

ETHNOARCHAEOLOGICAL SURVEY IN THE BEIDHA AREA, SOUTHERN JORDAN

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Introduction

Due to prevailing environmental conditions which do not encourage the pursuit of sedentary agriculture, by far the larger part of Jordan has hosted only nomadic inhabitants throughout its human history. Archaeological investigations, however, have dealt almost exclusively with the remains of the settled population which occupied the Ghor/Jordan Valley and the mountain ridge to the east of it. This is a predictable consequence of the fact that sedentary people tend to leave the more eye-catching remains like *tilal* (tells) and *khirbat* behind, but one should be aware that limiting archaeological investigations to these ruins necessarily results in the systematic rejection of evidence for an important part of Jordanian prehistory and history.

The Beidha Ethnoarchaeological Survey was intended as a first step towards understanding if and how nomadic occupation is reflected in the archaeological record. Its aim was to collect data on the activities of modern pastoralists and to establish what sort of material remains they leave behind.

The study area was selected primarily because of its apparent richness in abandoned campsites. It also had the advantage of being a well circumscribed area inhabited only by one cultural entity, and being relatively easily accessible. Situated about 5 km. northwest of Wadi Musa, Beidha is an area centering on the Wadi Beidha (Fig. 1), which running in a NE/SW direction, collects the drainage from the Jebel Hishah and then, after merging with the Wadi Siq el Ghurab, drops down to the Wadi Arabah. Beidha is thus flanked by the Jebel Hishah (part of the Shera'a mountain range) in the east and by the Wadi Arabah in the west. The

northern edge is delineated by the Siq Umm al Hiran, and in the south Beidha is bordered by the Petra basin.

Objectives

The goal of the Material Remains Survey and the ethnographic work which accompanied it was to answer a number of questions concerning the locations and material culture of camp sites. These questions were directed primarily to the problems of finding such sites archaeologically and distinguishing them from the sites of settled agriculturalists.

Location: What makes a location suitable as a tent site? Which factors determine a specific location for selection as a campsite? We would expect the location of pastoral sites to be dependent on a number of factors affecting the welfare of herds and the comfort of tent dwellers. Successful identification of these factors should provide some indication of where ancient campsites are likely to be located and, in combination with other (post-depositional) factors, where there is a high probability of finding such sites.

Material Culture: What sort of remains ("architectural", faunal, ceramic, or other artefactual) are left behind and how are they distributed spatially? Is there any impact on the environment? The goal here is identification of archaeological features which signal nomadic or pastoral occupation.

In order to correlate these findings with the specific processes responsible for the deposition of the material remains, it was also necessary to take a close look at the present economy and daily activities of

