

THE 2018 SEASON OF EXCAVATION AT MIDDLE BRONZE AGE ‘AYN QUŞAYBAH

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Introduction and Background

‘Ayn Quşaybah (WQ 120) is a small, unrounded site on the north bank of Wādī Quşaybah, in northern Jordan. Situated roughly 14km north-northeast of Pella/Tabaqat Fahl (Fig. 1), ‘Ayn Quşaybah lies 1km east of the mouth of the Wādī Quşaybah and the floor of the Jordan Valley, at an elevation around 100m below sea level. The site takes its name from a nearby spring, situated immediately to its west, and appears to extend along the slope about 120m from northwest to southeast (Fig. 2).

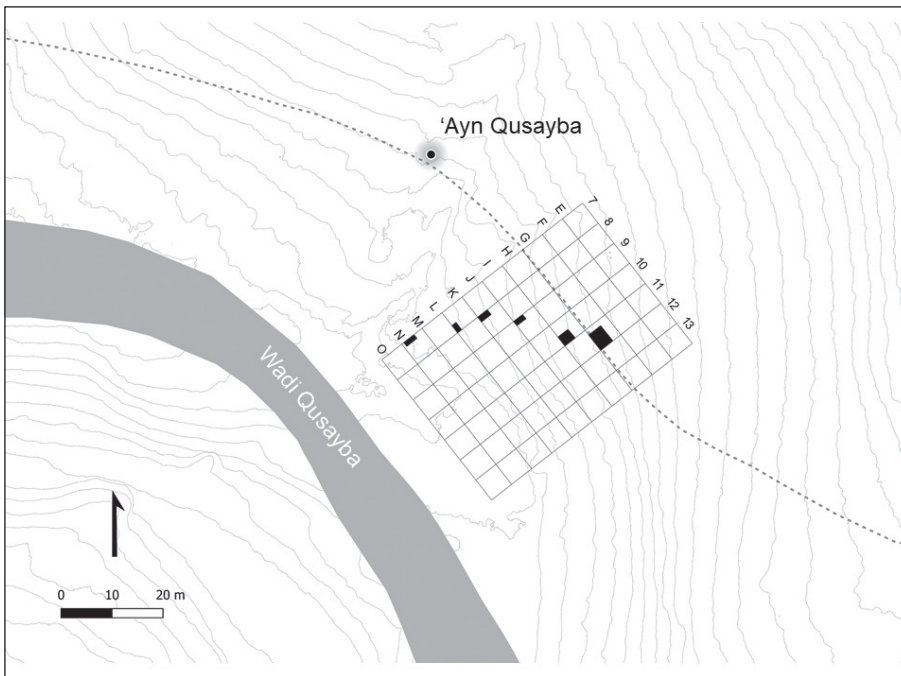
In 2012, the University of Toronto’s Wādī Ziqḷāb Laboratory, directed by E.B. Banning, first detected ‘Ayn Quşaybah during an archaeological survey of Wādī Quşaybah and its catchment basin (Hitchings *et al.* 2016). Remains of stone walls were visible at the surface along a pedestrian path that traverses the site on a route from the Jordan Valley to

the Mandah plateau (Fig. 3). A 1×1m probe, excavated next to one of these walls, exposed several wall courses. The ceramics collected during this small operation dated from the Middle Bronze (MB) Age through Roman periods.

Excavations at ‘Ayn Quşaybah resumed in August 2014 as part of a one-week, targeted operation to clarify the occupational history of the site (Banning *et al.* 2015). Several 1×2m units that were excavated downslope from the pedestrian path yielded little cultural material (Fig. 2). Further upslope, however, Area G11 yielded considerable architectural remains (Fig. 4), including stone walls preserved more than 1m in height and a door socket *in situ* in the southwest corner of a partially excavated room (Fig. 5). Although the horizontal exposure in G11 was limited to 3×4m, the results suggested that ‘Ayn Quşaybah was a substantial site with



1. Location of Wādī Quşaybah and ‘Ayn Quşaybah (WQ 120) in northern Jordan (basemap source: Google Earth).



2. Part of the excavation grid at 'Ayn Qusaybah, showing the location of units opened in 2014.

relatively good architectural preservation.

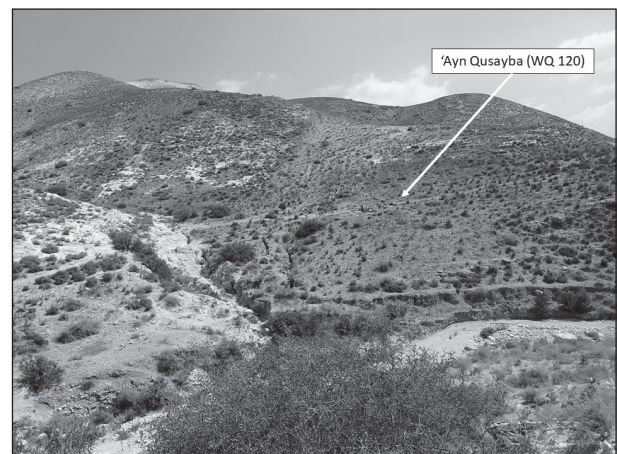
West of G11, excavations in Area H10 exposed several smaller, poorly preserved stone walls associated with two nearly complete, straight-sided cooking pots (Fig. 6). Combined with the finds on a surface in Area G11, the assemblage points to a Middle Bronze Age date for 'Ayn Qusaybah. However, the limited horizontal exposure of the architecture made it impossible to establish any coherent building plan. Moreover, the intervening pedestrian path prevented stratigraphic connection between Areas G11 and H10 (Fig. 7), making it unclear whether the MB remains in those units belonged to a single occupation in the early second millennium BC.

