

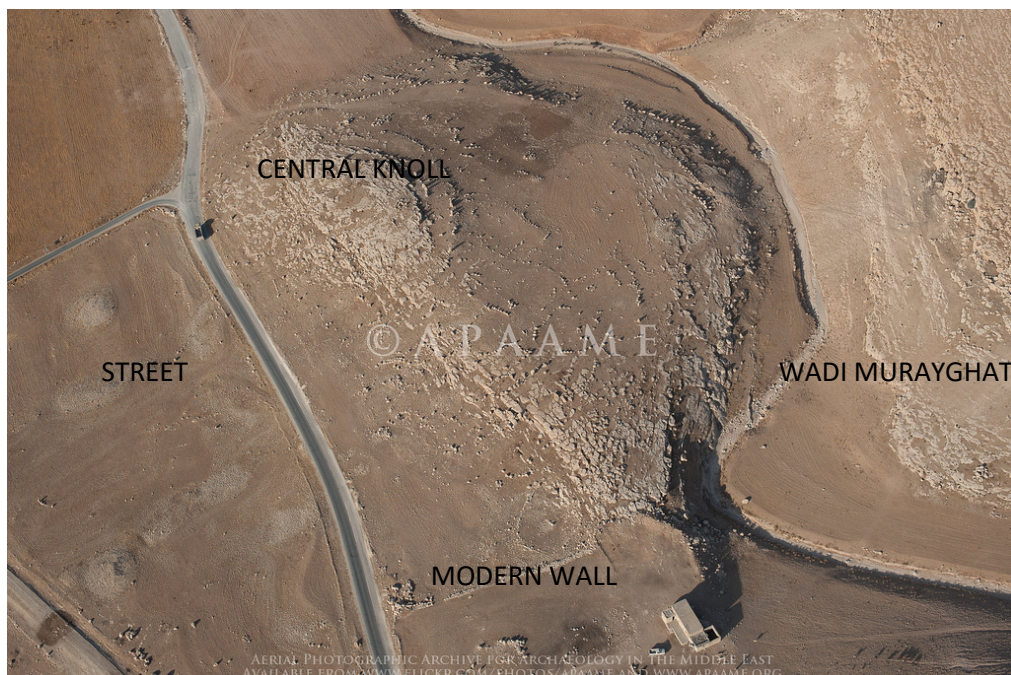
UNIVERSITY OF COPENHAGEN

The Ritual Landscape of Murayghat Project

6. Season: 2019

Dr. Susanne Kerner
Near Eastern Archaeology

ToRS, KU



The Ritual Landscape of Murayghat

2019 report of 6. Season to the Department of Antiquities of Jordan

Susanne Kerner

Site and present situation

The site consists of the central knoll (area 1; fig. 1) and the surrounding low hills to the north (area 3), west (area 4 and area 8), southwest (area 5 and area 6) and east (area 7). The low hills contain most dolmens, with the largest ones in area 3 and 7. In area 7 was the Hadjar al-Mansub, a large standing stone, ca. 1 km from the centre of the central knoll. The direct surrounding of the Hadjar had been fenced in lately and building activities had started. The central knoll is ca. 3.5 ha, while all the area surveyed includes ca. 70 ha.