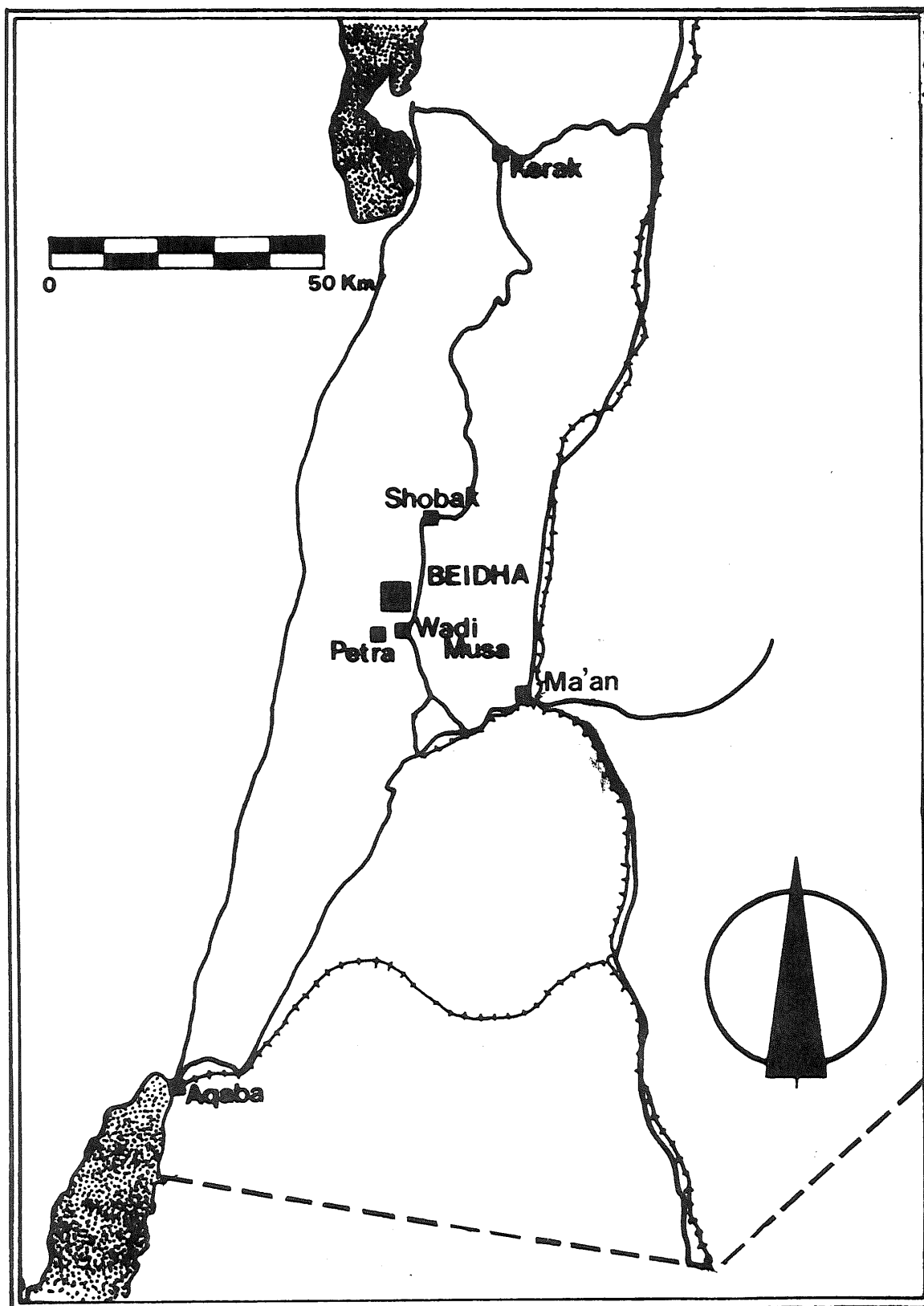


Fig. 1: Location of the Beidha area in Southern Jordan.

the people living in the area.

Methods

Material Remains Survey: We carried out a regional survey aimed at sampling the numerous abandoned camps in the Beidha area. The sampling universe was bounded on the west by the edge of the escarpment falling down to the Wadi 'Arabah, on the north by the Wadi Jabu, on the south by the north scarp of the Jibal ed-Deir, and on the east by the YU73650 line on the K737 map sheet 3050-I. The universe was stratified into two strata, one of which was very rocky and dissected. The other stratum, although rough in parts, was easier of access with a smaller amplitude of relief. Using a spatially random design, four points were selected within the "rough" stratum and six points within the other. We recorded each campsite within a 100.00 m. radius of these points according to the following scheme:

1. The location of each camp was marked on a 1:50,000 map.
2. A sketchmap was drawn of all "architectural" features (i.e., hearths, stone-and-earth bed platforms, pits, ditches, stone cairns, stone chicken houses, and fire-blackened *hefaiyiz* (stones from hearths). In some cases detailed scale maps were drawn by triangulation.
3. All artefacts, such as Ottoman/modern sherds, bones, batteries, cans, cloth, rope and tent fittings, were recorded. Some remarkable artefacts, like broken saddle or dense concentrations of bone, were also marked on the sketch maps.
4. The surface gradient was measured over a 7.00 m. section.
5. Soil samples for analysis by grain-size distribution, colour, and chemical composition were collected from the camps themselves and from nearby locations without visible campsites.

