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## **The 2012 Season at Khirbat al-Mudayna ath-Thamad: Exterior Gate Rooms and a Cave Tomb**

Excavations at the site of Khirbat al-Mudayna on Wādī ath-Thamad (FIG. 1) under the direction of P. M. Michele Daviau have been ongoing since 1996<sup>1</sup>. The upper portion of the site of Khirbat al-Mudayna measures 140 m in length by 40 m wide, and is surrounded by a sloping glacis approximately 20 m in width. All structures excavated to date have been footed directly on bedrock. Since 1996 much of the work done at the site was carried out on the northern end of the site in Fields A and C where a 15.5 × 15.5 m, six-chambered gate (Chadwick, Daviau and Steiner 2000; Chadwick 2001; Chadwick 2009) along with seven in-ground silos and a standing stone shrine were exposed (Daviau, Chadwick, Steiner and Weigl 2006). The silos directly north of North Gate 100 and a small temple to the south of the gate, complete with libation and incense altars (Daviau, Steiner 2000), have yielded several inscriptions (Dion and Daviau 2000; Weigl 2006). Excavations elsewhere on the site have revealed industrial activities (Daviau, Chadwick, Weigl *et al.* 2012) and evidence of wool-processing and weaving, as indicated by hundreds of loom weights and limestone washing basins used in the production of wool and woven products.

