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Shaqarat Mazyad – The Village on the Edge

Lea Rehhoff Kaliszan, Bo Dahl Hermansen, Charlott Hoffmann Jensen, Tim B.B. Skuldbøl, Mikkel Bille, Pernille Bangsgaard, Anna Ihr, Mette Low Sørensen and Bente Markussen

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Introduction (LRK)

The Shaqarat Mazyad Neolithic Excavation and Survey Project is a salvage project kindly offered by the Department of Antiquities in Amman to The Carsten Niebuhr Institute of Near Eastern Studies, University of Copenhagen, Denmark. The project operates as a multi-level educational field school and is funded by The University of Copenhagen, Faculty of Humanities. Dr. Ingolf Thuesen is project director. In-field directors of the 1999 season were Dr. Lea Rehhoff Kaliszan and Dr. Charlott Hoffmann Jensen. The 2000 season was directed by Dr. Susanne Kerner, and the 2001 by Dr. Lea Rehhoff Kaliszan. In the first two seasons the excavation was supplemented by a survey in the immediate surroundings conducted by Bo Dahl Hermansen.

Environment and Previous Investigation in the Area (LRK)

The site of Shaqarat Mazyad is situated at 35°26'23" East/30°26'45" North in the sandstone mountain area ca. 13 km north of Petra. The vegetation in the area is dominated by

stone oak and pistachio as well as shrubs and other minor herb plants (Gebel 1986: 299).

In 1964 D. Kirkbride encountered and surveyed the site for the first time during her work at Beidha. She proposed a dating within the MPPNB. H.G.K. Gebel revisited the site in 1984, conducted a systematic survey and made a small sounding there (Gebel 1988); he could confirm the date. Then, more recently, the area around the site was partly surveyed by M. Lindner.

Goals of the Excavation (LRK)

It is the intention to establish a chronostratigraphic framework of the site in order to relate it to other Neolithic sites in the area, including Basta, Ba'ja, and Beidha. These are sites that completely cover the whole PPNB sequence. Also it is the intention to make comparative analyses of archaeological structures and material remains from Shaqarat Mazyad and sites in or near Wadi Araba. The newly excavated Neolithic site of Wadi Fidan may be one such occupation of relevance to Shaqarat Mazyad. Thus it is one of our goals to evaluate the degree of sedentism at Shaqarat Mazyad. The site is very small, which makes it ideal to study types of intrasite spatial organization preceding the megasite phenomenon characteristic of the Late PPNB.

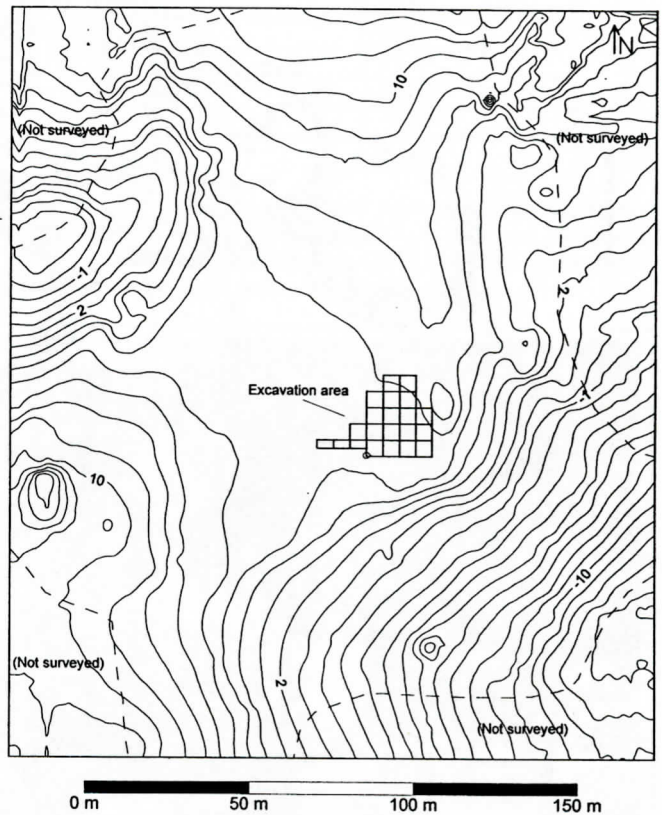


Fig. 1. Topographic map of Shaqarat Mazyad and its immediate surroundings. 1-meter contour intervals are indicated.

