

ARCHAEOLOGICAL SURVEY OF THE WĀDĪ AL-‘ĀJIB, AI-MAFRAQ

by

Alison Betts, Samantha Eames, Maria Schroder, ‘Abed al-Qader al-Husan

Introduction

In September 1992 and April 1993, two seasons of survey were conducted by teams from the University of Sydney in the southern Ḥawrān, on and around the lower slopes of Jabal ad-Drūz. Fieldwork was funded through private donations. Work in the region was carried out by kind permission of Dr Safwan Tell, then Director-general of the Department of Antiquities of Jordan. In the 1992 season the Project Director Alison Betts made a short survey of the Wādī al-‘Ājib (Fig.1a) together with ‘Abed al-Qader al-Husan (Department of Antiquities, Mafraq Office). In the 1993 season a team from the University of Sydney carried out a two-week study of Bronze Age sites in the Wādī al-‘Ājib, focusing particularly on the large fortified site of Rukeis. Work was carried out with the help of Khalid al-Jbour (Inspector of Antiquities, Mafraq Office). Further study and analysis of data on the Bronze Age period in the Ḥawrān has been conducted by Samantha Eames (University of Sydney). The ceramics are being studied by Maria Schroder (University of Sydney).

Aims and Methodology

The aim of the survey was to study a sample area of the southern Ḥawrān to investigate changes in settlement patterns along wadis draining into the lower slopes of Jabal ad-Drūz. The Wādī al-‘Ājib rises in Syria and crosses the border into Jordan a few kilometres west of Umm al-Quṭṭayn.

From the border the wadi runs south and westward past the village of Khāliidiya, eventually draining into the mudflats west of Qaṣr al-Ḥallābāt. Survey was carried out in the upper reaches of the Jordanian sector,

from the Syrian border down to Khāliidiya.

Fieldwork was carried out over two seasons: ten days in September 1992 and seventeen days in April 1993. The 1992 wadi survey was conducted by fieldwalking along the wadi and hillslopes to either side.

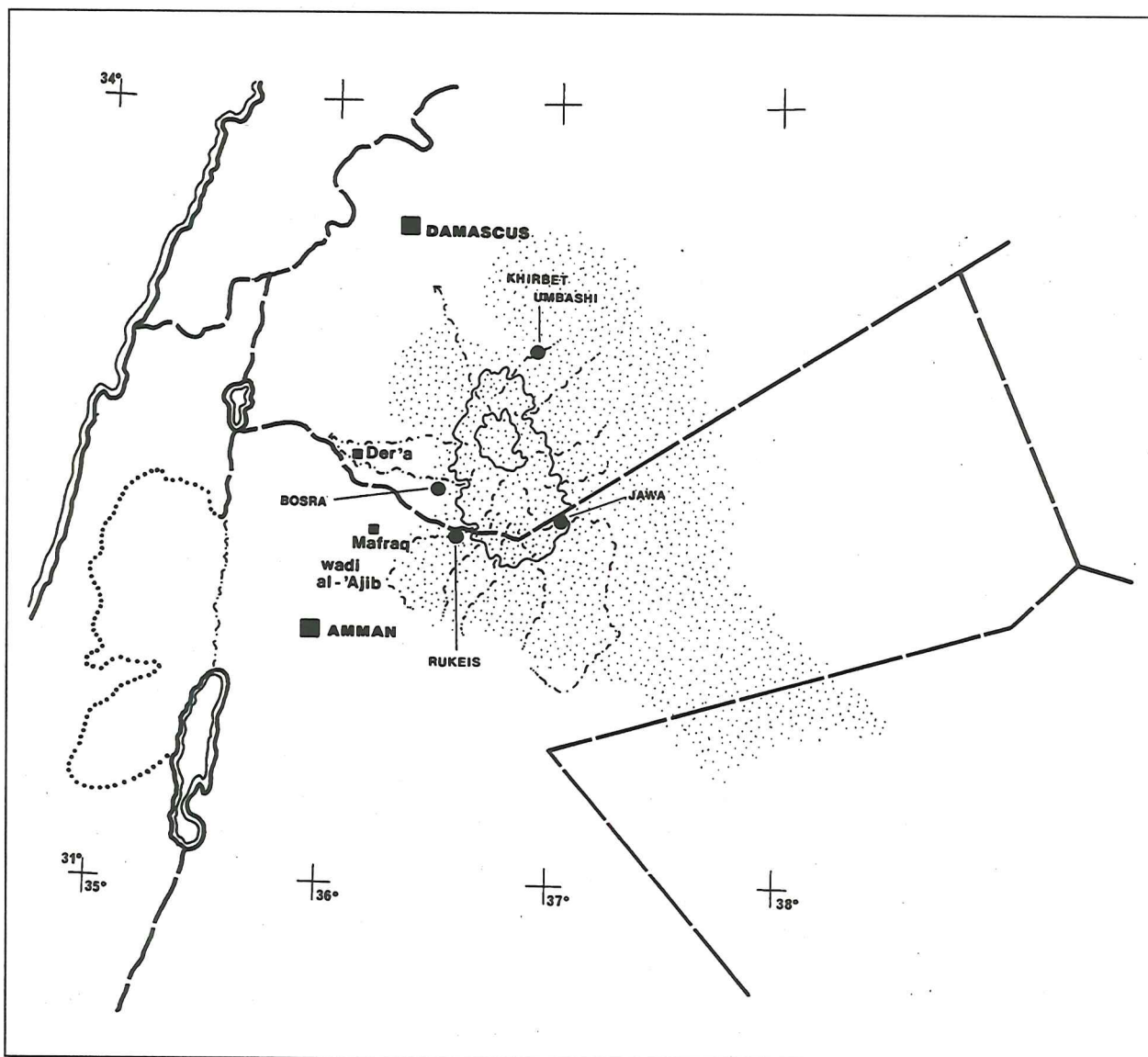
Recording of sites was not exhaustive, but most major remains were visited, and random artefact scatters were also noted. Sample collections of artefacts were made and the general characteristics of each site were documented. A photographic record was kept, but sites and structures were not planned.

The aim of the survey was to record the general nature of site distribution, but not to record individual sites in detail. In 1993 particular attention was paid to sites of the Middle Bronze Age, and much of the season was taken up in planning and trial excavation at the site of Rukeis (Site 7).

SITE CATALOGUE (Fig.1b)

Periods are based on evidence from surface finds and should be regarded as only preliminary identifications. Sites 1 to 6 are in the Wādī ad-Dafyāna, to the east of upper Wādī al-‘Ājib. Site 13 lies to the northeast of the village of Umm al-Quṭṭayn.

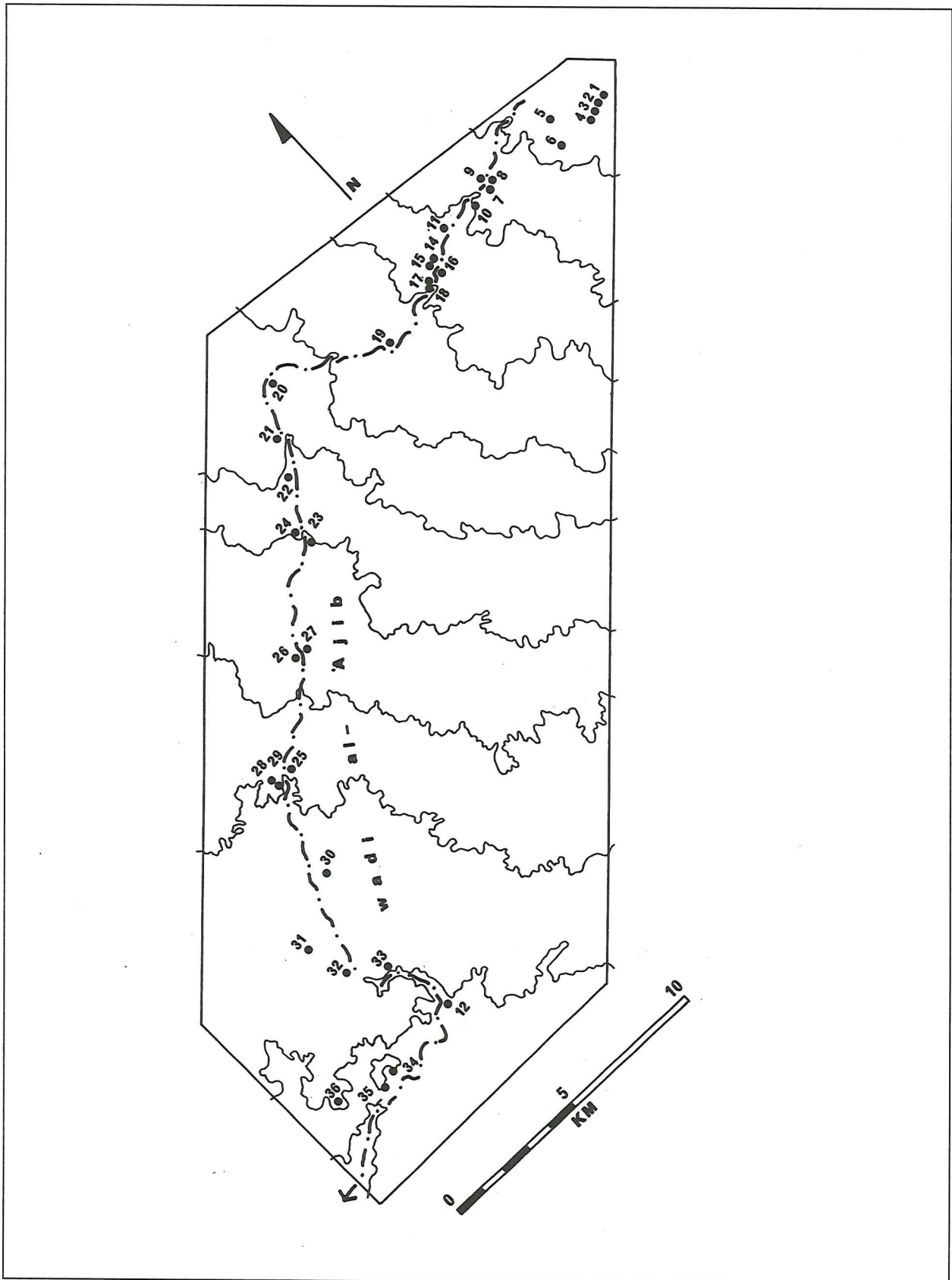
1. 3354 IV 758806 Quarry on edge of basalt outcrop, east side of wadi. Oblique cutting marks on stone face, pile of rubble and waste, set back from cutting face. Some partly dressed stone blocks. No finds.
2. 3354 IV 757805 Second quarry a little downstream, also on east side of wadi. Cutting marks, some sherds, basalt hammerstone for dressing blocks. Middle Bronze, (?) Roman.
3. 3354 IV 756804 Third quarry, similar to



1a. Map: location of Wādī al-‘Ājīb .

