

THE SECOND SEASON OF EXCAVATIONS AT UDHRUḤ PRELIMINARY REPORT

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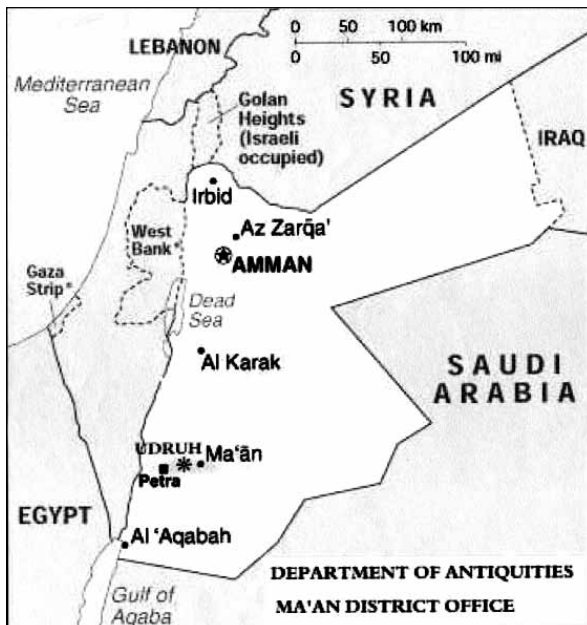
Site Location

UdhruḤ lies about 15km east of Petra and approximately 25km north-west of Ma'ān (Fig. 1). The ruins of the fortress can be seen on the edge of the modern road between UdhruḤ and Ma'ān. Topographically, the site is located on a gentle slope at the top of Wādī UdhruḤ and is almost encircled by a series of hills: Tall Juraydah to the north-east, Tall UdhruḤ (Dubays) to the east, Tall Abara (Abu Ar'a) to the south-west and two further hills to the south and south-east respectively.

The 2009 Excavations at UdhruḤ

Since 2005 the Department of Antiquities, represented by the Ma'ān Office, has been carrying out work at UdhruḤ. This has included restoration of some walls and clearance of the

dump and associated rubble outside the curtain wall of the Roman fortress. In 2008, al-Hussein Bin Talal University and the Department of Antiquities agreed to conduct a joint project of excavations at UdhruḤ. The main purpose of the project was to train archaeology students at al-Hussein Bin Talal University in excavation techniques. However, it was also anticipated that the excavations would yield important information regarding the site's history. A second season of fieldwork was conducted in 2009. The team consisted of seventeen students and two archaeologists from the Department of Archaeology at al-Hussein Bin Talal University and eight workers, employed by the Department of Antiquities, and two archaeologists, Hani Falahat and Amer Bedour, from the Ma'ān Office. The excavation lasted for six weeks between 1 July and 16 August 2009.



1. Location of UdhruḤ within Jordan.

Location of the 2009 Excavations (Fig. 2)

At the beginning of the season an area, designated Area 2, was chosen for excavation. Towards the end of the project, the team decided to excavate the interval tower adjacent to Area 2 as an open area. The area of excavation was located within the fortress on its eastern side, along and very close to the curtain wall. Five squares, each 4 x 4m, were laid out. To the east, the baulk line was located almost in the middle of the thick curtain wall; at least 1m of the curtain wall was therefore included within the squares. The excavation area was both relatively free of stones and debris, and relatively flat. There was also space for a spoil heap outside the site, yet very close to the excavated area.

The Archaeological Finds

By the end of the project, the five squares and



2. Oblique aerial photograph of the excavation area, taken by D. Kennedy in 2009 (Ref. APAAME_20090930_DLK-0299).

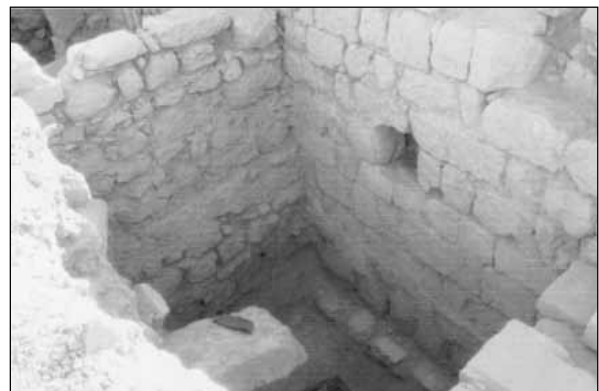
one open area had been excavated. The archaeological finds can be summarised as follows:

