

ARCHAEOLOGICAL EXPLORATIONS IN THE VICINITY OF KHIRBAT ATH-THAMĀYIL - 1992

by
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From July 12 through August 14, 1992 an initial season of survey and excavation was undertaken in the vicinity of Khirbat ath-Thamāyil under the auspices of the Moab Marginal Agriculture Project.¹ The project area, encompassing some 15 km² is located ca. 3 km south-southwest of al-Lajjūn and is bounded by the al-Karak/Qatrāna road to the north, the Wādī ad-Dakakin (Wadi es-Siyar) to the south, Wādī ar-Ramla to the east and Khirbat 'Arbid to the west (Figs. 1-2).

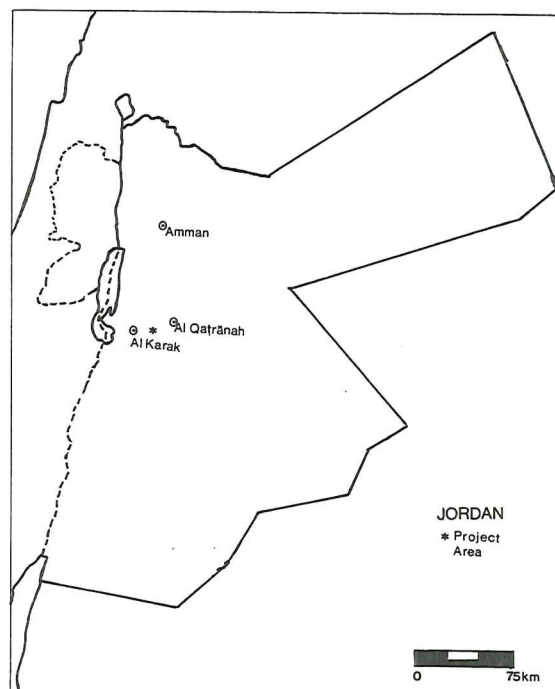
The goal of our project is to study the nature of human agro-pastoral regimes in semi-arid to arid regions during the Iron Age. We focused specifically upon the area near Khirbat ath-Thamāyil, due to its transitional position on the outer edge of viable dry-farming, and to the substantial evidence for Iron II occupation in previous surveys of the region (see Miller 1991; Parker 1987).

Our fieldwork during the 1992 season had three primary foci. The first was to map surface remains and conduct soundings at three sites deemed likely to yield substantial late Iron II remains, based on the surface collections reported by the Central Moab Survey (Miller 1991) and the *Limes Arabicus Project* (Parker 1987). The second was to visit and make surface collections at the numerous "campsites" and hill-terraces where the *Limes Arabicus* team recorded Iron Age sherds in their field readings. Finally, with the aid of aerial photographs, we attempted to investigate further agricultural and pastoral features not re-

corded by either the Central Moab Survey or the *Limes Arabicus project*. Overall, our goal was to record as continuous an Iron Age agro-pastoral landscape as possible given our limited time and budget.

Khirbat ath-Thamāyil (Site 2)

The most significant Iron II remains in our region were found at the site of Khirbat ath-Thamāyil. We collected 1180 sherds from the surface and in two test trenches at ath-Thamāyil, of which only 16 were diagnostic of an era other than the Iron Age (these being Byzantine body sherds found primarily on the surface). The overwhelm-

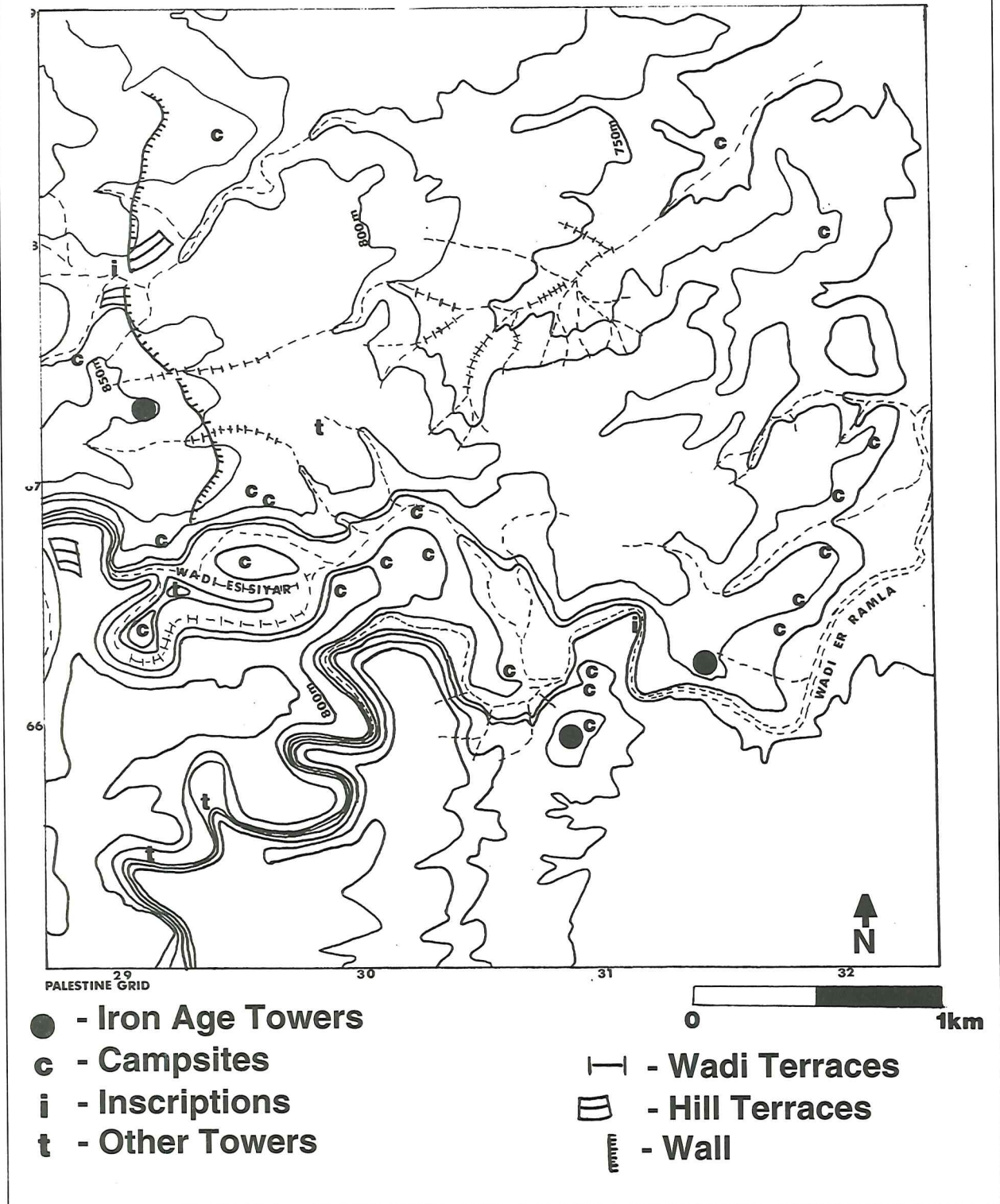


1. Map of Jordan showing the location of the project area.

1. The 1992 season was made possible by an SSRCC Doctoral fellowship, an EBR Research Grant and the kind co-operation of the Department of Antiquities. Team members for 1992 were Bruce and

Carolyne Routledge with help from Timothy Harrison and Jihad Darouwish. This report is dedicated to the memory of Emile Masa'deh who helped us greatly out of kindness rather than duty.

MOAB MARGINAL AGRICULTURE PROJECT '92



2. Detailed map of project area showing site locations.

ing predominance of Iron Age material is in keeping with the surface finds at ath-Thamāyil reported by Miller (1991:105-106, site 248) and Parker (1987: 88-89, site 166).

The site of Khirbat ath-Thamāyil (Fig.3) is a large "tower" complex, with surface remains covering an area of ca. two dunams. It is situated on a narrow promontory at a bend in the Wādī ar-Ramla, and hence is easily accessible only from the north. The "tower" itself is a rectangular structure built of field stones and large (0.8-1.2 x 0.4-0.7m) roughly cut limestone blocks. It is preserved to at least four courses (ca. 2 m) and measures 7.7 x 10.0 m on its outer face. The tower is built into the southwest side of the innermost of two rectangular enclosure walls, which measure ca. 26 x 16.5 m and ca. 36.7 x 27.0 m respectively.

Approximately 14 m southeast of the outermost enclosure wall there is a related architectural feature, which appears to have been a walled rectangular space measuring ca. 8.5 x 9 m. Unfortunately this area (designated area "C") has been almost completely destroyed by illicit digging, and so it is difficult to interpret the nature of these surface remains.