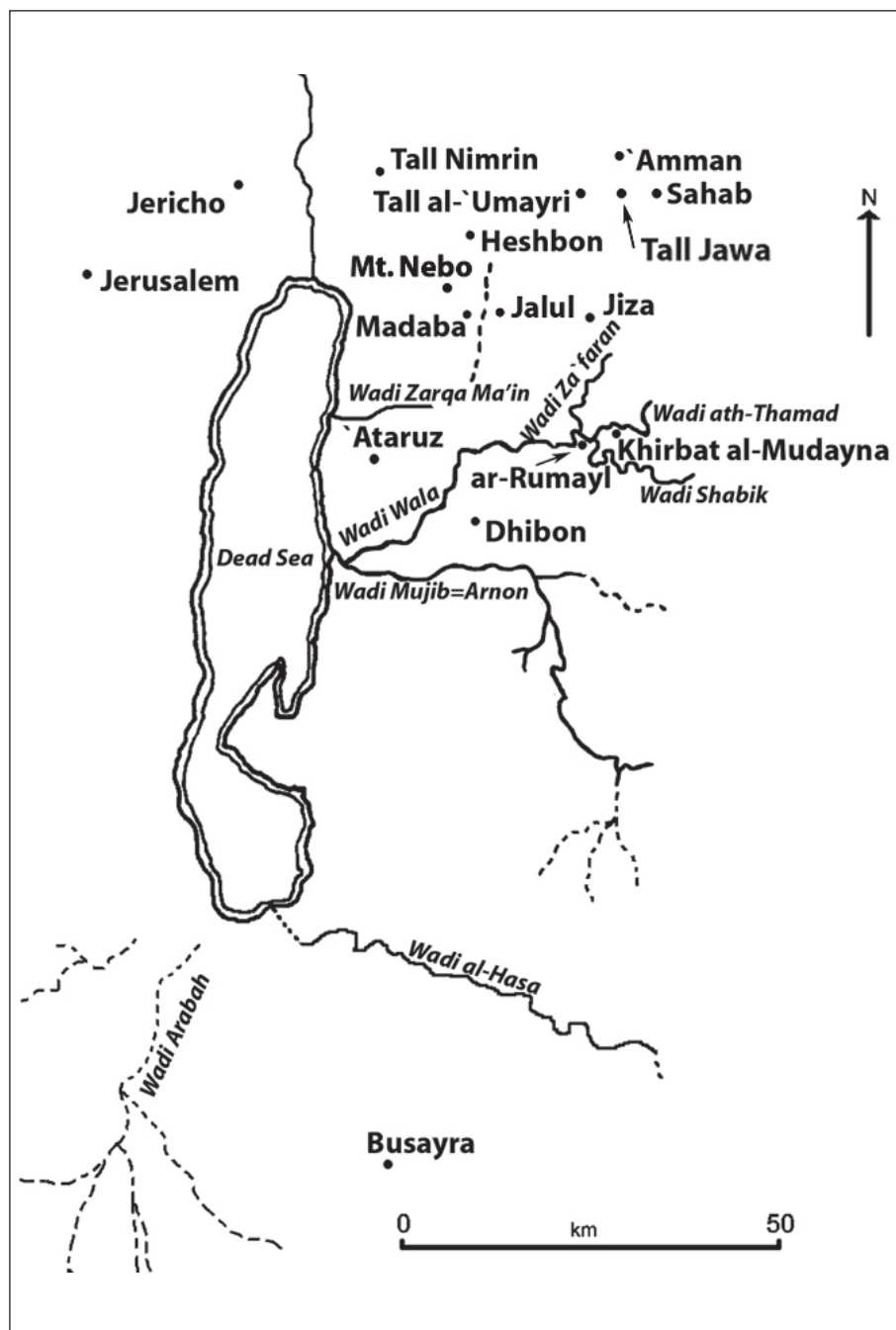
### **The North Gate 100 Area**

This report will concentrate on the excavation activities undertaken in 2012 outside the exterior walls of North Gate 100 in Fields A and C (FIG. 2). One of the most puzzling features at this site is Depression 200, a 5 m-deep pit feature which begins directly to the west of North Gate 100 and extends towards the south-west for an additional 25 m. Speculation about the nature of this feature has varied from a quarry for building stones for the gate, to a Roman-Nabataean theater or some kind of water storage system. Although the water system hypothesis seems the most likely, given its juxtaposition with the gate, Depression 200 could have served as an impediment to attackers and been part of the overall defensive system. A portion of the casemate wall that surrounds the site passes just to the north of Depression 200 and such a deep hole would have made a formidable obstacle for attackers trying to gain access to the settlement.

No systematic excavation of Depression 200 had ever been attempted until the 2012 season when two squares were opened at its south end. Other than a few surface sherds, and over 1 m-thick accumulations of wind and waterborne

1. Khirbat al-Mudayna is the principle site of the Wādī ath-Thamad Project directed by Michele Daviau, with Professor Michael

Weigl and myself as Co-directors, in collaboration with Noor Mulder-Hymans and Margreet Steiner.