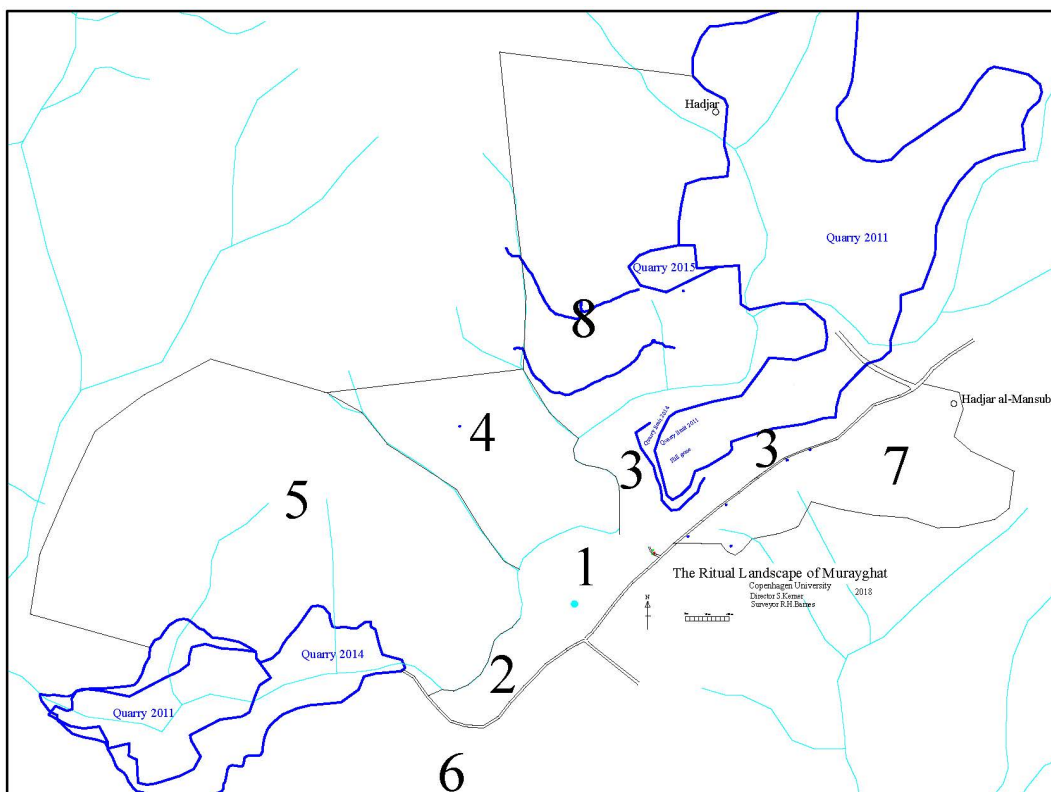


Figure 1: Overview Areas in Murayghat

The northern quarry still works westwards (eating into area 8), but not anymore towards the site. The southern quarry is not threatening the site anymore. The third quarry in the south-west on the other hand still moves towards area 5. Along the road, next to the central knoll, some disturbance of the dolmens is still continuing.

The track, which had been bulldozed west of Area 5, 4 and 8 turned out to be the preparation for large electricity pylons. The track is roughly 2,8 km long, leading from the Southern quarry west of the Murayghat hills to the track from Ma'in down to the Northern quarry. Its construction has removed 2,425 ha of old surface. In 2019 the construction and setting up of 7 high electric power pylons (about 70 m high) were documented within the Murayghat survey region. These masts are supposed to carry,

when finished, the electric power line on ca. 3,0 km length passing through Area 6, Area 5 and, as the longest strip, through Area 8. Each of the 7 pylons covers a ground space of 25 x 25 m = 625 m². Together with the construction space these pylons have thus damaged another 2,96 ha. During our presence, the DoA representative communicated with the workmen and their foremen to point out the archaeological structures close to the pylon on top of area 6. The construction was stopped while our project run.

With the help of Bassim Hamoudi, the head of the Madaba office, it had been possible in 2018 to reach an agreement with the owner of the central knoll to excavated there, which was included in the planning for 2019.

Project “Ritual Landscape” in 2019

The project by the University of Copenhagen (Institute for Regional and Cross-Cultural Studies) directed by Susanne Kerner is designed to study the dolmen fields, central knoll and related structures of Murayghat in order to understand the relationship between the single elements and comprehend the reasons for the existence of the dolmen-field. The project intends to understand the ritual meaning of the structures and identify their role in the ritual and socio-political make-up of the society as well as in the landscape of the periods involved.

The 2019 season had the following objectives: limited continuation of the central knoll survey, further study of structures on the central knoll, finalising of trenches 3 and 4, finishing of trench 1, beginning of a new trench in area 1 to gain a view of the situation there; excavating a dolmen platform; survey of the surrounding hills (area 4). The project took place between the 27.05. and 04.07.2019. Between the 01.6. and 28.06. the annual field-school of the University of Copenhagen was part of the project (see list at the end). The members of the team included, beside the director, Matthias Flender, responsible for the survey, and Hugh Barnes, responsible for the technical survey. Ann Anderson analysed the pottery and Pia Wistoft Nielsen the animal bone material. The supervisors from Copenhagen University included Olivia Petersen (find-registration), Clara Winding (find photography and draughtsperson), Sandra Mularczyk (excavation trench 3), Hiba Cheheiber, Nicole Herzog (both survey) and Reem Abed Aljader (pottery-assistant).

Hearty thanks are sincerely offered to Dr Elayan, Director-General of the Department of Antiquities of Jordan and Aktham Oweidi and his staff of the Department of Antiquities office in Amman, who made sure that the work could start in time and good order. It was also a pleasure to have Dr. Abdullah, as our DOA representative, as well as Yassir for the first half. Abu Ibrahim worked as guard and admitted us to his land; and the second landlord allowed us this year to work on the central knoll again. Five to seven Jordanian workmen and 14 Danish students worked in the project. The project was financed by the Institute for Regional and Cross-Cultural studies, with additional grants from the Danish Institute in Damascus.

Systematic survey of the central knoll

The central knoll is limited in the west by Wadi Murayghat (flowing into the Wadi Main) and in the east and south-east by the street towards Wadi Main. The northern border is created by an artificial wall, formed by bulldozing activities since the 1970s. The southern border is a clear division between the knoll and an agricultural field. The knoll consists of two kinds of limestone, a material that breaks in relatively straight slabs, easy to use for the construction of dolmens or standing stones without the need of much further work and on top a different kind of limestone that is softer and breaks more irregularly.