Topographic Survey (TBBS & MB)

Between 6-12 August, 2001, a topographic survey was carried out by Tim B. B. Skuldbøl and Mikkel Bille with the kind help of students. The aim of the survey was to map the archaeological site and its immediate surroundings. The survey area covered an area of approximately 0.04 km² (ca. 200 m x 200 m) or 4 ha (Fig. 1).

The site is located at the southernmost part of a plateau that overlooked several wadis. Large topographic variation such as rock formations and steep slopes characterize the survey area. The largest difference in altitude was approximately 30 m.

The survey area is also marked by heavy use of the area. Conspicuous are the many modern features such as the road

running north of the site created by a bulldozer. This continuous road construction caused some leveling disturbance of the site and may therefore have affected the measurements. Terracing of probably Nabataean date has disturbed the eastern and southern extension of the Neolithic site.

Stratigraphy (LRK, MLS, BM, AI)

The surface of the excavated area slopes slightly downhill from north to south and east to west. The general stratigraphic profile of the excavated area consists of three Neolithic building phases. The main building phase is erected on a compact yellow, silty layer. It is characterised by approximately circular structures (Fig. 2). Probably late in this phase several rebuildings have been undertaken at the site. These are mainly represented by minor alterations on the houses themselves as well as newly built shelter walls (for keeping animals?, e.g., north of buildings B and D, and south of buildings C and E). Also minor rooms were now filling out the space in between some of the original buildings (M and N).

