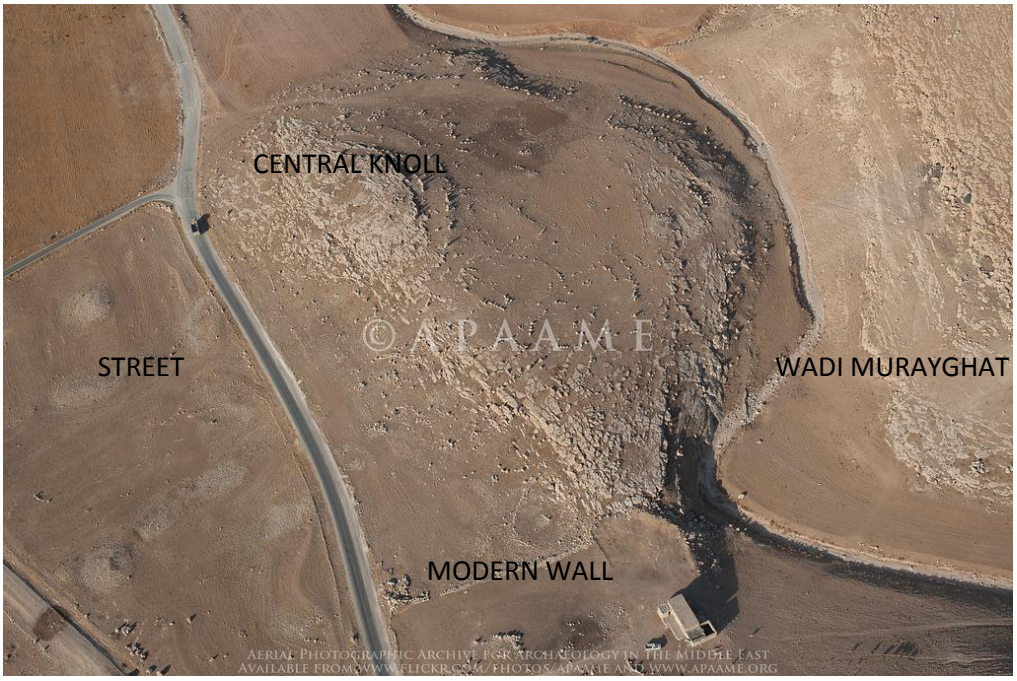
UNIVERSITY OF COPENHAGEN

The Ritual Landscape of Murayghat Project

2. Season: 2015

Susanne Kerner
Near Eastern Archaeology

ToRS



The Ritual Landscape of Murayghat

2015 report of 2. Season to the Department of Antiquities of Jordan

Susanne Kerner

Research History

The site of Murayghat has been mentioned by many early travelers (Conder 1889,184; Irby and Mangles 1985, 465–66), and was visited later by the Tuleilat Ghassul team the Pontific Institute (Mallon, Koeppel, and Neuville 1934, 155, pl. 63:4–9), as well as by Harrison in the 1990ies (Harrison 1997, 29) and later Savage (Savage 2010, Savage and Rollefson 2001). They reported material from the Chalcolithic, Early Bronze Age and later periods (see report 2014).

Present situation

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 1980s. The central knoll is surrounded by low hills to the north, west and southwest (fig. 1), while southeast of the road a low field soon drops down to the steep sides of Wadi Main. The north-eastern hill (area 3) is nearly eaten up by the northern quarry, but these activities that also threatened the south-western hill (area 5) have been stopped in 2015. The quarries still work westwards, but not anymore towards the site. Along the road were some broken down dolmens, according to the information by the local population, some of these have been blown up during the last decades. One dolmen, that was complete during the 2014 campaign, had been deliberately destroyed when visited again in August 2015, so we decided to document these dolmen during the 2015 season.

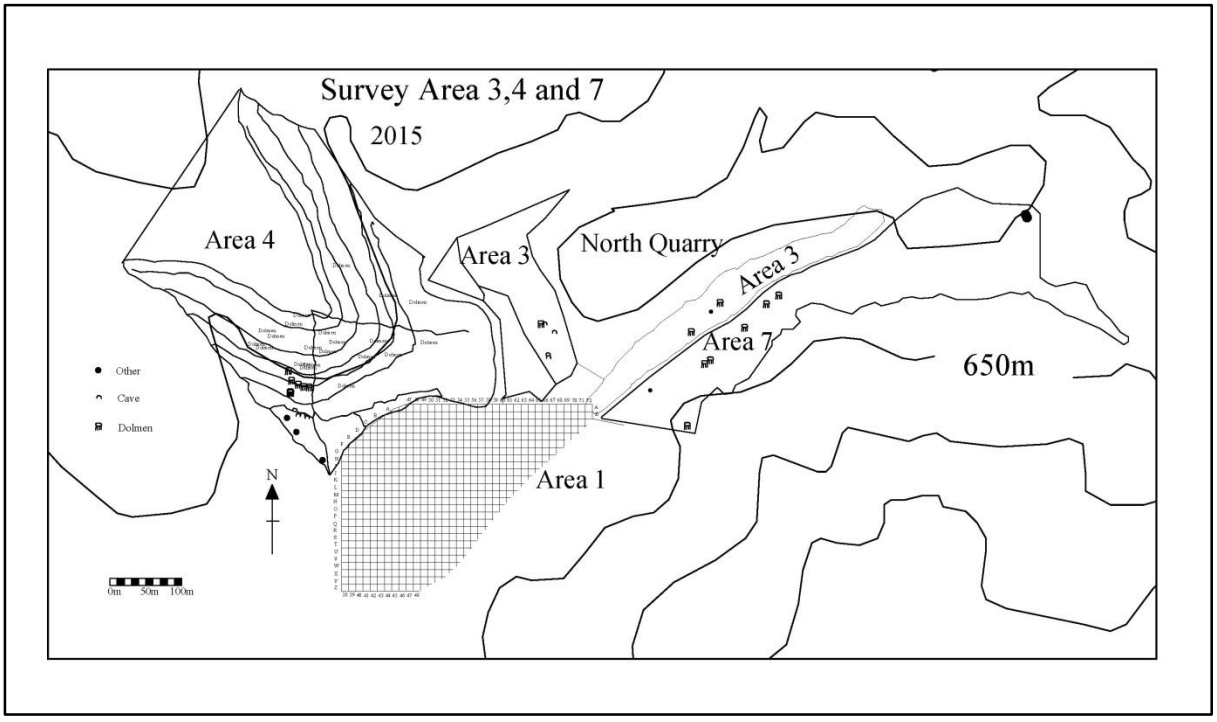


Figure 1: Map of surveyed areas in Murayghat

The manager of the southern quarry helped with heavy equipment, when the trenches 3 and 4 (from 2014) were first emptied and then backfilled in 2015. The mechanical emptying of trenches 3 and 4 were done from one of the sites that were planned to be excavated, so that any damage of baulks would not be a problem. The bulldozer was stopped when the first red cover material appeared in trench 4 and even before that in trench 3, as the walls in that trench had been unsubstantial and damage was avoided in this way. The sturdy plastic sheet had survived 14 months in the soil between 2014 and 2015 very well and showed little signs of corrosion. At the end of the 2015 season, the entire surface of the trenches was covered again with the same material, but the corners of the trenches, small test trenches and the pit were first filled with sand sacks, to enhance their stability.

