survey at Hili 14. *ALUAE* 4: 1985: Pl. 48:4 for similar chevrons on the rim, and on a raised ridge, but with zig-zags between the ridge and rim which the Tell Abra q sherd lacks.
- 183 Costa & Wilkinson, The Hinterland of Sohar: Fig. 91b, d.

- 184 Humphries JH. Harvard Archaeological Survey in Oman II. Some Later Prehistoric Sites in the Sultanate of Oman. *PSAS* 4: 1974: Figs. 8i, 9q.
- 185 de Cardi, Surface Collections: Fig. 4:118.
- 186 Boucharlat & Lombard, The Oasis of Al Ain: Pls. 47:3, 11, 13; 48:1, 8; 52:1.
- 187 de Cardi, Further Archaeological Survey: Fig. 12:136.
- 188 Cleuziou S, Pottier MH & Salles JF. Mission archéologique française, 1ère campagne, Décembre 1976/Février 1977. *AUAE* 1: 1978: Fig. 10:4.
- 189 de Cardi, Ras al Khaimah: Fig. 3:26.
- 190 de Cardi B. Survey in Ras al-Khaimah, U.A.E. *AOMIM*: Figs. 7:16-18, 8:6, and 9:15.
- 191 Boucharlat R, ed. *Archaeological Surveys and Excavations in the Sharjah Emirate, 1988: A Fourth Preliminary Report*. Lyon: Maison de l'Orient, 1988: Fig. 12.
- 192 Boucharlat, *Archaeological Surveys and Excavations*: Fig. 12:2.
- 193 de Cardi, Further Archaeological Survey: Fig. 12:133.
- 194 Costa & Wilkinson, The Hinterland of Sohar: Fig. 91g.
- 195 Boucharlat, *Archaeological Surveys and Excavations*: Fig. 12:6.
- 196 Boucharlat & Lombard, The Oasis of Al Ain: Pls. 47:6 and 52:1 (=71:1).
- 197 Boucharlat, *Archaeological Surveys and Excavations*: Fig. 12:9.
- 198 de Cardi, Surface Collections: Fig. 3:100.
- 199 de Cardi, Survey in Ras al-Khaimah: Fig. 9:16.
- 200 Boucharlat & Lombard, The Oasis of Al Ain: Pls. 48:11 and 51:8.
- 201 The form and decoration of Boucharlat & Lombard, The Oasis of Al Ain: Pl. 57:15 is particularly close to our Fig. XXI:1-2, although it has two zig-zagging lines instead of one.
- 202 de Cardi, Survey in Ras al-Khaimah: Fig. 7:13.
- 203 Lamberg-Karlovsky, *Excavations at Tepe Yahya*: Pl. 12, center.
- 204 Lamberg-Karlovsky CC & Fitz W. Cairn Burials in the Soghun Valley, Southeastern Iran. In: Gnoli G & Lanciotti L, eds. *Orientalia Iosephi Tucci Memoriae Dicata*, vol. 2. Rome: Serie Orientale Roma, 56: 1987: Fig. 10L. On these burials, cf. Boucharlat R. Cairns et Pseudo-Cairns du Fars: L'utilisation des tombes de surface au 1er millénaire de notre ère. In: De Meyer L & Haerincx E, eds. *Archaeologia Iranica et Orientalis: Miscellanea in Honorem Louis Vanden Berghe*, vol. 2. Gent: Peeters, 1989: 688.
- 205 Taha M. The Archaeology of the Arabian Gulf during the First Millennium B.C. *Al-Rafidan* 3-4: 1982-83: Fig. 15.
- 206 Boucharlat & Lombard, The Oasis of Al Ain: Pl. 51:7.
- 207 Humphries, Harvard Archaeological Survey: Fig. 10a-b.
- 208 Lombard, *L'Arabie Orientale à l'âge du Fer*: 175.
- 209 For which reason the Iron Age date suggested here must remain open to revision as new material comes to light.
- 210 The vitrified surface is reminiscent of that found on medieval and modern Bahla ware from Oman. Could the piece, in fact, be Islamic?
- 211 Boucharlat & Lombard, The Oasis of Al Ain: Pl. 50:1-3.
- 212 Yule & Weisgerber, *Samad ash-Shan*: Abb.34:31, from Samad grave M803, Nachbestattung 1.
- 213 de Cardi, Ras al-Khaimah: Fig. 4:32, 35 = Further Archaeological Survey: Fig. 8:22, 29; Donaldson, Prehistoric Tombs: Fig. 22:120 (Site 2).
- 214 Weisgerber, Mehr als Kupfer in Oman: Abb. 60:6 (grave 49).
- 215 Yule & Weisgerber, *Samad ash-Shan*: Abb. 13:4, from the Zentralbestattung in Samad grave M 803, and Abb. 48:60, a piece that could not be assigned to a particular burial within the same grave.
- 216 Boucharlat, *Archaeological Surveys and Excavations*: Fig. 13:8.
- 217 De Cardi, Survey in Ras al-Khaimah: Fig. 5:10.

- 218 Yule & Weisgerber, *Samad ash-Shan*: Abb. 34:26, Samad grave M 803 Nachbestattung 1.
- 219 Boucharlat & Lombard, *The Oasis of Al Ain*: Pl. 56:3.
- 220 De Cardi, *Ras al-Khaimah*: Fig. 4:43 = Further Archaeological Survey: Fig. 8:43.
- 221 Ur-Rahman S. Report on Hili 2 Settlement Excavations, 1976-1979. *AUIAE* 2-3: 1981: 9 and Fig. 6.
- 222 Lombard P. The Late Dilmun Period. In: Lombard P & Kervran M, eds. *Bahrain National Museum Archaeological Collections, Vol. I, A Selection of Pre-Islamic Antiquities from Excavations, 1954-1975*. Bahrain: Ministry of Information, 1989:59, no. 98 from al-Hajjar.
- 223 Cleuziou, Pottier & Salles, *Mission archéologique française*: Fig. 10:5.
- 224 Ur-Rahman, Report on Hili 2: Fig. 5:3.
- 225 Boucharlat & Lombard, *The Oasis of Al Ain*: Pl. 48:9-10.
- 226 Lombard, *L'Arabie Orientale*: Fig. 33:63; Lombard & Kervran, *Bahrain National Museum*: 56, no. 92.
- 227 Lamberg-Karlovsky & Fitz, *Cairn Burials*: Fig. 7H.
- 228 Potts, *A Prehistoric Mound*: Figs. 137:5, 138 (lower left), and 139.
- 229 Boucharlat R, ed. *Second Archaeological Survey in the Sharjah Emirate, 1985: A Preliminary Report*. Lyon: Maison de l'Orient, 1985: Fig. 21:13.
- 230 De Cardi, *Survey in Ras al-Khaimah*: Fig. 8:7.
- 231 Lamberg-Karlovsky, *Excavations at Tepe Yahya*: Fig. 10E.
- 232 Edens C. Brief Survey Around Bilad Bani Bu Hassan. In: Cleuziou, Reade & Tosi, *The Joint Hadd Project*: Fig. 41:5-6.
- 233 Edens C. Archaeology of the Sands and Adjacent Portions of the Sharqiyah. *JOS Special Report 3*: 1988: Fig. 11:1.
- 234 Potts, *A Prehistoric Mound*: Figs. 133-135.
- 235 Boucharlat, *Archaeological Surveys and Excavations*: Fig. 11:6-8.
- 236 Boucharlat & Lombard, *The Oasis of Al Ain*: Pl. 46:3-5.
- 237 Boucharlat & Lombard, *The Oasis of Al Ain*: Pls. 47:12-13, 48:1, and 52:5.
- 238 De Cardi, *Survey in Ras al-Khaimah*: Fig. 8:13-15.
- 239 Costa & Wilkinson, *The Hinterland of Sohar*: Figs. 87-89.
- 240 Potts, *A Prehistoric Mound*: Fig. 137.
- 241 Boucharlat & Lombard, *The Oasis of Al Ain*: Pls. 53:9-10, 54:1, and 57:12.
- 242 Boucharlat & Lombard, *The Oasis of Al Ain*: Pls. 58:12, 59:11.
- 243 Boucharlat & Lombard, *The Oasis of Al Ain*: Pl. 57:20.
- 244 Edens, *Archaeology of the Sands*: Fig. 11:12.
- 245 Lombard & Kervran, *Bahrain National Museum*: 70, no. 125A-B.
- 246 E.g. Lombard P. Quelques éléments sur la métallurgie de l'âge du fer aux Émirats Arabes Unis. *AOMIM*: Fig. 4:1, 4. Weisgerber G. Oman: A Bronze-producing Centre during the 1st Half of the 1st Millennium BC. In: Curtis J, ed. *Bronzeworking Centres of Western Asia c. 1000-539 B.C.* London: Kegan Paul International, 1988: Pls. 165-168.
- 247 E.g. in B. Vogt's excavations in northern Ras al-Khaimah at Asima (pers. comm.), or in al-Tikriti, *The Excavations at Bidya*: Pls. 70-72, 96B.
- 248 Boucharlat R, ed. *Second Archaeological Survey*: Fig. 25:6.
- 249 Frifelt, *Evidence of a Third Millennium B.C. Town*: Fig. 4, lower righthand corner.
- 250 Hastings et al., *Oman in the Third Millennium*: 12 and Pl. 4A left.
- 251 Weisgerber G. Evidence of Ancient Mining Sites in Oman: a Preliminary Report. *JOS* 4: 1981: 17 and Pl. 12a.
- 252 Hauptmann A. *Die Entwicklung der Kupfermetallurgie vom 3. Jahrtausend bis zur Neuzeit*. Bochum: *Der Anschnitt Beihefte*, 4: 1985: 91-92, Abb. 73.
- 253 Boucharlat & Lombard, *The Oasis of Al Ain*: Pl. 61:3.

- 254 Edens, Brief Survey: Fig. 42:3.
- 255 E.g. Yule & Weisgerber, *Samad ash-Shan*: Abb. 13.8 M, no. 19 and Abb. 34, 39 M, no. 32, both attributed to a Lizq-period secondary burial. Weisgerber, Mehr als Kupfer: Abb. 50:2, originally attributed to the second half of the first millennium B.C., is very similar and might better be re-dated to the earlier Iron Age.
- 256 Phillips, *Wadi Al Qawr*: Fig. 29:24.
- 257 de Cardi, Survey in Ras Al-Khaimah: Fig. 6:10.
- 258 Cleuziou S. A Short Report on the Excavations of the Second Campaign at RJ-2. In: Cleuziou S & Tosi M, eds. *The Joint Hadd Project: Summary Report on the Second Season, November 1986-January 1987*. Rome: report printed for private circulation, 1987: Fig. 23:1.
- 259 Phillips, *Wadi Al Qawr*: Figs. 28:17 and 30:25.
- 260 Phillips, *Wadi Al Qawr*: Figs. 31-35.
- 261 In a private collection in Dubai, and soon to be published in *AAE* by K.G. Stevens.
- 262 Frifelt K. Arkæologiske undersøgelser på Oman halvøen. *Kuml 1968*: 1969: Fig. 3, left and center. Boucharlat & Lombard, *The Oasis of Al Ain*: Pl. 66:5-9.
- 263 Farber W. Lamaštu. *RIA 6/5*: 1983: 441-444. For recently published comparanda from Uruk, see Limper K. *Uruk: Perlen, Ketten, Anhänger, Grabungen 1912-1985*. Mainz: Ausgrabungen in Uruk-Warka Endberichte, 2: 1988: Taf. 29:169 and 55:334b. Similar amulets spread as far west as Etruria. See Patzek B. Die mesopotamische Dämonin Lamaštu im orientalisierenden griechisch-kolonialen Kulturkreis: ein Amulett aus Poggio Civitate und Ilias 21, 479ff. *OrAnt 27*: 1988:221-229 and Fig. 1, where a figure with bent knees holds up both arms, bent at the elbow, each terminating in a three-pronged claw, not unlike that on the Tell Abraq pendant.
- 264 Beyer D. The Bahrain Seals. In: Lombard P & Kervran M, eds. *Bahrain National Museum Archaeological Collections Volume I: A Selection of Pre-Islamic Antiquities from Excavations 1954-1975*. Bahrain: Ministry of Information, 1989: 141, no. 248.
- 265 Lamberg-Karlovsky CC. The Proto-Elamite Settlement at Tepe Yahya. *Iran 9*: 1971: Fig. 2C.
- 266 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 18:6.
- 267 Frifelt, Arkæologiske undersøgelser: Fig. 3, right.
- 268 Ciarla R. Bronze-Age Crafts at Failaka: Some Preliminary Observations on Stone Vase Fragments. *EW 35*: 1985: Fig. 8.
- 269 Yule & Weisgerber, *Samad ash-Shan*: Abb. 13. 8 M:18
- 270 Frifelt, On Prehistoric Settlement and Chronology: Fig. 48 center.
- 271 Boucharlat, *Second Archaeological Survey*: Fig. 24:1 (shell-concentration 117, Iron Age) and 2 (shell concentration 97, prehistoric or Iron Age).
- 272 Potts, *A Prehistoric Mound*: 111 and Figs. 152:3-4 and 154.
- 273 Boucharlat, *Second Archaeological Survey*: Fig. 23 and Pl. X.
- 274 Weisgerber G. Evidence of Ancient Mining Sites in Oman: a Preliminary Report. *JOS 4*: 1981: Pl. 11c.
- 275 Weisgerber, Evidence of Ancient Mining Sites: Pl. 21d, Fig. 10. Cf. Weisgerber G. Archaeological Evidence of Copper Exploitation at 'Arja. *JOS 9*: 1987: Fig. 79 and Pl. 84.
- 276 Boucharlat & Lombard, *The Oasis of Al Ain*: Pl. 64:7-8.
- 277 Van Beek GW. *Hajar Bin Humeid: Investigations at a Pre-Islamic Site in South Arabia*. Baltimore: PAFSM, 5: 1969: Fig. 122a.
- 278 Frifelt K. Oman during the Third Millennium BC: Urban Development or Fishing/Farming Communities? In: Taddei M, ed. *South Asian Archaeology 1977*. Naples: Istituto Universitario Orientale Seminario di Studi Asiatici