NEOLITHIC SITE OF SHAQARAT MAZYAD 2001 MAIN EXCAVATION AREA

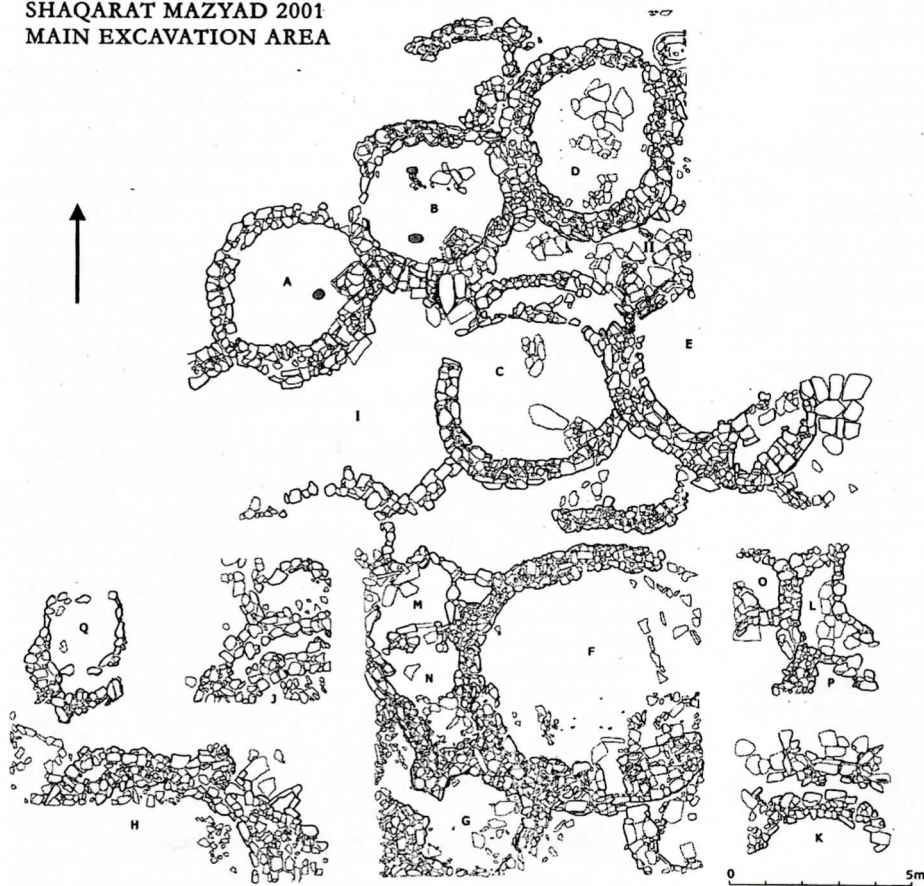


Fig. 2. Plan of the main excavation area after the 2001 season.

Following the main building phase is another one with additional structures that are mainly sub-rectangular. Two such buildings, east in the main excavation area, cut the existing walls of an earlier round posthole building. Another has partly destroyed the walls of two earlier buildings in the northern part of the excavation.

In the western part of the main trench, later buildings seem to be flimsier. Here they were made of only one row of rather large stones to create a very small oblong chamber, the use of which remains enigmatic, and a small semi-subterranean oval room. It is not yet clear how the westernmost late buildings relate to the easternmost late buildings stratigraphically.

Architecture (LRK)

The buildings of the main phase were constructed of roughly dressed sandstone and limestone blocks in various sizes. In a few walls mortar was used, though the quality seems to be low, as it does not really stick to the stones but appears more as a kind of filling. Structures are in general round and built together in a honeycomb fashion, with walls being ca. 0.65m thick.

Houses were constructed as post buildings, each having 10 or more wooden posts around which stones were piled up at a height of at least 1 m (Fig. 3). At least three buildings show alterations on part of the wall (C, E, J), thus creating an oblong cavity between the old and the new wall, perhaps for storage. Most buildings are 3.5-4.5 m in diameter. In several buildings the inner wall face was finished by a row of flat, upright stones (Fig. 3).

So far, only one of the completely excavated buildings seems to be clearly larger (about 7 m diameter). Another building, so far only partly uncovered to the southwest, may be of quite a large size as well (building H). Almost all buildings have only one entrance, which as a rule opens towards the south, though exceptions do occur. Entrances are mostly flanked on the outside by two upright flat stones (Fig. 4).

Floors and Installations

The five northernmost buildings (A-E) are all furnished with a very fine and good quality lime plaster (pink in colour, but not yet layered using cement-forming minerals as in Basta and 'Ain Ghazal), whereas the large building and those surrounding it so far do not show traces of genuine plaster. In general, only buildings from the earliest phase seem to have proper plaster floors.

Another characteristic of buildings A-E are their stone platforms in the northern part of the room. The platforms lie directly on top of the plaster floor. Until now they have been interpreted as working platforms, as many ground stone tools were found on or near them. Only one of the southern buildings has such a stone paved area (M). Here also numerous hand stones were found on the pavement.

Only two hearths have been identified, also in the northern buildings (Fig. 2 and 5). These are very small (30-40 cm in diameter) and round or oval in shape.

Storage facilities are almost absent except for one small room, less than 1x1m, which apart from a few pieces of chipped stone was empty (Fig. 2, east of room M). This storage room, together with the two minor rooms to the west of it, are clearly later than the adjacent buildings, which is seen in the way the walls are built up against these structures. There may even be a possibility that these rooms partly destroyed the continuation of building J's double wall turning to the east. It is unclear whether the two small rooms represent storage rooms as well. On the one hand their contents (see below), and the fact that the northern doorway was intentionally blocked, may point to the fact that they were. On the other hand, the furnishing of the rooms (stone paved floor and interior walls, well built interconnecting doorway) points to their use as regular domestic rooms. The

oblong cavities between double walls in some buildings remain unexplained, but they may have functioned as storage facilities.

Inside three buildings a small stone structure was uncovered to the right of the entrance (Figs. 2 and 5). One seems to be merely a bench or small buttress (building C), whereas the other two clearly were later facilities (A and B). Upright stones and flat stones covered the top of these structures. So far only the smallest one has been excavated, which turned out to be empty. The larger one still awaits excavation and may well turn out to be a storage bin (B).