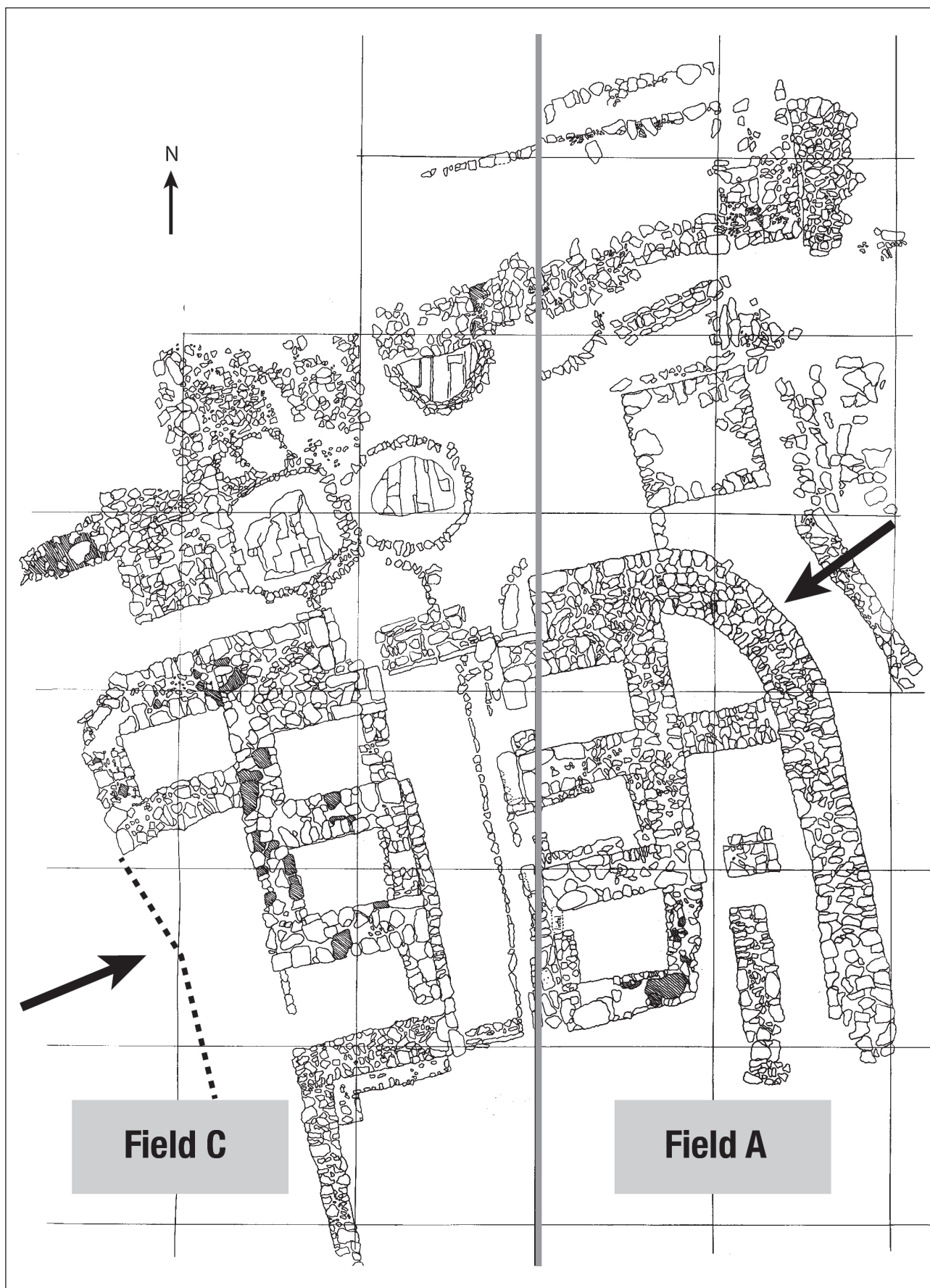
1. Map showing Khirbat al-Mudayna on the Wādī ath-Thamad.

soil deposition, there was no evidence of human activities in Depression 200. Five weeks of excavation revealed no tool marks on any of the exposed surfaces, which is a clear indication that Depression 200 was not manually cut into the bedrock (FIG. 3). We found no stairways, holes or water channels that might indicate its use as a reservoir, and there were no quarry marks of any kind. Even though much of Depression 200 remains unexcavated, to date the evidence seems to confirm that it was a natural feature

created uniquely by geological forces in the distant past. There is always the possibility that it stood empty during the Iron Age II while the site was occupied and was never exploited by the inhabitants of the settlement.

### The Western Rooms

During the 2012 season excavations were undertaken on both the western and eastern exterior sides of North Gate 100. On the western side of the gate (FIG. 4) wall tumble, consisting



2. Plan of the North Gate 100 area showing Fields C and A. Arrows indicate areas discussed in this report.



3. Depression 200 looking south.

of medium and large fieldstones that originally belonged to the main Iron Age II gate structure, was scattered round about at the foot of the gate walls, along with many other fieldstones that fell into the bowl of Depression 200 when the gate structure burned and collapsed. Fourteen seasons of excavation have taught us that there was extensive burning and subsequent wall collapse resulting from a general conflagration that swept the gate area and other parts of the site sometime towards the end of the 7<sup>th</sup> century BC. A number of the western loci excavated in 2012 contained calcined limestone cobbles and boulders, charcoal inclusions, loci of ashy soil and sections of burned beams up to 0.5 m in length, all of which indicate a single widespread destruction event that brought an end the Iron Age II occupation at Khirbat al-Mudayna. Subsequently, the upper part of the site was never again occupied as it had been during the Iron Age II period from the middle of the 9<sup>th</sup> to the beginning of the 6<sup>th</sup> centuries BC. The site had a 250 to 300 year occupation history that,

in historical terms, extended from the time of King Mesha to Nebuchadnezzar II of Babylon.

