

PRELIMINARY REPORT OF THE EIGHTH SPANISH-ITALIAN ARCHAEOLOGICAL EXPEDITION TO JABAL AL MUṬAWWAQ, MIDDLE WĀDĪ AZ ZARQĀ’, SEPTEMBER 2019

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Introduction

Jabal Al Muṭawwaq is an Early Bronze Age I site located along the Middle Wādī Az Zarqā’, 7 km south-east of Jarash, characterized by a walled village of 18 ha and a large megalithic necropolis extended over the entire mountain with hundreds of dolmens still preserved¹. Since 2012 it is the subject of a joint Spanish-Italian expedition directed by Juan Ramón Muñiz Álvarez (Pontificia Facultad San Esteban, Salamanca) and Andrea Polcaro (Università degli Studi di Perugia)². In prior seasons of excavation several areas of investigation have been opened: Area A (Polcaro *et al.* 2016; Muniz *et al.* 2017), in the south eastern corner of the EB I village close to the settlement wall, Area B (Alvarez *et al.* 2013; Polcaro *et al.* 2014; Muniz *et al.* 2016), in the eastern cluster of the megalithic necropolis on the southern slope of the mountain, Area C (Muniz and Polcaro 2017; Polcaro and Muniz 2018; Polcaro and Muniz *in press a*), in the eastern margin of the Central Sector around the structure called the “Great Enclosure,” Area D (Casado *et al.* 2019, figs. 9-10), in the northern part of the Central Sector of the village, and Area E in the north-eastern corner of the village.

1. The site was first investigated by a Spanish expedition led by Juan Antonio Fernandez-Tresguerres Velasco since 1990 till 2011 (Muniz *et al.* 2013; Fernandez-Tresguerres 2005). One of the most important discoveries of the past Spanish expedition was the “Temple of the Serpents”; a sacred area located in the Central Sector of the EB I settlement (Fernandez-Tresguerres 2008).

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In September 2019, archaeological excavations were conducted in three areas of the site: Area C East and Area D, already investigated in the past seasons, and Area EE, a new area opened along the southern slope of the mountain, close to the stone settlement wall and the southern door of the EB I settlement, opened centered on Dolmen 11, clearly visible from the surface and partially looted with the removal of half of its huge capstone (Fig. 1). Moreover, a comprehensive study of the pottery and the flints discovered during the excavations has been completed.

Area EE

The discovery of Cave C. 1012, close to Dolmen 535, at the end of the 2018 season of excavations³, left open interesting questions about the relationship between dolmens and underground caves, at least along the southern slope of the mountain, where the large megalithic structures, built close to the external facade of the settlement wall, seem to directly face the rock cliff. There are in fact several dolmens built in this topographical location, no more than two or three meters from the southern cliff.

In order to understand better the connection between this group of dolmens and in order to have more data about their chronology, a

3. The shaft leading in Cave C. 1012, artificially excavated in the limestone bedrock of the mountain, was discovered just in front of the entrance of Dolmen 535, the findings inside the hypogeum proved the contemporary use of the dolmens and of the cave, used for secondary burials. Just miniaturist vessels were discovered as funerary gifts inside the bone piles in the chamber of the cave (see Polcaro and Muniz *in press b*).

new area was opened around Dolmen 11, as usual with a large open area trench (Trench 1), including also other features visible on the surface, such as a standing stone (S. 1200, in a shape of a single megalith of 1.62m height; 1m large and 0.80m wide at the base), very well preserved, that appeared from the beginning connected to the megalithic structure (Fig. 2).

Despite of the fact that the dolmen appears looted from its front entrance, it seemed well preserved in its other parts, particularly on the back, with the back slab still in place (S. 1204). The area is located close to the southern gate of the settlement (around 29m), and from a large water cistern, already noticed by Hanbury-Tenison in his first survey of the site (Hanbury-Tenison 1989: 138, 149, fig. 4).

During the season, another trench was opened south of the first one (Trench 2). The purpose of this second operation was the investigation of an underground chamber, noticed in connection with Dolmen 11, and clearly artificially excavated in the soft limestone rock of the lower slope of the mountain, Cave C. 1210 (Fig. 3). After this season of excavation, it seems clear that the limestone rock of Jabal Al Mutawwaq has a geological conformation characterized by the presence of alternating hard and soft *strata*, allowing some parts to be very easily excavated by hand. During the main phase of use of the settlement (Early Bronze Age IA) this has encouraged the excavation of underground chambers, which were apparently used both as storage and production spaces, and perhaps in a later phase of the settlement life, as burial hypogeum and ossuaries connected to the dolmens.

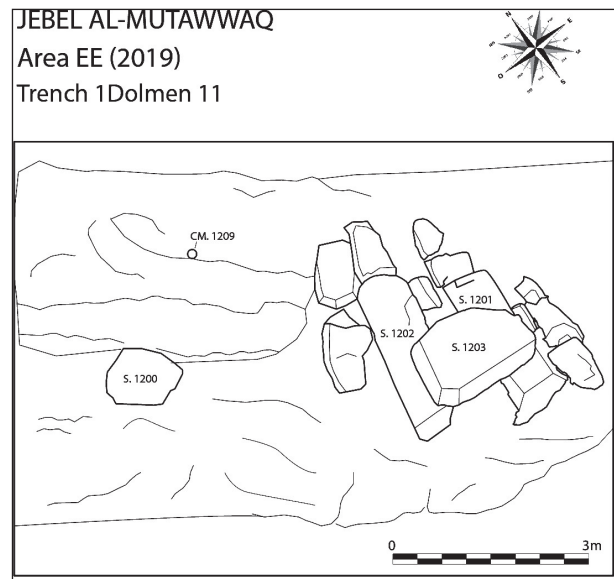
Stratigraphy of Trench 1

Trench 1 (6.5×14m), had in its Western part a stratigraphy composed by several accumulation layers (SU 500, 516, 518), covering directly the bedrock that was clearly leveled and used as a floor during the main phase of use of the standing stone and the dolmen. The bedrock was clearly cut in three steps, the upper one shaped with a rock cut bench (L. 1211), with a cup mark excavated in the bedrock in the middle of it, just in front of the standing stone. The cup mark (CM. 1209) had an irregular shape, with its northern side more polished and

sloped, compared to the southern part of it, cut vertically and without traces of use; this shape, together with the findings, suggests perhaps it's function as a mortar (Fig. 4). The standing