- Series Minor, 6: 1979: Fig. 6, although this is probably smaller than our piece.
- 279 De Maigret A. A Bronze Age for Southern Arabia. *EW* 34: 1984: Fig. 17a, center.
- 280 E.g. as in grave 20 at Maysar 27. See Weisgerber, Mehr als Kupfer: 225 and Abb. 62.
- 281 Frifelt, On Prehistoric Settlement and Chronology: Fig. 48, bottom.
- 282 Boucharlat & Lombard, The Oasis of Al Ain: Pl. 64:1.
- 283 Rathjens C & von Wissmann H. *Vorislamische Altertümer*. Hamburg: Hamburgische Universität Abhandlungen aus dem Gebiet der Auslandskunde, 38: 1932: Pl. 56.
- 284 Caton Thompson G. *The Tombs and Moon Temple of Hureidha (Hadhramaut)*. Oxford: Reports of the Research Committee of the Society of Antiquaries of London, 13: 1944: Pl. LXI:1, stray find not from Hureidha and published without comment.
- 285 Lombard, *Aspects culturels*: 99-100, Pl. LXXVI: 4-6. Cf. Taha, The Archaeology of the Arabian Gulf: 77.
- 286 Potts, *A Prehistoric Mound*: 112-114.
- 287 Cf. the thumb-impressed bricks of much earlier date at Tepe Yahya in Lamberg-Karlovsky, *Excavations at Tepe Yahya*: 95 and Pl. 35.
- 288 Weisgerber, Mehr als Kupfer: 199 and Abb. 32.
- 289 Cf. Salles JF. Céramiques de surface à Ed-Dour, Émirats Arabes Unis. *AO-MIM*: Figs. 10:96-99, 11:104-108; Boucharlat, Haerincq, Phillips & Potts, Archaeological Reconnaissance at Ed-Dur: Fig. 10:8; and thousands of unpublished fragments recovered in the course of excavation by the Danish team, as well as a complete vessel found standing outside of a private house in Area E. See Boucharlat R, Haerincq E, Lecomte O, Potts DT & Stevens KG. The European Archaeological Expedition to Ed-Dur, Umm al-Qaiwayn (U.A.E.): An Interim Report on the 1987 and 1988 Seasons. *Mesopotamia* 24: 1989: 20 and Fig. L.
- 290 Reg. nos. O 25; Z 241, 297.
- 291 Reg. no. AJ 19.
- 292 M. Kervran, personal communication.
- 293 Lamberg-Karlovsky, *Excavations at Tepe Yahya*: Fig. 4B.
- 294 Boucharlat *et al*, The European Archaeological Expedition: Fig. Z; unpubl. records of the Danish expedition, reg. nos. E 274; Z 173, 182, 302, 382, 538, 565
- 295 Fig. 191:2 should probably be dated to the late Iron Age. Cf., from period II at Rumeilah, Boucharlat & Lombard, The Oasis of Al Ain: Pl. 53:6. The same may apply to Fig. 191:4, cf. Boucharlat & Lombard, The Oasis of Al Ain: Pl. 58:8; Fig. 191:5, cf. Boucharlat & Lombard, The Oasis of Al Ain: Pl. 57:4; and Fig. 191:7, cf. Boucharlat & Lombard, The Oasis of Al Ain: Pl. 59:11. These sherds were pasted up, together with the accompanying ed-Dur pieces, before their probable date was realized, for which we apologize to our readers.
- 296 Present in small numbers in nearly all domestic areas excavated by the Danish team. Cf. reg. nos. B 25, 53, 136, 154, 158; P 38; T 18; Z 467, 490, 542-543.
- 297 Unpublished surface find made by the author in December, 1988.
- 298 Bibby, *Preliminary Survey*: 18, Fig. 9; Eskoubi KM & al-Aila SR. Thaj Excavations, Second Season 1404/1984. *Atlat* 9: 1985: Pls. 35-36; Potts, *Miscellanea Hasaitica*: Figs. 38-39.
- 299 Bowen RL. *The Early Arabian Necropolis of Ain Jawan: A Pre-Islamic and Early Islamic Site on the Persian Gulf*. New Haven: BASOR Suppl. Stud., 7-9: 1950: Fig. 21c-d.

- 300 Salles JF. Les figurines de Tell Khazneh. *FFF* 84-85: 168.
- 301 Salles, Les figurines: 167, Figs. 67 and 75.
- 302 Ziegler C. *Die Terrakotten von Warka*. Berlin: Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka, 6: 1962: Taf. 21:308-316.
- 303 Unfortunately, the plan of 115/112 showing locus 46 was lost in the field, but this was not realized until after the stones had been removed. Therefore, we have only the photographs illustrated here to show what the feature looked like. Note, therefore, that the plan of 115/107 and 112 is incomplete in this regard.
- 304 Potts, *A Prehistoric Mound*: Fig. 128.
- 305 Boucharlat *et al*, Archaeological Reconnaissance: Pl. IIIB; Boucharlat *et al*, The European Archaeological Expedition: Figs. AC:5, AD:5, 9.
- 306 Boucharlat *et al*, Archaeological Reconnaissance: Fig. 16:3, Pl. IIB.
- 307 Donaldson, Prehistoric Tombs (1984): Fig. 27:11-12, and (1985) Fig. 5:12.
- 308 Yule & Weisgerber, *Samad ash-Shan*: Abb. 13:15.
- 309 Lombard, *L'Arabie Orientale*: Fig. 98:321-323.
- 310 Lombard, *L'Arabie Orientale*: Fig. 101:325.
- 311 Phillips, *Wadi Al Qawr*: Figs. 29:23.
- 312 De Cardi, Further Archaeological Survey: Fig. 17.
- 313 Cf. the many pieces illustrated in Phillips, *Wadi Al Qawr*: Figs. 25-30.
- 314 Phillips, *Wadi Al Qawr*: Fig. 24:7.
- 315 Lombard, The Late Dilmun Period: 68, no. 121.
- 316 Cleuziou S, Lombard P & Salles JF. *Fouilles à Umm Jidr (Bahrain)*. Paris: Recherche sur les grandes civilisations, 7: 1981: Fig. 15:1-3; Ibrahim M. *Excavations of the Arab Expedition at Sar el-Jisr, Bahrain*. Bahrain: Ministry of Information, 1982: Fig. 48, Pls. 57-59; Mughal, *The Dilmun Burial Complex*: Pl. XLIX:3-4; and Khalifa HA. The shell seals of Bahrain. *BTA*: 251-261.
- 317 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 18:2.
- 318 Ibrahim, *Excavations of the Arab Expedition*: Pl. 54:9, right.
- 319 Frifelt K. Jamdat Nasr fund fra Oman. *Kuml* 1970: 1971: Fig. 11B.
- 320 Cleuziou, Pottier & Salles, Mission archéologique française: Fig. 17:1 and photograph on p. 28.
- 321 Curtis J. *The Small Finds*. London: Excavations at Nush-i Jan, 3: 1984: Fig. 19: 482-483.
- 322 Yule & Weisgerber, *Samad ash-Shan*: Abb. 10:10 (grave 101124).
- 323 Donaldson, Prehistoric Tombs: Fig. 11:2.
- 324 Häser, *Steingefäße*: Abb. 18:256.
- 325 Vogt & Franke-Vogt, *Shimal 1985/1986*: Fig. 33:7.
- 326 Phillips, *Wadi Al Qawr*: Figs. 23:2, 29:21, and 30:27 and, for the same decoration on open-spouted bowls or lamps, cf. Figs. 23:3, 25:9, 10, 28:17, and 30:25.
- 327 Yule & Weisgerber, *Samad ash-Shan*: Abb. 13.8:19, 34:32. Another comparable piece from the Samad area (or Lizq?) is illustrated in Weisgerber, Mehr als Kupfer: Abb. 49:2, but without giving its provenience.
- 328 Weisgerber, Mehr als Kupfer: Abb. 37.
- 329 Boucharlat, *Second Archaeological Survey*: Fig. 18:9.
- 330 Potts DT. Towards an Integrated History of Culture Change in the Arabian Gulf Area: Notes on Dilmun, Makkan and the Economy of Ancient Sumer. *JOS* 4: 1978 (app. 1981): 49 n. 21.
- 331 Potts DT. From Qadê to Mazûn: four notes on Oman, c. 700 B.C. to 700 A.D. *JOS* 8/1: 1985: 81-82, and The Location of Iz-ki-e. *RA* 79: 1985: 75-76.

Summary of Pottery-based Chronology of all Levels and Loci excavated in 1990, arranged by Square

Square	Level	Locus	Ceramic Character
115/107	2.00-1.80		Iron Age or later
	2.20-2.00		Iron Age
	2.40-2.20		Iron Age
	2.40-2.20	West	mixed Iron Age and Wadi Suq
	2.60-2.40		mixed Iron Age and Wadi Suq
	2.80-2.60		mixed Iron Age and Wadi Suq
	3.00-2.80		mainly Wadi Suq
	3.00-2.80	51	mainly Wadi Suq
	3.20-3.00		mainly Wadi Suq
	3.20-3.00	51	mainly Iron Age
	3.20-3.00		mainly Wadi Suq with some Iron Age
	3.40-3.20		mainly Wadi Suq
	3.40-3.20	e. of 52, s. of 51	all Wadi Suq
	3.40-3.20	51	Wadi Suq
	3.60-3.40		nearly all Wadi Suq
	3.60-3.40	51	all Wadi Suq
3.60-3.40	outside 52	Iron Age	
115/112	2.20-2.00		all Iron Age
	2.40-2.20		all Iron Age
	2.60-2.40		all Iron Age
	2.80-2.60		mixture of Iron Age and Wadi Suq, mainly the former
	3.00-2.80		mixture of Iron Age and Wadi Suq
	3.20-3.00		mainly Iron Age
	3.20-3.00	55	all Wadi Suq
	3.40-3.20	outside 37	Iron Age
	3.40-3.20	above 37	all Wadi Suq
	3.60-3.40		mixed Iron Age (majority) and Wadi Suq
	3.80-3.60		mixed Iron Age and Wadi Suq
	3.80-3.60	59	Wadi Suq
	4.00-3.80		almost all Wadi Suq
	4.20-4.00		all Wadi Suq
4.40-4.20		all Wadi Suq	
4.60-4.40		all Wadi Suq	
4.80-4.60		all Wadi Suq	
115/117	2.80-2.60		all Iron Age
	3.00-2.80		all Iron Age

	3.20-3.00		all Iron Age
	3.40-3.20		all Iron Age
	3.60-3.40		all Iron Age
	3.80-3.60		all Iron Age
115/117	4.00-3.80		all Iron Age
	4.20-4.00		all Iron Age
	4.40-4.20		all Iron Age
	4.60-4.40		all Iron Age
	4.80-4.60		almost entirely Iron Age
	5.00-4.80		all Iron Age
	5.20-5.00		all Iron Age
	5.40-5.20		all Iron Age
	5.60-5.40		mainly Iron Age with some Wadi Suq
	5.80-5.60		entirely Wadi Suq
115/122	3.80-3.60		all Iron Age
	4.00-3.80		almost all Iron Age
	4.20-4.00		all Iron Age
	4.40-4.20		all Iron Age
	4.60-4.40		all Iron Age
	4.80-4.60		all Iron Age
	5.00-4.80		all Iron Age
	5.20-5.00		all Iron Age
	5.40-5.20		mixed Iron Age and Wadi Suq
	5.60-5.40		all Wadi Suq
115/127	4.80-4.60		all Iron Age
	5.00-4.80		mixed Iron Age and Wadi Suq
	5.20-5.00		mixed Iron Age and Wadi Suq
	5.40-5.20		mixed Wadi Suq and Iron Age
	5.60-5.40		all Wadi Suq
	5.80-5.60	48	mainly Wadi Suq but with some Iron Age?
	5.80-5.60		mixed Iron Age, Wadi Suq and Umm an-Nar
	6.00-5.80	48	mainly Wadi Suq
	6.20-6.00		mixed Wadi Suq and Iron Age
	6.20-6.00	48	mixed Wadi Suq and Iron Age
	6.40-6.20		all Wadi Suq except TA 1512
	6.40-6.20	48	Wadi Suq
	6.60-6.40		all Wadi Suq
	6.80-6.60	48	all Wadi Suq
	6.80-6.60		all Wadi Suq
	7.00-6.80		all Wadi Suq
	7.00-6.80	48	all Wadi Suq
	7.20-7.00		mainly Wadi Suq with some Umm an-Nar
	7.20-7.00	48	all Wadi Suq
	7.40-7.20		mainly Wadi Suq with some Umm an-Nar
	7.40-7.20	48	mixed Wadi Suq and?
	7.60-7.40		mainly Umm an-Nar
	7.80-7.60	48	all Wadi Suq
	7.80-7.60		mainly Umm an-Nar with some Wadi Suq
115/127	7.77	65	all Umm an-Nar, thin and thick, well-fired, body sherds
	8.00-7.80	48	mainly Wadi Suq
	8.00-7.80		mixed Umm an-Nar and Wadi Suq plain sherds
	8.20-8.00		all Umm an-Nar, mainly small, thick, smooth, hard-fired body sherds, some red slipped