- the other two. A few sherds. Middle Bronze, (?) Roman.
4. 3354 IV 754803 Small quarry without hollow scoop in front of cutting face. No sign of chisel marks. Small ? occupation site, two or three dolmen. Quarry possibly to extract stone for dolmen. Bronze Age (?).
 5. 3354 IV 740810 Khirbat Khisha‘ al-Sletin: large structural complex close to the Syrian border. Early and Late Roman.
 6. 3354 IV 740800 Qaryat Khisha‘ al-Sletin: settlement in modern village, large site with stone-lined pool. Early Bronze Age.
 7. 3354 IV 712807 Rukeis: large fortified settlement with well-preserved architecture, extensive lower town beyond the walls, canals and pools in wadi. Later tower built over fortifications on west side of site. Bronze Age (MB II – LB), Roman/Byzantine, Islamic, Recent.
 8. 3354 IV 714808 Robbed out cemetery northeast of Site 7. Bronze Age (?).
 9. 3354 IV 710810 Massive walled structure and megalithic building on wadi slope opposite Site 7. Middle Bronze

- Age, one Roman sherd.
10. 3354 IV 705808 Mixed collection from diffuse occupation along the west side of the wadi below Site 7. Bronze Age, Roman/Byzantine.
 11. 3354 IV 690802 Khirbat al-Khān: epipaleolithic site on bedrock outcrop above small *ghadir*. Fairly large site with structures and bedrock mortars. On west side of wadi, with good views of surrounding landscape. Natufian.
 12. 3254 II 520635 Rujm aṣ-Ṣūwwān: middle Wādī al-‘Ājib, near Khāliidiya. Limestone hills with basalt to the east. Multi-period prehistoric occupation above large *ghadir at-tayr*, many inscriptions and rock carvings. Natufian, PPNA, PPNB, Safaitic.
 13. 3354 IV 778787 Khirbat Khnafsa: extensive basalt-built occupation site north-east of Umm al-Quṭṭayn. Visible remains of structures and possibly a surrounding wall. Early Bronze Age (?), Middle Bronze Age (MB II - LB).
 14. 3354 IV 683802 Cluster of three (?) kilns above a small *ghadir* in the wadi bed, surrounded by mounds of white gravel. Probably lime kilns, almost no pottery, and no sign of pottery waste. Late Roman (3rd/4th century), Roman/Byzantine.
 15. 3354 IV 681801 Small complex of walls and structures, canal and fields on wadi terrace below site. Middle Bronze Age.
 16. 3354 IV 680799 Large multi-period site on hill overlooking wadi. Good views up and downstream. Complex of walls, corrals and rebuilt structures. Natufian, Bronze Age, Middle Bronze Age, Late Roman/Byzantine, Umayyad, Medieval, Ottoman, Recent.
 17. 3354 IV 678799 Relatively large settlement with low enclosure wall, field systems and canals along wadi. Middle Bronze Age, some Byzantine.
 18. 3354 IV 677798 Multi-period occupation, with diffuse walls and occupation deposit, above fairly large *ghadir galtit al-arnab*, bedrock mortars. Natufian, Middle Bronze Age, some Roman.
 19. 3354 IV 656795 Medium sized settlement with enclosure wall, fields and canals in wadi below. Late Prehistoric, Early Bronze Age/Middle Bronze Age.
 20. 3254 I 619811 Small site with structures and surrounding wall, above shallow *ghadir al-‘Ājib*, diffuse flint scatter, fields and canals. Epipaleolithic/Neolithic scatter, Middle Bronze Age.
 21. 3254 I 612797 Medium sized settlement with structures and enclosure wall, wide floodplain for fields, small prehistoric site with upright slab construction, shallow *ghadir* in wadi. PPNB, (?) Chalcolithic/Early Bronze Age, Middle Bronze Age.
 22. 3254 I 603785 Settlement complex on low hill above wadi. Small *ghadir*, field systems and canals. Also small ‘kite’ on low hill, with short walls and almost circular enclosure. ‘Kite’ pre-dates settlement. Epipaleolithic/Neolithic flint scatter, Middle Bronze (MB II).
 - 23/24. 3254 I 593768 Massive *ghadir* in short, deep gorge. Many inscriptions and rock carvings - Prehistoric, Safaitic, Greek, Modern. Greek inscription with cross, PPNB carvings very faint and covered by lichen. Large Natufian site (24) on hill with enclosing wall and structures. Modern tombs, including elaborate Ahl al-Jabal woman’s grave. Small Neolithic camps in wadi near *ghadir*, no clearly defined site. Canals and field systems downstream of the gorge, Bronze Age occupation sites on both sides of the wadi at the mouth of the gorge. Natufian, PPNB, Bronze Age, Safaitic, Late Roman, Byzantine, Modern.
 25. 3254 I 524720 Farmstead and corrals in low gorge above small *ghadir* and lim-



1b. Locations of Sites.

- ited fields. Large tomb on hill above, probably prehistoric, now reused as Ahl al-Jabal grave. Late Roman (?), Byzantine/Umayyad. One vessel ? Late Ottoman/Recent.
26. 3254 I 565741 Khān al-‘Ājib: structure rebuilt as beduin house, now used as storerooms. Roman/Byzantine.
 27. 3254 I 568742 Small flint scatter and irregular curving walls. Prehistoric(?).
 28. 3254 I 522715 Corrals, recent reuse of earlier site. Late Roman (3rd/4th century), Byzantine/Umayyad, Medieval.
 29. 3254 I 522715 Flint scatter on hilltop. Ahl al-Jabal grave over older tombs. Prehistoric, some Roman/Byzantine.
 30. 3254 II 525687 Small series of corrals, recent reuse of earlier site. Roman, Ottoman.
 31. 3254 II 502673 Small volcanic vent just beyond the edge of the ḥarra. Some corrals on edge of vent, overlooking open land beyond. Some distance from wadi. Middle Bronze, Roman/Byzantine.
 32. 3254 II 505659 Modern dam in wadi, probably ancient *ghadir*. Corrals of various periods on west side overlooking wadi. Prehistoric, Roman/Byzantine.
 33. 3254 II 515650 Series of corrals where wadi begins to cut through hills. Prehistoric, Roman/Byzantine.
 34. 3254 II 492627 Sites on limestone outcrop overlooking modern (and ancient) *ghadir*. Prehistoric winter sites, sheltered from wind, south-facing terrace with work areas. Stone circles set against bedrock cliffs. Epipaleolithic, Neolithic, some Roman/Byzantine sherds.
 35. 3254 II 488624 Sites on limestone shelf west of Site 34, corrals above spring in small wadi. Several caves, some probably with Epipaleolithic occupation, and small rings of stones outside. Paleolithic (?), PPNB, Late Neolithic, some Roman sherds.
 36. 3254 II 474632 Roman fort on high hill

with long views all round. Rectangular with four corner towers, part of one side fallen over cliff. Earlier occupation underneath. Bronze Age, Late Roman.

