

# ARCHAEOLOGICAL EXCAVATION AT RĀS AN-NAQAB - 'AQABA ROAD ALIGNMENT: PRELIMINARY REPORT (1995)

by

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## Introduction

The Ministry of Public Works and Housing (MPWH) is conducting the construction of a road between Ma'ān and 'Aqaba. The length of the projected road is 70 km, from the village of al-Kāsimiyyah south of Ma'ān to the city of 'Aqaba.

Following a series of agreements, the MPWH provided financial help to the Department of Antiquities of Jordan (DAJ)<sup>1</sup> in order to conduct excavations along the road alignment, and prepare a final report with the results of the excavations, so as to evaluate their protection. Parallel research was to find evidence of the human exploitation of Rās an-Naqab through time and to check the reported gap between the Middle Bronze and Late Bronze Age occupation.

The intensive survey preceded a construction project in the area. The principal aim was to clarify the occupational history of the region's settlements along the *via nova Traiana* during the Roman and Byzantine periods. Recent investigations revealed the presence of several sites dating back from prehistory until the Late Islamic era. Among the early explorers of the area are: Savignac 1932; Glueck 1935 and 1939; Alt 1936a; 1936b; Bowersock 1971; Parker 1976; Graf 1979 and 1983; Henry 1982; Jobling 1983; Hart and Falkner 1985; Oleson 1986; Nissen *et al.* 1987; Fiema 1992; Bisheh *et al.* 1993.

## Al-Kāsimiyyah

UTM coordinates 7400 33289 p.g. Co-

ordinates 196.9 941.9, stations 85+165 to 84+500.

A single Paleolithic site was found in the al-Kāsimiyyah plateau; lithic artifacts were initially discovered scattered all over the surface of the farms. A surface collection was made of the area, but a test excavation of one square was not able to clarify all questions concerning the area since the material recovered from the square was not enough and the area needs more investigations.

The collection in approximately 5,000 sq.m resulted in the recovery of tool assemblages containing bifacial blades, scrapers, blades, core flakes and Acheulean bifacial handaxes. Depending on this material the site can be dated, broadly speaking, from Lower Paleolithic to Middle Paleolithic.

## Khirbat al-Ḥiyād

UTM coordinates 7394 33270/P.g. coordinates 196.3 940.1, station 83+000+0 83+070.

The main goals of the excavation at the site were:

- Studying various types of structures and installations (i.e. houses, walls, gates, water system etc).
- Dating buildings in order to sort out the various periods of inhabitation.
- Because of the extensive number of Byzantine sherds that were found in 1992, our particular goal in the 1995 season was to find the Byzantine village. Excavations included further work to the east of the

<sup>1</sup> The procedure is becoming a standard for all major construction projects financed directly by or through the MPWH, and allows the Department of Antiquities (DAJ) to conduct archaeological investigations and to protect important cultural her-

itage sites from destruction. This procedure is part of a more complex cooperation agreement which has been signed in 1994 by the MPWH and the DAJ through the mediation of the Cultural Resources Management Project.

present road where minor deposits are still visible.

The site consists of large ruins, with archaeological remains, found on both sides of the existing road, while the main site is to the west of road. The dimension of the site is approximately 120m north-south and 100m east-west.

Excavations conducted in the eastern part of the site reveals the presence of remains representing parts of collapsed rooms and courtyards, the archaeological deposit is not deeper than 30-50cm in this part. Excavations in the western part was conducted in Areas B and D (Fig.1).

#### *Area B squares C2-C4*

Excavations in this section uncovered three rooms built of not well-dressed stones, a gate was located in the northern wall which was used as an access to several rooms. The general shape of the rooms is square approximately 3 x 3m, and 4.80 x 4.50m.

The roof consisted of cross vaults, remains of the spring blocks still adhere to the internal walls. Stone paving and hard compact lime were used to cover the floors of the rooms but little of these stone pavements remained *in situ*.

#### *Area D squares C2-C3*

Three square-shaped rooms were discovered in square C2, approximately



1. The northern parts of al-Ḥiyād.

490 x 350m with, a corridor connecting these rooms.

The internal walls were covered by a layer of plaster. The roof also consisted of cross vaults, while the floor was covered with flagstones with traces of lime still visible on the surface covering the stone paving.