	8.20-8.00	48	mixed Umm an-Nar and Wadi Suq plain body sherds
	8.40-8.20	48	mainly Wadi Suq
	8.80-8.60	48	all Wadi Suq
115/132	5.60-5.40		all Iron Age
	5.80-5.60		almost all Iron Age
	6.00-5.80		mainly Iron Age
	6.00-5.80		mixed, mainly Iron Age
	6.20-6.00		mixed Iron Age and Wadi Suq
	6.20-6.00	38	mixed Iron Age and Wadi Suq
	6.40-6.20		all Wadi Suq
	6.60-6.40		all Wadi Suq
	6.80-6.60		all Wadi Suq
	7.00-6.80		all Wadi Suq
115/137	6.00-5.80		mainly Iron Age
	6.20-6.00		almost all Iron Age
	6.40-6.20		all Iron Age
	6.40-6.20	s. and n.	all Iron Age
	6.60-6.40	n. of 40	all Iron Age
	6.60-6.40	s. of 40	mainly Iron Age with some Wadi Suq
	6.80-6.60	45	mainly Iron Age
	6.80-6.60	s. of 40	mixed Iron Age and Wadi Suq, probably more of the former
	6.80-6.60	n. of 40	mainly Iron Age
	7.00-6.80	45	mixed Iron Age and Wadi Suq, possibly more Iron Age plain body sherds, and at least one unregistered x-incised cordon fragment
	7.00-6.80	s. of 40	all Wadi Suq plain body sherds
	7.00-6.80	n. of 40	mainly Wadi Suq plain body sherds
115/142	topsoil		all Iron Age
	6.60-6.40		all Iron Age
	6.80-6.60		all Iron Age
	6.80-6.60	s. of 40	mixed Iron Age and Wadi Suq
	7.00-6.80		mainly Iron Age with some ed-Dur black-ridged
	7.00-6.80	39	Iron Age
115/142	7.00-6.80	41	Iron Age with at least one ed-Dur black-ridged sherd
	7.00-6.80	44	all Iron Age
	7.20-7.00		all Iron Age
	7.40-7.20		all Iron Age
	7.60-7.40		Iron Age with some later admixture, possibly ed-Dur to medieval (Julfar ware)
118-20/142-147	7.80-7.60		very few sherds, mainly undistinguished dy frags., mixed Iron Age (?) and Wadi Suq, but nothing really diagnostic
	8.00-7.80		mainly Wadi Suq, possibly some plain Iron Age body sherds, and at least one small fine Umm an-Nar body sherd, undecorated
	8.20-8.00		mixed Iron Age, Wadi Suq, and Umm an-Nar
	8.40-8.20		mainly Wadi Suq
	8.80-8.60		mainly Wadi Suq
	8.80-8.60		mainly Wadi Suq
	9.00-8.80		mainly Wadi Suq
	9.20-9.00		mainly Wadi Suq with some Umm an-Nar
	9.40-9.20		entirely Wadi Suq
	9.60-9.40		mainly Wadi Suq with some Umm an-Nar

	9.80-9.60		mainly Wadi Suq
	10.00-9.80		mainly Wadi Suq
115/147	topsoil		mixed ed-Dur and Iron Age
		42	entirely Iron Age
		43	Iron Age and some Wadi Suq, very few sherds
	7.20-7.00		lots of coarse ware, equally ed-Dur and Iron Age
	7.40-7.20		great deal of ed-Dur black-ridged with some Iron Age
	7.60-7.40		mainly Iron Age
	7.80-7.60		mainly Iron Age, and even the ed-Dur attributions may actually be Iron Age
125/132	6.00-5.80		all Iron Age
	6.20-6.00		all Iron Age
	6.40-6.20		all Iron Age
	6.60-6.40		all Iron Age
	6.80-6.60		mainly Iron Age
	7.00-6.80		mixed Iron Age and Wadi Suq
120/134.5-137	5.80-5.60		all Iron Age
	6.00-5.80		mainly Iron Age
	6.20-6.00		mixed Iron Age and Wadi Suq
129/134.5-137	6.60-6.40		mixed Iron Age and Wadi Suq
	7.00-6.80		mixed Iron Age and Wadi Suq
120/137-120/140	6.40-6.20		all Iron Age
	6.60-6.40		all Iron Age
	6.80-6.60		mainly Iron Age
	7.00-6.80		mixed Iron Age and Wadi Suq
	7.20-7.00		mainly Iron Age

Catalogue of Smallfinds Excavated at Tell Abraq in 1990 arranged by Square and Elevation (numbers following levels are loci)

Square	Elevation	Coordinates	Object	Material	Dimensions (cms.)	TA
115/107	.64	118.80/107.50	fragment	iron	3.8 × 1.9 × 1.4	628
115/107	1.95	116.80/160.40	grinding stone fragment	stone	11 × 14 × 4	149
115/107	1.97	117.40/108.40	grinding stone fragment	stone	11.5 × 10.5 × 3.0	150
115/107	2.10	117.70/109.65	grinding stone fragment	stone	15 × 16 × 6.5	151
115/107	2.28	116.15/111.30	fragment	bronze	0.9 × 0.8 × 0.1	303
115/107	2.37	116.70/109.92	hammerstone	stone	4.6 × 5.6 × 4.6	325
115/107	2.39	116.67/108.03	grinding stone fragment	stone	7.3 × 3.8 × 3	307
115/107	2.40-2.20		awl	bone	6 × 1.4 × 1	593
115/107	2.46	117.02/108.17	fragment	bronze	0.8 × 0.4 × 0.3	308
115/107	2.53	115.80/109.10	grinding stone fragment	stone	8.9 × 5.7 × 5.7	327
115/107	2.57	116.44/111.06	fragment	bronze	0.3 × 0.9 × 0.2	310
115/107	2.74	118.24/111.10	bar	bronze	14 × 0.6	248
115/107	2.74	118.25/110.70	grinding stone fragment	stone	10.5 × 8.5 × 2.5	249
115/107	2.74		grinding stone fragment	stone	10 × 6.5 × 4.5	250
115/107	2.80		fragment	bronze	1.3 × 0.7	260
115/107	2.80	118.60/109.50	grinding stone fragment	stone	11.5 × 7 × 3	261
115/107	2.80	118.10/109.80	unidentified	bronze	2 × 1.4	266
115/107	2.83	116.22/108.37	hammerstone	stone	9.8 × 3.3 × 3.2	334
115/107	2.83	117.00/109.40	fragment	stone	3.1 × 2 × 1.7	514
115/107	2.85	116.40/108.60	hammerstone	stone	3.1 × 3.5 × 2.9	333
115/107	2.88	117.23/109.00	fragment	steatite	11.5 × 4.3 × 0.9	335
115/107	2.95	118.25/109.30	fragment	bronze	2.4 × 1 × 0.2	267
115/107	2.95	118.49/110.20	grinding stone fragment	stone	3.7 × 4.1 × 2.7	375
115/107	2.96, 51	116.35/109.65	hammerstone	stone	4.3 × 5 × 4.6	539
115/107	2.98	118.25/108.20	fragment	bronze	0.5 × 0.4 × 0.1	270
115/107	3.00-2.80B		nodule	bronze	2.1 × 1.8 × 0.4	264
115/107	3.00-2.80B		fragment	bronze	1.1 × 0.4	336
115/107	3.00-2.80B		fragment	bronze	1.3 × 0.5	337
115/107	3.00-2.80B		grinding stone fragment	stone	5.4 × 2.4 × 2.4	339
115/107	3.00	119.24/110.05	groundstone	stone	16 × 16.5 × 4	302
115/107	3.02	116.18/109.00	fragment	steatite	6.2 × 7.2 × 2.2	494
115/107	3.03	119.50/107.40	grinding stone fragment	stone	24.5 × 10.9 × 6.3	372
115/107	3.04	118.16/109.04	fragment	bronze	2.8 × 0.7 × 0.4	315
115/107	3.05	119.18/109.25	fragment	bronze	1.7 × 0.7 × 0.6	301
115/107	3.05	117.90/109.14	fragment	bronze	3.1 × 0.3	340
115/107	3.05	119.44/110.36	fragment	bronze	1.9 × 0.5 × 0.1	378
115/107	3.10	116.40/107.60	polisher	stone	6.7 × 4.3 × 2.5	502
115/107	3.11	118.90/111.68	grinding stone fragment	stone	5.8 × 3.6 × 1.2	377
115/107	3.17	116.05/108.36	pyramid	stone	1.7 × 2.1 × 1.8	501

115/107	3.20	119.40/110.56	slag?	bronze	1.4 × 1.0	306
115/107	3.20	119.73/110.60	fragment	bronze	1.6 × 2.9	393
115/107	3.28	117.47/107.20	shell crusher	stone	6.7 × 4.5 × 3.2	510
115/107	3.29	119.60/111.77	fragment	bronze	0.4 × 0.4	443
115/107	3.35	116.26/108.43	cube	stone	3.5 × 3.6 × 2.9	511
115/107	3.35	118.00/108.46	grinding stone fragment	stone	4.2 × 2.9 × 1.2	513
115/107	3.36	115.74/107.41	sherd	steatite	7.3 × 6.1 × 1.1	509
115/107	3.48	118.07/107.52	grinding stone fragment	stone	5.4 × 4.3 × 5.9	520
115/107	3.56, 51	117.40/109.20	fragment	bronze	1.2 × 1.4 × 1.3	552
115/107	3.60	115.90/107.50	grinding stone fragment	stone	9.3 × 6.4 × 2.7	518
115/107	4.00, 64	118.90/107.45	fragment	iron	7.7 × 3.3 × 1.6	627
115/107	4.00, 64	118.80/107.50	fragment	iron	1.6 × 1.8 × 1	629
115/107	4.10, 64	118.50/107.25	fragment	shell	4.4 × 3.4 × 0.5	630
115/107	3.20-3.00	e. of 51	bird head (?) from a pin	bronze	2 × 1.7 × 0.9	456
115/112	1.91	115.60/112.23	whetstone	stone	2.4 × 2.6 × 2.2	416
115/112	2.11	115.40/113.35	pestle fragment	stone	5.2 × 2.0 × 1.4	153
115/112	2.20	115.52/114.13	fragment	bronze	0.8 × 0.7 × 0.2	154
115/112	2.23	116.87/112.03	grinding stone fragment	stone	4.5 × 3.7 × 2.4	489
115/112	2.28	116.10/115.09	grinding stone fragment	stone	27 × 32 × 11.5	230
115/112	2.49	115.54/113.70	groundstone	stone	3.4 × 1.7 × 1.8	268
115/112	2.75	118.30/115.10	fragment	iron	7.5 × 2.5 × 0.5	258
115/112	2.75	115.96/112.50	unidentified	bronze	2.7 × 1.3 × 0.4	263
115/112	2.78	115.65/112.50	fragment	bronze	2.2 × 1.8 × 0.4	262
115/112	2.80	118.04/114.50	fragment	iron	9.3 × 3.2 × 2.2	274
115/112	2.92	116.30/113.80	whetstone	stone	7.2 × 3 × 1.2	271
115/112	3.00	115.60/115.20	grinding stone fragment	stone	12 × 6.5 × 2	269
115/112	3.00	118.31/113.71	fragment	bronze	1.7 × 1.4 × 0.9	304
115/112	3.00	117.46/114.00	spearhead fragment	iron	13.8 × 3.1	311
115/112	3.00, 49	118.45/114.55	spear fragment	iron	1.6	344
115/112	3.00, 49	118.45/114.40	spear fragment	iron	3.4 × 1.1	345
115/112	3.00, 49	118.30/114.40	spearhead fragment	iron	4 × 2.4 × 2.4	346
115/112	3.00, 49	117.85/114.00	spearhead	bronze	12.5 × 2.5 × 2.1	347
115/112	3.00, 49		grinding stone fragment	stone	8.4 × 6.1 × 2.9	348
115/112	3.04	115.64/115.80	sherd	steatite	3.1 × 2.9 × 2.2	459
115/112	3.08	116.36/114.76	fragment	steatite	5.5 × 2.1 × 1.3	475
115/112	3.08, 55	115.58/114.60	grinding stone fragment	stone	5 × 3.3 × 2.6	467
115/112	3.09	119.23/112.55	grinding stone fragment	stone	5 × 7.3 × 3.4	371
115/112	3.10	118.70/114.50	grinding stone fragment	stone	22 × 11.5 × 3.4	364
115/112	3.10	118.66/112.63	slag?	bronze	1.6 × 1.1 × 0.5	370
115/112	3.11	117.52/113.20	fragment	bronze	1.3 × 0.8 × 0.6	374
115/112	3.12	117.47/116.26	grinding stone fragment	stone	6.8 × 6.2 × 6	363
115/112	3.13	118.80/112.25	fragment	bronze	3 × 1.1 × 0.3	431
115/112	3.14	117.07/114.28	slag?	bronze	2.3 × 1.4 × 1.5	369
115/112	3.20	119.78/112.55	pestle	stone	11.5 × 5.6 × 5.5	442
115/112	3.30	119.80/115.00	fragment	bronze	0.9 × 1 × 0.3	390
115/112	3.30	118.75/116.40	vessel	steatite	9.4 × 9.1 × 0.6	392
115/112	3.33	115.63/115.71	hammerstone	stone	7.3 × 5.6 × 3	490
115/112	3.44	118.40/113.43	fragment	bronze	1.4 × 0.7	414
115/112	3.47, 53	119.30/114.11	beads	stone	0.4 × 0.4	455
115/112	3.50	115.30/115.43	arrowhead	bronze	3.3 × 0.9 × 0.3	587
115/112	3.60	119.38/115.00	vessel fragment	bronze	17 × 10 × 0.6	387
115/112	3.60	116.86/113.10	grinding stone fragment	stone	3.8 × 3.5 × 3	586
115/112	3.60, 52	118.10/113.70	fragment	bronze	0.7 × 0.7 × 0.2	601
115/112	3.64	118.34/112.90	fragment	bronze	0.8 × 0.5 × 0.2	624
115/112	3.66	119.34/116.66	grinding stone fragment	stone	6 × 5 × 4.3	611

