

JABAL AL-MUṬAWWAQ

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The excavations in the village of Jabal al-Muṭawwaq are financed by the Spanish Biblical and Archaeological Institute of Jerusalem and the Spanish Ministry of Culture. An agreement with the "l'École Biblique et Archéologique Française" of Jerusalem and with the IFPO, have made it possible to expand these explorations both at the site at al-Muṭawwaq and other sites in its proximity. This extra research has made it possible to clarify some aspects of the occupations of the region during the Bronze Age. During the last years, collaboration with the Department of Antiquities of Jordan as well as with the Spanish Embassy in 'Amman, has been of great importance. In this paper, we will limit ourselves to the presentation of the houses of the village of Jabal al-Muṭawwaq, other aspects will be dealt with in forthcoming articles.

The Village

The location of the village is on the south slope of the mountain, at an altitude between 500 and 550m.

It is distributed over an area of 900m from the west to the east and some 300m from the north to the south. It was built on irregular soil, the mountain slope steeps strongly towards the south and much stronger at the cliff, which marks the end of the village. However, towards the north the area is more levelled. In the centre, a riverbed leads to the valley. These facts influence the way in which the houses of the village were distributed. Taking this into account, we divide the village into three sectors: The Western Sector, flatter and larger, the Centre, around the mentioned riverbed and the Eastern Sector, distinguished by its strong slope.

The village is surrounded by a rudimentary wall, which was constructed, judging by the debris next to it, of big blocks at the base with smaller ones on top. A great part of the wall was demolished, especially in the north because of the construction of tracks and terraces. Although it will be described, together with other structures in

a later article, it is convenient to know about its existence. An important part of the wall, of more than 150cm height, has been conserved in the western part of the village, covered by an accumulation of fallen blocks from the higher area. In the North Sector, some big aligned base stone blocks are conserved. The south line of the rudimentary wall was placed on the borders of the cliff. In the Central Sector up to three wall lines can be observed in three different steps formed from the mountain rock. In the Eastern Sector, it seems to descend from the north to the south. This is hard to tell since it has disappeared almost completely. Only some big blocks make it possible to follow its path over the agricultural terraces of the Early Bronze.

Some gates have been identified, which were similar to those of the houses. One of them, known since the articles of Hanbury-Tenison as South Gate, presents a higher complexity. We mention it here, because it is at the end of the road that ascends from 'Ayn Khuraysin.

The Houses

Kind of Construction

All the houses have an oval floor. According to the topographic peculiarities, the construction techniques were modified slightly. Generally, where the difference in unevenness of the soil was minor, big natural stone blocks were piled up on their long narrow side on the ground. If the mountain rock had cracks or irregularities, these were filled with earth and little cobbles to level the soil. On the other hand, where the soil was even, it served as a base for the houses. If there was a bigger slope, little terraces were created to correct the unevenness. While in the Western Sector the terraces are minor, in the Eastern Sector, with a bigger slope, they were constructed with big stacked blocks, which sometimes were higher than one metre.

The courts were marked by stone blocks of a similar size. There was no need to construct terraces here since the unevenness did not cause any problems.

The Walls

In the houses where they have carried out scans, or where they have excavated an important part (11 in total), it shows that the wall tumbled inwards. The chalk blocks (unfashioned, naturally broken) that form the base of the wall, can reach a length of up to 2m, with a width of up to 49 centimetres and a height of a little over a metre. They were placed on one of the smaller sides. The stones of the upper rows have remarkable smaller sizes (length between 0.70 and 0.35m, width between 0.20 and 0.40m and a height that rarely reaches 0.50m). The holes caused by irregularities of the blocks were filled with little stones, which were inserted as wedges. In some cases, the wall collapsed towards the interior of the house over the original floor. If the houses were inhabited afterwards, it would have been over the collapsed walls.