A small basin built of stones was recovered in the south-western corner of room 3; the inner sides of the walls were covered by a smooth layer of plaster. What distinguishes this room is the oven in the north-eastern corner with its chimney. Both the oven and the basin explain the daily activities in this room, which possibly served as a kitchen.

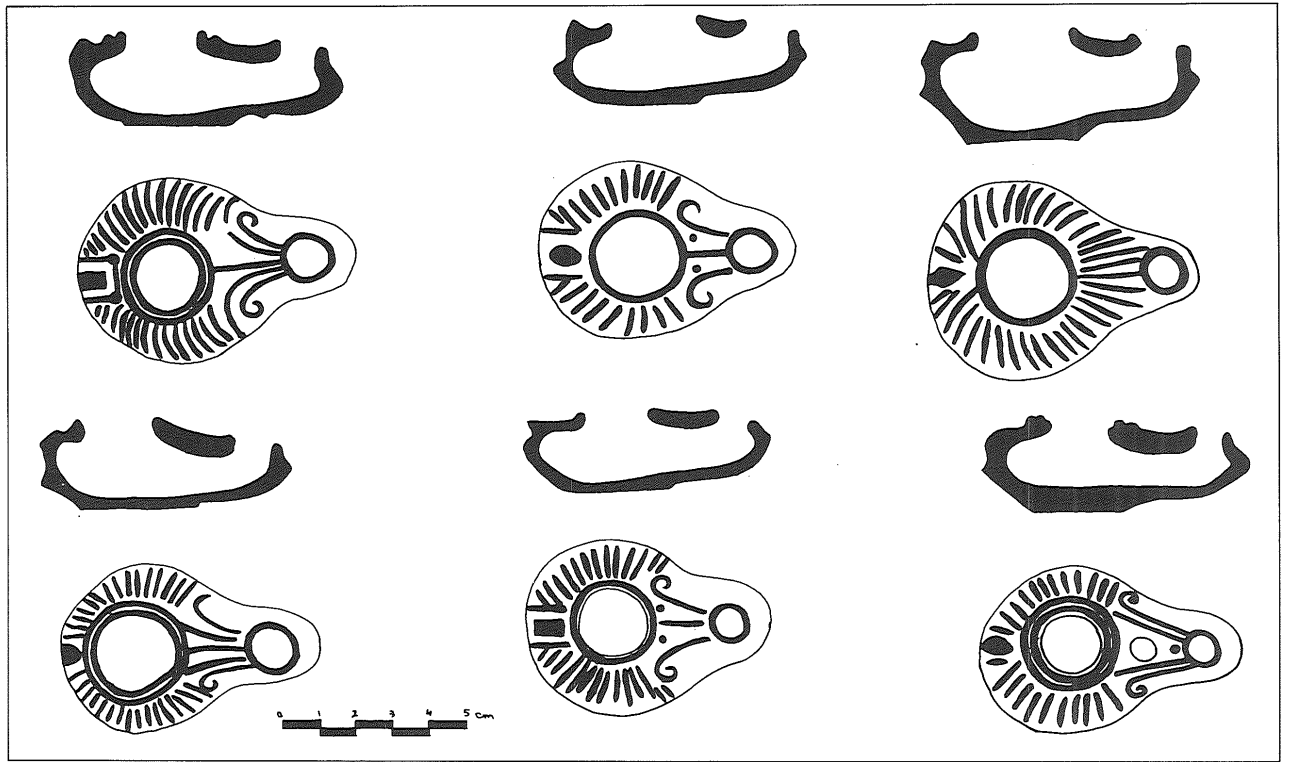
Among the several finds discovered during this season, roof tiles were common. Hundreds of pottery sherds, and several intact lamps were found, all dating to the Byzantine period. Depending on two coins the site could be dated to the period of Constantius II 337-361 AD and to Valentinus II 375-392 AD. Both coins show that the site could be dated at the earliest to the fourth century AD (Figs.2 and 3).

In addition, the recovered material during this season included grinders, crushing tools, and other objects related to agricultural purposes. The western part of the site revealed the existence of a spring, numerous garden plots, reservoirs, terraces and possibly a dam. All are indicative of extensive Byzantine agricultural activity.