A 10 x 10 m net has been laid over the central knoll, which has also been surveyed intensively. In that process 114 squares (11.400 m² or over 1 ha) have been surveyed, documenting the visible bedrock in 1:100 plans. Each of the documented squares has also been surveyed, thus assembling surface collections of archaeological material, which is very fragmented. The documentation of visible standing stones in 1:50 plans also continued. Survey work has been done in particular on the south-western edge of the central knoll, where the geo-magnetic survey showed archaeological structures.



Figure 2: Cup marks (L.1258) along the western edge of the central knoll.

The cup-marks documentation (particularly along the western edge) continued. During the 2019 season 20 more loci with up to 10 cup-marks were documented (L.1243-1264), which were mostly in a wide strip along the western edge between squares G44 and D51. The marks have very varied shapes and sizes, although the majority is bowl-shaped and not more than 20 cm deep (fig. 2).

Excavation

The trenches 3 and 4, started 2014 and continued since then, were finished this year. The eastern half of trench 3.4 was re-opened 2.2 by 6 m to get the direct connection with the apsidal structure in the western half of trench 3.4. Trench 1.2 was situated west of trench 1 (on the western side of the “West-Gate”) to study the positioning of the large standing stones. Trench 7 was laid out with 18 m² next to dolmen L.7008 in Area 7 to study the possible platform and dolmen construction. Trench 8 was laid out

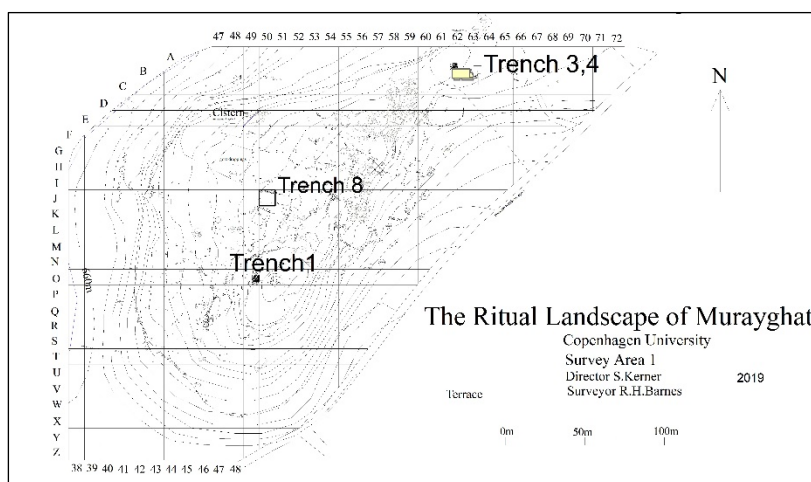


Figure 3: Trenches 1, 3/4 and 8 in Area 1

with 10 x 10 m around Rectangle 3 (R.3). All trenches were re-filled at the end of the season. Several fill layers were sieved with different percentage from 20 to 100 %.

The manager (Imad Abu Jerez) of the southern quarry, owned by Qassara Jerez Isa Abu Jerez, helped with heavy equipment, when the trench 3 and 4 was emptied at the beginning and then backfilled at the end of the season. The bulldozer was

stopped when the first red cover material, used in 2018 to cover the surfaces, appeared. At the end of the 2019 season the surface of the trenches 1, 3 and 7 were partly covered and marked, so that future excavations would be made aware of the work carried out. Trench 8 was entirely covered with plastic and completely refilled.

Trench 3.4 (C63) in 2019 was the re-opened eastern half of trench 3.4 from 2018, measuring 2.2 x 6 m (overlapping 20 cm with trench 4.3). It was opened including the western baulk, which had been covering material on top of the floor L.1782. This means the entire length of the baulk between trench 3 and 4 has now been removed. The excavation of trench 3.4 in 2018 had reached solid surface L.1742/ L.1761, which is the same “pond-crust” that had been encountered in most parts of trench 4. After the removal of the re-fill the remaining surface (now named L.1792=1742=1761) was removed.