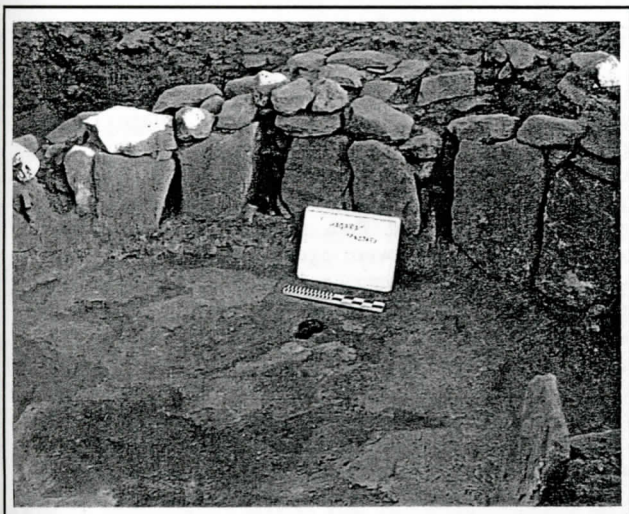


Fig. 3. Postholes and flat, upright stones in building A.

Chipped Stone (CHJ)

The figures shown in Table 1 include all three seasons. There are slight differences in the figures from each season that will hopefully be explained or erased after a more detailed study of the material. As seen from Table 1 the preliminary sorting of the chipped stone material includes more than 50% of the total.

The cores have not been closely examined, therefore the flake-blade core ratio is not known, but bidirectional blade cores mostly of a semi-naviform type are represented. True naviform cores have not yet been identified. The presence of a large number of blades with triangular sections or otherwise thick blades also supports the conclusion that blades do not derive from a true naviform production sequence.

The blade:flake ratio is not yet known for the 1999 material, but the figures for the 2000 and 2001 seasons are, respectively, 1:3.7 in 2000 and 1:2.3 in 2001.

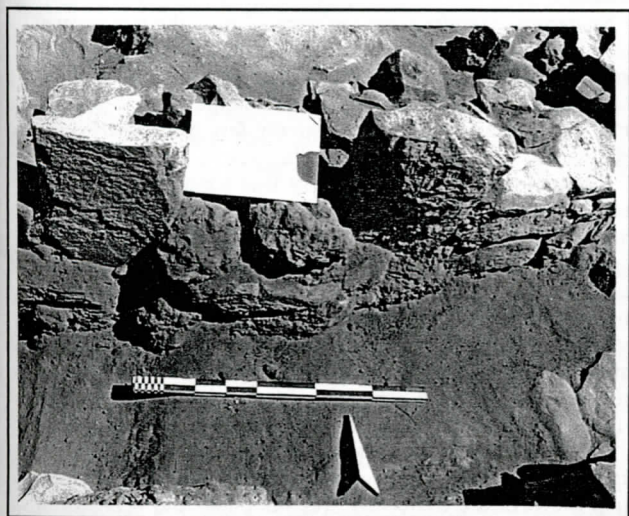


Fig. 4. Two upright stones flanking the entrance to building C.

Although the flakes are far more represented among the debitage than blades, the chipped stone tools show a predominance of blade-related blanks for tools such as arrowheads, knives, borers etc. Arrowheads are the most dominant tool group, accounting for more than 20% of the tools. The arrowheads consist of mostly Jericho or Jericho/Byblos transitional forms. Knives are almost as frequent as the arrowheads, while borers, scrapers, and retouched pieces each comprise between 10 and 15% of the total. Sickle blades are present, but are not very common.

So far no specific working areas have been identified based on the distribution of cores, primary elements and debitage. The different tool types are also evenly distributed across the site except for the borers, where almost 50% of the borers registered in the 2000 season and a large number from the 2001 season derive from courtyard I. In the same loci a large number of finished and unfinished green stone beads were located.

Table 1. Primary production classes in the lithic assemblage from Shaqarat Mazyad.