Project "Ritual Landscape" in 2015

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 is intended 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 period.

The 2015 season had the following plan: continuation of the central knoll survey, continuation of trenches 3 and 4, survey of the surrounding hills (finishing area 5 and starting area 4). The project took place between the 10.8. and 15.9. Between the 16.8. and 13.9. the annual field-school of the University of Copenhagen (with 14 first-year students) was part of the project (see list at the end). The other members of the team included, beside the director, Isabelle Ruben (vice-director) responsible for the excavation, Matthias Flender, responsible for the survey, and Hugh Barnes, responsible for the technical survey. Ann Anderson analysed the pottery, Christoph Purschwitz the chipped stones material. The supervisors from Copenhagen University included Ann Sofie Drewsen (find-documentation), Ditte Mikkelsen (survey central site and hills), Matthias Findeisen (survey), Hanna Erftenbeck and Christian Birkekvist (both excavation), Ellen Andrea Brzost-Andersen (draughtsperson), Johanne Aaltonen (assisting with pottery) and Louise Boch Pedersen (assisting with lithics).

Hearty thanks are sincerely offered to HE Dr Monther Dahash, Director-General of the Department of Antiquities of Jordan, for his full and unreserved backing of the project. In addition, Aktham Oweidi and his staff of the Department of Antiquities office in Amman made sure that the work could start in time and good order. It was, furthermore, a pleasure to have Khalil Hamdan as our DOA representative, who was most helpful. Abu Ibrahim worked as guard, admitted us to his land, and provided lots of very helpful information about the recent history of the site.

Support in Denmark was equally as enthusiastic, especially from Professor Ingolf Thuesen (ToRS), and the H. P. Hjerl-Hansen Mindefondet for Dansk Palæstinaforskning.

Intensive, systematic survey of the central site

The documentation of the central site (area 1, fig. 2) was started in 2014 and continued in 2015. Bedrock is visible on many parts of the central knoll, slowly being covered more and more by soil towards the outside of area 1. The survey of the central knoll includes a number of different elements.

1. Systematic survey of 10 x 10 m squares.
2. Documentation of the structures made from orthostats and smaller stones.
3. Documentation of the bedrock structure and related features such as cup-marks.

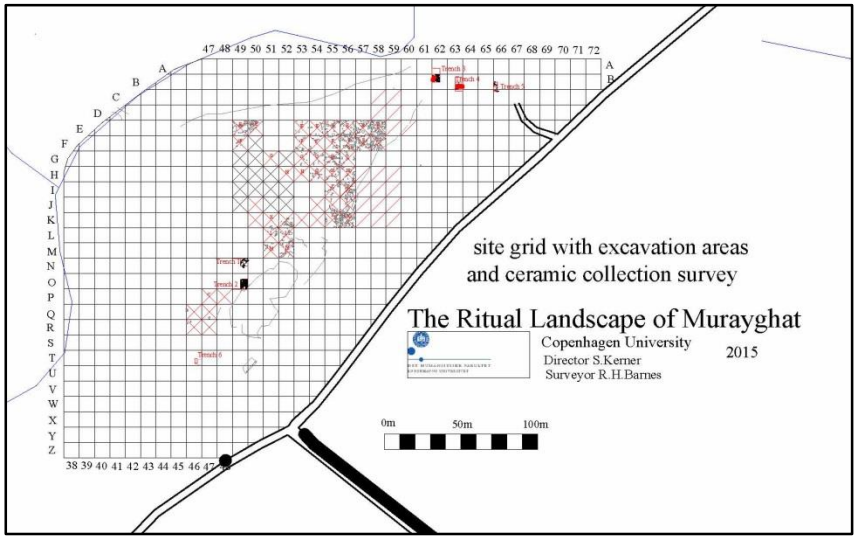


Figure 2: Plan of area 1 in Murayghat with surveyed squares and trenches.

The archaeological survey could only be carried out for a few days in 2015 and includes a complete collection of surface material in six 10 x 10 m squares (C58, C59, D58, D59, E59, E60). Fig. 3 1810 is giving an example of such a square. Now 50 of the 10 x 10 m squares have been finished in 2014 and 2015, which constitutes roughly 20% of the central knoll (fig. 2). Parts of the stone structures (walls and orthostates arrangements) have been documented with exact 1:20 stone plans (H58, H59, I57, I58, I 59, J57, J58, J59, K57, K58, K59, fig. 4).

Figure 3: Bedrock sketch in area 1.

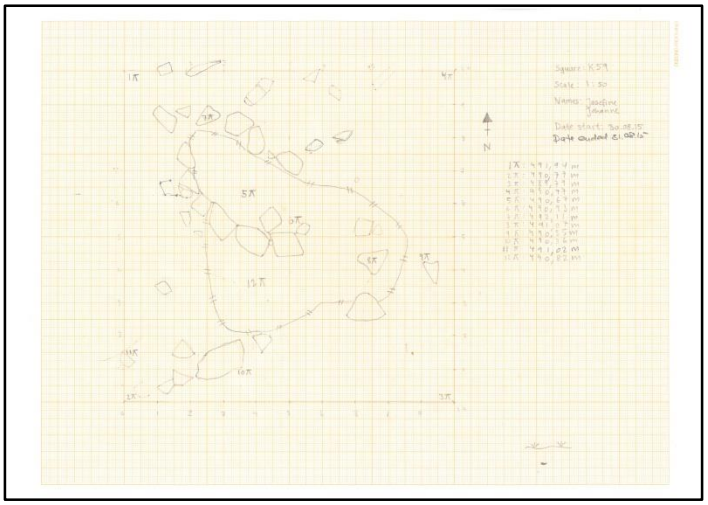


Figure 4: Stone drawing (1:20) in area 1 (K59).