The Floor

In all the excavated houses the floors have a similar form. If the mountain rock that was used was irregular, a layer of brown reddish earth was used to create a more even soil. It was then filled with little stones and covered by a greyish red plastered floor of poor quality and although it offered certain hardness it broke up easily. Not in one excavation have we seen that it was rebuilt.

The Gates

The houses have one single door in one of its large sides, which generally gives access from the court. The gate is not always recognizable. Of the fifty houses studied as sample, only in 24 of them the entrance could clearly be observed. In the others the wall seems to have had no opening in its line. If an opening is observed, it is not clear if it was a door. In two cases we observe an open gate in the wall of the court but not in the wall of the house.

The orientation of the doors is not uniform, the door towards the north predominates: in thirteen cases (they slightly divert towards the northwest or towards the northeast), in five cases they are orientated to the east and in four cases to the west. Normally, the situation was influenced by the topographic circumstances or to the location of the court, which was constructed where it was possible. The situation of other rooms and the sloping of the ground was taken into account.

The structure of the gates is similar. The worst constructions were generally made with irregular, more or less cubic, blocks that did not stick out of the base of the walls. In the other houses we see more care in the choice of materials. They searched

for long prismatic blocks that were more regular. Although the break of the stones is always natural, the height of them is always irregular. The stone blocks are normally more than a metre in height (between 110 and 140cm.) and the width is generally 75cm (in the case of the courts where the gates are conserved, the width can reach 163cm). These measurements are approximate. Because they are partially buried, it is not always possible to determine their height.

In house 20, next to one of the jambs, there is *in situ* a small prismatic block of 17 x 22 x 8cm, with a small hole of about 6cm in diameter, over which the gate turned. The threshold is normally made of a more or less prismatic form, even on one of its sides, with a thickness of more or less 13 to 15cm. The width of the gate is variable, depending on the thickness of the blocks, but they can be up to 56.7cm thick (**Fig. 1**).

No lintel is conserved which is still placed over the jambs. However, some of the prismatic blocks that have fallen next to the door exactly cover the gag. Some of them are thicker than 20cm.

A remarkable case is that of the double door of habitat 109, located in the central zone next to the wall and the edge of the cliff that forms a step over



1. House 20. Door.

a lower terrace. The gate of this house, was made with two pillars, it opens towards the south. In an obtuse angle there is another pillar, which creates another gate that opens to the west, towards the ramp of stones and earth, which effaces the unevenness with the lower terrace (Fig. 2). The lintels were found next to the jambs.



2. House 109. Door.

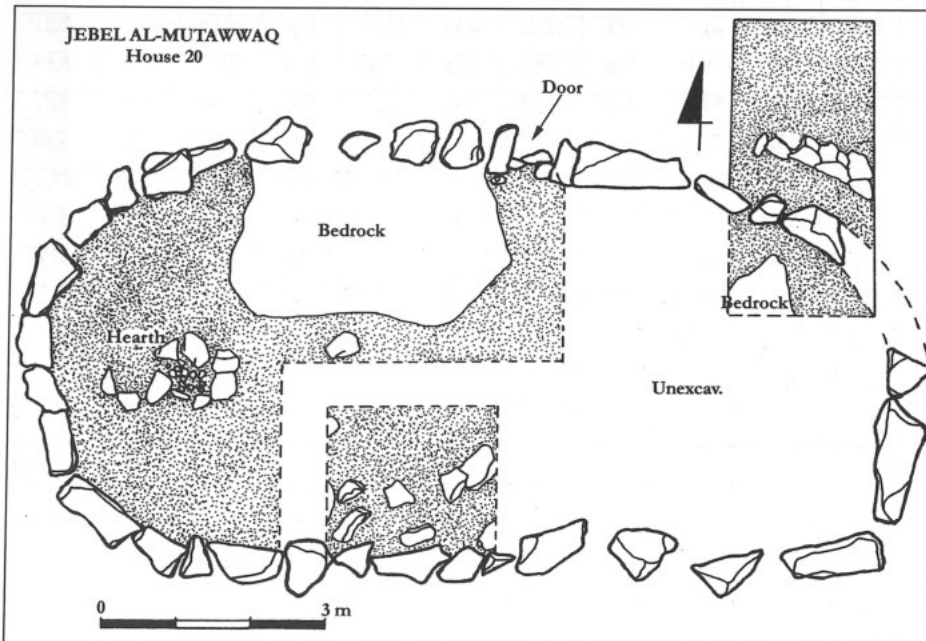
The only specimen gate which was completely conserved opens in the wall to the west of the Big Enclosure. It is half buried by a mound. The lintel of this door is placed over two pillars and on top of the smaller blocks that form a kind of capital. It is bigger in proportion than the gates of the houses, the lintel measures 99cm in width by 69cm in length with a thickness of 40cm. The blocks that support it are 36 x 19 x 34cm. Its height is not known because it is partly buried.