Primary Production	n	%
Cores	553	2.2
Core trimming elements	1451	5.7
Debitage	21261	83.7
Debris	572	2.3
Tools	1575	6.2
Total analyzed	25412	100.1
(Total)	(41,075)	

Small Finds (CHJ)

Only few core tools of chipped stone have been registered, but quite a few ground stone polished axes and adzes are found at the site. Other finds include beads of stone, bone and shell, bone tools and a few incised objects.

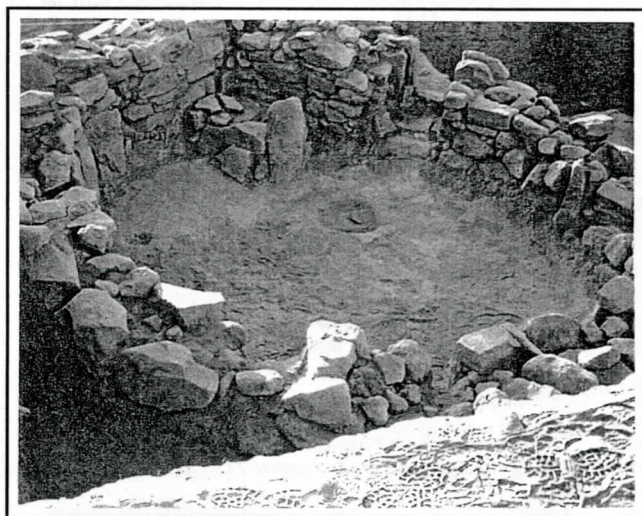


Fig. 5. Building A with hearth and stone construction visible.

Ground Stone Industry (AM)

The ground stone tools are primarily made of locally available stone. They are found both inside the buildings and in the open areas. The three buildings to the north (A, B, and C) all contained similar finds of both grinding stones (1-2), handstones (2-4) and pestles (3-5), suggesting a "household" function. In building D no grinding stones were found. Instead, 9 handstones and 5 pestles were deposited along the wall. Building G as well revealed no grinding stones, but instead a cache of 14 handstones. In addition to the concentration of flint borers and green stone beads mentioned above, the central courtyard I contained 7 grinding stones.

Faunal Remains (PB)

So far only a relatively small part of the faunal material has been analyzed. One thousand fragments have been identified, all originating from square F100. Although this cannot be regarded as a representative selection of the excavated material, it might still be worth mentioning the species identified: *Capra/Ovis* are by far the most dominating group, with a slight tendency for more *Capra*. The group represents more than 50% of the identified bones, and the tendency for smaller and probably domesticated animals with only a small selection of larger and probably wild animals, but the final conclusion will have to await a full measuring and comparison of the fragments. Also present on the site are *Bos*, *Equus*, *Gazella*, *Vulpes* and *Lupus*. Although no human burials have been found among the houses, the identification of two bone fragments suggests that humans were at some stage buried in the vicinity. Finally, three fragments have been identified as bird bones, and although not identified to species yet, two of these bones are from larger predators.

Shells (AI)

Several species of mollusks have been found. The most common are cowries (*Cypraeidae sp.*) and nerites. On all cowries found at the excavation the main part of the body has been removed, thus leaving only the lips.

Among the nerites (*Neritidae sp.*), at least two different species were found, yellow or brown/grey coloured. The latter most probably being the Ox-palate nerite (*Nerita albicilla*). All have been ground down and holed at the apex. An unmodified shell of a *Tridacum maximum* was found on the floor near the southern wall of building D in connection with a concentration of stones. So far all catalogued mollusks can be found in the Red Sea.

Dating and Analytical studies (LRK)

So far only relative dating has been achieved through comparative study of diagnostic elements in the archaeological record. However charcoal has been retrieved and will be sent to a C14 lab. A more precise dating is expected soon. Only a few bits and pieces of plaster have been retrieved so far. They have not yet been analyzed, but we expect them to undergo X-ray diffraction, SEM, and chemical tests in the near future.