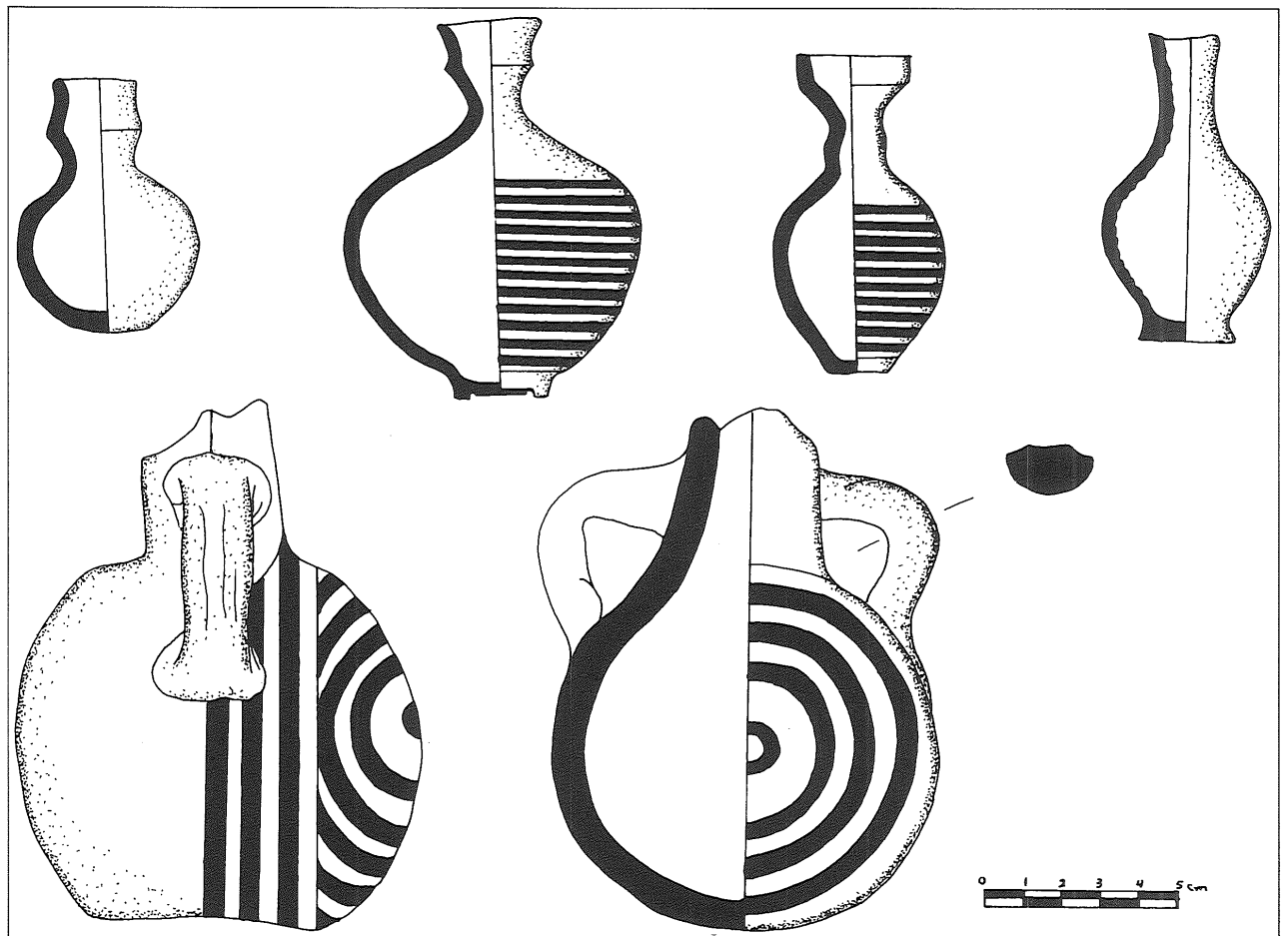
#### **‘Ayn al-Jammām1 (Fig.4)**

UTM coordinates 7376 33240/p.g. coordinations 194.4 937.1, stations 78+750 to 78+825.