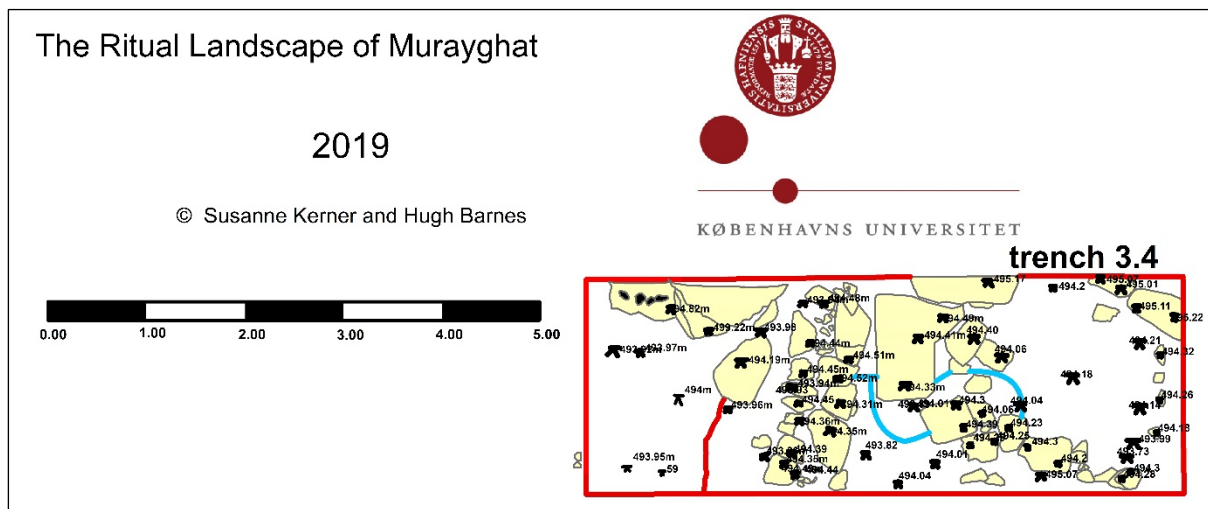


Figure 4: Trench 3.4 showing Wall 22 (centre) and Wall 16 (right).

Underneath a mix of different fill layers containing varying amounts of rubble stretched over the whole area of the trench. These were disturbed by a number of pits. In the western half of the trench double-faced Wall 22/ L.2283 appeared underneath several fill layers, consisting of 2-3 rows of very large hard limestone orthostates (fig. 4). The wall runs straight from the northern section towards south and into the southern section with an exposed length of 2.2 m and a width of 0.7 m. The eastern face (fig. 5) consisted on the northern end of one big roughly square-shaped orthostat and of two stone courses on



Figure 5: Eastern face of Wall 22 (L.2283) in trench 3.4

the southern end. These stones in the southern end were all flat-faced and roughly square or rectangular in both plan and elevation. The gaps between the stones were mostly filled with small chinking stones, in some instance where these were missing, light brown silt filled the cavities. Wall 22 is not parallel to Wall 14 (excavated in 2017 and 2018), although it clearly is contemporary and formed some kind of structure with it. The broken pottery found next to Wall 14 in 2018 could be reconstructed together with ceramic found in 2019 in the same fill layers just above the badly broken

surface L.2300 (which is equivalent L.1783 from 2018). Wall 22 had a foundation trench L.2299 on the western side (again parallel to Wall 14).



Figure 6: Continuation of orthostat Wall 16 in trench 3.4

The eastern side of trench 3.4 showed two stones, forming the continuation of Wall 16 (L.1917) to the southeast, which were already visible on the surface in 2018. Wall 16 is another orthostat wall, which consisted of large stones of different dimensions. The western stone in trench 3.4 is a rectangular, one meter high orthostat, reaching all the way down to virgin soil, while the eastern one is a square stone, ending at a much higher level (fig.6). A foundation trench was found on the southern side of Wall 16, which fitted