### Three Rooms and a Walkway

On the west side of the North Gate 100 we exposed three rooms situated outside the main gate structure. These exterior rooms were ‘add-ons’ probably built in response to non-defensive needs in and around the gate area. The east - west walls of outside Rooms 155, 156 and 157 ran perpendicular to the north - south gate Wall 1502. All were less than 1 m wide, and much narrower than the walls of the main gate structure that varied between 1.5 and 1.65 m in width. The north - south cross walls of the exterior rooms also ran parallel to western North Gate 100 Wall 1502 (FIG. 5). Given the different wall construction techniques used to construct these three exterior rooms it seems likely that they were built at different times by different people who used a variety of different construction methods. Several of the exterior walls were built using a mixture of vertical



4. Wall tumble on the western side of North Gate 100 spilling into Depression 200.

orthostats interspersed with stacked stone pillars with field stone cobble fill stub walls in between them, while the northernmost exterior wall of Room 156 was built of mudbricks. The three east - west walls running perpendicular to the north - south gate Wall 1502 were dry-laid, boulder and chink walls measuring ranging from 1.8 to 2.5 metres in length. All three abutted the gate structure and formed Rooms 155, 156 and 157. It is unclear if the exterior western rooms had upper stories, but this is doubtful given the width of the walls and an absence of the usual *ca* 0.2 to 0.3 m-thick mud roofing material normally associated with roofed structures at Khirbat al-Mudayna. It seems likely the roofing material consisted of either a very thin layer of packed earth or mud, or it was made of flammable materials that were consumed in the gate destruction fire.

To the west of the exterior rooms was an area that served as a north - south walkway that would allow access to the rooms. Walkway 200 was positioned directly over the existing bedrock, and was covered with beaten earth and a few patches of lime plaster to fill in the deeper cracks and holes in the bedrock to create an even surface.

Measuring 1.8 metres on each side, near-square Room 155, (FIG. 6) the southernmost of the exterior rooms, used a 1 m-high single-stacked pillar as a roof support with a short mud brick wall on the south side to close the room, while an open space on the north side of the pillar served as a door opening. The east - west room walls stood 1.4 m high.

Just west of Room 155 was a possible link between the gate and Depression 200 which consisted of a short, east - west wall which



5. Exterior rooms 155, 156, and 157 with Walkway 200 on the left indicated by the dotted line.

extended towards the depression stopping just short of its southern edge.

To the north, Room 157 used *ca* 1.5 m-tall upright monoliths (FIG. 7) in combination with stacked stone pillars for roof supports. These were interspersed with cobble- and rubble-filled boulder-and-chink walls to close the western wall. The height of the upright pillars gives a good indication of the height of the rooms on their western sides at a little over 1.5 m, but they

may have been slightly higher and sloped closer to the gate Wall 1502 to facilitate water runoff. The remains of an oven, layers of waterproof plaster on the walls and eleven loom weights indicates that domestic and weaving activities took place in this room.

Further to the north, Room 156 (FIG. 8) employed a mud brick wall (1516), set above the bedrock on a beaten earth floor surface, to close off its western side. The 3.25 m-long wall



6. Southern Room 155 with stacked stone pillar.



7. Upright monoliths and stacked pillars formed the western walls of rooms 155 and 157.

was made of bricks of varying lengths, most 0.27 to 0.4 m long and about the same in width. Most were around 0.2 m thick. The bricks of Wall 1516 were held together with a mortar containing both straw temper and pebble-sized chink-stones. Mortar tempered with pebbles

is rarely seen since mud bricks were normally cemented together with a mud mortar containing a straw or chaff temper (Homsher 2012: 2-4). Although mud bricks are found occasionally in installations at the site, Wall 1516 is the only complete mud brick wall found thus far

at Khirbat al-Mudayna. This makes us wonder if the people who built it were unfamiliar with mudbrick construction techniques and utilized chink-stones, a technique common in boulder-and-chink construction elsewhere on the site, to level the bricks used to build this wall.