All archaeological sites, including the numerous Nabataean rock-cut cisterns, wine or olive presses, houses, tombs and monuments, which we noticed during our survey walks we also recorded, photographed and often sketch-mapped.

Ethnography: This part of our project proceeded almost automatically, as we had the good fortune of living under the direct care of the local Shaikh Huwaimil and his family, and could not help but be integrated into their daily life. We were taken along to all festive occasions and thus visited most of the tents in the area. On our walks one of our hosts sometimes accompanied us and was always more than pleased to answer any questions we had about length of occupation of particular camps, time since abandonment, use of pottery, reasons for particular choices of camp locations, or tendency to reuse old campsites.

Results

Modern campsites were abundant within the survey universe (Fig. 2) and contained considerable evidence for the reconstruction of activities within them. Contrary to most archaeologists' assumption that pastoralists leave too little behind for their camps to be recognizable, these camps invariably exhibited particular architectural features — hearths, bed platforms and storage platforms — as well as concentrations of dung and bone, scattered cans, batteries and cloth fragments. Most of the camps also had small stone pens, chicken houses and ovens, and some had such obtrusive remains as broken saddles and piles of stored goods. A large number of campsites we surveyed had moderate concentrations of Ottoman or early twentieth century pottery on their surfaces, coinciding closely with the spatial boundaries of the camps. In one instance a scatter of sherds from the Roman period similarly coincided with the area of a poorly preserved and overgrown camp which had a bed-platform of unusual shape. It is possible that this site belonged to "Paleobeduin" of about the third century A.D. In another instance we found indisputable evidence for the stratification of a tent site which must have had periodic reoccupation. Layers of clear sand separated at least four thin, black living floors.