Research Goals

The research objectives of the 2018 season were to refine the occupational history of the site by connecting the excavations in Areas G11 and H10, and to delineate the plan of the previously exposed architecture by expanding to adjacent areas. To meet these objectives, four weeks of excavation focused on a 10×10m area that incorporated four distinct 5×5m units (Fig. 8). Area G11 would make up the northwestern sector of this area, with Area G12 to the northeast, Area H12 to the southeast, and finally Area H11 to the southwest. Area H11 ran adjacent to both Areas H10 and G11, making it

a focal point of the excavation as it connected the previously opened units.

During the 2014 season, hand-held tablets were used to record excavation data as part of a paperless initiative first implemented during the 2012 survey of Wādī Qusaybah. For practical reasons, this system was not retained in the 2018 season except for recording photography, and paper forms were reintroduced for the stratigraphic and sedimentary descriptions. Digital recording of data continued to be applied as part of the excavation and documentation strategy, especially digital photogrammetry to generate 3D models and top plans of the exposed architectural remains. Overhead photos of



3. View of 'Ayn Qusaybah from the south bank of Wādī Qusaybah, looking northeast. Walls are visible at the surface where the footpath cuts through the site.

units, rectified in QGIS using multiple ground control points (GCPs), allowed digital mapping of architectural features in the laboratory rather than in the field.

Results of the 2018 Season

Four weeks of excavation at 'Ayn Qusaybah revealed parts of a sprawling domestic complex and evidence for three distinct Middle Bronze Age occupational phases. Architectural remains extended over all four 5×5m units, and appear to belong to several distinct buildings (Fig. 9). None of these structures have been fully delineated, as the horizontal exposure of this area remains limited.

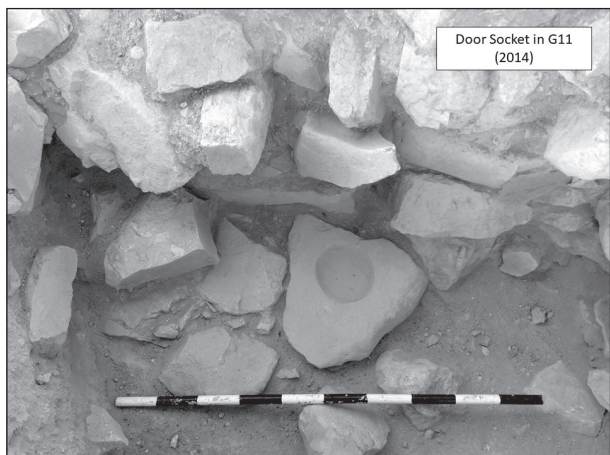
Rooms 1 and 2

The western corner of Room 1 (R1) was partially exposed during the 2012 campaign in

a probe along the southeast corner of what is now designated Area G11. Excavations in the western corner of R1 went down to a surface marked by a beaten-earth layer and door socket next to a blocked doorway (D100). Wall 100 (W100) forms the western side of R1. This wall was exposed along the north of Area H11, and



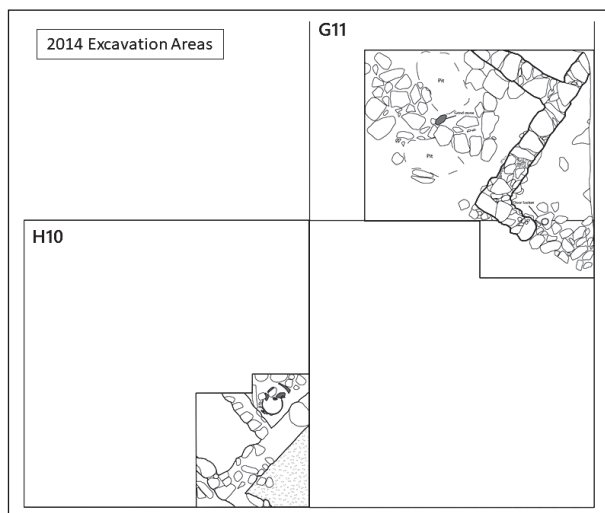
4. Overhead view of architectural remains uncovered in G11 during the 2014 season.