### Casemate Room 154

One square was opened to investigate the casemate wall where it joins Bastion 1500 (FIG. 2) at the front or north end of North Gate 100. The casemate then passed in front of Depression 200 and continued around the entire upper portion of the site. A 3.85 m-long portion of the inner and outer casemate walls, 1513 and 1514, were exposed during the 2012 season (FIG. 9). The inner casemate was 1.8 m wide while the outer wall was much thicker at 2.2 m in width. These widths would allow for a casemate room of at least two stories high; this interpretation was strengthened by a number of chunks of hard, burned ceiling plaster with beam impressions found within the square. The base of the outer casemate wall

was further strengthened by a one- to two-row, four-course reinforcement wall (1523). This wall reinforcing technique was used elsewhere on the site as well. A doorway (P) through the inner casemate wall gave access to the room. Casemate Room 154 had a beaten earth floor surface and although it had no oven or hearth there was some evidence of domestic activities. There was no door leading into Room 158, a 1 m-wide chamber that served as a small sub-floor storage chamber for the adjoining Room 154. This smaller room was sealed with a layer of heavy plaster and enclosed on the west side by Wall 1522, a one-row, four-course sub-floor wall that abutted both casemate walls.

### Eastern Gate Rooms

On the east side of North Gate 100, excavations were undertaken outside the main gate structure in Field A (FIG. 11). North Gate 100 was squeezed into the tight space between Depression 200 to the west and the steep drop-off of the site to the east where the terrain slopes with a declination of between 20 and 25



8. Room 156 with mud brick wall W 1516 with pebble chink stones.





9. Casemate room R 154.

degrees. This left a minimal amount of space in which to wrap the outer defensive Wall 2001 around the top of the site and connect it to the gate at Bastion 1000. As we have learned from excavations elsewhere at Khirbat al-Mudayna, the entire site was surrounded by a casemate wall but, given the limited space available at the north end of the site, the builders had to reduce the two walls that formed the casemate to a single wall over the last ten metres before it joined North Gate 100. South of the gate, where there was more space, Walls 2001 and 2002 formed a true casemate.

Areas excavated in Field A included Rooms 134 and 135. Like the three rooms on the west

side of the gate discussed above, both of these rooms were also situated outside the main structure of North Gate 100. However, their construction suggests that they were built at the same time as North Gate 100 and outer defensive Wall 2001; they were therefore probably not added later on. There was no evidence of a doorway into Room 135, nor was there a floor surface or evidence for any domestic or industrial activity there. Several well preserved burned beams, one of which was 2 m long, suggest that the room was accessed via a ladder from an upper story room. A number of whole Cypro-Phoenician style vessels (FIG. 11), including an amphora and a flask, indicate the room was used for storage.

At bedrock level in Room 135 we exposed an architectural reinforcing wall (FIG. 12) made of chert cobbles and small boulders placed between the outer single wall and the base of the gate structure. To the south, adjoining Room 134 had two doorways leading into it; there was plenty of evidence for domestic activity in this room as indicated by an oven installation with a small mortar and an Iron II lamp located nearby. As seen in some of the other interior rooms in North Gate 100, there was a sub-wall between the outer gate wall and the single defensive Wall 2001 that formed the eastern inside wall of Room 134 (FIG. 13). This wall may have served as a low bench (we did not complete excavations to bedrock here) or it may have served to reinforce this single-layer section of the outer wall as it joins the eastern bastion of North Gate 100. We made a number of finds in Fields A and C in 2012 which added to the repertoire of artefacts, including a broken horse-head figurine, an astragalus pierced by an iron nail, a very fine copper bracelet, a small basalt mortar, a beautifully crafted steatite cosmetic dish and a tiny scaraboid seal depicting a horse and rider with a human attendant.