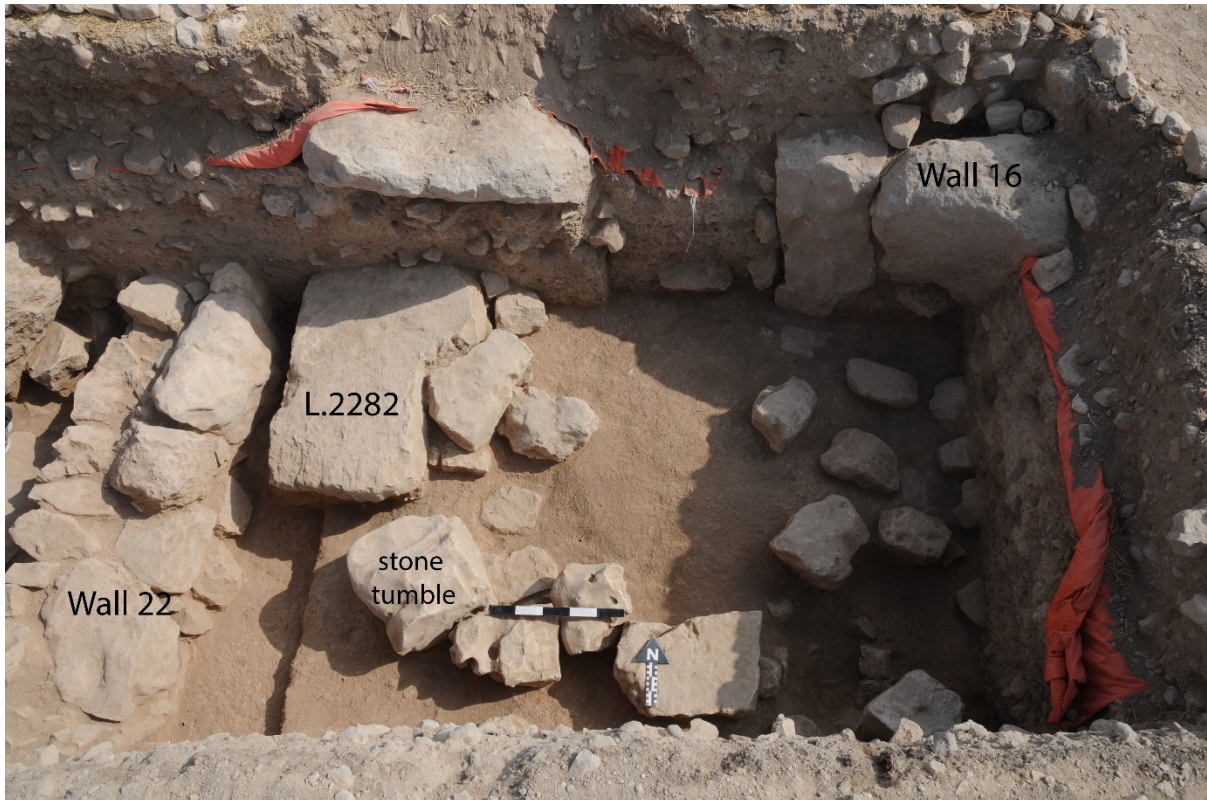


Figure 7: Eastern part of Trench 3.4 with wall 22 to the left and wall 16 to the right. In the centre the stones, which might have originally been the upper courses of wall 22.

the western stone, while the eastern stone sat much higher than the base of the foundation trench. Lower down in the trench, distanced by fill layers, were several boulders; a number of them laying unsorted on the virgin soil. Two very large stones run into the northern section, and had not been noticed in the earlier excavation (in trench 4.3) as it did not reach that level. The single large orthostat L. 2282 is a hard limestone and was roughly dressed on the visible sides. The orthostat projects from the northern section with a length of 1.5 m, 0.9 m width and 0.45 m depth. The south end of the orthostat shows a shiny patina, similar to L.1723. It could be in continuation of the line of large orthostats described in

2018, which might have toppled over to the south, just as L.2282. The large boulder L.2290 protrudes ca. 0.5 m out of the northern section and has 1 m length and 0.6 m width. It is clearly out of position and does not seem to belong to any other structure in the surrounding. The other large stones (fig. 7) lying unsorted on the virgin soil might have once been the higher courses of Wall 22/L.2283.

Trench 3.4 just cleared a number of questions from the earlier excavations and thus only those structures relevant for the phasing will be summarized here.

Phase 1: final abandonement.

Phase 4: This phase comprises the big pond event, which produced the pond crust in trench 3 and 4, and which was named L.1792 in 2019, being equivalent to L.1724/L.1742/1761 and a number of fill layers underneath.

Phase 5 and 6: These seems to be abandonment (and/or destruction) phases characterised by many pit activities and fill layers.

Phase 7a: Wall 16 (L.1917) was built in the east, using partly an older wall or wallstump as base. This wall was built on earlier fill layers (L.2281 and others).

Phase 7b: Destruction event, consisting either of a natural collapse (earthquake?) or the robbing of stones, which formed the upper courses of Wall 14 and Wall 22. This led probably to the fall of a large amount of those stones into the direct surrounding and the destruction of the surfaces between those walls. The line of orthostats L.1791/L.1723/L.2282 collapsed onto rubble fills (southwards).

Phase 8: Building of orthostats line (L.1791/L.1723/L.2282) and roughly contemporary building of Wall 14 (L.1714) and Wall 22 (L.2283) and the surface in the room (L.1782/L.2300), dating to the EBAI.

Phase 9: Only excavated in trench 4.

Natural soil: upper orangey palaeosoil and lower very red soil.



Figure 8: Dolmen L.7008 (2018) with the terracing wall (L.7021) to the south. Trench 7 was laid out to the left (west) of the dolmen.

Trench 7: In 2019 we decided to excavate around Dolmen L.7008, to investigate the relationship between the dolmen and the walls and platform around it. For 2 weeks a 3 x 4 m trench was laid out next to dolmen L.7008 in Area 7 (fig. 8). Later an extension (trench 7.1) was opened 2 x 2.2m towards south, to ensure a connection with the platform Wall 19/L.7021. The dolmen is with 3.20 m length, 2.80 m width and 1.25 height one of the larger dolmen. The four

walls of the dolmen are still standing, but the capstone is broken and has fallen into the structure, making excavation inside the dolmen itself impossible. The dolmen is situated on a slope, which drops down towards Wadi Zarqa Ma'in, but with a sight connection to Area 1. The trench was laid out west of dolmen L.7008 to study Wall 20/L.7020, which continues from the terrace westwards (to another dolmen). The excavation showed that the younger Wall 20 was running against the dolmen platform Wall 19, but not bonded with it. It had a small foundation trench, and is possibly a typical small terracing wall of later date. The platform itself seems to continue at a right angle towards north with Wall 21 L.7027 (fig. 9). This part of the platform was seemingly built on a packing of sandy, much pebble containing layer L.7022 (fig. 10). Inside these surrounding walls the platform was made of a fill of rubble stones and soil. There is no evidence of a surface on the dolmen platform. The entire trench had much tumble in it, most likely being caused by its downslope position. The packing material L. 7022 contained small amounts of EBA pottery.