115/112	3.70	120.00/113.80	arrowhead	bronze	4.5 × 1.8 × 0.5	652
115/112	3.80, 59	117.32/115.34	fragment	bronze	1.4 × 1 × 0.3	506
115/112	3.88	117.24/113.30	grinding stone fragment	stone	5.5 × 4.5 × 4.9	635
115/112	3.90	118.00/113.90	grinding stone fragment	stone	6.4 × 4.6 × 5.1	634
115/112	3.95	118.10/115.60	fragment	bronze	0.6 × 0.4	637
115/112	4.10	117.13/116.30	fragment	bronze	0.5 × 0.4	512
115/112	4.10	117.38/116.40	fragment	bronze	0.7 × 0.3	529
115/112	4.10	115.30/114.76	grinding stone fragment	stone	10 × 6 × 3.9	649
115/112	4.10	115.78/114.30	grinding stone fragment	stone	6.7 × 5.1 × 4	650
115/112	4.18	117.79/115.12	fragment	bronze	1.5 × 0.2	653
115/112	4.20	117.63/114.90	fragment	bronze	0.8 × 0.5	656
115/112	4.27	117.44/115.90	fragment	bronze	1.9 × 1.5 × 0.4	659
115/112	4.58	115.60/115.30	fragment	steatite	5.5 × 3.5 × 0.6	663
115/112	4.58, 61	117.40/114.80	scraper	stone	7.9 × 5 × 3	668
115/112	4.68, 61	115.28/113.04	sherd	steatite	6.7 × 6 × 1	669
115/112	4.91, 61	116.30/115.14	bowl	steatite	10 × 7.9 × 7	674
115/112	3.20-3.00B		rim sherd	stone	6 × 1.8 × 2.1	376
115/112	3.20-3.00B, 55		fragment	bronze	1.1 × 0.8 × 0.4	468
115/112	3.20-3.00B, 55		fragment	bronze	1.7 × 0.4	471
115/112	4.00-3.80B		fragment	steatite	5.8 × 3.7 × 1.2	662
115/117	2.80	115.60/117.50	arrowhead	bronze	5.6 × 0.4	353
115/117	2.84	115.85/119.90	fragment	bronze	1.5 × 1.05 × 0.4	157
115/117	2.85	115.25/117.55	disk	stone	3.5 × 3.7 × 1.0	155
115/117	2.98	116.50/118.31	fragment	bronze	0.9 × 1.0 × 0.3	160
115/117	3.00	115.35/117.95	fragment	bronze	1.3 × 0.5 × 0.4	161
115/117	3.02	117.30/118.35	worked fragment	stone	4.3 × 1.2 × 0.6	162
115/117	3.14	115.90/115.30	grinding stone fragment	stone	8.6 × 6.3 × 4.5	355
115/117	3.30	116.15/119.50	grinding stone fragment	stone	16 × 5.5 × 4.5	166
115/117	3.39	116.80/121.59	fragment	steatite	3.9 × 4.1 × 0.4	503
115/117	3.40	118.00/117.50	bowl	steatite	10.5 × 8.3 × 1.3	673
115/117	3.42	116.75/120.45	shell crusher	stone	9 × 7 × 4.5	172
115/117	3.54	119.38/117.50	grinding stone fragment	stone	4.6 × 5.3 × 4.8	354
115/117	3.56	118.70/118.35	groundstone	stone	9 × 7.5 × 1.2	182
115/117	3.60	115.35/118.16	grinding stone fragment	stone	8 × 6.5 × 7	212
115/117	3.63	116.77/121.50	grinding stone fragment	stone	4.5 × 3 × 2.1	199
115/117	3.80	118.00/120.60	grinding stone fragment	stone	17 × 12.5 × 3	227
115/117	3.90	117.70/120.70	groundstone	stone	17 × 16 × 6	225
115/117	3.90	116.70/119.56	slag?	bronze	3.5 × 2.5	226
115/117	4.04	119.20/118.40	ore	copper	1 × 1.6	236
115/117	4.08	119.35/117.71	pin	bronze	9 long	228
115/117	4.10, 37	116.54/117.63	grinding stone fragment	stone	8.3 × 6.6 × 3.5	463
115/117	4.11	115.05/121.37	fragment	bronze	0.5 × 0.6	240
115/117	4.17, 37	116.06/118.79	fragment	stone	8.6 × 6.5 × 2.3	466
115/117	4.25, 48	119.25/120.84	grinding stone fragment	stone	7.7 × 5 × 5.4	351
115/117	4.30	119.80/117.73	grinding stone fragment	stone	4.5 × 3.2 × 2.9	361
115/117	4.30, 37	116.46/118.22	fragment	steatite	3.7 × 3.3 × 2.1	473
115/117	4.37	115.42/120.70	grinding stone fragment	stone	7.6 × 4.3 × 2.7	424
115/117	4.39	119.05/120.50	grinding stone fragment	stone	7.3 × 7.4 × 5.0	362
115/117	4.39	118.70/118.53	fragment	bronze	1.6 × 0.8 × 0.5	365
115/117	4.40	118.46/118.90	bead?	steatite	2.1 × 0.7	360
115/117	4.40	118.50/119.60	bead	stone	0.8 × 1	356
115/117	4.40, 37	115.20/117.89	hammerstone	stone	7.5 × 3.9 × 3.9	482
115/117	4.43, 37	115.50/118.13	grinding stone fragment	stone	8.4 × 2.8 × 3.7	481
115/117	4.45	119.10/118.80	whetstone	stone	9.2 × 6.9 × 2.6	218
115/117	4.47	119.00/120.30	grinding stone fragment	stone	9.5 × 4 × 2.6	382

115/117	4.48	118.73/120.10	fragment	bronze	1.7 × 0.3	373
115/117	4.49	118.90/120.23	hammerstone	stone	8.3 × 3 × 3.2	383
115/117	4.53	119.15/119.22	slag?	bronze	1.6 × 1.2 × 0.8	381
115/117	4.56, 37	116.18/118.34	borer	flint	3.9 × 0.8 × 1	487
115/117	4.60	118.80/120.80	loomweight or netsinker	clay	4.7 × 1.1	368
115/117	4.63	119.93/119.36	grinding stone fragment	stone	6.5 × 4.5	238
115/117	4.69	119.88/118.72	whetstone	stone	3.8 × 4.6 × 1.5	280
115/117	4.75	116.40/121.00	fragment	bronze	1.1 × 0.8	389
115/117	4.81	116.27/121.50	fragment	bronze	1.4 × 1.2	404
115/117	4.85, 61	115.30/118.30	pin	bronze	4.8 × 0.7	568
115/117	4.86	116.96/120.34	fragment	bronze	0.7 × 0.8	407
115/117	4.87	116.91/121.55	pin fragment	bronze	6 × 0.6	406
115/117	4.89	115.85/121.75	groundstone	stone	7.3 × 6.6 × 2.4	412
115/117	4.90	117.05/121.02	fragment	bronze	0.8 × 0.4	408
115/117	4.90	118.53/121.67	fragment	stone	8.4 × 3.5 × 1.6	419
115/117	4.90	115.70/120.81	fragment	bronze	0.5 × 0.6	500
115/117	4.93	118.20/121.02	fragment	bronze	1.5 × 0.9 × 0.8	292
115/117	4.94	115.82/121.10	grinding stone fragment	stone	4.9 × 3.7 × 1.2	411
115/117	4.94	117.67/119.76	grinding stone fragment	stone	3.5 × 2.6 × 4	415
115/117	4.94	116.30/119.70	grinding stone fragment	steatite	10.1 × 3.7 × 2.6	499
115/117	4.95	118.47/121.83	loomweight	clay	3.7 dia., 1.1 thick	420
115/117	4.96	115.87/120.90	slab fragment	stone	7.5 × 5.6 × 1.7	405
115/117	4.99	119.70/119.38	fragment	bronze	0.9 × 0.6 × 0.5	418
115/117	4.99	118.90/120.60	fragment	bronze	3.4 × 1.8 × 1.4	423
115/117	5.00, 61	115.72/118.30	grinding stone fragment	stone	4 × 4.6 × 1.8	571
115/117	5.01	116.24/121.85	grinding stone fragment	stone	13.5 × 6.7 × 4.3	291
115/117	5.02	117.16/119.70	grinding stone fragment	stone	7.5 × 5.2 × 3.7	429
115/117	5.06	117.55/120.20	fragment	bronze	1.2 × 1.3 × 0.7	427
115/117	5.07	116.75/120.75	grinding stone fragment	stone	4.9 × 4.7 × 2.7	425
115/117	5.10	116.80/120.52	hammerstone	stone	9.2 × 5.4 × 5.6	426
115/117	5.12	117.50/120.24	whetstone	stone	3.6 × 3.3 × 1.8	428
115/117	5.14	119.60/118.90	pendant	steatite	3 × 2.2 × 0.6	440
115/117	5.20	119.47/118.81	pendant	steatite	2.8 × 2.1 × 0.4	439
115/117	5.28	119.50/119.42	fragment	bronze	0.6	441
115/117	5.34	116.70/121.70	grinding stone fragment	stone	8.5 × 7 × 4.6	498
115/117	5.34	117.52/119.75	whetstone	stone	5.9 × 3.1 × 1.2	504
115/117	5.34	117.52/119.75	fragment	steatite	5.9 × 3.1 × 1.2	505
115/117	5.38	119.46/119.30	fragment	bronze	0.5 × 0.4	507
115/117	5.40	118.56/119.57	fragment	bronze	1.2 × 0.4	508
115/117	5.53	118.60/119.52	fragment	bronze	4.5 × 4.2 × 1.7	524
115/117	5.79	119.40/119.28	fragment	bronze	1 × 0.4	537
115/117	6.50	116.94/132.64	fragment	bronze	2.5 × 1.3	409
115/117	3.20-3.00B		fragment	bronze	0.7 × 1.3 × 0.5	164
115/117	3.60-3.40B		fragment	bronze	1 × 0.5 × 0.2	190
115/117	3.60-3.40B		whetstone	stone	6 × 3 × 1	191
115/117	3.60-3.40B		grinding stone fragment	stone	9.5 × 12 × 4.2	198
115/117	4.00-3.80B		whetstone	stone	2.5 × 1.5 × 1.3	231
115/117	4.40-4.20B		point	bone	4.1 × 0.9 × 0.3	577
115/117	4.80-4.60B		fragment	steatite	4.2 × 2.9 × 0.5	294
115/117	4.80-4.60B		fragment	bronze	1.6 × 2.3 × 1.2	395
115/117	4.80-4.60B		fragment	bronze	1.6 × 2.3 × 1.2	396
115/122	4.08	116.73/125.00	shell crusher	stone	7 × 6 × 2.5	186
115/122	4.14	119.30/123.00	grinding stone fragment	stone	35 × 33 × 4	197
115/122	4.17	119.61/122.84	hammerstone	stone	6.5 × 4.5 × 2.8	167
115/122	4.26	116.61/122.73	hammerstone	stone	4 × 4 × 2.5	194

