

Title: Tumuli graves and desert wells in the As-Sabbiya. Preliminary excavation report on the spring season in 2010

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TUMULI GRAVES AND DESERT WELLS IN THE AS-SABBIYA PRELIMINARY EXCAVATION REPORT ON THE SPRING SEASON IN 2010

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The Kuwaiti-Polish Archaeological Mission (KPAM) of the PCMA UW operates in the region of As-Sabbiya (northern Kuwait) since 2007, working on various sites (see Rutkowski 2013: 482, Table 1, in this volume). In 2010, the mission was split into two separate teams working on different projects. The spring team, headed by the present author (for the staff, see Rutkowski 2013: 480, in this volume), focused on the excavation of various stone structures, first of all tumuli graves, in the region of As-Sabbiya.

Numerous stone structures, mainly circular burial mounds (tumuli graves) made of rough stone, had been discovered in the As-Sabbiya region. They occupied an ancient cemetery stretching along the

plateau in the eastern part of As-Sabbiya. A number of these structures had been investigated by Kuwaiti and GCC (Gulf Cooperation Council) archeological expeditions (see Ad-Duweish et alii 2004; Ad-Duweish, Al-Mutairi 2006), Since 2007 they are being explored by the KPAM as well (for preliminary excavation results, see Bieliński 2007; Rutkowski 2011a; for a summary of the tumuli investigations, see Rutkowski 2011b; for individual tumulus excavation reports, see Reiche 2013 and Makowski 2013: 518ff., in this volume). Since then, a total of 14 stone structures, including 11 burial mounds, and three presumed non-sepulchral structures have been excavated: two "elongated structures" and one containing a stone

"bin" [Table 1]. All but one were located in the Mugheira sub-region [see Fig. 1].\textsup Only large grave SMQ 49 remained to be excavated and this task was accomplished in the autumn of 2010 (see Makowski 2013, in this volume)

In the present season, the team excavated another cluster of stone mounds, surveyed in 2009, in the northern part of the Bahra sub-region. It also completed

the excavation of a desert well site SM 12 and proceeded with the investigation of another well complex (SB 23) in the area of Dubaij, where architectural remains were still visible on the surface. Thirdly, it continued a regional archaeological survey aimed at mapping burial mounds and other stone features in the vicinity of the excavated zone (reported on separately in this volume, see Rutkowski 2013).

Table 1. Structures excavated by the Kuwaiti–Polish Archaeological Mission in the region of As-Sabbiya in 2007–2009 (tumuli in bold reported on separately in this volume)

No.	Structure code	Subregion	Season	Type of construction	Finds	Skeletal remains
1	SMQ 30	Mugheira	2007-08	Tumulus grave	+	+
2	SMQ 31	Mugheira	2007	Tumulus grave	_	-
3	SMQ 32	Mugheira	2007	Tumulus grave	+	-
4	SMQ 33	Mugheira	2007	Tumulus grave	+	+
5	SMQ 35A	Mugheira	2008	Tumulus grave	+	+
6	SMQ 35B	Mugheira	2008-09	Tumulus grave	-	+
7	SMQ 36	Mugheira	2008	Elongated structure	-	_
8	SMQ 37	Mugheira	2008	Elongated structure	-	_
9	SMQ 38	Mugheira	2008	Tumulus grave	+	+
10	SMQ 44	Mugheira	2008	"Bin" structure	_	-
11	SMQ 45	Mugheira	2008	Tumulus grave	+	+
12	SMQ 48	Mugheira	2009	Tumulus grave	_	_
13	SMQ 49	Mugheira	2009-10	Tumulus grave	+	+
14	SM 18	Muheita	2009	Tumulus grave	_	+

Mugheira is one of several sub-regions in the eastern As-Sabbiya, Bahra in the southern and western parts of the area being the largest and the others being Nahdin, Radha, Muheita and Dubaij.

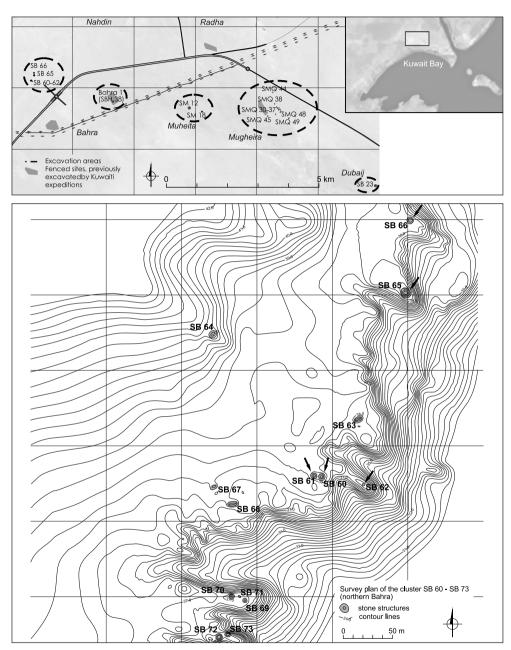


Fig. 1. Plan showing sites excavated in the northern Bahra region, arrows indicate structures explored in 2010 (spring and autumn); in upper left corner, general plan of all sites investigated by the KPAM in the region of As-Sabbiya from 2007 to 2010 (Mapping and digitizing R. Łopaciuk; drawing and editing Ł. Rutkowski)