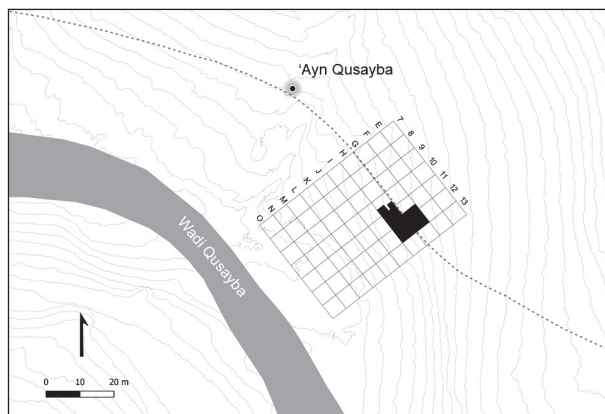
5. Door socket in situ from G11 (Room 1), found in 2014.



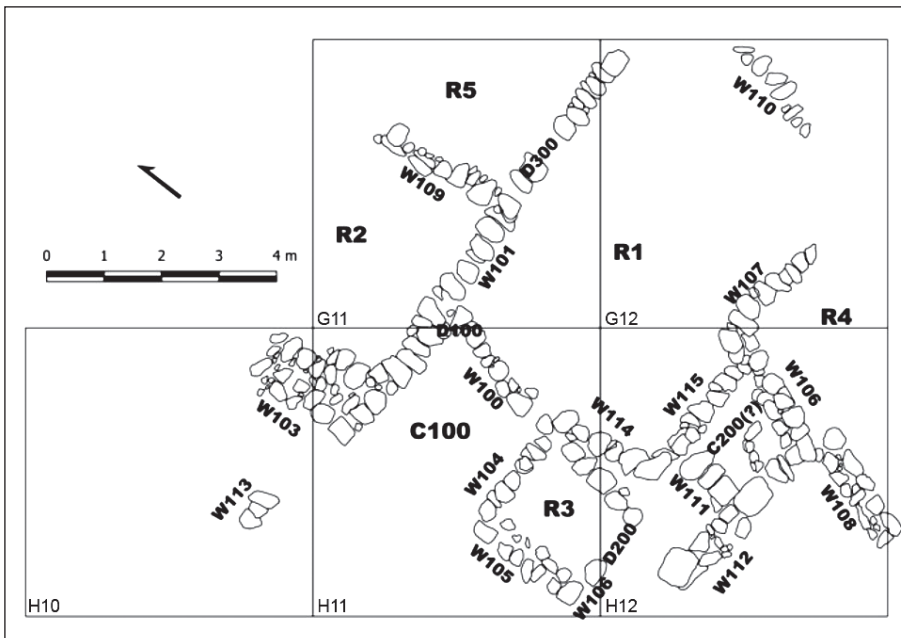
6. Straight-sided cooking pot in situ from H10, found in 2014.



7. Plan of Middle Bronze Age architectural remains from G11 and H10, excavated in 2014.



8. Part of the excavation grid at 'Ayn Qusaybah, showing the location of units opened in 2018.



9. Middle Bronze Age architectural remains at 'Ayn Qusaybah.

continued south into Area H12 where it bonds with Wall 102 (W102). The northern boundary of R1 is marked by Wall 101 (W101), which extends southwestward beyond R1 into the northwestern half of Area H11. W101 forms a corner with Wall 103 (W103), which follows a north-south orientation. W103 was only partially exposed in the northwest corner of Area H11 and northeast corner of H10 during the 2018 field season. The corner formed by W101 and W103 marks the southwestern extent of Room 2 (R2), located north of R1. It is unclear whether R2 belongs to the same building as R1.

Wall 114 (W114) appears to have an orientation similar to that of W100, although it may belong to an earlier architectural phase, as it forms a corner with Wall 115 (W115)

which appears to run under Wall 106 (W106) in the northeastern corner of H12 (Fig. 10). It is unclear if the room formed by W114 and W115 is contemporary with R1.

Excavation in the northeast corner of G11 exposed the eastern continuation of W101 into that part of the unit. This wall continues further east into Area F11, which was not excavated. We anticipated that a north-south wall, marking the eastern boundary of R1, would be found somewhere near the northeast corner of G11, but this was not the case. There was a small doorway (D300) in W101 that provided access to R1 from Room 5 (R5) in the northeastern part of Area G11. R5 remains poorly defined, except for its western boundary which is marked by the north-south Wall 109 (W109).

Near the end of the season, excavations in



10. Partially excavated Wall 115 and the overlying Wall 106.



11. Northwest corner of Room 3, looking south.

the northeast corner of Area G12 may have exposed parts of another north-south wall (Wall 110 [W110]) that could have been the eastern boundary of R1. If this is the case, R1 would be a considerably large, rectangular room within a sprawling complex. More excavations are needed in Area G12, as only topsoil was removed in most of the unit. The extensive wall tumble in Area G12 makes it difficult to delineate stone walls in this area.

