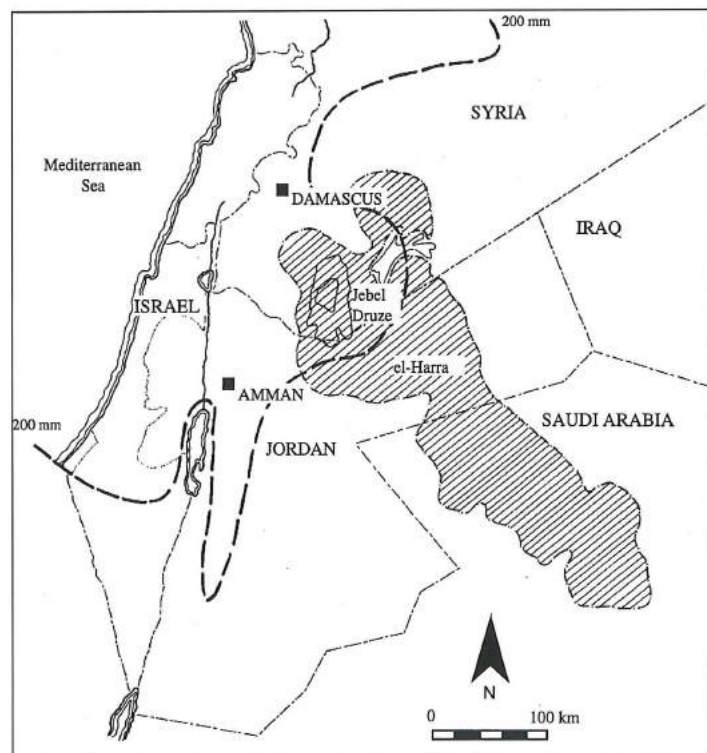


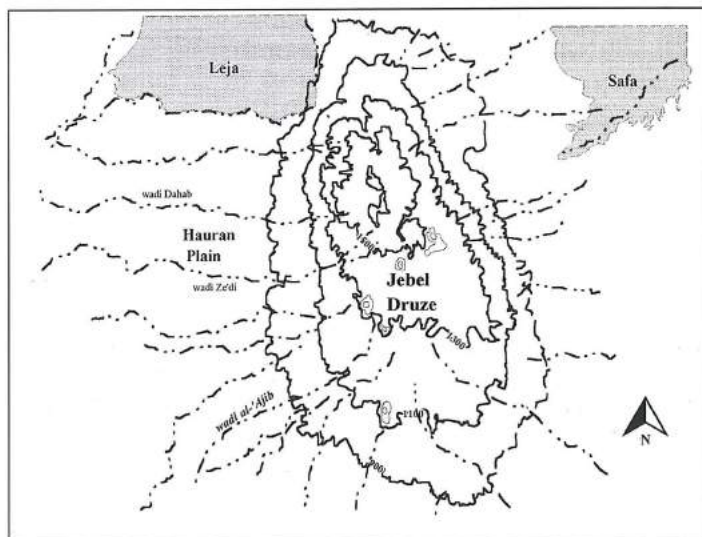
A "Gateway Community" in Northern Jordan: The University of Sydney Ḥawrān Project

Location and Environment

Wādī al-ʿĀqib (al-ʿAjib) is one of the main wadis of the Ḥawrān, draining off the south western slopes of Jabal ad-Drūz in southern Syria (FIGS. 1 and 2). The wadi runs in a south westerly direction, crossing the border into northern Jordan, a few kilometres west of the village of Umm al-Quṭṭayn, eventually draining into the mudflats west of Qaṣr al-Ḥallābāt. The wadi, situated in a semi-arid or marginal steppic region that receives between 200-250 mm annual precipitation, experiences seasonal flooding from heavy rainfall and snow-melt higher up the mountain. In the upper reaches, close to the Syrian border, the wadi is fairly shallow and has a narrow flood plain suitable for



1. Map of the Levant showing the location of the Ḥawrān.



2. Map of the Ḥawrān showing the location of Wādī al-ʿĀqib.

agriculture. As it continues further downstream, the wadi becomes more deeply incised which, along with lower annual rainfall, renders agriculture unviable. The varying environmental conditions down the length of the wadi may have been a crucial factor in determining the range of types of sites and periods of occupation identified.