STRUCTURES IN THE BAHRA SUB-REGION

A cluster of tumuli SB 60-73 (PSBH 13-25 in the survey code numbering system²), situated on a high plateau in the northern part of the Bahra sub-region, was selected for excavation [see Fig. 1]. The cluster, which lies opposite a recently constructed overpass of the modern As-Sabbiya road (approximately 7 km to the west of the Mugheira sub-region), comprised eight circular tumuli graves, three elongated structures (similar to SMQ 37 explored by the KPAM team in 2008), two structures of uncertain character and one small isolated stone feature [Table 2]. The structures were located along the rocky rim of a plateau that stretches below the Jal az-Zor foothills overlooking a lower terrace to the south of it. This part of the plateau, with the twisting line of the rocky scarp (aligned NE–SW) jagged by gullies, has an average elevation of about 40 m a.s.l. The maximum distance between the excavated structures was slightly over 250 m. Most of the structures

stand close to the edge of the terrace (or on the very edge), some in pairs. Only structure SB 64 stood around 150 m away from the scarp.

Four stone mounds: SB 60, SB 61, SB 65 and SB 66, as well as a small stone feature (SB 62) were excavated this season.

TUMULUS GRAVE(?) SB 60

Compared to other burial mounds in the area, SB 60 turned out to be most unusual in terms of internal structure, as well as place of interment and finds. At first glance, and even after the sand had been cleared from the stone mound, it did not differ much from other tumuli. It seemed to be a "twin" burial mound with the adjacent structure SB 61 located just a meter away from it [Fig. 2]. A sub-circular gap could be traced in the centre of the stone coat, on the spot of the expected location of a burial chamber (by the standards of previously excavated tumuli). An apparent

Table 2. Structures excavated in the area of Bahra in 2010 (Note that survey codes have been replaced with a coding system starting with SB)

Site code	Structure type	Finds	Skeletal remains	GPS coordinates
SB 60	Tumulus grave?	+	+	N: 29.641683° E: 47.927738°
SB 61	Tumulus grave	-	-	N: 29.641704° E: 47.927667°
SB 62	Small stone feature	-	-	N: 29.641605° E: 47.928171°
SB 65	Tumulus grave	+	+	N: 29.643312° E: 47.928572°
SB 66	Tumulus grave	_	+	N: 29.643964° E: 47.928616°

A new coding system (code-numbers preceded with the letters SB) was adopted for the excavated sites, replacing previously established survey codes, see Rutkowski 2013: 481 note 2, in this volume.

covering in the form of a flat stone slab over the grave chamber proved to be a false impression.

SB 60 was a sub-circular stone mound, slightly elongated on the NNE-SSW axis (6.00 m and 6.50 m on the axes) and rising 0.80 m above the ground (38.92 m a.s.l. at the highest point). It seemed to represent a tumulus type with the mantle made of tightly packed stone slabs, inching in closer to the centre with every course (a detail of construction noted previously in tumulus SMQ 49, see Makowski 2013: 518ff., in this volume). The stone alignment was particularly clear in the northern part of the mantle. The slabs turned out to be leaning against an internal frame structure that was almost square in plan [Figs 3, 4]. No such feature has hitherto been recorded in tumuli construction. The

mantle was partially dilapidated, especially in its eastern part, with many loose stones scattered about [see *Fig. 4*, bottom]. In addition, some larger slabs appear to have been intentionally displaced from their original position, which indicated that the structure had been penetrated.

The mantle was disassembled starting with the northwestern quarter, followed by the southwestern quarter, and finally by the entire eastern half, giving two cross-sections through the fill. The internal frame structure was fully exposed and the fill inside it removed until the sandy bottom.