The central knoll shows two possible circular alignments on the highest point on the bedrock (O-P/50-51). From there a good view is provided to the surrounding area, although not all dolmen on the hills (area 3, 4, 5 and 7) would have been visible from that point, or better that point would not have been visible from all dolmens on the surrounding hills. The other structures are three large horse-shoe shaped circles, of which HS1 (P-Q/47-48) and HS4 (F-H/54-55) (fig. 5) appear on the northwestern and southwestern side of the central knoll (meaning towards the areas 4 and 5). HS2 is north of the hilltop on the bedrock area (I-J/55-56). Only HS 3 is on the northeastern side of the knoll (E/61-61) and thus directed towards the larger dolmen along the modern road. The dating of Horse-Shoe structure 4 is very uncertain, it might be a much later construct used as an animal pen. Several

rectangular structures have also been documented. The R2 (F51) and R3 (J/50-51) are again on the western side of the central knoll outside the visible bedrock area. They are built from smaller stones and on flat ground. The R1 is built from large standing stones and on the bedrock east of the hilltop (H57). The south and west of the central site is delimited by a wall which has for most parts an interior and exterior face. On the eastern slope of the central knoll are two other double walls visible forming an entrance-like structure (L57 and K58), while the western slope again has an entrance like structure, where two larger standing stones form a gap in a longer wall made from orthostats (O49).

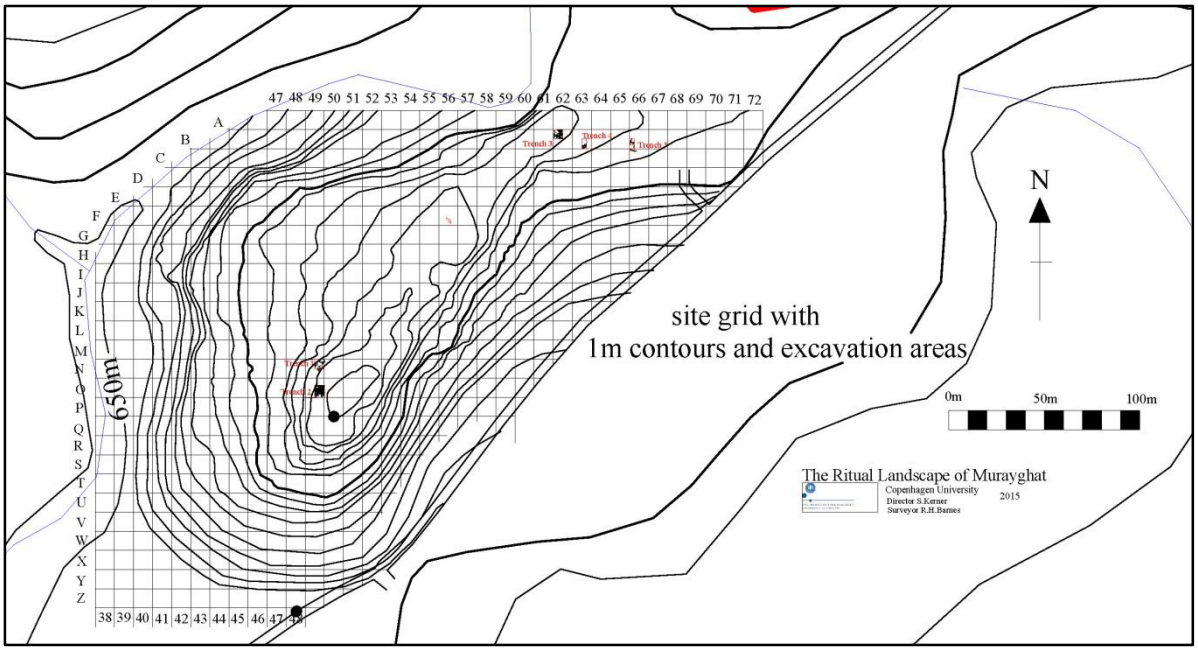


Figure 5: Plan of area 1 with excavation grid and contours.

Numerous cup-holes have been further documented (fig. 2 and 6), there is a concentration of them along the wadi's edge, where in some cases groups of four and six have been found. All over the central site single cup-holes can be found, they are usually around 15 to 20 cm in diameter and of slightly differing depth.

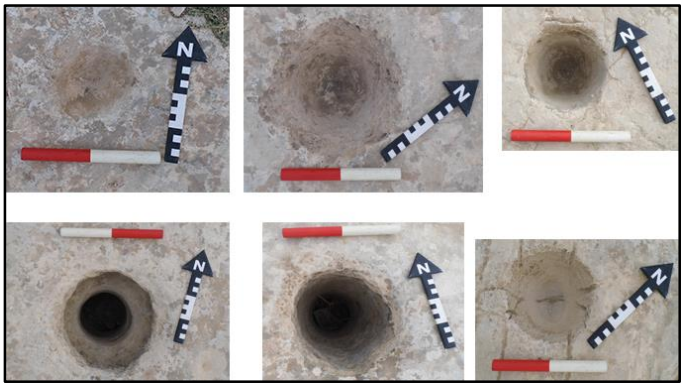


Figure 6: Cup-holes on the bedrock in area 1.

Excavation

Two of the trenches started last year (trench 3 and 4) were re-opened during 2015 to form a more concrete idea of the material and architecture as well as the stratigraphic sequence. All trenches were re-filled at the end of the season.

Trench 3 (B62) had been opened with 25 sqm in 2014 and was now enlarged 4 m towards north, so that the new area included 20 sqm (fig. 5). In this part the platform or rubble wall found in 2014 (L.1418) continued towards the northwest (L.1438) running north of Wall 1, the relationship between the wall and the adjacent platform is still difficult to decide (fig. 7). The northern trench is roughly divided in two halfs by wall 6 (L.1433), which runs SW to NE and ends in a stone filling (L.1441), not really connecting with wall 5 (L.1432) formed by middle

sized and bigger stones running into the N-section. The fill to the west of wall 6 are L.1430, L.1435, L.1443, L.1446. L.1443 was a small row of stones against the W-side of wall 6.

To the east of wall 6 the fill is L.1431, L. 1436 and L.1437, L. 1442, L.1448. L.1437 runs against the platform/rubble wall (L.1438) and held little material of any kind other than soil, while the other fill layers all contained finds. Below L.1448 and partly already starting in L.1448 is L. 1451, a fill layer with some small standing stones, thus building a feature against wall 6. The last layer is L.1453, which is a hard surface, which was not excavated. In parts of L.1453 bedrock was visible. The fill layers L. 1443, L.1446 (west of wall 6) and L.1442, L.1448 (east of wall 6) were most likely identical and thus the "wall"6, which was again only one row of stones, might well be sitting on top of these fill layers, that would have been in the entire area of the northern half of trench 3.