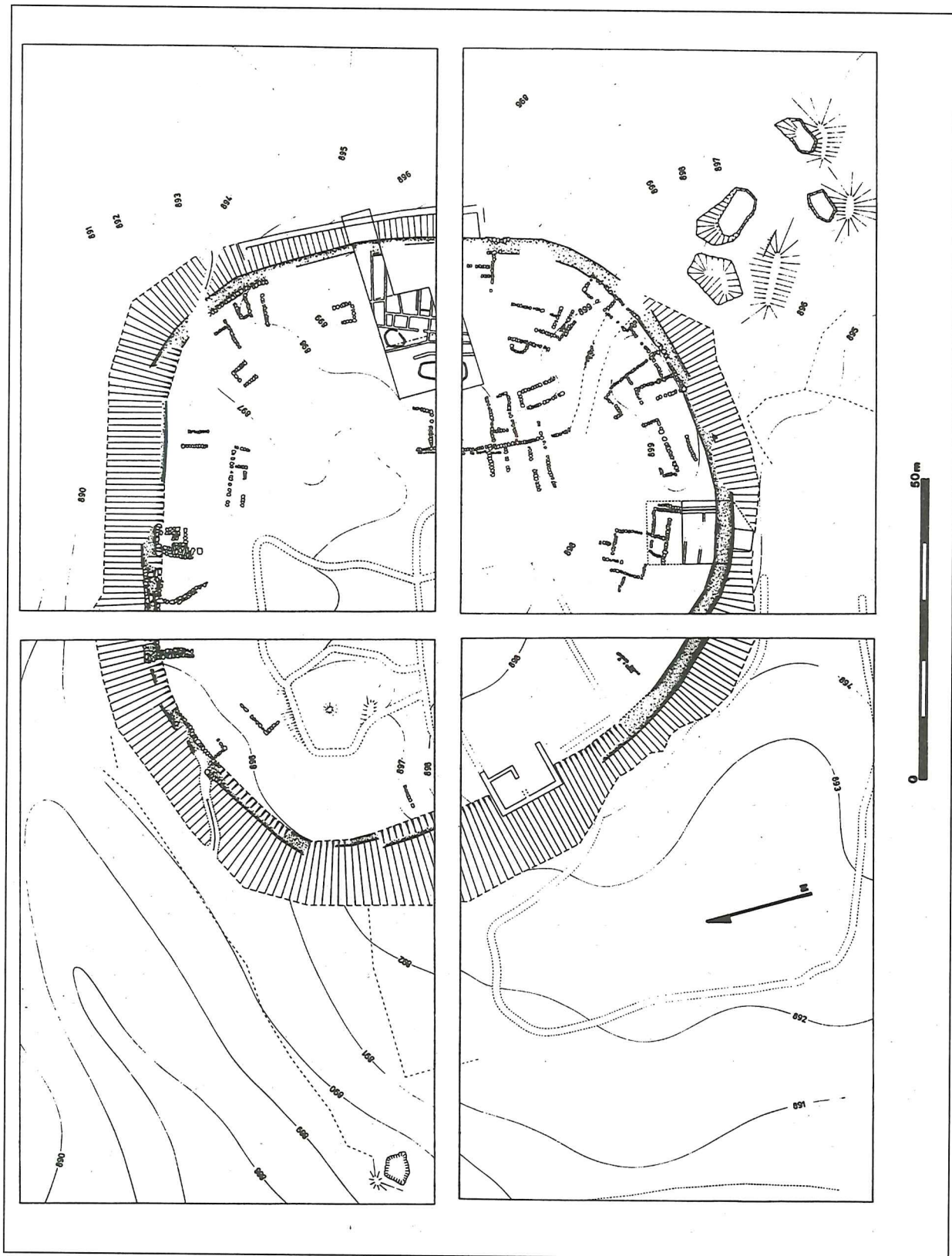
SETTLEMENT IN THE WĀDĪ AL-‘ĀJIB

Environmental conditions vary down the length of the wadi, accounting for a variety of types of site and periods of occupation. In the upper reaches, close to the Syrian border, the wadi is fairly shallow with a narrow floodplain suitable for agriculture. Rainfall in this area is high enough to permit dry farming, although simple irrigation agriculture was also practiced in antiquity.

Close to the border, in the richest agricultural land, there are a number of large sites, mostly of the Middle Bronze Age and Roman periods. Economically, the two periods were in some ways similar, with settlement stimulated by strong state organisation, international trade, and a high demand for agricultural products. Smaller sites of both periods are found further down the wadi. Middle Bronze Age farmsteads continue downstream until the rainfall becomes too low and the wadi too deeply incised for viable agriculture. Roman/Byzantine farmsteads, based perhaps more on herding, occur still further downstream in sheltered locations near small *ghudrān*.

Prehistoric sites required different conditions for site location from those of later periods. The most numerous prehistoric sites are of the Late Natufian and Pre-Pottery Neolithic (PPNB) periods. This reflects a pattern which is found throughout the Near East.

In both periods the economic emphasis was on hunting. Site location requirements included access to water, and also a position with clear views of the surrounding landscape, so that the occupants of the site could watch for movement of animals. Hill country such the landscape around Rujm aṣ-Ṣūwwān,



2. Rukeis: preliminary site plan.

near Khālidiya, was also favoured as it is suitable for the construction of 'kites'. Low rainfall affected agricultural potential but not the availability of game so that hunting camps are found all down the wadi.

In the Late Neolithic/Chalcolithic, site location changed again. Sites of these periods in the Mafraq area were dependent on a mixed hunting/herding/agricultural economy. They were located in sheltered valleys close to springs, and with access to small areas of cultivable land.

Rukeis

The major Middle Bronze Age site of Rukeis (Site 7) lies on the upper Wādī al-'Ājib, north of the village of Dafyāna. The site consists of a large, heavily fortified citadel, with traces of a lower town on the southwestern side. Canals and ancient field systems in the wadi may relate to occupation at the site. Most of the occupation appears to consist of relatively undisturbed Middle Bronze Age deposits, with massive, well preserved fortification walls, and traces of stone architecture visible on the surface. There is a later structure overlying the fortification wall at the western end of the citadel.

Visible remains indicate that it was a square, single or two storey building of massive cut basalt masonry, with corbelled roofing. Scant pottery evidence suggests that it may have been a small watchtower dating to the Roman/Byzantine period. A series of plastered cisterns below the southeastern side of the citadel probably date from the same period, and were cut to provide a source of water for the occupants of the tower.

Sounding

A small trench of 2 x 5.5 m was opened up on top of the citadel. The object of trial excavation was to test the degree of preservation and depth of occupation at the site and to obtain stratified pottery for more reliable preliminary dating. Surface clearance

revealed one half of a circular stone-walled structure. Further excavation uncovered vertical walls down to a depth of two metres. The fill of the structure consisted mostly of ashy layers with large lumps of charcoal, carbonised seeds and lumps of orange bricky soil. It contained a large number of sherds and some bone. It is likely that the structure was a stone-lined silo cut into the ground, similar to those found at Ḥamā (Fugmann 1958).

Pottery

A large quantity of pottery was recovered from the sounding. Vessel forms include coarse-ware jars, bowls and some fine wheel-made wares.

Open, Short-Necked Storage Jars (Cooking Pots) (Figs. 3-5).

This form is relatively common at Rukeis and shows a high degree of variety. The different shapes find parallels in the Ḥawrān at Jāwa in MB II A and at Buṣrā from MB II to early LB I. At Tall aṣ-Ṣālihiyah in the Damascene similar forms occur in the MB IIA/B period, whilst at Tall Ḥadidi on the Euphrates they occur in MB II. In Syria there are parallels from Ḥamā H, and from Tall Mardikh, mainly in the MB II period. In Palestine there are parallels at Hazor in MB II, and at Jericho towards the end of the MB II period.

Bowls (Fig. 6)

Simple bowls find parallels in the early MB I at Buṣrā and in the MBA at Jericho. The more complex bowls find forms with parallel features at Jāwa in MB IIA, at Buṣrā in MB II and early LB I, and at Tall aṣ-Ṣālihiyah in the MB IIA/B and the MB IIC/LB I periods. Parallels can also be found at Tall Ḥadidi in MB II, at Tall Mardikh in MB I and MB II, and at Tall Nebi Mend in the MB IIC period. Again in Palestine parallels occur at Hazor in the MB I and MB II and also at Jericho in the

MB I and MB II.

Tall, Narrow-Necked Storage Jars (Fig. 7)

Variations of this type appear largely to be later forms with parallels occurring at Jāwa in MB II A, at Buṣrā in MB II and LB I, and at Tall aṣ-Ṣāliḥiyah from the MB IIA to the LB I period. At Tall Ḥadīdi they occur in the MB II and at Tall Nebi Mend from the MB IIB to the LB I/II period. At Jericho there are good parallels in the late MB II period.

Bases (Figs. 8a, 8b)

Flat bases are not particularly diagnostic, and are found at most sites right through the Middle and into the Late Bronze Age. The slightly more complex stepped flat base has parallels at Buṣrā in MB II, at Tall aṣ-Ṣāliḥiyah in MB IIC/ LB I, at Tall Ḥadīdi and Tall Mardikh in MB II, at Hazor in MB II, and at Jericho in the MBA. Round bases have parallels at Buṣrā in MB I, in Ḥamā H, at Hazor in MB II, and in the Middle Bronze tombs at Jericho. Concave and ring bases in a variety of forms also occur at most sites from MB I through to LB I.

Sherds with Combed/Incised Decoration (Fig. 9a:1-3)

Bands of horizontal and wavy combed decoration are common on vessels in Middle Bronze Age contexts, particularly on large storage vessels. Various combinations find parallels at Jāwa in MB IIA, at Buṣrā from MB I to MB II, and at Tall aṣ-Ṣāliḥiyah from MB IIA/B. There are parallels at Tall Ḥadīdi in MB II, at Tall Mardikh in MB I and II, Ḥamā H, and Nebi Mend in the MB IIC period. The same decoration appears on vessels from Hazor and Jericho in MB II.

Sherds with Painted Decoration (Fig. 9b: 4-6)

Body fragments of a jug with bands of

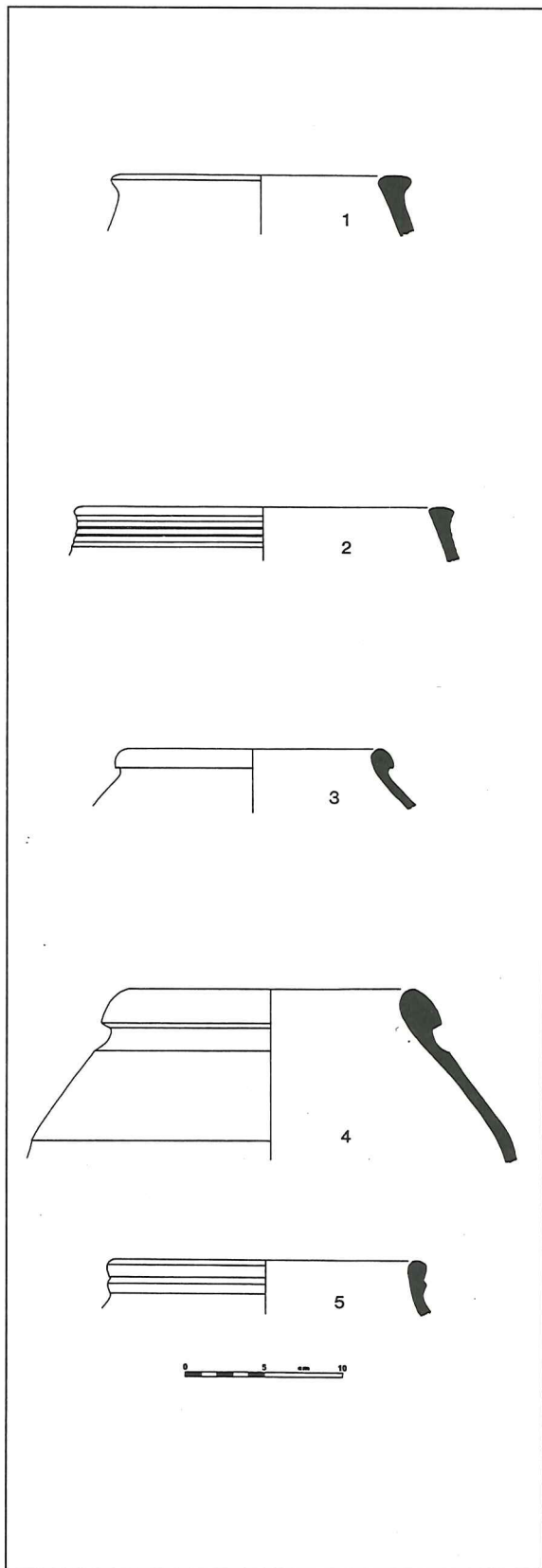
brown and red painted decoration may be a variant of the Middle Bronze Age bichrome painted tradition. Possible parallels may be found at Tall aṣ-Ṣāliḥiyah where jugs decorated with painted bands in two colours were found from the MB IIA/B period.