115/122	4.26	118.63/123.16	hammerstone	stone	6.5 × 5.5 × 4.5	195
115/122	4.26	119.30/123.03	grinding stone fragment	stone	10.6 × 9 × 2.3	196
115/122	4.29	116.45/124.20	grinding stone fragment	stone	17 × 10.5 × 5	181
115/122	4.30	117.40/124.54	core	flint	2.5 × 3.5 × 2.5	189
115/122	4.31	115.84/124.17	whetstone	stone	3.5 × 3.1 × 1.5	180
115/122	4.31	115.79/123.30	whetstone	stone	7.2 × 3.5 × 0.8	183
115/122	4.31	115.62/124.00	whetstone	stone	4.5 × 2.5 × 2.5	184
115/122	4.33	117.30/117.54	whetstone	stone	10 × 5 × 0.6	241
115/122	4.35	115.35/122.93	hammerstone	stone	4.5 × 4 × 2	178
115/122	4.35	116.12/124.30	whetstone	stone	5.0 × 5.2 × 1.1	179
115/122	4.35	115.89/124.00	whetstone	stone	2.8 × 3.1 × 1.5	188
115/122	4.35	115.50/126.00	groundstone	stone	5 × 4	213
115/122	4.39	116.05/126.85	unidentified	stone	2 × 1.5 × 1.5	200
115/122	4.40	116.44/124.79	loom weight	clay	4 × 4.5 × 0.5	193
115/122	4.44	118.10/122.71	net sinker	stone	5 × 6 × 1	206
115/122	4.46	116.75/126.60	grinding stone fragment	stone	5.5 × 4.5 × 4	220
115/122	4.47	116.90/126.60	grinding stone fragment	stone	9 × 4.5 × 3.5	219
115/122	4.47	116.70/126.80	whetstone	stone	7.5 × 7.5 × 1.5	222
115/122	4.48	117.62/122.77	whetstone	stone	5.5 × 2.5 × 1.5	205
115/122	4.48	117.00/126.5	grinding stone fragment	stone	7.5 × 3.5 × 2.3	221
115/122	4.51	115.76/126.90	whetstone	stone	16.5 × 4.5 × 2	217
115/122	4.53	115.15/123.17	whetstone	stone	11 × 2 × 1	208
115/122	4.56	118.00/124.50	whetstone	stone	9.5 × 5 × 2	209
115/122	4.62	116.74/124.00	hammerstone	stone	5 × 6 × 4	211
115/122	4.63	118.73/123.40	hammerstone	stone	4.5 × 4	229
115/122	4.74	115.86/123.63	grinding stone fragment	stone	4.1 × 4.5 × 2.4	223
115/122	4.74	115.86/124.67	hammerstone	stone	4 × 4.5 × 3.5	224
115/122	4.82	115.18/122.90	fragment	bronze	1.8 × 1.5 × 0.6	242
115/122	4.83	118.60/122.69	grinding stone fragment	stone	9.4 × 6 × 3.5	244
115/122	4.86	119.10/122.61	grinding stone fragment	stone	5.5 × 3.5	246
115/122	4.92	118.70/123.73	hammerstone	stone	5.5 × 4.5 × 4	243
115/122	4.95	117.40/122.97	grinding stone fragment	stone	11.5 × 5.5 × 7	245
115/122	4.97	118.25/123.86	bead	stone	1.8 × 1.8	247
115/122	5.00	115.72/125.00	grinding stone fragment	stone	31 × 14.5	265
115/122	5.10	119.95/126.50	lid	steatite	5 × 4.7 × 1	273
115/122	5.17	119.42/126.15	fragment	bronze	1 × 1	300
115/122	5.20	118.00/123.69	fragment	bronze	1.5 × 1	259
115/122	5.27	115.29/122.98	slag?	bronze	1 × 0.8	277
115/122	5.33	119.32/123.21	shell crusher	stone	10.5 × 6.5 × 5	288
115/122	5.37	118.36/122.70	fragment	stone	6 × 4 × 3.3	285
115/122	5.43	119.40/126.60	stamp seal	stone	2.1 × 2.1 × 1.8	299
		(in posthole)				
115/122	5.45	115.74/123.12	grinding stone fragment	stone	16 × 7.5 × 4.4	298
115/122	5.00-4.80		whetstone	stone	5.7 × 4.5 × 1.4	257
115/127	5.00-4.80		grinding stone fragment	stone	7 × 8.2 × 1.9	275
115/127	5.00-4.80		grinding stone fragment	stone	10 × 3.5 × 3.6	276
115/127	48 cleaning		grinding stone fragment	stone	3.8 × 2.7 × 2.1	623
115/127	5.00	115.81/127.98	fragment	bronze	2.5 × 2 × 0.7	278
115/127	5.21	117.43/134.23	hammerstone	stone	5.5 × 4.5 × 3.5	289
115/127	5.23	116.02/129.58	bead	stone	1 × 0.8 × 0.6	295
115/127	5.25	119.36/131.70	grinding stone fragment	stone	5.2 × 3.3 × 2.6	297
115/127	5.47	117.35/129.00	fragment	bronze	1.7 × 0.3	349
115/127	5.58	116.09/131.48	hammerstone	stone	7.3 × 6.8 × 2.6	309
115/127	5.74	119.48/128.02	fragment	steatite	10.8 × 5.1 × 2.3	379
115/127	5.81, 49	116.32/130.09	hammerstone	stone	6.7 × 3.7 × 3.8	316

115/127	6.08	118.52/130.15	fragment	bronze	0.8 × 0.9	410
115/127	6.10	117.45/129.10	pin fragment	bronze	4 × 0.5	413
115/127	6.23, 54	117.30/128.30	hammerstone	stone	9.3 × 6.9 × 4.2	432
115/127	6.23, 54	117.30/128.30	hammerstone	stone	5.9 × 5.9 × 4.3	433
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	9.2 × 7.5 × 4.9	434
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	6.9 × 6.5 × 4.8	435
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	8.8 × 7.5 × 3.7	436
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	6.8 × 4.7 × 4.2	437
115/127	6.23, 54	117.30/128.30	hammerstone	stone	6.8 × 6 × 4	438
115/127	6.32	118.91/130.68	fragment	bronze	1.2 × 1.1 × 0.7	458
115/127	6.33	118.00/130.25	bead	stone	1.7 × 0.6	454
115/127	6.34	117.21/131.16	pin	bronze	1.5 × 0.5	457
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	8.4 × 6 × 4.4	444
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	15.1 × 7.5 × 3.8	445
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	11.2 × 6.4 × 11.5	446
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	9.7 × 6.8 × 2.9	447
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	4.9 × 5.4 × 5.9	448
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	5.2 × 4.6 × 3.4	449
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	5.7 × 4.7 × 2.3	450
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	4 × 3.8 × 1.8	451
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	5.4 × 5.9 × 6.5	452
115/127	6.36, 54	117.30/128.30	hammerstone	stone	4.2 × 3.4 × 3.1	453
115/127	6.40	115.83/131.70	grinding stone fragment	stone	8.3 × 5.2 × 3.4	460
115/127	6.44, 48	116.00/129.40	hammerstone	stone	4.9 × 5.4 × 6.1	328
115/127	6.49	118.96/128.78	grinding stone fragment	stone	7.1 × 5 × 3	465
115/127	6.55	119.70/130.70	grinding stone fragment	stone	9.2 × 4.6 × 3.2	478
115/127	6.57	119.29/128.24	grinding stone fragment	stone	6.7 × 5.2 × 3.5	472
115/127	6.60	117.65/128.11	grinding stone fragment	stone	9.4 × 4.9 × 2.5	479
115/127	6.61	118.00/131.45	hammerstone	stone	8.7 × 6.5 × 4.2	533
115/127	6.62	119.61/130.26	polisher	stone	5.7 × 4 × 3.5	480
115/127	6.64	117.20/130.29	pendant	stone	2.2 × 1.9 × 1.9	519
115/127	6.64	117.20/130.86	hammerstone	stone	7 × 6.2 × 3.8	526
115/127	6.65	118.95/131.30	fragment	stone	5.3 × 4 × 4	534
115/127	6.66	115.16/130.85	fragment	bronze	0.6 × 0.5	485
115/127	6.67	119.70/127.78	grinding stone fragment	stone	4.6 × 3.4 × 2.7	521
115/127	6.67	119.69/127.81	fragment	steatite	4.7 × 2.9 × 1	522
115/127	6.67	119.88/127.73	fragment	stone	6.2 × 3 × 1.3	523
115/127	6.70, 48	115.77/129.62	whetstone	stone	2.8 × 2.5 × 0.7	486
115/127	6.77	117.08/131.00	fragment	bronze	1.8 × 1.8 × 0.5	528
115/127	6.78	117.00/128.60	whetstone	stone	11 × 3.5 × 3	515
115/127	6.78	119.27/129.34	fragment	bronze	1.5 × 0.7	525
115/127	6.78	118.08/130.93	grinding stone fragment	stone	5 × 5.3 × 2.3	531
115/127	6.80	117.30/129.05	grinding stone fragment	stone	4.4 × 4.5 × 3.4	516
115/127	6.80	118.07/128.44	grinding stone fragment	stone	3.4 × 3.3 × 3.3	517
115/127	6.80	117.42/129.95	grinding stone fragment	stone	8.3 × 6 × 3	532
115/127	6.83	118.52/131.10	fragment	bronze	3.6 × 0.6	554
115/127	6.83	119.44/131.56	hammerstone	stone	5.7 × 6.8 × 2.5	567
115/127	6.85	119.80/128.80	grinding stone fragment	stone	5.7 × 4.3 × 3.9	538
115/127	6.85	119.80/128.85	grinding stone fragment	stone	8.4 × 7.6 × 4.6	541
115/127	6.86	119.60/129.18	grinding stone fragment	stone	18 × 15 × 4.8	544
115/127	6.87	117.02/130.78	grinding stone fragment	stone	7.2 × 5.1 × 4.2	559
115/127	6.88	118.80/130.37	hammerstone	stone	4.9 × 5.4 × 3.1	555
115/127	6.90	117.74/130.80	grinding stone fragment	stone	5.5 × 5 × 2.6	558
115/127	6.90	117.77/131.23	grinding stone fragment	stone	5.1 × 4.2 × 3.5	560
115/127	6.90	119.57/130.90	hammerstone	stone	5 × 4.3 × 4.9	566

115/127	6.90	119.69/131.50	hammerstone	stone	7 × 4.2 × 1.8	569
115/127	6.92	118.45/128.93	grinding stone fragment	stone	7.8 × 8.2 × 5.5	545
115/127	6.92	117.97/130.90	fragment	bronze	1.1 × 0.7	556
115/127	6.93	119.06/128.80	hammerstone	stone	7 × 5 × 4.5	543
115/127	6.93	119.30/130.10	grinding stone fragment	stone	5.2 × 4.1 × 2.3	565
115/127	6.94	128.67/134.94	pin	bronze	3.7 × 0.3	581
115/127	6.96	118.62/130.38	fragment	flint	3 × 1.5 × 0.5	557
115/127	6.97	118.00/130.14	grinding stone fragment	stone	9 × 5.3 × 4.4	553
115/127	6.97	116.68/128.40	lid	steatite	4.5 × 4.5 × 2.5	549
115/127	7.00-6.80		grinding stone fragment	stone	5.6 × 3.8 × 4.5	546
115/127	7.00-6.80		grinding stone fragment	stone	5 × 6 × 2.4	547
115/127	7.00	119.27/131.40	fragment	bronze	0.9 × 1.7 × 0.6	570
115/127	7.00	115.90/131.50	fragment	bronze	1.8 × 1.7 × 0.4	574
115/127	7.00	119.16/130.41	shell crusher	stone	6 × 4.8 × 3.6	575
115/127	7.05	117.22/129.55	hammerstone	stone	7 × 5.3 × 4.7	584
115/127	7.10	119.80/127.76	grinding stone fragment	stone	6 × 4.5 × 4.5	578
115/127	7.11	117.42/130.63	grinding stone fragment	stone	4.8 × 3 × 2.4	588
115/127	7.14	118.35/130.61	grinding stone fragment	stone	5.5 × 5 × 4	595
115/127	7.16	118.08/128.42	fragment	bronze	2 × 1.1 × 0.8	583
115/127	7.17	117.01/128.45	fragment	bronze	2.6 × 1.3	580
115/127	7.18	117.95/128.70	sherd	steatite	5.3 × 5.2 × 0.5	582
115/127	7.20	116.95/131.38	whetstone	stone	4.4 × 2.4 × 1.2	591
115/127	7.20	118.42/129.94	fragment	bronze	4.9 × 1.4 × 0.5	592
115/127	7.23	117.00/131.28	polisher	stone	6.3 × 5.5 × 3.4	602
115/127	7.28	116.86/131.69	hammerstone	stone	6.6 × 4.9 × 3.5	600
115/127	7.29	116.76/130.25	grinding stone fragment	stone	6.5 × 2.7 × 3.1	599
115/127	7.29	119.15/130.19	fragment	bronze	3.2 × 1.1	622
115/127	7.29	118.53/131.48	sherd	steatite	4.4 × 3.5 × 0.6	607
115/127	7.31	116.52/130.32	hammerstone	stone	7.8 × 4.2 × 3.8	608
115/127	7.32	117.44/131.53	hammerstone	stone	3.3 × 4.6 × 3	604
115/127	7.33	118.01/130.85	grinding stone fragment	stone	6.2 × 5.5 × 3.4	606
115/127	7.36	118.13/129.95	grinding stone fragment	stone	3.6 × 3.6 × 2.7	612
115/127	7.36	119.26/129.29	fragment	steatite	6 × 2.2 × 1.6	621
115/127	7.37	118.76/129.83	fragment	steatite	2.8 × 2.4 × 1.3	613
115/127	7.37	118.89/128.55	grinding stone fragment	stone	4.4 × 3.1 × 2.9	619
115/127	7.39	118.09/128.27	grinding stone fragment	stone	4.6 × 3.5 × 1.7	618
115/127	7.40	116.58/130.42	base sherd	steatite	3.2 × 5.7 × 1.3	
115/127	7.40	118.67/129.92	fragment	bone	3.8 × 2.1 × 1.3	614
115/127	7.40	118.29/129.21	lid	steatite	5.2 × 3.7 × 1.3	615
115/127	7.44	119.62/129.18	hammerstone	stone	3.4 × 3.2 × 2.5	640
115/127	7.56	116.63/128.70	grinding stone fragment	stone	4.3 × 2.7 × 2	632
115/127	7.58	118.60/127.84	grinding stone fragment	stone	3.9 × 3.3 × 3	639
115/127	7.64	118.37/127.97	grinding stone fragment	stone	5.7 × 6.4 × 3.5	636
115/127	7.64	118.79/129.15	sherd	steatite	6.2 × 4.8 × 0.8	646
115/127	7.67	117.25/130.89	grinding stone fragment	stone	4.5 × 3.7 × 3.5	643
115/127	7.71	117.68/130.65	fragment	bronze	0.9 × 0.6 × 0.3	644
115/127	7.71	118.61/127.78	grinding stone fragment	stone	7.8 × 6.5 × 1.8	647
115/127	7.77	118.41/128.55	fragment	flint	4.9 × 3.2 × 0.9	655
115/127	7.80	119.94/128.92	fragment	bronze	1.1 × 0.9 × 0.6	654
115/127	8.00-7.80		grinding stone fragment	stone	5.8 × 3.4 × 2	657
115/127	8.00-7.80		fragment	steatite	3.6 × 2.3 × 1.4	658
115/127	8.00	117.92/131.02	grinding stone fragment	stone	3.5 × 2.9 × 1.7	661
115/127	8.00	117.16/128.15	grinding stone fragment	stone	7.7 × 2.6 × 3.2	665
115/127	8.09	117.95/130.75	fragment	flint	3.2 × 3.6 × 1.2	666
115/127	8.10	115.93/128.77	hammerstone	stone	5.7 × 4 × 3.3	664