Figure 9: Trench 7 showing L.7027 (Wall 21), the possible western side of the dolmen terrace. Underneath arrow is bedrock visible.

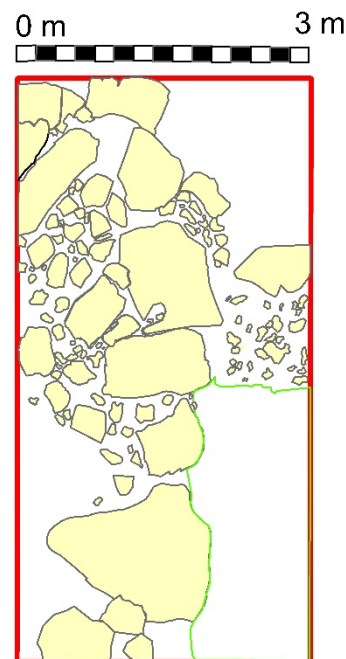


Figure 10: Plan of trench 7. Green line showing bedrock.

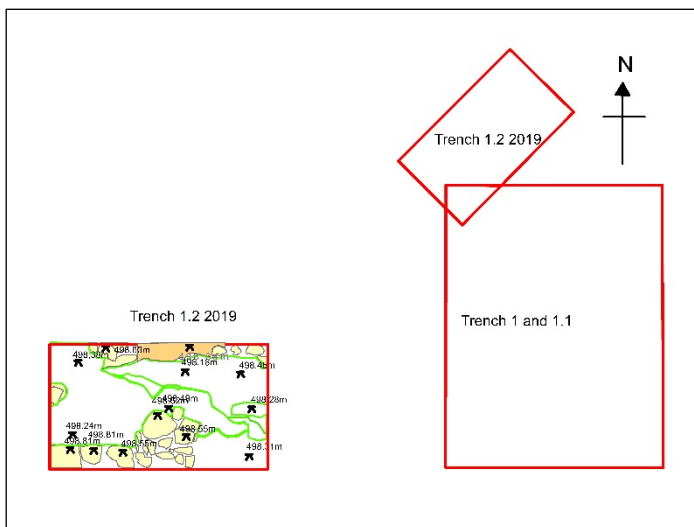


Figure 11: Layout of Trench 1 (2014, 2018) and Trench 1.2 (2019). Green lines show bedrock structure.

Trench 1.2 (in Area 1) was laid out west of the “Western Gate” not in the excavation grid (fig. 11), but parallel to the row of standing stones and the “Gate” to avoid very obtuse angles. The trench was 2 m x 3.5 m. The bedrock runs in steps and the step closest to the “Gate” was badly decayed on the surface (parallel to the situation in trench 1 in 2018). The result of the excavation was that the larger of the two standing stones of the “Western Gate” had three stones set as packing stones directly west of it (L.1120).

They were very closely set and particularly the southernmost and largest one was difficult to pray away from the standing stone (fig. 12). They were all re-set in position before the trench was re-filled. Unexpected was the existence of a surface/ platform/ path to the west of the stones (in front of the “threshold” and the northern and narrower of the two standing stones). This platform was made of two groups of flat stones (fig. 13), which were all laid at roughly the same height forming a relatively flat surface (L. 1122 and L.1126). The southern group of stones and the packing stones were set on the same very thin soil layer on top of the bedrock. The northern stones were set on a slightly thicker (and find containing) fill layer L. 1125. There was only EBA pottery found in the trench and some well preserved grinders (otherwise flint and bones).



Figure 12: Trench 1.2 with bedrock and packing stones (L.1120) in the back



Figure 13: Trench 1.2 with the two large standing stones (top) and the packing stones (L.1120) before the right orthostat, the two flat “platforms” L.1122 (left) and L.1126 (centre) above the bedrock.

Trench 8 (in Area 1) was laid out in J50 where Rectangular 3 had been visible on the surface and the remote sensing had shown more of the same structure. The trench was thus laid out 10 x 10 m to catch most of this rectangular. With 100 m² the trench was opened first in its entire extent, but it was quickly decided to first concentrate on the western third. Nevertheless the trench was excavated no more than 0.4 or at the most 0.5 m below the surface, while most parts were only 0.2 m excavated. The beginning of the trench included the removal of a very dense layer of goat faeces, which was very hard work and it took 3 days to just clean the surface.

The trench included, already visible at the beginning (fig. 15), a wall on the northern side (Wall 25/L.112), a line of standing stones ca. 7 m south of this one running parallel (Wall 23/ L.111 to the west and Wall 24/L.114 to the east). Wall 25 and 24 continued eastwards outside trench 8. Another line of standing stones is mostly outside the western border of the trench. Below the topsoil two more fill layers were removed from the entire trench (L.101 and L.102). Then the appearance of Wall 26 (L.113) running N-S from Wall L.111 into the south section led to the decision to excavate the western third of the trench only.