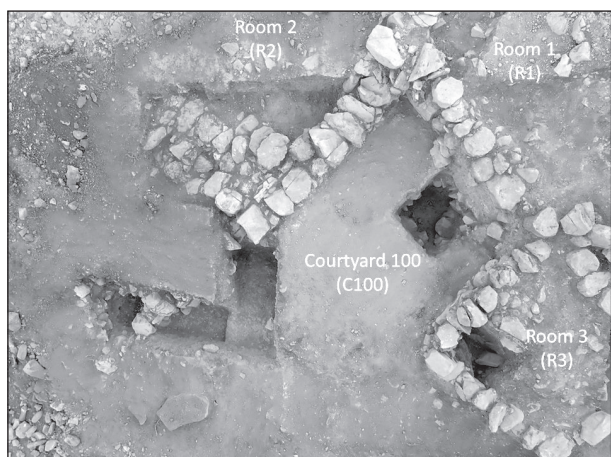
Room 3

Room 3 (R3) occupies the eastern half of Area H11 and western half of H12 (**Fig. 11**). We fully delineated the plan of R3 in 2018. Wall 104 (W104) marks the northern extent of the room, while the western boundary consists of Wall 105 (W105). W106 is a small wall in the southwest corner of R3. A doorway (D200) which occurs in the southern part of R3, whose eastern side is formed by W100, is poorly preserved in this area.

Excavations in this room focused on a 1×1m probe in its southwest corner, exposing a thick layer of wall tumble and loosely packed soil over a hard plaster concentration along the north face of W105. Further work is necessary to infer the function of this small room, which was only partially excavated. Pottery collected in this probe included some probable Early Bronze Age sherds alongside later, Middle Bronze Age material.

Courtyard 100

West of W100, excavations in H11 revealed an apparently exterior space or courtyard (C100).



12. Aerial view of excavation in H10, showing location of Courtyard 100.

This area contained significant wall tumble, presumably originating from the surrounding architecture (**Fig. 12**). A probable surface at about 40cm depth was uncovered with a cluster of smashed sherds to the southwest. The wall tumble appears to have badly damaged this surface, as it is uneven and marked by large divots caused by the falling stones.

On top of the surface, in the northeastern corner of C100, was a large, flat stone, 0.80m in length, that may be the fallen lintel from the D100 doorway, 0.60m in width, to the east (**Fig. 13**). The surface in C100 was associated mainly with Middle Bronze Age ceramics. A 1×1m probe in the northeast corner of C100 explored the foundations of the surrounding architecture, which allowed us to investigate any earlier occupational phases that may have been in the area. This exposed a thick layer of wall tumble above a layer of mudbrick detritus mixed with darker sediment. The limited exposure of this probe made it difficult to articulate any surfaces or other features, but the pottery coming from it continued to date to the Middle Bronze Age.

Room 4

Room 4 (R4) is directly south of R1, bounded by W106 on the west and Wall 107 (W107) to the north. The north-south Wall 108 (W108) may be a southern extension of W106, but this area was not excavated. Excavations in R4 removed a thick layer of wall tumble and other post-occupational debris, revealing what appears to be a hard-packed surface with flat-lying pottery and some mudbrick inclusions.



13. Excavations in H10 (Courtyard 100), showing the possible lintel stone from Doorway 100.

A basalt grinding-stone fragment was in the southern part of the room. The limited exposure in R4 makes it difficult to assess the room's function, but the presence of the grinding stone suggests a domestic context. Given the different orientations of its surrounding walls, R4 likely belongs to a different structure than the building to which R1, to the west, belongs.

Courtyard 200

Abutting W106 to the south is a semi-circular, stone-lined bin (H12.009) (Fig. 14). This installation was filled with loosely packed sediment containing several potsherds, but nothing obviously organic. Samples of the sediment were collected for further analysis. The bin may have been an exterior installation on the outside of the building that included R4, but this remains to be determined. The bin abutted Wall 112 (W112) on the east, suggesting that it belongs to the latest architectural phase of the site. The area with the bin may have been a room, but the apparent lack of any walls to the west makes it more likely that it was an exterior courtyard (C200).

In the southeast corner of Area H12, a hard-packed, beaten-earth layer with patches of hard plaster (Fig. 15) appears to have been a surface dating to the latest phase of occupation at the site. It is associated with Wall 111 (W111) and W112, which were mostly preserved to a single course, and may have been on top of this hard-packed layer. In some areas, wall stones were removed, exposing a hard-packed layer beneath. If this interpretation is correct, then W111 and W112 probably represent an architectural phase post-dating most of the rooms and other features described above. There was little pottery on this surface, which may have been swept clean in antiquity.

Stratigraphy and Preliminary Phasing

The results of the 2018 season at 'Ayn Qusaybah permit a preliminary reconstruction of the occupational history of the site. To date, we can identify at least three MB phases on the basis of stratigraphic relationships among architectural features (Fig. 16), numbered from the most recent downward. The following sketch of the occupational history of the site is preliminary, and further analysis of both the

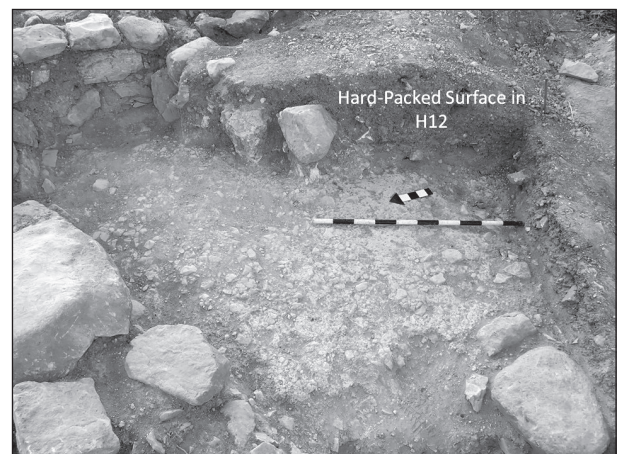
architectural remains and associated ceramics will further refine this sequence. Radiometric dating of select *loci* may also augment this reconstruction.