Some of the sites we discovered,

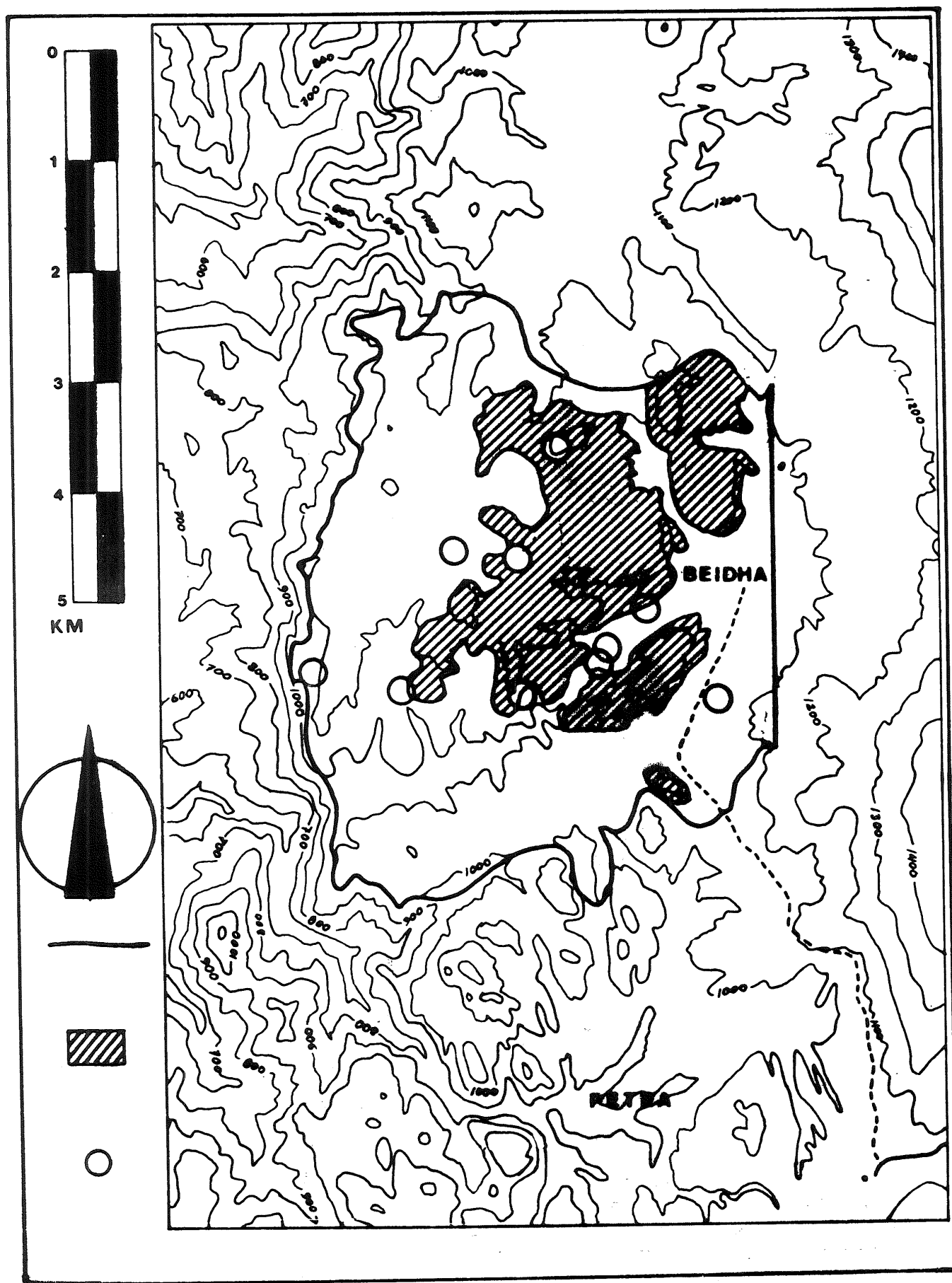


Fig. 2: The Beidha Survey universe (within solid line) with "rough" stratum shaded and random circles indicated.

rather than being typical tent sites, consisted of stone circles, singly or in pairs and each eight to twenty metres in diameter. Sometimes a tent site appeared 20.00 or 30.00 m. away from these circles. The most likely interpretation for these sites is that they are the foundations for thorn fenced paddocks, occasionally seen throughout Jordan today (Pl. LXXXIII, 2), and that pairs of such enclosures permitted the separation of kids and lambs from their mothers.

A few of the sites were rock shelters furnished with simple stone screen walls and hearths. Often they were fairly close to stone circles, and probably they served as temporary shelters for herdsmen watching the grazing flocks.

The survey also documented a large number of archaeological sites (Fig. 3), almost all of which belonged to the Nabataeans, including rock-cut tombs, one large settlement, numerous farmsteads (some of these in a remarkable state of preservation), many wine presses, a few inscriptions, and some dams and reservoirs. Terracing of slopes was noted through much of the area, and some terraces were almost certainly associated with the Nabataean occupation as well. One Chalcolithic site and a number of Roman/Byzantine ones appeared in the course of the survey, but only a few scattered lithics, apart from one site (Nr. 52) with chert flakes dating Epipalaeolithic or later and the sites previously reported by D. Kirkbride (1966) showed any evidence for earlier occupation of the Beidha area.

A list of both, ancient sites and modern Bedouin camps, is presented in the Appendix.

Conclusions

Unfortunately it is not possible here to give a more detailed account of our material culture survey and to present the results of our ethnographic study, but our survey convinced us that Bedouins leave a variety of architectural and material remains behind, which correlate closely

with their economic activities and social circumstances and can thus be read and interpreted by the initiated to provide an array of information on the former occupants of a tent site. This array may include the season of occupation, social situation, social status of the owner, festivities and others. There is no reason why nomadic occupation and habitations should not be recoverable by the standard practices of archaeological excavation. As in other archaeological sites, recovery depends on the specific locational characteristics of each camp site, whether its architectural remnants have been eroded away or covered up by sand and preserved for a long time. Future test excavations will no doubt confirm this.

