

WADI ARAB SURVEY 1983

by

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with contributions by Stephen Hart,

P.M. Watson, and R.K. Falkner

Introduction

A first season of archaeological survey in the Wadi Arab, northern Jordan, took place in September 1983. The team members were Ms. Alison McQuitty, Mr. Mark Gardiner, Ms. Francoise Cambron (geologist) Mr. Jack Hanbury-Tenison, and Mr. Nasser Khasauneh representing the Department of Antiquities of Jordan. Funding for the project came from the Society of Antiquaries of London, the Wainwright Foundation, the Palestine Exploration Society, the University of Edinburgh Monro Fund, the British Institute at Amman for Archaeology and History, and the Royal Geographical Society. Eighteen days were spent in the field, and twenty five square kilometres were thoroughly surveyed with one hundred and two sites recorded.

The areas surveyed were deliberately chosen to represent the total potential of the *wadi*, whose geophysical and demographic variations are quite considerable. Eleven square kilometres took a section across the whole mouth of the *wadi*, at the same time covering the area most threatened by the works supplying water to the city of Irbid. Eight square kilometres covered both highland and lowland in the middle *wadi*, along the Umm Qeis ridge, and six covered the upper *wadi* around the modern village of Som. The plateau around Irbid was not surveyed, being covered by the Beit Ras Survey, and the Jordan Valley has already been surveyed.¹

Retrieval procedure varied according to the site, but tended to be total pick-up at the poor sites, purposive at the middling, and purposive and total pick-up in random metre-diameter circles at the large. This first season was intended as an overview, and there was neither the time nor the equipment to make detailed surveys of the monuments discovered. The plans of Figure 5 are therefore intended only as measured sketches. More attention was given to the water mills and rock-cut presses in the wadi, and these will be considered later in some detail.² The material from the sixteen Paleolithic sites will also be published separately.

The Wadi Arab had first been surveyed by Nelson Glueck in 1942, Siegfried Mittmann from 1963-1966, and more recently by T. L. Thompson,³ although the ambitious nature of their research prevented all three from a detailed examination of more than the major sites. Prior to the commencement of works, the small area directly affected by the Wadi Arab dam flooding was briefly checked,⁴ though the ancillary works have subsequently far exceeded that area.

The Wadi Arab drainage system runs from the highlands around the modern city of Irbid, and joins the Jordan River just south of its confluence with the Yarmuk. There are numerous springs along the whole lower half of the *wadi*, becoming increasingly sulphurous further west; all are heavily exploited, and the *wadi* is now dry for much of its course. The alluvial

¹ H. de Contenson, Three soundings in the Jordan Valley, *ADAJ*, IV-V (1960) p. 12-98; J. Mellaart, Preliminary report of the Archaeological Survey in the Yarmouk and Jordan Valley, *ADAJ*, VI-VII (1962) p. 126-158; M. Ibrahim, J. Sauer, K. Yassine, The East Jordan Valley Survey, 1975, *BASOR*, 222 (1975) p. 41-66.

² A. McQuitty and M. Gardiner, Water mills in the Wadi Arab, Jordan, in preparation: J. W.

Hanbury-Tenison, Rock-cut presses in the Wadi Arab, Jordan, in preparation.

³ T. L. Thompson, *The Settlement of Palestine in the Bronze Age*, Weisbaden, 1979.

⁴ T. M. Kerestes, J. J. Lundquist, B. G. Wood, K. Yassine, An Archaeological Survey of three reservoir areas in Northern Jordan, 1978, *ADAJ*, XXII (1978) p. 108-135.

deposits of the Jordan Valley sharply border the limestone highlands, with outcrops of basalt to the north-east of Irbid, and on the plateau to the west of Umm Qeis overlooking the Jordan Valley. Altitudes range from - 267 m. on the Jordan Valley floor to + 612 m. at Beit Ras; temperatures in the Valley range from 15°C in the winter to 33°C in the summer, relative humidity from 45% to 75%, and around Irbid from 4°C in the winter to 28°C in the summer, with humidity from 50% to 70%. Average annual rainfall is approximately 380 mm., peaking from late December to mid-February, with the summer months entirely dry.

At present, corn is extensively grown throughout the Wadi Arab on all suffi-

ciently horizontal land. The tropical winters of the Jordan Valley permit intensive vegetable cultivation under plastic, and several harvests a year, while the lower Wadi Arab has sufficient water for large and very profitable citrus orchards. In the central section of the Wadi, along the Umm Qeis and around Saidur, Kufr Asad, and Doqara, the extensive limestone outcrops prevent large-scale arable farming, and additional crops are grown, in particular olives, grapes, and maize. The high plateau at the eastern end of the wadi is extremely fertile arable land.

Map references in this report are taken from the 1:25,000 Transjordan Series.

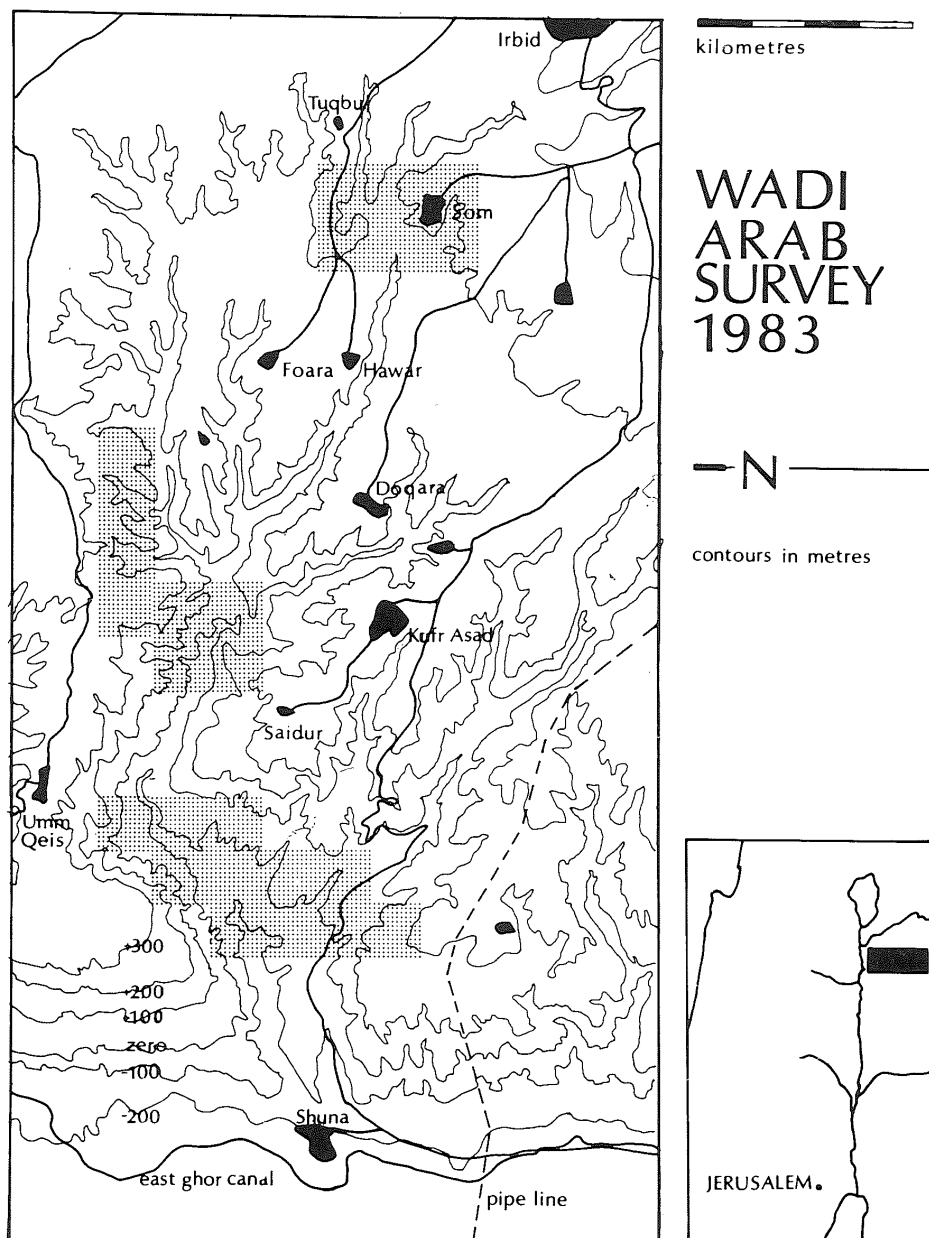


Fig. 1: The Wadi Arab; areas surveyed are hatched.

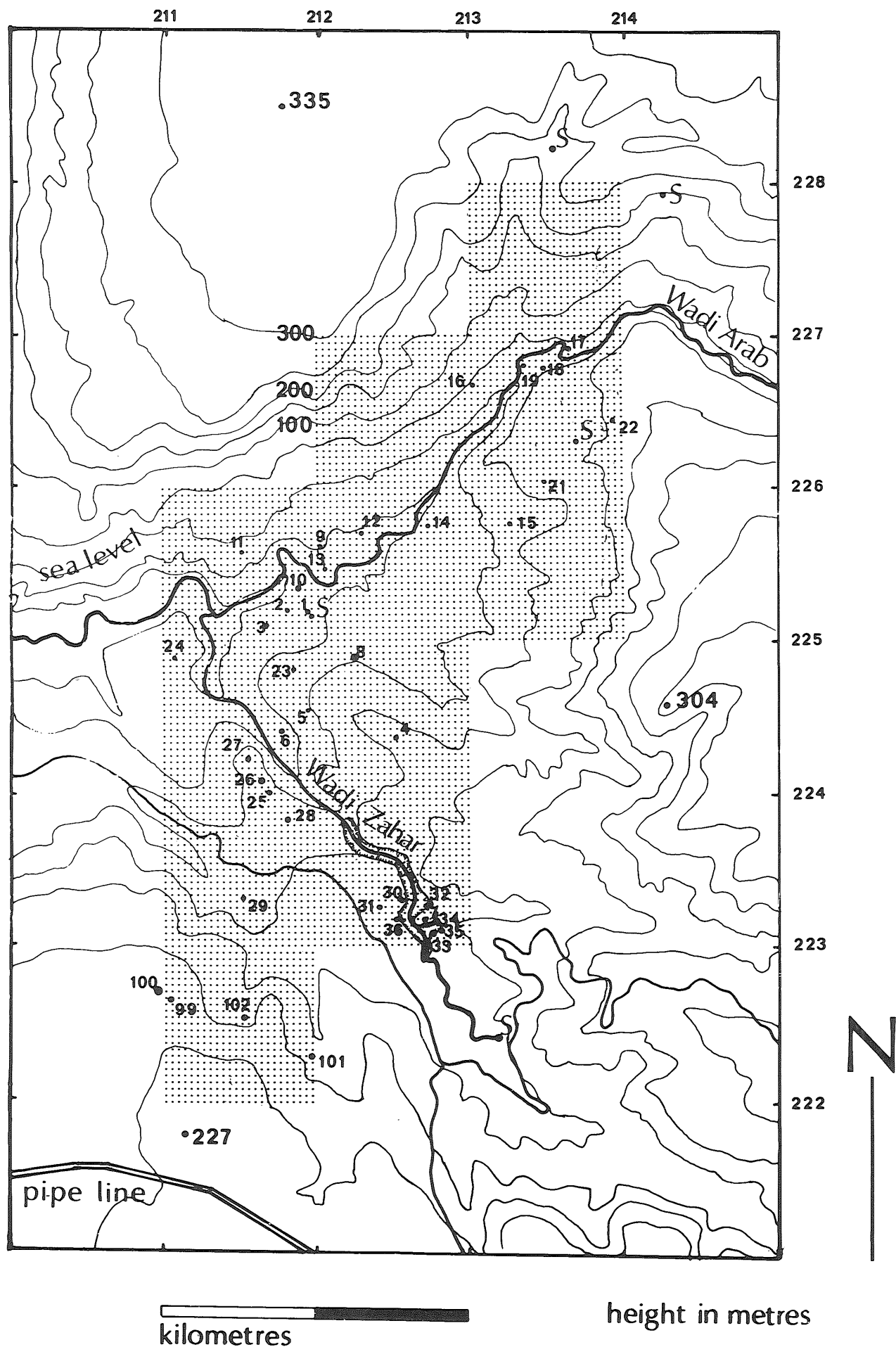


Fig. 2: Wadi Arab western sector; area surveyed is hatched. S marks a spring.

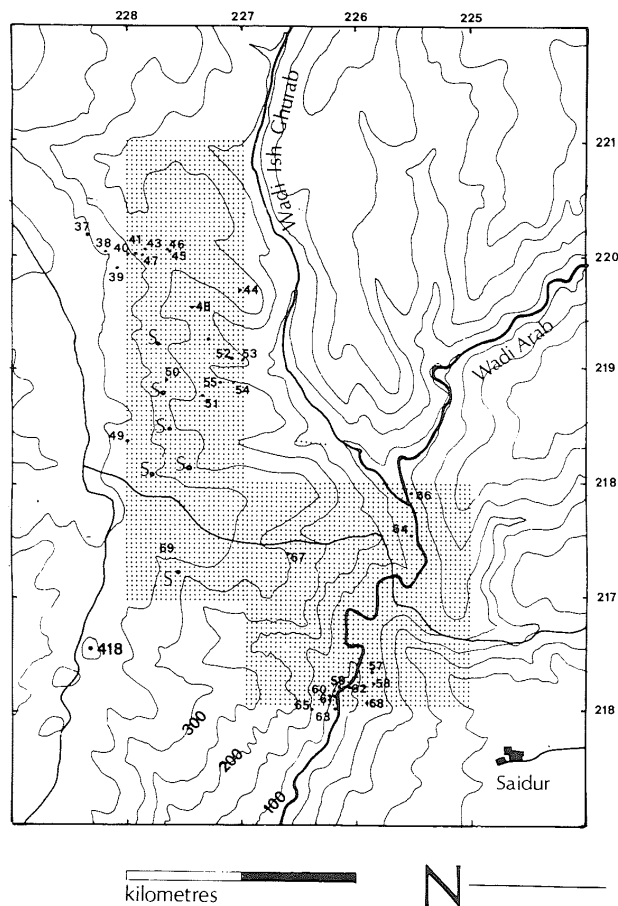


Fig. 3: Wadi Arab central sector; area surveyed is hatched. S marks a spring.

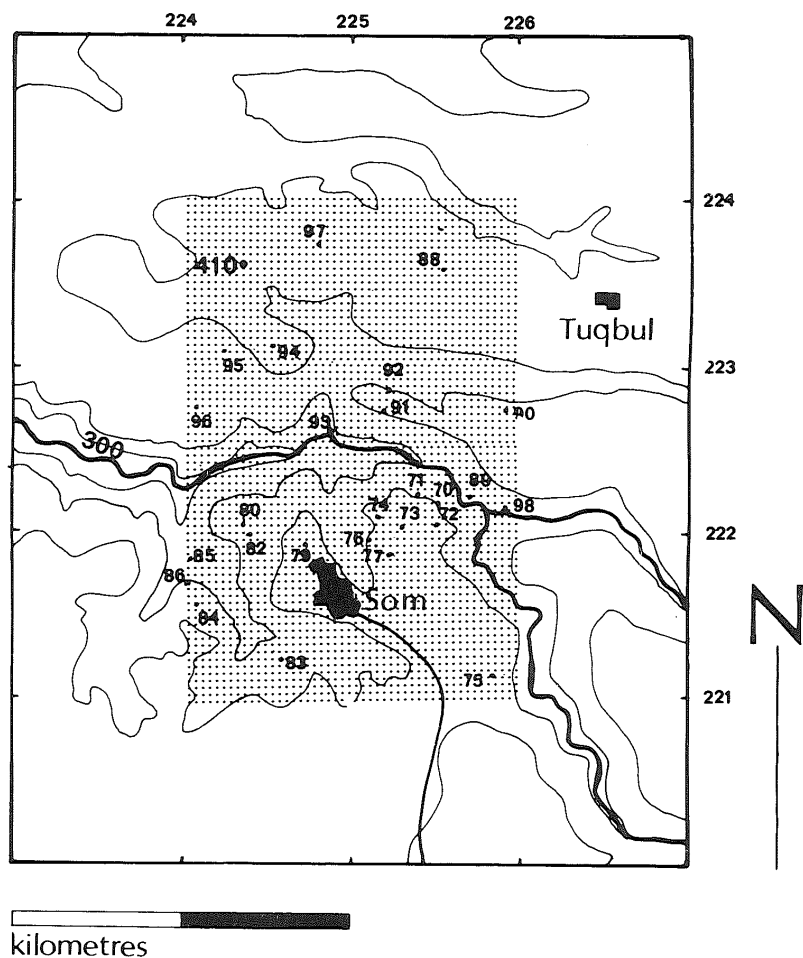


Fig. 4: Wadi Arab eastern sector; area surveyed is hatched.