Phase 1

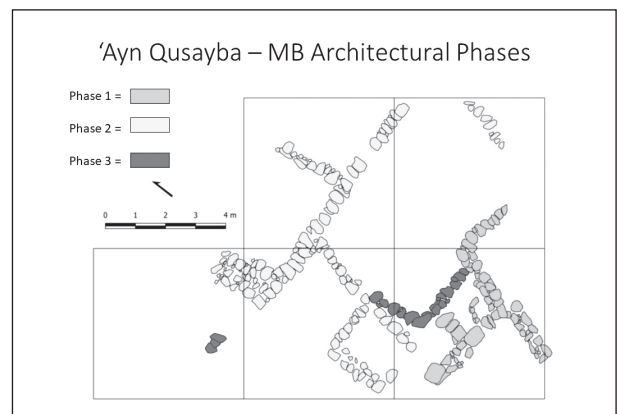
Phase 1 includes R4 in the northeast corner of H12, but also the abutting architecture



14. Stone-bin installation from H12.



15. Hard-packed surface from H12.



16. Phasing of Middle Bronze Age architectural remains at 'Ayn Qusaybah.

including W111 and W112. Also included in this phase is the hard-packed surface with plaster inclusions that probably represents the terminal use of the site in the Middle Bronze Age. Pottery collected from R4 is similar in style to Phase 2 material, suggesting that Phase 1 also dates to the MBIIB-C, but represents a rebuilding or repurposing of the earlier Phase 2 buildings. Further analysis of the pottery will likely reveal a more nuanced understanding of the differences between Phases 1 and 2. Currently, the best indicator of Phase 1's later date is the construction of W106 on top of W115 of Phase 3. Further, the construction of W111 and W112, characterized by larger boulders and chink stones, is quite different from that of the earlier Phase 2 and 3 walls.

Phase 2

Phase 2 comprises R1, R2, R3 and C100. These features appear to represent a major occupation consisting of at least one, but probably two buildings, including exterior spaces. Finds from R2 include several small fragments of straight-sided cooking pots typical of Phase 3 material. However, the assemblage is dominated, for the most part, by cooking pots with out-turned rims more reminiscent of the later MBIIB-C periods. This suggests that Phase 2 represents a slightly later Middle Bronze Age occupation at 'Ayn Quşaybah, with significant architectural remains.

Phase 3

Phase 3 is represented by Wall 113 (W113) and associated sediment layers first exposed in 2014. The poorly constructed wall was founded at a lower elevation than W101 to its northwest. W114 and W115 have been tentatively assigned to this earliest phase. W115 runs under W106, suggesting that it was constructed earlier. The stratigraphic relationship between W114 and W100 remains ambiguous, as only the southwestern corner of R1 has been excavated so far. Future work may shed light on the relationship between these two walls and establish their precise phasing. Pottery collected in H10 in 2014 and 2018 confirm an early Middle Bronze Age occupation, owing particularly to the presence of two well-preserved, flat-bottomed cooking pots that correspond mainly to the MBIIA.