The northern wall 5 (L.1432) is rather late in the trench as it cuts most of the fill layers and through wall 6. Wall 5 has a foundation cut (L. 1439) of ca. 5-7 cm distance from the actual wall face (L.1440 fill of foundation cut). The building of wall 5 might well have led to the removal of larger stones from the top of wall 6 and the re-packing of smaller material (L.1441).

Figure 7: Trench 3 at ened of excavation.

Southern part of trench 3 (continuing work from 2014): L.1444 is a rubble layer to the south of the platform (L.1438) in the area called Room 1 (reaching into the part excavated in 2014) It sits on surface L.1445, which equals surface L.1416 (from 2014). The surface runs towards wall 1, but its relationship with the platform is still not clear, in parts it seems to run underneath the platform in the western part it runs against it. A small test trench was laid out in the area where Wall 3 had been removed and under surface L.1416. The fill was L. 1449 and below L.1451. The latter might be natural soil.

At the end of the season the wall 2 (L.1408) and wall 3 (L.1409) were removed, as they both had been fully documented and were only preserved in one or two layers of stones. Both "walls" were not well built and would not have stood up to a full height. L.1447 was the fill under Wall 3 (and partly Wall 2) and above the surface L.1416 (L.1445). Wall 3 is thus clearly younger than the platform and most likely also Wall 2.

The stratigraphical order in trench 3 seems to be as follows:

Pre-settlement phase = possibly untouched soil L.1452 and bedrock.

Phase 1: the earliest structure in the sequence is the 'platform' L.1438. On the south side of the platform and perhaps associated with this structure, or at some time later, is a surface (1445 =1416).

The stone-lined basin from 2014 may go with this 'platform' structure, or it may be earlier – so far this is still unclear.

Phase 2: Various fill layers are deposited on both sides of the 'platform' (L.1418-2014, L.1438); quite ashy deposits to its north-east, but with virtually no charcoal in them, and rather pebbly slightly ashy deposit in the north-west, with much pottery and bone. And the fill layers excavated 2014 above the surface L.1416.

Phase 3: A series of four badly constructed walls made of single lines of large, rounded boulders placed directly on the fill layers were built (L.1407=Wall 1, L.1408=Wall 2, L.1409= Wall 3 and L.1433=Wall 6), two of them (1408 and 1433) ending with a forced bond into the top of 'platform', L1408 from the south, L.1433 from the north. L. 1407 being built into the south face of the 'platform'.

Only wall 6 (L.1433) had on its western side, was what seems to be a sub-surface packing (1435) – very compact and relatively stone-free yellowish soil, which runs up against the wall face. There is no discernable surface on the top of this packing layer – very possibly, the actual surface was removed by the bulldozing episode in the 1980s. Any similar surface and sub-surface packing that may have been associated with the boulder walls 1407, 1408 and 1409 was either missed during last year's excavations, or it was never there.

These walls (2, 3, 6) are very insubstantial structures of only one or two rows of stones, build without foundation trenches and just set on top of fill layers. They would have never stood up to a considerable height or supported more rows of stones, and have thus to be understood as marking out space, not forming actual rooms.

Phase 4: Wall 5 (L.1432) in the northern baulk is from a later phase; the foundation trench cut for this wall cuts down through the sub-surface packing (L.1435) and the fill layer below that (L.1443). It might well have been the last remains of a Classical period wall that was mostly removed by bulldozer during the 1980s. The existence of classical pottery on the surface and in the surface layers of trench 3 indicates this as well as the survival of some stones cut in a particular way, that have been documented along the slope west of trench 3 (towards Wadi Murayghat).

Phase 5: Modern use of the site, which largely entails bulldozing the area flat, and thereby exposing the bedrock to the west of the trench, and removing all the old topsoil and upper layers.

Trench 4 (B63) was enlarged both to the North and the South (fig. 5). The southern extension was 5m wide and 1m long, while the northern extension measured 5 x 2.5 m. Both extensions were meant to explain the character of Wall 1 (L.1307) and the surface/floor L. 1308, which had only been picked up in the eastern part of the trench in 2014 (fig. 8). First the backfill of 2014 was removed with the help of a bulldozer. The first layer in the old 5 x 5 m trench was thus L.1313, the remaining backfill.

The southern extension had fill layers (L.1310, L.1311, L.1314 (containing many fist-sized stones). In the western corner of the trench L.1314 was very thin and followed by L.1316 with a more compact texture (and many stones). L.1314 was changed into L.1319 just above the expected surface L. 1308/L.1321, but remained otherwise the same. L.1320 was the surface activities, while L.1321 was the actual hard-packed clayey surface and both filled the entire width of the trench (run over wall 1). The last layer excavated in the southern extension was L. 1328, situated underneath the surface L.1321, directly next to the stones that seem to form the continuation of wall 1(L.1307) to the south.

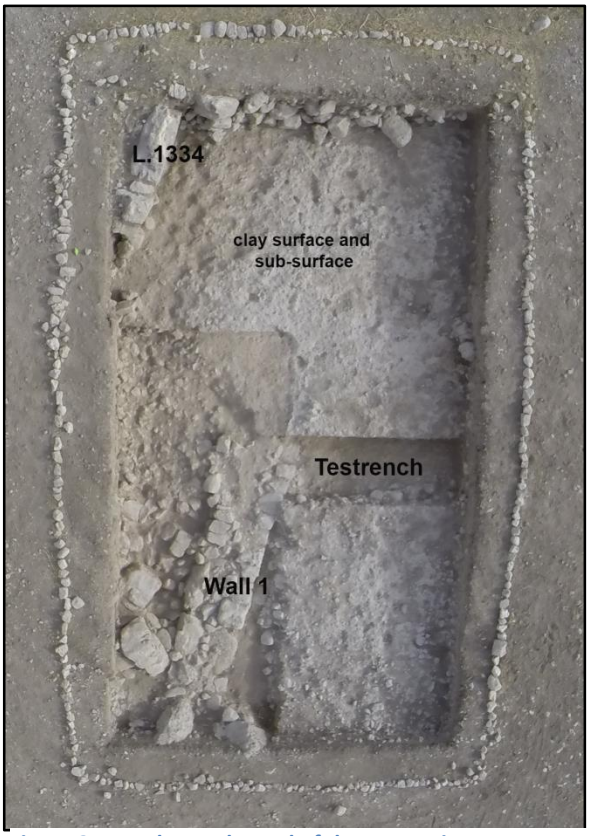


Figure 8: Trench 4 at the end of the excavation.

