

# THE 2008 EXCAVATIONS AT UDHRUḤ: INTRODUCTION AND PRELIMINARY REPORT

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## Site location

Udhrūḥ 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 Udhrūḥ and Ma'ān. Topographically, the site is located on a gentle slope at the top of Wādī Udhrūḥ and is almost encircled by a series of hills: Tall Juraydah to the north-east, Tall Udhrūḥ (Dubays) to the east, Tall 'Abara (Abu Ar'a) to the south-west and two further hills to the south and south-east respectively.

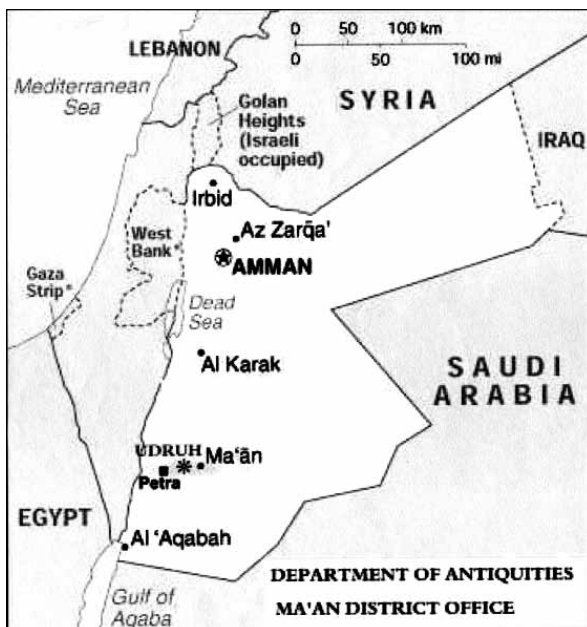
## Water Supply

Water was abundant at Udhrūḥ, in the form of a single spring that contributed to the site's prosperity and attracted human settlement throughout time. At present, the spring is dry

and none of its ancient installations are visible on the ground. Only a modern water source and distribution features exist there. The spring of Udhrūḥ was mentioned and described by many explorers as early as the 1820s (Burckhardt 1822: 444). The importance of 'Ayn Udhrūḥ lies not only in its flow and quality, but also in its location very close to — if not within the walls of — a Roman legionary fortress. Doughty (reported in Brünnow and Domaszewski 1904: 462) wrote: "...after fifteen miles is a principal ruined site Utherah; the ancient town built at a strong spring, welling forth in a great water brook". A useful description by a traveller named Wallin is quoted by Brünnow and Domaszewski (1904: 462): "After a march of 5 hours in a NNW direction (from el-Ma'an), we arrived at a spring called Udhruh, whose clear and abundant water is collected in a large pond at the foot of an elevated hill". Hill, again quoted by Brünnow and Domaszewski (1904: 462) confirmed this, saying: "...below this Khan is a stream of clear water issuing from the hillside and falling into a pool a little lower down at the bottom of the valley".

Wallin and Hill both confirm the presence of a large reservoir below the spring of Udhrūḥ. Wallin's observations are the more accurate, locating the reservoir "at the foot of an elevated hill" (Brünnow and Domaszewski 1904: 462). This description could refer to one of two hills, Tall Udhrūḥ or Tall Juraydah, with the former being the most likely candidate. Tall Udhrūḥ lies approximately five hundred metres to the east of the spring (Parker 1986: 95).

The presence of a spring was probably the major factor in selecting a site for the fortress. Gregory (1995: 384 and 387) believes that the spring was probably within its walls. Close to



1. Location of Udhrūḥ within Jordan.

where the spring used to rise, in front of the presumed Ottoman fort and within the fortress walls, a circular, walled cistern was found. It has recently been renovated by the Petra Antiquities Office.