In conducting soundings at Khirbat ath-Thamāyil we had several immediate goals. First we were interested in acquiring a well provenanced assemblage of pottery to allow for a narrower dating of the site. Secondly, since the area within the two enclosure walls sits between 1.5 and 2 m above the surrounding land surface, we were interested in knowing whether this was an artificially constructed platform on which the "tower" was built, or simply the result of wall collapse. Thirdly, we were interested in recovering whatever information we could regarding the nature of the heavily looted area "C".

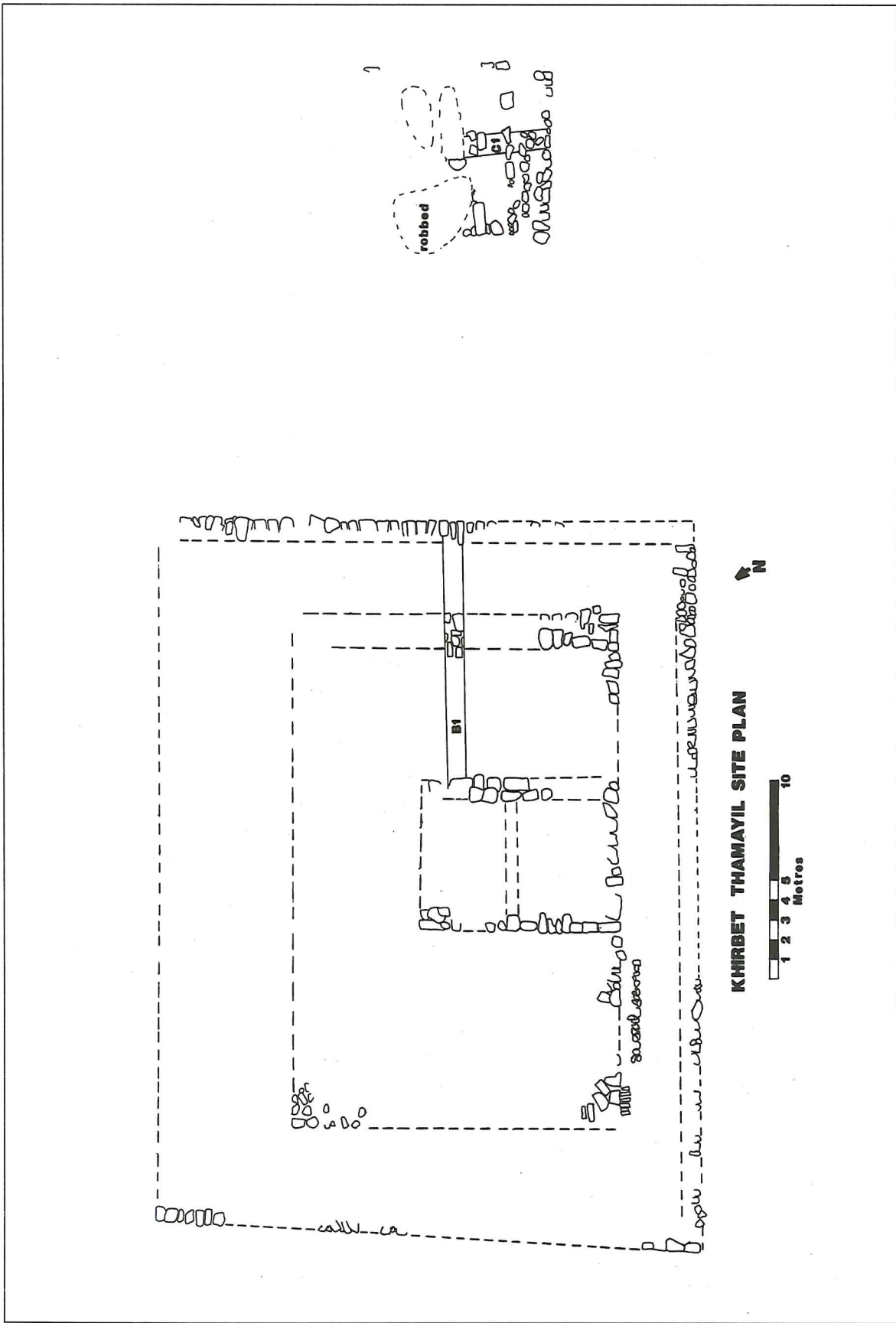
Towards these ends we excavated two test trenches B1 and C1. B1 was a 1m wide

trench, located on the southeast side of the site, eventually running all the way from the base of the "tower" to the outer face of the outer enclosure wall. We soon discovered that the sheer volume of rock debris in this area made it impractical to expose a vertical section of any depth, given our limited labour force. Therefore, we extended trench B1 horizontally, removing topsoil and some rubble in order to expose the relationship between the various architectural features of the site in so far as they were visible from this perspective.

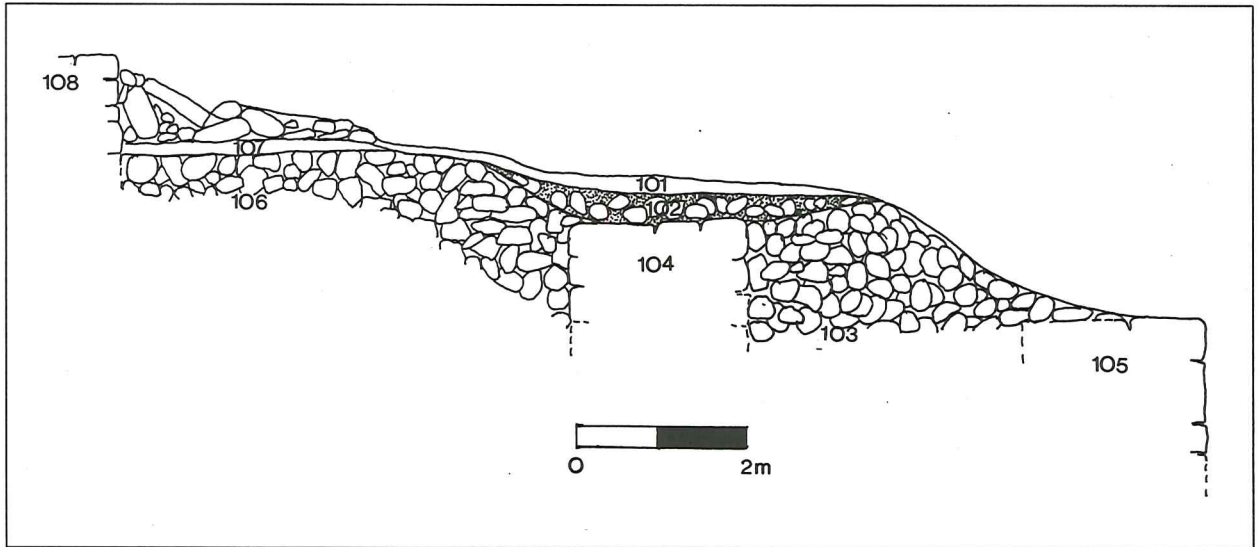
Our results from trench B1, while not conclusive, did provide us with some evidence regarding the nature of the enclosed area at Khirbat ath-Thamāyil. In stratigraphic order (see Fig.4), walls B108, B104 and B105 were built and then deposits (loci B106 and B103) made up almost entirely of rock fall were deposited against and slightly over wall B104 (locus B106) and wall B105 (locus B103). On top of this rock fall, two distinct ashy layers (loci B107 and B102 – separated horizontally) were laid down. In contrast to loci B106 and B103, loci B107 and B102 contained relatively abundant amounts of pottery. Finally the entire area was covered by a mixture of topsoil and rock fall from wall B108 of the "tower", designated as locus B101.

The fact that both loci B106 and B103 partly overlie the tops of walls B104 and B105 respectively, and that the inner face of wall B104 is well finished, suggested to us that walls B104 and B105 were originally free-standing. Furthermore, as best as we could tell, wall B108 of the "tower" predates locus B106, hence this locus did not serve as a platform for the construction of the "tower". We would suggest that loci B106 and B103 were formed by the collapse of walls B108, B104 and B105, rather than as intentional fill.