Research Background

The primary aims of the Ḥawrān Research Project, of which the current study is part, are twofold; to examine the ebb and flow of human settlement in the agriculturally marginal land of the southern Ḥawrān on the edge of the steppe, with particular emphasis on the Middle Bronze Age and to examine the relationships between the settled and nomadic groups in the region. The aims were to be achieved through a combination of intensive survey and excavation. On the basis of this, two preliminary seasons of survey along the upper reaches of the Wādī al-ʿĀqib from the Syrian border down to al-Khālidiyya were carried out in 1992 and 1993.¹ These were followed up with

¹ For the initial survey results see Betts *et al.* 1995, 149-168.

more intensive surveys and excavation in 1994 and 1995/96.²

The Survey

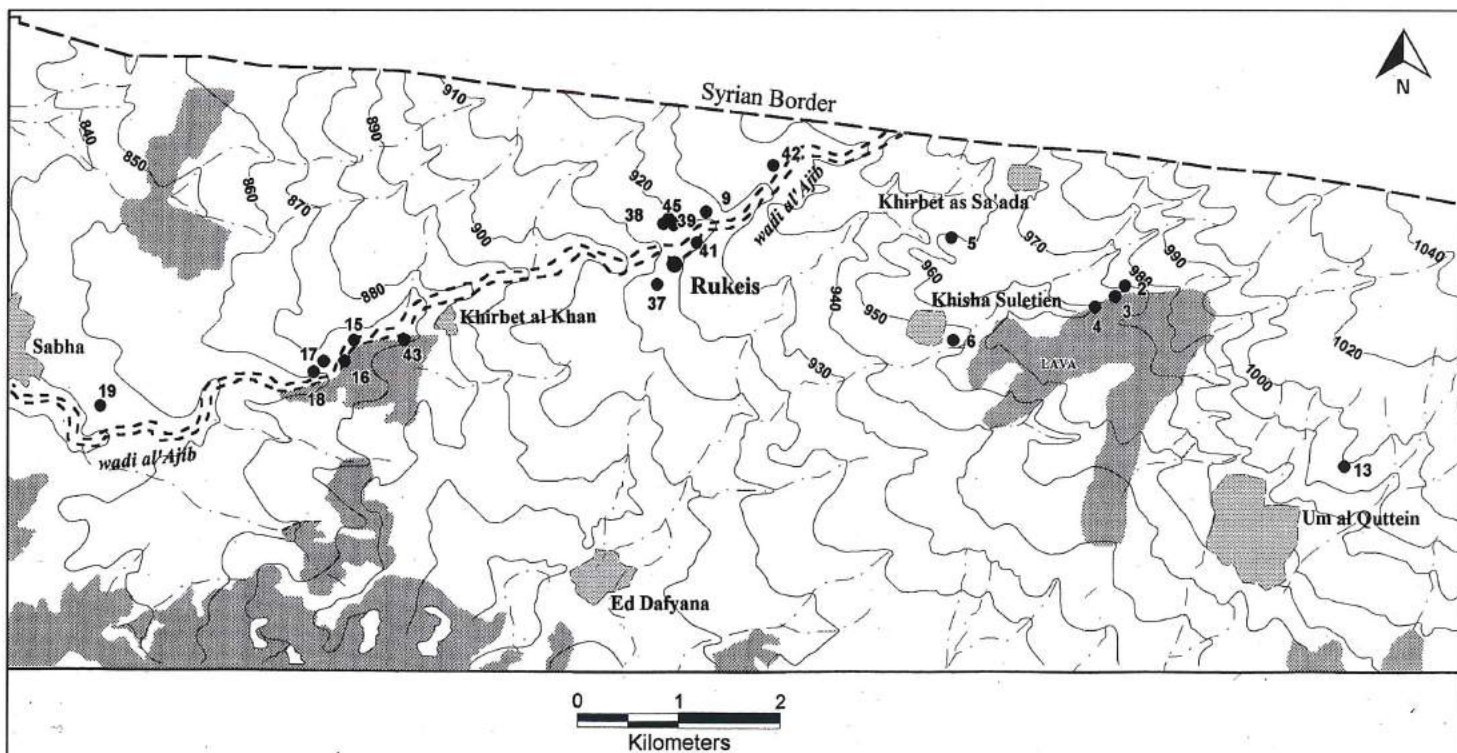
In 1992 and 1993 the methodology of the Wādī al-‘Āqib survey consisted of field walking along the wadi and hill-sides to either side. The aim of the survey at this stage was not to record individual sites in detail but to document the general nature of site distribution. As a result, the recording of sites was not exhaustive; however, most major remains were visited and random artefact scatters were noted. Sample collections of artefacts were made and the general characteristics of each site was documented. Thirty-six sites were identified as displaying evidence of occupation ranging from the Prehistoric to the Islamic periods. In 1993, those sites identified as having evidence for Middle Bronze Age occupation were subjected to further investigation and a trial sounding was carried out at the site of Rukays (Site 7). On the basis of the results of this sounding, which revealed significant evidence of Middle Bronze Age occupation, the site was chosen as the subject of several major seasons of excavation.