1. General view of Area EE and Area C from the Southern door of Jabal Al Mutawwaq, looking South.



2. General view of Area EE with Dolmen 11 and the Standing Stone S. 1200.



3. 3D reconstruction of Area EE, Trench 2, with the entrance of Cave C. 1210, looking North.

stone (S. 1200) lies on the lower third step of the bedrock, partially leveled with a layer of small stones and compact earth before its rising (SU 522).

In the Eastern part of the trench, the dismantling of the frontal sealing of the dolmen with half of its huge capstone overturn by modern robbers (SU 504) has been recognized. Under this layer, another one (SU 512), relative to the collapse of the platform wall surrounding the dolmen, covered a beaten-earth floor (L. 1208) with a preparation layer of small stones and pebbles. More than a second phase of use, this floor seems related to the original ground level in front of the dolmen. In fact, part of its preparation layer (SU 515) was found under the megalithic side slabs of its chamber. On the Western side of the dolmen platform a more consistent and hard preparation layer (SU 520), composed by clay and limestone fragments, has also been identified.

Findings and Chronology of Trench 1

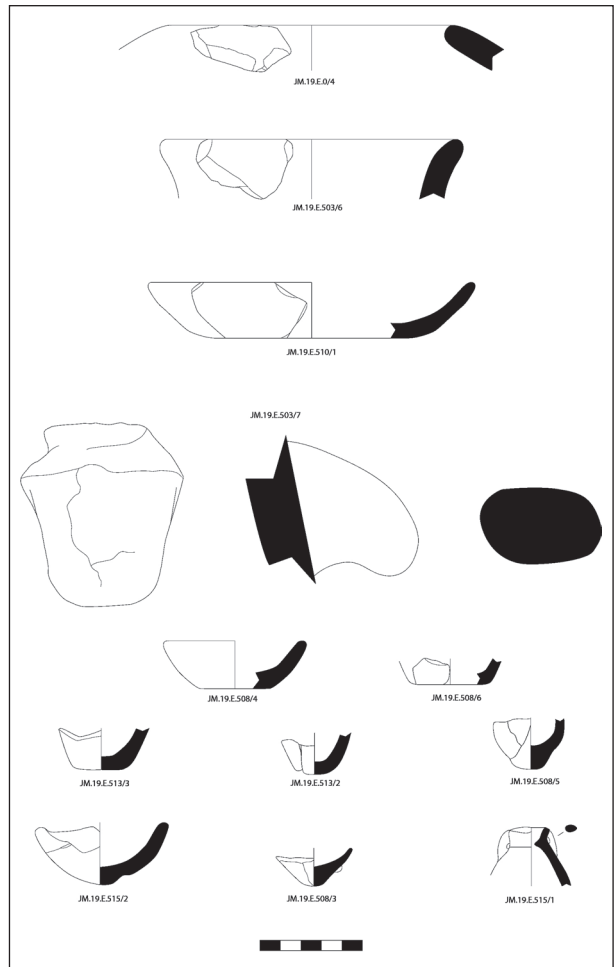
The pottery sherds recovered in the layers lying directly on the beaten-earth floor and on the bedrock, both in front of the dolmen as well as in front of the standing stone are comparable with the Early Bronze IA pottery usually found in the main phase of the Jabal Al Muṭawwāq settlement. In particular, the diagnostic sherds identified include plain ledge handles and impressed rope decorations, both present mainly on large storage jars (Fig. 5). Very interesting is the discovery of four almost entire miniature bowls and a miniature jar with loop handles in SU 515 comparable with the miniature pottery already discovered in 2018 season inside the Cave C.1012 in front of Dolmen 535 (Fig. 5)⁴.

Other findings in the Western part of Trench 1, connected clearly with the bench, the cup mark and the standing stone are at least five grinding stones with several hand stones and

pestles, discovered lying directly on the bedrock (Fig. 6). Moreover, a well preserved Cananean blade was recovered above the rock cut bench (Fig. 7). This could suggest, as do the cup mark shaped as a mortar, the use of the rock cut bench and the bedrock in front of the standing stone and beside Dolmen 11 as a productive area, perhaps for meals linked to funerals or funerary



4. Bench L. 1211 and cup mark CM. 1209 in Area EE.



5. Pottery discovered in Trench 1 of Area EE, Early Bronze Age I.

4. Nos. JM.19.E.508, JM.19.E.513, JM.E.19.515. The miniature bowls and anphoriskoi discovered in Cave 1012 in 2018 and in Trench 2 of Area EE this season are comparable with miniature vessels usually discovered in tombs of the end of the EB I (Early Bronze Age IB) or early EB II (see examples from Arad: Amiran 1978, pl. 10:2; from 'Ayy: Callaway 1964, pl. XVI: 673; from Jericho: Nigro 2010: pl. LXXIV: 1-5). However, the examples from Jabal Al Muṭawwāq are different in the position of the loop handles, located not on the shoulders, but on the neck of the small jars.

rites⁵. Also Very interesting is the presence of five spindle whorls of different materials and weight, some completely preserved, all recovered in connection with the rock cut bench and the bedrock in front of the standing stone (**Fig. 8**).

Stratigraphy of Trench 2

Trench 2 (7× 5m), was opened in front of Cave C. 1210. The cave appears already opened by illegal excavations and was thus visible from outside. It was clear from the beginning of the operation of this trench that Cave C. 1210 has probably more than one underground chamber.