Appendix I

Catalogue of Sites

1. Recent Bedouin Camp (RBC), Purposive Sample (P)
2. RBC, P, (Pl. LXXXIII,1)
3. RBC, P
4. Nabataean site, probably farm house, with wine press on western slope (with tessellated floor), on north bank of the Wadi Siq el Ghurab (338/617) P
5. RBC in small flat field with plowing (3335/615) P
6. RBC and probable Nabataean caves, P
7. Circular stone enclosure on West Bank of small wadi and RBC on east bank a little to the north (332/618). Just south of random point within about 100 m, Random Sample (R)
8. Rockshelter on east face of same small wadi as last, including RBC (R)
9. Circular stone enclosure, probable RBC, at least 150 m. nw of random sample point (330/6205) P
10. RBC with modern coin "hoard" on saddle near edge of escarpment of 'Arabah rift (323/622) about 100m. from random sample point R
11. Circular stone enclosure near many ancient-looking terrace walls on small

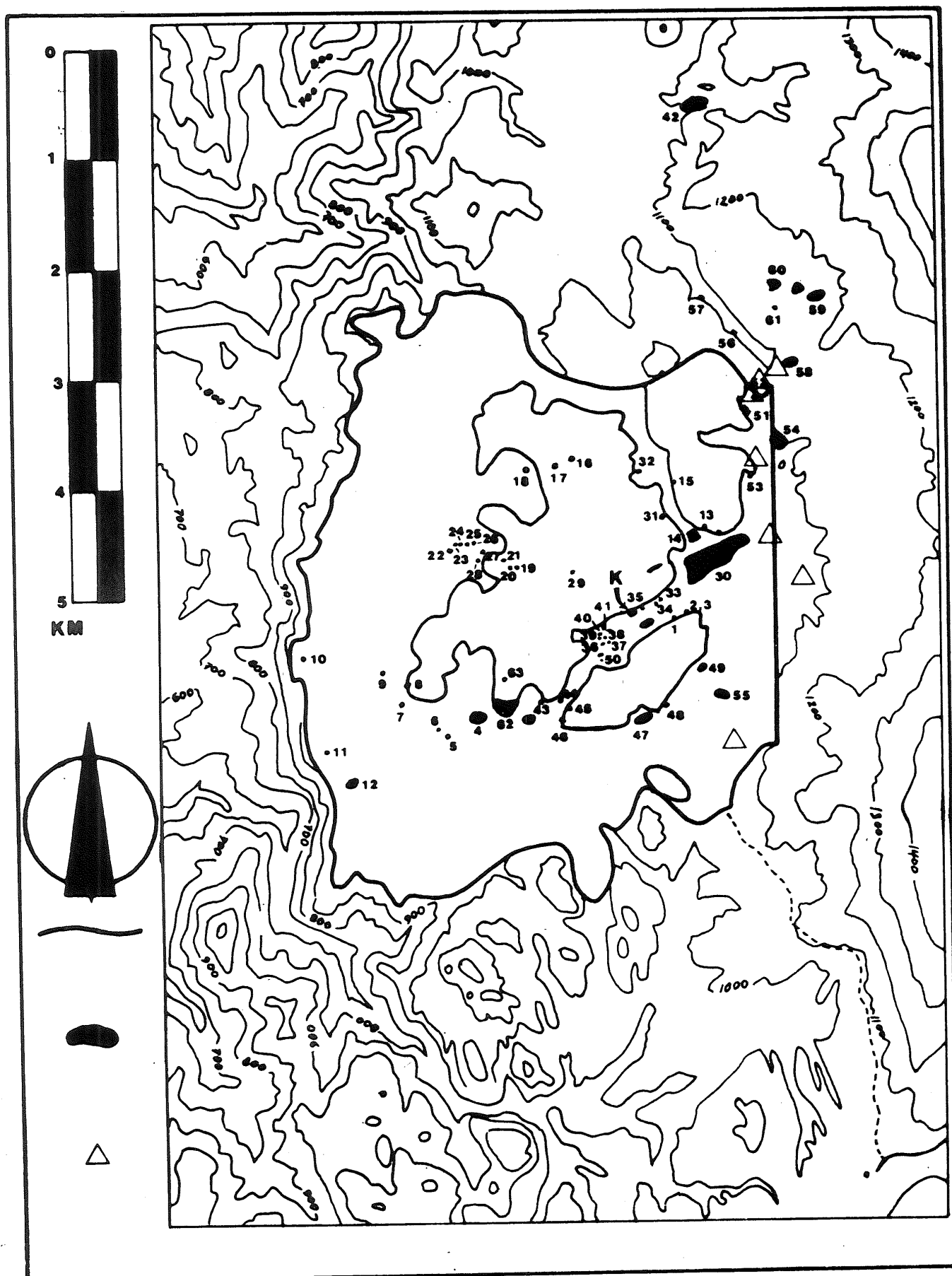


Fig. 3: Sites (marked in black) recorded during the Beidha Survey, August 1982.

- branch wadi near mouth of Wadi Siq el Ghurab (325/6125) P. (Pl. LXXXIV, 1).
12. Nabataean structure, possibly tower or farmhouse, on north bank of Wadi Siq el Ghurab (3275/610) P
 13. Group of rock-cut tombs on east side of flat wadi running north from Khirbet Beidha (site 30), and just ESE of "caravanserai" or forum, site 14. (359/633) P
 14. Possible Nabataean caravanserai or forum, very large, just north of Khirbet Beidha (site 30) and occupying flat agricultural land (due to be planted with olives?) in wide wadi. (358/633) P
 15. Site of rock-cut stairs, leading to drains and more stairs high up on rock on east side of last-mentioned wadi, possibly former (now destroyed?) Nabataean house. (356/6375) P
 16. Probable Nabataean farmhouse up on table on top of mountain, about 100 m. SE of random sampling point (347/640) R
 17. Probable Rom-Byz camp-site a little to west of last (345/640) and within about 100 m. of random sampling point R
 18. Nabataean farmhouse, still standing to height of door-lintel, with large vaulted cistern (vault collapsed but niches for arch springers observed), on west bank of upper Wadi Aqlat (3425/639). A number of dams cross the wadi near here. P
 19. Stone cairn of unknown purpose. (3415/630) P