The 1994 survey was more intensive than the previous seasons and concentrated in the upper reaches of the wadi in the immediate vicinity of Rukays. Small teams walked along both banks of the wadi one side at a time, spaced some thirty to fifty metres apart, covering an area of roughly two hundred metres from the edge of the wadi

bed. All rising ground was investigated and wall foundations, pottery scatters and areas of broken chert were recorded. When such features were located, random surface collections were undertaken. A further fifteen sites were identified, seven of which, on the basis of surface finds, showed evidence of Middle Bronze Age occupation. These were chosen for further investigation in the form of 1 x 1 m soundings, made in selected locations. Each of the selected sites was planned and diagnostic pottery drawn and photographed. The results confirmed the presence of Middle Bronze Age occupation with pottery dating from the MB II to the Late Bronze Age being recovered from many of the sites sounded.

Settlement along Wādī al-‘Āqib

The surveys undertaken by the University of Sydney Hawrān Project along the length of Wādī al-‘Āqib located fifty-one sites in all. Most Middle Bronze Age sites were found to be concentrated along the upper wadi in the immediate vicinity of Rukays and consist largely of enclosed settlements (FIG. 3). On the basis of their location within close vicinity to the wadi and field systems, their architectural remains, consisting of enclosures with few internal structures, and excavated remains such as ceramics, ground stone and botanical and faunal remains, these sites may be identified as small farmsteads. The evidence so far compiled suggests the development, by the Middle Bronze Age, of a fairly simple and generally small scale



3. Map of the upper Wādī al-‘Āqib showing the location of Middle Bronze Age sites.

² For the 1994 and 1995/6 seasons see Betts *et al.* 1996, 27-39 and n.d. See also Kennedy 1995.

settlement hierarchy with perhaps only one large centre (Rukays) surrounded by a network of small sites scattered roughly in a linear direction along the wadi. An examination of the material remains from these sites, including botanical and faunal evidence (presented below), suggests that the inhabitants of this network may have participated in both agricultural and pastoral activities, possibly supporting Rukays as the centre of these activities.

The Survey Excavations

During the second major season of excavation at Rukays in 1995/96, a more intensive survey along the upper length of the wadi was carried out. The primary goals were to revisit sites previously identified as displaying evidence of Middle Bronze Age occupation in order to re-examine them for additional features and information. As a result, two sites were chosen for more detailed investigation in the form of small scale excavations (Sites 38 and 42). The purpose of the excavations were fourfold; to confirm the Middle Bronze Age date of the sites by excavation on a larger scale, to establish the date of the foundation of the sites and their length of occupation, to identify the chronological relationship between these sites and the site of Rukays, and to examine more closely the nature of the sites, their function and their relationship with Rukays.