Architecture

Architectural elements were recorded in the five squares as well as in the open area. It had been anticipated that the excavations would reveal architectural features, as the five squares were situated along the curtain wall of the fortress and the open area was within a U-shaped interval tower. Each trench also included part of the curtain wall, which has a width of approximately 3m. Considerable parts of the perimeter wall were visible on the surface, especially its external side. At the end of the season, the entire inner side of the curtain wall of the fortress was exposed within the five squares. It is consistent in terms of height, stonework and alignment across all squares but, unlike the external side which is built of large limestone blocks clearly brought from the quarry at Udhruh, the inner side

of the wall is constructed largely of medium and small limestone blocks most likely taken from the pre-Roman structures at Udhruh. The style of masonry and size of the stones is quite different. In some places there is good evidence to suggest that the wall had seen some restoration and reconstruction in later periods. These works are quite clear, especially where there are walls built against the Roman wall. However, there is no evidence to suggest that there were two phases of construction for the wall during the Roman period. The wall's masonry is consistent from top to bottom, except in some — typically lower — courses where black stones were used. The presence of these stones is unsurprising given that there is a quarry for them just outside the southern side of the fortress. Stones of the same type and colour were also used in the lower courses of the southern wall of the fortress, including the interval towers. The lowest course in the wall is part of the foundations; it is supported on stones sunk into the ground (Fig. 3), which extend along the wall. This method of construction is attested to in each trench of Area 2, as well as the 2008 trenches of Area 1.

The joints between the stones appear to have been originally coated with plaster, but this is not well preserved along the entire wall. Having cleared the topsoil, a few stone alignments started to appear in Squares 03, 04 and 05. These turned out to be shallow and were probably the remains of animal corrals built against the curtain wall in the 18th or the 19th centuries. Some alignments were even located above the uppermost preserved course of the curtain wall of the fortress. The progress of work revealed proper walls, fairly well preserved, which about the pe-



3. The walls and foundation stones in Area 2, Square 05.

rimeter wall and extend westward. They were documented in Squares 01, 02, 03, 04 and 05, but vary in stonework, height, width and function. At the same time, it can be recognised that some of these walls belong to the same period and have a specific function. For example, the two walls in Squares 03 and 04 are parallel and have what seem to be arch springs. The space between the two walls is about 9m. These and the other walls also seem to have undergone some restoration and reconstruction. The function of these walls can be quite confusing, as in Square 05 where three walls within the square abut the curtain wall, but the one in the middle does not run all the way through the west baulk. It just projects for *ca.* 1.5metres from the Roman wall. In Square 03, a stairway was discovered in the north-east corner and is still intact. It clearly leads through a doorway to the upper floor of the interval tower excavated in the open area, giving access to the walkway along the top of the curtain wall between the towers. In a later, post-Roman, period, the door was blocked by a two row wall preserved to a height of almost 2m (**Fig. 4**).

A significant architectural feature documented in both Squares 03 and 04 is a standing stone on a base. In both instances, the standing stone and base are large, dressed limestone elements; the fact that they have almost the same elevation suggests that they may date to the same period. The function of these features cannot be determined at this stage. Additional work to the west is expected to uncover more information. A more interesting architectural element was uncovered in the east baulk, between Squares 01 and 02. It is a small gateway that gives access to the lower floor of the interval tower (**Fig. 5**). The gateway is constructed of very large blocks. It is relatively narrow, to the extent that only one person can go through. The overall impression is that this entrance is contemporary with the perimeter wall of the fortress; there is no good evidence to suggest that it was a later addition to the structure.