The internal frame was fully traced just below the topmost layer of stones removed from the coating [Fig. 5], but some of its stones had been visible on the mound surface. It resembled a large stone bin, 3.15 m by 3.60 m in plan and



Fig. 2. Tumuli SB 60 and SB 61 (in the foreground), both after surface clearing, view from the northwest (Photo Ł. Wojnarowicz)

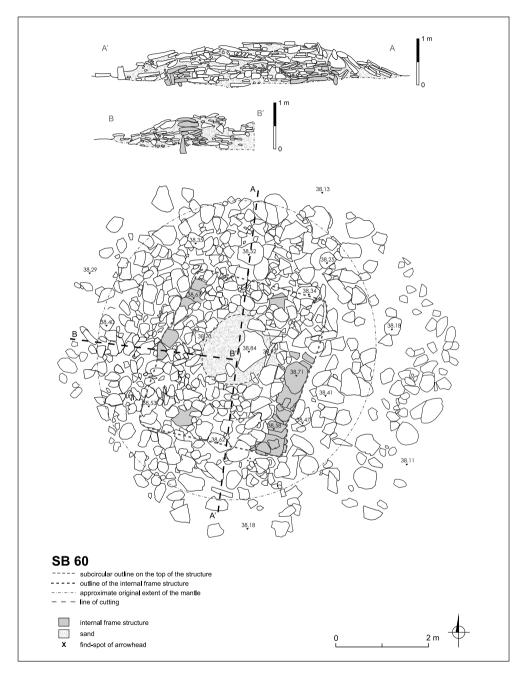


Fig. 3. Tumulus SB 60: general plan after cleaning; N–S and E–W sections (Drawing and digitizing E. Mizak, Ł. Wojnarowicz, editing Ł. Rutkowski)



Fig. 4. Tumulus SB 60: top, view from the northwest, after dismantling of the northwestern quarter (bottom), exposing corner of the internal frame structure; bottom, visible presumed outline of the chamber (Photo Ł. Rutkowski, Ł. Wojnarowicz)

approximately 0.60 m in height. The lower parts of the frame were made of elongated slabs, up to 1.60 m long and lying on the longer edges, running in straight lines: three each to the long sides, two to the shorter ones. Two of the corners proved to be better preserved. The whole space delimited by the frame was quite tightly packed with stones and, surprisingly, failed to form a burial chamber. There were eight horizontal courses of stones, the lowermost resting on natural sandy soil, the stones overlapping inward and wedged at the top against the walls of the square frame. The overall effect is of a solid, platform-like structure. Only the topmost part, overlying the frame, appears to have been less solid owing to the relatively high sand content.

Assuming the funerary purpose of SB 60, the grave chamber would have had to be located on the rectangular, stone-packed "podium". However, no traces of burial were found either inside or over the core structure. On the other hand, it cannot be ruled out that the rounded outline initially considered to be the top of a grave chamber, had in fact been its bottom part (although it could be equally well evidence of plundering by robbers expecting to find a grave chamber in the centre of the structure).

Still, an assemblage of heavily eroded human bones was found in secondary context outside the east wall of the internal frame, right below the slabs of the mantle [see *Fig. 5*, right]. These remains belonged to at least two adult individuals, one of them possibly a female. The individuals may have been interred elsewhere and then re-buried here (Sołtysiak 2012: 60).

The burial was not accompanied by any grave goods.

Nevertheless, SB 60 yielded four artifacts, which are of interest not having been attested, with one exception, among grave goods so far [Fig. 6]. A bronze arrowhead merits particular note as it can be dated. It was leaf-shaped (L. 5.7 cm, W. 2.6 cm, Th. 0.3 cm), tanged (L. 2 cm, W. 0.3 cm) and fairly heavy (9.3 g = 143.52)grains), reinforced by a flat midrib running down the axis of the blade. Leaf-shaped bronze arrowheads with a short tang and midrib are known from Late Bronze Age and Early Iron Age burial contexts in the Gulf region (mainly from the northeastern part of the Arabian Peninsula), for instance in the Emirates of Ras al-Khaimah (Vogt, Franke-Vogt [eds] 1987: 34–36, Figs 19-20), Fujairah (Benoist, Ali Hassan 2010: 96, Fig. 9:1-3), and Sharjah (Jasim 2006: Figs 5, 58, 72, 92). The parallels set a date for our arrowhead between the second half of the 2nd millennium BC and the first half of the 1st millennium BC (1500–600 BC). On the other hand, exact parallels are hard to find: the maximum width of our arrowhead is located fairly high up, at about a third of its length, while the widest parts of the aforementioned counterparts are usually at about mid or two-thirds of the length from the point. Moreover, a number of them bear incised decoration on the rib (major chronological indicator for this category of artifacts). The nearest parallel in terms of form is a bronze Mesopotamian arrowhead (6.5 cm long) with Akkadian cuneiform inscription of the king Simbar-Sihu, founder of the 2nd Dynasty of the Sealand (1025–1008 BC).³

³ Christie's Special Exhibition Gallery, New York, 7 December 2011, lot 13, sale 2490 (http://www.christies.com/lotfinder/ancient-art-antiquities/a-mesopotamian-bronze-arrow-head-reign-of-5509049-details.aspx).