### Previous Research

Despite the fact that Udhrūḥ was probably a flourishing site from the beginning of the first millennium AD onwards, it is the ruin of the Roman fortress that first draws the visitor's attention. Apart from the Byzantine church and the traditional houses along the eastern side of the fortress, the archaeological remains are located within the perimeter wall of the Roman fortress. The state of preservation and monumentality of the fortress, as well as its evident importance, have led some explorers and scholars to focus on this structure. Valuable data concerning the plan and architecture of the fortress were published by Brünnow and Domaszewski (1904: 433-463) in their *Provincia Arabia*. These German scholars visited Udhrūḥ at the end of 1890s, and their three-volume book contains important information about Udhrūḥ quoted from historical sources and notes documented by other travellers, as well as their own work. The site was also mentioned and described by other explorers (e.g. Burckhardt 1822: 444; Doughty 1923: 35-37; Glueck 1935: 76-77). The first large scale and systematic archaeological project at Udhrūḥ was initiated in the 1980s by Alistair Killick of the British Institute at Amman for Archaeology and History. His work, conducted over five seasons, included excavations at Udhrūḥ — both within the fortress and at Tall Udhrūḥ — and surveys of adjacent areas (Killick 1987, 1987b: 173, 1986: 431-432 and 1983: 231-244). Unfortunately, final publication of this comprehensive body of work has not yet been completed. All that has been published are a few journal papers and a tourist handbook (Killick 1987b). Thomas Parker (1986) visited and surveyed the site in 1979 as part of his "Arabian Frontiers" project. S. Gregory (1995) visited the site and described it in her three-volume book "Roman Military Architecture on the Eastern Frontier". The history and archaeology of Udhrūḥ have also been considered by Robert Schick (1994) in a paper discussing settlement patterns in southern

Jordan during the Byzantine and early Islamic periods. More recently, in 2003, the Udhrūḥ region was surveyed and studied by Abu Danah (Abu Danah 2004 and 2006). In 2000 the Ma'ān Antiquities Office conducted an excavation within the Byzantine church.

### The Accidental Discovery of 2005

At the end of 2005, during the process of clearing heavy stone blocks from the area outside the western gate of the fortress, an eight-line Latin inscription was accidentally discovered. It provides valuable information concerning the date of the fortress, the name of the legion based at Udhrūḥ, and the names of the Roman officials in charge of the region and fortress (Kennedy and Falahat 2008). This inscription should resolve the debate over the site's history and function, which started in the 1970s and has continued unabated since then. It clearly dates the fortress to the beginning of the fourth century AD and confirms that *Legion VI Ferrata* was based at the site (Kennedy and Falahat 2008).

### Key Monuments at Udhrūḥ

As mentioned above, the major archaeological feature at Udhrūḥ is the Roman fortress, but there are also other significant monuments. Outside the curtain wall of the fortress and *ca.* 20m south of the south-western corner tower, a Byzantine church was constructed to serve the community which seems to have lived within the fortress during the Byzantine period. An Ottoman fort was also constructed against the northern side of the Roman fortress. This fort has been partly reconstructed and restored by the Department of Antiquities. The area within the fortress is huge (about 36 *dunum*) and is occupied by massive ruins, the majority of which seem to be well-planned structures or settlement units. Among these features, there is a significant structure near the western gate of the fortress, partly excavated by Killick and identified by him as a *principia*. In the first half of twentieth century, the inhabitants of Udhrūḥ constructed a traditional village outside the fortress and along its eastern side. They utilised the wall of the Roman fortress for the rear walls of their rooms. The house or *diwān* of Shaykh Ḥamad Bin Jāzī is one of these houses. Construction material, especially stone, was taken from col-

lapsed structures at the site; large blocks from the Roman wall were also re-used to build the traditional houses.

### Historical Background

Udhrūḥ is mentioned in historical sources as early as the second century AD, but none of these references refers to Udhrūḥ as a military site. Ptolemy, writing in the second century AD, described it as a town in *Arabia Petraea* (Killick 1983: 110; Gregory 1995: 383). The site is more often attested to in Byzantine and Early Islamic sources. The Byzantine tax edict known as the “Beersheba Edict” lists Udhrūḥ among the towns of *Palestina Tertia*, as does Stephan of Byzantium (Killick 1983: 110; Parker 1986: 95; Mayerson 1986: 141-148). Udhrūḥ was also suspected to be the Augustopolis mentioned by George of Cyprus and Hierocles (reported by Killick 1983: 110; Parker 1986: 95). Recently recovered data from the Petra papyri support earlier suggestions linking Udhrūḥ with Augustopolis (Graf 2001: 229). Two bishops from Augustopolis are supposed to have attended church councils in the fifth and sixth centuries AD (Killick 1983: 110-111; Parker 1986: 95; Koenen 1996: 178; Fiema 2002a: 210). Udhrūḥ is often mentioned in Early Islamic sources, as the inhabitants of the town agreed to pay poll tax to the Prophet Muhammad in AD 630 (Killick 1983: 112; Fiema 2002a: 210).