115/127	8.15	118.76/130.07	grinding stone fragment	stone	6.7 × 6.5 × 4.5	667
115/127	8.27, 48	115.34/130.49	fragment	bronze	2.7 × 1.3 × 0.4	670
115/127	8.40	117.39/131.82	debitage	flint	2.9 × 2.4 × 1	585
115/132	topsoil		fragment	bronze	1.5 × 0.4 × 0.3	203
115/132	5.20	119.04/131.30	hammerstone	stone	5 × 5 × 3	287
115/132	5.47	117.65/134.30	grinding stone fragment	stone	10.5 × 12 × 3.5	202
115/132	5.80-5.60		whetstone	stone	2.6 × 2.5 × 2.8	232
115/132	5.80-5.60		fragment	bronze	0.7 × 1.2 × 0.1	233
115/132	5.81	118.50/132.88	grinding stone fragment	stone	7.6 × 3.2 × 2.6	314
115/132	5.81, 38	116.00/132.66	fragment	bronze	3.3 × 0.5	237
115/132	5.85, 38	116.01/132.80	vessel base	stone	6.6 × 4.9 × 1.5	234
115/132	5.87, 38	115.57/133.16	grinding stone fragment	stone	6.8 × 9.8 × 7.2	235
115/132	5.89	119.38/132.88	grinding stone fragment	stone	4.2 × 3.4 × 2.1	313
115/132	5.91	119.37/132.97	grinding stone fragment	stone	4.5 × 3.7 × 2.1	312
115/132	5.97	117.05/134.27	grinding stone fragment	stone	4.8 × 6 × 4.8	330
115/132	6.09, 38	115.56/133.15	grinding stone fragment	stone	4 × 3.5 × 1.5	305
115/132	6.11	119.37/133.08	grinding stone fragment	stone	7.1 × 6.4 × 6.7	338
115/132	6.26	116.80/133.19	grinding stone fragment	stone	3.8 × 3.5 × 2.3	342
115/132	6.28	119.28/132.95	spout fragment	steatite	2.9 × 4.7 × 0.8	352
115/132	6.34	117.00/135.40	whetstone	stone	6 × 2.5 × 1.3	341
115/132	6.41	115.39/133.27	core fragment	flint	8.9 × 8.1 × 5.5	359
115/132	6.43	119.35/133.73	pin fragment	bronze	2.1 × 0.4	402
115/132	6.45	117.43/136.54	fragment	steatite	5 × 4.9 × 1.4	357
115/132	6.45	117.31/136.50	fragment	stone	6.3 × 4.2 × 2.7	358
115/132	6.45	115.82/132.76	bead?	bronze	0.7 × 0.6	398
115/132	6.45	119.42/134.00	whetstone	stone	5.1 × 2.9 × 1.3	403
115/132	6.46	116.60/136.01	grinding stone fragment	stone	3.4 × 3.9 × 2.8	384
115/132	6.50	118.69/133.86	grinding stone fragment	stone	8.1 × 5.9 × 4.4	397
115/132	6.51	117.85/132.81	grinding stone fragment	stone	3.8 × 2.9 × 2.2	421
115/132	6.60	116.70/135.65	whetstone	stone	4.7 × 1 × 1.3	386
115/132	6.60	116.48/136.43	whetstone	stone	4.5 × 2.3 × 1.4	388
115/132	6.60	117.80/135.90	grinding stone fragment	stone	7.1 × 3.7 × 2.4	394
115/132	6.60	118.14/133.65	fragment	bronze	1.4 × 1.2 × 0.4	401
115/132	6.61	117.30/135.00	fragment	bronze	1.4 × 1.1 × 0.5	422
115/132	6.80	115.23/133.45	grinding stone fragment	stone	5.4 × 3.9 × 2.1	366
115/132	6.83	115.20/132.85	sherd	steatite	7.8 × 3.4 × 0.5	380
115/137	5.90	117.23/133.67	grinding stone fragment	stone	5.3 × 3.7 × 4.7	322
115/137	5.93	115.45/139.82	grinding stone fragment	stone	72.5 × 27.5 × 5	204
115/137	5.93	117.40/133.70	grinding stone fragment	stone	5 × 4.3 × 2.6	323
115/137	5.98	115.62/138.62	grinding stone fragment	stone	4.5 × 3.2 × 2.5	163
115/137	6.00-5.80		groundstone	stone	5 × 5 × 2	175
115/137	6.09	117.17/138.64	grinding stone fragment	stone	4.0 × 6.5 × 2.0	170
115/137	6.12	117.30/139.39	grinding stone fragment	stone	8.5 × 6.5	171
115/137	6.12	118.57/139.30	grinding stone fragment	stone	7 × 3 × 2.7	173
115/137	6.17	115.76/140.03	grinding stone fragment	stone	8.5 × 6.5 × 3.7	177
115/137	6.20-6.00		hammerstone	stone	8.0 × 6.0 × 3.5	168
115/137	6.20-6.00		hammerstone	stone	6.0 × 3.0	169
115/137	6.20-6.00		grinding stone fragment	stone	5 × 4.5 × 4	174
115/137	6.25	116.90/141.72	hammerstone	stone	6.5 × 4 × 2.5	192
115/137	6.27	117.45/140.45	grinding stone fragment	stone	15 × 7.5 × 7.8	215
115/137	6.28	117.76/139.35	grinding stone fragment	stone	6.5 × 7.5 × 8	201
115/137	6.30	117.79/140.69	grinding stone fragment	stone	6.5 × 3.5 × 2.0	185
115/137	6.30	117.51/140.45	grinding stone fragment	stone	6.5 × 3.5 × 3.5	214
115/137	6.33	118.45/138.86	fragment	bronze	1.3 × 0.8	239
115/137	6.38	117.33/140.63	whetstone	stone	6.5 × 1.8 × 0.8	216

115/137	6.39	116.45/139.88	fragment	bronze	1.3 × 1.4 × 1.8	272
115/137	6.44, 45	115.94/140.86	hammerstone	stone	7.5 × 4 × 3	284
115/137	45		fragment	bronze	1.5 × 1.5 × 0.4	286
115/137	6.50	118.93/140.64	fragments	glass	tiny pieces	210
115/137	6.60, 45	116.30/140.28	fragment	bronze	1.8 × 1.7 × 0.1	282
115/137	6.66, 45	115.40/140.12	fragment	bronze	2.4 × 1.0 × 0.6	283
115/137	6.80-6.60		tool	bone	6.2 × 1.5 × 1.3	671
115/137	6.85	119.04/141.32	grinding stone fragment	stone	19 × 11.4 × 7.8	350
115/137	7.00-6.80	north of 40	fragment	glass	3.5 × 2.4 × 2.3	343
115/137	7.01	118.80/141.33	lid	steatite	6.5 × 6.3 × 3	672
115/142	39	cleaning	fragment	glass		317
115/142	6.47	117.42/128.63	grinding stone fragment	stone	3.3 × 4.5 × 3.6	461
115/142	6.57	117.31/131.12	grinding stone fragment	stone	8.2 × 3.5 × 3	462
115/142	6.65	119.40/144.45	figurine fragment	clay	4.5 × 4.5 × 3	152
115/142	6.80-6.60		figurine fragment?	clay	4.9 × 1.8	158
115/142	6.83	118.80/143.15	grinding stone fragment	stone	11.5 × 3.5	156
115/142	6.90	116.60/142.60	grinding stone fragment	stone	5.7 × 5.5 × 2.2	332
115/142	6.93	116.10/144.85	knife	flint	6.5 × 3.4	159
115/142	6.93, 44	119.20/142.90	grinding stone fragment	stone	6.5 × 3.9 × 3	318
115/142	6.95	119.14/142.98	ring fragment	bronze	1.8 × 0.4	279
115/142	6.96	118.93/145.02	fragment	steatite	3 × 1.8 × 0.4	165
115/142	6.98, 45	116.84/140.52	fragment	bronze	1.3 × 1.4 × 0.2	296
115/142	6.99	118.15/146.10	fragment	stone	18.5 × 10 × 2.4	319
115/142	7.00-6.80		grinding stone fragment	stone	5.5 × 6 × 3.5	176
115/142	7.03	119.63/144.25	whetstone	stone	3 × 3.5 × 0.9	326
115/142	7.03, 39	119.64/145.66	hammerstone	stone	5 × 2.5 × 2	255
115/142	7.04	119.20/146.14	net sinker or loomweight	stone	4.7 × 2.4 × 1.6	320
115/142	7.04	116.80/144.60	arrowhead	bronze	6.8 × 1.9 × 0.6	331
115/142	7.04, 39	119.70/145.63	grinding stone fragment	stone	10.5 × 5 × 2.5	252
115/142	7.05	118.10/145.20	grinding stone fragment	stone	8.4 × 5.3 × 5.9	321
115/142	7.05, 39	119.63/145.64	perforated stone	stone	2.8 × 4	253
115/142	7.08, 39	119.84/145.55	vessel neck	glass		256
115/142	7.09	118.90/144.00	fragment	glass	1.9 × 1 × 0.8	324
115/142	7.10, 39	119.60/145.95	hammerstone	stone	4 × 3.5 × 4	254
115/142	7.15	119.45/145.40	grinding stone fragment	stone	9.3 × 3.6 × 2.9	329
115/142	7.16, 39	119.93/145.61	whetstone	stone	7.3 × 1.4 × 0.3	251
115/142	7.20	118.43/144.59	fragment	bronze	1.3 × 0.6 × 0.7	391
115/142	7.22	118.20/145.07	bead	stone	3.3 × 0.9	367
115/142	7.25	118.96/142.64	fragment	bronze	1.4 × 1.3 × 1	399
115/142	7.26	119.02/142.60	fragment	bronze	5.3 × 0.7	400
115/142	7.40	117.76/146.06	fragment	bronze	2.5 × 1.2 × 0.6	430
115/142	7.77	119.30/145.70	grinding stone fragment	stone	5.7 × 4.1 × 4	572
115/142	8.20-8.00		sherd	steatite	4.1 × 2.1 × 0.6	625
115/142	8.20	119.30/143.57	groundstone	stone	2.8 × 2 × 1.5	590
115/142	8.22	118.58/145.67	grinding stone fragment	stone	8.3 × 7.7 × 4	605
115/142	8.38	118.71/144.36	fragment	bronze	2.2 × 1.8 × 0.6	603
115/142	8.50	119.45/144.50	grinding stone fragment	stone	14 × 11.2 × 5.2	609
115/142	8.57	119.43/144.58	groundstone	stone	5 × 4.2 × 3.4	610
115/142	8.69	119.38/145.03	grinding stone fragment	stone	3.4 × 2.1 × 1.6	617
115/142	8.70	119.73/144.67	grinding stone fragment	stone	4 × 3.3 × 2.2	616
115/142	9.14	119.53/145.58	fragment	bronze	1.3 × 1.3 × 1	474
115/142	9.16	118.89/145.68	groundstone	stone	3.5 × 2.9 × 2.1	631
115/142	9.18	119.18/145.56	grinding stone fragment	stone	6.3 × 3.4 × 1.9	484
115/142	9.18	119.56/145.55	fragment	stone	2.7 × 2.1 × 1.1	633
115/142	9.20	118.75/145.57	fragment	bronze	0.8 × 0.9	527