In area "C" we opened a 1 x 4 m trench (C1) perpendicular to one of the "looters"



3. Khirbat ath-Thamayil site plan.

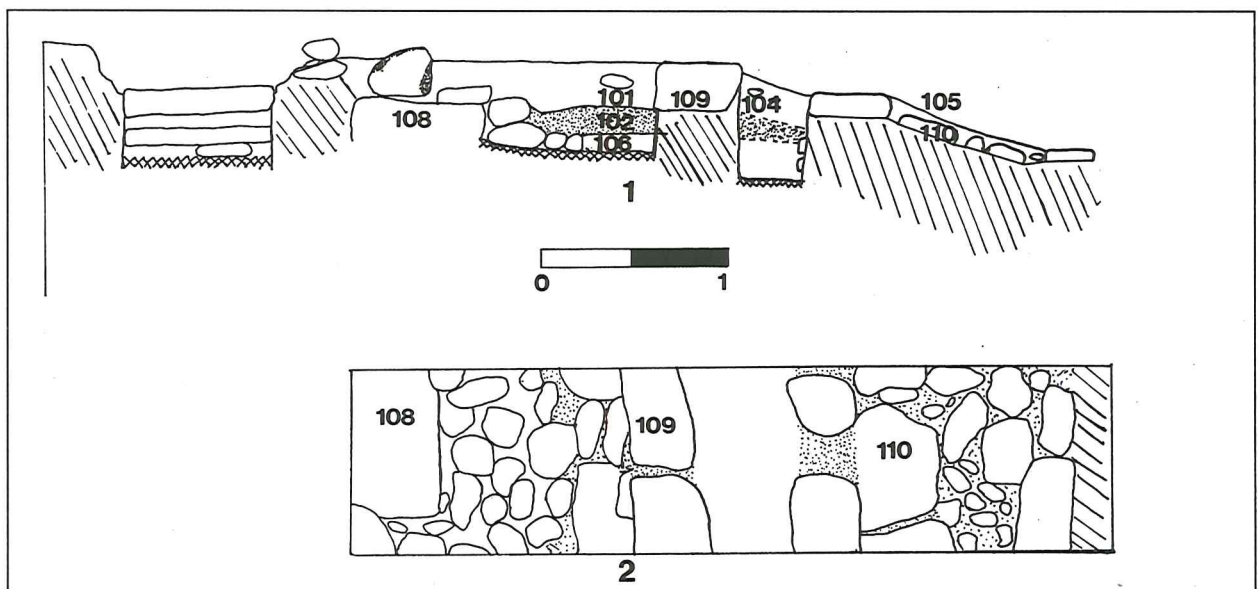


4. Trench B1 section looking north-east.

trenches, and cross cutting the southern walls of the area's primary architectural feature (Fig.5:2). By cleaning the "section" exposed by the illicit digging we were also able to extend our stratigraphic section (with some breaks) to a length of ca. 5.60 m (Fig.5:1).

In excavating C1 we hit bedrock at a depth of ca. 0.48 m and exposed two phases of the southern wall system of this feature. The first phase consisted of two walls

founded on bedrock, both running west/north-west to east/south-east some 1.50 m apart. The outermost wall (C110) was ca. 1.50 m wide and could be traced on the surface for ca. 9.0 m, appearing to form a corner on the south-east. The inner wall (C108) was not traceable on the surface but was ca. 1.0 m wide in our trench. Subsequent to the founding of these two walls a third wall (C109) was built in between them. This wall appears to have been a sin-



5. Trench C1. 1) Section looking south-east. 2) Plan view.

gle stone in width, and was preserved to only one course in height. It can be traced incompletely on the surface for approximately 7.0 m. Though wall C109 is clearly stratigraphically later than walls C108 and C110 we could not establish whether either of these two earlier walls went out of use with the construction of C109.

As noted above, area "C" appears to have been a walled enclosure but the damage caused by illicit excavation makes further interpretation difficult. In the "balk" left between two robbers' trenches we were able to distinguish two flat-lying limestone slabs, superimposed on each other just above bedrock (see Fig. 5:1). This suggests that the area within the enclosure may have been paved with stone. We are currently exploring the possibility that area "C" was used for some kind of food processing, witnessed largely by wear-altered stones found in the looters' debris.

Khirbat 'Arbid (Site 1)

The second site we conducted soundings at was Khirbat 'Arbid (Miller's site 230 and Parker's site 173). Located within the confines of the al-Lajjūn Grazing Station, this site consists of a roughly rhomboid enclosure (45.0 x 43.0 x 44.25 x 51.0 m) subdivided by numerous interior walls and dominated by the ruins of what appears to have been a rectangular tower (Fig.6). Khirbat 'Arbid sits on top of a low ridge running north from the Wādi ad-Dakakīn, marking the break between the Karak plateau to the west and the steppic land which descends gradually to the east. Khirbat 'Arbid is bounded on the north and south by narrow wadis, both of which show clear evidence of terracing.

Surface pottery from the site was dominated by Late Islamic sherds followed by Iron II, with a small number of Byzantine sherds. However, on the slopes to the

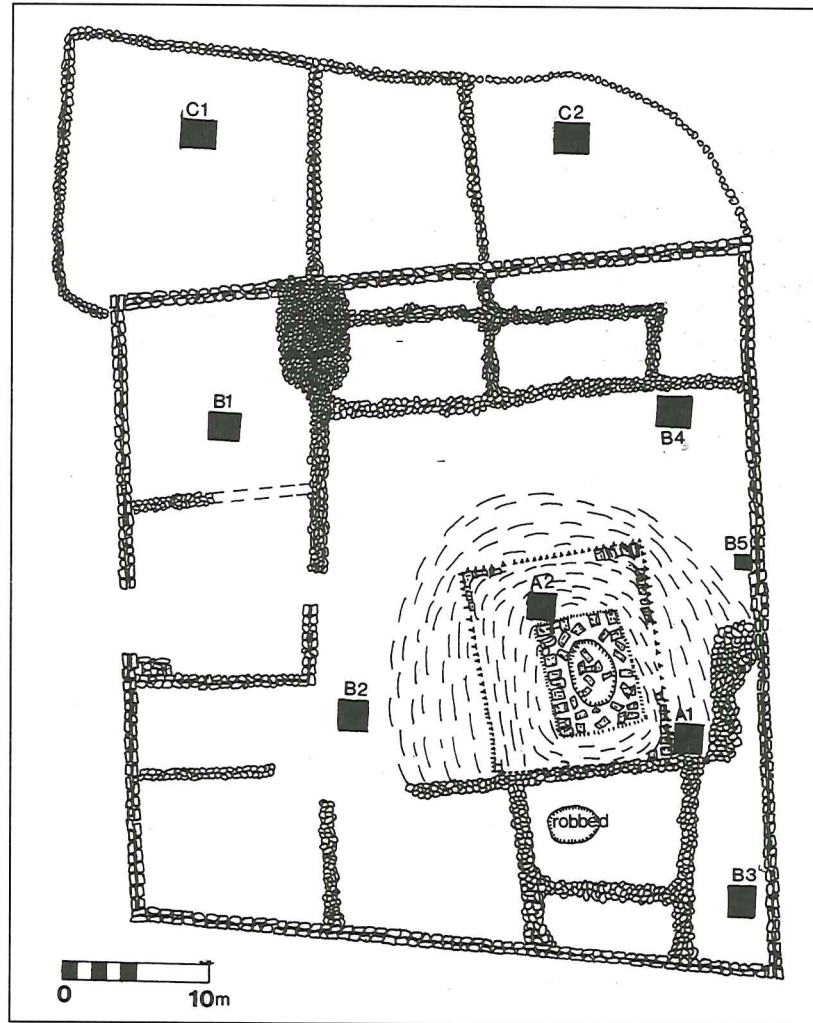
north-east of the site we found a number of Middle Palaeolithic tools including a large Levallois flake and several retouched flakes with faceted striking platforms.² This material would appear to indicate a now deflated Middle Palaeolithic occupation at Khirbat 'Arbid.

Our primary goal in investigating Khirbat 'Arbid was to define, if possible, the nature of the Iron Age occupation at the site. However, the low surface visibility and sherd density at the site made it difficult to use simple surface collection techniques for this purpose. For this reason we divided the site into three zones based on the visible surface remains, with Area "A" consisting of the "Tower" mound, Area "B" of the remaining area within the primary enclosure walls, and Area "C" designating an area of secondary occupation outside but adjacent to the north-east enclosure wall. In each of these areas we removed and screened ca. 3 cm depth of topsoil from a series of 2 x 2 m squares, and collected all the artifacts encountered (see Portugali 1982 for a discussion of similar collection methods).

Summarizing our results, we found that the earlier remains were only found in quantity in Area "A", suggesting that this was the centre of early activity at the site. For this reason, we opened a 1 x 2 m test square (A2) on the tower mound with the hope of exposing Iron Age strata. We also opened a second 1 x 1 m square (B5) against the eastern enclosure wall, where the wall comes closest to the "tower" mound, in order to determine the date of its foundation.