It is quite clear that there is a significant discrepancy between the historical record and archaeological evidence recovered from Udhrūḥ. The latter undoubtedly indicates that a Roman fortress was constructed at the site, whereas the historical sources refer to Udhrūḥ as a town. This contrast is confirmed by the fact that Udhrūḥ is not listed in the *Notitia Dignitatum* (ND), which names the Roman military units and their locations in the Roman provinces, including *Palestina Tertia* and *Arabia* (see Seeck 1962: 72-74, 80-82 for units listed in the ND; Bowersock 1976: 226-227; Killick 1983: 110; Gregory 1995: 383; Kennedy 2000: 49). This document is dated to approximately the beginning of the fifth century AD (Genequand 2003: 25). Killick (1983: 110) suggests that “the site may be one of the un-located names in the *Dux Palaestinae* listings, or perhaps the site was temporarily abandoned”.

Udhrūḥ became an important place in southern Jordan from the Late Roman period onwards, when a Roman fortress was built there and from which time its importance was clearly established. The town is the second listed in the “Beersheba Edict” and in about AD 630 paid poll tax to the Prophet Muhammad, along with its neighbour al-Jirba (Schick 1994: 149). Udhrūḥ and al-Jirba appear to have been flourishing agricultural towns during the Late Byzantine and into the Early Islamic periods. By that time, the area seems to have had no garrison or security force. Muslim troops camped near Ma‘ān and marched to Mu‘tah near Karak to meet the Byzantine army without encountering any resistance (Harding 1967: 51; Cameron 1993b: 188-9). The size of the settlements at the three sites of al-Jirba, Udhrūḥ and Jabal aṭ-Ṭāḥūnah reflects a degree of stability and security in that region. It is at precisely this time that settlement in the dry steppe zone was more intensive than in the ash-Sharāh uplands. However, despite the fact that the entire region of Bilād ash-Shām, or the Levant, was under Muslim control from AD 636 onwards, political, administrative and cultural change did not occur immediately (Cameron 1993b: 186-7; Haldon 1995: 379). Historical sources show that Christianity was practiced at Udhrūḥ up to the 10th century AD. Fiema (2002a: 210-11) has reported that “a Sinaite manuscript dated to AH 288 (900/1) had been written by Thomas, an Egyptian monk, for the priest Musa ibn Hakim al-Adhruhi [from Udhrūḥ]”.

The Middle Islamic period witnessed many historical events and socio-political changes in the entire Middle East, including Jordan, the least of which is that many political powers swapped control over Greater Syria or Bilād ash-Shām (Walmsley 2001: 515-559). The same period also saw the imposition of Crusader military and political control, and the establishment of Crusader provinces in the same area. Jordan in general — and southern Jordan in particular — appears to have lost some of its importance under the Abbasid dynasty, which established its capital at Baghdad in the ninth century (Whitcomb 2001: 506-507; Harding 1967: 52). In the tenth century, the region was under the control of the Fatimid dynasty in Egypt. Geographically, according to the Arab geographer

al-Maḡdisī, the country was divided into three districts bounded by natural landmarks. The district of al-Urdun was north of Wādī az-Zarqā', the district of al-Balqā' was between Wādī az-Zarqā' and Wādī al-Mūjib (Biblical Arnon), and the district of al-Mūjib. The capital of the latter was Suḡhar (Zoar), south of the Dead Sea.

The importance of southern Jordan during the course of the eleventh and twelfth centuries, and under the Crusaders, is archaeologically demonstrated by four significant castles constructed at al-Karak (AD 1142), ash-Shawbak (1115) and Petra (two castles, al-Wu'ayrah (1115 / 6) and al-Ḥabis (12th century)) during that period. Al-Maḡdisī, a Muslim geographer of the 10th century, lists Ma'ān and Udhrūḡ among the major towns of the district of ash-Sharāḡ (al-Maḡdisī 1994: 141). The latter was one of the six regions of Bilād ash-Shām according to al-Maḡdisī's division (1994: 141). He described Udhrūḡ thus: "Adhrūḡ is an outlying town on the borders of al-Hijaz and Syria. They keep here the mantle of the Messenger of God - God's peace and blessings be upon him - and a treaty from him written on parchment" (al-Maḡdisī 1994: 161). The presence of Ayyubid and Mamluk ceramics at Udhrūḡ and neighbouring sites would indicate the area continued to flourish, despite the fact that the importance of Udhrūḡ itself may have declined during the Crusader period, particularly in relation to castle towns such as ash-Shawbak and Wādī Mūsā (Walmsley 2001: 518-519).