Sites

001. Tell Zira'a, grid reference 2119-2252, height sea level -20.00 m. Large tell 150.00 m. (n/s) x 100 m. (e/w) on top of steep-sided natural crag above Wadi Arab. Strong natural spring in the centre of the top of hill. Occupation of all periods, Chalco/EB to mediaeval. Cisterns, casemate walls (?), and mediaeval structures. The early material is mainly on the west slope. Fig. 7: 1-7, 22-24; Fig. 8: 8, 12, 20; Fig. 9: 23; Fig. 11: 1-3; Fig. 14: 7; Fig. 17: 1.
002. 2118-2252, -50.00 m. sherd scatter over one hectare at base of 001. Iron Age to Umayyad. Fig. 14: 3, 9; Fig. 17: 2.
003. 2116-2251, -70.00 m. Small sherd scatter near 001. Fig. 9: 21; Fig. 15: 18.
004. 2125-2245, +60.00 m. One hectare of limestone outcrop used extensively for quarrying and rock-cut industrial installations. Some very worn Byzantine sherds.
005. 2120-2245, at sea level. Small settlement on cliff above Wadi Zahar; rough stone construction: Byzantine.
006. 2118-2244, -70.00 m. small sherd scatter on east bank of Wadi Zahar, possibly erosion from site 005 on cliff above.
007. Khirbet Bond, 2128-2233, +80.00 m. Large tell 150.00 x 100.00 m. on spur above bend in Wadi Zahar. Considerable sherd scatter over three hectares around base of tell, and numerous rock-cut tombs in vicinity. Occupation Chalco/EB to Umayyad; early material on south slope. Fig. 7: 8, 25, 26; Fig. 9: 1-12; Fig. 11: 4-15.
008. 2122-2249, -10.00 m. Small sherd scatter in ploughed field: Roman and Byzantine.
009. 2120-2257, -60.00 m. Small abandoned modern hamlet, pise and libn structures, ovens, outhouses and threshing floor. Considerable remains of earlier (Byzantine?) walls used as foundations for modern houses.
010. 2119-2254, -80.00 m. Small sherd scatter on knoll under 001. Byzantine and Umayyad. Fig. 14: 8.
011. 2115-2257, -20.00 m. Terracing walls across shallow depression.
012. 2123-2257, -80.00 m. Sherd scatter in ploughed field over five hectares along *wadi*. Byzantine to Mediaeval. Fig. 17: 3, 4. (Pl. LXVII: 2).
013. 2120-2256, -90.00 m. Lithic scatter over one hectare, on terrace in loop of Wadi Arab. Upper Paleolithic. Fig. 10: 8-10. (Pl. LXVII: 2).
014. 2128-2258, -60.00 m. Small sherd scatter in ploughed field. Byzantine.
015. 2132-2258, +20.00 m. Small settlement on spur well away from terraces. Square ashlar structure to south-east, with rough stone walls built on to north and west. Small building away to west. Slightly to the north is an animal pen of very rough construction; one would assume this was unassociated with the southern buildings. No immediate water sources. Byzantine. Fig. 14: 5; 6; Fig. 15: 19.
016. 2130-2268, +40.00 m. Sparse lithic scatter over three hectares on terrace of north bank of Wadi Arab.
017. 2136-2269, +30.00 m. Aruba penstock water mill, multi-phase.
018. 2135-2268, +50.00 m. sherd scatter over two hectares on terrace south of Wadi Arab. No structures visible; occupation Late Chalcolithic to EB2. Fig. 7: 9-11, 27-31, 34-37; Fig. 8: 1, 9, 10, 13-16, 22, 25; Fig. 10: 1, 2.
019. 2134-2269, +20.00 m. Aruba penstock water mill, multi phase.
020. 2134-2252, +50.00 m. Very sparse sherd scatter, Roman and Byzantine.
021. 2135-2260, + 80.00 m. Simple rock-cut press on spur above Wadi Arab.
022. 2139-2265, +110.00 m. Sherd scatter over two hectares on open hill side; Hellenistic to Mediaeval.
023. 2118-2249, - 20.00 m. Sparse sherd scatter over slope; erosion from 005? Roman to Mediaeval.
024. 2110-2249, -70.00 m. Modern dwelling and threshing floors on rocky knoll above confluence of Wadi Arab

- and Wadi Zahar. Heavy Byzantine sherd scatter where soil is exposed near house, and numerous limestone ashlar blocks over area. 50.00 m. long stretch of ashlar wall foundations to south of house. Fig. 14: 2; Fig. 16: 23.
025. 2115-2239, at sea level. Thick scatter of very worn sherds at base of 026, probably eroded from *tell*. Roman to Mediaeval; also glass, tesserae, and basalt fragments. Fig. 14: 10.
026. 2115-2240, +20.00 m. Large *tell* 140.00 x 90.00 m. on spur above Wadi Zahar; basalt and limestone ashlar blocks, but no structures visible. Occupation Roman to Mediaeval. Fig. 16: 21, 25; Fig. 17: 5-12.
027. 2116-2243, at sea level. Modern dwelling and threshing floor on rocky knoll at end of spur 026. Sparse pottery scatter, but thick in spoil from libn pit. Cuttings in rock outcrop beside house. Occupation Roman to Mediaeval.
028. 2117-2238, +30.00 m. Monocelular rock-cut tomb reused as animal pen. Squared ante-dromos 2.60 m. wide, rectangular dromos 1.15 m. wide at exterior, 1.60 m. at interior, oval chamber 3.40 m. x 2.90 m.
029. 2115-2234, +20.00 m. Sparse sherd scatter over one hectare: Byzantine.
030. 2125-2233, + 75.00 m. Levallois flake, Ottoman pipe.
031. 2123-2233; +80.00 m. Police post.
032. 2127-2232, +70.00 m. A series of interlinking passages hewn out of the rock, high on the cliff face above the Wadi Zahar. The passages are between 0.65 and 0.90 m. wide, and 1.41 to 1.90 m. high, and the pick marks clearly visible. Irregularly cut niches line the walls at uneven intervals; some have traces of burning, though there is not a sufficient ledge for a lamp. There are no chambers leading off the passages, though ceiling collapse prevented us from exploring two passages to their full length. Passages B and E are blocked at the mouth by low concreted walls. There was no clear indication of the use of these passages, though both sites 005 and 007, plus numerous rock-cut tombs, are near at hand. A few sherds of Byzantine ribbed ware were found sealed by ceiling collapse. Fig. 5. (Pl. LXVII: 2, LXIX: 1).
033. 2129-2232, +100.00 m. Large treble-chambered rock-cut tomb with loculi.
034. 2128-2232, at sea level. Shallow cave in south flank of 007. Plastered walls and niches as evidence of modern occupation, but the depth of deposit and eroded sherds suggest the possibility of EB use.
035. 2128-2232, +70.00 m. Single locus 1.50 x 0.80 x 0.50 m. in eroded cliff face.
036. 2126-2233, +60.00 m. single chambered rock-cut tomb under north-west cliff face of 007. Squared dromos and chamber with sunken locus on either side of dromos. Chamber dimensions 3.00 x 2.05 x 1.80 m.
037. 2202-2285, +420.00 m. Oval shaft cut into bedrock: 1.80 x 1.40 x 2.40 m. Cistern or tomb?
038. 2202-2282, +380.00 m. Associated rock-cut cisterns on hill side.
039. 2199-2282, +380.00 m. Five tombs, two rock-cut and three natural caves.
040. Hujaj. 2200-2278, +360.00 m. Sherd and lithic scatter over two hectares in modern village on spur; spring slightly to west. No architecture, basalt querns and grinders. Occupation Late Chalcolithic to EB II. Fig. 7: 12-19, 32, 33, 38, 39.
041. Hujaj. 2200-2278, +320.00 m. Very large double chamber cave tomb.
042. Square 2190-2270, +290.00 m.-+340.00 m. Large number of rock-cut tombs on spur south of Hujaj. A few worn Byzantine sherds.
043. Hujaj. 2201-2277, +310.00 m. Very thick scatter of worn Byzantine sherds beyond chicken hut south of village. Shallow depression over one hectare surrounded by rock outcrops; no architectural remains. Fig. 14: 4; fig. 15: 14.
044. 2197-2270, +320.00 m. Rock-cut press.
045. 2200-2275, +320.00 m. Interlinking

- rock-cut tombs, reused as well (?) with cup holes cut in surrounding rock.
046. 2200-2275, +320.00 m. Sherd scatter around 045: MB-LB? Fig. 7: 40; Fig. 9: 13-15.
 047. Hujaj. 2220-2279, +360.00 m. Rock-cut press.
 048. 2195-2275, +280.00 m. Sparse lithic scatter: Upper Paleolithic?
 049. 2184-2280, +400.00 m. Rock-cut press.
 050. 2189-2277, +330.00 m. Rock-cut sarcophagi, interior dimension 1.90 x 0.50 m. Two associated pairs.
 051. 2188-2274, +300.00 m. Small sherd scatter: Byzantine.
 052. Tell Ra'an or Kinise. 2191-2271, +260.00 m. Large tell over two hectares on spur well above Wadi Ish Ghurab, Spring at hand. Numerous recent stock walls; basalt capitals and bases, mortars, glass, and tesserae. Occupation EB to Mediaeval. Fig. 7: 20, 40, 41; Fig. 8: 7; Fig. 9: 16, 18, 19, 24-26; Fig. 12: 1-13; Fig. 17: 13, 14; Fig. 18: 15-31. (pl. LXVII: 1).
 053. 2191-2270, +220.00 m. Rock-cut press.
 054. 2189-2271, +230.00 m. Rock-cut cistern and reservoir.
 055. 2191-2273, +280.00 m. Sherd scatter opposite 052. Fig. 9: 20.
 056. 2165-2260, +120.00 m. Lithic scatter on terrace of Wadi 'Arab: Upper Paleolithic.
 057. 2162-2259, +110.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic. (Pl. LXIX: 2).
 058. 2162-2259, +100.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic. Fig. 10: 11. (Pl. LXIX: 2).
 059. 2162-2260, +100.00 m. Dam across Wadi Arab for 061 and 062.
 060. 2162-2260, +100.00 m. Double loculus tomb (?) cut in rock of wadi bed.
 061. 2162-2260, +100.00 m. Aruba penstock double shaft water mill.
 062. 2162-2260, +100.00 m. Remains of double-chamber stone structure and associated water channels: abandoned water mill?
 063. 2160-2261, +90.00 m. Aruba penstock double shaft water mill.
 064. 2175-2255, +120.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic.
 065. 2160-2263, +100.00 m. Small square-cut cave with niches: modern?
 066. 2179-2255, +140.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic. Fig. 10: 12.
 067. 2174-2266, +300.00 m. Sparse sherd scatter: Byzantine.
 068. 2162-2257, +160.00 m. Rock-cut press.
 069. Safin. 2174-2276, +370.00 m. Half-abandoned modern village on limestone ridge above spring. Thick sherd scatter on ridge and down south west slope, much re-use of squared stone blocks in modern structures; numerous cave tombs in area. Occupation Roman to Mediaeval. Fig. 16: 30; Fig. 19: 32-34.
 070. 2255-2222, +400.00 m. Large complex of rock-cut presses, cisterns, and re-used rock-cut tombs.
 071. 2255-2223, +400.00 m. Small sherd scatter: Mediaeval.
 072. 2255-2220, +420.00 m. Two single chamber rectangular rock-cut tombs.
 073. 2253-2220, +410.00 m. Cisterns and rock-cut channels.
 074. 2251-2211, +450.00 m. Sherd scatter; Byzantine. Fig. 16: 29.
 075. 2259-2211, +450.00 m. Sherd scatter; Byzantine to Mediaeval. Fig. 19: 35.
 076. 2252-2229, +400.00 m. Sherd scatter; Roman to Mediaeval. Fig. 16: 24, 28. Fig. 19: 36.
 077. 2252-2229, +400.00 m. Two single chambered rock-cut tombs, in 076.
 078. Som. 2250-2219, +380.00 m. Thick sherd erosion at outlet of wadi through village rubbish dump; Byzantine to Mediaeval. Fig. 19: 37, 38.
 079. Tell Muqa'am Abu Derda. 2248-2219, +412.00 m. Small, steep sided tell, covered by modern graves; no structures; EB to Mediaeval. Fig. 7: 21; Fig. 9: 17; Fig. 12: 14, 15; Fig. 14: 1, 12; Fig. 15: 20; Fig. 16: 27; Fig. 19: 39.
 080. Som. 2243-2220, +390.00 m. Sherd

scatter over six hectares; Hellenistic to Umayyad. Fig. 9: 22; Fig. 14: 13; Fig. 15: 16.

081. 2156-2266, +80.00 m. Penstock double shaft water mill.
082. Som. 2247-2220, +380.00 m. Double chambered rock-cut tomb with stair entrance; reused as cistern.
083. 2245-2213, +360.00 m. Rock cut press.
084. 2241-2216, +390.00 m. Sherd scatter: Byzantine.
085. 2240-2219, +360.00 m. Rock-cut press.
086. 2240-2227, +370.00 m. Rock-cut press.
087. Umm el-Jidael. 2259-2231, +370.00 m. Rock-cut press, cisterns, tombs, quarries.
088. 2255-2236, +420.00 m. Sherd scatter: Byzantine and Mediaeval.
089. 2257-2222, +320.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic. (LXVIII: 1).
090. Umm el-Ghazzalan. 2259-2228, +410.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic. Tabular chert outcrop nearby.
091. Umm el-Ghazzalan. 2252-2228, +400.00 m. Extensive industrial site: rock-cut presses, cisterns, cup holes, tunnels. Some Byzantine sherds.
092. Umm el-Ghazzalan. 2252-2229, +400.00 m. Rock-cuts presses and cisterns. Sherd and lithic scatter, Byzantine.
093. 2248-2226, +290.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic.
094. Delhem. 2245-2231, +410.00 m. Large spur extending over Wadi Arab. Lithic scatter over two hectares; sherds concentrated at north: Upper Paleolithic, Roman, and Byzantine. Fig. 10: 13-15; Fig. 14: 11; Fig. 16: 26.
095. 2243-2231, +390.00 m. Sherd scatter to west of 094: Mediaeval. Fig. 19: 40.
096. Batriakh. 2240-2228, +390.00 m. The owner, while a *Gastarbeiter* in

Munich, read an eighteenth century Rosicrucian text claiming that 450 monks from Baalbek were buried at a place called Patriarch's or Jew's Hill near Irbid, and, having bought the land, has subsequently launched a ferocious tree-planting programme on the rocky knoll, in the hope of striking lucky. Numerous cisterns and rock cuttings. Some Byzantine sherds. Fig. 15: 17; fig. 16: 22.

097. 2248-2237, +400.00 m. Lithic scatter on rocky knoll in open field: Upper Paleolithic.
098. 2260-2222, +360.00 m. Lithic scatter on terrace of Wadi Arab: Upper Paleolithic.
099. 2110-2226, +180.00 m. Sherd scatter: Mediaeval and some Byzantine. Fig. 19: 41.
100. 2109-2227, +170.00 m. Sherd scatter: Mediaeval and some Roman. Fig. 15: 15; Fig. 19: 42.
101. 2120-2223, +170.00 m. sherd scatter: Mediaeval and some Byzantine. Fig. 19: 43.
102. 2115-2225, +170.00 m. Sherd scatter: Mediaeval and some Byzantine. Fig. 19: 44, 45.

Chalcolithic and Early Bronze

Settlement was concentrated at the four tells (sites 001, 007, 052 and 079), and two field scatters (sites 018 and 040), with the Early Bronze II being most in evidence, and the pre-urban material mostly where it remained uncovered by later deposition. There was no evidence of any of the following material:

1. Neolithic or Early Chalcolithic
2. Golan Chalcolithic
3. Proto-Urban A or B wares, grey-burnished ware, or Proto-Urban D/Umm Hammad ware (including Jawa ware).

Since there are Proto-Urban wares at Shuneh and Arqub edh-Dhar,⁵ the absence in the Wadi Arab suggests either a *lacuna* in occupation, or a regional-based typological preference. The preponderance of

⁵ P. J. Parr, A Cave at Arqub edh-Dhar, *ADAJ*, III (1956) p. 16-73; and, de Contenson, *ibid*.

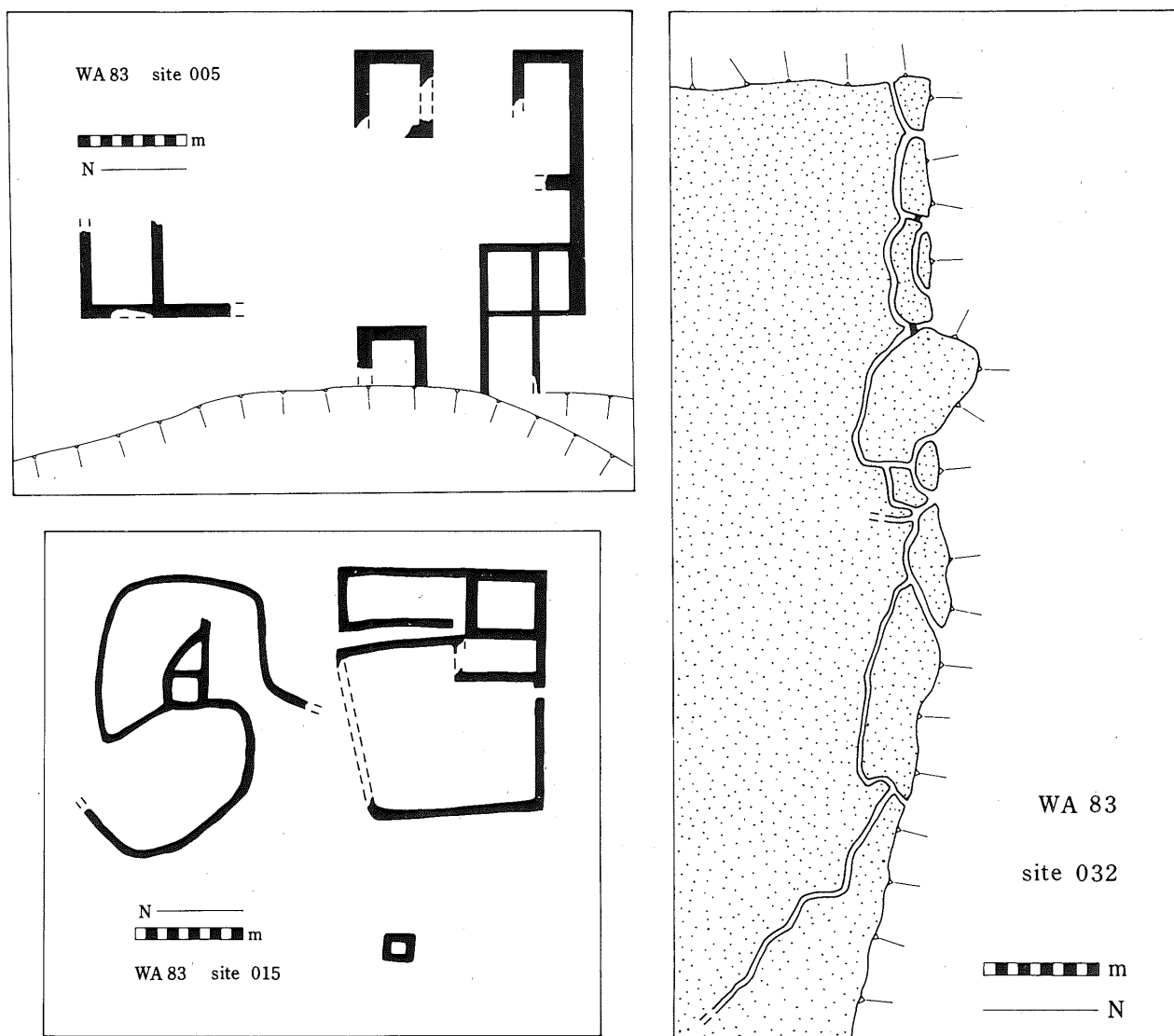


Fig. 5: Plans of sites 005, 015, and 032; in site 032 the hill is hatched.

holemouth jars over V-shaped bowls (Fig. 7: 25-28), and the knob handles (Fig. 8: 14, 15), in conjunction with the thumb-impressed decoration and the triangular section loop handles, and the sparse lithic evidence (Fig. 10: 1-7) points to a date at the very end of the Chalcolithic sequence, and is yet only paralleled at the ultimate, and post-Ghassulian, level at Pella Area XIV.⁶ If the sites do continue uninterrupted from the Late Chalcolithic to the Early Bronze II (grain wash wares), there may be a division between highland and lowland in the ceramic assemblages, and we might be seeing an example of regional rather than chronological factors in typological variability.⁷

Of particular interest are the stamp seal impression on the neck of an EB jar

(Fig. 8: 11), and the clay nail or fish hook (?) (Fig. 8: 22). This latter is a gift for those seeking 'Ubaid parallels for the Palestinian Chalcolithic.