In front of the cave four layers have been excavated. The first one (SU517) is the result of the dump made by modern robbers. The second one (SU 519) consists of an accumulation layer with some animal bones inside, that was also identified inside the cave. Under it, outside the cave, layers SU 525, close to the entrance, and SU 524, southeast of the first one, covered directly the bedrock.

It was, as usual, used as floor but apparently not leveled as much as in Trench 1, due to the geological conformation of the rock (**Fig. 9**).

Inside Cave C. 1210 the SU 523 and 526 have been excavated under SU 519. These ones were preserved layers not reached by the robbers, directly lying on the bedrock, with archaeological materials preserved inside. Here also some scattered bones have been discovered. Unfortunately the bones are too fragmentary to recognize it as human or animal, but further analysis will be conducted to understand their nature.

The excavation of cave C. 1210 was not finished and two sections were left un-excavated on the Western and Eastern sides of the frontal underground chamber. However, the bottom of the cave has been reached. The maximum height of the excavated chamber is 1.4m.

5. Earth samples have been recovered inside the cup mark and from the sealed layers identified on the rock cut bench; they are currently under analysis in order to understand the nature of the food production in the area close to the dolmen. In any case, the presence of grinding stones of different materials, basalt and limestone, the cup mark and other rock cut installation on the bench could be related to grinding activities, both for barely or other kind of products like olives, and perhaps pressing activities for the production of oils.

Findings and Chronology of Trench 2

Outside and inside the Cave C.1210 four large tabular scrapers have been discovered in layers SU 524 and 526 (**Fig. 10**). The typology of the scrapers is the same of the ones already recovered in several areas of the site, both in private (double apsidal dwellings) and public contexts (such as in Building 131)⁶. Also notable is the presence of several pottery sherds of large dimension recovered inside the cave. These are mostly storage jars with ledge handles and rope impressed decoration, with some kitchen ware sherds and fragmentary small bowls (**Fig. 11**). All the pottery sherds and the flints are dated to the main phase of use of the settlement, the Early Bronze Age I.

An unexpected find inside SU 526, inside Cave C. 1210, is a small clay figurine, representing an animal, with the tail and two horns broken (**Fig. 12**). Due to the large body, the shape seems to be related to a bull or sheep. However, the legs are not visible, as such as the snout, even not sketched, appearing completely flat. Due to the rare presence of animal clay figurines discovered in the Early Bronze Age I Jordan, it was not possible to find direct comparisons⁷. Also noticeable is the presence of two parallel small holes passing from the face of the animal through the back.

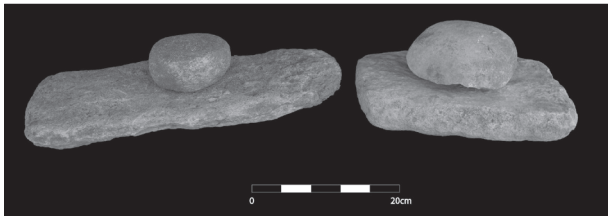
General Achievements

The excavations of Area EE allows for a more comprehensive understanding of the megalithic necropolis of Jabal Al Mutawwaq and its relationship with the Early Bronze

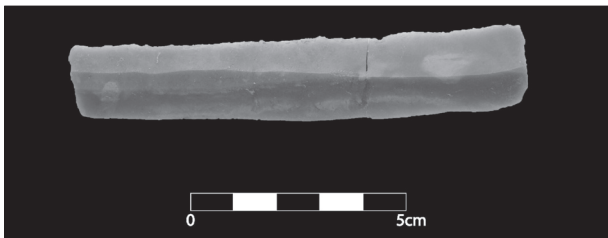
6. For the scraper found in Building 131 see: Polcaro - Muniz in press a: fig. 15a; See also the scraper recovered in Dolmen 317 of Area B: Polcaro *et al.* 2014, fig. 14; several similar scrapers were also been discovered in the Temple of the Serpents: see Fernandez-Tresguerres 2008: fig. 15.

7. Very few clay figurines are known from EB I contexts, although some examples, mostly related to human shapes, come from the Bāb Adh DHirā' shaft tombs (see Hauser 2013). Later figurines of the EB II-III seems more realistic in shape, especially for equids that are the prevailing type of clay figurine in that period: see the examples from Megiddo (Finkelstein, Ussishkin and Cline 2013, fig. 20.2) and Jericho (Kenyon1960, fig. 40:1).A best comparison, in particular for the flat shape of the snout, is from the Late Chalcolithic Period (see Tadmor 1990, fig. 7), when however also the more classical equids figure with clearly marked snout are attested (see Abu Hamid: Dollfus - Kafafi 1993, fig. 4); in general, it seems that in Chalcolithic period clay figurines of bulls present more flat snout compared to equids (see also Levy 2006: fig. 15.25).

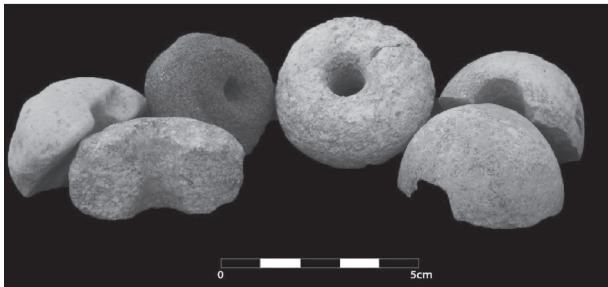
Age I settlement on the southern slope of the mountain. Dolmen 11 is very similar in architecture to Dolmen 535, already excavated in season 2018. The technique of construction foresees a huge platform built with regular large rectangular stone blocks (**Fig. 13**); the chamber of the dolmen has a floor obtained with two flat slabs lying on the preparation layer SU 515, for a total length of about 3m, a width of 0.60m and an height of 1.40m. On the lateral slabs a carved groove is evident, suggesting that the megalithic chamber was divided in two spaces with a