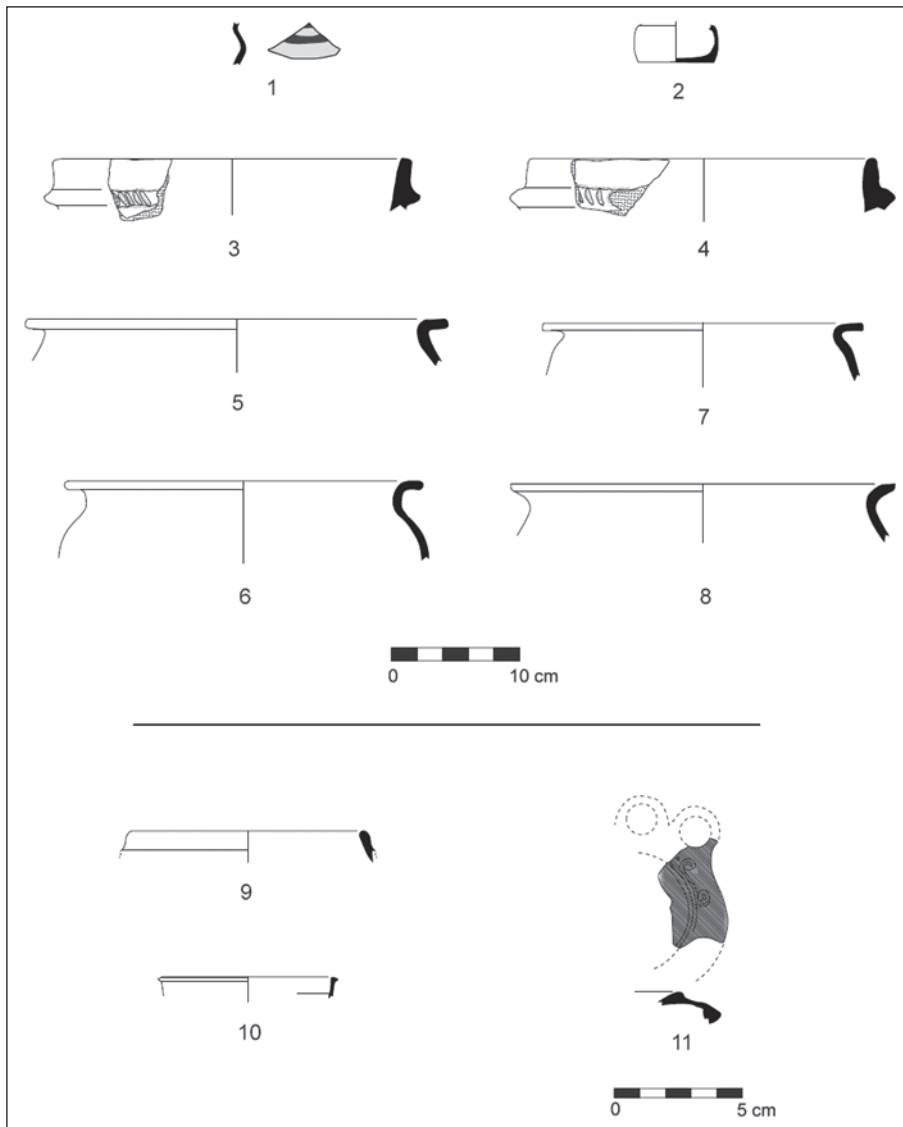
Middle Bronze Age Pottery from 'Ayn Quşaybah

Several Early Bronze Age sherds were recovered in R3, in the southeast corner of H11 (**Fig. 17: 1-2**), including one with band slip decoration common to the region and suggesting an EBIB date (Banning *et al.* 2015: 3, 5, Fig. 5: 1-3, Fig. 6: 1). These may signify an Early Bronze Age phase at the site that our excavations have yet to penetrate. The overall context of these sherds appears to be the Phase 2 structures belonging to the MBIIB-C. They appear to be residual, but further work will be necessary to assess their significance.

The bulk of the pottery recovered at 'Ayn Quşaybah points to a significant Middle Bronze Age occupation at the site. Most of the Middle Bronze Age pottery collected in 2018 constitutes a relatively common household or utilitarian assemblage. Several globular or closed carinated bowls were recovered (**Fig. 17: 3-5**), as well as bowls with simple or everted rims (**Fig. 17: 6-7**) and several distinct types of jars (**Fig. 17: 8-12**).

Missing from the 'Ayn Quşaybah assemblage are clear examples of the specialist-produced Chocolate-on-White Wares (including White Wares) and Tall al-Yahudiyah Ware attested at Middle Bronze II sites in the central Jordan Valley and neighbouring regions (Maeir 2007, 2010). The 'Ayn Quşaybah pottery appears to constitute a more utilitarian assemblage with mostly plain, local wares. Only one Middle Bronze Age sherd is confirmed as being painted. Its brown paint on a cream slip is typical of late Middle Bronze Age pottery (**Fig. 18: 1**), and preliminary analysis suggests it to be part of the monochrome decorated tradition based on criteria established by Fischer (1999). Given the likely agrarian nature of the site and its relatively secluded location in Wādī Quşaybah, a tendency toward utilitarian forms is not surprising. Further comparisons between the assemblages of 'Ayn Quşaybah and contemporaneous sites in the central Jordan Valley, especially Tall al-Hayyāt (Falconer and Fall 2006), will be necessary.

The most diagnostic material collected in 2018 includes fragments of hand-made, straight-sided cooking pots with appliqué below the rim (**Fig. 18: 3-4**), as well as several other types



17. Representative pottery from 'Ayn Qusaybah. Early Bronze I (1-2); Middle Bronze Age bowls (3-7); storage jars (8-12).

of cooking pots with out-turned rims (**Fig. 18: 5-8**). These latter forms are more prominent in later Middle Bronze Age phases, and appear to continue into Late Bronze Age I (Fischer 2006: 113, Fig. 118: 2-3; 174, Fig. 205: 2-3) suggesting that 'Ayn Qusaybah was occupied for several centuries around the beginning to the middle of the second millennium BC.

