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Title**: Tumulus burial field on the north coast of Kuwait Bay. Preliminary excavation report on the spring season in 2012.**

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Keywords: Gulf archaeology, burial mounds (tumuli), cemetery in Kuwait, tumuli with outer ring

حقل أكوام الدفن في الساحل الشمالي للكويت : التقرير الأولي لأعمال الحفر في موسم ربيع 2012 .

Łukasz Rutkowski

الملخص: ركز البحث الميداني في حفر أكوام الدفن وهياكل شبه قبور تقع في منطقتين صغيرتين مختلفة (موهايت / مجموعة جديدة من خمسة مباني تمثل فئات مختلفة) (بحرة/ ناهداين/ ثلاثة مدافن تلية أثنان منها تمثل نوع من الجدار الدائري الخارجي التي لم يتم حفرها حتى الآن) . قدمت الحفريات أيضاً أول دليل مضمون على تأريخ حقل الدفن بواسطة فحص الكربون 14 من أحد المدافن والتأريخ يعود إلى الفخار الأول الذي وجد في قبور أخرى, وهذا يؤكد دعم الفرضية السابقة بأنه على الأقل جزء من المقبرة يجب أن يكون مؤرخ في وقت مبكر للعصر البرونزي الوسيط . تم مسح المناطق الواقعة بين مواقع البحث سابقاً وإستكمال الفجوات في المناطق الخاضعة للدراسة حتى الآن .

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XXIV/1

RESEARCH

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ABBREVIATIONS

AA	*Archäologischer Anzeiger; Jahrbuch des Deutschen Archäologischen Instituts* (Berlin)
ANM	*Archéologie du Nil Moyen* (Lille)
ASAE	*Annales du Service des Antiquités de l'Égypte* (Cairo)
AV	*Archäologische Veröffentlichungen, Deutsches Archäologisches Institut, Abteilung Kairo* (Berlin–Mainz am Rhein)
BAAL	*Bulletin d'archéologie at d'architecture libanaises* (Beirut)
BAH	*Bibliothèque archéologique et historique* (Paris)
BAR IS	*British Archaeology Reports International Series* (Oxford)
BASOR	*Bulletin of the American Schools of Oriental Research* (Ann Arbor, MI)
BCH	*Bulletin de correspondance héllenique* (Paris)
BdE	*Bibliothèque d'étude* (Cairo)
BIFAO	*Bulletin de l'Institut français d'archéologie orientale* (Cairo)
BSAA	*Bulletin de la Société d'archéologie d'Alexandrie* (Cairo)
BSFE	*Bulletin de la Société française d'égyptologie* (Paris)
CCE	*Cahiers de la céramique égyptienne* (Cairo)
EtTrav	*Études et travaux. Travaux du Centre d'archéologie méditerranéenne de l'Académie des sciences polonaise* (Warsaw)
FIFAO	*Fouilles de l'Institut français d'archéologie orientale* (Cairo)
GAMAR	*Gdańsk Archaeological Museum African Reports* (Gdańsk)
GM	*Göttinger Miszellen* (Göttingen)
IAMS	*Institute of Archaeo-Metallurgical Studies* (London)
JARCE	*Journal of the American Research Center in Egypt* (Boston–Princeton–New York–Cairo)
JEA	*Journal of Egyptian Archaeology* (London)
JGS	*Journal of Glass Studies* (Corning, NY)
JJP	*Journal of Juristic Papyrology* (Warsaw)
JRS	*Journal of Roman Studies* (London)
MDAIK	*Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* (Wiesbaden)
OIP	*Oriental Institute Publications* (Chicago)
OLA	*Orientalia lovaniensia analecta* (Louvain)
PAM	*Polish Archaeology in the Mediterranean* (Warsaw)
PSAS	*Proceedings of the Seminar for Arabian Studies* (London)
SAAC	*Studies in Ancient Art and Civilisation* (Kraków)
SAK	*Studien zur altägyptischen Kultur* (Hamburg)
SAOC	*Studies in Ancient Oriental Civilization* (Chicago)
WVDOG	*Wissenschaftliche Veröffentlichungen der deutschen Orient-Gesellschaft* (Berlin–Leipzig)

KUWAIT

TUMULUS BURIAL FIELD ON THE NORTH COAST OF KUWAIT BAY. PRELIMINARY EXCAVATION REPORT ON THE SPRING SEASON IN 2012

Łukasz Rutkowski
Polish Centre of Mediterranean Archaeology, University of Warsaw

Abstract: Field research was concentrated on excavating burial mounds and non-sepulchral structures located in two different microregions: Muhaita (a new cluster of five structures representing different categories) and Bahra/Nahdain (three tumuli of which two represented a type with outer ring wall that had not been excavated so far). The excavation also provided the first secure dating evidence for the burial field in the form of a radiocarbon date for material from one of the tumuli and a dating based on the first pottery find from the tombs for another one. This has supported an earlier hypothesis that at least part of the cemetery should be dated to the Early/Middle Bronze Age. Areas between previously investigated locations were surveyed, completing gaps in the hitherto studied regions.