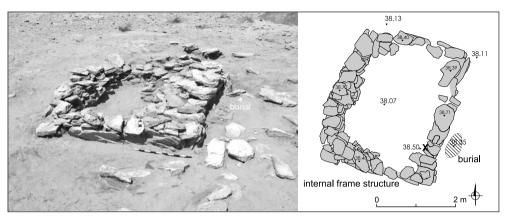


Fig. 5. Tumulus SB 60: plan and view of the internal frame structure, view from the south; a burial(?) situated by its outer eastern face (Drawing, digitizing E. Mizak, Ł. Wojnarowicz, editing Ł. Rutkowski; photo Ł. Wojnarowicz)



Fig. 6. Finds from tumulus SB 60: bronze arrowhead, trilobed metal object, white stone bead/weight and stone mortar (Photo A. Niemirka)

The other metal find was a miniature trilobed object, made probably of lead. It consisted of three fixed globules, each 0.3 cm in diameter and may have been detached from a bigger ornament. Both metal finds were found in the uppermost layer of stones in the coating, near the southeastern corner of the internal frame. Taking into account their findspot, they may have come from a primary burial, assuming one had existed.

The third find was a stone mortar (Dia. approx. 6 cm, H. 3 cm) coming from a similar context in the mantle, although it was not recognized immediately during exploration and recorded only afterwards, having been recovered from the spoil tip. It is very shallow (just 1 cm deep). A similar find from tumulus SMQ 49 (see Makowski 2013: Fig. 7 on page 524,

in this volume) provides an interesting clue regarding links between these two structures. It is reasonable to suppose that these triturating implements may have been in some way associated with funeral practices.

A perforated white stone (large bead/pendant or weight? of ovoid shape, 2.85 cm by 1.70 cm) was picked up from the surface just outside the internal frame structure during a short visit in the following year. It was washed out apparently from among the exposed stones of the structure between excavation seasons. At first sight the object looks like a natural pebble, but it was carefully smoothed and slightly flattened on one side. The perforation (0.20 cm in diameter) appears to be similar to perforations in semiprecious stone beads from other graves.



Fig. 8. SB 61 after dismantling of the northeastern half and removal of the chamber fill (Photo Ł. Wojnarowicz)

TUMULUS GRAVE SB 61

Tumulus SB 61 turned out upon excavation to be entirely different from the neighboring grave SB 60. Both structures were located on flat ground, close to the rim of the plateau, but unlike other mounds, not on its edge. SB 61 was a round stony

mound, measuring 5.50 m in diameter and about 1 m in height. A circular grave chamber (approximately 1 m in diameter) was traced after removing a jumbled heap of stones from the top of the mound — evidence that the grave had been penetrated [see *Fig. 2*]. This reduced

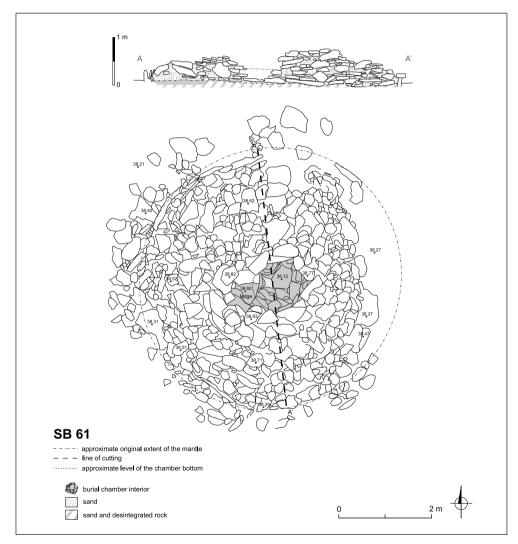


Fig. 7. Tumulus SB 61: general plan and cross-section along NNW–SSE axis (Drawing and digitizing E. Mizak, Ł. Wojnarowicz, editing Ł. Rutkowski)

the height of the stone mound to about 0.70 m (38.83 m a.s.l. at the highest point). In the course of exploration, the eastern half of SB 61 was dismantled and the grave chamber was fully exposed.

SB 61 proved to be a small but regularly constructed structure with a clear outer ring made of stone slabs set vertically in a single row around the perimeter of the tumulus (although some of the slabs were missing from the northeastern side of the mantle). A mound of this type (SMQ 33) had been explored by the KPAM in 2008. The chamber of SB 61, encircled by a clearly noticeable inner ring built of stacked stones [Figs 7, 8], turned out to be smaller compared to SMQ 33 and, unlike the latter, appeared to taper in toward the bottom. It was filled with loose sand and fallen stones down to the bottom, that is, a layer of flat stone slabs resting directly on bedrock (or rather on sand in its eastern half and solid rock in its western half). However, the arrangement of the chamber wall indicates that the original bottom of the chamber may have been positioned higher, but was disturbed when grave robbers, in search of loot, removed two or three layers of stones from the middle. Therefore the original chamber should be reconstructed as shallower than its presentday appearance [see *Fig. 7*].