Significantly, the area within Square 02, which is accessed by the doorway is paved with rectangular slabs. Right in the north-west corner of the same square and contiguous to the paved floor, a twelve metre deep hole was discovered. The shaft opening was covered with a large



4. Roman staircase in Square 03, blocked by a later wall.



5. Doorway of the interval tower in Square 02.

stone, under which is an arrangement of stones bedded into the ground to form an entrance or 'mouth'. The function of this hole is puzzling and, at this stage, it can be suggested — amongst other hypotheses — that it was part of a drainage system, or perhaps simply a cistern to collect rainwater. The architectural features in the open area around the interval tower are indeed remarkable. The tower's original architecture

consists of a U-shaped projecting tower built against the curtain wall. Its wall has two rows filled in with rubble; both the internal and external rows are constructed of limestone ashlars. Like other interval towers at the site, it had a vaulted roof and there is a possibility it consisted of two floors. In a later period, this interval tower was clearly re-used for industrial purposes. It was divided into two parts, separated by a two row wall. The first part, between the doorway of the tower and the later wall, was used as a lime kiln. The kiln itself was constructed of small stones fixed with mortar, and was almost circular and approximately three metres deep. Immediately below the topsoil was a soft, white layer of lime, which continued down to a considerable depth, almost to the bottom of the kiln. Underneath the lime layer was a layer of ash and charcoal. Towards the bottom of the kiln, the circular wall narrowed; in other words, the diameter at the base is far less than that of the top. The second part of the tower appears to have been used to produce charcoal for the kiln, high temperatures being required for lime production. Excavation in that part of the room exposed a wide layer of ash. The charcoal seems to have been shovelled into the kiln through a small aperture located in the centre of the partition wall (**Fig. 6**).

Pottery and Glass

The quantity of pottery recovered this season is far less than that recovered in 2008. However, the quality and typologies represented are quite different. A preliminary reading was indicative



6. Partition wall in the centre of the interval tower, in the open excavation area. The lime kiln is behind the wall; the aperture in the centre was used to feed the kiln with charcoal.

of the Roman, Byzantine and early Islamic periods. Late Islamic pottery sherds, especially of the Ayyubid - Mamluk period, were also found, especially in Square 01 which is contiguous with Area 1 where the late Islamic period is predominant. Among the significant finds of pottery are four lamps, three of which are in a relatively good state of preservation. Other complete objects were not found, but the restoration of broken pieces produced a number of semi-complete objects. Generally speaking, throughout the excavated squares, small pieces of glass were found in association with pottery, particularly on floors.

Coins

One coin fragment was found in Square 05. It is worn and the depicted figures and symbols can be hardly seen; it would be probably better after cleaning. The provisional reading of this coin in the field suggests that it may be Byzantine and depict the letter M. In the same square, a considerable quantity of marble tiles and slabs were discovered; one of them bears the Greek letter M. Therefore, there is a possibility that the marble stones were brought from the church outside the fortress, near the south-west corner tower.

Personal Objects

A number of personal objects were found in some squares. These include rings, bracelet fragment and some beads.

Other Finds

Among the archaeological finds from Udhruh is a heavy cornet quern made of basalt, mostly complete except for a missing part near the handle on one side. This quern was discovered in Square 02 right above the pavement and very close to the reported hole. Its diameter at the mouth is *ca.* 0.5m and at the bottom *ca.* 0.2m; its base is open. Metal nails, similar to the ones discovered in the 2008 season, were found in some trenches; their length does not exceed 10cm.

Conclusion

The 2009 finds have proved useful in helping us to understand the history of the site, especially in the post-Roman periods. Significant new information was recovered. In the Area 2 exca-

vations, there is more evidence from the Roman, Byzantine and — probably — early Islamic periods, and less from the late Islamic period. Substantial parts of the curtain wall of the fortress were exposed. The same wall was renovated in later periods, when new buildings were constructed against it. It is also clear that these new units were for domestic use; their walls were associated with stratified floors and hearths. It has also become apparent that the stonework on the two faces of the curtain wall is not the same; large blocks are used on the external side, while smaller blocks are used on the internal. Excava-

tion in the open area, around the interval tower, revealed new information regarding the history of the towers and the longer-term use of the site. This particular tower was converted into a lime kiln. Our overall conclusion is that the post-Roman period inhabitants of Udhrūḥ dealt positively with the remains of the fortress, its curtain wall and towers. They used the space without destruction and for this reason the core of the fortress are reasonably well preserved. More activities and changes are expected to have taken place within its walls.