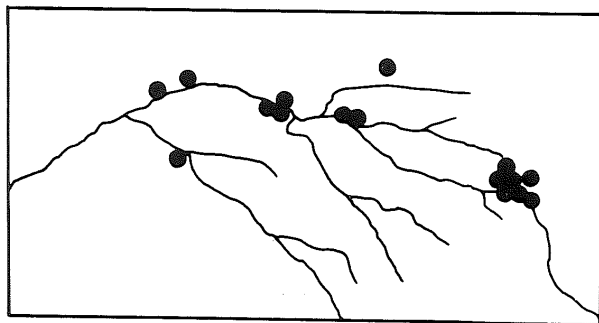
Middle and Late Bronze

The sparse Middle and Late Bronze Age material is almost entirely concentrated at two tells, sites 007 and 052. The ware is mainly crude and undoubtedly local, and falls into the general range of late Middle Bronze to Late Bronze. There was no evidence of the following:

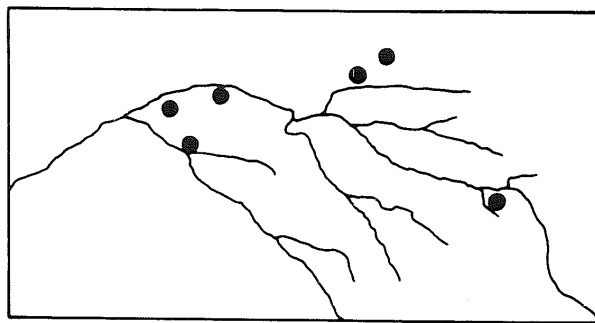
1. EB/MB (EB4) material.
2. Quality vessels — chocolate on white, white-slip, etc.
3. Cypriot or Mycenaean wares, or any other imports.

⁶ A. McNicoll, et. al., *Pella in Jordan 2*, Canberra, in preparation.

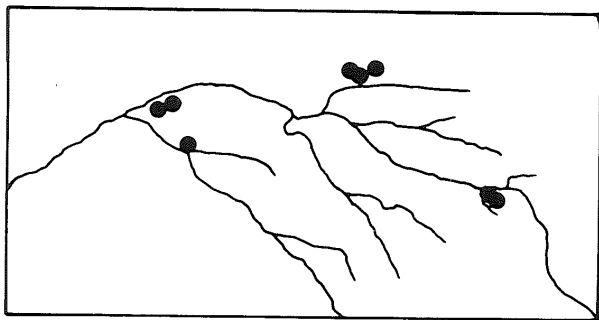
⁷ J. W. Hanbury-Tenison, *Jerash Region Survey*, 1984, in preparation.



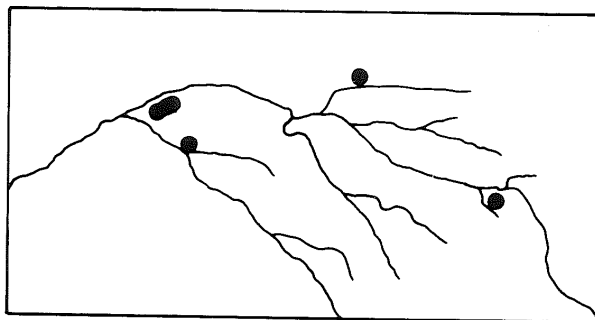
Upper Paleolithic



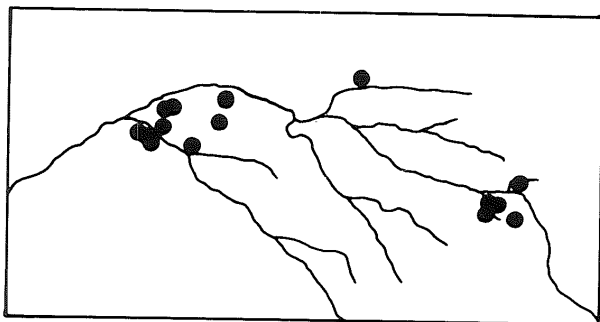
Chalcolithic - Early Bronze



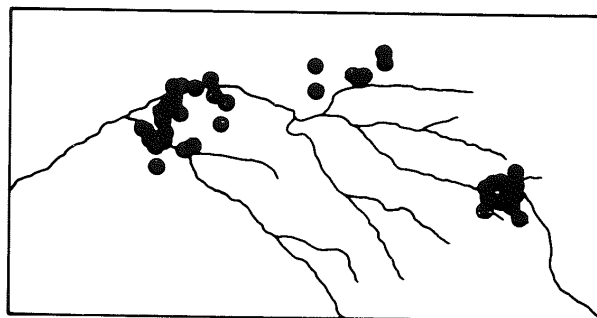
Middle - Late Bronze



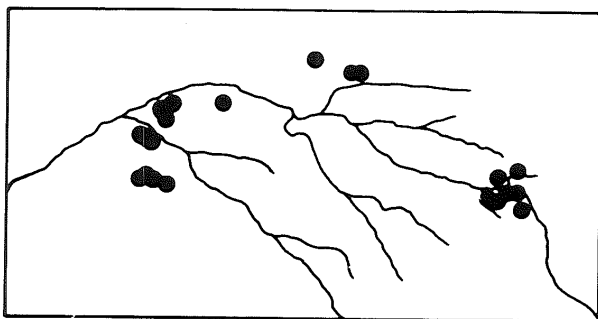
Iron Age



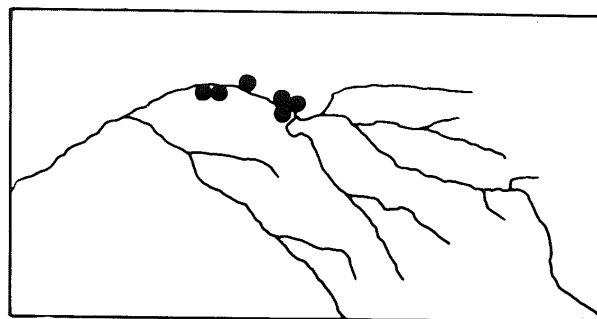
Classical



Byzantine - Umayyad



Mediaeval



Ottoman water mills

WADI ARAB: SITE DISTRIBUTION

Fig. 6: Wadi Arab Site distributions.



The following abbreviations have been used: HMJ for holemouth jar; HM for hand-made; WH for wheel-made; unp for unpainted; diam for diameter; ext and int for exterior and interior; SF and MF for soft and medium fired.

Figure 7

1. HMJ (001-001); orange faces, pink core, even fired; chert, limestone, and basalt medium temper, HM, unp, diam. 16 cm?
2. HMJ (001-002); orange faces, pink core, even fired; chert, basalt, and limestone medium temper, wet smoothed ext, HM, diam. 12 cm.
3. HMJ (001-010); orange faces, grey core; medium grits, HM, unp, diam. 24 cm.?
4. HMJ (001-011); orange faces, grey core; medium grits, traces brown paint ext, HM, diam. 30 cm?
5. HMJ (001-009); medium orange faces; buff core; medium grits, HM, unp, diam. 17 cm.
6. HMJ (001-006); light buff faces, reduced core; large and small grit temper, wet smoothed ext, HM, unp, diam., 22 cm.
7. HMJ (001-007); medium orange faces, buff core; medium grits, HM, unp, diam. 14 cm.
8. HMJ (007-048); yellow brown throughout; much limestone temper, unsmoothed wet-slip ext, HM, SF, diam. 15 cm.
9. HMJ (018-008); pale buff throughout; numerous chert grits, traces of brown paint ext, incised notches ext, HM, SF, diam. 20 cm.
10. HMJ, (008-003); buff throughout; many grits, poor levigation, HM, SF, unp, diam. 32 cm.?
11. HMJ :018-016); dirty buff, brown ext; numerous medium and small chert grits, brown paint rim ext, HM, MF, diam. 19 cm.?
12. HMJ (040-025); buff, reduced core; very gritty, HM, MF, unp, diam. 19 cm.
13. HMJ (040-026); buff, reduced core; very gritty, HM, MF, unp, diam 29 cm.
14. HMJ (040-016); brown, slightly reduced core; many grits, HM, MF, unp, diam. 24 cm.?
15. HMJ (040-015); pale buff, slightly reduced core; many grits, HM, SF, unp., diam. 19 cm.
16. HMJ (040-020); pink faces, slightly reduced core; large grits, HM, SF, unp, diam. 27 cm.?
17. HMJ (040-021); pink faces, slightly reduced core; medium grits, HM, SF, unp, diam. 20 cm.
18. HMJ (040-035); orange- buff faces, dirty core; small grits, brown paint ext, HM, SF, diam. 29 cm.
19. HMJ (040-017); pink throughout; much grit temper, parallel incisions on rim ext, HM, MF, unp, diam. 20 cm.
20. HMJ (052-043); dark brown throughout; many quartz, limestone, and chert grits, HM, MF, unp, diam. 17 cm.
21. HMJ (079-001); buff faces, reduced core; very gritty, brown paint ext, HM, MF, diam. 25 cm.?
22. Jar (001-003); dark yellow faces, grey core; much grit temper, HM, MF, unp, diam. 28 cm.
23. Jar (001-005); coarse buff throughout; large chert temper, HM, SF, unp, diam. 20 cm.
24. Bowl (001-012); pale buff throughout, medium grits, HM, SF, unp, diam. 20 cm.?
25. Bowl (007-049); buff faces, reduced core; much limestone temper, HM, SF, unp, diam. 15 cm.
26. Bowl (007-047); orange faces, slightly reduced core; small grit temper, HM, SF, unp, diam. 20 cm.?
27. Bowl (018-019); pale buff face ext and core, burnt int, numerous chert grits, HM, SF, unp, diam. 18 cm.
28. Bowl (018-001); light buff, grey inner face; numerous basalt and chert small grits, traces of red paint on rim int, HM, SF, diam. 36 cm.
29. Bowl (018-012); pale buff, grey core; poor levigation, large chert and some organic temper, brown paint rim int and ext, HM, SF, diam. 14 cm.
30. Jar (018-018); pale buff, reduced core; numerous medium and large chert grits, brown paint rim ext, HM, SF,

- diam. 19 cm?
31. Jar (018-002); red-pink faces, slightly reduced -core; large basalt and limestone grits, some organic temper, HM, SF, unp, diam. 28 cm.
 32. Jar (040-011); dark brown faces, reduced core; much medium grit temper, HM, MF, unp, diam. 25 cm.?
 33. Jar (040-012); pink throughout; many medium grits, poor levigation, HM, SF, unp, diam. 20 cm.
 34. Tall-necked jar (018-020); grey buff; numerous grits, wet smoothed ext, brown paint rim ext, HM, SF, diam. 24 cm.?
 35. Tall-necked jar (018-021); orange faces, reduced core; numerous grits, wet-smoothed faces, brown paint rim int and ext and neck ext, HM, MF, diam. 25 cm.
 36. Tall necked jar (018-009); red-pink faces, buff core, very poor levigation, very large chert grits, HM, SF, unp, diam. 23 cm.
 37. Tall necked jar (018-010); pale buff, many large and small chert grits, wet smoothed faces int and ext, some traces brown paint ext, HM, SF, diam. 23 cm.
 38. Tall necked jar (040-029); pink faces, buff core; many medium grits, brown paint rim ext, HM, MF, diam. 22 cm.
 39. Tall necked jar (040-124); pink faces, slightly reduced core, traces red paint int and ext, HM, MF, diam. 20 cm.
 40. Tall necked jar (046-004); brown faces, reduced core; very coarse, many large grits, brown paint ext, HM, SF, diam. 25 cm.
 41. Tall-necked jar (052-068); pink faces, reduced core; large chert grits, brown-orange paint ext, HM, SF, diam. 17 cm.
 42. Flaring rim jar (052-042); pink throughout; large chert grits, brown-orange paint ext, WM, SF, diam. 19 cm.
 2. Jar (040-013); pink faces, slightly reduced core; very gritty, poor levigation, HM, SF, brown paint on rim and ext, diam. 37 cm.
 3. Jar (040-014); buff throughout; many grits, poor levigation, HM, SF, brown paint rim and ext, applied band of impressed decoration below rim, diam. 27 cm.?
 4. Jar (040-030); orange faces, reduced core; many small grits, WM, HF, unp, diam. 24 cm.
 5. Jar (040-031); orange faces, reduced core; many small grits, WM, HF, unp, diam. 24 cm.
 6. Bowl (040-032); dark red throughout; many tiny grits, WM, HF, unp, diam. 49 cm.
 7. Bowl (052-045); red throughout; numerous chert and quartz grits, WM, MF, red/brown slip int and ext, diam. 33 cm.
 8. Body sherd (001-014); crude yellow buff throughout; medium grits, HM, SF, applied band of impressed decoration ext, brown paint ext.
 9. Body sherd (018-015); brown face ext, reduced core and inner face; many chert grits, HM, SF, incised notches ext.
 10. Body sherd (018-014); buff throughout; much limestone temper, HM, SF, applied band of impressed decoration ext.
 11. Body sherd (040-010); orange faces, reduced core; numerous small grits, HM, MF, stamp seal impression on neck ext.
 12. Ledge handle (001-004); grey buff faces, light core; many medium grit inclusions, HM, SF, dark brown grain-wash paint on light brown slip.
 13. Triangular section loop handle (018-004); buff throughout; limestone and chert inclusions, wet-smoothed faces, HM, SF.
 14. Knob handle (018-006); pale buff throughout; very coarse chert grits, HM, SF, unp.
 15. Knob handle (018-007); pale buff faces, reduced core; very coarse chert grits, HM, SF, unp.
 16. Round section loop handle (018-023);

Figure 8

1. Bowl (018-011); pale buff throughout, many large and small chert grits, wet smoothed faces, some traces of brown paint ext, HM, SF, diam. 34 cm.

- grey buff throughout; large limestone grits, HM, SF, unp.
17. Triangular section loop handle (040-008); dirty buff throughout; very gritty, HM, SF, unp.
 18. Flat loop handle (040-007); light brown throughout; very gritty, wet smoothed, HM, SF, unp.
 19. Ledge handle (040-006); orange faces, buff core; very gritty, HM, SF.
 20. Base (001-013); grey buff throughout; very coarse, many grits, HM, MF, brown paint ext, diam 28 cm.
 21. Base (040-005); orange faces and core ext, brown inner core; very gritty, poor levigation, HM, MF, traces of brown paint wash ext, diam. 23 cm.
 22. Clay hook or nail? (018-024); orange buff throughout; numerous small chert grits, HM, SF, unp.
 23. Base (040-001); buff throughout very coarse, large chert grits, poor levigation, red and brown vertical grain wash decoration ext, SF.
 24. Base (040-002); orange face ext, reduced core and int; coarse, with much chert inclusion, HM, MF, parallel grooves lightly incised ext.
 25. Body sherd (018-022); brown throughout; many small and medium basalt grits, MF, HM, applied band of impressed decoration ext.
- of impressed decoration below rim, diam. 47 cm.
5. Jar (007-024); buff faces, reduced core; coarse, with much grit temper, poor levigation, HM, HF, unp, diam. 52 cm.
 6. Loop handle (007-050); olive green throughout; well fired, medium fine, small grits, HM, HF, unp.
 7. Base (007-003); pink faces, dark core; grit and chaff temper, unp, diam. 14 cm.
 8. Base (007-004); buff faces, reduced core; heavy grit temper, diam 7 cm.
 9. Base (007-042); pale buff throughout; much limestone and organic temper, SF, unp, diam. 16 cm.
 10. Base (007-046); brown throughout; very fine ware, well levigated, small grit inclusions, burnished ext, HF, WM.,
 11. Body sherd (007-017); yellow buff throughout; small grit inclusions, incised parallel lines ext, HF, unp.
 12. Body sherd (007-038); pinkish face ext edging to reduced inner face; many large chert grit inclusions, poor levigation, shallow incisions ext.
 13. Bowl (046-001); grey buff throughout; many small grits, SF, traces of red paint int, diam. rim 16 cm.
 14. Base (046-002); grey buff throughout; many small grits, SF, diam. 20 cm.
 15. Jar (046-003); grey buff throughout; some large and many small grit inclusions, MF, unp, diam. 27 cm.
 16. Base (052-069); orange faces, buff core; numerous chert (int) and limestone (ext) inclusions, HF, unp, diam. 12 cm.
 17. Base (079-007); buff faces, slightly reduced core; numerous small and some large grits, MF, unp, diam. 9 cm.
 18. Body sherd (052-053); dark brown faces, reduced core; numerous chert and quartz grits, HM, HF, unp, applied band of impressed decoration ext.
 19. Jar (052-047); buff faces, reduced core; limestone and chaff temper, WM, HF, unp, diam. 39 cm.
 20. Bowl (055-001); buff faces, reduced core; many limestone grits, HF, unp,

Figure 9

1. Bowl (007-022); pinkish faces, reduced core; coarse grit temper, poor levigation, HM, HF, unp, applied band of impressed decoration below rim, diam. 34 cm.?
2. Bowl (007-043); medium brown throughout; much quartz and chert, and some chaff temper, HM, HF, unp, applied band of impressed decoration below rim, diam. 50 cm.
3. Bowl (007-044); medium brown throughout; much quartz and chert, and some chaff temper, HM, HF, unp, applied band of impressed decoration below rim, diam. 21 cm.
4. Bowl (007-045); medium brown throughout, reduced ext face; much quartz and cherts, and some chaff temper, HM, HF, unp, applied band

diam. 29 cm.