The northern extension first of all consisted of several fill layers, mostly loose sandy layers with rubble content: L.1312, L.1315 (consisting of L.1322 and L.1323, which was not separated in the SE corner of the northern extension as it was the first trial excavation down) and L.1322 (a layer containing much fist-sized rubble). Under L. 1322 the northern extension is divided in several loci next to each other: L. 1323 to the north-east of the extension, L. 1324 to the south-east of the extension and L.1325 filling the entire west of the extension. L.1325 consisted of very large boulders, which gave the impression to have fallen down towards the east, the locus is sloping towards east, so that its western half was under L. 1312 (and had remained unexcavated for a few days), while the eastern half was under L.1322. The boulders might have originated from a wall in the NW corner of the trench, where L.1334 showed two large stones (up to 80 cm high) in alignment.

At the edge of L. 1322 a large pit (overlooked in 2014) could be followed with difficulties this year. The cut of the pit (L.1317) and the fill in the pit (L.1318) run into the western section and over the northern part of wall 1. This pit might well have been created when the area was bulldozed in the 1970ies.

Figure 9: Surface layers in trench 4 (L. 1330).

L.1326 was the arbitrarily divided last layer above the expected surface (and thus equivalent to layer L.1319 in the southern extension). L. 1327 was the same arbitrary locus in the western half after the stony layer L.1325 had been removed. The activity layer above the surface was L.1329, while the surface itself was L.1330 (equivalent to L.1308 from 2014 and L.1321 in the southern extension). The surface was not a floor, it consisted of layers of very thin chalky material (at places four layers), was very uneven and covered several small stones in uneven and awkward positions (fig. 9).

Perpendicular to wall 1 a small test trench was excavated to test the depth of the wall. The first layer below the surface (L.1308) was L.1331, which was running above wall 1. Underneath first L.1332, then L.1333 followed, which was closed at the end of the season; both abut wall 1.

The stratigraphical situation on trench 4 is as follows:

Phase 1:The wall 1 (L.1307) is the oldest structure in the trench.

Phase 2: The wall is overlaid by a sub-surface artificial (?) layer and a surface (L.1308 in 2014, L.1320, L.1329) that appears to be more created by standing water than human activity.

Phase 3: Above this surface several fill layers existed and an orthostat wall (L.1334) in the northwest corner of the trench.

Phase 4: Abandonment and later bulldozing.

Figure 10: Trench 6 at the end of the excavation.

Trench 6 is a new trench opened in T46 to begin studying the dolmen at the site. The dolmen in T46 (L.1205) had already been documented in 2014 (fig. 5). The covering stone is missing and one of the stones along the long side is broken, while the stone on the south-eastern short side is missing (fig. 10). The trench measured only 3 x 1.5 m and was laid out in front (on the south-east side) of the broken dolmen (L.1205). The topsoil layer (L.1206) contained many small rubble stones, while the following locus consisted of soil containing fist sized stones. The soil at the eastern side of the structure contained more rubble stones, while the soil in "front" of the dolmen was "cleaner", but contained larger tumble stones. Bedrock was uncovered in the southern part of the trench (fig. 11). The topsoil contained modern contamination (glass, metal and plastic), while the lowest level was mostly free of modern finds. There were no foundation cuts for the side stones noticeable. They stood directly on the bedrock, being only flattened slightly.

The soil material was relatively loose in front of the dolmen and to the north of the broken outside stone slab, which might indicate recent disturbance; this would also explain the rather heavy amount of modern contamination in front of the dolmen. The material to the north of the dolmen can mostly be identified as EBA. Nothing has been found deposited on the stone slab forming the base, but in the rubble around the dolmen some human bones, most likely being distal phalanges, have been excavated.

Figure 11: Trench 6 with dolmen

Survey

The systematic survey of the surrounding areas was carried out from 15.8. to 9.9.2015 The large areas (3,5 and 6) were divided into fields (loci) where the whole surface was systematically surveyed. Other loci recorded, included single structures (such as dolmens, standing stones, tombs, unclear structures).

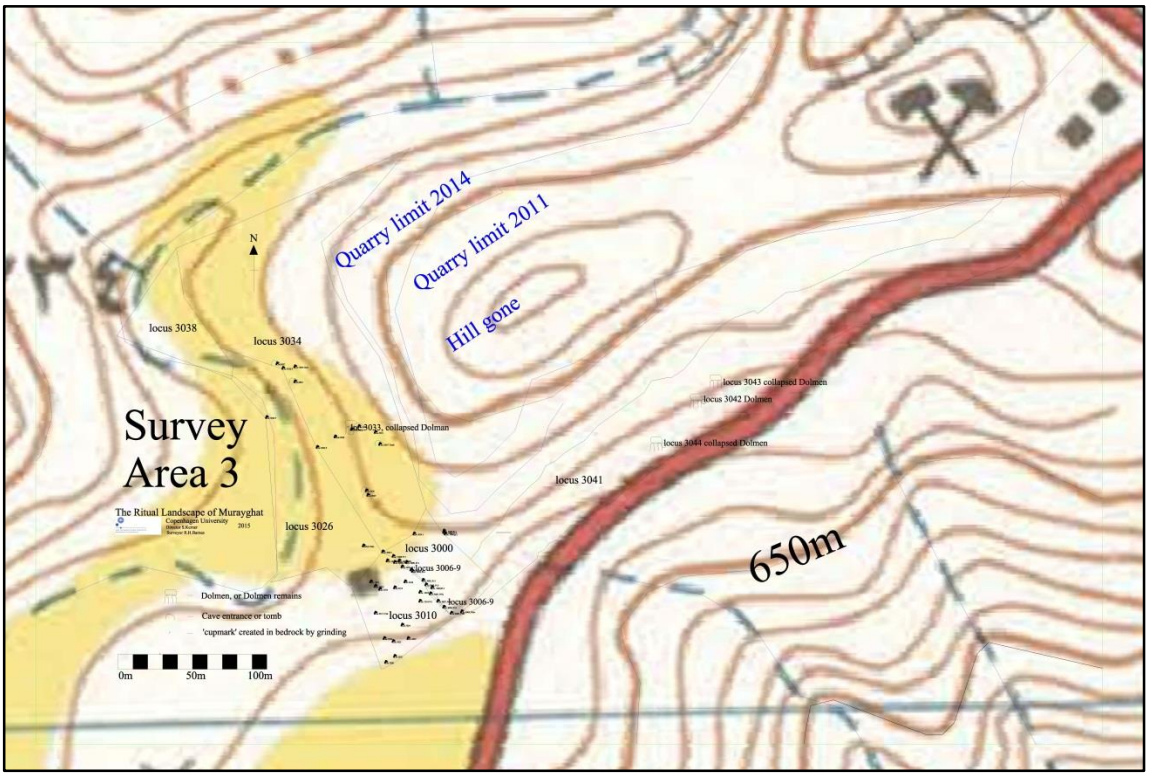


Figure 12: Survey Area 3 in Murayghat with surveyed fields and structures.