### Cave-Tomb WT 200

Prior to finding Tomb WT 200 in 2012 - and



10. Rooms 134 and 135 in Field A on the east side of North Gate 100.



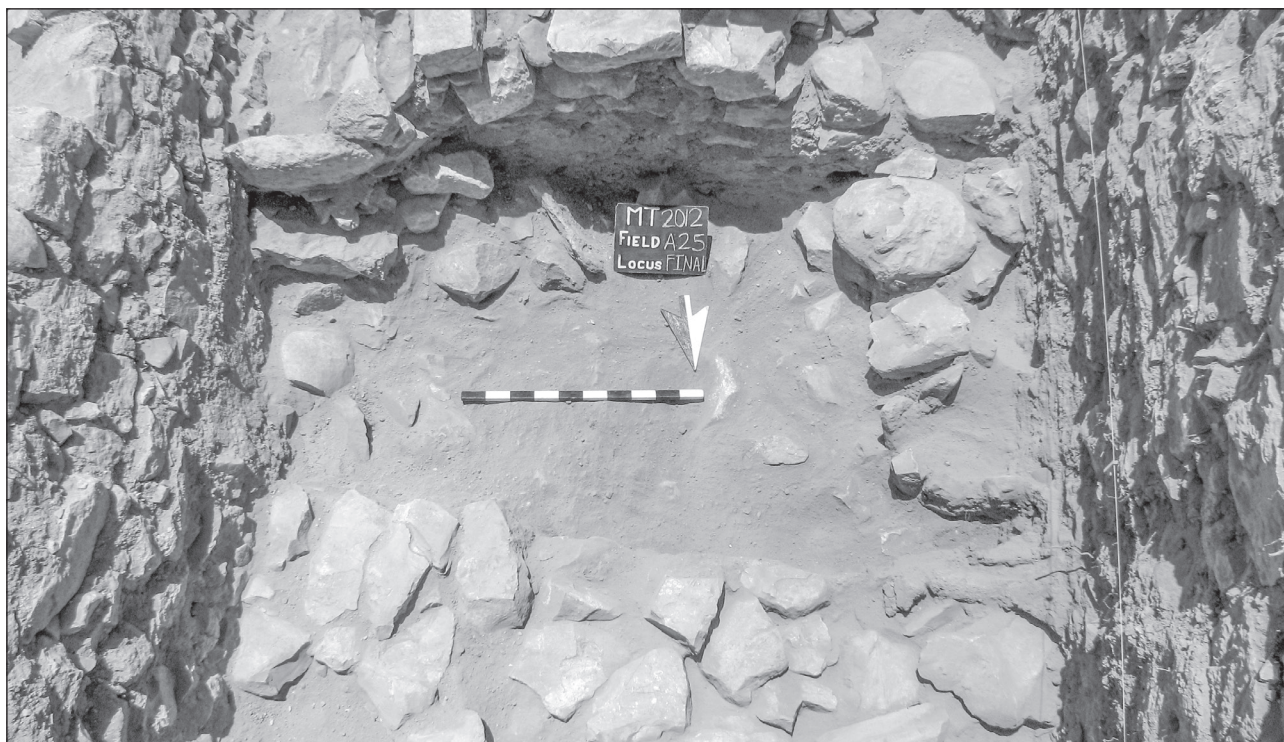
11. Excavator Heather-Jane Maurice with Cypro-Phoenician style vessels.

despite thirteen previous seasons of excavation - we had not located a single Iron Age II burial anywhere along Wādī ath-Thamad.

However, several days into the 2012 season our Department of Antiquities representative, Mr Abdullah al-Bwareed, became aware of tomb-robbing activity taking place on a gently sloping hillock about 650 m south-west of the main site at Khirbat al-Mudayna. We immediately went to investigate and when we first arrived at the tomb site we found it had been partially excavated by robbers; their earth moving canisters were still *in situ*. The unauthorised excavators were most likely locals who had no doubt worked for us in the past and, given the number and the size of the sift piles surrounding the cave-tomb area, it appeared that we had trained them well. Although the tomb was in the process of being vandalised, it had most likely already been entered and robbed in ancient times. No articulated skeletons were found, but preliminary examination of the broken and fragmented skeletal remains suggests that Tomb WT 200 contained multiple burials and was used over a number of years during the Iron Age II period. Given the jumbled nature of the remains we were unable to determine how many individuals were buried there or if they were from the same family. The bones, many of them