A peculiarity of the structure is an inner ledge (0.50 m long) in the southwestern side of the chamber wall, some 0.20 m below its top. It seems to have been accidentally created by the removal of a few stones from the uppermost layer of the wall. Four bones identified by the team's archeozoologist Katarzyna Hryniewicka as belonging to either a goat or sheep were found over the ledge, including one thoracic bone and a fragment of the cranium. No other finds

or human remains were recorded, leading one to think that these bones were more likely stray finds (rubbish left by modern(?) campers) rather than a deliberate animal offering buried in the grave.

The core between the chamber wall and the ring of elongated slabs consisted for the most part of rather small stones, densely packed and interspersed in places with large stones. In addition, more than two or three dozens of large slabs were lying at the foot of the mound, outside the outer ring. Apparently, most slid down from the mantle, which could suggest that the original stone coating had been higher than it is today.

TUMULUS GRAVE SB 66

The northernmost structure within the excavation area, SB 66 stood solitary near the edge of the terrace, 75 m to the north of the nearest tumulus SB 65. Upon cleaning, it proved to be very similar to tumulus SB 61 in general appearance, but much more dilapidated, and preserved to a lower height [Fig. 9]. The two mounds were of similar dimensions and constructed of the same kind of stones. The southeastern half of the structure was dismantled in the course of the excavation.

SB 66 measured approximately 5.50 m in diameter and 0.55 m in height (reaching 38.74 m a.s.l. at the highest point). Although no regular ring of vertical slabs was in evidence (only a few were found in this position) as in the case of SB 61, the mantle was delimited by slabs angled acutely, for the most part, toward the center of the mound [Fig. 9, section]. This asymmetrically built (or preserved) outer ring showed in places slabs stuck in domino fashion one against another. Some of the slabs may have slipped down

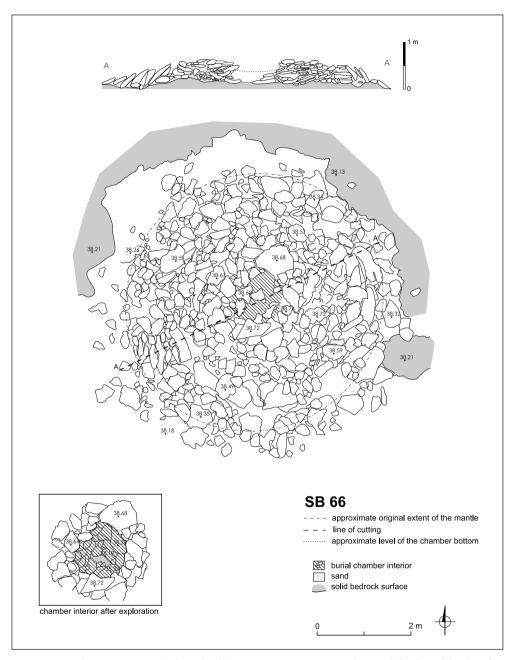


Fig. 9. Tumulus SB 66: general plan after cleaning; NE–SW sections; bottom left, plan of the chamber after exploration (Drawing and digitizing K. Hryniewicka, P. Zakrzewski, Ł. Rutkowski)

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from the mantle (there are some gaps in the upper part of the coating), but some at least may have been deliberately arranged to prop up the stones forming the tumulus coating. In turn, the innermost slabs leaned against a single row of horizontally positioned, large stones that formed a ring around the chamber wall, thus delimiting the core of the tumulus. The circular outline of the grave chamber became visible in the centre of the mound once the sand had been cleared [Fig. 10]. Unlike previously excavated mounds, the chamber was densely filled with stones from its very top, which made it difficult to distinguish between the stone fill and stones used in the chamber's construction.

The bottom of the chamber was expected on the level of the surrounding ground, as in the case of previously excavated tumuli. Consequently, the actual floor of the chamber went unnoticed. However, upon review of the documentation, the chamber bottom was reconstructed as a thick layer of closely-packed, horizontal slabs (resembling that of tumulus SMQ 33, see Rutkowski 2011b: 12). In consequence, the chamber itself must have been very shallow. This reconstruction can be corroborated by the fact that the only findings from the structure — a dozen severely eroded human bone fragments were found among the stones in the upper part of the chamber fill. The bones are



Fig. 10. Tumulus SB 66: view after initial cleaning (Photo Ł. Rutkowski)

possibly of an adult individual (Sołtysiak 2012: 60).