Area 3 is positioned north of the central knoll, limited by the wadi in the S and W, the quarry in the N and the street in the E (see fig. 1). Areas 3 was mostly finished in 2014, but this year a purposive survey documented several structures along the road (eastern edge of the northern quarry) in field L.3041. This included three large dolmen (fig. 12) along the road (L.3042, L.3043, L.3044) and capstone which might be the only remain of a fourth dolmen (L.3045). Only L.3042, with 14sqm was well preserved with its roof stone still in-situ, while only the broken down side stone slabs are visible from L.3043 and L.3044. Another dolmen might have been completely destroyed with only a looter's pit and broken remains of large stones around.

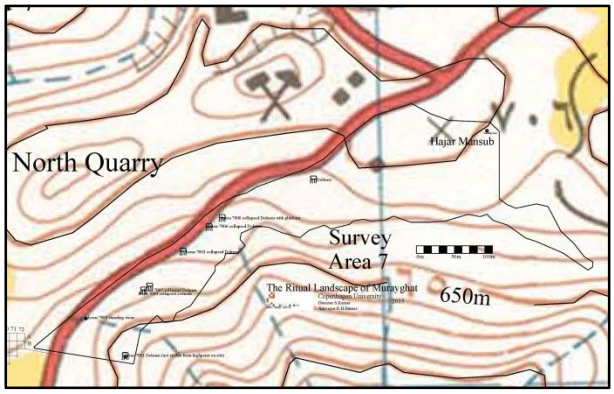


Figure 13: Survey area 7 in Murayghat

Area 7 is situated east of the road towards the site (field L.7000) and contains some of the largest dolmen of the area (fig. 13 and 14). They are located opposite the dolmen in area 3. One of the dolmen is further downslope towards the steep Wadi Zerqa Main, and does not allow any

line of sight to the central knoll of Murayghat (and is singular in this). Five dolmen have been found, of which only one is complete (L.7001) while all other are collapsed (L.7002, L.7004, L.7005, L.7006). In area 7 is also the large standing stone, known as Hadjar al-Mansub (L.7007, fig. 15, Scheltema 2008, Savage 2010); one new large stone, possibly originally part of a dolmen, was documented (L.7003).

Figure 15:Large Dolmen (L. 7001) in area 7.

Figure 14: Hadjar al-Mansub in area 7 in Murayghat

Area 4 is on the northern hill west of the central knoll of ca. 10 ha (fig. 17). The area is demarked by Wadi Murayghat in the east (towards area 1), by two side wadis running west-east into the Wadi Murayghat to the north and south. The western limit is west of the hilltop and not finally decided yet. Area 4 can be divided into a number of geographical/geological zones: a ploughed field at the bottom of the eastern slope and a steep slope toward the SW along the main wadi, another steep slope to the northern as well as the southern side wadis. The lower parts of the steep slopes are only partly covered with soil, from which the steep bedrock layer rises up as a cliff (partly up to ca. 10 – 15 m) to the lowest rock terrace at mid-slope. There are seven of these rock terraces forming the slope up to the hilltop (fig. 16). The fields are usually arranged along these geographical formations. The fields L.4001, L.4004 and L.4013 are all in the lower ranges if the slopes.

Figure 16: terraces on the slope of area 4.

The dolmen found in area 4 are mostly of type A2 (a platform/floor slab, on each side one side stone/orthostates and a capstone. Most slabs (side, floor and roof) are better smoothed on the inside of the dolmen than the outside, while the outside is weathered. The floor-slab as well as the blocking slabs at the entrances are much smaller than the orthostats at the side and the capstones. The floor-stones seem to be carefully chosen, since they fit very well in between the vertical slabs/orthostats.

The team has counted 78 dolmen, of which 23 dolmen are complete and "in situ" or only very slightly disturbed, while 55 of them are collapsed, but can quite certainly be considered dolmen. Other stone

features cannot be identified with certainty. Twelve dolmen have been documented completely this year, while the remaining structures have only been registered.

Four caves have been documented in area 4.

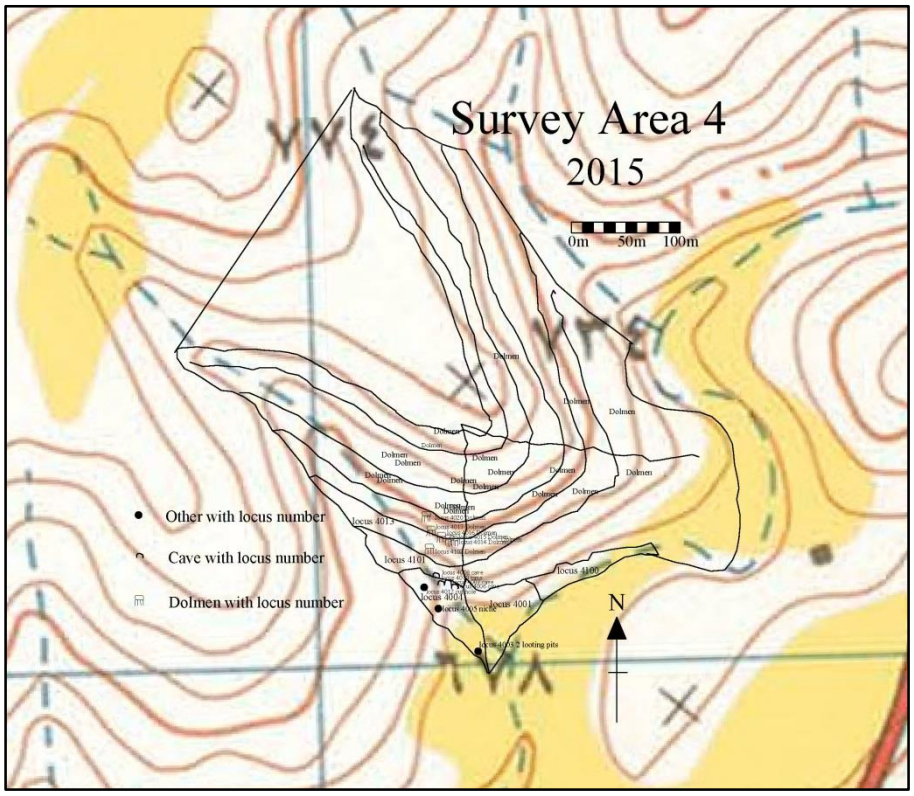


Figure 17: Survey area 4 in Murayghat.