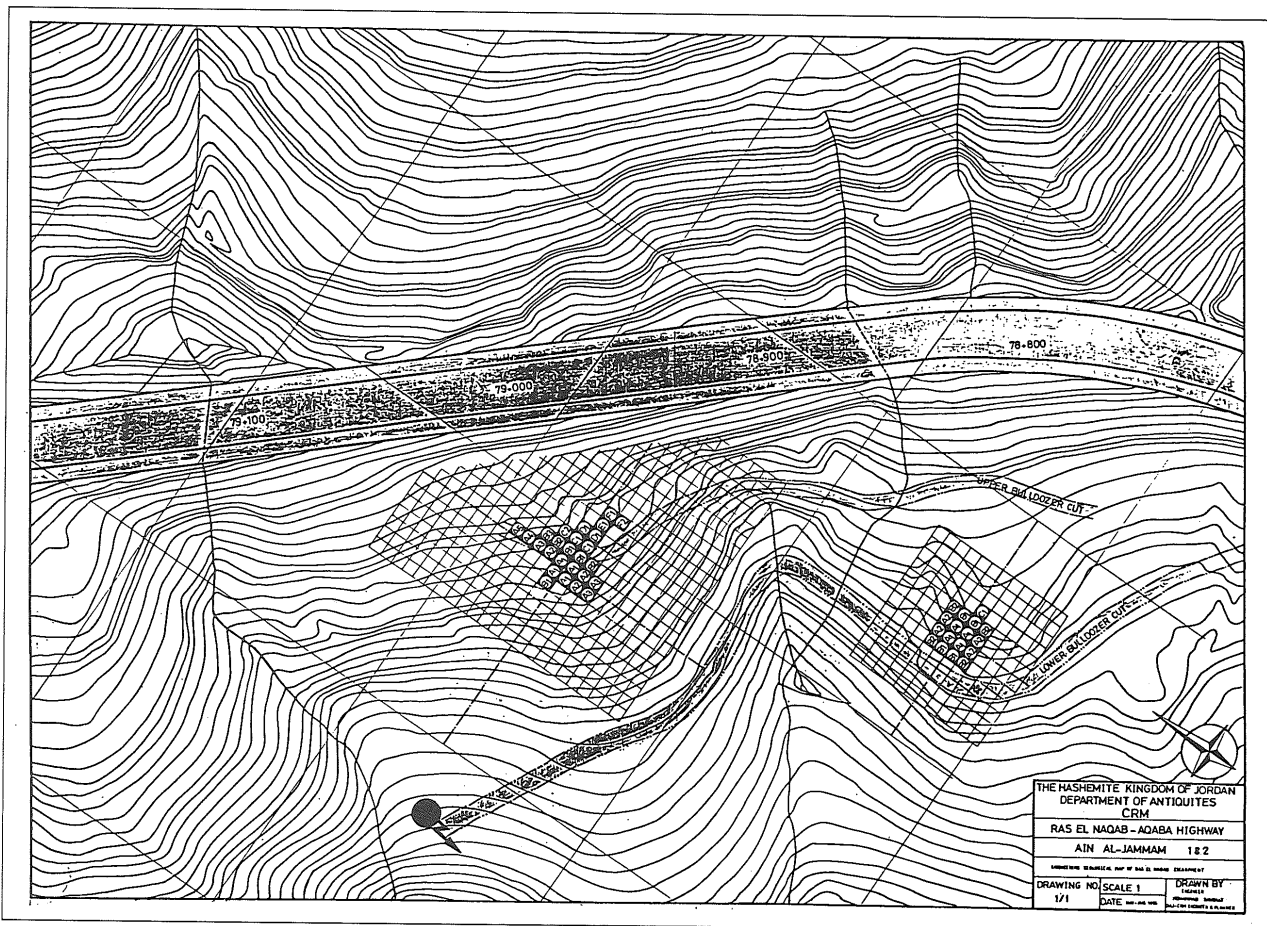
The first Season of excavation has been conducted at Neolithic ‘Ayn al-Jammām, a semi-permanent farming settlement on the slopes below the present road at the edge of the Rās an-Naqab escarpment in southern Jordan. The excavation has produced important information concerning a dis-



2. Byzantine lamps from al-Ḥiyād.



3. Byzantine pottery vessels from al-Ḥiyād.



4. 'Ayn al-Jammām 1 and 2, areas of excavation.

tinguished period of cultural development in the Near East. The site was initially discovered during the survey of Rās an-Naqab-‘Aqaba, conducted by the CRM project.

The site has severely suffered from destruction by considerable bulldozing, dumping of debris and agricultural activities. Most of our work has been oriented towards the immediate rescue of the endangered portion of the site and to document the extent and nature of the site, examining the periods of occupation and the study of technological changes.

The preliminary assessment of the architecture and material discovered in the field suggests a continuation from Late PPNB up to Late PNA.