21. Handle (003-004); pale buff throughout; coarse grit inclusions, MF, unp.
22. Jar (080-013); light brown faces, reduced core; many grit inclusions, coarse, HF, unp, diam. 25 cm.
23. Jar (001-038); creamy buff throughout; many tiny basalt grits, wet smoothed faces, WM, HF, unp, diam. 9 cm.
24. Jar (052-076); creamy buff throughout; many tiny basalt grits, wet smoothed faces, WM, HF, diam. 12 cm.
25. Jar (052-075); creamy buff throughout; many tiny basalt grits, wet smoothed faces, WM, HF, unp, diam. 10 cm.
26. Jar (052-074); creamy buff throughout; many tiny basalt grits, wet smoothed faces, WM, HF, unp, diam. 17 cm.

Figure 10

1. Core scraper (018-013); tabular flake, unprepared platform, abrupt flake removal with some micro at distal end. Dark brown chert.
2. End scraper (018-005); triangular flake with removed midrib, distal end retouched on dorsal face (invasive). Dark grey chert, snapped.
3. Side scraper (040-040); triangular flake, unprepared platform, backed on dorsal face right side, retouched on ventral face right side, grey chert.
4. Core scraper (040-041); core with central platform removed, steep flaking all around, some retouch at distal end, brown chert.
5. Scraper (040-037); large thin flake, cortex on unprepared platform, slight bulb, retouched dorsal face left side, snapped right side, grey-brown chert.
6. Tabular scraper (040-038); chunky flake with prominent bulb, cortex on dorsal face, retouch along distal end, snapped across platform, dark brown chert.
7. Trapezoid blade (040-039); blade with midrib removed, prepared platform, cortex retained on dorsal face right side, retouch along opposite edge,

snapped distal end, dark brown chert.

8. Chamfered blade (013-001); flake with flakes scars prior to removal from core, distal and obliquely struck to form burin edge, grey chert.
9. Nucleiform end scraper (013-003); steep retouch at distal end, crude striking at bulbular end, grey chert.
10. Convex scraper (013-002); triangular flake, prepared platform, retouched edges, grey chert.
11. Carinated end scraper on flake (058-005); removed platform, steep flaking at distal end, grey chert.
12. Scraper, (066-001); pyramidal flake with prepared platform, retouched.
13. Burin (094-001); flake with platform removed by invasive retouch, retouched edges and burin scar on dorsal face left side, grey chert.
14. Round scraper (094-002); thin scraper, retouched all round, bulb removed, grey chert.
15. End scraper (094-003); blade with unprepared platform. cortex retained on left side dorsal face, distal and steeply retouched, grey chert.

The Iron Age Material

During the course of the 1983 survey of the Wadi Arab a small quantity of Iron Age material was found. The material itself is published here but for descriptions of the sites involved the reader is referred to the main article.

Site 001-Tell Zira'a

This large, multi-period site seems to be a popular spot for surveyors of the region. Glueck⁸ during his massive survey of Eastern Palestine visited it and mentions "a small quantity of Iron Age I-II sherds with those of Iron Age II predominating." Kerestes,⁹ *et. al.*, record a single Iron Age sherd during the course of their reservoir survey but do not elaborate.

The cooking pot fragment (Fig. 11, 2) found in this survey appears to be of the

⁸ N. Glueck, *Explorations in Eastern Palestine*, AASOR, New Haven, 1951.

⁹ Kerestes, *ibid.*, p. 108-135.

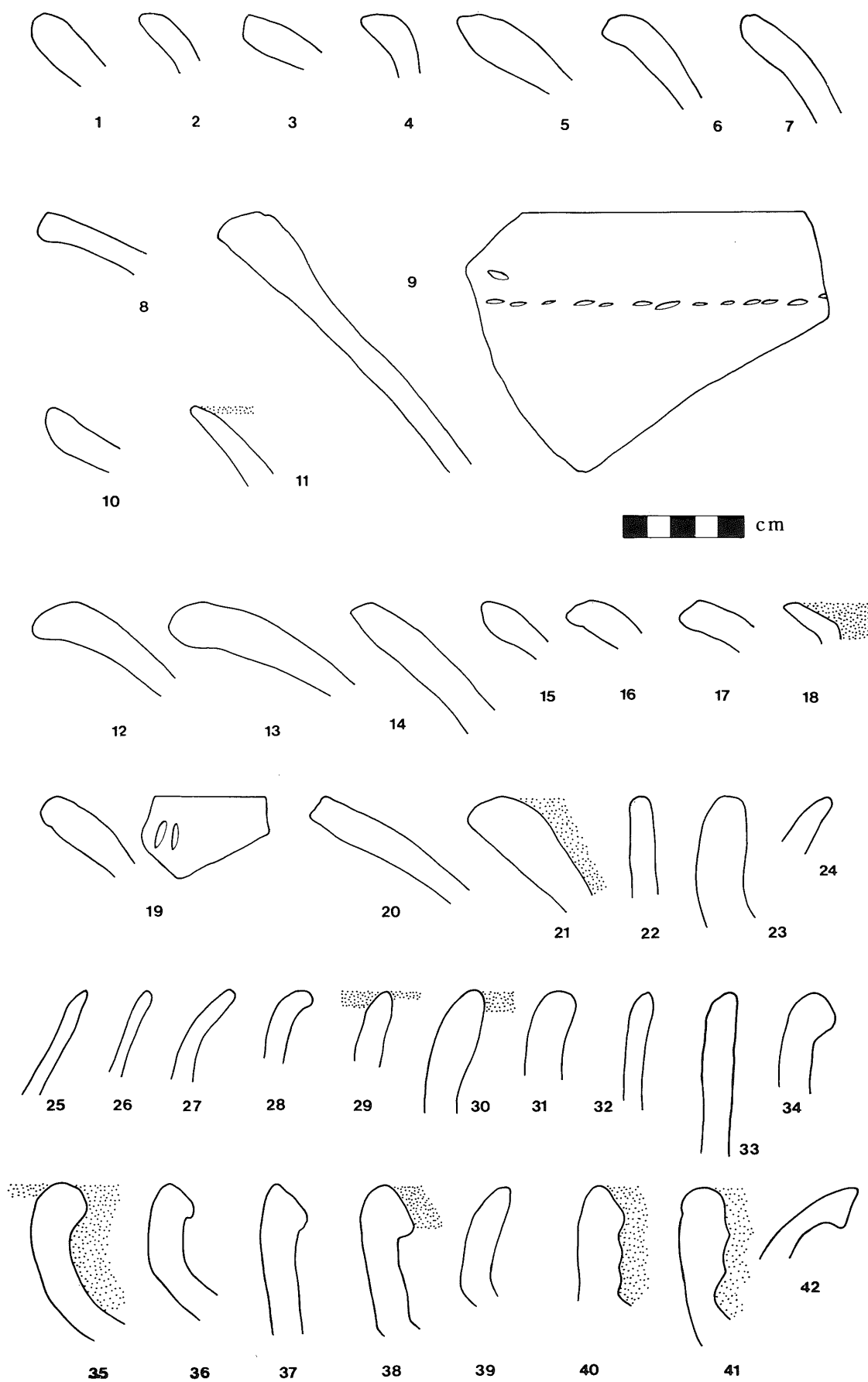


Fig. 7: Chalcolithic and Early Bronze pottery.

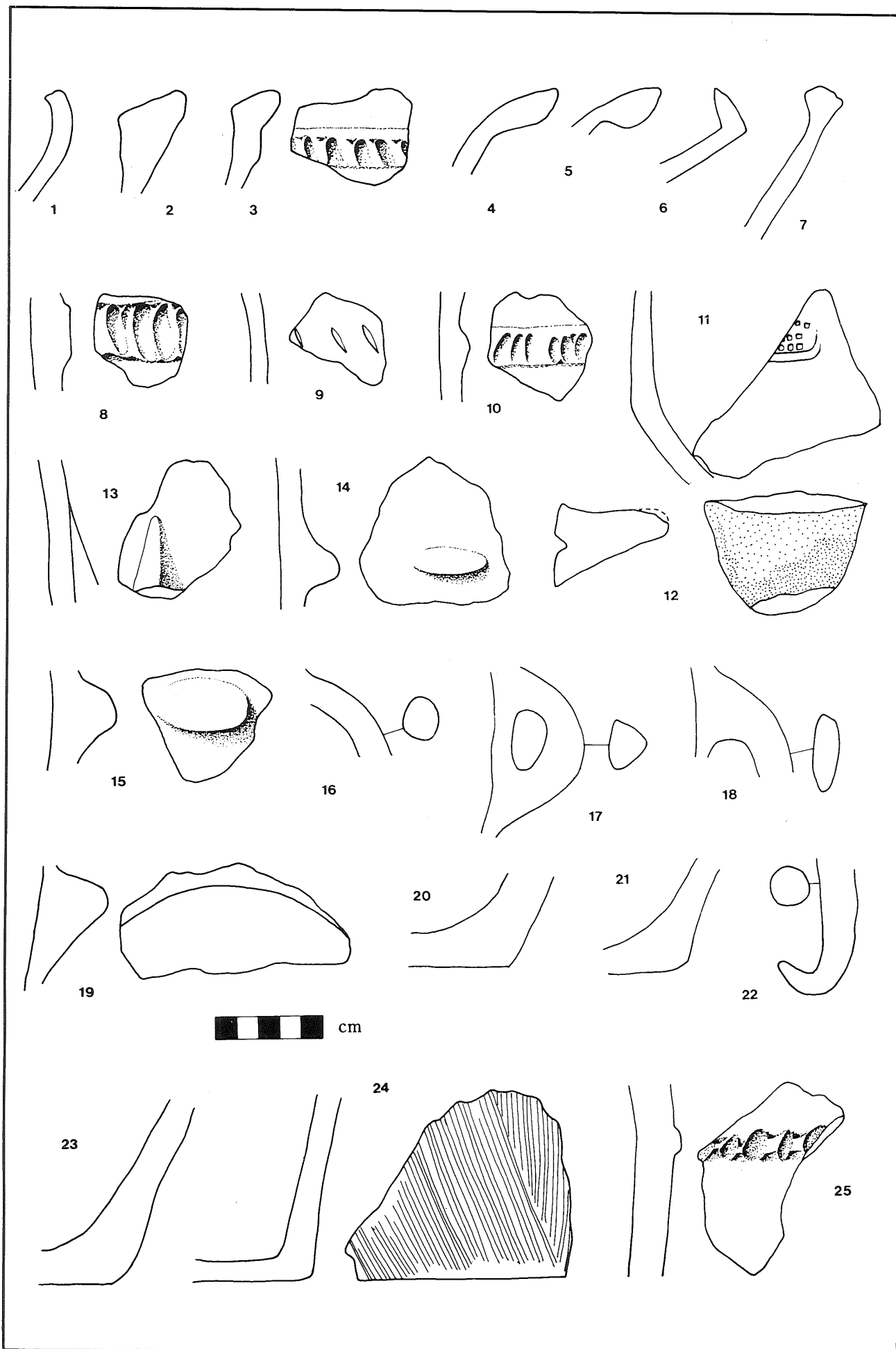


Fig. 8: Chalcolithic and Early Bronze pottery.

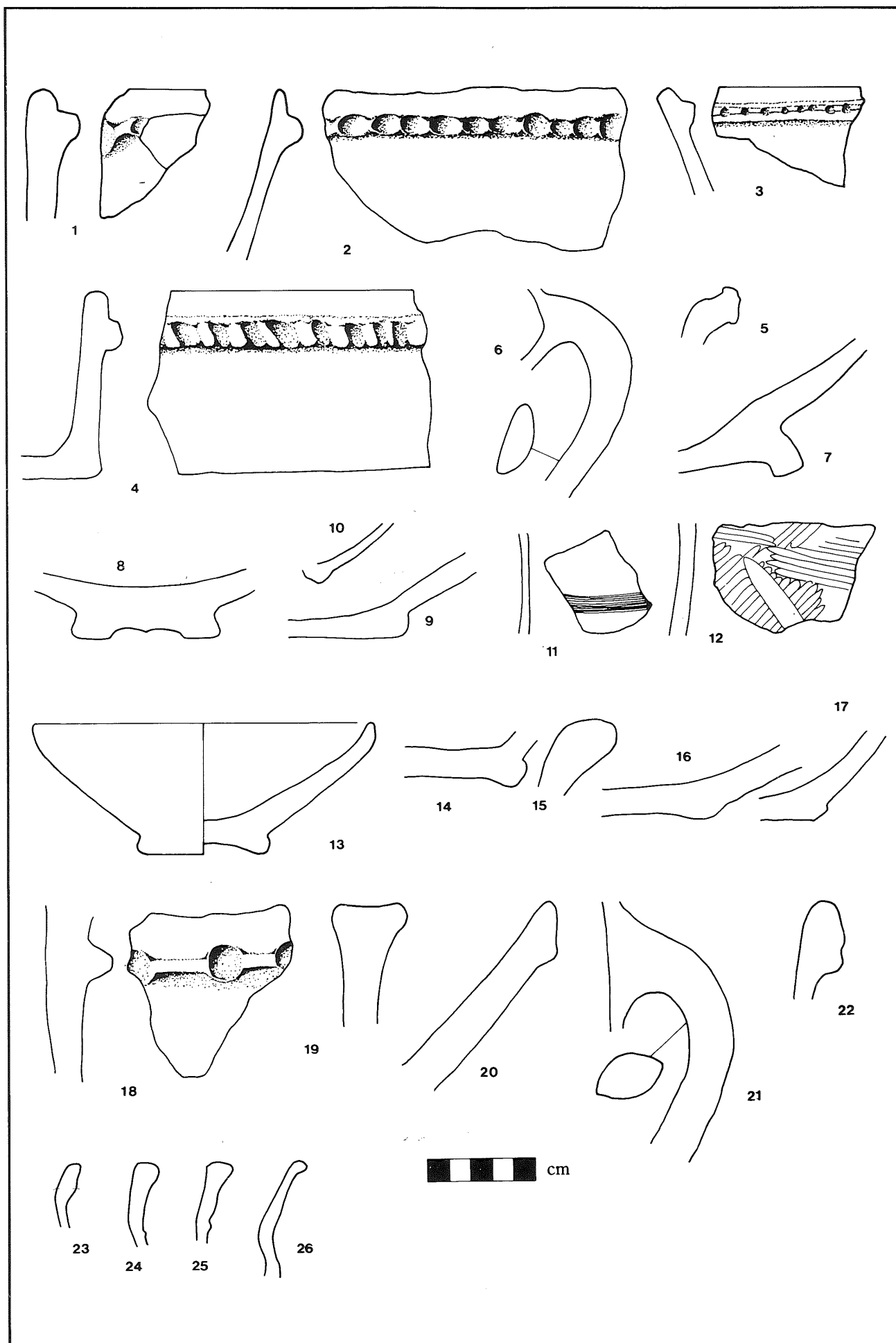


Fig. 9: Middle and Late Bronze, and Persian pottery.