6. Grinding stones and pestles discovered in Area EE (Trench 1).



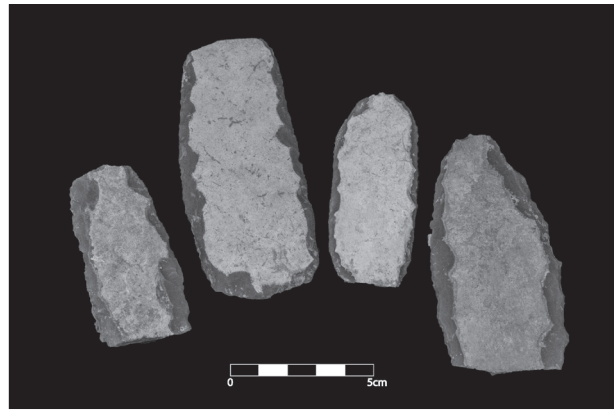
7. Flint blade discovered in Area EE (Trench 1).



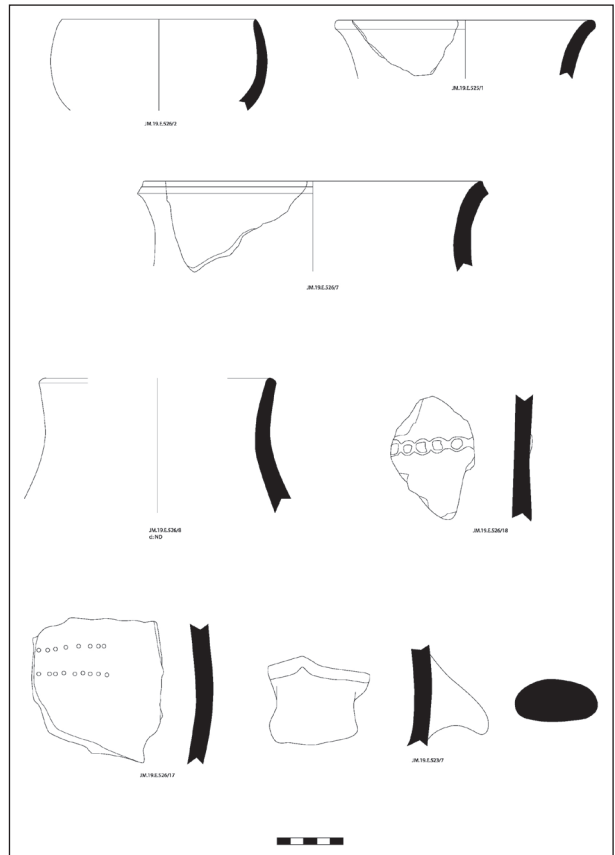
8. Spindle whorls discovered in Area EE (Trench 1).



9. The inner side of Cave C. 1210 in Area EE (Trench 2).



10. Tabular scraper discovered in Area EE (Trench 2).



11. Pottery discovered in Trench 2 of Area EE, Early Bronze Age I.



12. Small animal clay figurine discover in Cave C. 1210, Area EE.

middle floor of perishable material like wood. The dimension and the method of construction of the dolmen, together with the absence of a stepped *dromos* entrance (like in the dolmens excavated in Area B), make it comparable with Dolmen 535, excavated in seasons 2016-2018, very similar also for the topographical position and located just 100m from Dolmen 11.

Concerning Cave C.1210, it seems larger than expected, in particular compared to Cave C. 1012 excavated in the 2018 season in front of Dolmen 535, and possible other two lateral chambers will be investigated in the following season of excavation.

From this first season of excavation in Area EE, some general conclusions can be advanced: the cave C. 1210, artificially excavated during the Early Bronze Age I had a first phase of use that, looking to the findings now recovered, seems to be used as a storage and production place, located outside the settlement wall. Only the presence of the rare animal clay figurine could suggest some sort of ritual purpose of the cave during this phase. Considering the comparison with Cave C.1012, it must also be considered that the robbery of Cave 1210 in modern time could have affected the upper layers of the cave, related to a second phase of use, possible connected with funerary purpose. In fact, Cave C.1210 seems to have a direct topographical connection with Dolmen 11, located just behind it, in a similar way to Cave C. 1012, already proved to have been used in a second phase as a funerary chamber for secondary burials, directly located in front of Dolmen 535. Moreover, also Cave C. 1012 had a first phase of use with storage and production function (See Polcaro and Muniz in press b).

Area C East

Area C East is centered on a large semicircular structure of around 60m of diameter called the Great Enclosure and investigated since 2014 for four seasons of excavations⁸. During 2019 season two trenches (1 and 2) were opened in connection to two trenches excavated in 2018 season. The first one (Trench 1) was opened

in relationship to the main door of the Great Enclosure (D. 1110), already partially excavated on its front side and discovered blocked with a front wall and a sealing of large megalithic stone inside. The trench was enlarged on the back of the door, inside the Enclosure, where a huge amount of stones have been noticed on the surface. In this area the excavations allowed the discovery of a huge perfectly circular stone structure, called Structure C1, of around 8m of diameter with a small oval space in the center⁹, that had included and blocked the door of the enclosure in a second phase of use of the area, when its door was no longer used as passage (Fig. 14).

Trench 2 was opened behind the standing stone, located in the center of the enclosure and already excavated in 2018 season in a small sounding. The trench includes the inner face of W. 102, representing the main surrounding wall of the Great Enclosure (W. 102). Here a narrow rock cut space used as a storage place with jars *in situ* has been discovered, together with a small semicircular room connected to the main wall (Fig. 15).