The Distribution of Space

Although the majority of the excavated houses have only been submitted to partial research, two of them were excavated almost completely (20 and 81). The distribution of the features seems to indicate a functional differentiation of space.

The hearths are situated in one of the far ends of the house. In room 81 they are located in both ends. The hearths are made of little, more or less cubic stones which are wedged into the ground, creating thus a wind stopper. A semicircular structure of stones surrounded by ashes, which might have served as an outdoor oven, was found outside house 109.

In the houses 20 (Fig. 3) and 81 the majority of the pottery material was concentrated in one of the rooms. These consisted of sherds of big jars, hole-mouth jars and some bowls, together with basalt tools (a fragment of a crucible with remains of adhering copper, stands out in house 20). On the other side of the habitat, less pottery sherds were found. This suggests a distinct use of the domestic space. More data is necessary to confirm this.



3. Sketch of House 20.

However, the collected data so far seems to indicate that some zones were used for domestic activities and some were probably used for social like and leisure activities. The zones were probably separated by perishable structures (except for a partial separation in house 81).

The court was also used for domestic activities. In house 83 sherds of storage jars were found. Another court of the Western Sector shows flag stones of little over a metre long and more or less a metre wide. These were made of rather regular cubic blocks of which the upper side was even. They would have served for some domestic activities.

The Roof

No remains have been found which shed light on the way the houses were covered. We could suppose that the roof was made of some beams and stalk supported by wooden pillars. No tracks of posts were discovered, however, some stone slabs were found (houses 20, 81 and 100) placed along the axis — although not necessarily in the centre — which might have served as timber roof supports. The banks of the az-Zarqā' and the nearby wells could have supplied enough material for the roofing.

Proportions of the Houses

Table 1 shows the proportions of 44 of the best conserved houses of the village. The ones, which are smaller than 10m are exceptional (only 10): twelve are between 10 and 11m, and only 5 are bigger than 13m. The width of the houses varies between 3.30 and 5m.

If we are aware of the fact that the floor is oval and that there are irregularities in the construction, it is easy to understand that it is difficult to calculate its surface. The proportions oscillate strongly: between 65.62m² and 21.35m². The average house in al-Muṭawwāq would be 10.62m long and 4.21m wide with a habitable surface of 44.19m².

Nothing seems to indicate real differences in hierarchy between the inhabitants of al-Muṭawwāq, we could therefore conclude that the difference in the size of the houses would be rather because of its use or the size of the family, than because of the function the family had within the group (**Table 2**).

The Courts

Next to the houses there are courts of different sizes, adapted either by the conditions of the soil or by the accumulation of the houses in a certain space.

Table 1: Proportions of the houses according to the sectors of the village.