Site 38

Site 38 is situated approximately 300 m north west of Rukays, on a rise on the north western side of Wādī al-‘Āqib. The site consists of a roughly rectangular enclosure wall with long rectangular internal structures. A small 4.5 x 3.5 m trench was opened up inside one of the structures on the north east side of the site. Bedrock was reached at a depth of approximately 1.5 m, revealing basalt walls preserved to a height of about 1.25 m. Below the walls of this building was evidence of an earlier episode of occupation characterised by occupation debris and pits cut into the sterile earth. The stratigraphy and depth of deposit suggest that Site 38 was occupied for a limited time span, with the major phase of occupation dating on the basis of the ceramic analysis to the MB IIB/C period. The occurrence of wares possibly dating to the Late Bronze Age, while limited, suggest some use of the site during this period, the nature of which remains uncertain.³

Site 42

Site 42, situated about 600 m north east of Rukays on the north side of the wadi, is similar in nature to Site 38. It is surrounded by a roughly circular enclosure wall and has

internal rectangular architectural features visible on the surface. A small 4 x 3.5 m trench was laid out inside one of these structures on the north east side of the site. Bedrock was reached in the southern of the trench at a depth of 1.70 m while the northern half of the trench was excavated to a depth of 1.10 m, where the basalt walls were preserved to a height of about 0.95 m. As with Site 38, the relatively shallow depth of deposit, in conjunction with the stratigraphic record, suggests that the length of occupation at Site 42 was short. Analysis of the ceramic repertoire from site 42 indicates a less clear occupational history than that of site 38. The majority of ceramic types date from the MB IIA/C periods, suggesting the site was occupied throughout this time; however, identification of the most significant phase within that stretch of time is unclear.⁴ Again, the occurrence of Late Bronze Age sherds suggests that like Site 38, Site 42 continued to be occupied into the Late Bronze Age.

Ceramics and Special Finds

While the proportion of ceramics from both Site 38 and 42 is relatively small due to the limited nature of the excavation, enough was recovered to allow a general pattern to be seen. According to Schroder's analysis the overwhelming majority of identifiable forms retrieved during the excavations were jars, with storage jars being particularly predominant.⁵ The next most common forms are fine jars and storage bowls, while common domestic wares such as cooking pots are few in number. Special ceramic types retrieved include several sherds of what may be considered Levantine painted ware, a sherd possibly of chocolate-on-white ware, several sherds with unusual incised decoration, a ceramic waster and a cylindrical ceramic vessel or "model shrine".⁶ Non-ceramic finds are represented largely by basalt ground stone artefacts, including saddle quern fragments, several grinding and rubbing stones and a small basalt bowl.

Radiocarbon Dating

While a number of charcoal samples were taken for radiocarbon dating from both Sites 38 and 42, so far only one result has been received. The sample comes from a large pit in the southern part of the trench in site 42. The sample is dated roughly within the period from 2200 to 1800 BC.

The Botanical Remains

Carbonised botanical remains collected in soil samples from selected contexts from Site 38 were recovered by flotation and then analysed by George Wilcox (FIG 4).⁷

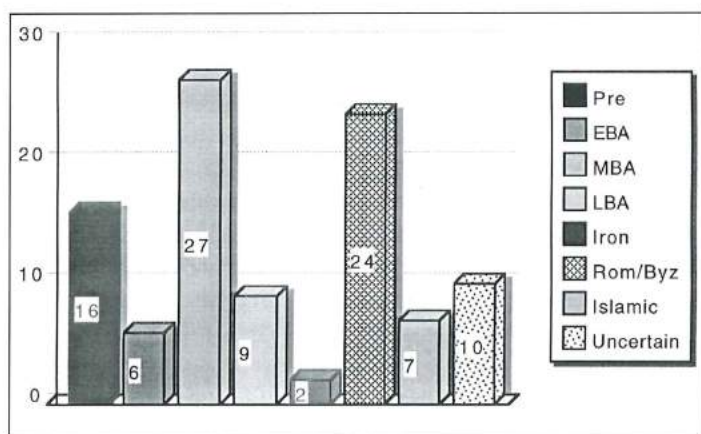
³ For an analysis of the ceramics from Site 38 see Schroder 1997, vol. 1, 147-148, Fig. 38, vol. 2, Fig 13.

⁴ Schroder *op. cit.*, vol. 1., 149, Fig 38, vol. 2 fig 13.

⁵ Schroder *op. cit.*, vol. 1, 94-95, 128 and 132-136, Fig. 12, vol. 2, Fig. 12.