During the Ottoman period, Udhrūḡ appears to have retained some regional importance as a fort was constructed there. It was located in the north-eastern part of the Roman fortress, near the spring. The construction of the fort was probably undertaken to protect the spring and the settlement. Also, the structure was most likely a station on the pilgrimage route (McQuitty 2001: 569). A garrison at Udhrūḡ would have controlled communications with other centres, such as ash-Shawbak, Wādī Mūsā and al-Jirba, and could have also been responsible for collecting taxes.

### **The Roman Fortress at Udhrūḡ**

The fortress of Udhrūḡ is always referred to as one of the biggest Roman military outposts in Jordan (e.g. Kennedy 2000: 168). The gen-

eral outline of the fortress is still fairly well preserved, particularly the perimeter wall, corner towers and interval towers. In plan, the fortress has a trapezoidal shape owing to differences in the length of the curtain wall on each side and a bend in the east side, near the north-east corner. The north and south sides are the longest, at 246 m and 248m respectively, whereas the west and east sides are 177m and 207m in length (Killick 1983: 231-234; Kennedy and Riley 1990: 131; Gregory 1995: 384; Kennedy 2000: 168). The enclosure wall is fairly well preserved on the west and south sides, where it is 3m thick and still stands to about 6m on the west side, after clearance. However, it has been significantly disturbed on the east side, owing to the construction of the modern (traditional) village. The masonry of the curtain wall consists of two faces on each side, with a rubble core of very large, well cut limestone blocks quarried from a huge quarry about 1.5km north-west of the site (Site No. 028: Killick 1983: 234; Gregory 1995: 384).

Projecting interval and corner towers were constructed along the curtain wall. Twenty U-shaped interval towers were placed on the side walls in addition to the four corner towers. The number of towers varies from one side to another, with four towers on the north and south sides, and six towers on the west and east sides (Killick 1983: 231-234; Gregory 1995: 386). The interval towers "project 6 - 7m at right-angles to the curtain walls before terminating in a semi-circle... the total projection is c. 11m for the interval towers" (Gregory 1995: 386). The corner towers are much larger and "project 13 - 15m with straight sides finishing in a semi-circle of c. 22m diameter" (Kennedy 2000: 168). The best preserved corner tower is the south-west corner, which was excavated by Killick (1983: 239). The excavations revealed that four rooms originally occupied the ground floor of this tower (Kennedy 2000: 168; Gregory 1995: 386). The remaining corner towers are not well preserved, especially that at the north-east corner.

Four gates, one in the centre of each side, seem to have given access to the internal area of the fortress. Each gate appears to have consisted of a single arched entrance, 3m wide, and was flanked by two interval towers, closer together at the point where the gateway was constructed.

Excavations at the north gate uncovered “sockets for a double-leaved door and traces of wheel ruts in the threshold” (Gregory, 1995: 387); this gateway was later blocked by a 3m high wall (Kennedy 2000: 168).

Within the enclosure wall, there is little trace of any major buildings as the site was significantly disturbed by later occupation. However, traces of a building near the west side of the fortress have been tentatively identified as part of the *principia* or headquarters (Killick 1983: 236; Parker, 1986: 95; Gregory, 1995: 387). A few column drums and capitals were seen a few metres from this presumed *principia*; similar fallen capitals have been documented outside the *principia* at Palmyra in Syria (Gawlikowski 1984: plan VI). A recently restored cistern was also found near the Ottoman fort. The surface of the remaining area within the curtain wall is covered with debris and stones.

### The 2008 Excavation at Udhruh

Since 2005, the Ma‘ān office of the Department of Antiquities has been working to restore some walls of the Roman fortress, and clear rubble and spoil heaps from the area outside the curtain wall. In 2008, al-Hussein Bin Talal University and the Department of Antiquities agreed to conduct a joint project of excavations in Udhruh. The main purpose of the project was to train participating students in archaeological fieldwork. The team consisted of thirteen students and two archaeologists from the Department of Archaeology in al-Hussein Bin Talal University, and eight workers and two archaeologists from Ma‘ān Office. The excavation lasted for eight weeks between 22 June and 6 August 2008.