Acknowledgements: We are grateful to the Dept. of Antiquities for permitting us to excavate the site and for their kind collaboration throughout the first three seasons of campaigning. Especially we wish to thank it's directors, Prof. Dr. Ghazi Bisheh and Prof. Dr. Fawwas al-Khreisheh, as well as the chief inspector of Petra, Suleiman Farajat, and the director of the Museum in Petra, Mohammad Shaubaki. Special thanks are also extended to Dr. Hans Georg K. Gebel for his encouragement and collaboration in setting up the project.

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Preliminary Report of the Tell Wadi Feinan Neolithic Testing Project

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Introduction

Starting in 1996, a joint University of Nevada, Las Vegas (UNLV) and Department of Antiquities project has been

investigating the spectacularly preserved Pre-Pottery Neolithic B (PPNB) village of Ghwair I, in the remote Wadi Feinan system of southern Jordan (Simmons and Najjar 2000). In order to obtain limited comparative data, a brief test excavation was conducted in July 2000 at the nearby Pottery Neolithic settlement of Tel Wadi Feinan, located some 5 km. west of Ghwair I. In particular, we wished to obtain chipped stone and economic information so that we could study the trajectory of change from Pre-Pottery Neolithic through the Pottery Neolithic. This short report summarizes the results of these studies, emphasizing the chipped stone analyses.

Preliminary Results

Tel Wadi Feinan had been previously investigated by Najjar and colleagues (Najjar *et al.* 1990; Najjar 1992), revealing it to be a large Pottery Neolithic village. During the test season reported here, a total of five test pits were excavated, together covering 9 m². All show the same basic stratigraphic sequence of limited Byzantine materials above sparse Chalcolithic and then more substantial Pottery Neolithic deposits. All were excavated to sterile matrix, which consists of wadi deposits. Stratigraphic integrity was generally lacking; however, the majority of recovered materials are from the Pottery Neolithic occupation of the site. All the cultural deposits occur approximately 1.5 to 2 meters below the present ground surface. This indicates that the Wadi Feinan has been greatly incised since the Pottery Neolithic period, some six thousand years ago, since the current wadi bed is some ten meters below the present ground surface. In fact, active erosion is in the process of destroying the site, and portions of the area previously excavated have collapsed into the wadi. Our test excavations recovered abundant ceramics and chipped stone artifacts, as well as more limited ground stone and paleoeconomic data.

Radiocarbon Dates

Our investigations resulted in four radiocarbon determinations, kindly provided by Dr. E. Banning (University of Toronto). These are presented in Table 1, and are consistent with a Pottery Neolithic occupation.

Table 1. Radiocarbon determinations from Tel Wadi Feinan.

Sample	Uncal BP	Cal BC
TO - 9614	6370 ± 300	5560 - 4955
TO - 9615	6130 ± 89	5210 - 5160 and 5145 - 4935
TO - 9616	6260 ± 90	5315 - 5200 and 5180 - 5135 and 5180 - 5060
TO - 9617	6440 ± 60	5475 - 5355

Ceramics

Numerous ceramics were recovered during the test excavations. Only those from the Neolithic levels are addressed here. Diagnostic forms included a variety of medium jar and bowl forms, as well as several rims for large storage vessels. Rims, handles, and bases are relatively few in comparison to body sherds, implying large vessels.

Technologically, all the pottery was handmade. In many cases mat impressions were found on the underside of the bases. Most bases were heavily abraded, presumably from long use on hard surfaces. The thick walls of the vessels and their even thicker bases (up to 30mm.) were tempered with generally coarse or very coarse rock fragments. The inclusions are primarily igneous or calcareous particles with a fair representation of white or pinkish quartz. Although no carbonized organic tempers were found, the pitted surfaces of many sherds might suggest the loss of organic inclusions during the firing. Fabrics are often gray, suggesting low firing temperatures, and mottled surfaces indicate irregular firing. Surfaces are frequently wet smoothed and decorations are restricted to plastic features. They were applied to the vessel wall, but sometimes raised from it. Finger or bone impressed applied cordons are the dominant decorations.