The early builders on 'Ayn al-Jammām took advantage of the fact that the local limestone flaked off in layers of nearly equal thickness, thus providing easy building ma-

terial from the upper hills which surrounded the northern parts of the site. The rectangular and squared dressed stones were laid in mud and the joints in most cases were quoined with small flat stones.

Several constructions stand out as characteristic for the Late PPNB period at 'Ayn al-Jammām. But because of limited and restricted excavations of this phase the assessment is greatly limited of Late PPNB architectural designs and techniques which were practised on the site. Among remains of this phase was a squared room, located at the southern edge of the excavation, with its doorway at the south-east wall measuring ca 4.5m x 5m and a small opening at the northern wall which served as a window. Walls of this structure stood more than 2m high and part of the plaster floor in the northeastern part was well preserved. It was covered with a thick smear of red pigment while the lime

plaster in Area A square A2 continued from the floor up along the wall. No indication or evidence of a hearth was found above this floor (Fig.5).

None of the excavated rooms provided any evidence of post-holes, this structural aspect would have been unnecessary considering the presence of pillars (Fig.6).

Evidence of changes and alteration was numerous like the insertion of walls, blocking doors and windows or the addition of a floor within the same structure. Despite all evidence available now, it is too early to decide whether there is no broken transition from the aceramic to the ceramic Neolithic period at 'Ayn al-Jammān.

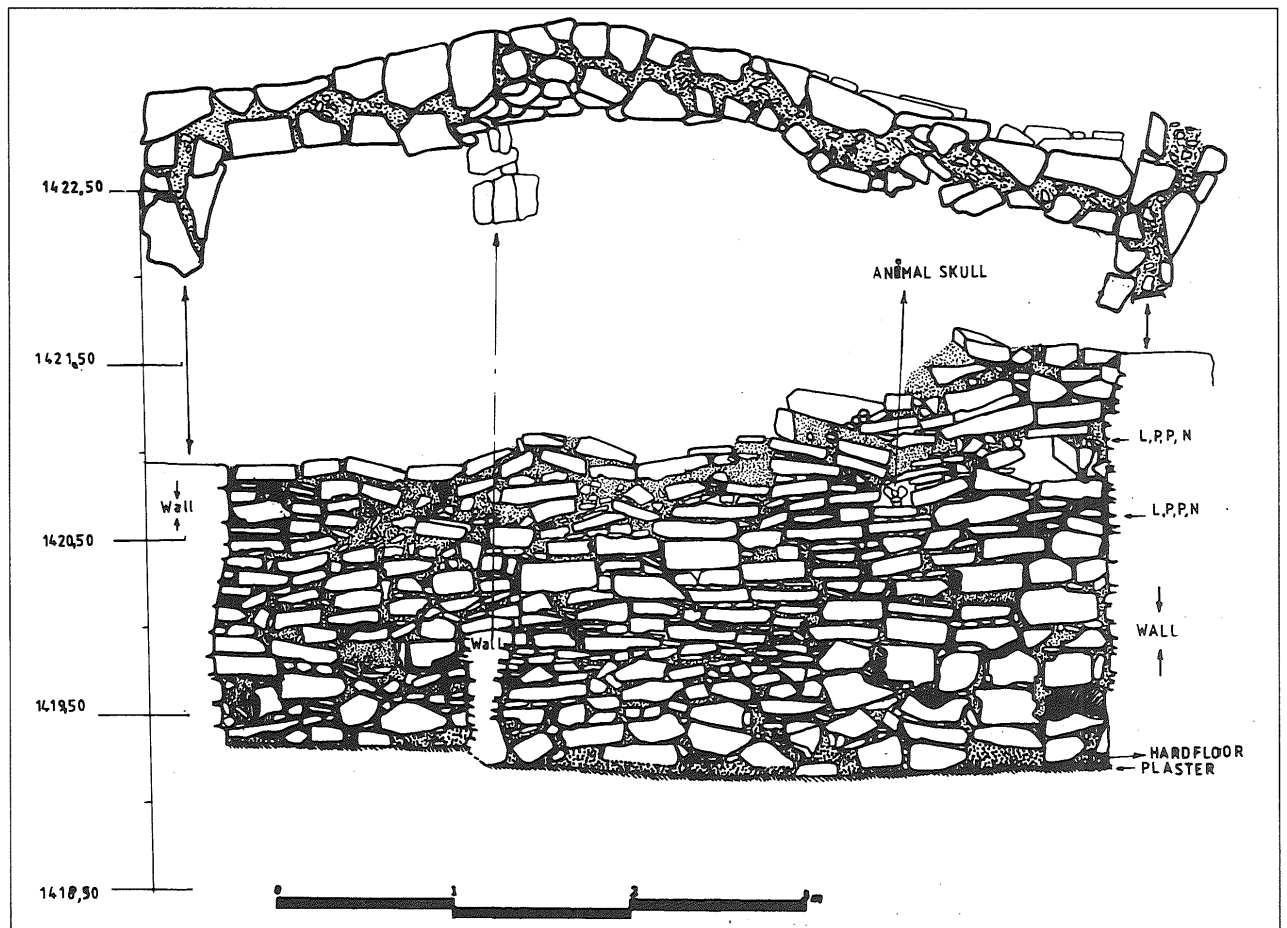
Few changes were noticed from the preceding Late PPNB to PPNC which leads to questions concerning the nature of the occupation at 'Ayn al-Jammān in the first half of the sixth millennium.