### Location of the Excavations

Just one area was selected for excavation, owing to the limited duration of the project and small size of the team. When selecting the area for excavation, the archaeologists also took available facilities and the fact that the project is aimed at training participating students into account. Thus, the area of excavation was located inside the fortress, alongside and very close to the eastern curtain wall (Fig. 1). It also lies between two interval towers and parallel to a two room traditional house built against the external

face of the curtain wall. It was relatively flat, and clear of stones and other debris. There was also space for a spoil heap close to the excavated area, but outside the area of the site.

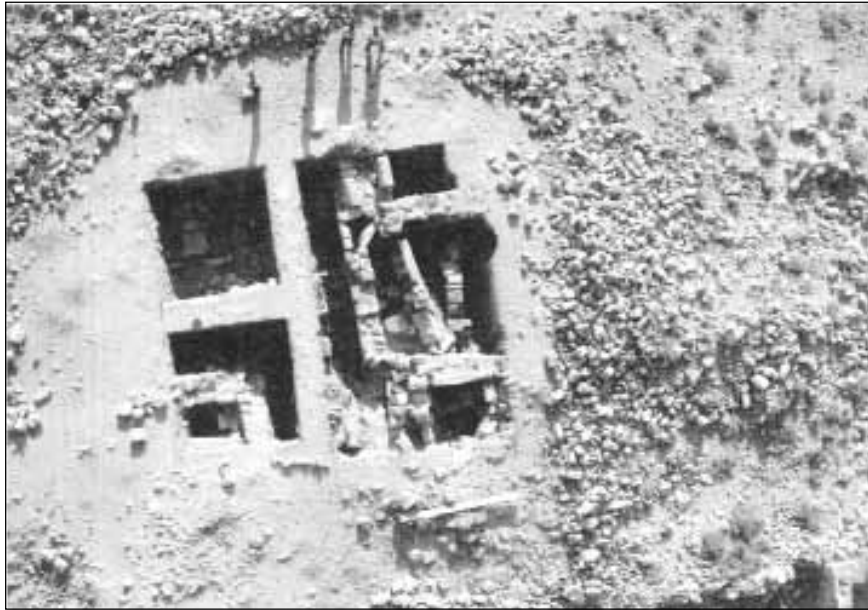
### The Archaeological Finds

By the end of the project, five squares had been excavated. Each square measured 4 - 4m. The progress of work necessitated the removal of the baulk between Squares 01 and 02, because its looseness made digging on either side extremely risky. The soil was also very loose in the eastern baulk of Square 01 and northern baulks of Squares 01 and 02, which necessitated the expansion of each square. Square 05 was also expanded from the northern side owing to the continuous collapse of the dump. By the end of the season, Squares 01 and 02 had become a single large excavation area measuring 10 - 8m, while Square 05 measured 4 - 8m (Fig. 2).

The finds from the 2008 excavations at Udhruh are both numerous and useful in gaining an understanding of the site’s history. The most notable are briefly described below.

### Architectural Elements

Significant architectural elements were uncovered in four squares: Squares 01, 02, 04 and 05. The architectural elements include walls associated with arch springs, niches and window-like features, arches, and pillars crowned with stone capitals. There is an obvious contrast in the masonry of the walls, notwithstanding the fact that most walls have two faces. While some walls are built of dressed ashlar, undressed stones and sometimes boulders were used to construct other walls. The shape and size of the stones therefore display some variation. Stone blocks seem to have been taken from the walls of the Roman fortress in order to construct — at least in part — some walls. The longest wall (Wall 01) lies in Squares 01 and 02 and runs east - west for about 10m. Two walls (Walls 02 and 03) were built against this wall and extend northwards to intersect another wall (Wall 04) that runs east - west and parallel to Wall 01. Wall 04 was uncovered in the baulk along the northern side of the excavation area (Squares 01 and 02) and seems to extend beyond it. These four walls clearly form a rectangular room, the floor of



2. Aerial photograph of the excavation area.

which was exposed. Juniper posts and plaster-like material were found on the floor, which indicates that these materials were probably used to build the roof.