Stratigraphy of Trench 1

Trench 1 (10×7m), was opened including the door D. 1110 and wall W. 102; after the removal of the top soil, several layers of stone rubble (SU 727, SU 728 and SU 729) have been excavated, and soon the Structure C1 (7.82×8.18m) started to appear.

The structure was built with circular concentric walls, at least three of them clearly identified. The space in between these walls was then filled with stones of irregular shape of large and middle dimensions. The external retaining wall of Structure C1 (W. 190) was built with more regular squared stones compared to the inner ones. During the excavation of Structure C1 it appears that the door of the Great Enclosure was included inside it and then blocked with two large megalithic stones (W. 1112) (Fig. 16). The circular concentric walls of Structure C1 reached in the center of an open oval space (1.5×0.9m), delimited by wall W.

8. Excavations of the Great Enclosure have been since now concentrated on the perimetrical stone wall W. 102, on its western and northern sides (see Polcaro and Muniz 2017, fig. 7).

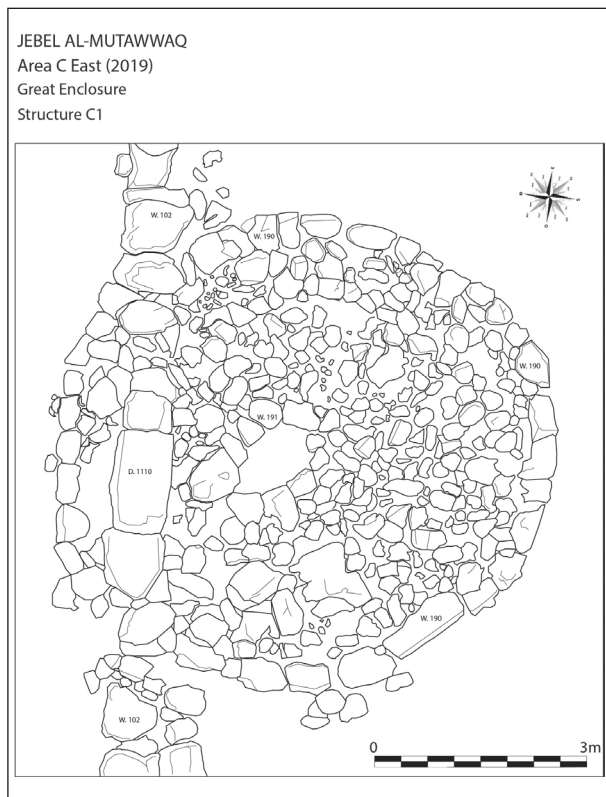
9. This circular structure was already visible on the surface and interpreted in the past as a later tumulus (see Fernandez-Tresguerres 2001: 177 and Polcaro and Muniz 2017: fig. 8).

191, that must be reached during its use from the top of the structure. The excavations proved also that the wall W. 1108, already recognized during the 2018 season and considered a blocking wall of door D. 1110, has to be connected with Structure C1, representing its western side wall.

The cleaning of the collapsed stone of the structure also permits the identification of the first use of the door and its clear connection with the wall W. 102, relative to the first phase of use of the Great Enclosure (**Fig. 17**).



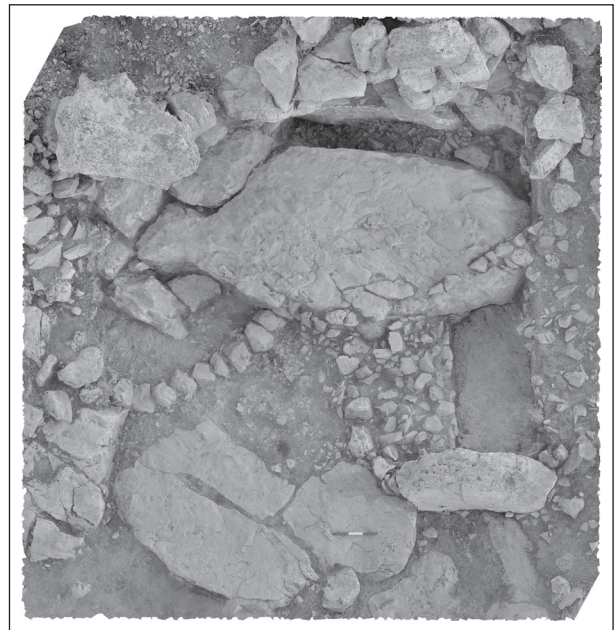
13. Western side of the platform around the dolmen excavated in Area EE.



14. General plan of Structure C1, discovered inside the Great Enclosure in Area C (Trench 1).

The blocking wall (W. 1112) on the interior of the door structure was then removed to investigate the relationship between the door structure and the circular structure (SU 736). Excavation was also carried out inside the door structure itself, where the soil filling the space between the exterior blocking wall (W. 1108) and the interior blocking wall (W. 1112) was investigated. Here SU 733, a dark soil with tumbled stones (interpreted as interior fill of circular structure) was identified. Below this layer, SU 734 was encountered, which is a layer of small pebble and rubble, running below the tumbled blocking inside the door structure and interpreted as a preparation layer for the construction of Structure C1.

Moreover, excavation inside Structure C1 focused on examining smaller areas to answer



15. Photogrammetry of Trench 2 of Area C at the end of 2019 season of excavations.



16. The blocking wall of Door D. 1110 in Area C (Trench 1).

particular questions about the function of this structure. To examine the possible use of the structure as a tumulus, excavation was carried out inside W. 191 where two layers were identified and excavated. The objective was to examine the contents of the supposed oval space delimited by W. 191. Wall W. 191 is placed roughly at the center of the large circular structure and consists of two courses of medium to large roughly worked limestone boulders laid down as a low oval wall structure. The first layer excavated inside the oval space was SU 737, which was relatively clean of finds and did not reveal any obvious evidence of burials. Before meeting bedrock at the bottom of the W. 191, SU 738 was encountered, which was a layer of compact soil with many small pebble and rubble stones, thought to be the same soil layer encountered inside the port/gate structure, *i.e.* SU 734.