⁶ Eames in preparation

⁷ For a more detailed account of Wilcox's analysis see Betts *et al.* n.d.



4. Chart showing the number of sites for each period of occupation in Wādī al-‘Āqib.

The results indicate that barley is by far the most common cereal, with only three examples of wheat being identified. Lentils and examples of grape pips are present as well as several weed species. The presence of weeds suggest the local cultivation of crops as weeds would not normally be imported with grain. While the evidence is limited, one may provisionally conclude that barley was the predominant crop being locally cultivated along with both lentil and grape. The presence of grape pips is particularly interesting and suggests that this crop may have been one of the agricultural products cultivated in the region, possibly for the production and exportation of wine.⁸

The Faunal Remains

An examination of a selection of the faunal material collected from sites 38 and 42 was conducted by Lachlan Mairs (TABLE 1).⁹ While only relatively small samples were recovered, resulting in the low number of identifiable species, some preliminary conclusions could be drawn. Sheep and goat are found almost exclusively at sites 38 and 42, with both immature and mature examples being equally represented. While only one identifiable example of domestic cattle has so far been found, the SGE suggests that in terms of how much meat they provided,

cattle may have been of at least equal importance, if not more. This pattern is similarly reflected at Rukays, where sheep and goat accounted for the majority of species present. Again, while the number of cattle was relatively limited, the meat equivalent ratio suggests it may have been of greater significance. However, the variety of species present is unlike Rukays, where examples of equid, gazelle, pig and small mammals were recovered. The predominance of sheep and goat suggests, not surprisingly, that these animals were probably the focus of local pastoral activities but cattle, while less in number, may have been of equal or even more significance.

Interpretation and Summary

Sites 38 and 42 reflect a degree of similarity in many aspects; in their location and physical appearance, in their architectural remains, in the material recovered and in their occupational histories. Both are small settlements surrounded by enclosure walls with several internal rectangular structures, situated within close proximity to the wadi and associated water harvesting systems. While the function of these sites is difficult to determine due to the limited nature of the excavations, they may be considered farmsteads. Whether seasonal or sedentary, it may be assumed that, to survive, the inhabitants participated in or took advantage of the agro/pastoral activities that probably supported the region at the time, a conclusion partially confirmed by the analysis of the botanical and faunal remains. The almost exclusive occurrence of storage wares at both sites may indicate that at least those parts excavated were storage or domestic areas, one may assume not unreasonably for the storage and or processing of agro/pastoral products, such as barley, lentils and possibly wine.¹⁰ The presence of other objects, namely basalt ground stone artefacts such as saddle querns and grinders, also appear to confirm participation in local agricultural cultivation and production.

Chronologically both sites appear to have been occupied for a relatively short space of time. While the major phase of occupation at Site 38 dates, on the basis of the ceramic analysis, to the MB IIB/C periods, that of Site 42, which appears to have been occupied during the MB IIA/C periods, is less clear. The presence of possible Late Bronze Age sherds at both sites, while limited in number, suggests that both probably continued to be occupied into at least the initial stages of this period. At some stage following this, possibly not very long, both sites were abandoned and never reoccupied. While the evidence at Rukays indicates both earlier and later phases of activity, the occupational history is similar to that of Sites 38 and 42, the major phases of occupation of which largely co-incide with that at Rukays. In summary, Sites 38 and 42 may be

TABLE 1. Results of C14 date for charcoal sample from Site 42.

Site	42
Context	4201013
Phase	1a
Lab no.	Beta-112145
Material	charcoal
Conventional C14 Age (uncal)	3660 +/- 70 BP
1 Sigma Calibration (68% probability)	cal BC 2130 to 1920
2 Sigma Calibration (95% probability)	cal BC 2205 to 1875 and cal BC 1805 to 1795

⁸ For a discussion of Canaanite wine trade see McGovern 1998, 28-32.

⁹ For a full description of Mair's results see Betts *et al.* n.d.

¹⁰ A conclusion similarly reached by Schroder *op. cit.*, 123.

considered part of a larger network of sites surrounding Rukays, resulting in the formation of a small scale settlement hierarchy, with a population practicing local agriculture and pastoralism, not only for self subsistence but possibly also for trade.