Square A2 was excavated to a depth of ca. 1.6 m before the walls we uncovered rendered the space too small for work to continue (Fig.7). Perhaps most interestingly, our excavations revealed that the occupational history of this "tower" mound was much more complex than the surface remains would seem to indicate. Indeed, ini-

2. Identified by Julian Siggers, Department of Anthropology, University of Toronto.



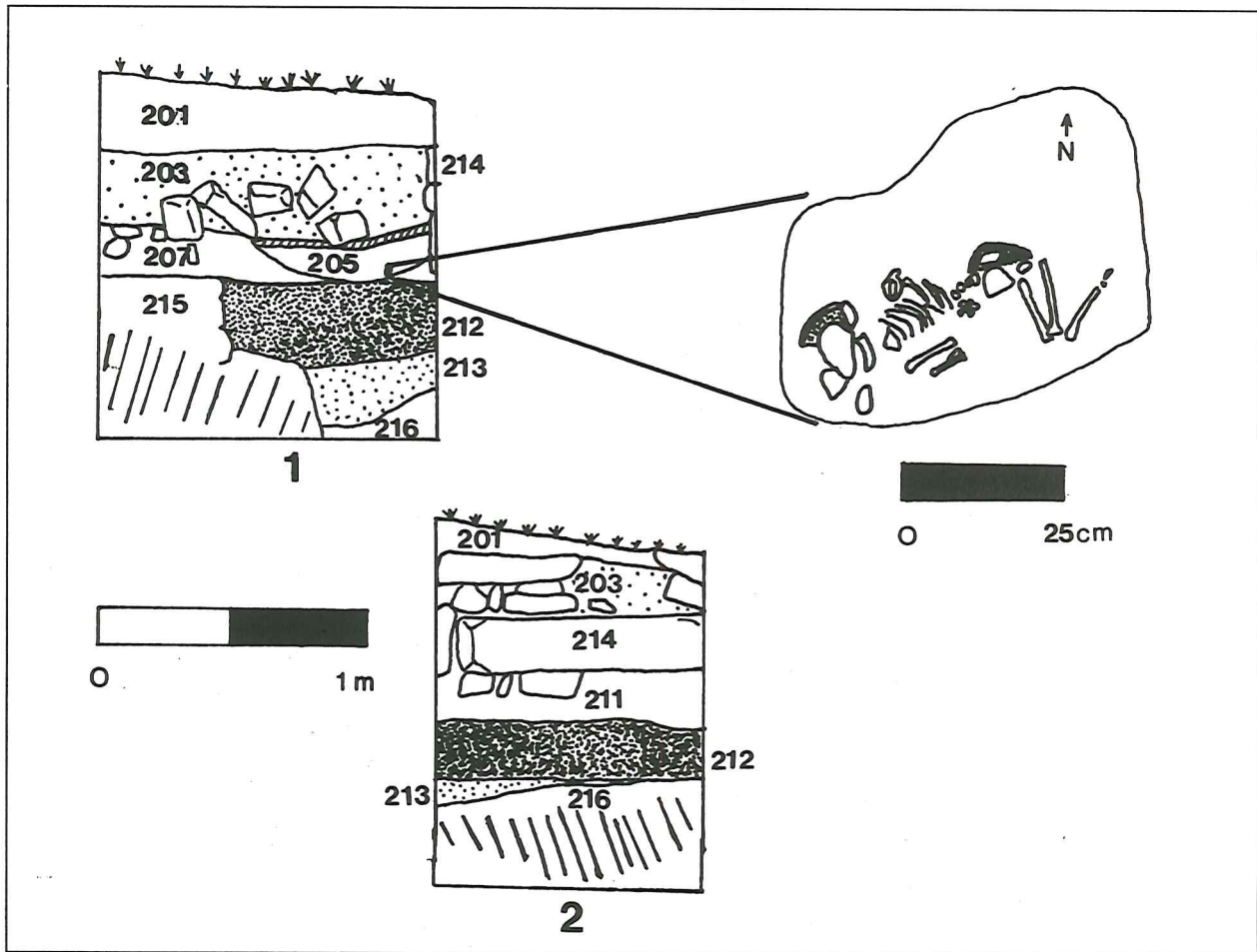
6. Khirbat 'Arbid site plan.

tially we had expected to encounter the remains of a single stone built tower constructed on top of a larger rectangular stone platform, which was perhaps “stepped” or terraced. Instead, our small sounding revealed three successive wall phases, all of which dated to the Late Islamic period, and none of which were clearly relatable to the rectangular configuration of stones visible on the summit of the mound.

The first wall encountered (A214) was just beneath the surface, running north-south, and entirely filled the 1 x 2 m trench which we had attempted to open. Therefore we moved 1 m to the east and opened a 1 x 1 m square along the face of wall

A214. Cut into the fill abutting wall A214, we found the burial (A205) of an infant whose age at death would appear to be ca. 6-9 months (based on tooth eruption). A small piece of poorly preserved cloth was the only grave good in this simple pit burial.

Wall A214 consisted of two irregular courses and was founded on a layer (A211) which seals the top of a second, earlier, wall (A215) running parallel to A214, 0.75 m to the east. Wall A215 was plastered on its western face for at least one course. We did not reach the foundation level of this wall, but it was clearly associated with a third “wall” (A216) or platform construct-



7. Square A2 sections: 1) looking south; 2) looking west.

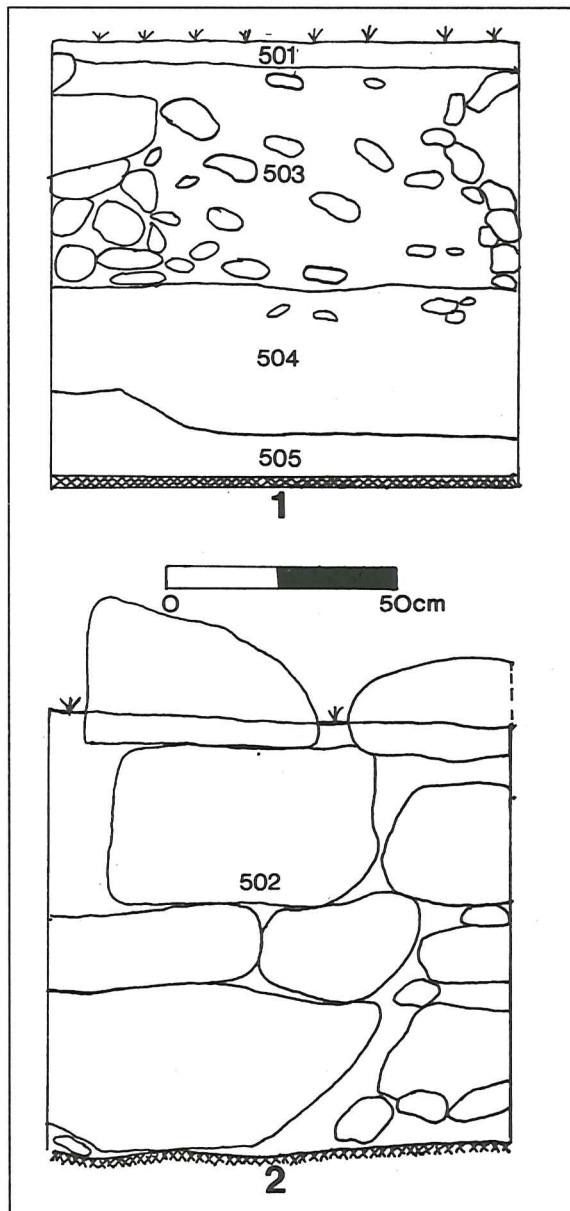
ed of low-fired mudbricks. Overlying this third wall, and sealing against A215, were two layers of mudbrick debris (A212 and A213). In the uppermost layer (A212) the mudbrick material was severely burned and combined with fire-cracked rocks, indicating the destruction of A216 by means of fire.

The proximity of A215 and A216 indicates that, at least at the end of their period of use, they were part of a single structural unit. Unfortunately, we were unable to expose either "wall" further and hence the nature of this structural unit remains unclear.

As noted earlier, both the latest and the earliest loci excavated in this test square contained distinctive Late Islamic pottery, though Iron II and some Byzantine pottery

was encountered in the form of residual sherds. While we did not expose the foundation of the "tower", it is clear from both the depth of our sounding and the complexity of the architectural sequence we encountered that most of the present superstructure on the "tower" mound is the result of Late Islamic, rather than earlier, building activities.

