PRELIMINARY REPORT ON THE SEVENTH SEASON (2018) OF SPANISH-ITALIAN EXCAVATIONS AT JABAL AL-MUȚAWWAQ, WĀDĪ AZ-ZARQĀ', JORDAN

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Introduction

Jabal al-Muṭawwaq is an Early Bronze Age site and necropolis located atop a mountain in the middle Wādī az-Zarqā'. Following many years of research by a Spanish team led by Juan Antonio Tresguerres-Velasco [For a reassessment of the previous Spanish expeditions see Muniz *et al.* 2014], since 2012 the area has been investigated by Spanish and Italian teams led by Juan Muniz and Andrea Polcaro¹ respectively.

The September 2018 excavation season continued the work carried out in 2016 in two areas, both focused on the Eastern Sector of Jabal al-Mutawwaq village (**Fig. 1**). The first area, Area C East, was centered on the Great

Enclosure (Muniz and Polcaro 2017), a large semi-circular structure already investigated on its western and northern limits. In 2018 we expanded the excavation on the western side of the structure to investigate a possible entrance, previously identified on the strength of two stone jambs and an in-situ megalithic lintel. The second area, Area C South, was centered on Dolmen 535. This was distinguished by its huge size, one of the largest so far identified at Jabal al-Mutawwag, and its location close to the southern limit of the village, not far from another dolmen (Dolmen 534). The latter was excavated during the 2014-15 seasons and dated to a later phase of the site, Early Bronze (EB) Age II, by which time the EB I village was



^{1.} Location of the 2018 excavation areas at Jabal al-Muțawwaq.

funded and supported by the Italian Ministry of Foreign Affairs, the Spanish Ministerio de Education, Cultura y Deportes, the CSIC of Barcelona, the Spanish Embassy in Jordan and the Italian Embassy in Jordan.

1. The Italian team included Alessandra Caselli as archaeological supervisor of Area C South and Eloisa Casadei as supervisor of Area C East. The Spanish team included Valentin Alvarez Martinez as archaeologist for Area E. The expedition was

already abandoned (Polcaro and Muniz 2018). Finally, a third new area, Area E, was opened to the north, close to the north-eastern limit of the EB I village of Jabal al-Muṭawwaq. This targeted a substantial black ashy layer on and around a small mound.

Area C East

Area C East was a southwards expansion of trenches excavated on the west side of the Great Enclosure in 2014-16. Measuring 3×5 m, the new trench centered on a megalithic structure comprising two stone jambs and a stone lintel. This structure, designated D.1110, is located along W.102, the delimiting wall of the enclosure. It was excavated with the aim of understanding if it functioned as the main entrance to this substantial semi-circular structure, which measures more than 50m in diameter and was distinguished by a central standing stone (Fig. 2). Previous excavations of the Great Enclosure had established how W.102 was constructed. It is a dry-stone wall, of which three lines of huge megalithic blocks were preserved on its western and northern sides. The wall was founded on bedrock, with differences in height being levelled with small stones and rubble.

D.1110 was surrounded by a considerable quantity of large, fallen stones; these were removed during excavation. After an initial clearance of fallen stone on the inner and outer sides of D.1110, it was decided to concentrate this season's work on the north-western or outer - side of this possible megalithic entrance to the Great Enclosure. Here, after the removal of layers of tumble (SU714; SU715; SU717), another alignment of stones appeared immediately beneath the surface. This was recognized as a second outer wall (W.1108), running parallel to W.102 and located 60cm west of D.1110. W.1108 was made of large stones (\sim 50×70cm), preserved to a height of two lines. These were well cut on the outer face (looking to north-west), but apparently not on the inner. As in the case of the main delimiting wall of the enclosure (W.102), the stones of W.1108 were placed directly on bedrock, with differences in height being made up by a layer of small stones (20-30×15-20cm) and loose soil (SU723).