Keywords: Gulf archaeology, burial mounds (tumuli), cemetery in Kuwait, tumuli with outer ring

For the eighth time (and for the third time in the spring season), at the invitation of the Kuwaiti National Council for Culture, Arts and Letters (NCCAL), a Polish Centre of Mediterranean Archaeology (PCMA) expedition excavated archaeological sites in the Al-Subiyah region. This was the final scheduled season devoted to a research project on tumuli graves and other stone structures in the region of Al-Subiyah, directed by the present author.

During six weeks of the 2012 spring season, eight archaeological structures were explored, including five tumuli graves, one elongated structure, one unidentified structure, and one small structure in the shape of a stone bin [see ***Table 1***]. Excavations were carried out in two different microregions, Muhaita and Bahra/Nahdain [***Fig. 1***].[1] In the former area, a cluster consisting of five structures (SM 20–SM 23) was explored as a single "burial unit". In the latter

[1] The boundaries between local regions and sectors are not fixed. The three mounds investigated this season on the southern rim of the high plateau were placed at about the same latitude and topographic elevation, SB 100 being located about 300 m to the west of the pair SB 101 and SB 102. The latter two, however, are situated in the vicinity of structures excavated by a Kuwaiti team, codenamed after Nahdain (starting with acronyms such as SNG). In turn, SB 100 is located not very far from sites with code names related to the Bahra microregion (starting with acronyms such as SBH), thus it can be said to sit on the boundary between the two areas.

microregion, a large tumulus with an outer ring wall (SB 100[2]) was selected, because of the conspicuous type that the mission had not excavated before, but which was familiar from survey work (almost exclusively from examples explored by Kuwaiti/GCC teams). Investigations in the Nahdain area were expanded in the second half of the campaign to include two further structures (SB 101–SB 102). All excavated structures were protected at the end of the season, the remains being reinforced with stacked sandbags and backfilled.

Survey work was continued between 24 March and 1 April. The survey covered the area between previously investigated microregions, that is, Bahra/Radha (in 2009–2010) and Mughaira (in 2007–2010). It succeeded in identifying 11 new archaeological features and revisited about two dozen structures excavated earlier by Kuwaiti/GCC expeditions (SBH 3–SBH 4, SMG 1, SRG 1–SRG 5, SR A–SR I, SMQ 1–SMQ 11) in order to include them in the general survey map and to take them into account in the statistics.

Team

Dates of work: 25 February–6 April 2012

General Project Directors: Prof. Piotr Bieliński (PCMA UW), Dr. Sultan Al-Duweish (Department of Antiquities and Museums of the State of Kuwait)

Field director: Dr. Łukasz Rutkowski, archaeologist, head of survey and tumuli research project (PCMA UW)

Archaeologists: Dr. Maciej Makowski (Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences), Maciej Marciniak (PhD student, Antiquity of Southeastern Europe Research Centre, University of Warsaw), Ewelina Mizak (independent), Khaled Salem, Mustafa Ansari, Ahmad Al-Mutairi, and Faisal Al-Uteybi (all archaeologists and archaeological team support from the Department of Antiquities and Museums of the State of Kuwait)

Archaeologist/archaeozoologist: Katarzyna Hryniewicka (independent)

Archaeologist/topographer: Jakub Kaniszewski (independent)

Archaeology student-trainees: Katarzyna Cieślak, Michał Karolak (both Institute of Archaeology, University of Warsaw)

Underwater archaeology specialists: Dr. Radosław Karasiewicz-Szczypiorski, Magdalena Nowakowska (both Institute of Archaeology, University of Warsaw), two-week reconnaissance for a new research project

Acknowledgments

None of this work would have been possible without the hospitality and generosity of Mr. Shehab A.H. Shehab, presently Assistant Secretary General of the National Council for Culture, Arts and Letters of the State of Kuwait. Members of the Polish staff wish to thank Dr. Sultan Al-Duweish, presently Director of the Department of Antiquities and Museums of the State of Kuwait, and his colleagues for their unstinting support and generosity offered to the mission in the field. We are also indebted to Mr. Ahmad Al-Mutairi, supervisor of the archaeological base in Al-Jahra city who took charge of domestic arrangements and helped resolve everyday problems. Finally, many thanks to the base camp staff, especially the watchman, Mr. Khaled Salakh Karrar, and the cook, Mr. Mahboob.