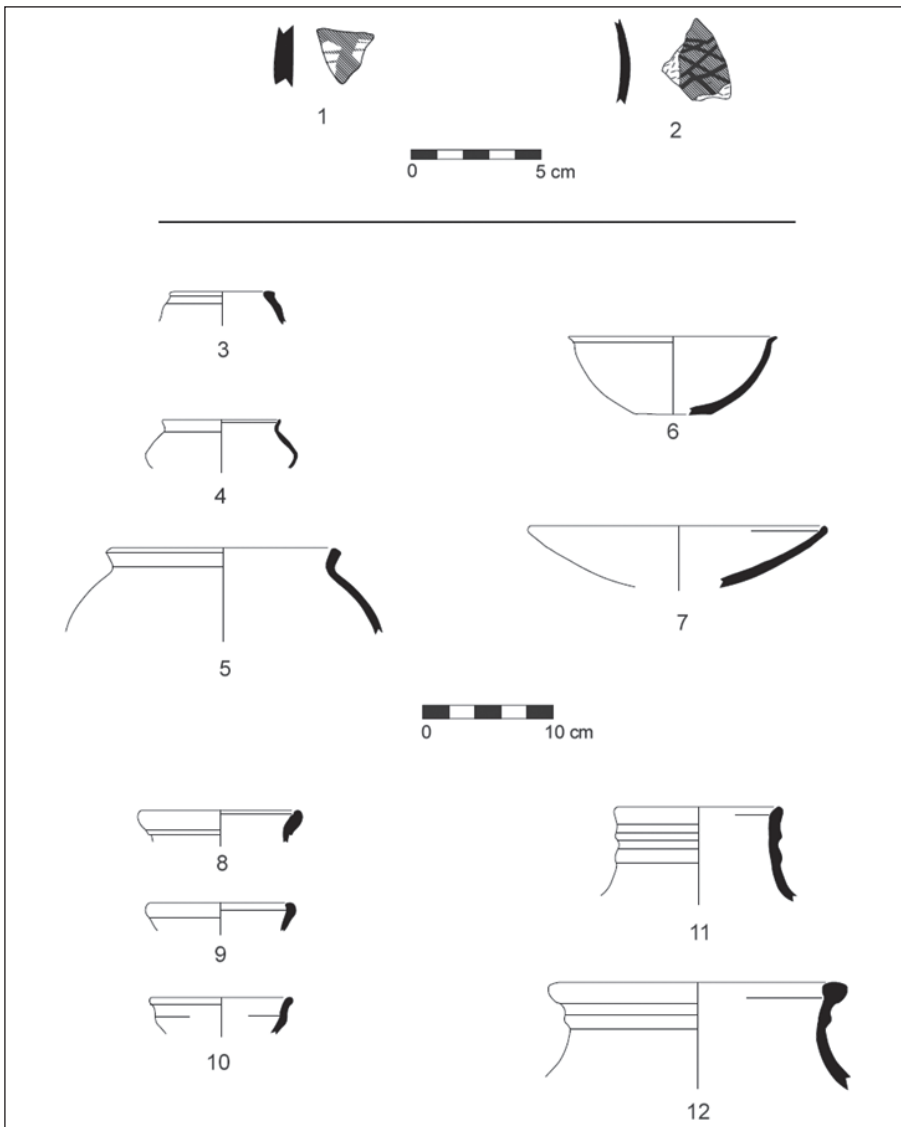
Examples of straight-sided cooking pots that were recovered during the 2014 field season (**Fig. 19**) compare favourably with those found in Middle Bronze IIA levels at Tall al-Hayyāt (cf. Falconer and Fall 2006: 54, Fig. 4.7: a-f, h-l), Pella (Bourke *et al.* 2006: 18, Fig. 12-13) and sites further afield, such as Aphek (Kochavi *et al.* 2000: 119, Fig. 8.10: 10), Jericho (Kenyon and Holland 1982: 370, Fig. 144), Tall Zeror (Kochavi *et al.* 1979: 158, Fig. 18: 14) and

Tall Al Mutasallim (Megiddo) (Loud 1948: Pl. 7:10). This suggests that occupation at 'Ayn Qusaybah dates at least to Middle Bronze IIA. In contrast, the pottery collected in 2018 mainly reflects a Middle Bronze IIB-C date, indicating that the site was occupied for an extended period in the first half of the second millennium BC.

Small quantities of Iron Age II (**Fig. 18:9**) and Roman pottery (**Fig. 18: 10-11**) were collected during the 2018 season, all from near-surface contexts.

Other Finds

Small finds from the 2018 excavations were limited to two basalt grinding-stone fragments, a chert pounder, a ceramic jar stopper, and a large drain fragment. Faunal remains were rare, limited to a few specimens of sheep or goat.



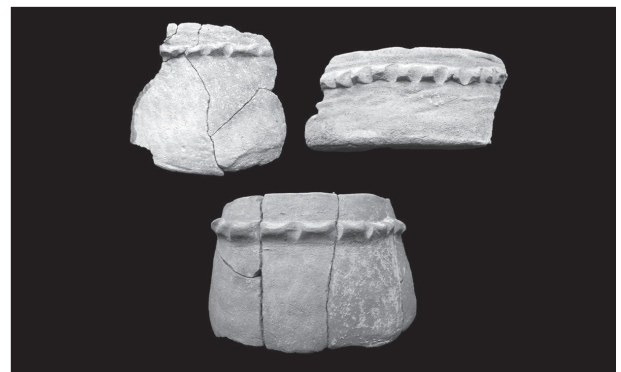
18. Representative pottery from 'Ayn Quṣaybah. Middle Bronze Age painted ware (1) and cylindrical juglet (2); straight-sided cooking pots (3-4); cooking pots with out-turned rims (5-8). Later material dates to the Iron Age II (9) and Roman periods (10-11).