Excavation was also carried on outside Structure C1, inside the Great Enclosure, permitting the identification of the external floor, consisting in the bedrock, in some points leveled with a layer of small stones and compact earth cover by a beaten earth floor (L. 197). Finally, a small rectangular sounding performed inside Structure C1, on its southern side, proved that the structures was built directly on the bedrock and leveled in the same way with a layer of compact earth and small stones (**Fig. 18**).

Findings and Chronology of Trench 1

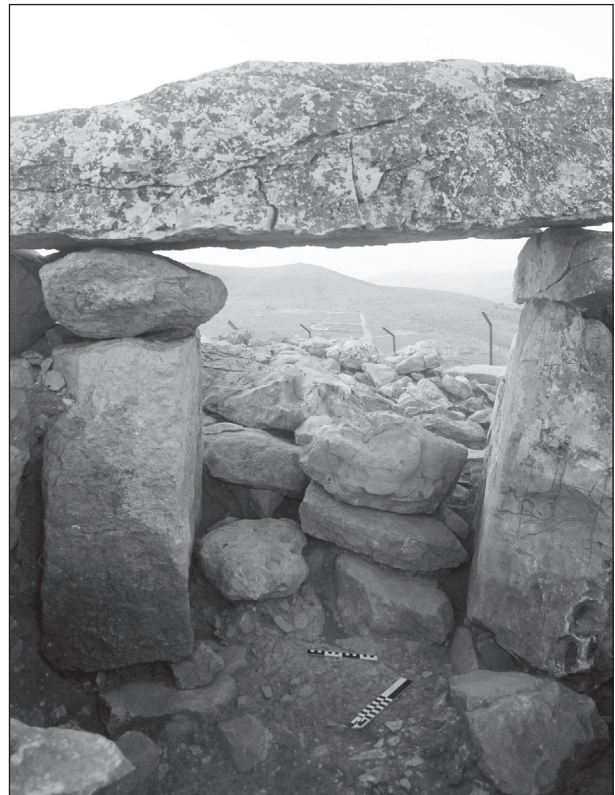
Very few finds were recovered during the excavation of the circular structure in Trench 1. However, several diagnostic sherds identified inside the covering layers and in the foundation of the structure clearly date it to the Early Bronze Age I, the same period of the Great Enclosure and of the first use of door D. 1110, as it's main entrance. Together with the pottery sherds, from the inner side of the structure and from the outside, two fragmentary basalt vessels with knobs have also been recovered (**Fig. 19**).

Stratigraphy of Trench 2

The first aim of the excavation in this trench (6.5× 5m) was to examine the relationship between the standing stone located in the central northern part of the Great Enclosure

and its surrounding wall W. 102. Several large stones from the collapse of W. 102 along with accumulated soil was firstly removed in the area together with accumulated soil layers located against wall W. 102 (SU 739 and SU 742).

Under these layers, the bedrock was reached and a narrow “channel” (L. 196) was encountered in front of the wall W. 102. It was found that W. 102 stood on bedrock and in some places was preserved to a maximum height of five courses of large boulders standing above 2m. The “channel” had been deliberately cut into the bedrock and was covered with a layer of compact sandy soil (SU 740). The excavation of SU 740 revealed the top of a



17. The outer side of Door D. 1110 in Area C (Trench 1).



18. The foundation of wall W. 190 in Area C (Trench 1).

fragmented vessel, a base and part of the walls of a large storage jar (**Fig. 20**), set into a stone installation (I. 193). The feature was found in the central part of SU 740. The vessel contained animal bones, which appear to be sheep/goat, but further analysis will be performed on it. The vessel was removed and revealed a high concentration of sherds underneath it. After careful excavation, it was concluded that there was an additional stone installation below the upper one, which was associated with large fragments of a vessel where the rim, parts of the walls and two different types of handles could be reconstructed (**Fig. 21**). A base in the same storage ware was also found, which is thought to belong to the vessel. The installation therefore appears to have two phases with a larger stone installation below, with a broken vessel and additional fragments of other vessels (SU 745), and a somewhat smaller stone installation above with the remains of a partial vessel inside it (SU 744). SU 740 contained a good quantity of bones mixed in with the soil. During the excavation in this “channel” the soil in SU 740 slowly changed and started to include a compact packing of pebble and rubble stones (SU 752). When this SU was excavated a layer of compact red soil with pebble and rubble stones was encountered at a deeper level (SU 754), but this layer was left unexcavated as the “channel” at this point became very narrow. In connection with the channel a small patch of soil (SU 747) between bedrocks outcrops was examined, where a very small amount of pottery was found.

As the excavation had concentrated on the area near wall W. 102, the area behind the standing stone was not fully excavated, but left for possible excavation during the future 2020 season (SU 751). The area in front of the upper bedrock “terrace” was excavated and collapsed stones have been removed, until a possible surface was encountered (SU 749). SU 749 consisted of a badly preserved plaster or beaten earth surface located just above bedrock. While excavating SU 743 a stone wall (called W. 192) was identified among the tumble. The wall is made of a single course of stones running between the upper bedrock terrace and another bedrock outcrop. At the same level as the top of W. 192, SU 748 was found. The layer consisted

of a concentration of ceramics, all seemingly lying on the same level. This might indicate a surface at the same level as the top of the small wall line.