Work at the site included sampling Late PNA deposits over a much broader area. The apsidal/oval building in Area D square A2, Area B squares A2 and B2 is unique in its shape both for the Neolithic in general and for the rest of the Late PNA structures at 'Ayn al-Jammān.

Apparently most of the excavated Late PNA architecture rests on an ashy dark



6. Part of the excavated area at 'Ayn al-Jammān 1.



5. Section of northern wall of LPPN period.

layer as was noticed in the excavated areas. Since the situation of the slope and the possible manner of accumulation have been detailed above, we suggest that the late settlement lay on top of the hill.

It is clear that the construction was determined by the geographical slopy nature of the site, which explains the existence of a staircase which was discovered in Area B square D1 that links two floors at different heights.

What distinguished the architecture and was considered the most interesting feature are the free-standing pillars in the centre of the room, or attached to the inner walls of the large rooms. Both types were used at this site.

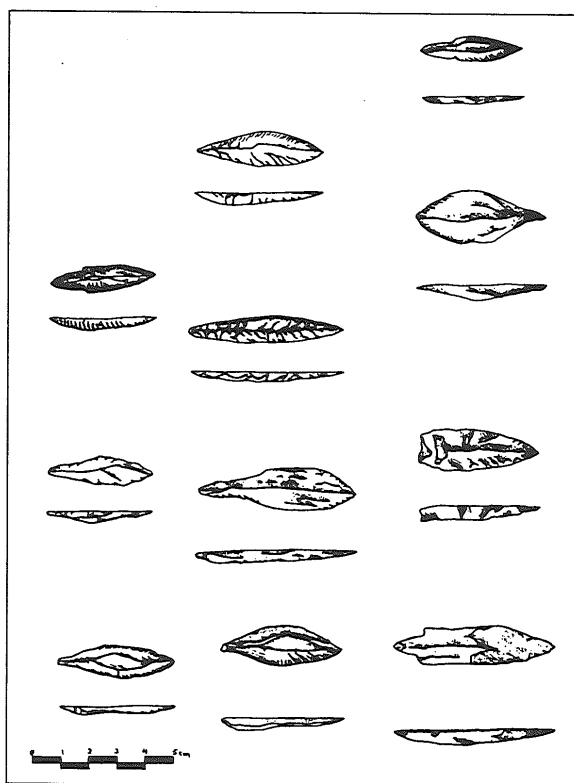
Excavation has produced an enormous amount of chipped stone tools and debitage, among them arrowheads, blades, awls, scrapers, chisels and burins. In addition to that, a large quantity of grinding stones was discovered at the site, reflecting the strong reliance on plant resources. Among these artifacts were saddle-shaped milling handstones with plano-convex, spherical flint hammerstones (Fig.7).

Human bones mixed with animal bones and bone tools were among the discoveries. Pottery sherds were found. Some of them bear the typical banded herringbone incision. Fragments of shell and sandstone rings, representing a kind of jewellery, have exact counterparts at the contemporary site of al-Baṣṭa. The building technique was nearly identical at both sites. A more detailed study of objects will reveal the importance of relations between the prehistoric sites of southern Jordan.

### **Khirbat 'Ayn al-Jammām 2**

UTM Coordinates 7378 33239/P.0. Coordinates 194.6 937.0, stations 78+650 to 78+700.