Continuing the excavation in front of D.1110 between W.102 and W.1108, it became clear that the space between the walls was filled with a layer of stones, loose rubble and compact earth (SU728). This suggests that W.1108 was a blocking wall of D.1110. The SU728 deposit was excavated between the stone jambs of D.1110, testifying to its function as the original entrance of the Great Enclosure, one that was blocked at the end of its use by this complex system involving an outer frontal wall (W.1108) and an inner fill of stones and compact earth (Fig. 3). Moreover, the entrance was also blocked in the inner side to the height of the lintel by another wall made of huge stone blocks (W.1122). This will be investigated during the next season of excavations. After the partial removal of SU728, the height of the megalithic door was confirmed as being at least 0.80m, to which another 30-40cm most likely needs to be added to reach bedrock, which would give a total height of around 1.20m. If so, the entrance to the Great Enclosure would be of similar height to the entrances of domestic structures in the EB IA village of Jabal al-Mutawwaq



2. General view of the Great Enclosure, from north.



3. Entrance to the Great Enclosure (D.1110), from north-west.

(Tresguerres-Velasco 2006), viz. 1.10-1.40m, but more excavation is needed to verify this point. The pottery from Area C East is a perfect match with the general EB IA assemblage of the Jabal al-Mutawwaq village, being characterized by handmade, medium- or medium-low-fired sherds, mostly buff but ranging in colour from light yellow or pink to dark reddish brown. All sherds are mineral tempered, with a high frequency of limestone, flint and small grits. Sometimes vegetal temper and grog clay are also present in the fabric. Only two diagnostic sherds were found: a flat base from a mediumsized jar and a body sherd decorated with a line of dots. Both came from the collapse lavers, and both dated to the EB IA.

The complex blocking of entrance D.1110 testifies to the great importance of the Great Enclosure, which was apparently closed with considerable effort by the community of Jabal al-Mutawwaq at the end of its use. While its original function still needs more investigation to be finally understood (Muniz and Polcaro 2017), the effort exerted by the population of the EB IA village in sealing the main entrance to the enclosure, together with its prominent location within the topography of the settlement and the presence of a central standing stone, all point to the structure having great social and political importance.

Area C South

Area C South was first opened in 2016. It was centered on a large dolmen identified on the southern slope of Jabal al-Mutawwaq, close to the Great Enclosure and southern settlement wall of the EB IA village. The 2016 trench was expanded in 2018 with the excavation in front of the dolmen of an area measuring $5 \times 5m$.

Dolmen 535: location and architecture

Located just 4.50m south of the natural bedrock of the cliff, Dolmen 535 has been recognized as one of the largest dolmens on this part of the mountain. Its location is very important, not only because of its proximity to the southern settlement wall of the EB IA village, but also because of its proximity to Dolmen 534 (about 30m to the south). This was excavated in 2014-15 and dates probably to the EB IB. The excavations in this area aimed to ascertain if Dolmen 535 has the same chronology.

Dolmen 535 was clearly looted from behind. The back slab was not in place and the inner chamber of the megalithic structure had been almost completely emptied. Nevertheless, it was possible to examine the architecture of the dolmen, which was surrounded by a huge stone platform (4.40m wide, 5.50m long) of apsidal shape, preserved to a height of three lines of squared stone blocks. The typology of the large stones used for the platform more closely resembles Dolmen 534 than the older EB IA dolmens of the extramural necropolis excavated in Area B (Alvarez et al. 2013; Polcaro et al. 2014; Muniz et al. 2016). The inner chamber of the dolmen is the largest discovered to date on Jabal al-Mutawwaq, with a height of 2.27m, length of 2.33m and width of 0.80m. Moreover, two parallel lines are carved on the two lateral slabs in the middle of their height (Fig. 4). These are known from other dolmens in Transjordan, such as those of Tall al-'Umayrī or some of those at Dāmyah [For the dolmens of Tall al-'Umayrī see Dubis and Dabrowski 2002; for Dāmyah see Yassine 1985; this is called Type E by Kafafi and Scheltema 2005]. They are usually interpreted as mountings for a second floor of a perishable material such as wood, which would divide the vertical space of the burial chamber in two.