West Sector 17 houses				Central Sector 15 houses				Central Sector North 4 houses				East Sector 8 houses			
Nr House	Long	Width	m ²	Nr House	Long	Width	m ²	Nr House	Long	Width	m ²	Nr House	Long	Width	M ²
20	11,75	5,25	61,68	85	9,60	3,65	35,04	152	14,30	3,70	52,91	175	10,45	5,70	59,56
15	11,10	3,50	38,85	86	10,10	4,00	40,40	151	12,25	4,30	52,67	174	10,05	4,20	42,21
6	10,20	5,50	56,10	98	6,10	3,50	21,35	148	9,80	5,35	52,43	173	10,30	3,45	35,53
7	10,50	4,75	49,87	90	8,10	3,70	29,27	146	11,65	3,80	44,27	170	13,80	4,75	65,55
38	8,40	3,60	30,24	95	8,00	3,00	24,00	-	-	-	-	177	9,90	3,70	36,63
37	11,30	5,30	59,89	96	6,80	3,50	23,08	-	-	-	-	176	11,00	4,30	47,3
76	12,80	3,85	46,50	98	7,50	4,40	33,00	-	-	-	-	172	8,20	4,35	35,67
77	8,15	3,70	30,15	102	7,90	3,80	30,02	-	-	-	-	171	9,40	4,00	37,6
75	6,15	4,10	15,21	83	13,60	4,60	62,74	-	-	-	-	-	-	-	-
40	14,70	4,15	61,00	94	10,00	4,70	47,00	-	-	-	-	-	-	-	-
39	7,00	4,10	28,70	104	10,35	4,00	41,40	-	-	-	-	-	-	-	-
35	10,70	4,05	43,33	107	9,45	3,55	33,54	-	-	-	-	-	-	-	-
30	14,15	3,80	53,77	105	10,15	4,55	46,18	-	-	-	-	-	-	-	-
24	7,85	5,10	40,03	106	10,30	3,30	33,99	-	-	-	-	-	-	-	-
22	6,60	4,30	28,38	104	10,80	3,80	41,04	-	-	-	-	-	-	-	-
65	10,10	4,55	45,95	-	-	-	-	-	-	-	-	-	-	-	-
48	12,50	5,25	65,62	-	-	-	-	-	-	-	-	-	-	-	-

Table 2: Average proportions of the houses per sector.

West Sector			Central Sector			Central Sector (north)			East Sector		
Long	Width	m ²	Long	Width	m ²	Long	Width	m ²	Long	Width	m ²
10,23	4,40	45,01	9,88	3,87	36,18	12	4,28	50,57	10,38	4,30	45,00

It is unusual to find a house between two courts or in the middle of one (77). Neither is it common that the courts are delimited by the walls of other houses. In the structure of house 36, the court was delimited in the north by the houses 37 and 28 and in the east partially by house 41. Unfortunately, no doors were conserved which could indicate if we have a communal court or a court of one single family. In the Eastern Sector, this phenomenon is more easily perceived. In the area of the wall (houses 30 and 31) the rooms are situated against the wall. The area has changed too much to infer if courts have existed. The houses 37, 38 and 39 all seem to correspond to a set surrounding a court. Although, within them there are some partial divisions (a straight wall in north-south direction and one in an angle northwest-northeast). In the Central Sector the houses 96 and 98 seem to form an assembly and in the east we see something similar in the set of houses formed by 166, 160 and 170. This distribution could be related to familiar associations. A singular case is house 48, which is linked with assemblies of a ritual kind (Small Enclosure and Big Tumulus). Table 4 shows that all the researched courts exceed 100m² and some even 200m².

Although the findings of the excavations of the courts were limited and in some occasions (20 and 81) offered no significant material, in other excavations proof of domestic activities was found, as we have indicated earlier.

The Distribution of the Village and the Location of the Houses

The village is situated on the south slope of the Jabal al-Muṭawwaq, it spreads out over an ample surface with clearly differentiated sectors from a topographic point of view.

1. The Eastern Sector can be found over a terraced zone which starts at the border of the cliff and extends to a river bed at some 4000m to the east. From the north to the south this sector is about 188m. The northern part is the most even zone, even though it is sloping slightly from the north to the south. A terrace in the rock, oriented from the west to the east, delimits it in the south. Normally, one of the lines of the walls is found on the border of the slope break. This is not the border of the village, which sometimes grew be-

yond the village wall.