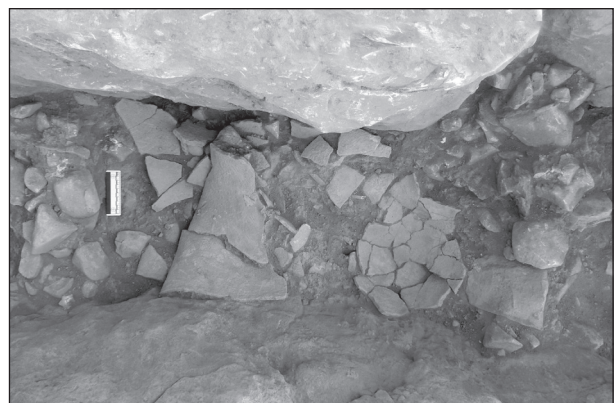
Lastly, a small wall (W. 195) was identified on the top of the upper bedrock terrace, behind the standing stone. At places (on top of the bedrock) the wall is only preserved at a height of one course of stones, but when the Eastern part of SU 740 was excavated, it was discovered that the wall has additional courses preserved.



19. One of the fragmentary basalt vessel discovered in Area C (Trench 1).



20. Fragmentary jar discovered in situ in the channel L. 196 in Area C (Trench 1).



21. Pottery sherds pertaining to large storage vessels discovered in the channel L. 196 in Area C (Trench 1).

The bedrock slopes down in this section leaving up to three courses of the wall preserved. It was also found that the wall continues into the Eastern baulk, but the extent of the run of the wall could not be determined as this area outside is filled with accumulated soil and a good quantity of collapsed stones from W. 102.

Findings and Chronology of Trench 2

In Trench 2, inside L. 196, 9 handles and 13 decorated body sherds were recovered. All the fragmentary vessels date to Early Bronze Age I and are large storage jars with ledge handles, which strongly suggests the function of the narrow chanel excavated in the bedrock close to the main wall of the Great Enclosure as a storage area. Flint objects were extremely rare with only three flint tools being identified. This included two blades and a scraper.

General Achievements

Excavation in Area C East permitted the identification of two different phase of use of the Great Enclosure, definitely identified in Trench 1 and possibly also in Trench 2.

Concerning Trench 1 it is clear that, sometime during the use of the Great Enclosure, the people of Jabal Al Muṭawwaq settlement decide to close its main entrance in order to build a large circular structure, Structure C1, whose function is still undetermined. However, several similar circular stone structures, usually interpreted as megalithic funerary monuments, like the “ring cairns” and the “tower tombs,” are common in the steppe and desert area of Jordan, both in the Hauran and in the eastern and southern deserts¹⁰. The main problem is the date of these structures, usually related to late periods for the end of the Bronze Age till the 1st century BC; moreover, no human bones or pottery sherds dated to periods later than the EB I have been recovered in Structure C1 at Jabal Al Muṭawwaq.

Concerning Trench 2, the discovery of storage spaces, both cut into the bedrock or built with small circular rooms against the main wall of the Great Enclosure proves that one of its main

original function was again to store products, possible to be used of community activities. Also in this case, further investigation of this area is needed to reach a final conclusion.

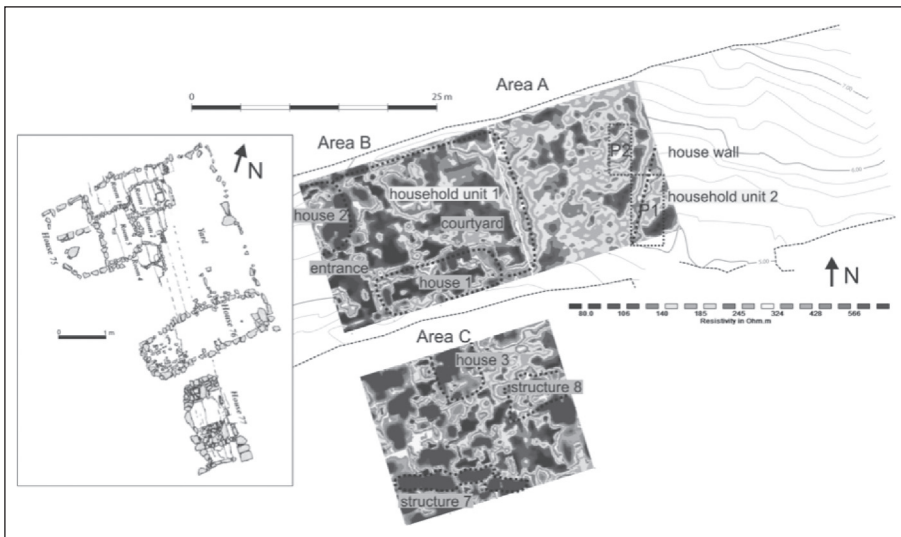
Area D

The archaeological intervention in Sector D was aimed at demonstrating the presence of dwellings in the northern area of the site. This intends to understand their relationship with the houses in the southern area and draw the proto-urban landscape of the village.

The background for this intervention was laid in the 2015 and 2016 campaigns when geophysical surveys were carried out in the area. These surveys offered hitherto unknown data on existing constructions under the current land level. The site’s concealment has preserved these dwellings from destruction observed in other buildings in the southern area. This archaeological season has fulfilled the following research objectives:

Firstly, the reliability of the non-invasive geophysical method performed in past seasons by the Olomuc University team (Martín Monik and Zuzana Lendakowa) has been confirmed (**Fig. 22**). This application has allowed to us identify a number of constructions and their distribution over the northern area before fieldwork. In addition, this approach has improved the resolution of the archaeological surveys and facilitated the research design of the fieldwork. The results also provided us with approximated plans of the buildings allowing comparative analyses with similar constructions already excavated. Therefore, these geophysical surveys have improved our understanding on the planning model of the site. Secondly, an undisturbed construction preserving well-preserved stratigraphic layers with entire objects from its interior has been identified and partially excavated. This finding has allowed us to consider the state of the building at the time of its abandonment. This circumstance is extraordinary since most dwellings excavated so far located at ground level, were poorly preserved. Thirdly, the planning of the site at the northern area was examined, where, so far, the presence of more buildings has not been attested. The analysis of the archaeological materials in the future will

10. For the Hauran region see the examples from Jabal Qurma (Akkermans and Brüning 2017); for the diffusions of these kinds of megalithic circular structures see also Steimer-Herbert 2013, fig. II.15).