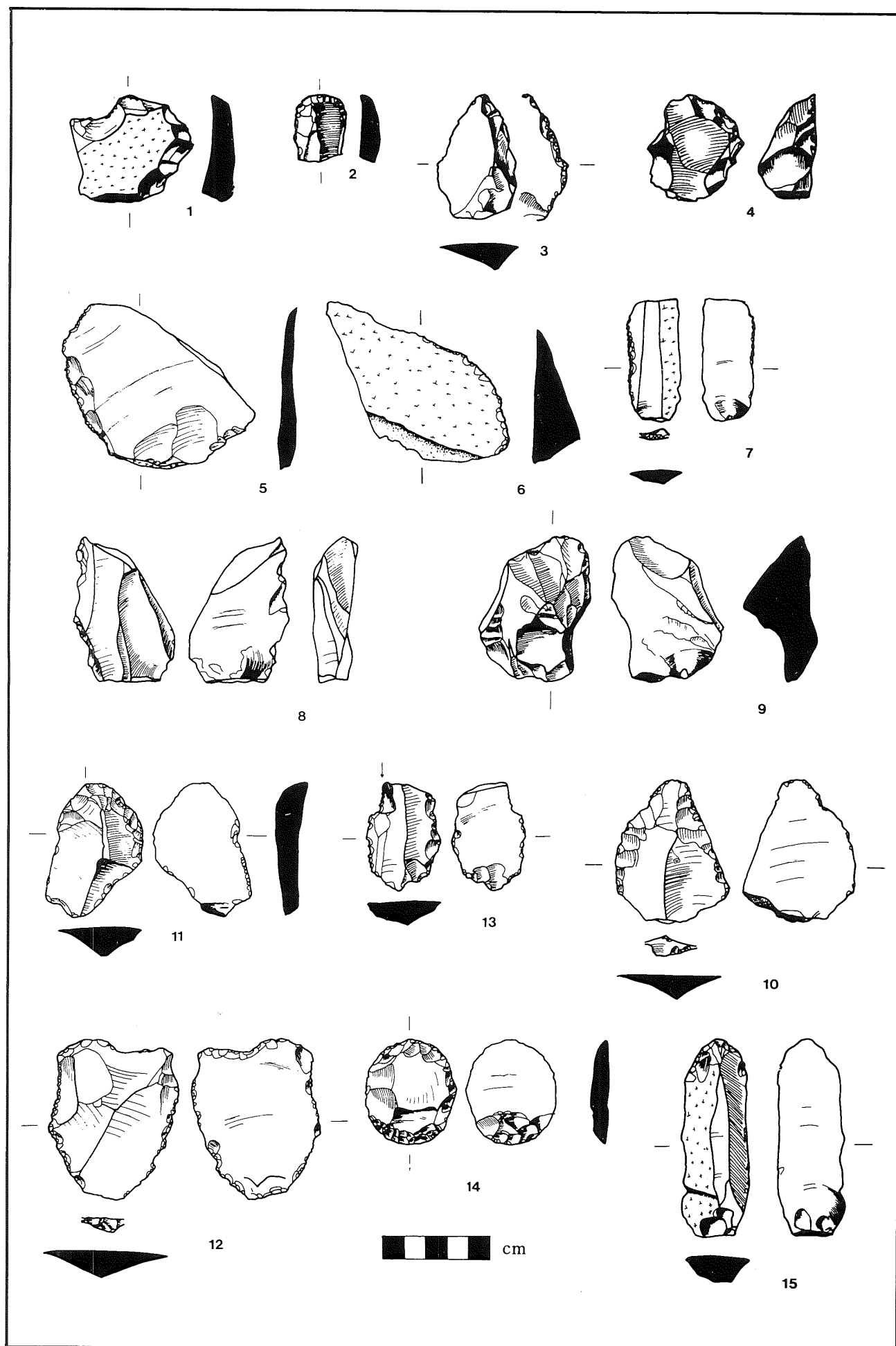


Fig. 10: Lithics; 1-7 are Chalcolithic/Early Bronze, 8-15 are Upper Paleolithic.

generic tenth-ninth century form. The large open vessel (Fig. 11: 3) is indeterminate although a similar vessel from Ta'anach Period VI A (450-425 B.C.)¹⁰ suggests that this example may be very late.

Site 007-Khirbet Bond

Several Iron Age periods may well exist here. The cooking vessel Figure 11 No. 15 is of the transitional Late Bronze-Early Iron period. At Pella for instance,¹¹ the form occurs in Plot C in both Phase IV, Late Bronze and Phase III, Early Iron.¹² The Krater (Fig. 11 No. 13) is probably about tenth century as, for example, at Ta'anach Period II A (1020-960),¹³ although insufficient of the vessel remains for certainty. Quite similar forms occur in other periods as for example at Beth Shan level VI (Iron I).¹⁴ The jar figure 11 no. 11 relates in shape to an example from Ta'anach Period VI A (450-425).¹⁵

Site 052-Tell Ra'an

This large site produced a variety of Iron Age material, not all of which can be readily identified.

The cooking pots (Figure 12: 1-5) are all reasonably early in the Iron Age spectrum, probably not much later than the tenth century and perhaps earlier. The painted body sherd (Figure 12: 9) looks twelfth century but insufficient remains for certainty. The jar/jug rim (Figure 12: 8) is early Iron Age. A similar, albeit less upright, example occurs at Pella¹⁶ from Plot C Phase III-twelfth century B.C. The bowl (Fig. 12: 6) is also of this general early period, similar examples occur at Pella¹⁷ in Plot C, Phase IV, LB II and Ta'anach¹⁸ Period IA, 1200-1150.

I am uncertain about the jar Figure 12: 7. It may be late Iron-Persian or may be of

a later period altogether. The three heavy bowls (Fig. 2: 10, 12, 13) are of clear Iron Age fabric but their exact date is unclear.

Site 079

Two fragments of Iron Age cooking pots were found. The one illustrated (Figure 12: 15) is probably to be reconstructed into a late iron age form. The jar, number 14, is not clearly an Iron Age fabric. Little more can be concluded at this site than a small Iron Age presence.

Description of Pottery

Site 001-Tell Zira'a - Fig. 11

1. Jar or Jug (001-036) Fired light brown in and red-brown out, with a thick greyish core and a few small lime grits. Well levigated.
2. Cooking Pot (001-030) Angle uncertain. Fired brown in and out with a grey core and a few lime and quartz grits. Diameter impossible.
3. Large open vessel (no number) Angle uncertain. Fired red-brown in and out with a thick greyish core and many small lime grits. Remains of buff slip ext. well levigated.

Site 007-Khirbet Bond - Fig. 11

4. Jar or Jug (007-035) Fired muddy brown throughout with a few small and medium lime grits. Well levigated. Sherd somewhat weathered.
5. Jar or jug (007-040) Fired orange-red at surfaces with a buff core and many small and medium lime and chert grits. Moderately well levigated.
6. Jar or jug (007-031) Fired medium brown in and out with greyish core and many small lime grits. Well levigated.
7. Jar (007-041) Fired buff throughout with small and medium lime, chert and basalt grits. Moderately well levigated.

¹⁰ W. E. Rast, *Ta'anach: Studies in the Iron Age Pottery*, ASOR, 1978, Fig. 82: 1.

¹¹ A. McNicoll, R. H. Smith, J. B. Hennessy, *Pella in Jordan 1*, Canberra, 1982.

¹² *Ibid.*, Pl. 119: 16, Pl. 121: 2.

¹³ Rast, *ibid.*, Fig. 22: 7.

¹⁴ F. W. James, *The Iron Age at Beth Shan*,

Philadelphia, 1966, Fig. 52: 2

¹⁵ Rast, *ibid.*, Fig. 77: 2.

¹⁶ A. McNicoll, R.H. Smith, J.B. Hennessy, *ibid.*, Pl. 121, No. 8.

¹⁷ *Op. Cit.*, Pl. 119, No. 1.

¹⁸ Rast, *ibid.*, Fig. 8, No. 10.

8. Jar or jug (007-030) "Pepper and salt" ware. Fired buff throughout with small and medium lime, chert and basalt grits. Self-slipped in and out. Well levigated.
9. Jar (007-032) Fired red throughout but browner towards the centre with a few small and medium lime grits.
10. Bowl or lid (007-049) Fired buff in and out with a grey core. Wet-smoothed ext. leaving gritty surface. Small and medium lime and chert grits.
11. Jar (007-014) Buff surface with a smoothed red slip in and out and a light grey core. Few small chert grits with some grog(?)
12. Jar (007-009) Fired orange-brown at surfaces in and out with a light grey core and a few small and medium lime grits.
13. Krater (007-021) Fired reddish in and out with a light-grey core and a few small and medium lime grits. Red slipped in and out.
14. Open vessel (007-033) Diameter uncertain but large. Fired dark brown in and out with a medium grey core and a few small lime grits.
15. Cooking pot (?) (007-034) Fired buff in and out with a grey core and small lime and chert grits.

Site 052-Tell Ra'an - Fig. 12

1. Cooking Pot (052-051) Fired dark brown throughout with many small lime and quartz grits.
2. Cooking Pot (052-057) Fired dark brown in and out with thick grey core and many small lime and quartz grits.
3. Cooking Pot (052-072) Fired red-brown out and dark brown in with thick grey core and many small lime and quartz grits.
4. Cooking Pot (052-071) Fired red-brown in and out with a thick grey core and many small lime and some chert and quartz grits.
5. Cooking Pot (052-070) Fired orange-brown in and out with thick grey core and many small lime, chert and quartz grits.
6. Bowl (052-060) Hard fired light brown in and out with thick grey core and

- many small and medium lime grits. Very well levigated.
7. Jar (052-052) "Pepper and Salt" ware. Fired buff throughout with many small lime and basalt grits. Well levigated. Folded over rim.
8. Jar or Jug (052-050) Fired light brown in and out with grey core and a few small lime grits. Well levigated and hard fired.
9. Body sherd (no number) Fired orange in and out with an orange-buff core and many small and medium lime grits. Surfaces covered in a light, white wash and with a band of red paint externally.
10. Bowl (052-048) Fired light brown in and out with thick grey core and many small and medium lime grits. Three shallow groove bands on rim.
11. Base (052-056) Fired light brown in and out with grey core and many small and medium lime and chert grits. Hard fired.
12. Bowl (052-046) Fired buff in and out with thick grey core and medium lime and quartz with some organic temper.
13. Bowl (052-049) Fired light brown with reddish bloom in and out and a thick grey core with many medium lime and quartz grits and some organic temper.

Site 079-Fig. 12

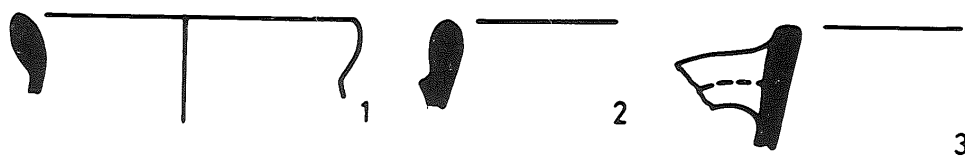
14. Jar (079-008) white ware with few medium lime and occasional quartz grits. Well levigated. Hand made on rim at least.
15. Cooking Pot (no number) Fired dark brown in and out with a dark grey core and mostly quartz temper.

Stephen Hart

The Pottery From the Hellenistic to the Islamic Periods

Material from these periods was found at a large number of the sites identified on the survey. The Byzantine and Mamlūk presence was particularly strong. The Table, Figure 13, indicates the broad chronological groupings represented at each site, from the Hellenistic period onwards.

SITE 001 - TELL ZIRA'A



SITE 007 - KHIRBET BOND

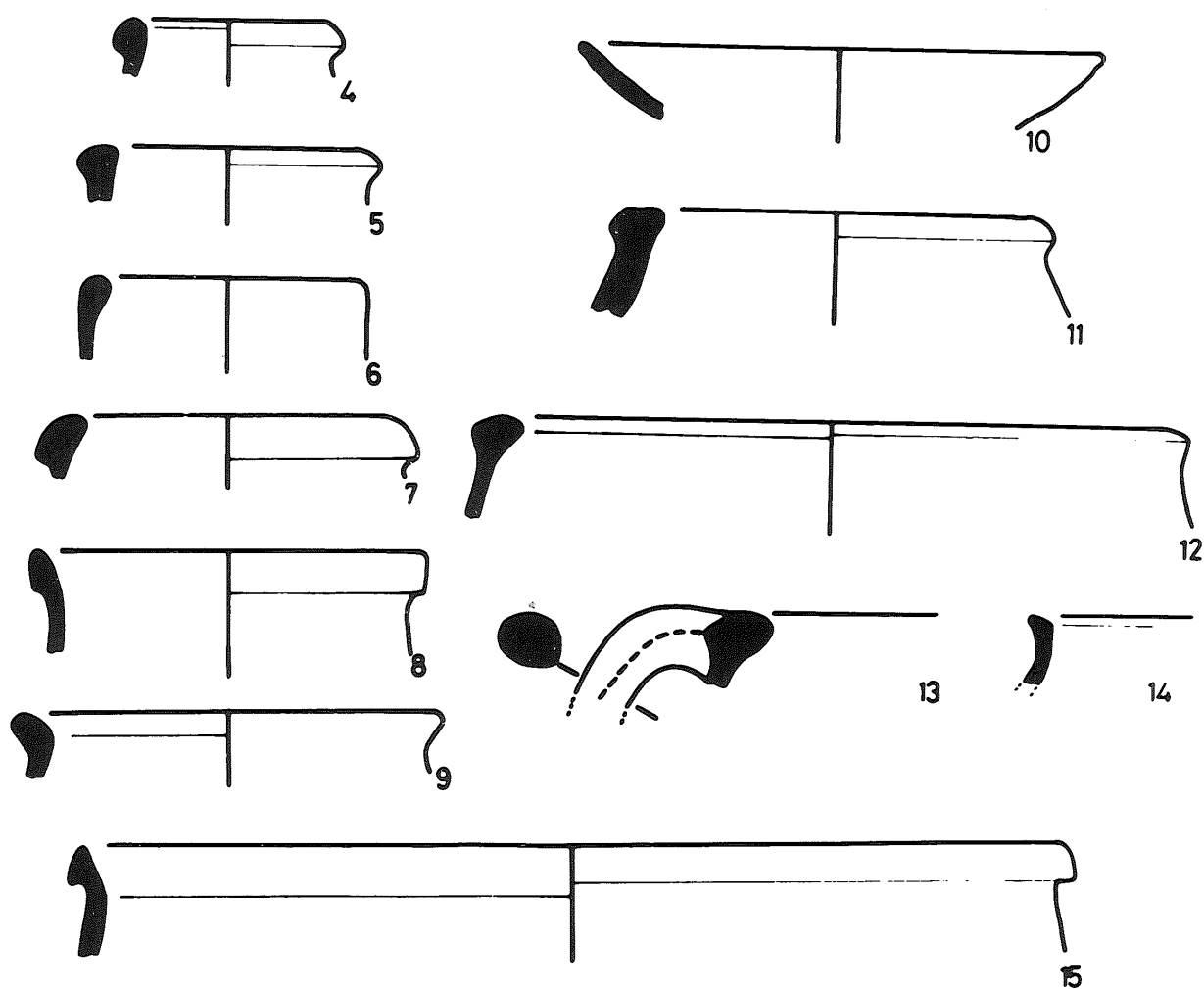


Fig. 11: Iron Age pottery.

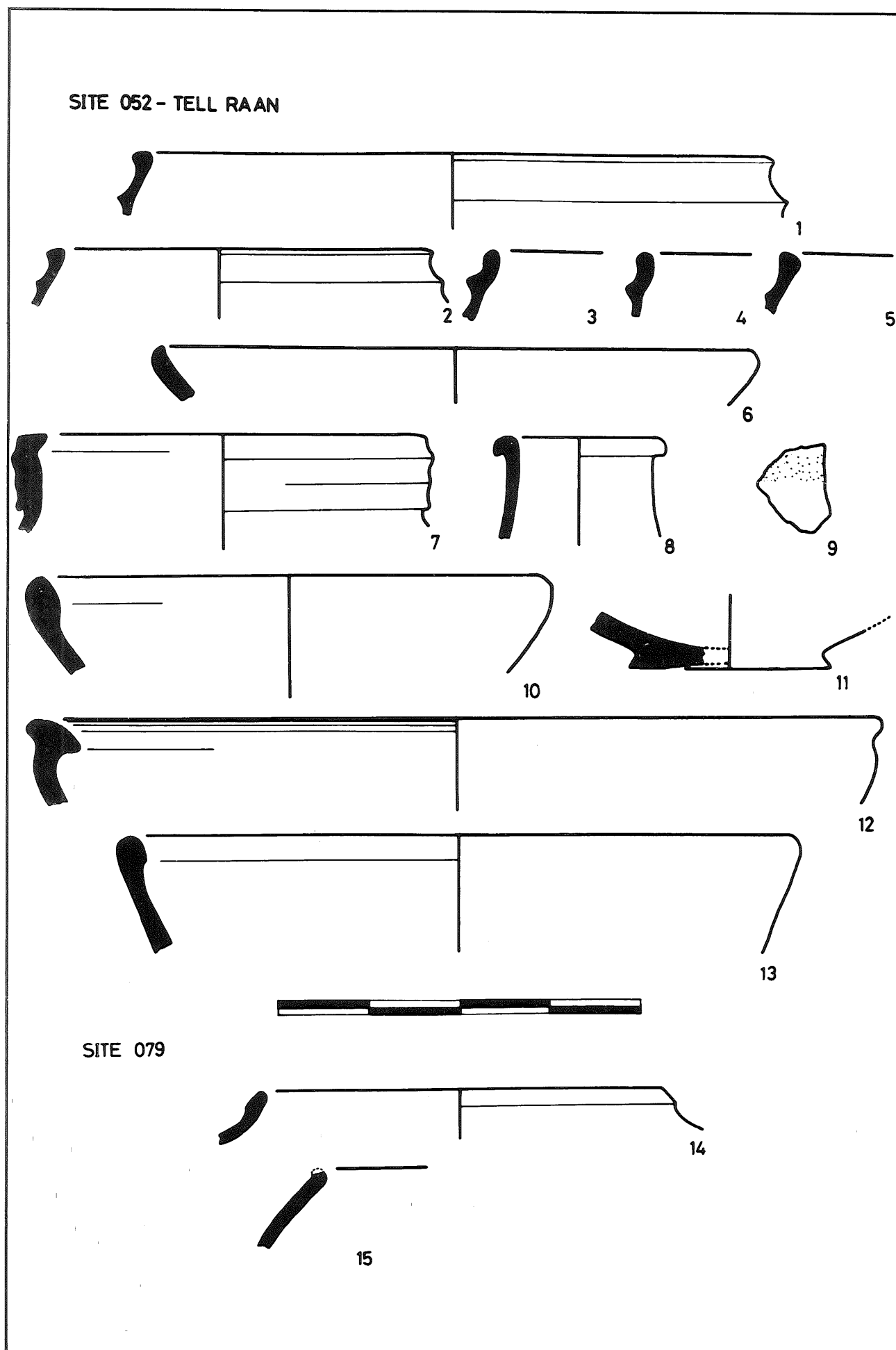


Fig. 12: Iron Age pottery.

Part I: The Hellenistic, Roman and Byzantine Pottery

The following section is an amplification of the Hellenistic to Byzantine information where further identification was possible and instructive. The sherds which have been illustrated and described in Figures 14-16, constitute the basic corpus of reference and are numbered from 1-30, in addition to their site and original sherd number. Sherds which have not been illustrated are identified merely by their site and original sherd number.

Description and Interpretation, by site

001 (Plot 1)

Sherd-034 Bowl, cf 18. Byzantine, 5th-6th C.