This irregularity forced the houses to be distributed in a different way. Next to the wall, the houses are constructed against the wall. Not always was the city wall used as wall for the houses, in these cases there was a space between the houses and the wall, which might have been used as a storage room. This was discovered at house 29.

In the centre of the sector, the houses were dispersed in a rather anarchic way, although the destruction of the surface of a big area makes it impossible to fully establish the arrangement of the village. The southern area of the Western Sector presents a higher complexity. An example of this is the group of houses and courts 21-23, between which it seems there was an alley. We see something similar between the houses 20 and 19, which are separated by a street. Both passages belong to the same road, which leads in a straight angle to the wall in the south.

Another group that seems to form a group of houses and courts is the one formed by the habitats 40, 36, 41 and 41 bis, and 37, 39 and 38. To the northwest of this group a round tower, built with big stone blocks, was found, and in the southeast, there is the opening in the wall, which leads towards the so-called Small Enclosure.

To the north some houses can still be recognised. However, due to the construction of a track and of terraces, it is difficult to establish the density of the occupation of this area. We suppose it must have been high. The 84 houses that were counted in this area are only an estimation. Although, some were severely destroyed, others conserve the perimeter in its integrity.

2. The part west to the Central Sector was constructed around a river-bed, it is about 286m from the west to the east and approximately 156m from the north to the south. In the western part of the sector, the rooms and courts were placed tightly together, more or less parallel or oblique to the slope, as occurs in the earlier mentioned case in the area near the cliff, where the topography requires a stepped profile. The houses were constructed parallel to the wall on the highest step and perpendicular to it on the lower step. In this sector, the earlier mentioned house 109 with the double gate was found. The highest zone of this sector and the grounds to the east of

the river-bed is more even, offering a more organised area.

Over a hillock that restrains the village, we find an extension consisting of a group of seven houses separated from the rest of the village outside the range of the wall.

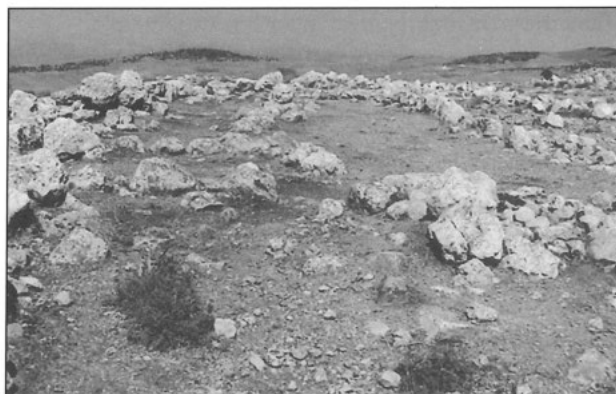
To the east, the Central Sector is delimited by a hillock, over which the Big Enclosure was built. In its centre, we find a big sharp rock sticking out and a small altar before it.

3. Following the line of this possible sacred area, there is the Eastern Sector, in which the slope forced the creation of terraces. These parallel alignments of big non-fashioned blocks extending towards the east were constructed at the same time as the village. They had to prevent the strong erosion and allow agricultural use (in one of them the only hoe of basalt of the village was found). The chronology of the terraces seems to correspond with the earlier construction of the village, because when it extended towards the east of the Great Enclosure it was constructed partly over the terraces.

This sector extends over a surface of 209m west to east, by 175m north to south. The houses were generally built parallel to the slopes.