 20. Probable Roman period camp-site with bed-like feature and low-density sherd scatter next to rocks in small branch of wadi Aqlat on southwest bank (341/630) P
 21. Small rockshelter on the east bank of the same wadi as the last two (3405/6305), with modern walls, 3 x 5 m. against the rock face, on sandy soil. Hearth stones within the shelter and one modern sherd. P
 22. A small Nabataean sherd scatter up on top of one of those table mountains again, which probably represents a ruined farmhouse (336/6315). R
 23. RBC around some trees, with bed-platform, etc. Within about 60 m. of the random sampling point of last site (337/632) R
 24. RBC very similar to last and only about 20 m. farther to east (3372/632) R (Pl. LXXXIV,2).
 25. RBC similar to last (3375/632) R
 26. Another RBC similar to last (338/632) P
 27. Large circular stone enclosure, like animal paddock, with some Arabic graffiti and a couple of stone cairns as well. (339/6315) P
 28. Nabataean farmhouse, with cistern to west of it, sitting on a small knoll on the top of the same table mountain as the last six sites. Noticed at least one column base in the house ruins, and a good door threshold. (3385/6305) P
 29. Ruined house in Wadi Aqlat, on the east bank, middle section (345/629), with lower part of square room cut into bedrock. P
 30. Khirbet Beidha, large Nabataean settlement with many rock-cut rooms, including a possible temple on the top of a big rock outcrop, immediately south of a large Nabataean cistern still used by the 'Ammarin. Also seems to have house ruins over a large area as well as a small cemetery with at least some Christian (Byzantine?) burials (one had a stone-carved cross). The site is at least 600 m. in length and 400 m. in width. Its location is (360/630). There is also a large reservoir at about (361/630) with aqueduct channels and a very large rock-cut tomb near it. The Siq al Bard, with its tombs, is immediately to the west. P.
 31. Rock inscription on wall of small siq leading southwest from Wadi el Amthi, reading in Greek letters, "ARSALLO", P
 32. Rock drawings of camel, dog, ibex, tally marks, and inscriptions on flat natural face above artificially flattened face cut by Nabataeans (with "herring-bone" quarrying marks). Some Greek letters read "RORIETH". P
 33. and 34. are two RBCs on the north side of Wadi Beidha (3545/6275) right