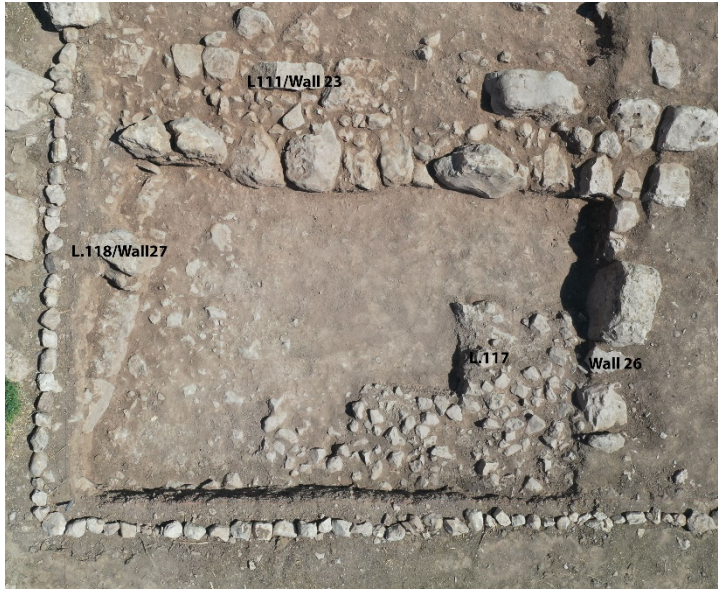


Figure 14: Trench 8, unit/room 1 in southwestern corner with rubble layer and surrounding walls.

The trench was then divided in two large parts with different work teams. The smaller room/unit 1 (fig. 14) is at the SW corner (formed by Wall 23/L.111 (N) and Wall 26/L.113 (E) as well as the western and southern section). The larger part is situated between Wall 25 (north) and Wall 23 (south), the western section and an artificial line to the east (fig.15).

Wall 23 (L.111) is clearly double faced from the western border of the trench until it reaches Wall 26 (L.113). The southern side of L.111 was already recognisable as a line of stones on the surface, the northern side was excavated as L.105, a locus consisting

of smaller stones, which turned out to be the filling of the double-faced Wall 23 (L.111). The southern face is nearly completely preserved, the northern one has gaps. In the moment it looks like Wall 26 (L.113) is running against Wall 23 (L. 111), but that needs further excavation. Wall 23 is at least at one point two stones high. Wall 26 is so far only one stone high and more irregular in the size of the stones