House 81

1. House 81 (Figs. 4, 5) is a peculiar case, both because of its size and its floor, which is oval and more complex than those of the other houses. It is situated at some 170m to the east of a big mount erected at an outstanding part of the Western Sector. At 13.90m to the Southwest of this house there is a circular structure of stone with an open gate to the east. This structure provided a lot of pottery with some characteristics that highlight the group of al-Muṭawwaq. There are



4. House 81.

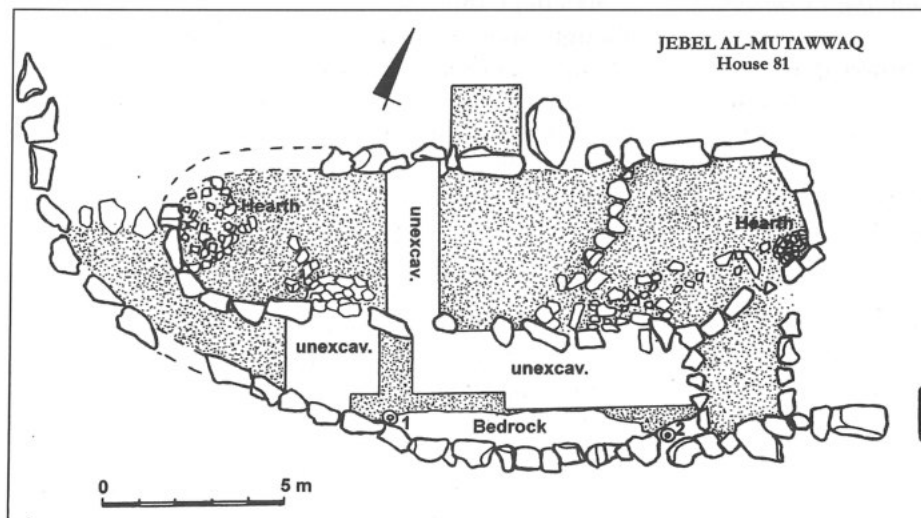
some other, much destroyed structures between the structure and house 81.

The proportions of house 81 exceed those of the rest of the habitats of the village, It is 16.80m long. Although, its width of 4.30m is within the limits and is even a little minor to the average width of the houses of the Western Sector (4.40m).

Other characteristics make it different from the other houses, the existence of two gates oriented to the south (different to the ones of the village), which give entrance to a little room and a corridor which encircles the southern part of the house.

The centre of the house, i.e. the big oval floor, was made with the usual characteristic big blocks. The first row was placed directly on the very even mountain rock of the northern part of the habitat. This caused the wall to follow a more correct alignment. On the contrary, the south wall is irregular in its alignment because of the irregular alignment of an overhanging rock, which reaches its highest point in the southern room and the corridor. This rock made it necessary to use smaller blocks that were adapted to its profile.

The stratigraphy is simple. A layer of reddish



5. Sketch of House 81, Jabal al-Muṭawwaq.

brown earth forms level 1 with a thickness of 18 to 21cm at the sides, and of 34cm in the centre. It was formed at different times. Within this layer, there are more compact layers, due to the exposure to air and to natural forces. Under this layer there are accumulations of stones which came from the collapsing of stone blocks that formed the walls (their dimensions are between 0.70m and 0.35m length, they are therefore smaller than the ones that formed the base line of the walls). The plastered floor of the house, compact and of a whitish colour, covered in some areas by a layer of ashes, is in the base of the layer. The regular surface was destroyed in wide areas by the collapsed walls. The substratum is not very compact. It is made of grey earth and cobbles, dispersed there to level the irregularities of the rock.

Over the plastered floor, medium sized blocks, were aligned side-wise, oblique to the axis of the house. This way the space was divided into two sectors. The smallest, to the east, is 4.80 x 4.30m. The western part of the house is 12m long and its width is a little less than 4m. At the end of each of these rooms there is a big hearth covered with ashes as we have already described.

Two even flagstones served as base of the two roof pillars.