Area 5 is also to the west of the central site (fig. 1), forming the southern hill. It is limited by the Wadi Murayghat to the east, the small side wadi dividing area 4 and 5 to the north and the quarry to the south. Most parts of area 5 have been surveyed and documented in 2014, but two fields L.5143 and L.5147 were added in 2015. Two collapsed dolmen (L.5149 and L.5150) in field L.5147 have been found during this season.

Material

The archaeological material collected consists of lithic, ceramic, basalt items, few glass and two metal items (see appendix). The amount of animal bones is very limited so far and the different soil samples have not been analysed yet.

Lithic

From 2014 and 2015 4922 flint artefacts have been identified, of which 1706 can be addressed as tools (many incomplete); the material analysis of the 2015 material has not been finished. The central knoll (area 1) survey shows a concentration of Neolithic material to the NW of the bedrock on the flatter soil-covered areas (fig.18a). The central area and trench 1 and 2 show mostly evidence from the Chalcolithic or Early Bronze Age (Tabular scrapers, fig 18b and Canaanaen sickle blades, fig. 18c). In trenches 3-5 some Neolithic and Late Neolithic as well as Chalcolithic and Early Bronze Age Tabular

scrapers and Canaanean (and other) blades were identified, but most of the material dates into the Middle Bronze Age. These lithics consist of many ad-hoc tools, often scrapers. In these trenches much microdebris has been found, and as most of the raw material seems to be local, a local production for these later tools can safely be assumed. The Tabular scrapers and Canaanean blades do not seem to be locally made, the Tabular scrapers use the brown Eocene flint as is typically quarried in the east and southeast (al-Jafr basin (Quintero et al. 2002) and from the Eastern Badia at Wadi Ruwayshid (Müller-Neuhof 2013)).

Figure 18a: Neolithic tools from area 1; 18b: Tabular scrapers from area 1 and trenches 3 and 4; 18c: Cananean blades

The survey lithic material from areas 3 to 5 is very mixed, beginning with few Upper Palaeolithic/ Epipalaeoloithic tools, more Neolithic and Late Neolithic material such as bidirectional blades, a Helwan-Point (from 2014), sickle blades, truncated burins and two bifacially retouched arrowheads.

Pottery

The ceramics analysis dealt with over 6200 pieces of pottery (from 2014 and 2015). The pottery from areas 3 and 4 is generally from the later periods (Classic), which gives an indication for the use of the caves at the site. Islamic pottery, particularly Mamluk Coarse Painted ware (fig.19), has also been documented. The material from the survey on the central knoll (area 1) consists mostly of very small material, making the dating rather difficult. Generally EBA and MB pottery is present with some later mix (including again some Classic material such as red-ribbed ware and a very few pieces of Islamic glazed wares). Two ceramic spoon fragments were also found in the area 1 survey.

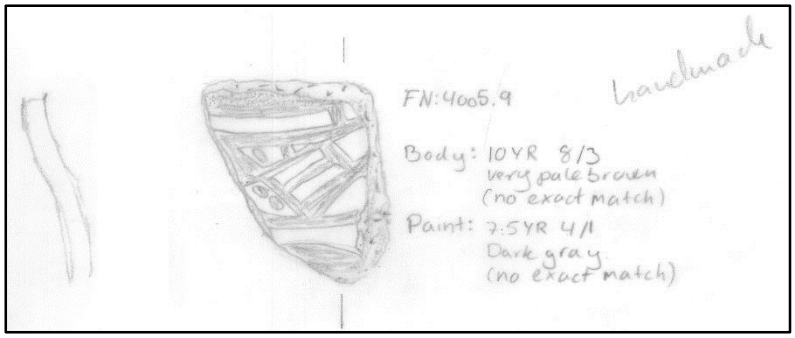


Figure 19: Pencil drawing of Mamluk Coarse ware

Figure 20: Cooking pot fragments from fabric 33.

The excavated trenches have in most fill layers MBA pottery, particularly the already described cooking ware (fig. 20) and a finer, speckled ware 38 (fig. 21) appearing predominantly in jars with large not very high necks. The lower levels in trench 3 have begun to reveal more EBA type vessels. The EBA types from the layers include a low, but increasing number of hole-mouth-jars. These have different kinds of decoration, such as pie crust rims or finger impressed marks running around the orifice of the vessel a few centimeters below the rim (fig. 22). Different kinds of ledge handles are present ranging in size from large to very small (i.e. purely decorative) with different kinds of decoration (such as scalloping along the edge of the handle or impressed marks above or below the handle; fig.23). Small fine bowls in an assortment of different wares are represented in the supposed EBA material, some of those with painted decoration (fig.24). Trench 4 has not reached the same lower levels as trench 3 and most pottery bags have either MBA or mixed MBA/EBA material.

Figure 21: Jar fragment from fabric 38.

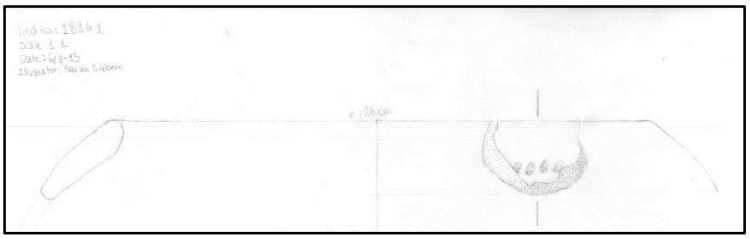


Figure 22: Hole-mouth-jar from trench 3.

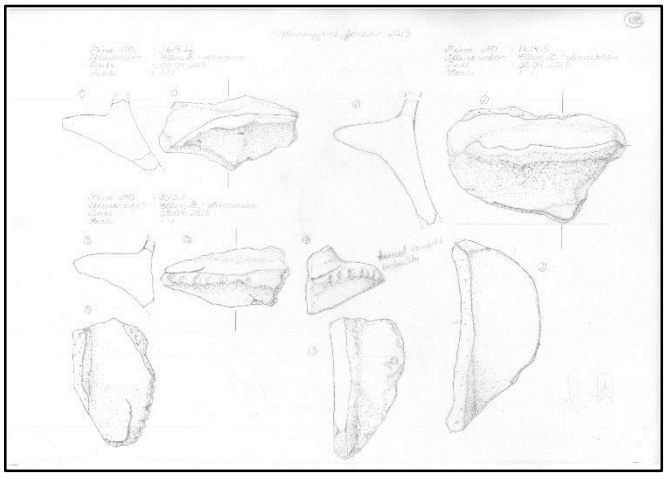


Figure 23: Different ledge handles (pencil drawings)

Figure 24: Painted EBA pottery

Trench 6 in T46 excavated around a dolmen and here most of the material below the upper very disturbed layers is from the Early Bronze Age: a ledge handle with finger impressed decoration below the handle (L.1211), a hole mouth jar rim with finger impressed decoration (L.1207), a hole mouth jar with a slightly upturned rim, a body sherd with a band with impressed decoration and a base (L. 1209).