In square B5 bedrock was reached at a depth of 0.95 m (Fig.8). From this exposure it was clear that, at least on its eastern side, the outer enclosure wall at Khirbat 'Arbid was founded directly on bedrock. As with square A2, the earliest loci in B5 contained Late Islamic pottery. The significant quantities of Iron II pottery found in B5 would appear to have been deposited in erosion



8. Square B5 sections: 1) looking north; 2) looking east.

layers from area A retained by the outer enclosure wall. With no foundation trench or underlying strata it is, of course, technically impossible to date the foundation of this wall. However, it would seem most reasonable to date the construction of the outer enclosure wall to the Late Islamic period on the basis of the earliest strata associated with it.

Overall, despite the significant quantities of Iron II pottery recovered from the site of

Khirbat 'Arbid, it does not seem reasonable to connect any of the visible surface remains with any period other than the Late Islamic. Certainly the presence of a tower structure at the site would be in keeping with other Iron Age contexts in the area, such as at Khirbat ath-Thamāyil, but this was not demonstrated stratigraphically in our excavations. On the other hand, the quantity of the Iron II pottery recovered from Khirbat 'Arbid strongly supports some sort of significant Iron II occupation of the site, albeit one whose nature has been obscured by later occupation.

Arabic Inscription

On the western side of Khirbat 'Arbid, within the area designated above as "B", we found a standing basalt block inscribed with an Arabic text. Unfortunately the heavily worn surface of the stone has prevented us from acquiring a readable impression or photograph of the inscription. What we can tell is that it is in a simple linear (perhaps Kufic) script, and is at least four lines in length.

Hydrological Features

To the north and the north-west of Khirbat 'Arbid, respectively, were two depressions in the ground surface which seem to be the remains of cisterns. Both of these "cisterns" are completely filled in and the north-west one has been disturbed by recent digging, thereby obscuring their features.

As Miller (1991: 99) has already noted, a prominent feature of the landscape around Khirbat 'Arbid are the remains of a basalt wall clearly running across country from the Wādi ad-Dakakin north to the Wādi 'Ader, a distance of some 3 km. Miller describes this wall under his site number 225 (Miller 1991:96) and suggests that it served some purpose in controlling movement between the desert and the plateau. However, a closer examination reveals that this wall

is in fact part of a large scale water-harvesting system. The wall runs along break points in the slope of the ridge running north from Wādi ad-Dakakin. Each of the small wadis which this wall crosses are terraced, and indeed the wall itself forms a terrace at the point where it crosses each of these wadis. Furthermore, integrated perpendicularly into this wall are the large terraces of two hill slopes (marked on Fig. 2). This wall is analogous to some of the conduits known from run-off farms in the Negev (cf. Evenari *et al.* 1971:109-110; Fig. 61), hence it appears to be designed to direct onto the terraced wadis and hill slopes that it crosses.

Dating the wall is quite difficult since many of the associated terraces seem to have been kept in good repair until the relatively recent formation of the al-Lajjūn Grazing Station. Certainly it seems to be closely associated with occupation at Khirbat 'Arbid and was in use during Late Islamic times if not earlier. A brief trial sounding produced one Late Islamic sherd imbedded in colluvium but none to date the construction of the wall.

Site 8

South-west of Khirbat ath-Thamāyil, located on a hill top overlooking the Wādi ar-Ramla, is a third "tower" site numbered as 249 by Miller (1991:106), 167 by Parker (1987: 88-89), and 8 by the author. This site consists of a roughly square "tower" (5.2 x 5.0 m), surrounded by a large heap of tumbled stones, within which one can discern at least two major wall lines. To the north-east of the tower are two stone-built circles, similar to those found at pastoralist camps in the area. Surface artifacts were very rare at this site, and were mainly concentrated in the vicinity of these two stone circles.

The nature of the site (a rectangular tower built of large stone blocks and surrounded by an enclosure wall) and the absence of

clearly diagnostic Roman or Byzantine sherds in Miller's survey, raised the possibility that this tower dated to the Iron Age. Earlier surveys of the site had not had great success in finding diagnostic sherds. We hoped that a more intensive investigation of the site might rectify this situation, but in the end we were largely unsuccessful.

We opened two test trenches at site 008. The first (A1) was a 1 x 4 m trench opened immediately in front of the north-west corner of the tower, running north-south. This placement was chosen both for the relatively lesser volume of stone debris visible on the surface here and the apparent presence of a wall extending north and slightly east from the north-west corner of the tower.

Unfortunately surface indications were somewhat misleading and we found the trench entirely filled with heaps of tumbled stone to a depth of at least 0.80 m. Time constraints forced us to abandon the trench at this point, having exposed more than three courses of a wall of dry-laid field stones. However, we found only three sherds in this trench, all of which were Iron Age in date.

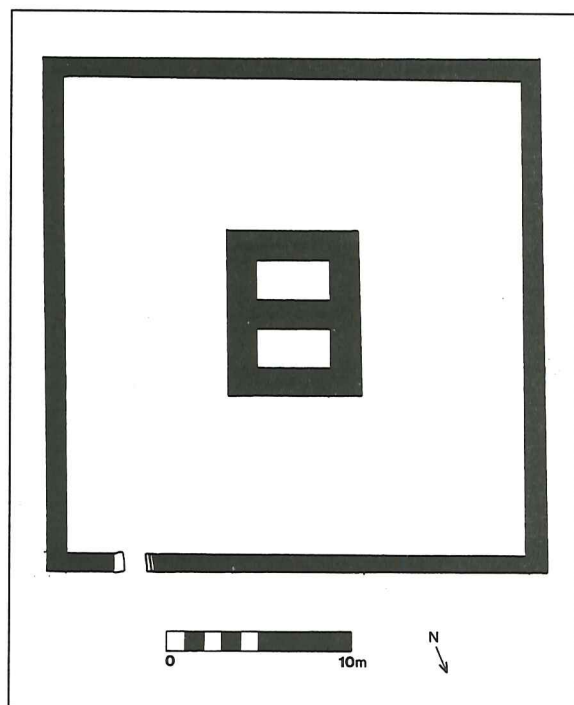
Our second trench (B1) measured 1 x 5 m and was laid out running east of one of the stone circles, located ca. 20 m north of the tower. The stone circle adjacent to our trench had an interior diameter of ca. 2.75 m. We quickly learned that only two soil layers were preserved above bedrock at this location, with a combined accumulation of 0.14 m. The latest layer had formed against and slightly over the stones of the circle, which were founded upon the earlier soil layer overlying bedrock. No diagnostic sherds were found in trench B1, however, at least one body sherd from the upper-most soil layer seems to be from a Late Islamic hand-made vessel. The three body sherds recovered from the lower layer are of wares not out of place in the Iron Age, though little certainty can be attached to this dating.

Tentatively, we are dating the tower to Iron II and are viewing the stone circles as a pastoralist camp used in the Late Islamic period if not earlier. Also present in our surface collection from the vicinity of these rings was a sherd from a Byzantine bowl with an inset rim.

Qaşr aḍ-Ḍab‘a

On our last day of fieldwork we visited the site of Qaşr aḍ-Ḍab‘a (*Limes Arabicus* site 51), where the Limes team collected a significant number of Iron II sherds. Qaşr aḍ-Ḍab‘a is a “Tower” site, on a prominent hill overlooking the pass through the Wādi aḍ-Ḍab‘a where the modern Karak-Qaṭrāna highway now runs. While the site is outside of the immediate environs of Khirbat ath-Thamāyil, the extensive looting it has undergone convinced us to make a sketch map (Fig.9) and to collect a sample of surface pottery to preserve something of the site's cultural history.

Qaşr aḍ-Ḍab‘a consists of a roughly square enclosure wall (ca. 28 x 27.2 m) sur-



9. Qaşr aḍ-Ḍab‘a schematic site plan.

rounding a single rectangular tower (9.2 x 7.2 m). The tower itself has an outer wall 1.6 m thick and is subdivided into two sections by an interior wall. There appears to have been an opening in the enclosure wall near its eastern corner. Numerous cairns were built against this tower on the southwest and south-east sides. Most of these cairns, as well as the interior of the tower, have been disturbed by looting.