-037 Bowl, low incurving wall, simple rim. Pink ware, finely levigated with very fine grits, including lime and quartz. Overall slip of matte red mottling to dark grey. Hellenistic.

-039 Base, low ring, cf. Late Roman C Form 3, (Hayes 1972, 329 ff). Byzantine, 6th C.

(Plot 2)

-023 Jar, No. 7. The ware represented by this example can be creamy buff or pink with a buff surface. Nos. 1, 3 and 14 indicate the range within the general group. A common form in this ware is the large ribbed jar with two handles on the shoulder. The ware has a long life from the Hellenistic through to the early Byzantine period, and unless the forms are particularly characteristic of a certain period, close dating is difficult. Both colour varieties occur at this site.

-028 Bowl, cf. Late Roman C Form 3F, (Hayes 1972, 329ff). Byzantine, 6th C.

-Other Handle, horizontal, of cooking bowl. Yellow granular ware, well mixed with many fine and some medium quartz and dark grits, and the rare lime grit. Surface is typically a darker

pinkish-yellow with brown mottle. Cf Falkner, No. 313 (ware), 324 (rim). Roman, mid 3rd - mid 4th C. Body sherd, Eastern Sigillata A, cf Crowfoot et al, 283ff. Hellenistic/Roman.

002-009 Jar, No. 3. re-comments for 001-023.

-010 Jar, cf. 7. re 001-023.

-012 Bowl, cf Late Roman C Form 3F, (Hayes 1972, 329ff). Rouletted rim. Byzantine 6th C.

-013 Jar, No. 9. cf Falkner No. 353. Early Byzantine, late 4th - early 5th C.

-Other Eastern Sigillata A present.

003-014 Bowl, No. 18. Rim profile a variant - is more commonly three ridges between two grooves, cf 19. (015-001, a shorter-rimmed variant).

Cf Smith, Pl. 30, 1138; Pl. 43, C1304. Byzantine 5th-6th C.

-Other Eastern Sigillata A present.

Bowl, cooking, cf 22. Byzantine/Umayyad.

Body sherds of grey ribbed jar, cf 11, 12, 13. Byzantine/Umayyad.

007 (Plot 1)

-010 Bowl, Eastern Sigillata A, cf Form 1, Samaria, (Crowfoot et al, 309).

Late Hellenistic (dating, Gunneweg et al, 84ff).

-016 Body sherd, Cypriot Sigillata, (Hayes 1967).

-Other Amphora handle, Rhodian type, stamp area missing. Hellenistic.

(Plot 3)

-027 Base, ring, Imitation Sigillata. Roman, pre 3rd C.

-Other Body sherds of grey ribbed jar, cf 11, 12, 13. Byzantine/Umayyad.

008-

-Other Jar, notched rim of cooking pot. Dark brown, fine granular ware. Roman.

010-003 Jar, No. 8. Form cf 9. Early Byzantine.

- 015-001 Bowl, No. 19. cf 18. (003-014);
Smith, Pl. 28 and 90, 1208; pl. 43,
1313 and 1322. Byzantine 5th-6th
C.
- 002 Jar, No. 5. re ware 001-023.
The pottery collected at this site
was predominantly of this ware,
of the pink/buff variety.
- 002A Jar, No. 6, as above.
- 020-
- Other Handle, yellow ware, as 001,
plot 2 (-Other). Roman, mid
3rd-mid 4th C.
- 022-001 Jar, cooking, cf Falkner No. 348.
Early Byzantine.
- Other Amphora handle, Rhodian
type, stamp area missing. Hel-
lenistic. Eastern Sigillata A
present.
- 023-001 Bowl, cf 19. Byzantine, 5th-6th C.
- 024-001 Jar, No. 2. cf. Loffreda, Fig. 1, 1
p. 26. Early Roman.
- 002 Bowl, cooking, No. 23. Cf
Meyers et al, Pl. 8. 11, 23-29.
Roman, 3rd C.
- Other Bowl, "Galilean", rim and
handle stub. cf Meyers et al,
Pl. 8.1 and p. 123. Late 3rd -
early 5th C.
Body sherds of ribbed jar,
pink/buff ware, re 001-023.
- 025-001 Bowl, cf 19. with ribbed wall. Five
other examples, one with lug on
rim. Byzantine, 5th-6th C.
- 006 Bowl, cf. 16. Brownish-orange.
Early - mid Roman.
- 008 Bowl, cf Late Roman C Form
10A (Hayes 1972, 343ff). Late
6th/early 7th C.
- 009 Bowl, cf Late Roman C Form
3F/10A transitional (Hayes,
ibid).
Late 6th/early 7th C.
- 011 Bowl, cf Cypriot Red Slip Form
9C (Hayes 1972, 379 ff). End
6th-end 7th C.
- 012 Jar, No. 10. cf Falkner, Nos.
350-354. Early Byzantine, Late
4th-early 5th C.
- Other Jar, cf. 2. Early Roman.
Jar, cf form, Sauer, 1973, Fig.
3, 111. Ware pink/buff, re 001-
023.
- 026-001 Bowl, No. 25. cf African Red Slip
Form 104C (Hayes 1972, 160ff).
550-625.
- 002 Base, vestigial ring foot, cf Late
Roman C Form 10 (Hayes
1972, 343ff).
Late 6th - mid 7th C.
- 003 Base, foot closest to African
Red Slip Form 104: (Hayes
1972, 160ff).
Two concentric grooves around
stamp (edge only, visible). 6th-
early 7th C.
- 004 Bowl, cf 19. with ribbed wall.
Byzantine 5th-6th C.
- Other Body sherds of ribbed jar, buff
ware as 001-023.
Body sherds of grey ribbed jar,
cf 11, 12, 13. Byzantine/
Umayyad.
- 027-006 Bowl, cf Late Roman C Form 3F,
rouletted rim, (Hayes 1972,
329ff). Byzantine 6th C.
- 043-001 Jar, cf 8. in ware and form, but
taller neck. Early Byzantine.
- 005 Base, flat string-cut, of small
ribbed juglet. Ware cf 14. re
001-023.
- 013 Jar, No. 4. re 001-023.
- 014 Bowl or jar, No. 14. re 001-023.
- 069-002 Krater, cf 28,. Mid 6th-7th C.
- 009 Jar, cf Sauer, 1973 Fig. 1, 25.
Roman.
- Other Body sherds of ribbed jar, buff
ware, re 001-023.
- 074-001 Bowl, cf 19. Thinner variant.
Byzantine, 5th-6th C.
- 002 Krater, No. 29. Dating uncer-
tain.
- 075-001 Bowl, cf 18. Two examples.
Byzantine, 5th-6th C.
- 004 Bowl, cf Late Roman C Form
10A, (Hayes 1972, 343ff). Late
6th-early 7th C.
- 076-001 Bowl, No. 24. Treatment and
ware close to 18. and 19. Perhaps
contemporary — Byzantine.
- 002 Base, ring. cf African Red Slip
Form 107 (Hayes 1972, 171ff).
600-650.
- 003 Base, ring. Eastern Sigillata A.
Hellenistic/Roman.
- 006 Jar, cf 6. but shorter neck and

- flatter rim top.
- 009 Krater, No. 28. cf McNicoll et al., pl. 139, 2. Mid 6th-7th C.
 - Other Body sherds of grey ribbed jar, cf 11, 12, 13. Byzantine/Umayyad.
- 078-
- Other Body sherds (thick), of grey ribbed jar, cf 11, 12, 13. Byzantine/Umayyad.
- 079-009 Bowl, cf 23. Roman, 3rd C.
- 010 Bowl, cf 18. Byzantine 5th-6th C.
 - 014 Krater, No. 27. Byzantine.
 - 015 Bowl, No. 20. Byzantine 5th-6th C.
 - 017 Jar, No. 12. cf Landgraf, Fig. 21, 5. He discusses, p. 67ff, this common Late Byzantine to Umayyad jar or amphora, which is characterized by its grey surface, ribbing and white painted decoration. cf 11 and 13.
 - 019 Krater, ware cf 28. with similar form, flat rim top, no incised decoration. Late Byzantine/early Umayyad, 7th C.
 - 021 Jar, No. 1. Ware re 001-023, (cfs from Pella, unpublished). Hellenistic.
- 080-001 Bowl, No. 16, cf Loffreda, A11, Fig. 5, p. 36. Early - mid Roman,
- 003 Amphora handle, Rhodian, with long rectangular stamp (illegible), Hellenistic.
 - 006 Jar, No. 13. cf 12. (079-017). Late Byzantine.
- 088-003 Jar, cf 12. Late Byzantine.
- 004 Bowl, cf 18. Byzantine, 5th-6th C.
 - 005 Bowl, cf 19. Byzantine, 5th-6th C.
- 092-001 Bowl, cf Late Roman C Form 3F or H (Hayes 1972, 329 ff). Byzantine, 6th C.
- 003 Handle of ribbed jar, pink/buff ware re 001-023.
- 094 (Plot 4)
- XI Bowl, No. 26, "Jerash" type, painted fine ware, Byzantine, 6th C.
- (Plot 5).
- 003 Jar, No. 11, cf 12. (079-017). Late Byzantine.
 - 005 Bowl, cf Cypriot Red Slip Form 9C (Hayes 1972, 379 ff). End 6th-end 7th C.
- 096-001 Bowl, No. 17. Date uncertain, ware indicates Byzantine.
- 004 Bowl, cooking, cf McNicoll et al. pl. 138, 3. Byzantine.
 - Other Body sherds, buff ware, re 001-023.
- 099-003 Krater, small, ware cf 28. Form similar, but without comb decoration on rim. Late Byzantine/early Umayyad, 7th C.
- 010 Jug. Ware and slip cf 001-037. Hellenistic.
- 100-X2 Bowl, No. 15. Ware cf 16. Type is similar to 16. but rim is triple-ridged rather than double. cf Meyers. Pl. 8.3, 3 and 4 (no commentary); Loffreda. A12, Fig. 5, 16-19, p. 38, Mid-Roman.

Figure 14

| No. | Site No. | Sherd No. | |
|-----|------------|-------------------|---|
| 1. | 079 - 021 | Jar, diam. 16 cm. | Creamy white throughout. Finely mixed homogeneous paste with many fine airholes. Chalky texture, angular fracture. |
| 2. | 024 - 001 | Jar, diam. 9 cm. | Brownish-grey core between pinkish-orange, pale grey surface ext. Slurried. Fairly well mixed with many fine and some medium lime and dark grits. Clean fracture. |
| 3. | 002 - 009 | Jar, diam. 9 cm. | Colour and ware as 1. but more compacted, with an occasional lime or dark grit. |
| 4. | 043 - 013 | Jar, diam. 11 cm. | Pinkish-buff with creamy buff surface. Ware similar to 3. but some very fine grey and red grits. |
| 5. | 015 - 002 | Jar, diam. 10 cm. | Colour and ware as 3. |
| 6. | 015 - 002A | Jar, diam. 10 cm. | Colour and ware as 3. |
| 7. | 001 - 023 | Jar, diam. ? | Colour and ware as 1. |

8. 010 - 003 Jar, diam.? Dusky pink with pale grey surface ext. and creamy buff surface int. Well slurried. Very finely mixed and compact paste with no visible grits, occasional small elongated airholes. Chalky texture, clean fracture.
9. 002 - 013 Jar, diam. 14 cm. Pinkish-orange throughout, pale grey surface ext. Roughly mixed with a scatter of medium angular lime, grey and red grits, numerous elongated airholes. Angular fracture.
10. 025 - 012 Jar, Diam. 10 cm. Dark grey and orange sandwich core, pale grey surface. Very well mixed with many small and occasional medium lime and quartz grits. Hard fired, slightly uneven fracture.
11. 094 - 003 Jar, diam. 11 cm. Brown core between dark grey. Fairly roughly mixed with many small and some medium lime grits, occasional angular grey grits and small particles of red grog. Fine elongated airholes. Hard fired, metallic, fine gritty texture, clean fracture.
12. 079 - 017 Jar, diam. 11 cm. As 11.
13. 080-006 Jar, diam. 11 cm. Form cf 12. but heavier. Pale orange throughout, pale grey surface. Very well mixed with very fine airholes. Hard fired, slightly crumbly fracture.

Figure 15

| No. | Site No. | Sherd No. |
|-----|-----------|--|
| 14. | 043 - 014 | Bowl or jar, diam. 11 cm. Pinkish-buff with creamy buff surface. Extremely finely levigated ware as 3. but no airholes visible. Trace of handle attachment |

15. 100 - X2 Bowl, diam. 16 cm. but largely reduced grey.
16. 080 - 001 Bowl, diam. 22 cm. Deep brownish-red, mid-brown surface, slurried. A few very fine lime and dark grey grits, well mixed fine paste. Hard fired, crumbly fracture.
17. 096 - 001 Bowl, diam. 19 cm. Dark grey throughout, ware as 21.
18. 003 - 0114 Bowl, diam. 20 cm. Dark grey core between dark orange, brownish-orange surface. Roughly mixed with many small lime, rounded quartz and occasional dark grey grits. Numerous small airholes. Hard fired, brittle, gritty texture, crumbly fracture.
19. 015 - 001 Bowl, diam. 24 cm. Brownish-orange throughout, purplish-brown surface. Ware as 18.
20. 079 - 015 Bowl, diam. 27 cm. Pale grey thin core between mid-orange pinkish-buff surface mottling to greyish-brown on rim and ext. Well-mixed fine clay with a scatter of fine and medium lime grits and fine quartz grits.

Figure 16

| No. | Site No. | Sherd No. |
|-----|-----------|---|
| 21. | 026 - 013 | Lid, diam. 26 cm. of cooking pot. Pale orange to grey, grey surface ext. Coarsely mixed with many fine and medium lime and angular grey grits and quartz pebbles. Hard fired, gritty texture, crumbly fracture. |
| 22. | 096 - 004 | Open cooking pot, diam. 26 cm. Mid-orange throughout, |

- pale grey surface ext. Ware as 21.
23. 024 - 002 Open cooking bowl, diam. 25 cm. Colour and ware as 16. but inclusions slightly larger and more frequent.
 24. 076 - 001 Bowl, diam. 34 cm. Colour and ware as 18. Trace of handle attachment from rim to upper wall.
 25. 026 - 001 Bowl, diam. ? Mid-orange throughout, thick semi-lustrous slip, same colour, tooling bands on rim. Well mixed granular ware containing some lime and grey grits and many small quartz grits. Hard fired, crumbly fracture.
 26. 094 - XI Bowl, diam. 37 cm. Pale grey core at rim only, between mid-orange. Very well mixed with very fine quartz and some lime grits, fine airholes. Slightly crumbly fracture, hard fired.
 27. 079 - 014 Krater, diam. 31 cm. Pinkish-brown throughout, pale greyish-brown surface ext. Very well mixed homogeneous clay with occasional small particles of brown grog and fine elongated airholes. Hard fired. smoothed fine gritty texture irregular fracture.
 28. 076 - 009 Krater, diam. 48 cm. Pale grey throughout. Very well mixed with numerous small dark grits. Hard fired, smoothed fine gritty texture, irregular fracture.
 29. 074 - 002 Krater, diam. 40 cm. Yellow throughout. Fairly well mixed with many small and medium grey grits, fine airholes and numerous particles of red grog. Gritty texture crumbly fracture.
 30. 069 - 009 Large storage jar, diam. 24 cm. Thick grey core between pink, buff surface ext.

Very well mixed granular ware, with many small grey and quartz grits and occasional small, medium and large lime grits. Hard fired, crumbly fracture, smoothed gritty texture.

P. M. Watson

Part II: The Islamic Pottery

This section is designed purely to show the existence of different types of Islamic pottery found in the Wadi Arab during the survey. Figure 13 shows the periods for which sherds are present, and Figure 20 shows, very loosely, the types of Islamic pottery that occur.

The drawings, (Figures 17-19) merely show the best examples of different types, and the absence of a ware, type, or period from the drawings does not signify an absence in the Wadi Arab.

It is hard to find close equivalents for pottery types in the Islamic period after the eighth century, so no definitive ones have been given. The reader is referred to the bibliography.

Notes on the Figures

All diameters are in centimetres and refer to the rim unless otherwise stated.

The sets of numbers in the description of the drawings refer to the site, and the original sherd number respectively. A number in brackets refers to a plot number, (see main text).

In Figure 20 'Ayyūbid/Mamlūk fine ware painted' refers to the ware that smith calls "medieval group B" which he mistakenly calls 'Abbāsīd.¹⁹

Acknowledgements

I would like to thank Dr. C. Lenzen for help in identifying some of the sherds.