Dolmen 535 had two high stone steps in front of the entrance, leading from the outside to the inner chamber. In front of the dolmen a beaten-earth floor (L.1007) was discovered in 2016, after the removal of an accumulation of stones and soft earth (SU406). Associated with the floor, on the left side of the dolmen's



4. Inner chamber of Dolmen 535, from south.

entrance, a small circular installation was also recognized (I.1006) (Fig. 5). I.1006 was built of medium-sized stones and measured about 1.18m in diameter. It was filled with a compact layer of earth and rubble. On the floor, some EB IB-II sherds were recovered, including an inverted rim platter and a small bowl with a disc base [For the platter see comparison with Tall al-Mutasallim (Megiddo), Eastern Slope, dated to EB II (Braun 2013: pl. 66a). For the bowl with disc base see comparison with Jericho, Tomb K2, phase II, dated to EB IB (Kenvon 1965: fig. 8:11)], both with red-burnished decoration on the inner and outer sides (Fig. 6) [Re. this topic see Philip and Baird 2000: 8]. These sherds were characterized by black-basalt and white-limestone grits in the red-orange coloured fabric, this being very different to the EB IA pottery fabric of Jabal al-Mutawwaq village. These findings, together with other sherds discovered within the inner chamber of the dolmen, date at least its last use to the EB IB-II. as at Dolmen 534.

Burial Cave C.1012: Findings and Stratigraphy

In the 2018 season, L.1007 and I.1006 were removed after documentation in order to understand if an older phase of use of the dolmen entrance could be recognized. After their removal, the excavations reached natural bedrock that was clearly cut in an artificial oval shape (**Fig. 7**). The cut was filled with a layer of soft earth (SU412). After latter's removal it was clear that the cut formed the entrance of a cave (C.1012) approximately $2 \times 2m$ in area, located just in front of the entrance of Dolmen 535. In fact, the rock was deliberately shaped in order



5. General view of Dolmen 535, floor L.1007 and circular installation I.1006, from north-east.



6. EB IB-II pottery from floor L.1007.

to gain easy access to the entrance of the cave, which in turn extended northwards toward the mountain cliff. After the removal of this first layer (SU412), a layer of compact earth and medium-sized stones was recognized (SU415). During its excavation a stone wall (W.1014) appeared to the north, completely sealing the entrance of the cave. Within SU415, in front of the wall that sealed the cave, a complete hemispherical bowl of red fabric with basalt and limestone grits was discovered (**Fig. 8**). The bowl can be dated to the EB IB-II², testifying



7. Artificial cut of the bedrock in front of Dolmen 535, from north.

perhaps to a rite associated with the final closure of the cave, before the construction of the upper floor.

After documentation, W.1014 was removed; several secondary burials were discovered inside cave C.1012. The northern part of the cave, with its limestone roof still in place, was filled with a layer of soft earth (SU417), with some limestone blocks testifying to the partial collapse in ancient times of the roof. After the removal of SU417, three main burials were exposed (B.1020; B.1023; B.1024). The inhumations were clearly in secondary deposition, with long bones arranged in piles and a few vertebrae and other small bones scattered on the floor of the cave (Figs. 9 and 10). At the back of the cave, against its northern wall and mostly at the corner of the chamber, a minimum of six skulls were discovered (Fig. 11). Unfortunately, the collapse of the limestone roof had crushed most of the skulls and scattered parts of the bone piles. Only after anthropological analysis will it be possible to state the exact number of inhumations in the cave, but in the meantime it may be said that at least 10 individuals were buried there. Among the bone piles, a miniature cup and miniature anphoriskos was discovered, giving a total of six vessels; two more miniature jars were



8. Bowl discovered under floor L.1007 in the upper layer of cave C.1012.

2. This shape of bowl is present in burial assemblages in the southern Levant and Transjordan from EB IA. See for example Bab adh-Dhirā' cemetery (Schaub and Rast 1989: fig. 87: 5-9) or the burial cave close to Sh'ar Efraym (van den Brink 2011: fig. 18:1). However, the type of fabric and nature of the grits are perfectly comparable with pottery discovered on upper floor L.1007 in front of Dolmen 535 and are completely absent in the pottery assemblage of the EB IA village of Jabal al-Mutawwaq. 3. Anphoriskoi tend to appear regularly in burials of the southern Levant from the EB IB-II (Ilan 2002), even if the oval shape discovered in Cave C.1012 has no significant comparisons with the burials discovered until now in Transjordan region. A