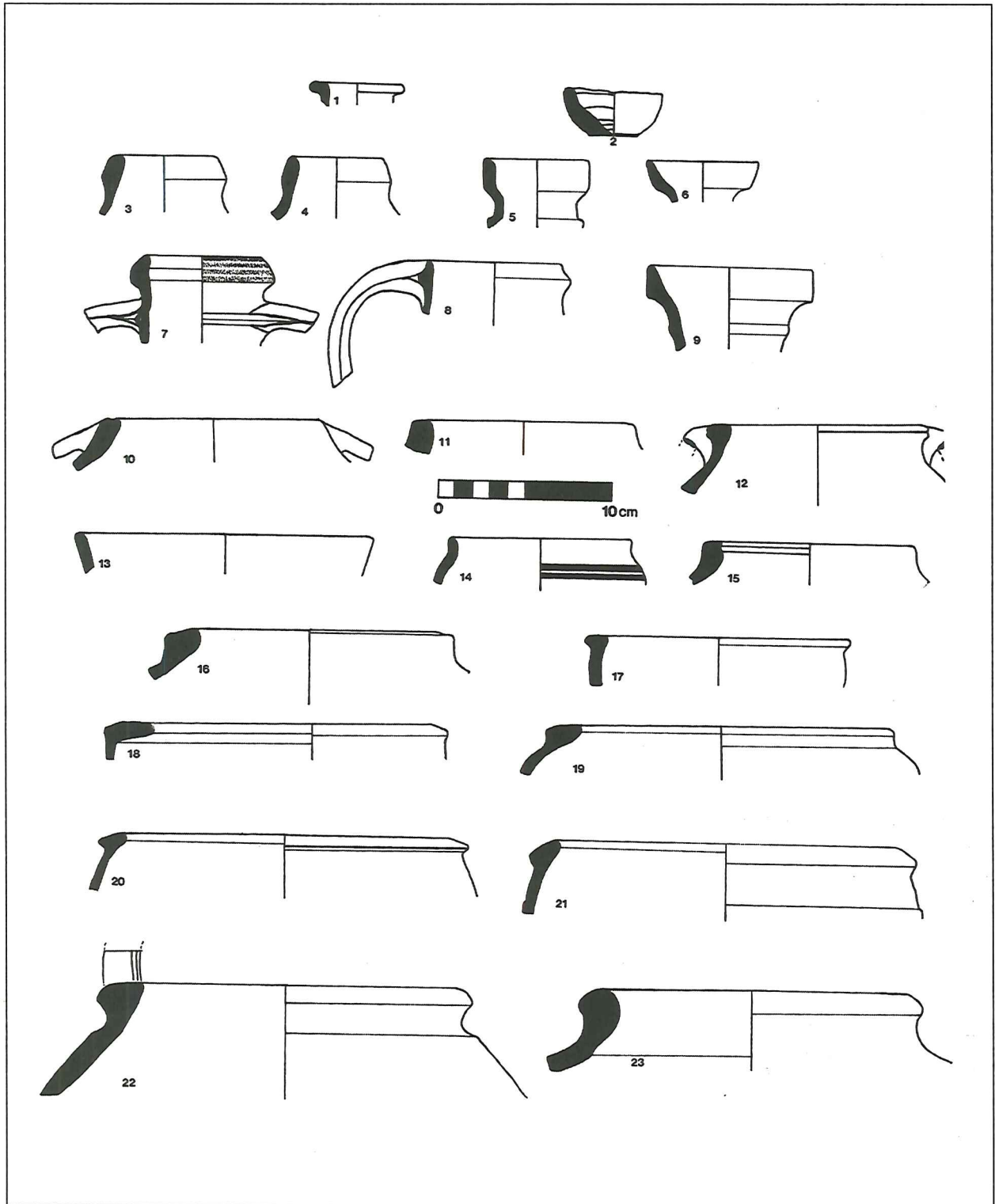
Iron II Pottery

The Iron II ceramic material from Khirbat ‘Arbīd, Khirbat ath-Thamāyil and Qaşr aḍ-Ḍab‘a can be treated as a chronologically homogeneous group. This assemblage fits well into the large and slightly amorphous Iron IIC/Early Persian corpus of Jordan.

Chronologically our excavations offer little to clarify the current “brackets” provided by the seals of Adoni-Nur and Qos-Gabar from the mid-seventh century BCE and the Ṭawilān tablet, Ḥisbān ostraca and ‘Umayri seals and ostraca dating most likely to the late sixth through fifth centuries BCE. None of the features that might create downward pressures on the date (ie. impressed triangles, Greek imports, basket or high loop handles, closed lamps etc.) are present in this assemblage, but such features are problematically rare in the Jordanian corpus.

The small size of this corpus (57 Iron Age rim sherds) and its diversity means that many forms are represented by only a single example. This, of course, makes it difficult to discuss chronological trends within the corpus, or to place too much weight on the absence of specific forms.

Not surprisingly, the most common form consists of bowls, kraters and jars with inturned “hole-mouth” rims (Fig.10:18-21). Also quite common are a variety of simple rimmed bowls, with nearly vertical stances (Fig 10:13).



10. Iron IIC pottery from Khirbat ath-Thamāyil, Khirbat 'Arbid and Qaṣr aḍ-Ḍab'a.

Fig. 10. Sherd Descriptions.

<i>Registration No.</i>	<i>Site</i>	<i>Description</i>
1. 92.2.C1.4.1.1	Thamāyil	Juglet Ext: 2.5YR 6/6 Light Red Int: Same Fab: 5YR 7/4 Pink. Core: No Incl: Few Calcite.
2. 92.2.C1.2.2.2	Thamāyil	Juglet Ext: 2.5YR 6/6 Light Red Int: 7.5YR 6/2 Pinkish Gray Fab: 7.5YR 6/4 Light Brown Core: 30% Incl: Few Calcite Poss. traces of burnishing.
3. 92.37.S.1	aḏ-Ḍab'a	Jar Ext: 7.5YR 7/4 Pink Int: 5YR 7/3 Pink Fab: 5YR 7/3 Pink Core: No Incl. Some Calcite & Chert
4. 92.2.C1.4.1.3	Thamāyil	Jar Ext: 5YR 7/4 Pink Int: 5YR 7/3 Pink Fab: Same Core: No Incl: Some Basalt & Calcite
5. 92.2.C1.2.2.1	Thamāyil	Decanter Ext: 10R 6/6 Light Red Int: Same Fab: Same Core: 50% Incl: Some Calcite & Basalt
6. 92.2.C.S.1	Thamāyil	Decanter Ext: 10R 6/6 Light Red Int: Same Fab: 5YR 6/4 Light Reddish Brown Core: No Incl: Many Basalt & Calcite
7. 92.2.B1.2.5.1	Thamāyil	Amphora Ext: 2.5YR 6/6 Light Red Int: 5YR 6/6 Reddish Yellow Fab: 2.5YR 6/6 Light Red Core: No Incl: Some Calcite Wheel Burnished Slip on rim (10R 4/6 Red).
8. 92.2.B1.1.6.1	Thamāyil	Jug - Ext: 2.5YR 6/6 Light Red Int: 5YR 6/6 Reddish Yellow Fab: 7.5YR 6/4 Light Brown Core: No Incl: Some Basalt & Calcite
9. 92.37.S.2	aḏ-Ḍab'a	Decanter Ext: 5YR 6/4 Light Reddish Brown Int: Same Fab: 5YR 5/1 Gray Core: No Incl: Some Basalt & Calcite
10. 92.37.S.4	aḏ-Ḍab'a	C-Pot Ext: 7.5YR 8/4 Pink Int: Same Fab: Same Core: 30% Incl: Some Calcite
11. 92.37.S.3	aḏ-Ḍab'a	C-Pot Ext: 7.5YR 6/4 Light Brown Int: 2.5YR 5/6 Red Fab: Same Core: 60% Incl: Many Basalt & Calcite