2. A little room of 2.80m long by 2m wide is embedded to the south of the east room. It is lifted some 50 to 60cm over the floor of the house because of the step in the mountain rock. It is delimited by medium sized blocks placed on the rock, but because its surface is irregular (there is a hollow of almost 50cm in the centre), earth and cobbles were used to even it. In the south it is closed by the large corridor wall that stretches out 14.30m from the east to the west, later turning to the northeast forming an arch.
3. This corridor must have formed part of the court of the house, since we did not find anything in the northeast that could be interpreted as closure (despite the fact some little blocks that were aligned there). Its length is of some 16m and its width is around 2.5m, narrowing in its eastern part (1.56m). The floor is made out of the same rock (even in the south of the corridor) although lightly inclined towards the north forming a step that was used as a shelf.
4. In appearance the house lacked gates, at least constructed in the usual way of al-Muṭawwaq. Nevertheless, the wall that closes the main room in the south is interrupted at three points: two give access to the corridor and the other gives access to the living room. The level difference of 55 to 60cm between the floor of the corridor

and the floor of the room is overcome with little rudimentary steps of blocks of stapled stones, which can be found in these kind of places. The little room is entered through a natural sloping flat part of the same rock, which, together with other blocks which are inclined naturally, offers the only exit of the house, through an interruption of its wall in the northeast corner of the room, to the outside.

5. Without going further into details, we mention an earlier noted fact, the biggest accumulation of pottery and basalt tools was found in the western room of the house, while less finds were found in the eastern room.

In the corridor, on the bank formed by the step in the rock on which the wall of the corridor was placed, four jars were found, placed close to the wall in zones protected by sticking out edges of the stone blocks and covered by a very thin layer of earth and cobbles of 5 to 10cm thickness. One of the jars, decorated with broad stripes and rounded knobs in the neck, contained remains of a very developed fetus or a newborn child. It is the first discovery of this kind in the village of al-Muṭawwaq. The other vase also contains bones of a child. They are so fragmented that it is difficult to identify them.

Everything indicates that house 81 was unique in the group of al-Muṭawwaq, which stands out from the all seemingly uniform habitats of the village observed until now.

The Number of Houses per Sector

Every number we present approximates the reality, taking into account the high level of destruction suffered in every area. In the Western Sector 84 houses have been identified. Although, many are intact, others are only partly preserved.

In the Central Sector 71 habitats were identified besides the nine isolated structures to the northeast of the sector on the mountain slope that dominates the village. The Eastern Sector, the latest expansion of the village, has 22 houses.

The total of preserved houses is approximately 186. If we suppose that the framework of the village followed similar models to the ones we know, the sum of some extra 100 houses seems admissible. The estimations of the dimensions of the population are risky, especially when we do not know if the whole village was inhabited at the same time. However, a population of some 1.500 to 1.700 inhabitants seems reasonable.

Conclusions

Al-Muṭawwaq is a village in a steppe area, open

in the north to the Ḥawrān, in the east to the desert and through the az-Zarqā' valley to the valley of the Jordan, and in the west to more benevolent areas (from a climatic point of view). It was probably not inhabited during a very long period and abandoned without a new population settling in its place. Everything seems to indicate a peculiar evolution of the eastern area of Trans Jordan during the Early Bronze I. This makes it different from the development of the zones to the west of the Jordan, especially the coastal areas which, despite of interruptions in the occupation throughout the Bronze Age, followed a more coherent development. Its lifestyle was probably based on cattle raising and on agriculture of non-irrigated land in the higher areas. Alternatively, they might have used an incipient irrigation in the valley through which the az-Zarqā' flows and may have made use

of the wells of the Khuraysin and the Qunayya. It seems it did not guarantee the stability of the villages in the area (as it also did not consolidate in Jāwā, despite the complex irrigation techniques). Other villages grew in nearby more favourable areas, also during a short period of time (Jabal Makhad, Marayim, Abū ath-Thawwāb, to name some). It might be possible that they were the continuation of the complex of Muṭawwaq during the Early Bronze Age. This possibility makes it necessary to analyze the evolution in the future as a different element of the western Early Bronze Age. It offers peculiar characteristics, related to an area that is more favourable to complex exploitation systems due to the few guarantees for stability they offer.

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