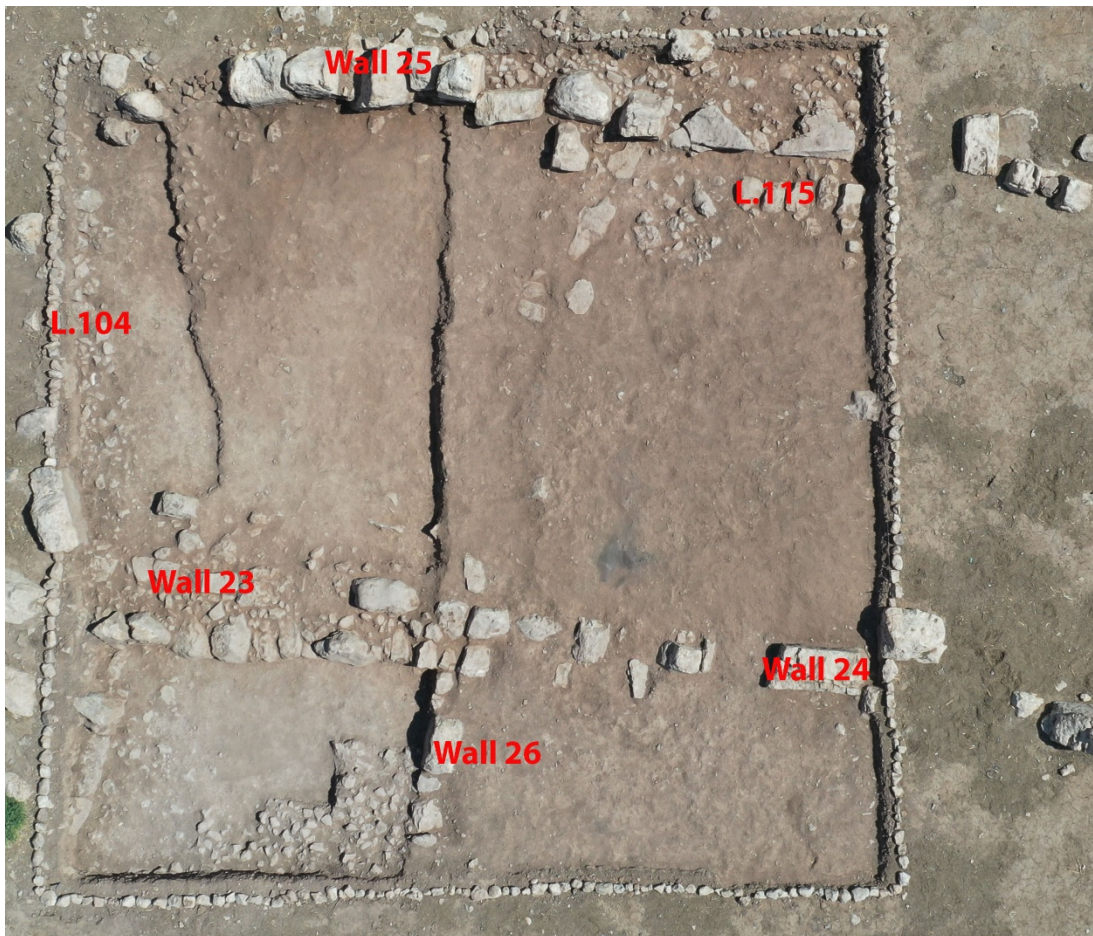


Figure 15: Trench 8 with the double-faced Wall 25 to the North and Wall 23/Wall 24 in the southern part.

used. Inside room/unit 1 were fill layers L. 103 and L.116 excavated. First the southern, then also the western side of the room had a different locus (L. 117), consisting of a large amount of small stones with little earth. This stone tumble runs also against small Wall 27 (L. 118), which appeared at the western side of the trench/room (fig. 14). L.118 consists currently of three stones, perfectly put in a row. If this wall has any connection to the row of standing stones outside the western border of the trench still remains unclear (another double-faced wall?). Walls 26 and 27 are running roughly parallel. In room/unit 1 large amounts of EBA pottery were found and some basalt items (e.g. grinders).

North of Wall 23 (L.111) the situation was similar. The entire western border of the trench was covered with very dense, much stone rubble containing sediment (L.104) followed eastwards by fill L. 108 (fig. 15). It produced a lot of pottery and basalt, including the fragment of a truly large grinder (over 30 cm high/thick). The L.108 was randomly stopped at ca. 4.5-5 m east of the W-border. The edge of that locus has been straightened, so that there is a step. L.108 runs against Wall 25 (L.112) in the north, which's entire southern face is in trench 8. The southern face is made from large standing stones, which are mostly rectangular and standing quite upright. The walls seems to be a wide double-faced wall, possibly 1.5 m thick and nearly 20 m long. At the eastern end of the trench a line of 5 stones runs parallel to Wall 25 (L.115).



Figure 16: Dolmen L.4070 with capstone.

Survey

New fields (defined spaces for survey) were laid out in Area 4 as L.4064 and 4133. In 2019 12 dolmens/collapsed dolmens have been fully documented (fig. 16 and fig. 17) – all in Area 4 (L. 4065, L.4069, L.4070, L.4074, L.4075, L.4127, L.4129, L.4132, L.4137, L.4139, L.4140, L.4145). The dolmens were mostly collapsed, which makes it very difficult to give measurements, as the side-stones



can be distributed in the direct vicinity. The estimated dimensions are between 2 m and 3.8 m length and 1.7 m to 2.7 m width, Since 2014, 79 dolmens (in different stages of completeness) have been documented. Other documented structures included the metal tower on top of Area 5 and several caves, quarry cuts and looting pits in Area 4.

Figure 17: Collapsed dolmen L.4145 in Area 4.

Material

The archaeological material collected consists of lithic, ceramic, basalt items and a few modern metals items. The animal bones were preliminarily analysed and showed a majority of sheep and goat, but with bos, gazella, equus, cervus and sus being present. The less disturbed parts of trench 3.4 and trench 8 had several basalt finds, particularly grinders (fig. 18).



Figure 18: Basalt grinder from Trench 3.4 (Findnr. 8479).

Pottery

The pottery, which had been excavated on the floor in trench 3.4. in 2018 and could be further complemented by the material from 2019, so that it was possible to get a few of the vessels nearly complete. They were, with the permission of the DoA, reconstructed in ACOR. The Murayghat bowls show an unusual amount of handles (fig. 19) and were found together with other interesting, partly decorated pottery.



Figure 19: Murayghat bowls (Findnummer 8336) with over 50 cm diameter and double as well as single ledge handles.

Dating

The material from trench 1.2 and 3.4 (earlier phases) both indicate a dating to the latest Chalcolithic or early EBA. The material from trench 8 indicates the same dating, except that the top levels show material from much later periods.

Participants

Abed Aljader, Reem Basel Sami
Andersson, Ann
Barnes, Hugh
Butzer, Signe
Cheheiber, Hiba
Flender, Matthias
Herzog, Nicole
Holmström, Maximilian
Kerner, Susanne
Koll, Vibeke Juel
Kristiansen, Mads Bloch
Mularczyk, Sandra
Nielsen, Pia Wistoft
Nissen, Julie
Pedersen, Amalie Severinsen
Pedersen, Kiki Pedersen
Petersen, Jonas
Petersen, Oivia
Rezaei, David Lefeldt
Stie, Chris Madsen
Thormann, Mathilde Sehested
Vangkilde, Mathilde Karoline
Weston, Sean
Winding, Clara
Zaki, Amel Wasef