Another possible parallel may be a jar fragment from Hazor, which is also decorated with painted bands in two colours, and is from the MB II period. The fragment could be a variant of the red and black painted wares from Megiddo in MB I and MB II A/B. There are also stepped-rim juglets with painted bands from Tall Dān in MBI-II and from Buṣrā in LB I, Tall aṣ-Ṣāliḥiyah in MBII A/B, Hazor in MB II, and Megiddo in MBI and MB IIA.

A rim fragment of a small juglet in a fine clay with a cream slip and horizontal bands of dark brown paint may be comparable to the so-called 'Habur Ware' juglets of the MBI period from Chagar Bazar. Other possible parallels may be found in the small painted juglets from Tall Atchana (Hennessy, pers. comm.). Gerstenblith (1983) has noted that there is no relationship between the decoration of the 'Habur Wares' and the monochrome painted wares from sites like Megiddo. It is not possible at this stage to say from where the various Rukeis painted wares originate, or which painted tradition they are related to, but it is perhaps more likely that they fall within the Syro-Palestinian tradition (see also Tubb 1983).

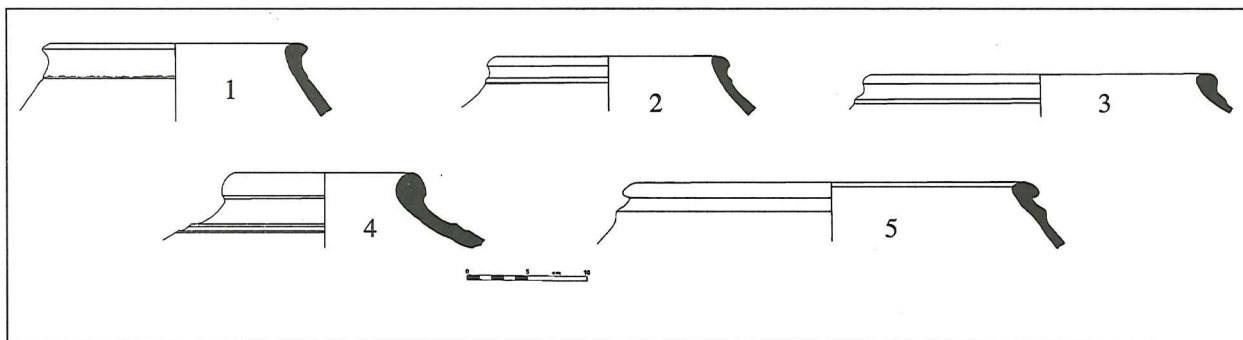
Summary of Preliminary Pottery Analysis

The coarse and fine ware pottery excavated from the 1992 sounding at Rukeis may be compared to ceramic material from the Ḥawrān, the Damascene, the central Euphrates region, Syria and Palestine. The majority of parallels for the Rukeis material come from later Middle Bronze contexts. Preliminary examination of the combed/incised and painted wares also suggests a later MB date of occupation at Rukeis.



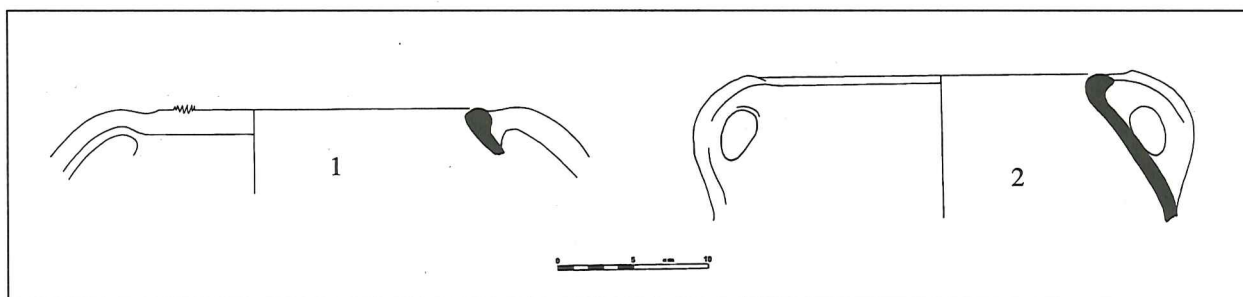
3. Rukeis: open storage jars.

1. Short-neck with flattened rim (Rukeis: Level 13)
Tall aş-Şālihiyah, level XI (von der Osten 1956, Fig. 92:37), but with less flattened rim.
Tall Ḥadidi, Area B (Dornemann 1979, Fig. 23:23), with flatter, sharper profile and decoration.
Tall Mardikh, Area Q, level i (Matthiae 1979, Pl. J, Fig. 3), with flatter, sharper profile.
Jericho, level H.liii (Kenyon and Holland 1982, Fig. 151:23), rounder profile.
2. Short, ribbed neck with flattened rim (Rukeis: Level 11)
Tall aş-Şālihiyah, level XII (von der Osten 1956, Fig. 95:53), different shape but ribbing down the side.
Hazor, Area D3, Stratum 1 (Yadin *et al.* 1958, Pl. CIII:20), different shape but ribbing down the side.
3. Short neck with thickened, rounded rim (Rukeis: Level 13)
Jericho, level H.li (Kenyon and Holland 1982, Fig. 149:2).
Hazor, Area K, Stratum 3 (Yadin *et al.* 1961, Pl. CCLXXVI:11), rim profile on different angle.
4. Short, ridged neck with thickened, rounded rim (Rukeis: Level 13)
Tall Ḥadidi, Area B (Dornemann 1979, Fig. 23:33), much larger diameter.
Jericho, level H.xlvi-xlvii (Kenyon and Holland 1982, Fig. 118:26).
Tall Mardikh IIIB (Matthiae 1980, Fig. 42), flatter rim.
5. Short, upright ridged neck with rounded rim (Rukeis: level 13)
Buṣrā, Trench H1, Stratum 15 (Seeden 1986, Pl. 23:299).
Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22:30).
Jericho, level H.liii (Kenyon and Holland 1982, Fig. 139:17), sharper profile.



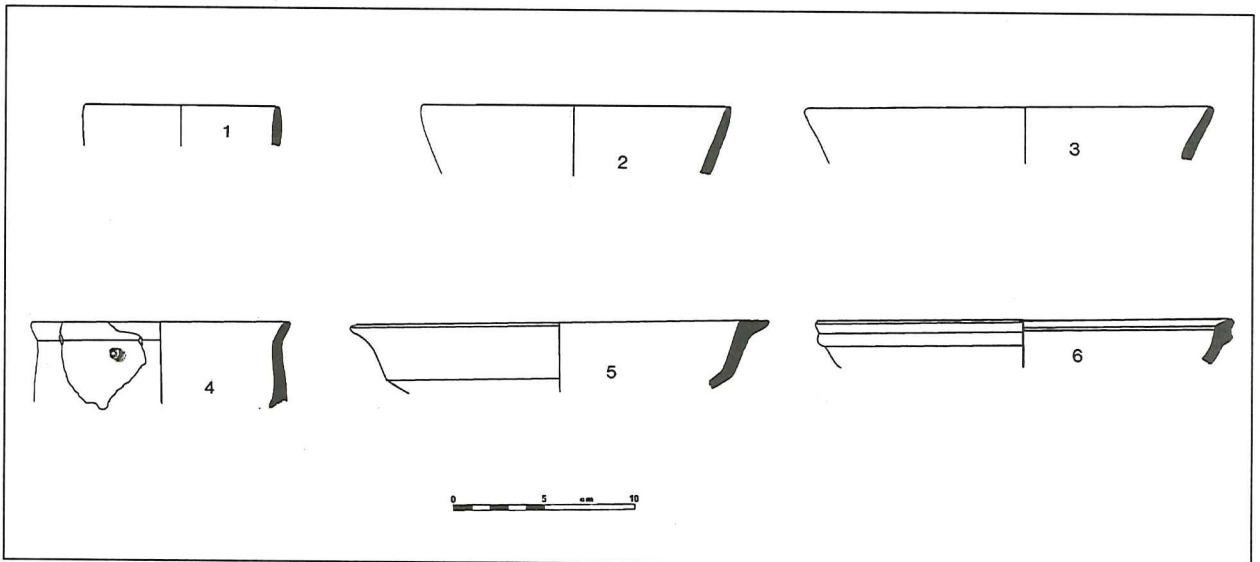
4. Rukeis: open storage jars.

1. Short, ridged neck with rounded rim (Rukeis: Level 13)
Tall aş-Şālihiyah, level XII (von der Osten 1956, Figs 92:36, 37; 95:99).
Tall Ḥadidi, Area B (Dornemann 1979, Fig. 21:21), more rounded.
Hazor, Area K, Stratum 3 (Yadin *et al.* 1961, Pl. CCLXXXVI:12), rim not as rounded and curved under.
2. Short, ridged neck with rounded rim (Rukeis: Level 13)
Tall Ḥadidi, Area B (Dornemann 1979, Fig. 23:33).
Tall Mardikh, IIIB (Matthiae 1980, Fig. 42).
Ḥamā, level H, silo (Fugmann 1958, Fig. 110:3C 643 [12]), profile similar but on different angle; level H2 (Fugmann 1958, Fig. 124:2D 13), similar rim profile but on different angle.
3. Short, ridged neck with rounded rim (Rukeis: Level 11)
Ḥamā, level H (Fugmann 1958, Fig. 110: 3D 584 [12]).
4. Short, ridged neck with thickened, rounded rim (Rukeis: Level 13)
Jericho, level H.1iii (Kenyon and Holland 1982, Fig. 129:11).
5. Short, ridged neck with thickened, rounded rim (Rukeis: Level 13)
Tall Ḥadidi, Area B (Dornemann 1979, Fig. 23:33), with decoration.
Tall Mardikh, IIIB (Matthiae 1980, Fig. 42), flatter rim.
Jericho, level H.XXXiia (Kenyon and Holland 1982, Fig. 149:9), without ridge on neck.