115/127	6.08	118.52/130.15	fragment	bronze	0.8 × 0.9	410
115/127	6.10	117.45/129.10	pin fragment	bronze	4 × 0.5	413
115/127	6.23, 54	117.30/128.30	hammerstone	stone	9.3 × 6.9 × 4.2	432
115/127	6.23, 54	117.30/128.30	hammerstone	stone	5.9 × 5.9 × 4.3	433
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	9.2 × 7.5 × 4.9	434
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	6.9 × 6.5 × 4.8	435
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	8.8 × 7.5 × 3.7	436
115/127	6.23, 54	117.30/128.30	grinding stone fragment	stone	6.8 × 4.7 × 4.2	437
115/127	6.23, 54	117.30/128.30	hammerstone	stone	6.8 × 6 × 4	438
115/127	6.32	118.91/130.68	fragment	bronze	1.2 × 1.1 × 0.7	458
115/127	6.33	118.00/130.25	bead	stone	1.7 × 0.6	454
115/127	6.34	117.21/131.16	pin	bronze	1.5 × 0.5	457
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	8.4 × 6 × 4.4	444
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	15.1 × 7.5 × 3.8	445
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	11.2 × 6.4 × 11.5	446
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	9.7 × 6.8 × 2.9	447
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	4.9 × 5.4 × 5.9	448
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	5.2 × 4.6 × 3.4	449
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	5.7 × 4.7 × 2.3	450
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	4 × 3.8 × 1.8	451
115/127	6.36, 54	117.30/128.30	grinding stone fragment	stone	5.4 × 5.9 × 6.5	452
115/127	6.36, 54	117.30/128.30	hammerstone	stone	4.2 × 3.4 × 3.1	453
115/127	6.40	115.83/131.70	grinding stone fragment	stone	8.3 × 5.2 × 3.4	460
115/127	6.44, 48	116.00/129.40	hammerstone	stone	4.9 × 5.4 × 6.1	328
115/127	6.49	118.96/128.78	grinding stone fragment	stone	7.1 × 5 × 3	465
115/127	6.55	119.70/130.70	grinding stone fragment	stone	9.2 × 4.6 × 3.2	478
115/127	6.57	119.29/128.24	grinding stone fragment	stone	6.7 × 5.2 × 3.5	472
115/127	6.60	117.65/128.11	grinding stone fragment	stone	9.4 × 4.9 × 2.5	479
115/127	6.61	118.00/131.45	hammerstone	stone	8.7 × 6.5 × 4.2	533
115/127	6.62	119.61/130.26	polisher	stone	5.7 × 4 × 3.5	480
115/127	6.64	117.20/130.29	pendant	stone	2.2 × 1.9 × 1.9	519
115/127	6.64	117.20/130.86	hammerstone	stone	7 × 6.2 × 3.8	526
115/127	6.65	118.95/131.30	fragment	stone	5.3 × 4 × 4	534
115/127	6.66	115.16/130.85	fragment	bronze	0.6 × 0.5	485
115/127	6.67	119.70/127.78	grinding stone fragment	stone	4.6 × 3.4 × 2.7	521
115/127	6.67	119.69/127.81	fragment	steatite	4.7 × 2.9 × 1	522
115/127	6.67	119.88/127.73	fragment	stone	6.2 × 3 × 1.3	523
115/127	6.70, 48	115.77/129.62	whetstone	stone	2.8 × 2.5 × 0.7	486
115/127	6.77	117.08/131.00	fragment	bronze	1.8 × 1.8 × 0.5	528
115/127	6.78	117.00/128.60	whetstone	stone	11 × 3.5 × 3	515
115/127	6.78	119.27/129.34	fragment	bronze	1.5 × 0.7	525
115/127	6.78	118.08/130.93	grinding stone fragment	stone	5 × 5.3 × 2.3	531
115/127	6.80	117.30/129.05	grinding stone fragment	stone	4.4 × 4.5 × 3.4	516
115/127	6.80	118.07/128.44	grinding stone fragment	stone	3.4 × 3.3 × 3.3	517
115/127	6.80	117.42/129.95	grinding stone fragment	stone	8.3 × 6 × 3	532
115/127	6.83	118.52/131.10	fragment	bronze	3.6 × 0.6	554
115/127	6.83	119.44/131.56	hammerstone	stone	5.7 × 6.8 × 2.5	567
115/127	6.85	119.80/128.80	grinding stone fragment	stone	5.7 × 4.3 × 3.9	538
115/127	6.85	119.80/128.85	grinding stone fragment	stone	8.4 × 7.6 × 4.6	541
115/127	6.86	119.60/129.18	grinding stone fragment	stone	18 × 15 × 4.8	544
115/127	6.87	117.02/130.78	grinding stone fragment	stone	7.2 × 5.1 × 4.2	559
115/127	6.88	118.80/130.37	hammerstone	stone	4.9 × 5.4 × 3.1	555
115/127	6.90	117.74/130.80	grinding stone fragment	stone	5.5 × 5 × 2.6	558
115/127	6.90	117.77/131.23	grinding stone fragment	stone	5.1 × 4.2 × 3.5	560
115/127	6.90	119.57/130.90	hammerstone	stone	5 × 4.3 × 4.9	566

115/127	6.90	119.69/131.50	hammerstone	stone	7 × 4.2 × 1.8	569
115/127	6.92	118.45/128.93	grinding stone fragment	stone	7.8 × 8.2 × 5.5	545
115/127	6.92	117.97/130.90	fragment	bronze	1.1 × 0.7	556
115/127	6.93	119.06/128.80	hammerstone	stone	7 × 5 × 4.5	543
115/127	6.93	119.30/130.10	grinding stone fragment	stone	5.2 × 4.1 × 2.3	565
115/127	6.94	128.67/134.94	pin	bronze	3.7 × 0.3	581
115/127	6.96	118.62/130.38	fragment	flint	3 × 1.5 × 0.5	557
115/127	6.97	118.00/130.14	grinding stone fragment	stone	9 × 5.3 × 4.4	553
115/127	6.97	116.68/128.40	lid	steatite	4.5 × 4.5 × 2.5	549
115/127	7.00-6.80		grinding stone fragment	stone	5.6 × 3.8 × 4.5	546
115/127	7.00-6.80		grinding stone fragment	stone	5 × 6 × 2.4	547
115/127	7.00	119.27/131.40	fragment	bronze	0.9 × 1.7 × 0.6	570
115/127	7.00	115.90/131.50	fragment	bronze	1.8 × 1.7 × 0.4	574
115/127	7.00	119.16/130.41	shell crusher	stone	6 × 4.8 × 3.6	575
115/127	7.05	117.22/129.55	hammerstone	stone	7 × 5.3 × 4.7	584
115/127	7.10	119.80/127.76	grinding stone fragment	stone	6 × 4.5 × 4.5	578
115/127	7.11	117.42/130.63	grinding stone fragment	stone	4.8 × 3 × 2.4	588
115/127	7.14	118.35/130.61	grinding stone fragment	stone	5.5 × 5 × 4	595
115/127	7.16	118.08/128.42	fragment	bronze	2 × 1.1 × 0.8	583
115/127	7.17	117.01/128.45	fragment	bronze	2.6 × 1.3	580
115/127	7.18	117.95/128.70	sherd	steatite	5.3 × 5.2 × 0.5	582
115/127	7.20	116.95/131.38	whetstone	stone	4.4 × 2.4 × 1.2	591
115/127	7.20	118.42/129.94	fragment	bronze	4.9 × 1.4 × 0.5	592
115/127	7.23	117.00/131.28	polisher	stone	6.3 × 5.5 × 3.4	602
115/127	7.28	116.86/131.69	hammerstone	stone	6.6 × 4.9 × 3.5	600
115/127	7.29	116.76/130.25	grinding stone fragment	stone	6.5 × 2.7 × 3.1	599
115/127	7.29	119.15/130.19	fragment	bronze	3.2 × 1.1	622
115/127	7.29	118.53/131.48	sherd	steatite	4.4 × 3.5 × 0.6	607
115/127	7.31	116.52/130.32	hammerstone	stone	7.8 × 4.2 × 3.8	608
115/127	7.32	117.44/131.53	hammerstone	stone	3.3 × 4.6 × 3	604
115/127	7.33	118.01/130.85	grinding stone fragment	stone	6.2 × 5.5 × 3.4	606
115/127	7.36	118.13/129.95	grinding stone fragment	stone	3.6 × 3.6 × 2.7	612
115/127	7.36	119.26/129.29	fragment	steatite	6 xc 2.2 × 1.6	621
115/127	7.37	118.76/129.83	fragment	steatite	2.8 × 2.4 × 1.3	613
115/127	7.37	118.89/128.55	grinding stone fragment	stone	4.4 × 3.1 × 2.9	619
115/127	7.39	118.09/128.27	grinding stone fragment	stone	4.6 × 3.5 × 1.7	618
115/127	7.40	116.58/130.42	base sherd	steatite	3.2 × 5.7 × 1.3	
115/127	7.40	118.67/129.92	fragment	bone	3.8 × 2.1 × 1.3	614
115/127	7.40	118.29/129.21	lid	steatite	5.2 × 3.7 × 1.3	615
115/127	7.44	119.62/129.18	hammerstone	stone	3.4 × 3.2 × 2.5	640
115/127	7.56	116.63/128.70	grinding stone fragment	stone	4.3 × 2.7 × 2	632
115/127	7.58	118.60/127.84	grinding stone fragment	stone	3.9 × 3.3 × 3	639
115/127	7.64	118.37/127.97	grinding stone fragment	stone	5.7 × 6.4 × 3.5	636
115/127	7.64	118.79/129.15	sherd	steatite	6.2 × 4.8 × 0.8	646
115/127	7.67	117.25/130.89	grinding stone fragment	stone	4.5 × 3.7 × 3.5	643
115/127	7.71	117.68/130.65	fragment	bronze	0.9 × 0.6 × 0.3	644
115/127	7.71	118.61/127.78	grinding stone fragment	stone	7.8 × 6.5 × 1.8	647
115/127	7.77	118.41/128.55	fragment	flint	4.9 × 3.2 × 0.9	655
115/127	7.80	119.94/128.92	fragment	bronze	1.1 × 0.9 × 0.6	654
115/127	8.00-7.80		grinding stone fragment	stone	5.8 × 3.4 × 2	657
115/127	8.00-7.80		fragment	steatite	3.6 × 2.3 × 1.4	658
115/127	8.00	117.92/131.02	grinding stone fragment	stone	3.5 × 2.9 × 1.7	661
115/127	8.00	117.16/128.15	grinding stone fragment	stone	7.7 × 2.6 × 3.2	665
115/127	8.09	117.95/130.75	fragment	flint	3.2 × 3.6 × 1.2	666
115/127	8.10	115.93/128.77	hammerstone	stone	5.7 × 4 × 3.3	664

115/127	8.15	118.76/130.07	grinding stone fragment	stone	6.7 × 6.5 × 4.5	667
115/127	8.27, 48	115.34/130.49	fragment	bronze	2.7 × 1.3 × 0.4	670
115/127	8.40	117.39/131.82	debitage	flint	2.9 × 2.4 × 1	585
115/132	topsoil		fragment	bronze	1.5 × 0.4 × 0.3	203
115/132	5.20	119.04/131.30	hammerstone	stone	5 × 5 × 3	287
115/132	5.47	117.65/134.30	grinding stone fragment	stone	10.5 × 12 × 3.5	202
115/132	5.80-5.60		whetstone	stone	2.6 × 2.5 × 2.8	232
115/132	5.80-5.60		fragment	bronze	0.7 × 1.2 × 0.1	233
115/132	5.81	118.50/132.88	grinding stone fragment	stone	7.6 × 3.2 × 2.6	314
115/132	5.81, 38	116.00/132.66	fragment	bronze	3.3 × 0.5	237
115/132	5.85, 38	116.01/132.80	vessel base	stone	6.6 × 4.9 × 1.5	234
115/132	5.87, 38	115.57/133.16	grinding stone fragment	stone	6.8 × 9.8 × 7.2	235
115/132	5.89	119.38/132.88	grinding stone fragment	stone	4.2 × 3.4 × 2.1	313
115/132	5.91	119.37/132.97	grinding stone fragment	stone	4.5 × 3.7 × 2.1	312
115/132	5.97	117.05/134.27	grinding stone fragment	stone	4.8 × 6 × 4.8	330
115/132	6.09, 38	115.56/133.15	grinding stone fragment	stone	4 × 3.5 × 1.5	305
115/132	6.11	119.37/133.08	grinding stone fragment	stone	7.1 × 6.4 × 6.7	338
115/132	6.26	116.80/133.19	grinding stone fragment	stone	3.8 × 3.5 × 2.3	342
115/132	6.28	119.28/132.95	spout fragment	steatite	2.9 × 4.7 × 0.8	352
115/132	6.34	117.00/135.40	whetstone	stone	6 × 2.5 × 1.3	341
115/132	6.41	115.39/133.27	core fragment	flint	8.9 × 8.1 × 5.5	359
115/132	6.43	119.35/133.73	pin fragment	bronze	2.1 × 0.4	402
115/132	6.45	117.43/136.54	fragment	steatite	5 × 4.9 × 1.4	357
115/132	6.45	117.31/136.50	fragment	stone	6.3 × 4.2 × 2.7	358
115/132	6.45	115.82/132.76	bead?	bronze	0.7 × 0.6	398
115/132	6.45	119.42/134.00	whetstone	stone	5.1 × 2.9 × 1.3	403
115/132	6.46	116.60/136.01	grinding stone fragment	stone	3.4 × 3.9 × 2.8	384
115/132	6.50	118.69/133.86	grinding stone fragment	stone	8.1 × 5.9 × 4.4	397
115/132	6.51	117.85/132.81	grinding stone fragment	stone	3.8 × 2.9 × 2.2	421
115/132	6.60	116.70/135.65	whetstone	stone	4.7 × 1 × 1.3	386
115/132	6.60	116.48/136.43	whetstone	stone	4.5 × 2.3 × 1.4	388
115/132	6.60	117.80/135.90	grinding stone fragment	stone	7.1 × 3.7 × 2.4	394
115/132	6.60	118.14/133.65	fragment	bronze	1.4 × 1.2 × 0.4	401
115/132	6.61	117.30/135.00	fragment	bronze	1.4 × 1.1 × 0.5	422
115/132	6.80	115.23/133.45	grinding stone fragment	stone	5.4 × 3.9 × 2.1	366
115/132	6.83	115.20/132.85	sherd	steatite	7.8 × 3.4 × 0.5	380
115/137	5.90	117.23/133.67	grinding stone fragment	stone	5.3 × 3.7 × 4.7	322
115/137	5.93	115.45/139.82	grinding stone fragment	stone	72.5 × 27.5 × 5	204
115/137	5.93	117.40/133.70	grinding stone fragment	stone	5 × 4.3 × 2.6	323
115/137	5.98	115.62/138.62	grinding stone fragment	stone	4.5 × 3.2 × 2.5	163
115/137	6.00-5.80		groundstone	stone	5 × 5 × 2	175
115/137	6.09	117.17/138.64	grinding stone fragment	stone	4.0 × 6.5 × 2.0	170
115/137	6.12	117.30/139.39	grinding stone fragment	stone	8.5 × 6.5	171
115/137	6.12	118.57/139.30	grinding stone fragment	stone	7 × 3 × 2.7	173
115/137	6.17	115.76/140.03	grinding stone fragment	stone	8.5 × 6.5 × 3.7	177
115/137	6.20-6.00		hammerstone	stone	8.0 × 6.0 × 3.5	168
115/137	6.20-6.00		hammerstone	stone	6.0 × 3.0	169
115/137	6.20-6.00		grinding stone fragment	Stone	5 × 4.5 × 4	174
115/137	6.25	116.90/141.72	hammerstone	stone	6.5 × 4 × 2.5	192
115/137	6.27	117.45/140.45	grinding stone fragment	stone	15 × 7.5 × 7.8	215
115/137	6.28	117.76/139.35	grinding stone fragment	stone	6.5 × 7.5 × 8	201
115/137	6.30	117.79/140.69	grinding stone fragment	stone	6.5 × 3.5 × 2.0	185
115/137	6.30	117.51/140.45	grinding stone fragment	stone	6.5 × 3.5 × 3.5	214
115/137	6.33	118.45/138.86	fragment	bronze	1.3 × 0.8	239
115/137	6.38	117.33/140.63	whetstone	stone	6.5 × 1.8 × 0.8	216