<i>Registration No.</i>	<i>Site</i>	<i>Description</i>
12. 92.2.C1.4.1.2	Thamāyil	C-Pot Ext: 10R 6/6 Light Red Int: 5YR 6/6 Reddish Yellow Fab: 5YR 7/4 Pink Core: 66% Incl: Some Basalt & Calcite
13. 92.2.B1.2.5.3	Thamāyil	Bowl Ext: 7.5YR 6/4 Light Brown Int: Same Fab: Same Core: No. Incl: Many Basalt (very small)
14. 92.2.S.1	Thamāyil	Bowl Ext: 2.5YR 6/8 Light Red Int: Same Fab: 7.5YR 7/4 Pink Core: No Incl: Few Calcite Painted Lines (5YR 2.5/1 Black)
15. 92.2.C1.1.1.1	Thamāyil	C-Pot Ext: 2.5YR 6/6 Light Red Int: 5YR 3/1 Very Dark Gray Fab: 5YR 4/1 Dark Gray Core: No Incl: Some Chert & Calcite, Many Voids
16. 92.2.B1.1.3.1	Thamāyil	S-Jar? Ext: 5YR 6/6 Reddish Yellow Int: 10R 5/6 Red Fab: 2.5YR 6/6 Light Red Core: 75% Incl: Many Basalt
17. 92.2.C1.6.1.5	Thamāyil	Bowl Ext: 5YR 7/6 Reddish Yellow Int: Same Fabric: 5YR 6/1 Gray Core: No Incl: Few Calcite
18. 92.2.B.S.2	Thamāyil	S-Jar? Krater? Ext: 5YR 6/4 Light Reddish Brown Int: 2.5YR N4/ Dark Gray Fab: 2.5YR N3/ Very Dark Gray Core: No Incl: Many Calcite, Few Basalt
19. 92.2.B1.2.4.1	Thamāyil	Krater Ext: 7.5YR 5/2 Brown Int: Same Fab: Same Core: No Incl: Some Calcite Poss. remains of slip on interior lip.
20. 92.1.B5.4.3.1	Arbīd	Krater Ext: 2.5YR 6/8 Light Red Int: Same Fab: Same Core: 60% Incl: Many Basalt & Calcite
21. 92.2.B1.1.1.1	Thamāyil	Krater Ext: 2.5YR 5/6 Red Int: 5YR 5/4 Reddish Brown Fab: 5YR 5/2 Reddish Gray Incl: Many Basalt, Calcite & Voids
22. 92.2.B.S.3	Thamāyil	S-Jar Ext: 10YR 7/3 Very Pale Brown Int: Same Fab: Same Core: No Incl: Many Basalt
23. 92.2.B1.2.5.2	Thamāyil	S-Jar Ext: 10YR 7/3 Very Pale Brown Int: 5YR 6/4 light Reddish Brown Fab: 2.5YR 5/4 Reddish Brown Core: 25% Incl: Many Basalt, Few Calcite

The primary cooking pot form at Khirbat 'Arbid, ath-Thamāyil and aḍ-Ḍab'a (Fig. 10:10, 11, 15), both in our corpus and in the surface collections of the Central Moab and *Limes Arabicus* surveys, has an upright, internally thickened, rectangular rim. The top of the rim is finished with finger pressure, creating a distinct groove in some examples (Fig. 10:10). This form is represented in excavated material from al-Bālū' (Crowfoot 1934: Fig.2:3,4; Worschech 1990a: Abb. 23:23, Abb. 24:49), and the podium fill at Dhibān (Tushingham 1972: Fig.1: 40); and in surface collections from Tadūn (III) (Worschech 1990a: Abb.5:6) Jabal Dafyān (Worschech 1990a: Abb.10:54) and Mudaynat ath-Thamad (unpublished). The specific variant pictured in Fig. 10:15 is unique in this corpus, but not unlike an example from "niveaux 4" at Tall Kaysān (Briend and Humbert 1980: Pl.35:4).

An affinity between this form and Ḥisbān cooking pot 2b has been suggested by Sauer (Lugenbeal and Sauer 1972: 49 n.31). This is difficult to support on the basis of published examples (Lugenbeal and Sauer 1972: no.312-313) which seem much closer to the late Iron IIC everted grooved rim cooking pots of Palestine (see Gittin 1990: 219-221). The affinity with our form is really only evident in an example from Rujm al-Ḥinū (Clark 1983: Fig.4:54) which combines elements of Ḥisbān types 2b and 2c.

A closer parallel with the Ḥisbān cooking pots can be found between Ḥisbān form 3 (esp. Lugenbeal and Sauer 1972: no.327; and Clark 1983: Fig.4:52) and our Fig. 10:12. This form, however, is unique within our corpus. Therefore, in terms of cooking pots, it seems that a regional distinction might be drawn here between central ("Ammon") and south-central ("Moab") Jordan.

Other forms that are unusually common in our assemblage are small jars with very short necks and simple, outwardly thickened rims (Fig.10:3-4) and decanters with

sharply up-turned rims and a neck ridge to which, presumably, a handle was attached (Fig.10:5,6,9). A good parallel for the first of these forms occurs as a single example in field VII str. VA at Gezer (Gittin 1990:143, Pl.26:10).

Other possible parallels can be found at al-Bālū' (Worschech 1990a: Abb. 23:32 [stance?]), at Ḥisbān (Lugenbeal and Sauer 1972: nos. 490, 494), the 'Ammān Citadel (Dornemann 1983:116, Fig. 58:683) and in the earliest Persian substratum (Vd) at Tall al-Ḥiṣi (Bennett and Blakely 1989: Fig.139:5). Less certain is an example from Tall al-'Umayri (Herr 1989: Fig. 19.5: 27).

Our decanter form is not particularly common, but a general parallel can be cited from Buṣeirah (Bennett 1975: Fig.6:7) and a close parallel for Fig. 10:9 can be cited from al-Bālū' (Worschech 1990b: Abb. 3:14). This form is related to the common seventh-sixth century decanter of southern Palestine [see Gittin 1990:154 (Class 3)], but is distinguished by its thinner, upright rim.

Amongst those forms occurring only once in our corpus a number of the more important have been illustrated. Fig. 10:8 depicts a jug with a ridged rim. This form has a rather long life, but late seventh through sixth century examples can be cited from Khirbat al-Muqanna' (Tel Miqne IB [Gittin 1989: Fig.2.13: 14]) and Tall al-Mazār III (Yassine 1983: Pl.CXI: 11).

The "amphora" in Fig. 10:7, finds a parallel at Tall al-'Umayri (Herr 1989: Fig.19.5: 29) and to a lesser extent in the Jabal al-Jofeh tomb (Dajani 1966: Pl.IV:122, 124; also Dornemann 1983: Fig.40:19-20).

The small bowl with a "hammer" like rim occurs at 'Umayri (Low 1991: Fig.8. 14:18) and at Umm al-'Alā (Zeitler 1992: Fig.14.3: 10).

The storage jar in Fig. 10:23 is paralleled (though not closely) by examples from al-

'Umayri (Herr 1989: Fig.19.12:11) and Umm al-'Alā (Zeitler 1992: Fig.14. 3:9). Fig. 10:22 depicts another storage jar form for which no clear parallels are as yet evident.

Fig. 10:1 and 2 probably represent the rim and the disk base, respectively, of different red-slipped juglets (cf. Glueck 1934:14-115, Fig.5). Such vessels (with varying surface treatment) are common in tombs containing seventh (and some sixth) century material at Mt. Nebo (Saller 1966: Fig.20: 4-6, Fig.34: 10-11, 13), Dhibān (Tushingham 1972: Fig.16:6-7, Fig. 24:7), 'Ammān (Jabal al-Jofeh [Dajani 1966: pl.V:77, 83]) and Saḥāb (Harding 1948: Fig.7:63-70).

Fig.10:14 is a small globular bowl with a short, upturned rim. It is paralleled very closely at Mudaynat ath-Thamad (Glueck 1934: Pl.20:4).

The preceding citation of parallel forms has, I believe, served to illustrate two points. First, while our sample is ill-suited to improving current chronological precision (via quantitative study) it can be shown to fit well with many published late seventh-sixth century BCE. contexts. In particular, the lack of necessarily late forms would seem to allow a date before the middle of the sixth century BCE. Secondly, certain forms seem to cluster amongst sites south of Mādabā and north of the Wādī al-Ḥasā. This would seem to be particularly true for the cooking pot forms. At the moment the significant geographic lacunae in our knowledge prevent us from determining if such patterns indicate discrete stylistic boundaries or simply a spatial continuum in craft traditions.

One feature that might prove useful in defining regional characteristics is surface treatment. Burnished red-slip is not particularly common in our assemblage. On the other hand, bands of paint and or coloured slip are relatively common (4% of sherds

from ath-Thamāyil). In particular, the dominant pattern at ath-Thamāyil, 'Arbid and ad-Dab'a is one with broad alternating bands of red and white framed by thin black lines, with groups of three thin black lines painted in the centre of, but not filling, the white band. While these design elements are common in Jordanian (and Phoenician) Iron Age painting traditions (see Dornemann 1983:76-77), this particular "syntax" does not seem to dominate the published assemblages as it does at these three sites. However, directly parallel examples have been seen by the author in surface collections from 'Ader and Mudaynat ath-Thamad (see also Glueck 1934: Pl.23(a): 8, 10, 12) suggesting a common distribution in south-central Jordan.

Late Islamic Pottery

In addition to the Iron II material discussed above, we also excavated a very small corpus of Late Islamic pottery from the site of Khirbat 'Arbid. This material is still under study and so, for the moment, we can only make a few rather general statements on this assemblage. The Khirbat 'Arbid material is dominated by unpainted hand-made pottery with significant quantities of organic and basalt inclusions. The absence of glazed wares and painted hand-made wares suggests a post 15th century CE date (see Brown 1992). Unfortunately, the small size of our corpus and the woeful lack of comparative material makes more precise dating very difficult.