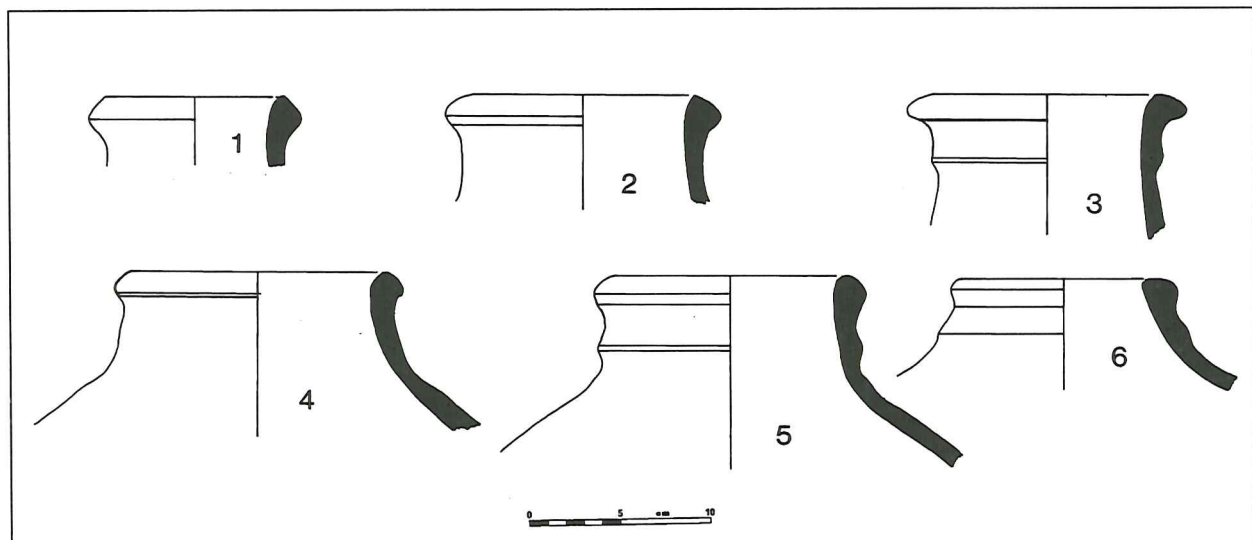
5. Rukies : open storage jars.

1. Short neck with rounded rim and loop handles from rim to shoulder (Rukeis: Level 11)
Tall aş-Şālihiyah, level XI (von der Osten 1956, Fig. 92:69), rim profile slightly different.
Jericho, level H.liv-lv, (Kenyon and Holland 1982, Fig. 152:3), rim profile slightly different.
2. Short neck with rounded rim and pierced vertical handles (Rukeis: level 11)
Tall aş-Şālihiyah, level XI (von der Osten 1956, Fig. 92:69).
Hazor, Area D, Stratum 5 (Yadin *et al.* 1958, pl. CXV:5), more pronounced rim profile and double handle.
Hazor, Area K, Stratum 3 (Yadin *et al.* 1961, Pl. CCLXXXVI:13, 14, 15).
Jericho, level H.lii-liii (Kenyon and Holland 1982, Fig. 170:3).



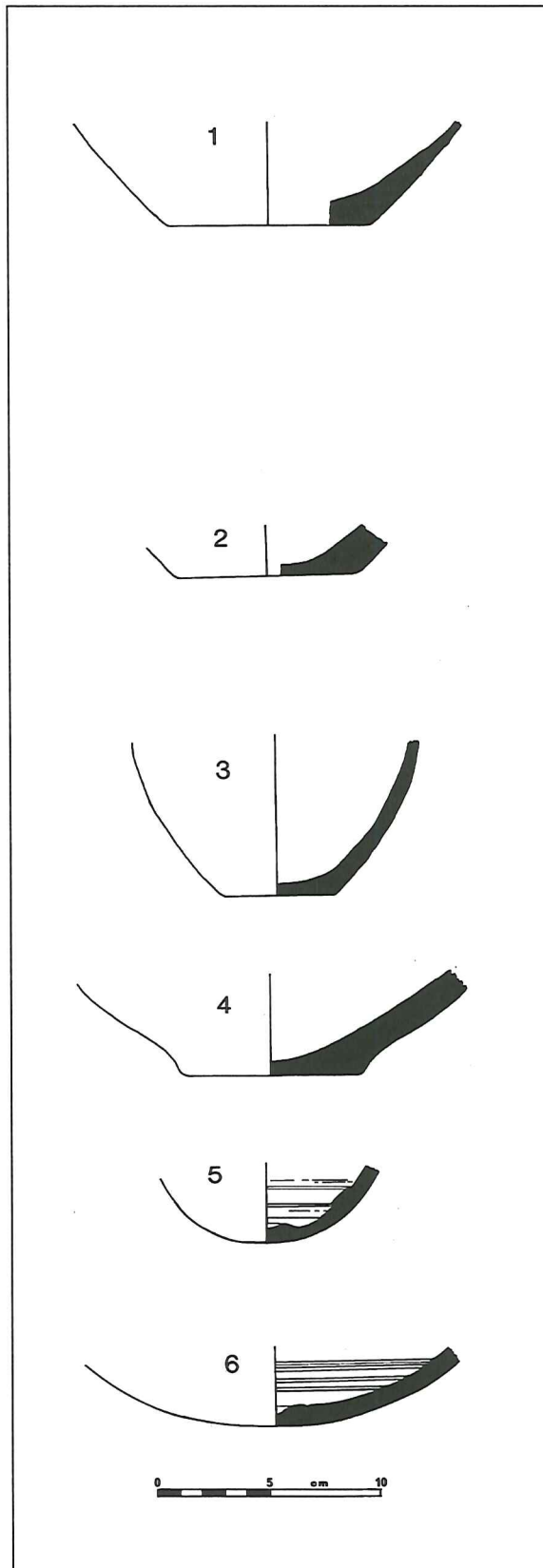
6. Rukeis: bowls

1. Simple bowl with rounded rim (Rukeis: Level 11)
 Buṣrā, Trench J1, Stratum 26 (Seeden 1986, Pl. 13, Fig. 47), not as upright; Stratum 25 (Seeden 1986, Pl. 13, Fig. 66), not as upright.
 Hazor, Trench 500, Locus 500/1 N12 (Yadin *et al.* 1961, Pl. CXCI:23).
 Jericho, level H.xxxiva (Kenyon and Holland 1982, Fig. 112:25).
2. Simple bowl with rounded rim (Rukeis: Level 11)
 Jāwa, Square C2, Layer 502.5 (Helms 1989, Fig. 11:10).
 Buṣrā, Trench J2, Stratum 15 (Seeden 1986, Pl. 19, Fig. 213).
 Tall aṣ-Ṣālihiyah, level XII (von der Osten 1956, Fig. 95:63).
 Tall Nebi Mend, Phase G-B (Bourke 1993, Fig. 19:13).
 Hazor, Area 210/A1, Stratum 3 (Yadin *et al.* 1961, Pl. CCLXXXVII:2).
 Jericho, Trench III.lxxxiiia (Kenyon and Holland 1982, Fig. 112:26).
 Additional parallels for Fig. 6:1 and 2 can be found in Stratum C in Tall Bayt Mirsim (Albright 1933:Pl. 16:12); Level VII at Lachish (Tufnell 1958:Pl.70:I:II.2); Stratum I.IOA Lower (Field I Caves) in Gezer (Segar 1988:Pl.7:18); and Phase G in Ḥamā (Riis 1948:Fig 94, p.70, Fugmann 1958, Fig. 143:0485).
3. Flaring, carinated bowl (Rukeis: Level 06)
 Buṣrā, Trench J2, Stratum 15 (Seeden 1986, Pl. 19, Fig. 217).
 Tall aṣ-Ṣālihiyah, level XII (von der Osten 1956, Fig. 95:27).
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 23:4).
 Tall Mardikh, Area O, level iv (Matthiae 1979, Pl. G, Fig. 3).
 Hazor, Area C, Stratum 3 (Yadin *et al.* 1960, Pl. CIX), many examples of flaring, carinated bowls.
4. Deep storage bowl with everted, rounded rim and a pierced hole (Rukeis 17: Level 11)
 Hazor, Area A, Stratum XVII (Yadin *et al.* 1961, Pl. CLVI:24), cooking pot with pierced hole and applied band.
 Jericho, level H.xlviiia (Kenyon and Holland 1982, Fig. 123:10), similar shape of bowl but wall not upright and no pierced hole.
5. Shallow, carinated storage bowl with rilled rim (Rukeis 18: Level 11)
 Buṣrā, Trench J1, Stratum 18 (Seeden 1986, Pl. 16, Fig. 127).
 Tall aṣ-Ṣālihiyah, level XII (von der Osten 1956, Fig. 95:97, 98).
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22: 17, 18, 22), rilled rims common on bowls and large vessels.
 Tall Mardikh, IIIA (Matthiae 1980, Fig. 36), rilled rims common on large vessels in both IIIA and IIIB.
 Hazor, Area BA, level 15 (Yadin *et al.* 1961, Pl. CCXXXV:16), common on large vessels.
 Jericho, level H.li (Kenyon and Holland 1982, Fig. 109:34), similar shape of bowl, but without rilled rim.
6. Storage bowl with concave, hammer rim (Rukeis: Level 13)