12. Reinforcing wall at the base of outer defensive wall W 2001.



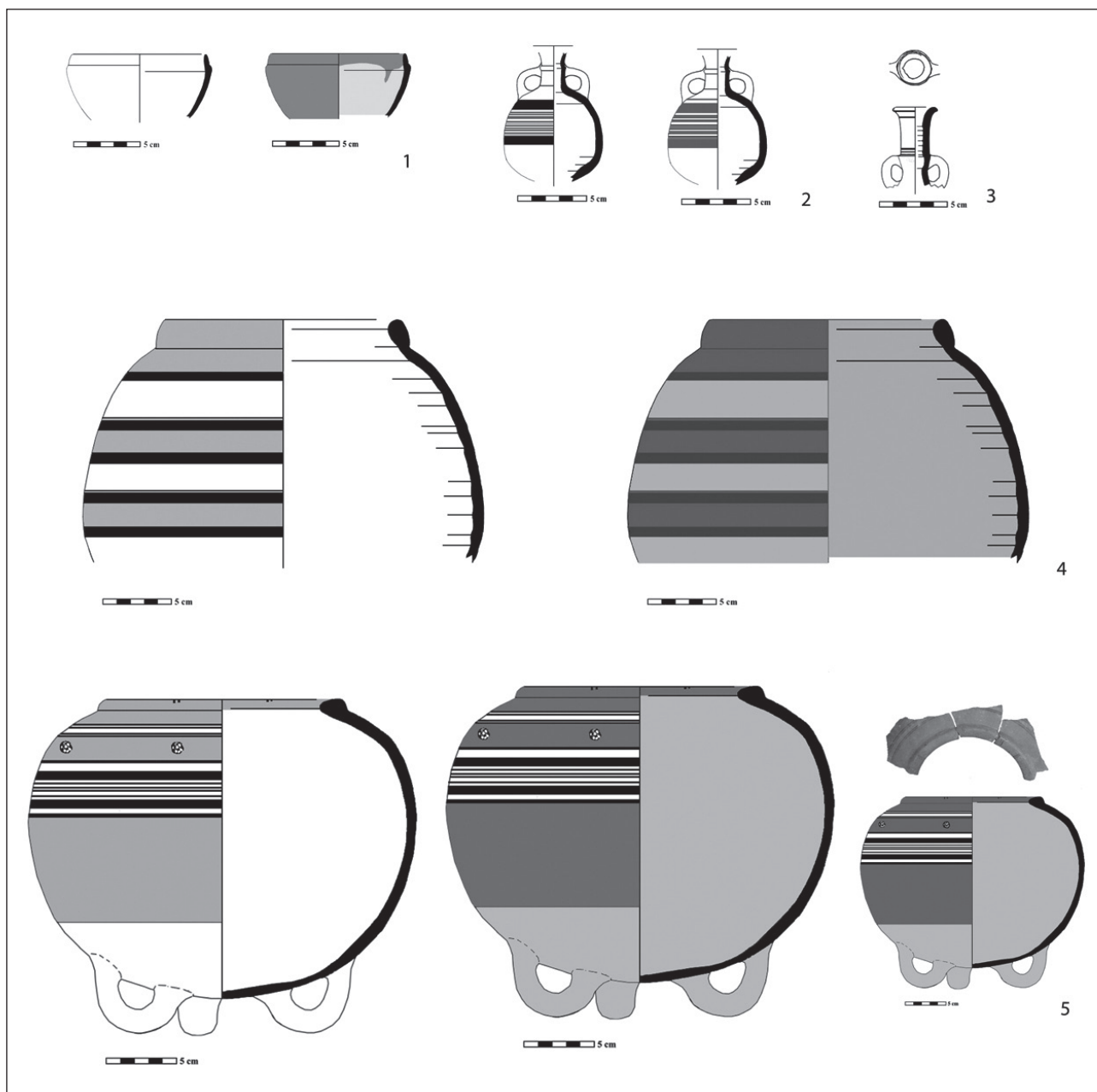
13. Bench or reinforcing wall inside Room 134.

fragmentary, were mixed in with the soil and pebble deposition and were scattered about the tomb-cave in increasing numbers as we reached the floor level on bedrock. Inside the tomb we found no ossuaries, coffins or sarcophagi, such as those found in contemporary tombs from nearby and contemporary Dhībān (Tushingham 1972).