Figure 17

1. 001-032. (4). Hand-made bowl, 23 cms. Dull orange with grey core, cream slip with dark red paint. The ware is very crumbly and pock-marked, a few large black and red grits are visible in the section with many large white grits, 'Ayyūbid/Mamlūk.

| Site/Plot. | Hellenistic. | Roman. | Byzantine. | Hell-Byz misc. | Umayyad. | Abbasid. | Ayyubid/ Mamluk. | Ottoman. |
|------------|--------------|--------|------------|-------------------|----------|----------|---------------------|----------|
| 001/1. | 1 | | 1 | | | | | |
| 2.. | | 1 | 1 | 1 | | | 1 | |
| 3. | | | 1 | 1 | | | 1 | |
| 4. | | | 1 | 1 | | | 1 | |
| 6. | | 1 | 1 | 1 | | | | |
| 002. | | 1 | 1 | 1 | 1 | | | |
| 003. | | | 1 | 1 | | | | |
| 005. | | | | 1 | | | | |
| 007/1. | 1 | | | 1 | | | | |
| 2. | | | | 1 | | | | |
| 3. | | 1 | 1 | | | | | |
| 5. | | | | | | | 1 | |
| 008. | | 1 | | 1 | | | | |
| 009. | | | | 1 | | | | |
| 010. | | | | 1 | 1 | | | |
| 012. | | | 1 | 1 | 1 | | 1 | |
| 014. | | | | 1 | | | | |
| 015. | | | 1 | 1 | | | | |
| 020. | | 1 | | 1 | | | | |
| 022. | 1 | | 1 | 1 | | | 1 | |
| 023. | | 1 | 1 | 1 | | | 1 | |
| 024. | | | | 1 | | | | |
| 025. | 1 | 1 | 1 | 1 | 1 | ? | | |
| 026. | | | 1 | 1 | 1 | | 1 | |
| 027. | | | 1 | | 1 | ? | 1 | |
| 032. | | | 1 | 1 | | | | |

Fig. 13: Hellenistic to Ottoman site distributions.

| Site/Plot. | Hellenistic. | Roman. | Byzantine. | Hell-Byz misc. | Umayyad. | Abbasid. | Ayyubid/ Mamluk. | Ottoman. |
|------------|--------------|--------|------------|-------------------|----------|----------|---------------------|----------|
| 043. | | | 1 | 1 | | | | |
| 052/1. | | | | | | | 1 | ? |
| 2. | | | | | | | 1 | |
| 4. | | | | | | | 1 | |
| 5. | | | | | 1 | | 1 | ? |
| 055. | | | | 1 | | | | |
| 067. | | | | 1 | | | | |
| 069. | | | 1 | 1 | | 1 | 1 | ? |
| 071. | | | | | | | 1 | |
| 074. | | | 1 | 1 | | | | |
| 075. | | | 1 | | | | 1 | ? |
| 076. | | 1 | 1 | 1 | 1 | 2 | | |
| 078. | | | 1 | 1 | 1 | | 1 | |
| 079. | 1 | 1 | 1 | 1 | | | 1 | ? |
| 080. | 1 | 1 | 1 | 1 | 1 | | | |
| 084. | | | 1 | | | | | |
| 088. | | | | 1 | | | 1 | |
| 091. | | | | 1 | | | | |
| 092. | | | 1 | | | | | |
| 094/4. | | 1 | 1 | 1 | | | | |
| 5. | | 1 | 1 | | 1 | | | |
| 095. | | | | | | ? | 1 | |
| 096. | | | 1 | | | | | |
| 099. | | | 1 | 1 | | | 1 | |
| 100. | | 1 | | | | | 1 | |
| 101. | | | | 1 | | - | 1 | |
| 102 | | | 1 | 1 | | | 1 | ? |

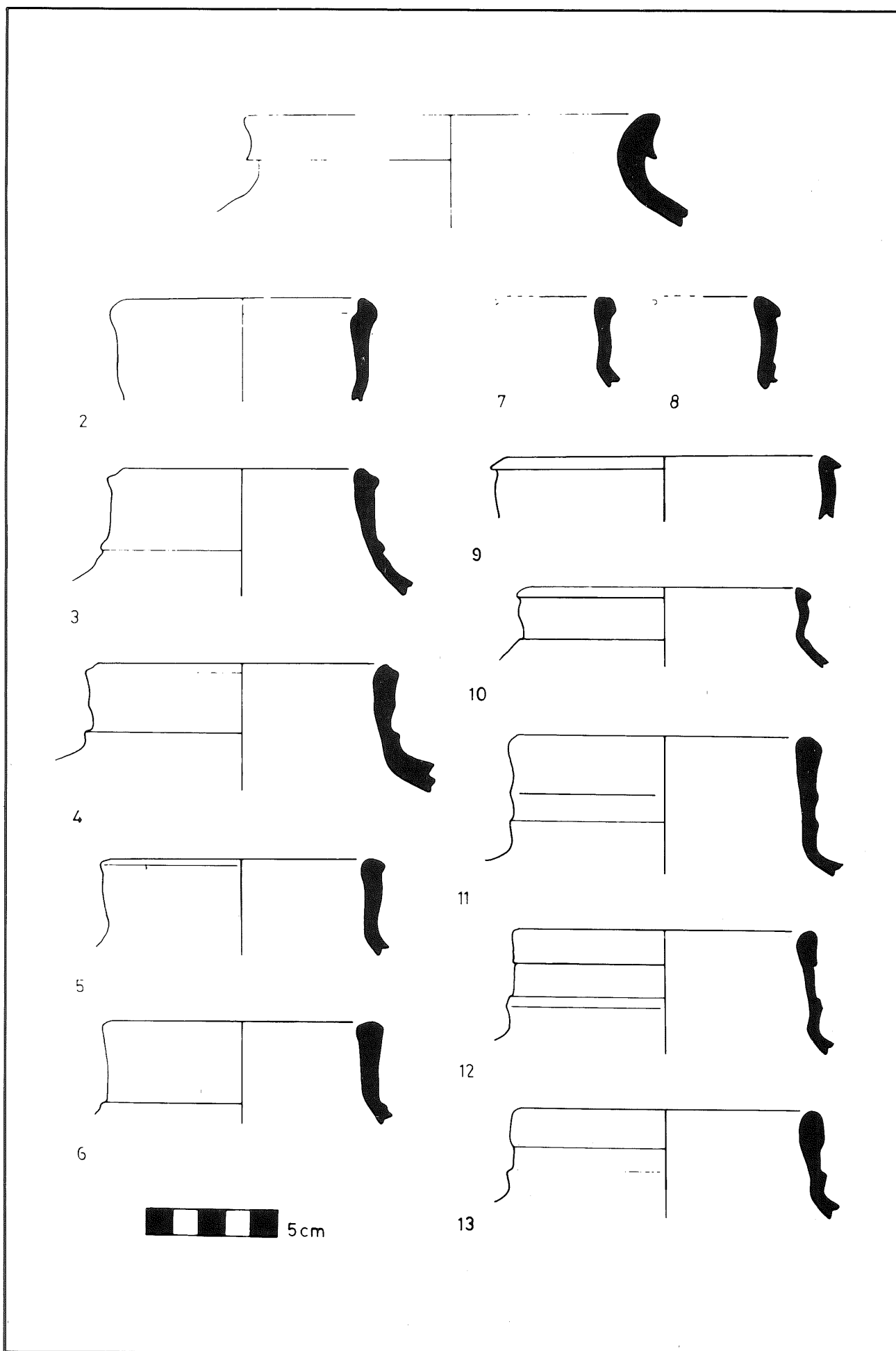


Fig. 14: Hellenistic to Byzantine pottery.

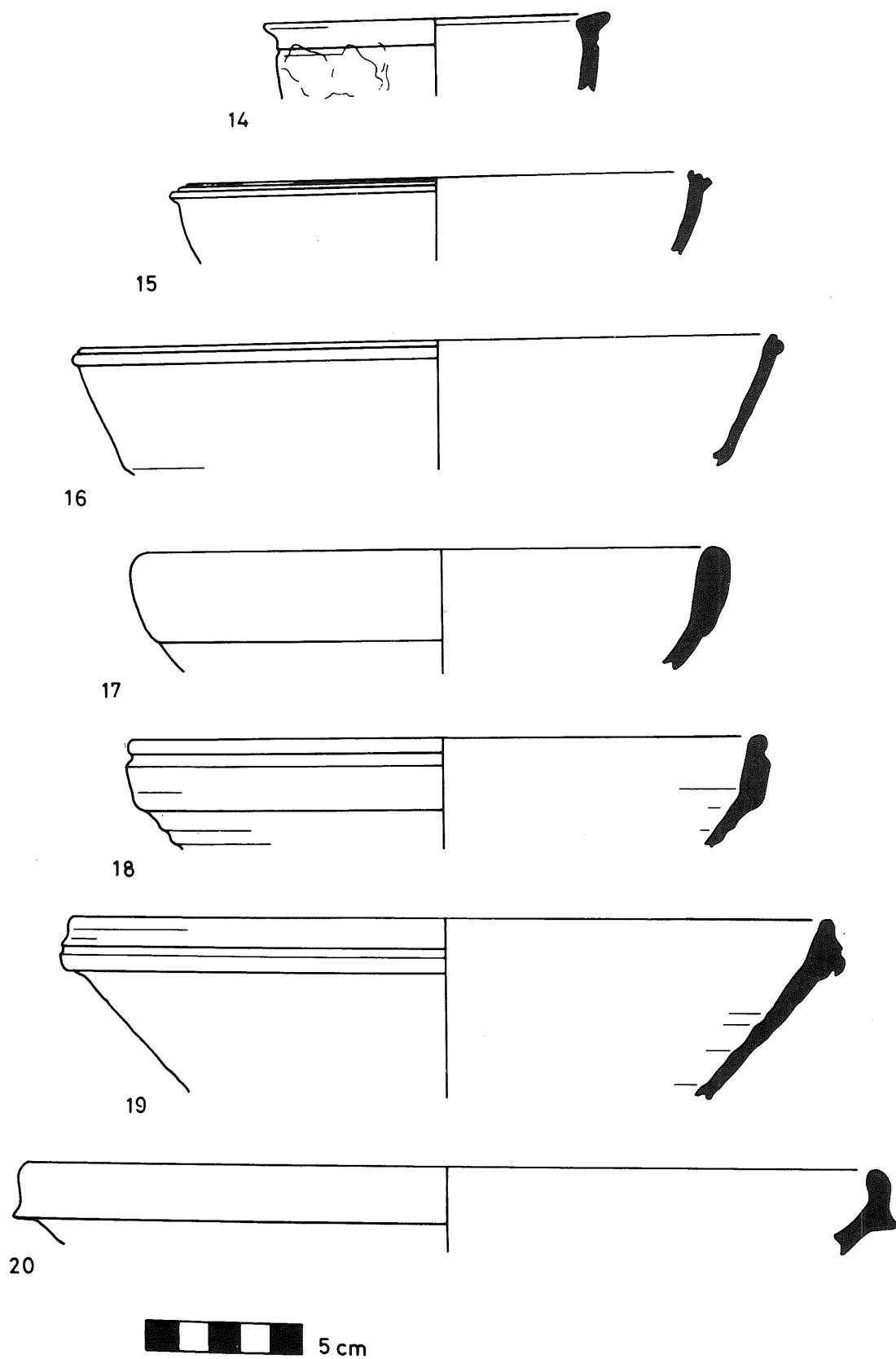


Fig. 15: Hellenistic to Byzantine pottery.

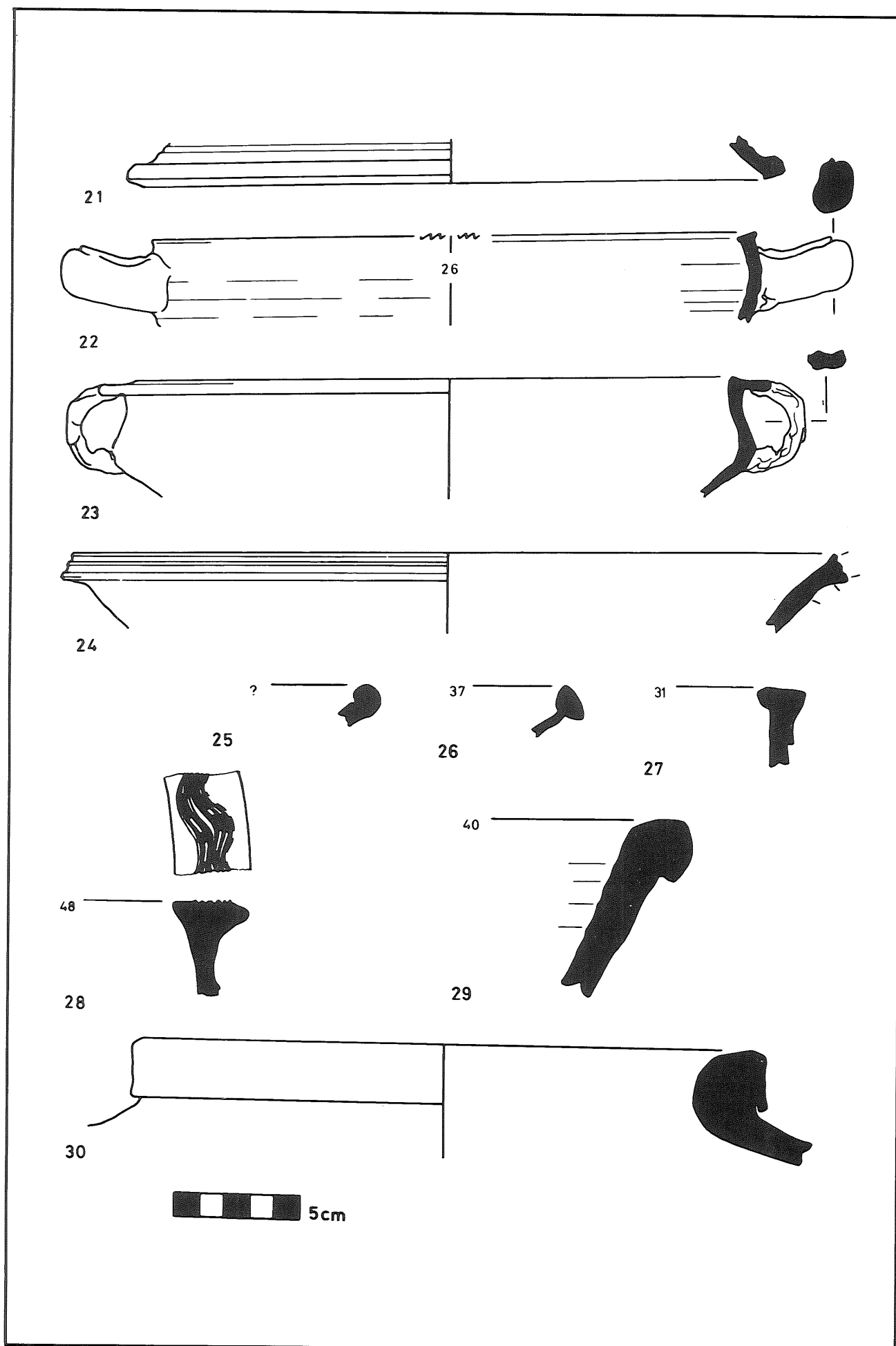


Fig. 16: Hellenistic to Byzantine pottery.

2. 002-001. Hand-made krater, ca. 60 cms. Grey. Rounded rim, The Ware is moderately hard with a clean fracture, inclusions are few. Umayyad.
3. 012-008. Hand-made Krater, 45 cms. Grey. Rounded rim, wavy line incision in body. Ware as 2. Umayyad.
4. 012-001. Small wheel-turned krater, sherd too small to determine rim diam. Grey. Rounded rim. Ware as 2. Umayyad.
5. 026-X1. Hand-made bowl, ca. 45 cms. Orange with slightly darker core, pinkish slip with dark red paint. Vertical strap handle, flattened rim. The ware has a very crumbly fracture, many large red and white grits are visible in the section with the occasional black grits. The exterior of the vessel is covered in plaster making the painted plaster impossible to discern. 'Ayyūbid/Mamlūk.
6. 026-018. Wheel-turned jar, 12 cms. Pinkish red. Flanged rim. The ware has a clean fracture, is well levigated with the occasional soft white grits visible in the section. 'Ayyūbid/Mamlūk.
7. 026-009. Wheel-turned jar, 12 cms. Dull orange. Rounded vertical rim. The ware has a moderately clean fracture showing many white and a few black grits. 'Ayyūbid/Mamlūk.
8. 026-008. Wheel-turned bowl, 19 cms. Dark orange, light grey slip inside. Carinated with thickened rounded rim. The ware has a moderately clean fracture showing a few white and translucent grits, also the occasional shiny particle. Umayyad.
9. 026-021. Wheel-turned bowl, 17 cms. Orange fabric, brown glaze with cream lines. Carinated, thickened rounded rim. The ware has a moderately clean fracture showing large red and grey grits and smaller translucent grits. 'Ayyūbid/Mamlūk.
10. 026-007. Wheel-turned jar, 10 cms. Red, brown slip on exterior. The ware has a clean fracture, with a few black, white and shiny grits. Umayyad.
11. 026-020. Base of bowl, (wheel-turned) base diam. 8 cms. Dark red fabric, green and yellow glaze with dark sgraffito line on white slip. Ring base with internal off-set above foot. The ware has a moderately clean fracture showing a few white and translucent grits in the section, also the occasional shiny particle. 'Ayyūbid/Mamlūk.
12. 026-019. Base of bowl, (wheel-turned), base diam. 8.5 cms. Red fabric, speckled brown and light green glaze on interior. The ware has a clean fracture showing a few soft white grits and a few translucent grits. 'Ayyūbid/Mamlūk.
13. 052-065. (4). Hand-made bowl, 40 cms. Dark grey to dull red fabric, dark painted pattern on white slip. The pattern and ware are impossible to discern as the sherd is a waster. 'Ayyūbid/Mamlūk.
14. 052-039. (2). Hand-made bowl, ca. 50 cms. Grey, white slip with dark red paint. The ware has a very crumbly fracture with many large black and white grits visible in the section. (Possibly the same ware as 5 but burnt). 'Ayyūbid/Mamlūk.