9. General view of burial B.1020 with bone pile scattered in cave, from south.



10. Detail of burial B.1023, with pile of long bones in place, from south.

discovered amongst the skulls (Fig. 12). All of these vessels could be dated to the EB IB³. The exclusive presence of miniature vessels without any other pottery types - might suggest that, rather than being funerary assemblages for the dead, the pottery from the C.1012 burial layer was associated with funerary rites connected with the secondary deposition of the dead.

After documentation, the secondary inhumations were removed, exposing another layer

similar shape, even if different at the neck and with a much more everted rim, was discovered at Tall al-Mutasallim (Megiddo), Tomb 903 upper layer, dated to the final EBIA (Braun 2013: pl. 55a) and 'Ayn al-Asāwir ('En Esur) (Yannai 1996: pl. 7:6), dated to the EB IB. Other similar types, from the end of the EB I or early EB II, come from 'Ayy, Tomb G (Callaway 1964: pl. XI:936, XVI:673); see also a similar type from Tall 'Arād (Arad) (Amiran 1978: pl. 10:2). Concerning the two miniature jars discovered amongst the skulls in C.1012, see comparisons with Jericho, Garstang's Northeastern Trench, Level V (Garstang *et al.* 1935: pl. XXXI:16), corresponding to Sultan IIIB1, dated to the early EB II (Nigro 2010: 77).



11. Rows of skulls at back of burial chamber of the cave, from south.

of large limestone blocks and rubble (SU 414); this was clearly associated with an earlier collapse of the cave roof. SU414 extended all over the cave, including the area south of blocking wall W.1014. This suggests that, before its use as a burial chamber, the cave was much larger - around $2 \times 3m$ - and extended towards the base of the dolmen. After the removal of this layer, a deposit of soft earth and stones (SU418) was discovered. In the northern part of the cave, this deposit of abandonment and natural accumulation covered another layer (SU420). SU420 was characterized by dense ash lenses, testifying to a hearth in the back of the cave that, owing to evident signs of burning on the adjacent rock, enjoyed long use. Close to the ash lenses a complete EB IA bowl was recovered, together with several ledge handles (Fig. 13) and, in the southern part of the cave, a stone disk - probably a circular chopper (Fig. 14). Both the pottery and lithic discovered in SU420 have good parallels amongst the EB IA material from the domestic structures of the EB IA village of Jabal al-Mutawwaq. SU420 lay directly over an artificial levelling layer of bedrock chunks (L.1022), corresponding to the floor of the cave in this phase of use.

After the removal of these layers from the cave, the original floor (L.1018) of natural bedrock was reached (Fig. 15). The rock was artificially cut in a roughly circular shape. On



12. Miniature pottery associated with the burials in cave C.1012.

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13. EB IA pottery from the lower layer (SU418) of cave C.1012.



14. Stone disk discovered in the lower layer (SU418) of cave C.1012.

the bedrock, remnants of white plaster that probably originally covered the full extent of the cave in its first phase of use, were recognized. This, together with a carved hole and channel



15. General view of cave C.1012 after excavation, from southwest.

on the western side of the cave, might indicate that C.1012 was initially used as a water cistern.

Summarizing, the data gathered thus far from cave C.1012 allow us to identify six phases of use (from earliest to latest):

Phase I: The cave was carved into bedrock with a circular shape and may originally have functioned as a water cistern. This is suggested by the presence of plaster on surface L.1018, by the gradual slope of the bedrock towards the back wall of the cave, and by the hole in the rock with a carved channel going through the cave.

Phase II: A new occupational phase occurred. A floor was constructed by levelling the bedrock (L.1022) and a hearth was utilised together with pottery and lithic material of the EB IA.

Phase III: Abandonment of the cave; part of the roof collapsed.