TUMULUS GRAVE SB 65

SB 65 was the largest tumulus excavated so far by the KPAM in the area of As-Sabbiya. The structure was located on a small rocky promontory overlooking the

lower terrace (vis-à-vis the overpass over the motorway) [see *Fig. 11*, top]. With cliffs on three sides even today the stone mound looks impressive standing high on the terrace, especially when seen from the plain at the foot of the scarp.

Once the mound had been cleared of the sand cover, a jumbled pile of stones



Fig. 11. Tumulus SB 65 after cleaning; top view (bottom) and side view from the northwest (Photo L. Rutkowski)

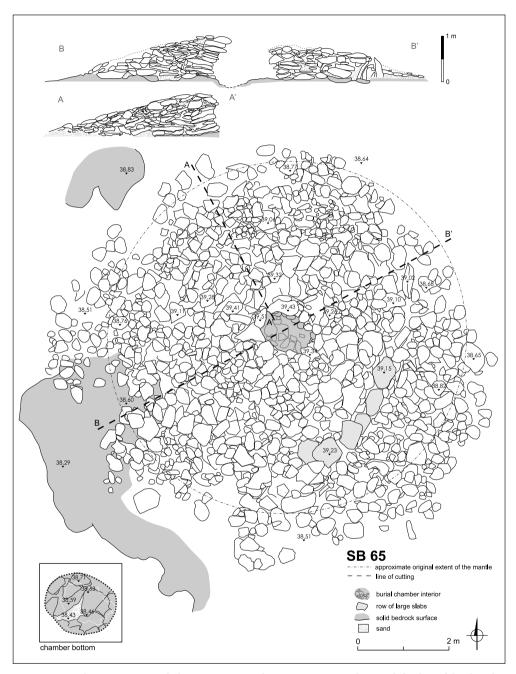


Fig. 12. Tumulus SB 65: general plan; NW–SE and NE–SW sections; bottom left, plan of the chamber bottom (Drawing and digitizing K. Hryniewicka, Ł. Rutkowski)

was traced on its top, directly over a grave chamber. Modern rubbish (pieces of glass, burnt plastic bags and animal bones) buried under the pile suggested recent penetration. Small piles of stones of this kind, serving probably as landmarks even today, were observed on several other of the investigated mounds (e.g., SB 61, this season). An oval outline of the grave chamber, slightly elongated on the NW–SE axis, appeared in the centre of the mound after the jumbled stones had been removed [Figs 11–13].

During exploration, the northern quarter was dismantled, then the western one, so two cross-sections, considered as the most informative, were recorded and the chamber was fully exposed.

SB 65 is a rounded stone mound. measuring approximately 8 m in diameter and approximately 0.90 m in height (reaching 39.51 m a.s.l. at the highest point after removing the jumbled stones). The southeastern part of its crown was preserved some 0.20 m lower than the northwestern one, most likely due to top down collapse. In size and general layout, SB 65 resembled tumulus SMQ 49 (see Makowski 2013: 503ff., in this volume). In both cases the top of the mound is pretty wide and flattened because the central part of the structure around the grave chamber sloped down at a very gentle angle [see Fig. 12, section], in contrast to several previously excavated graves with evenly sloping sides. On the other hand,



Fig. 13. Tumulus SB 65 at the end of the season, view from the northwest; bedrock exposed at the bottom of the chamber and beneath the dismantled western quarter of the structure (Photo I. Sztuka)

SB 65 was less regular in construction than SMQ 49, the main difference being the lack of an outer ring. Its layout was also slightly asymmetric, with some parts constructed differently than the others, most probably due to uneven bedrock. For instance, the southwestern part of the mantle rested directly upon solid bedrock that was rising toward the centre of the structure. In turn, in the eastern part, a few large slabs were stuck slantwise into the ground close to the perimeter of the mantle [see Fig. 12, section], probably in order to prevent stones from slipping down from the mantle; similar retaining features were observed in SB 61 and SB 66. Another peculiarity, that is, a curved row of outsized slabs could be distinguished on the surface of the southeastern part of the mantle [see *Fig. 11*, bottom]. These slabs may have strengthened the middle sector of the coating or they may have slipped from their original position as capstones covering the grave chamber.