Campsites

In the initial stages of our fieldwork we were intrigued by the abundance of, what seemed best defined as, the campsites of pastoral nomads in our area. These sites, which consist primarily of irregular wall lines, large rectangular or oval enclosures, small circular bins, and cairns, are highly visible both in 1:10,000 aerial photographs

and a pedestrian survey of even a casual nature. Our interest in these sites was particularly peaked by the Iron II pottery readings given for some of them in the preliminary report of the *Limes Arabicus* survey (Parker 1987: 88-89). Recognizing that these were field readings, based at times on body sherds, we decided to reinvestigate all of those campsites within our project area to which Iron Age sherds were assigned.

We visited *Limes Arabicus* Survey campsites 165, 167, 169, 170, 171 and 172, walking each of them thoroughly, but did not recover any clearly diagnostic Iron Age sherds. We also visited sites 174b (we would interpret as a cleared field rather than a rectangular structure) and 184 but did not recover any Iron age pottery here either. While we were admittedly conservative in our dating, relying primarily on less than abundant rim sherds, some questions must be raised regarding the existence of Iron Age materials at these sites.

Other Sites

While the attention of our field work was narrowly, but necessarily, focused on Iron Age remains we did encounter and record several new sites from various time periods. Sites 7 and 19 are both small "towers" with Byzantine pottery on the surface. Site 7 consists of a small "Rujum", which may have originally been rectangular, and a small (2.5 x 2.5 m) square foundation.

Site 19 is a rectangular foundation (8.6 x 6.5 m) built of large, roughly cut, rectangular stones. The interior space of this "tower" is subdivided into two rooms along the short axis. Site 19 is surrounded on all sides by broad terraced and dammed wadis, some of which are currently under cultivation.

We also recorded a number of new sites which seem best regarded as pastoral-related in function. Sites 3, 4, 12 and 16 appear to be campsites with numerous tent lines, small rectangular enclosures and bins.

Sites 15, 17, 20a-b, 24 and 27 are large oval or rectangular enclosures formed by the clearance of surface stones. These enclosures have maximum diameters ranging from 12 - 39.1m. Sites 13, 21, 28 and 33 are sites made up primarily of one or more cairns.

What is perhaps most interesting about these "pastoral" sites, (as well as previously recorded sites such as sites 5, 6, 25, 26 and 34) are the patterns of reuse evident during the two peak periods of "pastoral" activity in the region, namely the Byzantine and Late Islamic eras. Despite some interesting recent work (Bar-Yosef and Khazanov [eds] 1992; Rosen and Avni 1993; Rosen 1993) we still know little about the nature of actual pastoral campsites from various historic periods. Therefore, given their substantial cultural remains and long periods of utilization, these sites are a significant resource for the historical study of nomadic pastoralism. In particular, sites 5, 6, 12, 20a-b, 24-26 and 34 are excellent candidates for a careful program of excavation, a project we hope to foster in the near future.

Conclusion

The current evidence suggests that extensive human activity in this marginal area was concentrated in a number of rather narrow stretches of time. Defining and understanding the reasons for this temporal concentration of evidence will be central to the further analytical investigations we plan to carry out.

We have thus far concentrated on the Iron Age, where our evidence is limited to a brief span some time in the late seventh through sixth centuries. This era witnesses an expansion of settlement throughout the eastern fringes of the Karak plateau (and elsewhere in Jordan), characterized by the establishment of small fortified sites such as Khirbat ath-Thamāyil, Qaṣr aḍ-Ḍab'a, Khirbat 'Arbid and perhaps also site 8. The location, ceramic assemblage, grinding im-

Site Inventory *

<u>NUMBER</u>	<u>PAL. GRID REF.</u>	<u>TYPE</u>	<u>ARTIFACT DATE</u>	<u>EQUIVALENCY</u>
1	229.11 / 67.3	T/S	L.Islam, IrII Byz, Mid. Pal.	M.230, P.173
2	231.375/ 66.23	T/S	IrII, Byz	M.248, P.166
3	228.875/ 67.55	CS	Byz, L.Islam	New
4	229.3 / 68.5	Cn	Rom/Byz, L.Islam	New
5	230.25 / 66.89	CS	L.Byz, L.Islam	P.170
6	230.58 / 66.22	CS	Rom, Byz, L.Islam	P.169
7	229.875/ 67.25	T	Byz	New
8	230.84 / 65.97	T/CS	Ir, L.Islam, Byz.	M.249, P.167
10	231.7 / 66.375	CS	Byz/E.Islam, L.Islam	New
11	231.8 / 66.55 (site destroyed)	LS	PPN, LN/Chalc.	New
12	230.95 / 66.1	CS	L.Byz, L.Islam	New
13	230.95 / 66.175	Cn	Rom/Byz	New
14	230.45 / 66.55	T?	No Artifacts	New
15	230.125/ 66.675	R/Cn	Late Lithics	New
16	230.375/ 66.725	CS/R	Byz	New
17	229.8 / 66.525	CS/R	Byz	New
18	229.2 / 66.8	Cn	Byz, L.Islam	New
19	229.25 / 66.565	T	Byz	New
20a	229.125/ 66.4	R/Cn	Byz	New
20b	229.125/ 66.4	R	L.Islam, Byz	New
21	229.625/ 66.55	Cn	Nab/E.Rom	New
22	228.77 / 66.69	Ter	Byz	P.178
23	229.7 / 67.05	SS	L.Islam, Ir?	New
24	229.75 / 66.95	CS/R	Byz, L.Islam	New
25	231.89 / 66.5	R	L.Islam	P.171
26	231.97 / 66.94	CS	L.Islam	M.247, P.165
27	231.2 / 67.275	R	L.Islam	New

<u>NUMBER</u>	<u>PAL. GRID REF.</u>	<u>TYPE</u>	<u>ARTIFACT DATE</u>	<u>EQUIVALENCY</u>
27	231.2 / 67.275	R	L. Islam	New
28	231.975/ 66.725	Cn/T	Mid. Pal., Ir?	New
29	229.1 / 67.775	Ter	Rom/Byz	New
30	229.125/ 67.92	Ter	L. Islam	P.174b
31	229.05 / 65.45	Bg	Rom, L. Islam	P.183
32	229.36 / 65.64	Bg/Cn	Byz	P.184
33	231.975/ 68.05	Cn	Rom, Byz	New
34	231.52 / 68.36	CS	Byz, L. Islam	M.241, P.172
35	229.025/ 67.85	Ins	Thamudic	New
36	231.20 / 66.30	Ins	Thamudic	P.168.

* The abbreviations used in this chart are as follows:

T= Tower	SS= Sherd Scatter	Nab= Nabataean
S= Settlement	Bg= Building	Rom= Roman
CS= Campsite	Ins= Inscription	Byz= Byzantine
Cn= Cairn	Mid. Pal= Middle Palaeo lithic	L. Islam= Late Islamic
R= Ring	PPN= Pre-Pottery Neolithic	P.#= <i>Limes Arabicus</i> Survey site
Ter= Terrace	LN/Chalc= Late Neolithic/ Chalcolithic	M.#= Central Moab Survey site
LS= Lithic Scatter	Ir= Iron Age	

plements and architectural parallels of these sites suggest an agricultural, rather than strictly military, function. Their size suggests either a small-scale storage function or more likely (given the grinding tools and diverse ceramic assemblages) a dwelling for a basic co-residential unit of production (probably a family or household). Therefore, we seem to be witnessing a brief period of agricultural expansion into a somewhat marginal area at the end of the Iron Age. Such a process would not be unexpected given the development of Moab as a territorial state and its incorporation into successive Mesopotamian Empires through this time period (see Routledge, forthcoming).

The Byzantine period also provides us with a significant body of evidence, including both small "tower" structures and probable "campsites". Whether these remains represent alternate land uses, be they concurrent or immediately subsequent, or sim-

ply alternate storage practices is a question still to be answered.

Even more interesting from a land use perspective is the abundance of evidence from the Late Islamic era. This includes the large multi-room enclosure, tower and water-harvesting system at Khirbat 'Arbid in close proximity to numerous large campsites such as site 6 (ca. 7.95 dunams). The available evidence should allow for the careful pinpointing of the chronological range involved and with it a nuanced understanding of these different sites in relation to each other, to the region and to the historical events of their era. We hope, therefore, that such a study can be undertaken in the near future.

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