A medium site, it is located close to the 'Ayn al-Jammām spring and just a few metres to the east of the main site 'Ayn al-



7. Arrow heads from 'Ayn al-Jammām 1.

Jammām 1. It was built in an excellent position overlooking the al-Ḥumayma plateau. The site was affected by several factors which resulted in the destruction of parts of the walls. The excavations revealed a structure built of undressed limestone consisting of two parts as follows:

#### *The Southern Part*

A unit of three rooms, representing the first phase of construction at the site, was excavated. A large rectangular-shaped room was located in the south-east part of the structure, with the entrance built in the middle of the eastern wall. The other two square-shaped rooms were located at the north-west part of the structure.

#### *The Northern Part*

Two large rectangular rooms were discovered in this part representing the second phase of construction. A doorway was situated in the middle of the northern wall. Arches were used to support the roof of the whole structure. Remains of the spring-

stones still adhere to the walls. The floors of the rooms consisted of hard compact mud, and later several different stone-lined enclosures were built on the floors with some basalt grinding stones, indicating agricultural daily activities at the site. One lamp, three small bronze arrowheads and a considerable quantity of pottery sherds were recovered at the site dating the structure to the Late Roman-Early Byzantine period.

### **Khirbat Abū an-Nusūr**

UTM coordinates 7386 33226, P.g. coordinates 195.4 935.7, stations 77+575 to 77+650.

The site is characterized by a large number of building remains belonging to a large settlement, located on a flat area overlooking the al-Ḥumayma region. Among these remains are:

#### *The Tower*

A square-shaped structure of 4 x 4.2m was discovered in the western part of the site. It was built of well-dressed limestone blocks. The structure possibly served as a watch-tower overlooking the al-Ḥumayma plateau.

#### *The Southern Buildings*

Due to modern construction in this part which threatens the whole site the team decided to excavate this part to get information about the history of the area. Four rooms were partly excavated. They were built of dressed limestone blocks cut from a nearby quarry north of the site. Arches supported the roof of the rooms. Our preliminary assessment and investigations of the construction techniques and the study of several pottery sherds, which were discovered through the excavation, suggest a Byzantine date for the site.

#### *The Terraces*

To the north of the main site, approximately 50m away on a very steep rocky hill,

several stone terraces were noticed along a drainage line. Test soundings were made to clarify the date and function of these terraces. The system used in building these terraces showed that the function was to collect run off water by using stone walls. They could direct water to the main site for domestic use. Some scattered sherds around the terraces indicate the Byzantine period.

### **Dabbat Ḥānūt (1)**

UTM coordinates 33174 7368 p.g. coordinates 9305 1035.

The site is located 1 km to the south of a modern village called Dabbat Ḥānūt. The site is situated on a medium sandy hill near the western edge of the old road. The main goal of the excavation was to rescue the site from threats of nearby quarries. Excavations in areas A/B/C/D revealed a rectangular building unit built of well-dressed ashlar north-south 23.60m east-west 9.35m.

The unit consists of rectangular rooms nos. 3 and 4 and square shaped rooms nos. 1 and 2. A doorway was discovered in the eastern wall of room no. 1, while room no. 4 was accessible through the doorway which is located in the north-eastern wall. What distinguishes room no. 1 is the arch used for supporting the roof, while there are no traces of an arch in the other rooms of the building. Flagstones were used as pavement for the floors of the structure (Fig.8).



8. Dabbat Ḥānūt (1), building unit in areas A-D.

Several pottery sherds and one lamp were recovered. A medium-sized stone basin and a square stone block with chisel marks on its surface were among the architectural remains. The structure could be broadly dated to the Nabataean period. Excavations have to be continued in the eastern parts of the building to identify its function.

#### **Dabbat Sumay'ah**

UTM coordinate 33160 2351 p.g. coordinates 9291 1918.

To the west of the main road on a small sand hill, a small building was recovered, a square-shaped structure of 450 x 500m built of limestone blocks. The eastern part of the structure was affected by erosion. Traces of support arches were discovered while the doorway was located from the eastern wall. The preliminary assessment of the material recovered from the site revealed that it functioned as a watch-tower to protect the agricultural fields in the al-Ḥumayma plains. Depending on quantities of pottery sherds, the site was dated to the Nabataean era.

#### **Rujum al-Mizfar**

UTM coordinates 32762 7106 p.g. coordinated 889.8 1665.

On a high spur of a rosy sandstone hill, a small structure in bad condition was located. Systematic excavations at the site revealed a square-shaped structure of 650 x 550m built of undressed lime- and sandstone. The wall thickness is 100m. In the internal north-western corner of the structure a stair case leading to the upper level was established. Three steps of this staircase were still *in situ*.