22. Two draws.. the Temple of the Serpentes on the left and the readings of the geophysical tests in Area D on the right.

allow us to build a chronological framework, and establish whether this area was occupied during the Early Bronze Age or during another period. The new houses from this area hitherto unknown, will be received a new total number from 400 in advance for the dwellings preserved inside the Jabal Al Mutawwaq EB I village.

Fieldwork Method

The archaeological intervention developed during this campaign are novel because it helped to clarify the objectives and strategy and because it can change fieldwork approaches in the future. Currently, there is an unpleasant situation in which the owners ask for large amounts of money for digging in their land and nobody guarantees the preservation of the remains. Therefore, geophysical survey allows for investigating wide extensions of land mitigating harm through agriculture. In addition, this approach contributes to generating a preliminary record of the archaeological contexts located underneath. The topographic work allows comparing the final result of the excavation works with the interpretation made through the geophysical examination.

The archaeological surveys were conducted by identifying the deposits following the natural stratification sequence. Thus, the architectural features and the archaeological materials were properly contextualized and georeferenced using a total station until the archaeologically fertile *strata* were exhausted.

Several archaeological samples were collected from the occupational layers in order

to carry out radiocarbon dating. In addition, sedimentary samples were collected from the edges of ceramic vessels to analyze the residues using bioarchaeological techniques.

General Achievement from House 400

The result of the archaeological excavation was the partial discovery of house No. 400. This is a 4 meter width construction defined by a wall of large stone blocks with an apsidal plan. The building has an entrance on its north side, which was also located. The gate was closed by a deposit of stones and soil, and a deposit of animal bone tools and bones was located close to the entrance (Stratigraphic Unit 125). This deposit comprises both finished tools and raw material selected for this purpose. The construction of the house was carried out on a leveling base formed by small slabs and soil (SU 124) on which the walls enclosing the building were built. This baseline level was the horizon on which the ground floor was installed (SU 117) and used during the time the house was open. On this part of the surface, there were 15 ceramic vessels and bowls. Furthermore, there were also numerous stone tools made in flint and basalt, some fragments of grinding stones and stone loom weights.

In the east apse area, several work and production spaces for the inhabitants of the house have been discovered (Fig. 23). Although we have found these remains, we decided to postpone the excavation until we carry out the complete excavation of the building. The aim is to establish if these areas were domestic or

specialized areas of production, such as those located in House 131 and House 77 at Jabal Mutawwaq.

The apse was compartmentalized by an internal stone wall (SU 123) that separated an inner space with evidence of having suffered intense heat (SU 121/122) such as an accumulation of cooked or burnt mud (SU 120). In another space we also identified where they accumulated a tiled surface (SU 113/116) and a container of stones located at a lower position (SU 114/115). Another space was also delimited by a circle of stones which has not been totally excavated. Inside this circle, some fragments of ceramic vessels have been found, so it could have been used as a venue for big ceramics (SU 119/118).

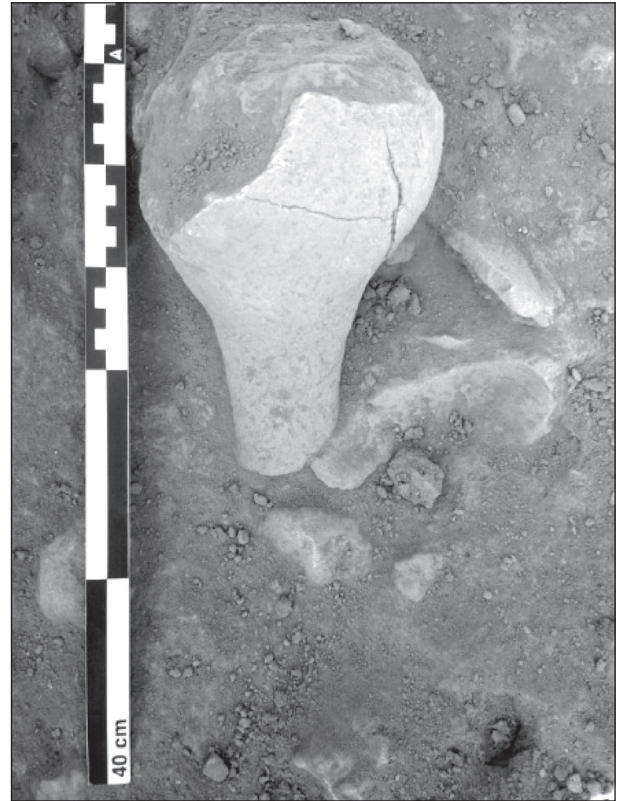
After the abandonment of the construction, a reuse of the structure (SU 110) was observed, comprising a stone circle of unknown functionality because absence of diagnostic sherds (SU 111/112). Probably, this circle was related to specific activities carried out at the time of the re-use, since they were done on the surface of the collapsed structure (SU 110). This reuse did not affect the archaeological record from the lower layers during the first use.

At the outer area of the construction, two layers of stones have been identified, one formed by large blocks holding the wall of the house (SU 109) and another upper level of smaller stones above forming a terrace that equaled the outer and inner surfaces of the house (SU 107). The latter sealed the massive collapse of the walls (SU 108) that was mostly contained inside the building perimeter occupying an inner ring of the building one meter wide.



23. General view of House 400 during excavations.

Stratigraphic Units from 101 to 106 comprise some disturbances after the abandonment of the site, with imprecise dating due to the massive presence of EBI ceramics spread across the entire surface (Figs. 24-25). This presence is



24. Bottle from House 400.



25. EB I large storage jar discovered in House 400.

similar to the one that exists today in many points of the site due to the massive ceramic presence of this chronology throughout the mountain.

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