Along with personal items, a number of Cypro-Phoenician and Moabite Painted Ware sherds (FIG. 14), so valuable for placing this tomb in its proper historical and cultural context, were recovered. The pottery in the tomb consists of local and imported wares. Kraters with broad painted bands are typical of Moabite Painted Ware with parallels at Dhībān. Imports are dominated by miniature Cypro-Phoenician style juglets, with a smaller number of full-size juglets, as found in considerable numbers in Dhībān tombs and on the mound at Khirbat al-Mudayna. Outstanding in the assemblage from Tomb WT 200 is a red-slipped and burnished krater painted with narrow black bands on the shoulder and pairs of black strokes on the rim. This vessel reflects the Ammonite styles at Tall

Jāwā, south of Amman, but the lustrous finish and pairs of strokes is unique in the region.

Tomb WT 200 was originally a cave formed by geological processes that was then subsequently modified and used as a tomb. The excavated tomb (FIG. 15) measured 6.85 m in length, including the entrance stairway. Interior width at its widest point was 3.6 m and the interior height varied from 2.7 m at the south, upslope, end to 1.56 m just before the entranceway. Given the geological deposition that was mixed in with the bones and artefacts, it appears that at some point in the past the roof collapsed and the tomb cavern was filled when upslope run-off water washed soil, pebbles and cobbles into the chamber, filling it up to near current ground level. Tool marks on the upper portions of walls were impossible to identify owing to degradation from erosion. However, marks could be seen on and just above the floor surface; it was clear that the tomb floor and lower portions of the walls had been enlarged and leveled as tools marks were visible up to 0.1 to 0.15 m above the floor surface, where the lower portions of the cave walls met the floor



14. Tomb pottery 1) red-slipped bowl, P200/4; 2) painted amphoriskos, P200/3; 3) tall necked amphoriskos, P200/5; 4) painted krater P200/1; 5) loop-footed painted krater, P200/2.

surface. Leading into the tomb chamber, there was a rudimentary and steeply inclined (45 degrees) ‘stairway’ of sorts. Two of the steps were purpose-placed stair-stones, while others were natural protuberances sticking out from the bedrock which probably served as rudimentary steps to gain access to the tomb chamber.

We found no whole vessels; most of the objects recovered from the tomb were broken

and fragmentary. However, there were a few interesting artefacts for personal adornment including a silver ‘mulberry’ earring, a perforated cowrie shell, some bi-conical faience and carnelian beads, and parts of both iron and copper bracelets<sup>2</sup>. There were perhaps more high quality grave goods in the tomb at one time, but they must have been removed at some point in the past.

2. Registration numbers are as follows: ‘mulberry’ earring (reg. WT929); perforated cowrie shell (reg. WT933); bi-conical fa-

ience (reg. WT925 to WT928); carnelian beads (reg. WT936); parts of both iron and copper bracelets (reg. WT934-935).



15. Cave-Tomb WT 200.

### Caves Along Wādī ath-Thamad

Caves, or their collapsed remains, may be observed along Wādī ath-Thamad and might be useful in helping to understand Cave-Tomb 200. Located 3 km west of Khirbat al-Mudayna is Feature 4, an unexcavated cave (FIG. 16) near Shrine Site WT 13. This geological feature has a naturally arched stone ceiling over the mostly filled-in cave interior; it is easy to imagine that Cave-Tomb 200 near Khirbat al-Mudayna may have looked something like this before its ceiling collapsed. Feature 6 at Site 13 (FIG. 17) provides one example of the ceiling collapse that is quite common in the region. At some point in the past the ceiling of Cave-Tomb 200 may have looked similar to this one after

it collapsed. We might even speculate that this geological feature may also contain a burial.

In conclusion, the 2012 season produced a number of useful results including a better, if still incomplete, understanding of Depression 200. We now know that at least part of it was not modified and that the whole feature might simply be geological. Excavations revealed exterior rooms on both the east and west sides of North Gate 100 and Cave-Tomb 200 yielded pottery styles and cave-tomb architecture consistent with those at neighbouring sites such as Dhībān.

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16. Feature 4, an unexcavated cave near Site WT 13 three kilometres west of Khirbat al-Mudayna.



17. Feature 6 at Site WT 13.

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