Groundstone tools

Several grinding stone tools (the lower side?) have been identified, some mortars (fig. 25a), four fragments of basalt bowls and one limestone bowl/mortar (fig. 2). Several hammerstones, a stone ring and other items which have yet to be identified were excavated. Some rock samples might be ochre, but that needs to be tested.

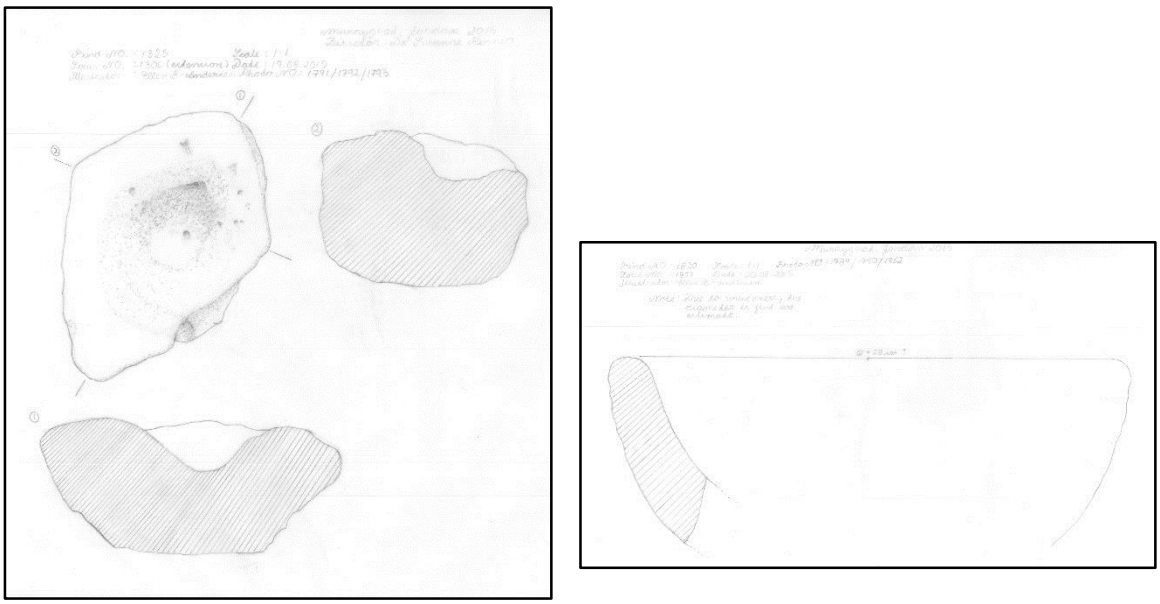


Figure 25a: Basalt mortar and 25b: Limestone bowl

Other material

The metal item found in 2014 in trench 4 (Fn 1310) is most likely a Late Islamic hair clip. This year a copper axe (fig. 27) has been found in trench 3 (Fn 2875). The piece is sent for conservation to the Bochum Mining Museum, but a cursory examination indicates more an EBA than MBA date.

Figure 26: Copper pin

Figure 27: Copper axe

Bibliography

Braun, Elliot
2015 Remarks on the Early Appearance of Copper Objects in the Northern Region of the Southern Levant. In: Rosińska-Balik, K. et al. (eds.), *Copper and Trade in the South–Eastern Mediterranean*, 11-13. BAR IS 2753.

Conder, Claude R.
1889 *The Survey of Eastern Palestine.* London: Palestine Exploration Fund.

Harrison, T. P.
1997 Shifting Patterns of Settlement in the Highlands of Central Jordan during the Early Bronze Age. *BASOR* 306,1–37.

Harrison, Timothy & Savage, Stephen H.
2003 Settlement Heterogeneity and Multivariate Craft Production in the Early Bronze Age Southern Levant. *Journal of Mediterranean Archaeology* 16, 33–57.

Irby, C. L., & Mangles, J.
1985 *Travels in Egypt and Nubia, Syria and Asia Minor during the Years 1817 & 1818.* London: Darf.

Mallon, A., Koeppel, R. & Neuville, R.
1934 *Teleilat Ghassul I: Compte rendu des fouilles de l'Institut biblique pontifical*. Rome: Pontifical Biblical Institute.

Müller-Neuhof, B.
2013 Chalcolithic/Early Bronze Age Flint Mines in the Northern Badia. *Syria* 90: 177-188.

Nigro, Lorenzo
2015 Metal Weapons within funerary contexts in Southern Levant During the Early Bronze Age. A diachronic and typological. In: Rosińska-Balik, K. et al. (eds.), *Copper and Trade in the South–Eastern Mediterranean*, 77-84. BAR IS 2753.

Quintero, L.A./Wilke, P.J./Rollefson, G.O.
2002 From Flint Mine to Fan Scraper: The Late Prehistoric Jafr Industrial Complex. *Bulletin of the American Schools of Oriental Research* 327: 17-48

Rosen, Steven
1997 *Lithics after the Stone Age*. Walnut Creek: Altamira.

Savage, Stephen H.
2010 Jordan's Stonehenge: The Endangered Chalcolithic/Early Bronze Age Site at al-Murayghât–Hajr al-Mansûb. *Near Eastern Archaeology* 73.1, 32–46.

Savage, S. H., & Rollefson, G.
2001 The Moab Archaeological Resource Survey: Some Results from the 2000 Field Season. *Annual of the Department of Antiquities of Jordan* 45, 217–36.

Scheltema, G.
2008. *Megalithic Jordan. An introduction and field guide*. Amman: ACOR Publications.

Swauger, James L.
1966 Dolmen Studies in Palestine. *The Biblical Archaeologist* 29.4, 105–114.

Zohar, M.

1992 Megalithic Cemeteries in the Levant. In: Bar-Yosef, O. & Khazanov, A. (eds.), *Pastoralism in the Levant, Archaeological Materials in Anthropological Perspectives*, 43–63. Madison, Prehistory Press.