- next to one another and just ENE of Kirkbride's site about 150 m. away. They're also within 50m. of a random sample point. R
36. RBC next to low rock scarp on north bank of small branch of Wadi Beidha, west of Kirkbride's campsite (349/622) R
 37. RBC on east bank of branch wadi, only about 30 m. east of last (3493/623) R
 38. RBC about 30m north of last, on opposite side of Wadi, included a broken wooden donkey saddle, (3492/6226) R
 39. RBC about 30m west of last (3489/6226) R
 40. RBC about 30m northeast of 39 (3491/623) R
 41. RBC about 30m northeast of 38 (3495/623) R
 42. Kirbat Badj, a ruined mediaeval village P
 43. RBC north of meander in Wadi Siq al Ghurab (344/6175), about 130m ESE of random sample point P
 44. Retaining wall of stone on north bank of channel of Wadi Beidha, probably Nabataean (346/617) P
 45. Nabataean farmhouse, with lower part of square room cut into bedrock. (3465/6165) P.
 46. Miniature tomb cut into face of rock at western point of mountain at (3455/6155) near place where Wadi Beidha and Wadi Siq al Ghurab merge P
 47. Chalcolithic sherd scatter in sandy area south of mountain mentioned in connection with the last site, about 400m west of the road at (353/617). Noticed one fan-scraper (not collected) and low density sherd scatter. P
 48. Strange rock-cut T-shaped installation which is probably Nabataean in date, with some rock-cut aqueducts very near (355/6175). P
 49. A few Nabataean structures, possibly part of a hamlet, some partly cut into bedrock, one with a room completely cut into bedrock, and a number of wine presses (359/6205) P
 50. RBC on edge of a large sand dune in Wadi Beidha, with at least five living surfaces observed in 25 cm. depth. R
 51. RBC used for a wedding mansaf, next to the cliff at (3625/645) P
 52. Flint scatter just about 60m east of last at (3625/645) P
 53. Unfinished rock-cut tomb. P
 54. Modern hamlet with large ancient wine press. P.
 55. Nabataean rock-cut hamlet with installation (grave?) similar to site 48. RBC occurs immediately north of the rock. Aqueducts and cisterns also occur in the rock. R
 56. Dushara monument on cliff-face. P
 57. Nabataean and Arabic graffiti, near possible ruined Nabataean house. P
 58. Sherd scatter (possible Nabataean hamlet). P
 59. Nabataean hamlet and modern building (Abu Debaiyah?). P
 60. Nabataean hamlet with tombs and rock-shelter houses. P
 61. Key-shaped rock-cut installation, possibly with function similar to that of site 48. P
 62. Nabataean quarry on top of high hill on the north bank of the Wadi Siq al Ghurab (341/618). P
 63. Hearth from shepherd's temporary camp. P

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Acknowledgements

We would like to express our appreciation to Dr. Adnan Hadidi, Director General of the Department of Antiquities of Jordan, for supporting our project on short notice, and to Ms. Maha Jeyousi of the Department of Antiquities for help at all stages of the work. Mr. Niazi Shaba'an Antiquities Representative at Petra, was very helpful in facilitating our arrangements to live with the Bedouin at Beidha and throughout the field season. We are, of course, much indebted to our Ammarin hosts Sheikh Huweimil, Musa Huweimil, Ibrahim Salim and Mohammed

Huweimil, as well as Fatima, Hedeia and Sabha (who supplied our water!). We thank Dr. Gary Rollefson of Yarmouk University for supplying photographic equipment, and Dr. David McCreery, American Center of Oriental Research, for lending us a tent. Part of the funding for the project came from the Deutsche Morgenlandische Gesellschaft. We would also like to thank Mr. Abdul Aḥad Ḥanawy for checking our Arabic transliterations although we accept responsibility for all errors or inaccuracies in the paper. Dr. Burton MacDonald kindly proofed the manuscript.

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