The inner and outer walls of the building were covered by white lime to prevent any water seepage. No indications were found to clarify how the roof was supported, since most of the stones had collapsed and no springstones were found in the building.

The site which could have served as a watch-tower, provided an excellent vantage point of traffic moving along the *via Nova*

*Trajana* (Fig.9).

Only few sherds of the Byzantine period were recovered at the site; the structure could be dated broadly to the Late Roman-Early Byzantine period.

#### **Khirbat al-Khāldi**

UTM coordinates 32830 7160 p.g. coordinates 896.5 172.0.

Due to its importance depending on early descriptions (Savignac 1932:596; Glueck 1939; Bowerstock 1971; Parker 1976; Jobling 1983; Graf 1983; Bisheh *et al.* 1993) a deep sounding was dug at the site which partly revealed the presence of a bath, aqueducts, and pool. Depending on the recovered material, the remains of the bath date to the Nabataean period, while two coins of Constantinus 307-337 AD and Constantinus II, 337-361 AD were discovered on the surface of the site during the survey.

#### **The Survey**

The aim of the survey in the area of Rās an-Naqab, beside the recording of all archaeological features, is to study rural adaptations during different time periods, and to understand the economic and political factors which may have influenced the selection of settlement areas.

The most important results of this survey season are as follows:

- The discovery of new sites, especially Nabataean sites, near Dabbat Ḥānūt vil-



9. Rujum al-Mizfar, 'watch-tower'.



lage, where no such early sites were known before.

- The identification of epigraphical sites where numerous stones with inscriptions and drawings were checked for the first time at Rās an-Naqab and near 'Aqaba.
- The location and study of water terraces near the site of Abu-an-Nusūr. Further study will help to better date this "terrace sequence" throughout the area.

The comprehensive survey should be continued during the coming seasons.

### Discussion

The excavations at several sites have brought to light new buildings of different dates and functions at Rās an-Naqab down to the Wādī al-Yutum-'Aqaba area.

The discovery of several phases of occupational history can be summarized as follows: 1) Lower and Middle Paleolithic, 2) Pre-Pottery and Pottery Neolithic. 3) Nabataean, 4) Roman, and 5) Byzantine.

One important factor clearly revealed by these excavations is that the area of Rās an-Naqab was well settled after the second century AD. Numerous springs still feeding the area, the fertility of the land and favourable environment are the main reasons for the settlement in the area. Possibly the great difference in altitude of the surrounding plateau make it easier to defend the area against external threats. The majority of the pottery found at excavations and surveys belongs to the period after the third century AD. This period seems to have been one of great prosperity and the countryside was covered with farms and villages. Later material is much scarcer, whether this decline can be tied to the Muslim take-over of AD 636 (Fiema 1992:325) or whether other factors played a part still needs investigation. While the role of the political factors must be taken into consideration, especially after the fall of the Assyrian empire, the Babylonians and Persians would have held Rās an-Naqab for a period of time. Evidence brought to light

through our excavated sites has shown no continuation after the Byzantine occupation.

The cause of a general destruction in the area can possibly be attributed to the invasion of the Persians around 614 AD. The historical studies and archaeological investigations require much more application before any firm conclusions can be made.

### Conservation

Particular emphasis was given to conservation work at al-Ḥiyād, al-Jammām 1 and 2 during the 1995 excavation season. The first job was to repair the damage done by erosion and earthquakes. Some stone blocks were rebuilt including cementing the frames of other stones. Some of the arches were joined back together so as to reset them in their original positions.

### Acknowledgments

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### The Staff

The excavation team consisted of archaeologists Ahmad 'Ajaj, Nazim Hazaymeh, Mohammad Jaradat, Yazid Elayan, Zuhair Zubi Adnan Rafaya, Ahmad Shami, Jihad Haroun, Khalid Tarawneh, Yunus Tarawneh, Shafi Tawalbeh Ahmad Tawahia, Aktham Abbadi, Nazzeh Vino; Engineers Mohammad Shweimat, Rustum Makjyan, Zeid Haddadin; draftsman Ali Dajeh; photographer Qutaybah Dasuqi; Salme Dajeh Abdul Sami Abu-Dayyeh, project liaison officer with MPWH; Mohammed Waheeb directed the fieldwork.

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