Phase IV: The cave started to be used for funerary purposes. The entrance of the cave was remodelled in direct association with Dolmen 535. Disarticulated human skulls and piles of long bones were arranged on several occasions in the northern part of the cave. Dolmen 535 was built and used together with the cave for funerary and cultic purposes.

Phase V: When funerary use ended, the burials were protected by wall W.1014 and the central part of the cave was filled by SU415 and SU412. That this was probably a ritual sealing is suggested by the deposition of a hemispherical bowl. Floor L.1007 was built on the top of the sealing deposits concealing the entrance of the cave.

Phase VI: Use of floor L.1007 and circular installation I.1006 in front of Dolmen 535 and on top of the deposits sealing cave C.1012. This suggests continuity of religious practice above the burial cave during what was probably the last phase of use of Dolmen 535.

Area E

The third area (Area E) opened in the 2018 season was located on the upper part of the mountain (Fig. 16). The site was selected after surveys in previous years had identified a tumulus associated with a large quantity of ash. This formed an artificial mound, initially interpreted as a large furnace, of a type not detected in the village hitherto.



16. General view of Area E.

The excavation area was $5 \times 2m$, with the aim of the excavation being to understand the constructional phases of the tumulus by investigating the structure from the western limit of the excavation area to the central part of the mound. The start of excavation quickly resulted in the furnace hypothesis being dismissed in favour of the structure's possible function as a funerary tumulus. In fact, on Jabal al-Mutawwaq megalithic tumuli of circular plan are attested, but these are usually built of large stone blocks. This mound, in contrast, appeared at first glance to be very different in shape and construction.

The surface layers were removed (SU1; SU2), exposing a third layer (SU3) of rubble (average size 7cm) mixed with dark earth. SU3 yielded a large number of sherds dating from the EB IA to EB II. This layer followed the contours of the tumulus, with a maximum height of 1m. Below it were natural accumulation layers (SU4; SU5) of small stones and soft earth. Removal of these exposed an artificial layer (SU6) consisting of compacted earth containing sherds and bones.. This layer was characterized by the presence of ash lenses with an average thickness of 20 cm. As already attested in other areas of the site, a levelling layer of medium-sized stones and earth (SU7) was identified. Under this was a 10cm thick deposit of earth (SU8) following the natural slope of the mountain, below which another accumulation layer (SU9) was identified. This consisted of mixed stones and rubble, without the presence of archaeological material.

The trench reached a maximum depth of 2.20m below the current ground surface. No

walls or structures were identified within the tumulus / mound, although the trench did not investigate its central part, which remains intact.

Our general analysis of the area (Fig. 17) is suggestive of the existence of a geological base (SU10; SU 9) upon which some activities were performed. These involved the deposition and levelling of earth layers (SU8; SU7; SU6), within which archaeological material accumulated. In the absence of a more detailed study, it seems that these activities should be dated to the EB I. Later, this surface was used as the foundation for an accumulation of stones and dark earth that gives the tumulus its current appearance (SU5; SU4; SU3). Finally, the upper part of the tumulus presents a stratum that has suffered episodes of erosion (SU2), affecting also the current surface (SU1).

Conclusions

The 2018 excavation season has led us to a better understanding of the two main phases of occupation at the site: the first dated to the EB IA and the second to the EB IB-II. The exploration of the Great Enclosure has finally identified its original entrance to the west, opening on to Area



17. Eastern section of Area E.

C - already identified as an area of production and processing activities. The investigation at Dolmen 535 testifies to the use of the Jabal al-Mutawwaq site as a large megalithic cemetery during its later, EB IB-II phase. This seems to have involved dolmens, burial caves and possibly tumuli, the latter being hinted at by the results from Area E - even if more investigation is needed in this northern area of the site.

Furthermore, the discovery of an association between Dolmen 535 and burial cave C.1012 opens the door to exciting new possibilities regarding the exploration of dolmens in Jordan. The possibility that dolmen burials were neither removed at the end of these structures' utilisation nor were completely looted in later times, but - on the contrary - are still preserved in concealed underground chambers, will continue to be explored in future excavation seasons at Jabal al-Mutawwaq.

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