Walls 02 and 04 are associated with window-like features (**Fig. 3**). These architectural features, despite the fact that they start at the level of the floor, are not high enough to be doors. They were probably large niches used to store domestic materials. A grinding stone was found on the floor near the niches in the north-eastern corner of the room. The existence of a

third window or niche in Wall 03 of this room is also a possibility. There is clear evidence for reuse or, more likely, reconstruction of this room. Approximately 1 m from Wall 01 and parallel to it in Squares 01 and 02, another wall comprising a single row of large blocks was added to the structure. The function of this wall is difficult to understand. Almost in the centre of the room, another wall — associated with an arch — was built within the room, running east - west and touching Walls 02 and 03. However, it is not obvious if this wall and its arch were constructed



3. Apparent room in Square 02.

to support the roof of the assumed room. The orientation of the arch suggests that access to this room was from its southern side, through Wall 01. In the latter wall there seems to have been a door, but this was modified in a later period. Parallel to Wall 01 in Squares 01 and 02, there is a wall in Square 04. Additionally, a wall and associated doorway can be seen right in the north-eastern corner of Square 04. This wall links Wall 01 in Squares 01 and 02 with the parallel wall in Square 04. Thus, the area between the two walls seems to have been a wide corridor or a room that gave access to other rooms in the structure. On either side of the baulk between Squares 01 and 04, floors, hearths and incomplete cooking pots were found at the same level. Moreover, an arch linked the two walls and supported the roof. The arch clearly springs from both walls, i.e. Wall 01 in Squares 01 and 02 and the wall in Square 04. The progress of work in Square 05 led to the discovery of more walls; the most significant is a north - south wall, which runs along the eastern side of the square. The stonework of this wall is distinctive and does not resemble that of the other walls. It is built of dressed stones, using a concrete-like mortar with the gaps between the blocks coated with solid plaster (Fig. 4).

One row of this wall was unearthed in the square, running parallel to the external face of the curtain wall of the Roman fortress. The gap

between the external face of the perimeter wall of the fortress and the edge of this wall is 3m. Excavation within that gap did not reveal the other row of the wall discovered in Square 05. Instead, small stones occupied the space in a near-systematic distribution. This, and the fact that the wall in question is parallel to the external face of the perimeter wall, suggests that this wall may be the internal face or row of the curtain wall of the fortress. Furthermore, it is well known that the width of the perimeter wall of the fortress at Udhruh is 3m. The wall also has upper and lower niches (Fig. 5).

It also became clear that this wall had other walls constructed against it. These walls extend east - west and run right through Squares 01, 02, 05 and 04, forming what seems to be a post-Roman civilian settlement.

#### *Coins*

Three coins were found during the 2008 excavations at Udhruh, two in Square 04 and one in Square 01. The three coins are in a very good state of preservation and can be accurately dated. Preliminary readings of these coins show that they all date to the Roman period. However, the fact that they were not found in stratified levels reduces their usefulness in dating associated features. Nevertheless, the existence of these coins is important in gaining an understanding of the history of settlement at Udhruh.



4. Wall in Square 05.



5. Main wall in Square 05.

### *Pottery*

The quantity of pottery varied considerably from one square to another. There were clear contrasts in the typology, ware and decoration of the recovered pottery, and no complete objects were found. In terms of ware, much of the pottery is characterised by coarse and badly fired clay. Various types of decoration could be identified. A large amount of the pottery is glazed and comes in different colours: blue, brown, green and yellow. Some sherds are painted with red and dark brown lines to create geometric patterns, while others have incisions and waves on the slip. Very fine, well fired pottery was also found, particularly in Squares 03 and 05. Most of the excavated hearths and fire places were associated with incomplete pottery vessels, most likely cooking pots, the surfaces of which were coated with soot owing to repeated use. A preliminary reading of the pottery suggests that many historical periods are represented, from the Classical to the Late Islamic periods.

### *Glass*

Small pieces of glass were frequently found in the excavations. The size of the fragments varies considerably and complete objects were not recovered. Most of the glass is decorated and coated with a thin, coloured slip.

### *Metals*

Various metal objects were found in the excavations, including nails, rings and incomplete bracelets.

### **Conclusion**

The 2008 excavations at Udhruh demonstrated that rich archaeological deposits are preserved at the site, reflecting a long history of human settlement. Most of the archaeological remains are located within the perimeter wall of the Roman fortress. Although further work will be required to expose more of the site, the 2008 excavations have yielded important new information, including architectural features, coins, pottery, glass and metals. On the basis of a preliminary analysis of the excavated material, two periods can be distinguished: the Roman and Late Islamic periods. During the latter period, the site appears to have been part of a major settlement cluster in southern Jordan.

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