Future Work

Future excavations at 'Ayn Quṣaybah will continue to focus on refining the occupational history of the site. The presence of Early Bronze sherds suggests that occupation extends to at least the late fourth millennium BC, but we have yet to encounter architectural remains of this period. Further work will continue to investigate the MB phases at the site, which appear to indicate a relatively long occupation from the MBIIA to the end of the Middle Bronze Age.

Greater horizontal exposure is necessary to articulate more complete plans of the buildings. At present, the exposed walls are too fragmentary to infer any specific functions for the structures. On the other hand, the meagre small finds do suggest that these were mostly domestic units.

Future work at the site will emphasize not only the occupational history of 'Ayn Quṣaybah, but also its role in the regional economy during the Middle Bronze Age. The relationship between rural sites like 'Ayn Quṣaybah and such nearby centers as Pella and Tall Abu al-Kharaz remains



19. Straight-sided cooking pots with appliqué below the rim.

unclear, but we hope that future excavations will provide new insights into how these larger centers exploited the rugged tributary valleys east of the Jordan Valley over the *longue durée*.

On the whole, ‘Ayn Qaşaybah presents an interesting opportunity to explore a rural MB settlement that is not a *tall*, and that occupies the boundary between the Jordan Valley and the highland plateau to its east. Such sites tend to be overlooked in favour of the more prominent mounds found in the adjacent valley.

Bibliography

- Banning, E.B.; Gibbs, K.; Ullah, I.; Hitchings, P.; Abu Jayyab, K.; Edwards, S. and Rhodes, S.
2015 Archaeological Excavations in Wadi Quseiba and Wadi al-Bir, Northern Jordan. *Antiquity* 89(344): project gallery <http://antiquity.ac.uk/projgall/banning344>.
- Banning, E. B.; Harun, J. and Klassen, S.
2008 Multiple-Spouted Jars of the Early Bronze I in Northern Jordan. *BASOR* 349: 1-12.
- Bourke, S.; Sparks, R. and Schroder, M.
2006 Pella in the Middle Bronze Age. Pp. 9-58 in P.M. Fischer (ed.), *The Chronology of the Jordan Valley during the Middle and late Bronze ages: Pella, Tell Abu al-Kharaz, and Tell Deir ‘Alla*. Denkschriften der Gesamtkademie, Band XL. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Falconer, S.E. and Fall, P.L.
2006 *Bronze Age Rural Economy and Village Life at Tell el-Hayyat, Jordan*. BAR International Series 1586. Oxford: Archaeopress.
- Hitchings, P.; Bikoulis, P.; Edwards, S. and Banning, E.B.
2016 Predict and Confirm: Bayesian Survey and Excavation at Three Candidate Sites for Late Neolithic Occupation in Wadi Quseiba, Jordan. Pp. 605-611 in S. Campana, R. Scopigno, G. Carpentiero and M. Cirillo (eds), *CAA 2015 Keep the Revolution Going: Proceedings of the 43rd Annual Conference on Computer Applications and Quantitative Methods in Archaeology*. Oxford: Archaeopress Publishing.
- Fischer, P. M.
1999 Chocolate-on-White Ware: Typology, Chronology, and Provenance: The Evidence from Tell Abu al-Kharaz, Jordan Valley. *BASOR* 313: 1-29.
- 2006 *Tell Abu al-Kharaz in the Jordan Valley. Volume II: The Middle and Late Bronze Ages*. Denkschriften der Gesamtkademie, Band XXXIX. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Kenyon, K.M.; and Holland, T.A.
1982 *Excavations at Jericho, vol. 4, the Pottery Type Series and Other Finds*. London: British School of Archaeology in Jerusalem.
- Kochavi, M.; Beck, P. and Yadin, E.
2000 *Aphek-Antipatris I: Excavation of Areas A and B, The 1972-1976 Seasons*. Tel Aviv: Emery and Claire Yass Publications in Archaeology.
- Kochavi, M.; Beck, P. and Gophna, R.
1979 Aphek-Antipatris, Tel Poleg, Tel Zeror and Tel Burga: Four Fortified Sites of the Middle Bronze Age IIA in the Sharon Plain. *Zeitschrift des Deutschen Palästina-Vereins* 95: 121-165.
- Loud, G.
1948 *Megiddo II: Seasons of 1935-39*. Chicago: University of Chicago Press.
- Maeir, A.M.
2007 The Middle Bronze Age II pottery. Pp. 242-389 in A. Mazar and R. A. Mullins (eds), *Excavations at Tel Beth-Shean 1989-1996, Volume II: The Middle and Late Bronze Age Strata in Area R*. Jerusalem: Israel Exploration Society.
- 2010 *In the Midst of the Jordan: The Jordan Valley during the Middle Bronze Age (ca. 2000-1500 BC)*. *Archaeological and historical correlates*. Wien: Österreichische Akademie der Wissenschaften.