The grave chamber was subcircular in plan. Being partly hewn in bedrock (another feature shared with SMQ 49), it reached approximately 1.10 m in depth. Its sides tended to taper toward the top [see *Figs 11, 13*]. The chamber wall was neatly constructed of large and well-fitted slabs, stacked 10 to 12 courses high, with each course set so that the stones overlapped the joints in the underlying course. The wall was apparently more integrated with the tumulus core than in the case of the other burial mounds. Judging by the fact that the stones filling the space between the chamber wall and the outer ring were tightly locked in position by one another and by the stone rings, they may have been laid there during rather than after the

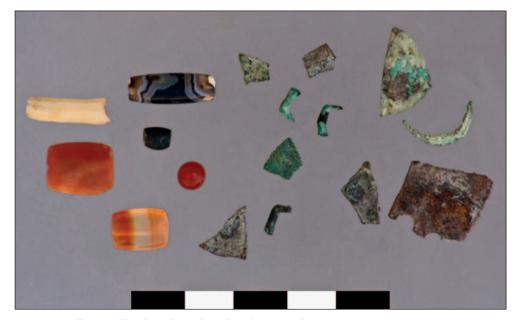


Fig. 14. Collection of beads and metal artifacts from tumulus SB 65 (Photo I. Sztuka)

construction of the chamber wall, as was the case in most of the other tumuli. For the most part, the mantle is made of tightly packed, irregularly shaped stones laid to overlap, a pattern roughly resembling a surface of lapping roof tiles.

The chamber was partly hewn in bedrock (0.20–0.30 cm below ground level). It shows an uneven hollow with sides slanting inward toward the centre. There is an irregular gap in the bedrock which exposes an underlying powdery rock layer [see Fig. 13]. A fragment of rock seems to have been removed from this spot, perhaps by plunderers who were making sure there was nothing concealed here.

The chamber was filled with loose sand and fallen stones, containing only tiny fragments of weathered human bones and a few pieces of broken metal dispersed throughout the fill. There could be no doubt that the grave had been robbed. The bones belonged to one or more adult individuals (Soltysiak 2012: 60). Further finds came to light after the northern quarter of the tumulus was dismantled, permitting the outermost parts of the chamber, impossible to reach from inside, to be explored. The spoil was sieved, producing 20 artifacts, including six beads, 11 pieces of copper alloy and three mollusk shells [Fig. 14]. Most of this assemblage, admittedly a fraction of the original grave goods, were retrieved from the lower northernmost part of the chamber, or even, as it seemed, from between the stones of the wall,4 which would explain why they had been overlooked by the grave robbers.

Although meager in quantity, this assemblage is of special interest because

it shows marked differences compared with assemblages obtained from graves excavated in the Mugheira sub-region (e.g., SMQ 30, see Reiche 2013, in this volume). Four beads were of high quality, made of semiprecious materials; they included a single oval tube-bead of agate and three beads (two puffed and one round) probably made of carnelian. One drum-shaped bead was made of an unidentified material (light, black stone or some plastic material, perhaps bitumen?) and one tubular bead was made of tusk shell. The latter represents the only type which is also present (even in abundance) in the assemblage from SMQ 30.

SB 65 also produced a larger collection of metal artifacts, consisting of seven pieces of very thin metal sheet (including one with double perforation), three almost identical socket-like objects with bent, icicle-shaped endings, and one broken, semicircular item. A small collection of mollusk shells comprised a *Conomurex persicus* shell with its apex deliberately cut off (ornament?), a fragmentary cockle shell (genus *Trachycardium*) and one complete *Strombus* shell.

SMALL STONE FEATURE SB 62

SB 62 was located on the very edge of a narrow ridge protruding from the cliff of the terrace about 25 m to the east of SB 60 and proved to be a small undemanding feature made of loose stones. It measured approximately 2 m in diameter and just 0.30 m in height (two layers of stones overlying fissured bedrock). There were no finds. Despite its closeness to the pair of tumuli SB 60 and SB 61,

For instance, a single bead was found at the outer boundary of the mantle after heavy rainfall, as if washed out from among the stones in the western quarter.

it must be considered a simple stone alignment fashioned at an unspecified point of time and having no relevance to the ancient burial mounds.

A number of such structures, which are now in various states of preservation, were encountered during the survey [Fig. 15]. All seem to be fairly modern and of ethnological rather than archaeological interest, even though the custom of erecting such stone piles (or "cairns") in the desert, most likely as landmarks for finding a trail, is a long-standing tradition.



Fig. 15. SB 62 after cleaning (bottom left) and, for comparison, different cairns or "Bedouin marks" located in the vicinity, visited by the KPAM survey (Photos Ł. Wojnarowicz, A. Leydo, A. Smogorzewska, Ł. Rutkowski)

CLOSING REMARKS ON THE TUMULI

In 2010, the total number of structures excavated since 2007 by the KPAM was brought up to 19, including 15 burial mounds. Except for several forms of structures represented by single examples, two distinct types of burial mounds could be distinguished: large, carefully constructed tumuli with deep chambers hewn in bedrock (SB 65, SMQ 49) and smaller constructions with shallow chambers built on artificial platforms and having a sort of retaining stone ring around their perimeters (SB 61, SB 66, SMQ 34). This distinction may have further, possibly chronological implications, but this aspect needs additional research.