Patterns of Settlement Location and Distribution

While the region immediately surrounding the site of Rukays underwent fairly exhaustive survey, this was not uniformly practiced along the entire length of the wadi and certain gaps are apparent, which in the future may be altered by further work. Despite this shortcoming, several preliminary conclusions about the nature of Middle Bronze Age settlement along Wādī al-ʿĀqib may be drawn. It appears that one of the major contributing factors affecting the location and distribution of Middle Bronze Age sites was that of environment, the conditions of which vary along the length of the wadi. Analysis of the distribution reveals that while the majority of sites are found along the length of the wadi, there is a concentration in the immediate vicinity of Rukays, particularly on the north and western sides where the ground rises gently up from the wadi. These sites are located close to both each other and the wadi itself. Environmental conditions are more favourable in this part of the wadi largely due to the presence of a wide surrounding flood plain and sufficient rainfall for agriculture practices. Surveys carried out by Braemer along the Syrian length of the wadi to the north indicate the continuation of Middle Bronze Age sites in this region.¹¹

The pattern of settlement along the length of the Wādī al-ʿĀqib appears to represent an example of a linear stream or riverside pattern, of which several studies have been undertaken.¹² As already mentioned, the choice of river bank, which in the case of Wādī al-ʿĀqib is usually on the north or west side, may due to environmental factors where sites can be situated in locations close to water sources and suitable farming land. Similarly the spacing of sites along the wadi may also be partially related to environmental factors where a relationship between the spacing of sites and the width of the alluvial plain or valley may be found. In the upper wadi, where the alluvium is wide, sites are found closer together and farther apart further downstream as the alluvium narrows.

Settlement Hierarchy and Integration

The evidence so far compiled for the settlement pattern in

Wādī al-ʿĀqib suggests the development by the Middle Bronze Age of a fairly simple and generally small scale settlement hierarchy characterised by medium and small settlement sites, the prevalence of which suggests community organisation at family level.¹³ However, the presence of Rukays, which may be considered a regional centre, indicates that settlement organisation did not follow at a family level at all sites and suggests the possible existence of an administrative hierarchy.¹⁴

The site of Rukays may be viewed as a "gateway community", defined by its development along a natural route of communication in a sparsely populated frontier area between different environmental zones.¹⁵ Gateway communities are located at the interface between areas of various intensities of exploitation or productivity and of various mineral or agricultural resources, tend to have dense populations, reflect a high demand or supply of scarce resources, have the ability to provide different technologies or skills and play a central role in trade networks.¹⁶ Rukays is situated on one of the major wadi systems in the south west Ḥawrān, which may have also acted as a natural communication route. The wadi is located in a frontier area between the differing environmental zones of the verdant Ḥawrān Plain to the north west and the more arid region of the Ḥarra to the east, in a zone between areas of differing intensity of exploitation or productivity and of vastly different resources. Other remains at the site such as evidence for metal working, suggests the site's ability to provide different technologies and skills.¹⁷ Rukays' location also may have allowed it control of regional north-south traffic along the wadi. As such it is not unreasonable to assume the site played a central role in the local trade network, possibly dominated by the movement and exchange of agricultural and pastoral products.¹⁸

Settlement in the Ḥawrān

The overall pattern of settlement along Wādī al-ʿĀqib is similar to that observed in the rest of the Ḥawrān.¹⁹ An examination of the location of Middle Bronze Age sites indicates that, as in the region of the upper Wādī al-ʿĀqib, environment probably played a major role in site location. The majority of sites are found along the lower, western slopes of Jabal ad-Drūz and in the Ḥawrān Plain, which are generally the regions of highest rainfall with annual precipitation reaching up to 350 mm. As the altitude of Jabal ad-Drūz increases and as one moves further east, where annual rainfall drops off, the number of sites de-

¹¹ Braemer 1993, 133, Fig 11.

¹² See for example Flannery in 1976, 173-180 for an examination of riverside settlement systems in Mesoamerica.

¹³ An idea proposed by Akkermans for Neolithic villages in the Balikh Valley in 1996, 199.

¹⁴ For a discussion of the evolution of site hierarchies and administrative hierarchies see for example Flannery *op. cit.*, 168

¹⁵ Akkermans *op. cit.* 199.