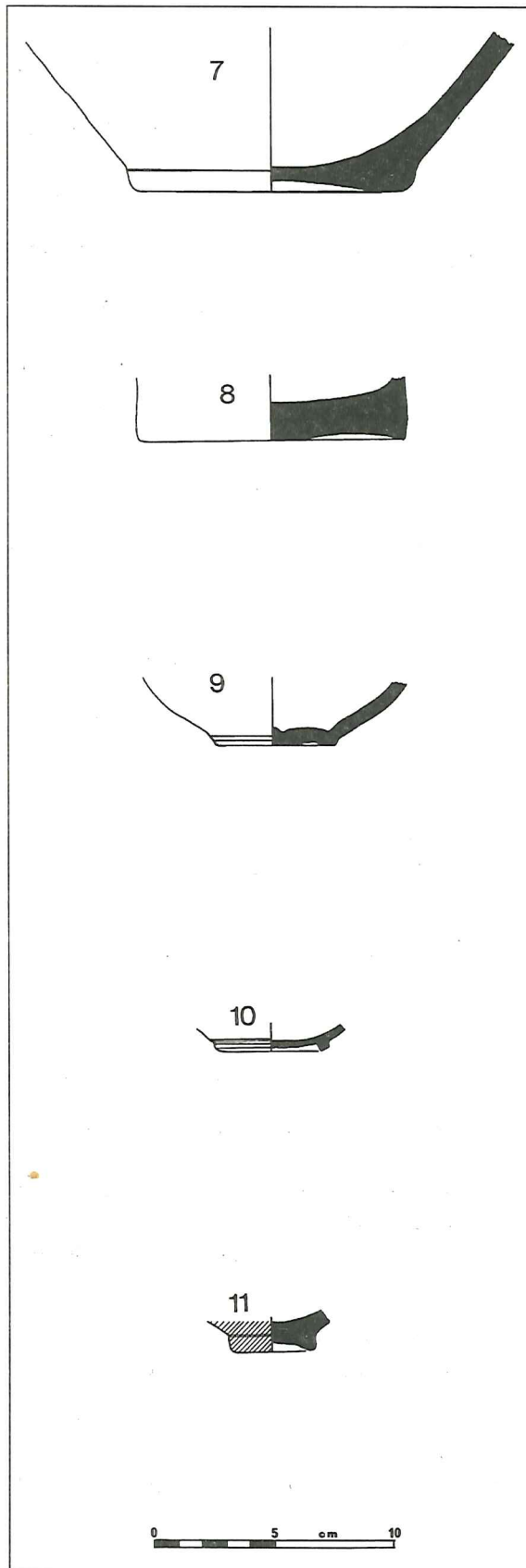
7. Rukeis: narrow-necked storage jars

1. Tall, narrow-necked jar with triangular rim (Rukeis: Level 13)
 Jāwa, Square UT, Layer ++++ (Helms 1989, Fig. 12:22), rim more rounded.
 Buṣrā, Trench J1, Stratum 21 (Seeden 1986, Pl. 14, Fig. 93), diameter bigger.
 Tall aṣ-Ṣālihiyah, level III (von der Osten 1956, Fig. 88:20), rims not triangular, but vertical necks.
 Tall Nebi Mend, Phase F-D (Bourke 1993, Fig. 22:11), bigger diameter.
2. Tall, narrow-necked jar with triangular rim (Rukeis: Level 13)
 Jāwa, Square UT, Layer ++++ (Helms 1989, Fig. 12:22).
 Buṣrā, Trench J1, Stratum 17 (Seeden 1986, Pl. 17, Fig. 134), neck not as upright.
 Tall Nebi Mend, Phase F-D (Bourke 1993, Fig. 22:11), bigger diameter.
 Jericho, Level H.li (Kenyon and Holland 1982, Fig. 137:2), rim thickening.
3. Tall narrow-necked jar, with ridge and rounded, triangular rim (Rukeis: Level 13)
 Buṣrā, Trench H11, surface layer (Seeden 1986, Pl. 23, Fig. 301), rim rounder and thicker, diameter much bigger; Stratum 15 (Seeden 1986, Pl. 23, Fig. 299), rim rounded, and diameter much bigger.
 Tall Nebi Mend, Phase G (Bourke 1993, Fig. 14:3), sharper ridge.
4. Tall narrow-necked jar with rounded rim (Rukeis: Level 13)
 Buṣrā, Trench J1, Stratum 14 (Seeden 1986, Pl. 21, Fig. 255), taller neck.
 Tall aṣ-Ṣālihiyah, Level XI (von der Osten 1956, Fig. 92:43), neck not as vertical.
 Tall Nebi Mend, Phase H (Bourke 1993, Fig. 21:2), sharper profile.
5. Tall, narrow-necked jar, with ridge and rounded rim (Rukeis: Level 13)
 Buṣrā, Trench J1, Stratum 26 (Seeden 1986, Pl. 12, Fig. 31), more ridges on longer neck.
 Jericho, Level H.liii (Kenyon and Holland 1982, Fig. 139:17).
6. Tall, narrow-necked jar with ridge and flattened rim (Rukeis: Level 13)
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22:34), straighter profile.
 Tall Nebi Mend, Phase G (Bourke 1993, Fig. 14:3).
 Additional parallels for Fig. 7:5 and 6 can be found in the fill of the Fortress Temple Ia in Shechem (Wright 1963, Fig. 25:26); Stratum XV - XI in Megiddo (Loud 1948, Pl.8:5); Stratum XVII (Upper City) in Hazor (Aharoni *et al.* 1961, Pl.CLVI:26); and Stratum G-F in Tall Bayt Mirsim (Albright 1933, Pl.4:13[d]).



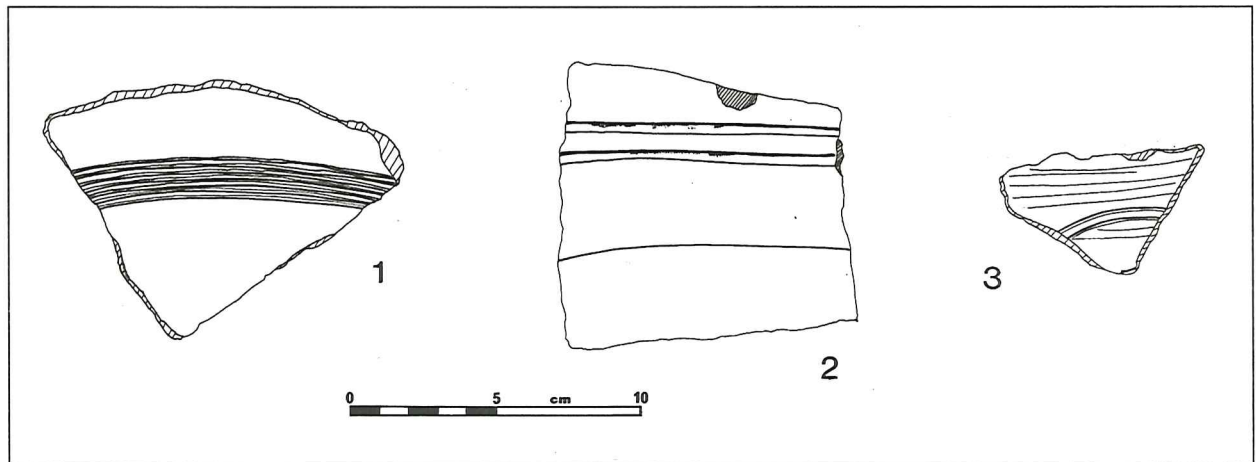
8a: (1-6) Rukeis: bases.

1. Flat base (Rukeis: Level 11)
 Jāwa, Square UT, Layer ++++ (Helms 1989, Fig. 13:42).
 Buṣrā, Trench J1, Stratum Upper 23 (Seeden 1986, Pl. 14, Fig. 84).
 Tall aṣ-Ṣālihiyah, Level XI (von der Osten 1956, Fig. 92:54, 55).
 Tall aṣ-Ṣālihiyah, Level XII (von der Osten 1956, Fig. 95:50, 94).
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22:31).
 Jericho, Tomb J.14.70 (Kenyon and Holland 1982, Fig. 153:19).
2. Flat base (Rukeis: Level 13)
 Buṣrā, Trench J1, Stratum 26 (Seeden 1986, Pl. 12, Fig. 43).
 Tall aṣ-Ṣālihiyah, Level XII (von der Osten 1956, Fig. 95:50).
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22:32).
 Tall Mardikh, Area Q, Level ii (Matthiae 1979 Pl. I, Fig. 2).
 Jericho, Tomb J1.119 (Kenyon and Holland 1982, Fig. 153:18).
3. Flat base (Rukeis: Level 13)
 Buṣrā, Trench J1, Stratum 21 (Seeden 1986, P. 14, Fig. 94), other similar examples.
4. Stepped flat base (Rukeis: Level 13)
 Buṣrā, trench H11, Stratum 17 (Seeden 1986, Pl. 22, Fig. 280).
 Tall aṣ-Ṣālihiyah, Level XI (von der Osten 1956, Fig. 92:53).
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22:1).
 Tall Mardikh, Area Q, Level i (Matthiae 1979, Pl. I, Fig. 1).
 Hazor, Area H, Stratum 3 (Yadin *et al.* 1961, Pl. CCLIX:5), thicker base.
 Jericho, Tomb J3.24 (Kenyon and Holland 1982, Fig. 153:3).
5. Round base (Rukeis: Level 13)
 Buṣrā, Trench J1, Stratum 26 (Seeden 1986, Pl. 13, Fig. 45).
6. Round base (Rukeis: Level 11)
 Buṣrā, Trench J1, Stratum 26 (Seeden 1986, Pl. 13, Fig. 45).



8b: (7-11) Rukeis: bases.