Apart from a few testimonies associating tumuli with the Ubaid period, such as simple shell adornments (some of the finds in the assemblage from SMQ 30) that can be found also on prehistoric settlement sites in the vicinity (H3 and Bahra 1) or the flint arrowhead from SMQ 49 (see Makowski 2013: Fig. 7 on page 524, in this volume), there are also certain indications pointing to a date later than the Neolithic times.

Two graves investigated this year in the Bahra microregion produced mortuary gifts that are clearly of a later date. Grave goods recovered from SB 65 (small collection of copper-alloy items, association with several personal adornments of semi-precious stones) suggest an Early to Middle Bronze Age date (3000-1500 BC). In turn, the metal arrowhead from SB 60 can be dated even later: from the beginning of the Late Bronze Age until the Iron Age (1500–600 BC). However, the number of explored burial mounds which yielded grave goods is still insufficient for determining relia-ble dates for the ancient cemetery in the region of eastern As-Sabbiya. In addition, it should be emphasized that most of the finds recorded from the area cannot serve as good chronological indicators.

On the other hand, it cannot be ruled out that the same or similar type of tumuli grave was in use over a very long time span. Moreover, particular tombs may have been used repeatedly (as was the case with SMQ 35A, SMQ 49, and perhaps SB 60).

DESERT WELL SITES

With the excavation of well site SM 12 drawing to an end in the 2010 season (for the results of field seasons in 2008 and 2009, and a general description and summary of well sites exploration (2008–2010), see Pawlicki 2011; Szymczak [ed.] 2008; 2009), another well site was chosen for exploration following an initial reconnaissance carried out by Dr. Franciszek Pawlicki and Mr. Sultan Ad-Duweish. The choice fell on a desert well complex in the

area of Dubaij because of its closeness to an onshore road construction zone, associated with a planned bridge across Kuwait Bay (Jaber Bridge Project), which threatened to destroy the site.

WELL SM 12 IN THE MUHEITA

The investigations of an impressive well SM 12 in the Muheita area were completed this season. The shaft of the well was almost circular, reaching approximately 3 m in

diameter at the top and 1.35 m at the bottom. It went down 3.25 m. The steening was constructed of twenty-two layers of well-coursed, roughly rectangular stone blocks [Fig. 16]. In shape it resembled a large funnel, the lower part vertical up to the ninth course of blocks, the upper part broadening toward the top. Taking into account the shape and size (approximately 10 m³ at full capacity), it is reasonable to suppose that the well served as a kind of cistern that could have been supplied both by groundwater and by rainfall in winter. A rusty iron container (for

hauling water?) and a modern rubber seal were found near the bottom of the shaft, indicating fairly recent abandonment. The time of its construction, however, could have been much earlier. It may have been used for a long time by shepherds grazing their animals or, in general, by nomads temporarily living in the area.

WELL SB 23 IN THE DUBAII

The Dubaij well site (SB 23), already surveyed and described by a Kuwaiti–British expedition (Carter 2010: 218–219),⁵ is located in a flat and sandy area at the foot



Fig. 16. Well SM 12 with fully exposed bottom (Photo M. Okulus)

Referred to as the "Dubaij well site" in distinction to "Jezirat Dubaij" situated approximately 1.50 km to the south, in an area where the Ubaid-related settlement H3 is located.

of a long, steep cliff separating the plateau from the coastal plain, about 3.50 km to the southeast of the Mugheira sub-region (5 km to the east of the SM 12 well site) [see Fig. 1]. A large well (dubbed SB 23-1) was the main object of investigation. Before exploration, only its large, round concretelined enclosure (5.60 m in external diameter) could be seen protruding 0.50 m above the ground. The well was accompanied by a freestanding concrete pillar (SB 23-1A) next to the well enclosure (most likely the remnant of a device for lifting water from the well) and a lowroofed, concrete building of unidentified purpose (SB 23-1B) situated nearby. The huge shaft of the well was exposed nearly to the bottom (current depth about 2.70 m, as measured from ground level). The well turned out to be very similar to SM 12, but of an even larger internal diameter (approximately 3.70–3.95 m at its mouth). From the very top it was filled with modern rubbish. Judging by the unfired rounds of ammunition discovered in the fill, the well was abandoned around the time of the Iraqi invasion on Kuwait in 1990–1991. Nothing from the fill of the well gave any clue as to the date of its construction.

Previously unknown stone features were recognized in the course of surface cleaning at the site, including another well structure (SB 23-2) which started to be cleared during the season. It was located about 25 m to the south of SB 23-1. The upper part of its shaft (approximately 1.20 m in diameter) was made of stone, while its lower part was carved in bedrock. Excavations of this feature will be continued in the upcoming season.



Fig. 17. SB 23-1 during exploration; black residue visible on the stone steening in the shaft's upper part caused by a fire burning inside the well (Photo Ł. Rutkowski)

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