¹⁶ *Op. cit.* 210.

¹⁷ Betts *et al.* 1998, in preparation.

¹⁸ An idea which might be supported by the discovery of examples of imported ceramics, such as "Tell el Yehudiyeh" ware.

¹⁹ See in particular Braemer 1984, 219-250, 1988, 99-137 and 1993, 117-170.

creases dramatically. Sites appear not only to be located in areas of high rainfall, but also in areas where that rainfall can best be exploited, namely along the major wadi systems running off the Jabal and across the western plain.

Examination of the distribution of Middle Bronze Age sites also indicates two major areas of concentrated settlement, supporting Braemer's identification of two regions of territorial organisation. The largest concentration of sites occurs in the north, in the south-east Lajja and north-western foot of the Jabal. Here, the settlement pattern is similar to that observed around Rukays, with a concentration of sites connected by wadi and canal systems, around the fortified site of Tall Dabbah.²⁰ This is the largest site in the region (4 ha) and is considered by Braemer as the most important. The majority of surrounding sites in this region, like those surrounding Rukays, are thought to be associated with agricultural activities.

Summary

Preliminary analysis of Middle Bronze Age sites in the Hawrān indicates this was greatest phase of settlement activity prior to the Roman period. During this time environment must have played a major part in affecting the location and distribution of sites. As a result, the majority are

TABLE 2. The number and percentages of botanical species identified at Site 38.

Sample type	Number present	%
Hordeum 3	44	57.9
Triticum	3	3.9
Lens	4	5.3
Vicia/Pisum	1	1.3
Vitis	9	11.8
Gram seed	5	6.6
stem	3	3.9
culm	1	1.3
Galium	2	2.7
Adonis	1	1.3
Pistacia	2	2.7
Androseae	1	1.3

²⁰ Braemer 1993, 158, Fig. 37.

²¹ For the Middle Bronze Age settlement pattern in the Coastal Plain

located in regions most beneficial for agriculture, those of highest rainfall and along the major wadi systems. A fairly simple, small scale hierarchy developed, characterised by few major centres surrounded by concentrated networks of small sites, the majority of which being less than 1 ha in size. Many of these sites, on the basis of their location close to water sources and field systems, the nature of the architectural remains and the material recovered from excavations, including ceramics, ground stone and botanical and faunal remains, can best be described as farmsteads, possibly involved in both agriculture and pastoralism. It is not clear, however, whether these represent seasonal or permanent settlements. It is possible to determine different territorial organisations in the Hawrān, which may also reflect social and political organisation and the presence of an administrative hierarchy. Within this organisational framework, centres such as Rukays and Tall Dabbah, may be considered "gateway communities", controlling regional trade networks. This pattern, although smaller in scale, is similar to that seen in numerous regions of the southern Levant at the same time, such as the Coastal Plain and Central Hill Country of Palestine.

Acknowledgments

The University of Sydney Hawrān Project is jointly sponsored by the University of Sydney and the British Institute at Amman for Archaeology and History. Permission to undertake the fieldwork was kindly given by Faisal al-Qudah, Acting Director of the Department of Antiquities of Jordan in 1994. Representatives of the Department of Antiquities were Khalid al-Jbour and Abed al-Qader Hesan. Fieldwork in 1994 and 1995/6 was funded through volunteer contributions. Thanks are due to the director of the Project, Dr Alison Betts for her permission to publish this article and for her valued advice and input. Thanks are also due to Maria Schroder for the ceramic analysis, to George Wilcox for an analysis of the botanical remains

TABLE 3. The NISP, MNI, SGE and SGE% according to age for the faunal remains from Sites 38 and 42.

Species	Relative Age	NISP	MNI	SGE	%SGE
Ovicaprine	Neonatal	3	2	1	5
	Immature	5	3	3	15
	Mature	5	3	3	15
	Other	2	1	1	5
Bos	Mature	1	1	12	60
Undiagnostic		61			
Totals		77	10	20	

see Broshi and Gophna 1986, 73-90 and for the Central Highlands, Finkelstein and Magen 1993.

and to Lachlan Mairs for an analysis of the faunal remains.

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