7. Concave, stepped base (Rukeis: Level 13)
 Buṣrā, Trench J1, Stratum 26 (Seeden 1986, Pl. 13, Fig. 60), concave curve more subtle.
 Tall aṣ-Ṣālihiyah, Level XII (von der Osten 1956, Fig. 95:92), profile more pronounced.
 Hazor, Area D (D3) (Yadin *et al.* 1958, Pl. CIV:23).
 Jericho, Tomb A34.208 (Kenyon and Holland 1982, Fig. 153:5).
8. Concave base with thinning, straight walls (Rukeis: Level 13)
 Buṣrā, Trench J1, Stratum 28 (Seeden 1986, Pl. 11, Fig. 15), flat base; Stratum 26 (Seeden 1986, Pl. 13, Fig. 61), thin base, thicker walls, not concave; Stratum 16 (Seeden 1986, Pl. 17, Fig. 149), without concave base.
 Ḥamā, H3 (Fugmann 1958, Fig. 120:2C 933), without concave base.
9. Flattened ring base (Rukeis: Level 11)
 Buṣrā, Trench J1, Stratum 26 (Seeden 1986, Pl. 12, Fig. 28); Stratum 19 (Seeden 1986, Pl. 18, Fig. 168), smaller.
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 21.9), without raised interior.
 Ḥamā, H1 (Fugmann 1958, Fig. 127:2D 211), smaller.
 Hazor, Area H, Stratum 3 (Yadin *et al.* 1961, Pl. CCLX:22).
10. Sharp ring base (Rukeis: Level 11)
 Buṣrā, Trench H11, Stratum 15 (Seeden 1986, Pl. 23, Fig. 316).
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 21:10), bigger.
 Jericho, Tomb B51.63 (Kenyon and Holland 1982, Fig. 159: 23).
11. High ring base (Rukeis: Level 13)
 Tall aṣ-Ṣālihiyah, Level XII (von der Osten 1956, Fig. 95:19).
 Tall Ḥadidi, Area B (Dornemann 1979, Fig. 21:3).
 Ḥamā H, Silo (Fugmann 1958, Fig. 110: 3B 944[13]), many other similar examples.
 Hazor, Area D (D1), Stratum 5 (Yadin *et al.* 1958, Pl. XCIII:2).
 Jericho, Tomb J42.8 (Kenyon and Holland 1982, Fig. 156:2).



9a: (1-3) Rukeis: sherds with combed/incised decoration.

1. Sherd with horizontal bands of combed/incised decoration (Rukeis: Level 13)

Jāwa, Square C2, Layer 504.2 (Helms 1989, Fig. 13:39).

Buṣrā, Trench J1, Stratum 19/20 (Seeden 1986, Pl. 6, Fig. 5).

Tall aṣ-Ṣālihiyah, Level XII (von der Osten 1956, Fig. 95:23).

Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22:29).

Tall Mardikh, Area Q, Level ii (Matthiae 1979, Pl. K, Fig. 10).

Ḥamā, H5 (Fugmann 1958, Fig. 109:3k 162).

Hazor, Area D (D5) (Yadin *et al.* 1958, Pl. CXII:12).

2. Sherd with horizontal bands of combed/incised decoration (Rukeis: Level 11)

Buṣrā, Trench J1, Stratum 22 (Seeden 1986, Pl. 6, Fig. 3).

Tall Ḥadidi, Area B (Dornemann 1979, Fig. 21:4).

Tall Mardikh IIIA (Matthiae 1980, Fig. 36); IIIB

(Matthiae 1980, Fig. 42).

Ḥamā H5 (Fugmann 1958, Fig. 109: 3C 551).

Hazor, Area A, locus 12 (Yadin *et al.* 1960, Pl. CXCv:2).

3. Sherd with horizontal and wavy combed/incised decoration (Rukeis: Level 11)

Jāwa, Square C2, Layer 502.6 (Helms 1989, Fig. 13:34).

Buṣrā, trench J1, Stratum 26 (Seeden 1986, pl. 6, Fig. 1); Stratum 23 (Seeden 1986, Pl. 14, Fig. 76).

Tall Ḥadidi, Area B (Dornemann 1979, Fig. 22:7).

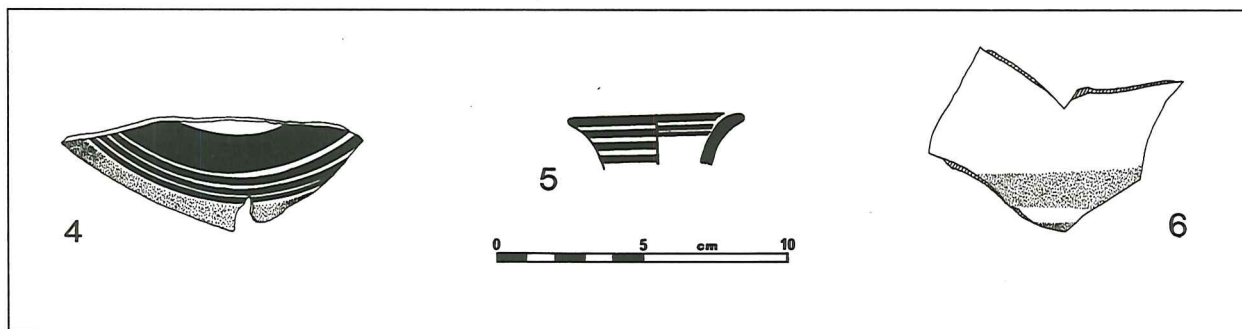
Tall Mardikh, Area Q, Level i (Matthiae 1979, Pl. I, Fig. 1).

Ḥamā H (Fugmann 1958, Fig. 139: 4C 223).

Tall Nebi Mend, Phase G (Bourke 1993, Fig. 17:3).

Hazor, Area F (Yadin *et al.* 1961, Pl. CCXXXIX:22).

Jericho, level H.lii-liii (Kenyon and Holland 1982, Fig. 177:10).



9b: (4-6) Rukeis: sherds with painted decoration.

4. Sherd with bands of brown and red painted decoration (Rukeis: Level 13)
Tall aṣ-Ṣālihiyah, Level XII (von der Osten 1956, Fig. 96:130, 189, 194), jugs with horizontal bands of two colours, possibly black and red?
Hazor, Area D (D3), Stratum 2 (Yadin *et al.* 1958, Pl. CII: 11, 16), jar fragment with bands of painted decoration in two colours?
Megiddo, Tomb 3150, Stratum XIV (Loud 1948, Pl. 11:21), with red and black decoration; D.407, Stratum XIA (Loud, Pl. 18:4), with red and black decoration.
5. Sherd with bands of dark brown paint (Rukeis: Level 13)
Chagar Bazar, late level 1 (Mallowan 1936, Fig. 24:2), 'Habur Ware' juglet with bands of black paint, some examples have red paint.
6. Sherd with bands of orange/red paint (Rukeis: level 13)

Buṣrā, Trench J2, Stratum 15 (Seeden 1986, pl. 9, Fig. 7), pink clay, pale brown slip and bands of red paint.

Tall aṣ-Ṣālihiyah, Level XII (von der Osten 1956, Fig. 96: 130, 189, 194), jug with red (?) painted bands.

Chagar Bazar, level 1 (Mallowan 1936, Fig. 24:10), 'Habur Ware' with pinkish clay and red/brown bands of paint.

Hazor, Area D (D3), Stratum 2 (Yadin *et al.* 1958, pl. CII: 11, 16), fragment of pink clay, grey core with bands of red/brown paint.

Megiddo, Tomb 5181, Stratum XIV (Loud 1948, Pl. 12:22), jug with red painted bands.

Tall Dān, Tomb 1062, Stratum XI-XII (Ilan 1991), stepped-rim juglet with painted red bands.

Settlement Patterns in the Ḥawrān

The Ḥawrān, which consists for the most part of Jabal ad-Drūz and its western foothills, is a broken land, rugged in places but with fertile soils. Jabal ad-Drūz rises to over 1700 m, uplands which are snow-covered in winter. The land slopes up fairly gently from the plain, and the general impression is of hill rather than mountain country. The region is one of ancient vulcanism; the land is strewn with basalt boulders and the villages are built out of hewn blocks or rough fieldstones. The western slopes of the mountain receive an annual average rainfall of over 300 mm. Southwards and eastwards rainfall decreases, although water from win-

ter storms and spring snowmelt is distributed to these areas down the major wadi systems.

Spreading out north-west of Jabal ad-Drūz is the lava flow which created the *malj'* (Arab. place of refuge) It is geologically recent and its surface in parts looks as if it has barely cooled. Movement through it is extremely difficult except along narrow, winding paths. Here, as elsewhere around the Jabal, lava flow caves have always served as shelters for shepherds, fugitives and outlaws.

Travellers passing through the region in the early nineteenth century reported that most of the villages were uninhabited, al-

though as Doughty noted, they were 'not heaps and ruins but carcasses which might return to be inhabited under a better government (1929 : Vol. 1:12). This abandonment was caused largely by the combined pressures of heavy taxation burdens from the Ottoman authorities and the lack of security in the countryside (Doughty 1929; Lewis 1987:13).

Most of the villages contained houses which had been built in the first to sixth centuries AD, as well as some of later date. Many of the ancient buildings were well preserved and were re-occupied by later nineteenth century ad-Drūz migrants. The more ruined buildings were used as quarries for the construction of new houses.

The population of the western Ḥawrān in the early to mid-nineteenth century consisted of immigrant Drūzes, Muslim villagers, and Greek Orthodox or Greek Catholic Christians. The area was also used for grazing by the Rwalla, Banī Ṣakhr and other tribes, while the local Ahl al-Jabal herded their flocks in the lava and camped about the empty villages of the upper Jebel. The *malj'* was used as a hideout for small tribal groups surviving largely by brigandry (Lewis 1987:76). Throughout the later part of the nineteenth and into the early twentieth century the area was increasingly settled by ad-Drūz migrants seeking refuge from troubles in Lebanon and Syria. They chose the region mainly because of its relative remoteness, as a place of refuge, and many returned to their homelands when the situation there eased.

However, this sequence of abandonment and reoccupation is an important one as it illustrates a pattern which has repeated itself throughout the history and prehistory of the region. Apparently, the first expansion of settlement, although only of a semi-permanent seasonal nature, was in the ninth millennium BC, in the later part of the Natufian period, when small groups of hunter/

foragers moved down the wadis into the fringes of the dry steppe in the cooler and wetter months of the year. This expansion was probably stimulated by changing environmental conditions and was followed by a period of very limited use in the early aceramic Neolithic period.