Figure 18

15. 052-081. (5). Large hand-made jar, 18 cms. Dull orange, dark core, white slip with dark red paint. The ware has a very crumbly fracture and contains many white grits. 'Ayyūbid/Mamlūk.
16. 052-063. (4). Hand-made jar, 37 cms. Dull red, darker core. Smoothed outside, plastered inside. Ware as 5. 'Ayyūbid/Mamlūk.
17. 052-040. (2). Hand-made jar, 17 cms. Dull red with large grey core, cream slip interior and exterior with dark red paint on exterior. Outsplayed neck and flattened rim. Ware as 14. 'Ayyūbid/Mamlūk.
18. 052-073. (5). Wheel-turned jar, 11 cms. Dark red. The ware has a moderately crumbly fracture and contains many black and white grits. 'Ayyūbid/Mamlūk?
19. 052-006. (1). Wheel-turned jar, 10 cms. Red, buff slip outside with a splash of dark red paint on the rim. Thickened (turned over), rim. Ware as

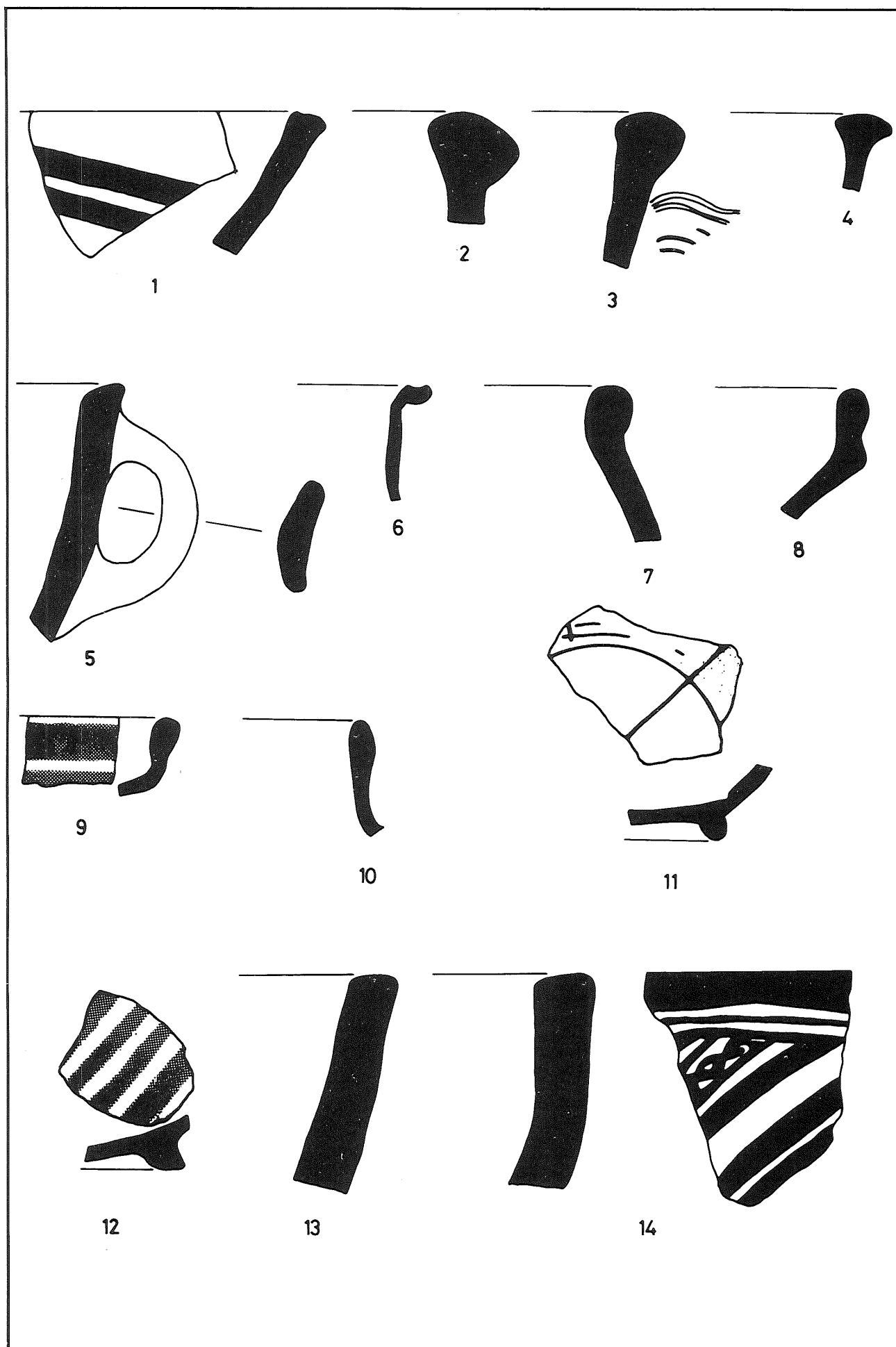


Fig. 17: Mediaeval pottery.

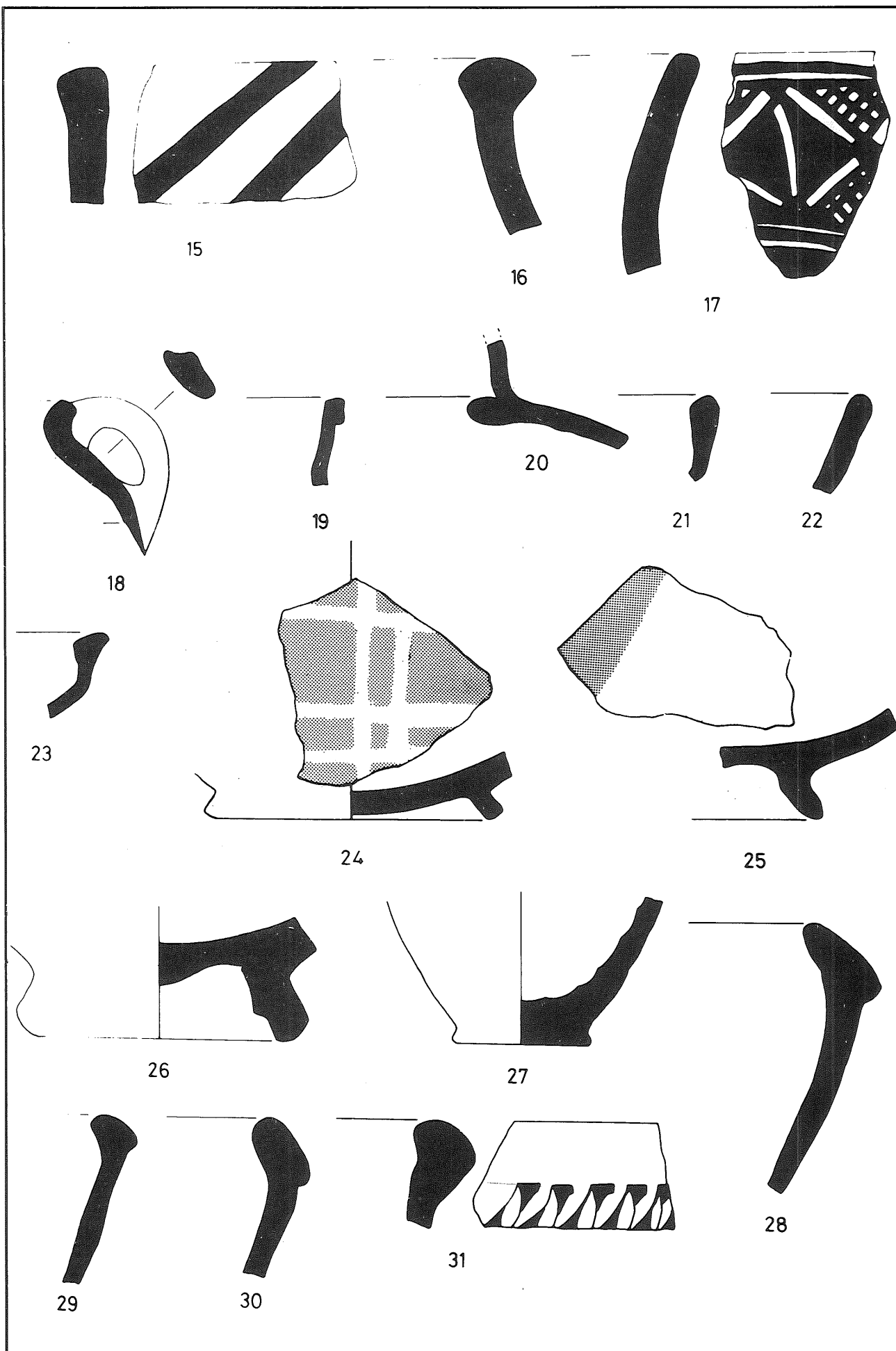


Fig. 18: Mediaeval pottery.

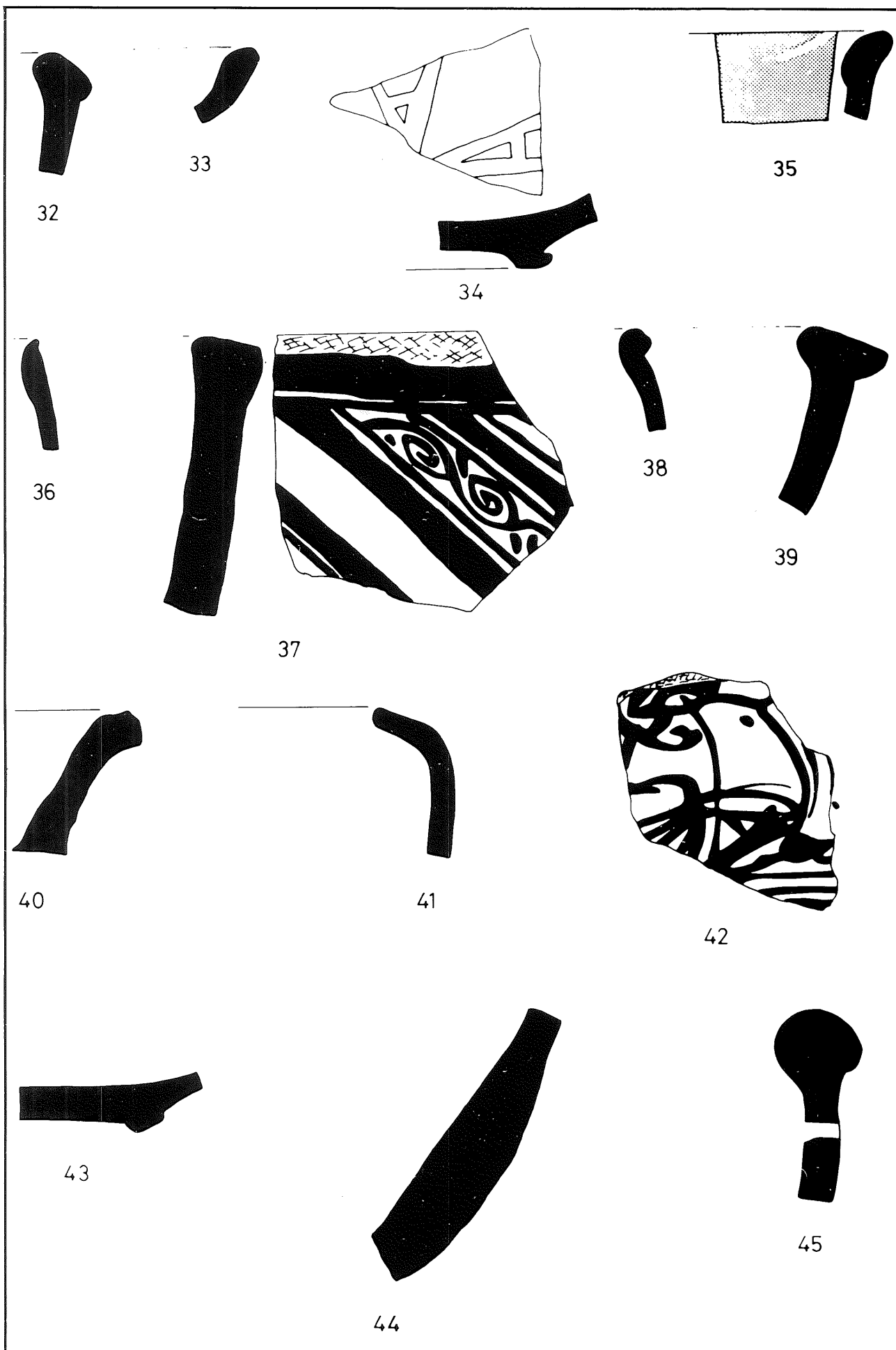


Fig. 19: Mediaeval pottery.

| SITE | UMAYYAD | | 'ABBĀSID | ' AYYŪB ID/MAMLŪK | | | | | OTTOMAN |
|------|-----------|-------|----------|-------------------|------------------|-------------------|--------|-----------|---------|
| | Grey ware | Other | | Coarse painted | Coarse Unpainted | Fine ware Painted | Glazed | Sgraffito | |
| 001 | | | | 1 | 1 | | | | |
| 002 | 1 | | | | | | | | |
| 007 | | | | 1 | | | | | |
| 010 | | 1 | | | | | | | |
| 012 | 1 | | | | | 1 | | | |
| 022 | | | | 1 | | | | | |
| 023 | | | | | | | 1 | | |
| 025 | | 1 | ? | | | | | | |
| 026 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | |
| 027 | 1 | | ? | 1 | | | 1 | | |
| 052 | 1 | | | 1 | 1 | 1 | 1 | | ? |
| 069 | | | 1 | 1 | | 1 | 1 | 1 | ? |
| 071 | | | | | 1 | | 1 | | |
| 075 | | | | | | | 1 | | ? |
| 076 | 1 | 1 | ? | | | | | | |
| 078 | 1 | | | 1 | 1 | 1 | 1 | | |
| 079 | | | | | 1 | | | 1 | ? |
| 080 | 1 | | | | | | | | |
| 088 | | | | | 1 | | | | |
| 094 | 1 | | | | | | | | |
| 095 | | | ? | 1 | 1 | | 1 | | |
| 099 | | | | 1 | 1 | | 1 | | |
| 100 | | | | 1 | | | | 1 | |
| 101 | | | | 1 | 1 | 1 | 1 | 1 | |
| 102 | | | | 1 | 1 | | 1 | | ? |

Fig. 20: Mediaeval and Ottoman site distributions.

6. 'Ayyūbid/Mamlūk?
20. 052-009. (1). Wheel-turned body sherd, orange. The ware has a moderately clean fracture, inclusions are black, white and translucent grits, 'Ayyūbid/Mamlūk?
21. 052-034. (2). Wheel-turned bowl, 22 cms. Red, flaky green glaze with streaks of brown in it. Ware as 20. 'Ayyūbid/Mamlūk.
22. 052-035. (2). Wheel-turned bowl, 29 cms. Dull orange fabric, cream slip with green glaze inside and over rim. Ware as 11. 'Ayyūbid/Mamlūk.
23. 052-036. (2). Wheel-turned bowl, 23 cms. Dull red, green glaze on white slip. Ware as 11. 'Ayyūbid/Mamlūk.
24. 052-018. (1). Base of bowl, (wheel-turned), base diam. 10 cms. Red, greenish brown glaze with light green stripes. Ware as 20. 'Ayyūbid/Mamlūk.
25. 052-037. (2). Base of bowl, (wheel-turned), base diam. 8 cms. Red fabric, brown, yellow and cream glaze on white slip. Ware as 20. 'Ayyūbid/Mamlūk.
26. 052-062. (4). Base of bowl, (wheel-turned), base diam. 10 cms. Red fabric, green glaze on white slip inside, smoothed outside. Ware as 12. 'Ayyūbid/Mamlūk.
27. 052-061. (4). Base of jar, (wheel-turned), base diam. 4.5 cms. Dark red. Self-slip. The ware is moderately crumbly with many white and a few black and shiny grits. 'Ayyūbid/Mamlūk.
28. 052-078. (5). wheel-turned krater, 40 cms. Orange. The ware has a clean fracture, inclusions are a few red, white, black and red translucent grits, and many quartz grains. Ottoman?
29. 052-001. (1). Wheel-turned krater, 28 cms. Dark red. Wet-smoothed. The ware has a crumbly fracture showing black, white, and shiny translucent grits in the section, also a small amount of grog. Ottoman?
30. 052-005. (1). Wheel-turned krater, ca. 50 cms. Light creamy brown. The ware has a very clean fracture and few inclusions: very small black and white grits. Ottoman?
31. 052-077. (5). Hand-made krater, 32 cms. Grey. Chisel decoration on exterior below rim. Ware as 2. Umayyad.

Figure 19

32. 069-005. Wheel-turned krater, 30 cms. Red, dark core, dark red slip. Rim slightly flattened. Ware as 29. Ottoman?
33. 069-021. Wheel-turned bowl, ca. 24 cms. Red fabric, green glaze on white slip inside. Ware as 20. 'Ayyūbid/Mamlūk.
34. 069-023. Base of bowl, (wheel-turned), base diam. 9 cms. Red fabric, very flaky green and yellow glaze on white slip. Heavy sgraffito. Ware as 20. 'Ayyūbid/Mamlūk.
35. 075-006. Wheel-turned bowl, 28 cms. Red fabric, flaky brown glaze with yellow line on inside, Everted folded-over rim. Ware as 9. 'Ayyūbid/Mamlūk.
36. 076-015. Wheel-turned jar, 11 cms. Orange, patch of red paint on exterior of rim. Ware as 12. 'Abbāsīd.
37. 078-014. Hand-made bowl, ca. 45 cms. Pinkish grey fabric, cream slip with dark painted decoration outside. Ware as 14. 'Ayyūbid/Mamlūk.
38. 078-011. Wheel-turned jar, 10 cms. Reddish brown. Self-slip on outside. The ware has a moderately clean fracture showing soft black, white and red grits in equal quantities. 'Ayyūbid/Mamlūk.
39. 079-018. Wheel-turned (?) krater, ca. 40 cms. Dark red. Wet-smoothed. Ware as 29. Ottoman?
40. 095-001. Wheel-turned jar, 18 cms. Pinkish grey fabric, orange slip on exterior, dark red on interior,. Out-turned rim with inner ledge. The ware has a moderately clean fracture and contains many translucent grits. 'Abbāsīd?
41. 099-008. Wheel-turned bowl, 19 cms. Pink fabric, buff surface, flaky green glaze on exterior. The ware has a moderately clean fracture and is relatively free from inclusions, shiny

particles are present. 'Ayyūbid/
Mamlūk (?)

42. 100-X3. Hand-made body-sherd. Light grey, red paint on white slip. Ware as 5. 'Ayyūbid/Mamlūk.
43. 101-X5. Base of bowl, (wheel-turned), base diam. 9.5 cms. Dull red, green glaze on white slip inside, smoothed outside. Ware as 12. 'Ayyūbid/Mamlūk.
44. 102-X5. Hand-made bowl, ca. 32 cms. Dull orange with dark core. Ware as 14. 'Ayyūbid/Mamlūk.
45. 102-X7. Wheel-turned krater, 52 cms. Dark red with grey core. Hole bored in body after firing. The ware has a clean fracture, inclusions are many black, fewer white and the occasional red grit. The section appears pock-marked. Ottoman?

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