115/137	6.39	116.45/139.88	fragment	bronze	1.3 × 1.4 × 1.8	272
115/137	6.44, 45	115.94/140.86	hammerstone	stone	7.5 × 4 × 3	284
115/137	45		fragment	bronze	1.5 × 1.5 × 0.4	286
115/137	6.50	118.93/140.64	fragments	glass	tiny pieces	210
115/137	6.60, 45	116.30/140.28	fragment	bronze	1.8 × 1.7 × 0.1	282
115/137	6.66, 45	115.40/140.12	fragment	bronze	2.4 × 1.0 × 0.6	283
115/137	6.80-6.60		tool	bone	6.2 × 1.5 × 1.3	671
115/137	6.85	119.04/141.32	grinding stone fragment	stone	19 × 11.4 × 7.8	350
115/137	7.00-6.80	north of 40	fragment	glass	3.5 × 2.4 × 2.3	343
115/137	7.01	118.80/141.33	lid	steatite	6.5 × 6.3 × 3	672
115/142	39	cleaning	fragment	glass		317
115/142	6.47	117.42/128.63	grinding stone fragment	stone	3.3 × 4.5 × 3.6	461
115/142	6.57	117.31/131.12	grinding stone fragment	stone	8.2 × 3.5 × 3	462
115/142	6.65	119.40/144.45	figurine fragment	clay	4.5 × 4.5 × 3	152
115/142	6.80-6.60		figurine fragment?	clay	4.9 × 1.8	158
115/142	6.83	118.80/143.15	grinding stone fragment	stone	11.5 × 3.5	156
115/142	6.90	116.60/142.60	grinding stone fragment	stone	5.7 × 5.5 × 2.2	332
115/142	6.93	116.10/144.85	knife	flint	6.5 × 3.4	159
115/142	6.93, 44	119.20/142.90	grinding stone fragment	stone	6.5 × 3.9 × 3	318
115/142	6.95	119.14/142.98	ring fragment	bronze	1.8 × 0.4	279
115/142	6.96	118.93/145.02	fragment	steatite	3 × 1.8 × 0.4	165
115/142	6.98, 45	116.84/140.52	fragment	bronze	1.3 × 1.4 × 0.2	296
115/142	6.99	118.15/146.10	fragment	stone	18.5 × 10 × 2.4	319
115/142	7.00-6.80		grinding stone fragment	stone	5.5 × 6 × 3.5	176
115/142	7.03	119.63/144.25	whetstone	stone	3 × 3.5 × 0.9	326
115/142	7.03, 39	119.64/145.66	hammerstone	stone	5 × 2.5 × 2	255
115/142	7.04	119.20/146.14	net sinker or loomweight	stone	4.7 × 2.4 × 1.6	320
115/142	7.04	116.80/144.60	arrowhead	bronze	6.8 × 1.9 × 0.6	331
115/142	7.04, 39	119.70/145.63	grinding stone fragment	stone	10.5 × 5 × 2.5	252
115/142	7.05	118.10/145.20	grinding stone fragment	stone	8.4 × 5.3 × 5.9	321
115/142	7.05, 39	119.63/145.64	perforated stone	stone	2.8 × 4	253
115/142	7.08, 39	119.84/145.55	vessel neck	glass		256
115/142	7.09	118.90/144.00	fragment	glass	1.9 × 1 × 0.8	324
115/142	7.10, 39	119.60/145.95	hammerstone	stone	4 × 3.5 × 4	254
115/142	7.15	119.45/145.40	grinding stone fragment	stone	9.3 × 3.6 × 2.9	329
115/142	7.16, 39	119.93/145.61	whetstone	stone	7.3 × 1.4 × 0.3	251
115/142	7.20	118.43/144.59	fragment	bronze	1.3 × 0.6 × 0.7	391
115/142	7.22	118.20/145.07	bead	stone	3.3 × 0.9	367
115/142	7.25	118.96/142.64	fragment	bronze	1.4 × 1.3 × 1	399
115/142	7.26	119.02/142.60	fragment	bronze	5.3 × 0.7	400
115/142	7.40	117.76/146.06	fragment	bronze	2.5 × 1.2 × 0.6	430
115/142	7.77	119.30/145.70	grinding stone fragment	stone	5.7 × 4.1 × 4	572
115/142	8.20-8.00		sherd	steatite	4.1 × 2.1 × 0.6	625
115/142	8.20	119.30/143.57	groundstone	stone	2.8 × 2 × 1.5	590
115/142	8.22	118.58/145.67	grinding stone fragment	stone	8.3 × 7.7 × 4	605
115/142	8.38	118.71/144.36	fragment	bronze	2.2 × 1.8 × 0.6	603
115/142	8.50	119.45/144.50	grinding stone fragment	stone	14 × 11.2 × 5.2	609
115/142	8.57	119.43/144.58	groundstone	stone	5 × 4.2 × 3.4	610
115/142	8.69	119.38/145.03	grinding stone fragment	stone	3.4 × 2.1 × 1.6	617
115/142	8.70	119.73/144.67	grinding stone fragment	stone	4 × 3.3 × 2.2	616
115/142	9.14	119.53/145.58	fragment	bronze	1.3 × 1.3 × 1	474
115/142	9.16	118.89/145.68	groundstone	stone	3.5 × 2.9 × 2.1	631
115/142	9.18	119.18/145.56	grinding stone fragment	stone	6.3 × 3.4 × 1.9	484
115/142	9.18	119.56/145.55	fragment	stone	2.7 × 2.1 × 1.1	633
115/142	9.20	118.75/145.57	fragment	bronze	0.8 × 0.9	527

115/142	9.28	118.90/145.62	grinding stone fragment	stone	5.5 × 4 × 1.3	638
115/142	9.32	118.72/145.53	groundstone	stone	3 × 2.8 × 2.3	642
115/142	9.36	118.78/144.36	fragment	bronze	6.5 × 5.2 × 3.3	651
115/142	9.39	119.68/144.25	fragment	bronze	1 × 0.5 × 0.4	641
115/142	9.40	119.20/144.27	fragment	bronze	0.8 × 0.6	645
115/142	9.45	119.09/145.15	grinding stone fragment	stone	4 × 3 × 2.8	535
115/142	9.51	119.12/143.80	grinding stone fragment	stone	4.0 × 3.5 × 2.3	573
115/142	9.53	119.62/145.05	grinding stone fragment	stone	4.2 × 3.2 × 2.2	530
115/142	9.58	119.12/145.16	arrowhead	flint	2.8 × 1.5 × 0.7	660
115/142	9.60	118.88/143.40	fragment	bronze	0.7 × 1.1 × 0.4	551
115/147	7.48, 42	119.38/147.35	axe blade	bronze	9 × 2.8 × 0.4	187
115/147	7.49, 42	119.77/148.12	fragment	bronze	1.4 × 0.3	281
115/147	7.55, 43	119.71/149.16	fragment	bronze	1.5 × 1.8 × 1	293
115/147	7.65	119.06/149.88	fragment	bronze	2 × 1.8 × 0.3	290
115/147	7.83	118.80/144.52	grinding stone fragment	stone	3.6 × 2.9 × 1.7	385
115/147	7.89	119.80/149.45	slag	bronze	1.7 × 1 × 0.8	417
120/132	5.90	124.68/134.88	hammerstone	stone	9.2 × 5.2 × 5.9	536
120/132	6.08	122.50/134.87	hammerstone	stone	4.5 × 3.7 × 4	540
120/132	6.12	124.33/135.32	grinding stone fragment	stone	6.5 × 4.8 × 3	550
120/132	6.15	124.36/136.43	whetstone	stone	4 × 3.7 × 2	548
120/132	6.20-6.00		grinding stone fragment	stone	6 × 5.8 × 2.5	542
120/132	6.31	121.75/135	grinding stone fragment	stone	5.2 × 4.3 × 3.1	562
120/132	6.32	121.61/134.72	polisher fragment	stone	4.3 × 2.8 × 2.3	563
120/132	6.35	121.80/135.05	polisher?	steatite	2.8 × 2.4 × 1.7	561
120/132	6.36	121.27/135.25	grinding stone fragment	stone	4.8 × 3.7 × 1.8	564
120/132	6.57	123.97/135.66	fragment	bronze	0.2 × 0.4	579
120/132	6.57	120.92/135.98	grinding stone fragment	stone	5.5 × 4 × 3.2	589
120/137	6.00-5.80	120.00/134.5	sherd	steatite	4.3 × 3.8 × 1.2	597
120/137	6.00-5.80	120.00/134.5	figurine fragment	clay	4.6 × 2.9 × 2.3	598
120/137	6.48	123.4/138.28	grinding stone fragment	stone	6.1 × 4.1 × 4.5	476
120/137	6.70	124.64/139.12	pendant	steatite	2.5 × 1.8 × 0.6	483
120/137	6.80	121.34/139.35	fragment	bronze	3 × 1.4 × 0.7	492
120/137	6.86	121.01/139.26	shell crusher	stone	11 × 9.2 × 6	497
120/137	6.88	120.68/139.60	pendant	steatite	2.6 × 2.3 × 0.6	493
120/137	6.94	122.50/139.82	fragment	steatite	7.5 × 6.3 × 3	496
125/132	5.81	125.73/132.85	groundstone	stone	10 × 4 × 3.5	464
125/132	5.83	126.06/132.93	grinding stone fragment	stone	9 × 5.5 × 3.2	469
125/132	5.84	125.70/132.98	hammerstone	stone	6 × 5 × 4.3	470
125/132	6.00-5.80		fragment	bronze	1.2 × 1.5 × 1.3	477
125/132	6.06	128.65/133.15	fragment	bronze	1.8 × 3.7 × 0.8	488
125/132	6.20	128.04/134.10	fragment	bronze	3.1 × 2.1 × 1.2	491
125/132	6.35	128.60/134.12	stamp seal	steatite	2 × 1	495
125/137	6.60-6.40	125.00/134.5	sherd	steatite	5.6 × 6.5 × 1.4	596
Section A			lid	steatite	5.5 × 3.2 × 1.4	594
Section A			loomweight or button	shell	4.5 × 4.3 × 0.8	675
Section A			sherd	steatite	5.6 × 6.5 × 0.7	676
Section A			sherd	steatite	9.6 × 5.4 × 2.8	677
Section A			stone	polisher	7.4 × 3.3 × 2.2	678
Section A			rim sherd	steatite	3.6 × 4 × 1	679
Section B			base sherd	steatite	6.9 × 3.5 × 1.6	680
Section B			rim sherd	steatite	5.4 × 3.1 × 0.8	681
Section B			hammerstone	stone	6.5 × 6.4 × 2.5	682
Section B			hammerstone	stone	5.7 × 4.8 × 3.7	683
Section B			grinding stone	stone	10.7 × 9.9 × 4.6	684
Section B			grinding stone	stone	10 × 7.9 × 4	685

Section B	grinding stone	stone	10.6 × 8.9 × 3.7	686
Section B	hammerstone	stone	8.7 × 4.8 × 3.5	687
Section B	grinding stone	stone	8.1 × 5.4 × 3.4	688
Section B	grinding stone	stone	4.5 × 3.7 × 4.6	689
Surface, north of TA	sherd	steatite	4.2 × 2.7 × 0.5	576
Surface, north of TA	loomweight?	stone	14 × 12.7 × 3.2	648
Dump	hammerstone	stone	6.9 × 4.2 × 4.2	626
Surface, near Sections A and B	sherd	steatite	7.4 × 5.7 × .7	690

About the author

D. T. Potts has been engaged in Arabian archaeology for the past 15 years. In addition to many articles on the history, archaeology, and numismatics of the Arabian peninsula, he is the author of *Miscellanea Hasaitica* (Museum Tusculanum, 1989); *A Prehistoric Mound in the Emirate of Umm al-Qaiwain, U.A.E.: Excavations at Tell Abraq in 1989* (Munksgaard, 1990); *The Arabian Gulf in Antiquity* (Clarendon Press, 1990); and *The Pre-Islamic Coinage of Eastern Arabia* (Museum Tusculanum, 1991). He is the founder and editor of the journal *Arabian archaeology and epigraphy*, published by Munksgaard.

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