The next expansion came in the seventh millennium BC, the later aceramic Neolithic. The reasons for this are unclear as yet. They may relate both to climatic and socio-economic factors. Whatever the explanation, the area was heavily exploited by specialist hunting groups trapping gazelle in stone enclosures, the so-called 'desert kites' (Helms and Betts 1987). This was followed in the Late Neolithic, the sixth millennium BC, by the introduction of herding into the steppic economy (Betts [ed.] 1991:181 ff.). The western Ḥawrān may have been more fully settled in the Neolithic, but little is yet known about this region in the prehistoric periods. From this time on, it is likely that the population of the Ḥawrān always included a nomadic hunter/herder component, although such groups may not be very archaeologically visible. Limited traces substantiate this notion (Betts 1984: 34, Fig. 7:17; Betts 1992).

For the proto-historic and later periods, previous work in the Jordanian sector of the Ḥawrān has provided a broad framework to complement the pattern indicated by the survey work discussed above.

Various surveys and soundings have been carried out in the area by Butler (1919), King (1982; King *et al.* 1983), Braemer (1993) and Kennedy (Kennedy *et al.* 1986). Substantial excavations have been conducted by Helms (Helms 1981; Betts [ed.] 1991) at the Bronze Age site of Jāwa on Wādī Rājil, and de Vries at Roman/Byzantine Umm al-Jimāl (1985). A pattern of early prehistoric sites similar to that found on Wādī al-'Ājib was recorded along the middle reaches of Wādī Rājil (Betts [ed.] 1991: 181 ff). Ev-

idence for occupation sites of the Early Bronze Age is sparse, the most remarkable being the first settlement of Jāwa. However, Jāwa remains an anomaly.

No similar sites have been found in the southern Ḥawrān. Some of Braemer's survey sites are cautiously attributed to the Chalcolithic/Early Bronze Age period (Khisha Suleitin ['Ajib Survey site 6: Karyat Khisha al-Sletin], Khirbat Khneifes ['Ajib Survey site 14] and one unnamed site), but none produced pottery of Jāwa type, and resurvey of Khirbat Khneifes failed to recover identifiable Early Bronze Age pottery.

Middle Bronze Age settlements are known at Jāwa (Betts [ed.] 1991), Hawshiyān and Rukeis (Braemer 1993). Middle Bronze Age Jāwa comprises a large formal building, the 'citadel', surrounded by a series of outbuildings. These are long, narrow-roomed structures with corrals and small irregular ancillary units. The site is not apparently refortified in the Middle Bronze Age, but its location within the standing remains of the Early Bronze town gave it a naturally defensible position. Hawshiyān seems to be a small fort with a stone rampart and wall surrounding a central depression, probably the remains of a cistern. Traces of internal structures can be seen on the top of the mound. Pottery, stones and miscellaneous artefacts in the ploughsoil below the walls suggest that there was also some external settlement.

The number of sites known for the Middle Bronze Age in the Ḥawrān far exceeds that of earlier periods. It is, until Roman times, the greatest period of occupation and development in the region (Braemer 1993: 158). Braemer has identified a concentration of sites in the southern Ḥawrān, perhaps di-

vided into two groups: a western cluster (Ṭayyibah, Boşra, Kowm al-Kudayid), and an eastern group in the area from Dibine to Umm al-Quṭṭayn. Braemer also notes a pattern of large sites, perhaps regional centres, in a landscape of small agricultural settlements. He suggests that there may be a difference between the large sites with rampart fortifications like Tall Debbe and Hebike on upper Wādī Rājil with their associated settlements and the pattern in the southern Ḥawrān of villages, some with a fortified citadel, such as Rukeis and Kowm al-Kudayid. It is possible, however, that the distinction is merely one of scale and that sites such as Rukeis might equally well be smaller regional centres for the less populated areas.

One final point of importance regarding Middle Bronze Age sites in the Ḥawrān is that almost all of them are either fortified or at least protected by an enclosure wall. This is in contrast to sites of the later Early Bronze Age which were often open, undefended settlements (Braemer 1993:160).

A major field programme is planned to study Bronze Age settlement in the upper Wādī al-‘Ajib. Work will focus on Rukeis with additional study of the smaller settlements, water harvesting and field systems.

Alison Betts
Samantha Eames
Maria Schroder
The University of Sydney
Sydney, N.S.W. , 2006
Australia

‘Abed al-Qader al-Husan
Department of Antiquities
Mafrāq- Jordan

Bibliography

- Aharoni, Y., Amiran, R., Dothan, T., Dothan, M., Dunayevsky, I. and Perrot, J.
 1961 *Hazor III-IV: An Account Of The Third And Fourth Seasons Of Excavation, 1957-1958*, Jerusalem: Magnes Press.
- Albright, W.F.
 The Excavation of Tell Beit Mirsim IA: The Bronze Age Pottery of the Fourth Campaign, *AASOR* 13 :55-127.
- Betts, A.V.G.
 1984 Black Desert Survey, Jordan: Second Preliminary Report, *Levant* 16: 25-34.
- Betts, A.V.G.
 1992 Tell el-Hibr: A Rock Shelter Occupation of the Fourth Millennium BCE in the Jordanian Badiya, *BASOR* 287: 5-23.
- Betts, A.V.G. (ed.)
 1991 *Excavations at Jawa 1972-1986. Stratigraphy, Pottery and Other Finds*, Edinburgh:Edinburgh University Press.
- Bourke, S.J.
 1993 The Transition from the Middle to the Late Bronze Age in Syria: the Evidence from Tell Nebi Mend, *Levant* 25: 155-195.
- Braemer, F.
 1993 Prospections archéologiques dans le Hauran III, *Syria* 70/1-2:117-170.
- Butler, H.C.
 1919 *Syria. Division II: Architecture, Section A: Southern Syria*, Leiden:Brill.
- Dornemann, R.H.
 1979 Tell Hadidi: A Millennium of Bronze Age City Occupation, *AASOR* 44: 113-151.
- Doughty, C.M.
 1936 *Travels in Arabia Deserta*, Vols I, II (3rd edn), London:Cape.
- Fugmann, E.
 1958 *Hama: Fouilles et Recherches 1931-1938: II, L'architecture des périodes pré-hellénistiques*, Copenhagen: Nordisk Forlag.
- Gerstenblith, P.
 1983 *The Levant at the Beginning of the Middle Bronze Age* (AASOR Dissertation Series No. 6), Cambridge, MA.
- Helms, S.W. and Betts, A.V.G.
 1987 The Desert 'kites' of the Badiyat al-Sham and North Arabia, *Paléorient* 13/1:41-67.
- Helms, S.W.
 1989 Jawa at the Beginning of the Middle Bronze Age, *Levant* 21:141-168.
- Helms, S.W.
 1981 *Jawa, lost city of the Black Desert*, London:Methuen.
- Husan, A.-Q.
 1989 Dirāsāt wa Mūsūhāt 'Athariyah Maydaniya fi Wādī al-'Ājib. *Majalat Sawt Al-Jeel*.
- Ilan, D. (in Arabic). Ministry of Clulture, Amman
 1991 'Stepped-Rim' juglets from Tel Dan and the 'MB I-II (MBIIA-B) Transitional Period', *IEJ* 41/4:229-238.
- Kennedy, D., MacAdam, H. and Riley, D.
 1986 Preliminary Report on the Southern Hauran Survey, 1985, *ADAJ* 30:145-153.

- Kenyon, K. and Holland, T.
1982 *Jericho IV*, London: British School of Archaeology in Jerusalem.
- King, G.
1982 Preliminary Report on a Survey of Byzantine and Islamic Sites in Jordan 1980, *ADAJ* 26:85-95.
- King G., Lenzen, C.J. and Rollefson, G.O.
1983 Survey of Byzantine and Islamic Sites in Jordan. Second Preliminary Report 1981, *ADAJ* 28: 385-436.
- Lewis, N.
1987 *Nomads and Settlers in Syria and Jordan, 1800-1980*, Cambridge:CUP.
- Loud, G.
1948 *Megiddo II*, Chicago:Chicago University Press.
- Mallowan, M.
1936 The Excavations at Tall Chagar Bazar and an Archaeological Survey of the Habur Region. Second Campaign 1936, *Iraq* 4: 95-154.
- Matthiae, P.
1979 *Studi Eblaiti I*, Rome:Universita degli Studi di Roma.
- Osten, H.H. von der,
1956 *Svenska Syrienexpeditionen I: Die Grabungen von Tell es Salihyeh*, Lund:Gleerup.
- Riis, P.J.
1948 *Hama. Fouilles et Recherches 1931-1938 Vol.II.i Les Cimetieres à Cremation*, Copenhagen:Nordisk Forlag.
- Seeden, H.
1986 Bronze Age Village Occupation at Busra: AUB excavations on the northwest tell 1983-1984, *Berytus* 34: 11-81.
- Seeger, J.D.
1988 *Gezer V: The Field I Caves*. Hebrew Union College Biblical and Archaeological School in Jerusalem: Jerusalem.
- Tubb, J.N.
1983 The MBIIA period in Palestine: Its Relationship with Syria and its Origin, *Levant* 15 :49-62.
- Tufnell, O.
1958 *Lachish IV. The Bronze Age*, Oxford University Press:London, New York, Toronto.
- Vries, B. de
1985 Urbanization in the Basalt Region of North Jordan in Late Antiquity: The Case of Umm el-Jimal, Pp. 246-256 in A. Hadidi (ed.) *SHAJ* II, Amman:Department of Antiquities.
- Wright, G.E.
1963. The Fourth Campaign at Tell Balatah (Shechem), *BASOR* 169:1-60.
- Yadin, Y.
1958 *Hazor I*, Jerusalem:Magnes Press.
- Yadin, Y.
1960 *Hazor II*, Jerusalem:Magnes Press.
- Yadin, Y.
1961 *Hazor II-IV*, Jerusalem:Magnes Press