[2] As with cluster SB 60–SB 73 explored earlier, a new code name starting with the acronym SB ("Subiyah") was adopted for SB 100–SB 102, replacing previously established survey codes PSRD 6–PSRD 8 (see Rutkowski 2013a: 485–486).

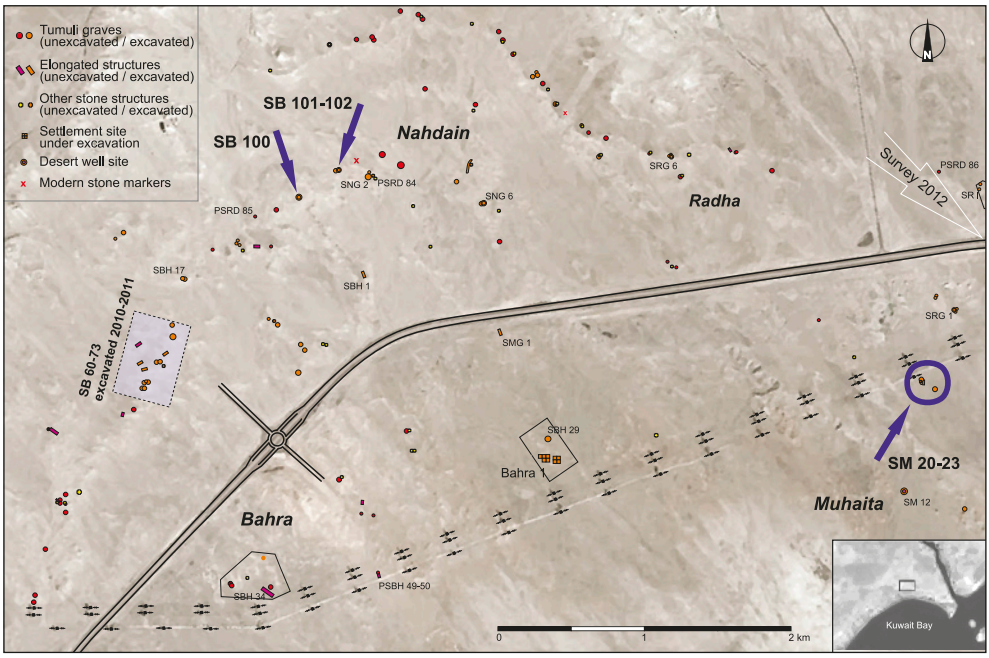

Fig. 1. General plan of sites investigated in the Al-Subiyah region in 2007–2011 (Mapping based on Google Earth and GPS coordinates, drawing Ł. Rutkowski)

Table 1. Sites excavated by the KPAM team in the Al-Subiyah region (spring 2012)

Site code	Area	Type of site/structure	GPS coordinates
SM 20	Muhaita	Tumulus	N 29.640525° E 47.982469°
SM 20A	Muhaita	Bin structure (additional to SM20?)	N 29.640428° E 47.982486°
SM 21	Muhaita	Stone structure (deteriorated tumulus?)	N 29.640374° E 47.982526°
SM 22	Muhaita	Elongated stone structure	N 29.640361° E 47.982610°
SM 23	Muhaita	Tumulus	N 29.639914° E 47.983482°
SB 100	Bahra/Nahdain	Tumulus (with outer ring wall)	N 29.651915° E 47.937799°
SB 101	Nahdain	Tumulus	N 29.653572° E 47.940347°
SB 102	Nahdain	Tumulus (with outer ring wall)	N 29.653621° E 47.940460°

NEW CLUSTER OF STONE STRUCTURES IN THE MUHAITA MICROREGION

An isolated cluster comprising five stone structures (SM 20–SM 23), located on the northwestern limits of the Muhaita microregion (close to the power transmission line), was located by the KPAM survey in the 2009 season (Rutkowski 2013a: 481). The cluster is situated on a low coastal plateau (on the first major terrace overlooking the coastal plain), approximately 2.50 km to the east of the settlement site Bahra 1 and not far from the beginning of a wadi (Wadi Muhaita) cutting the terrace and running down to the south. Four different structures were distinguished standing next to one another (SM 20, SM 20A, SM 21, SM 22) [*Fig. 2*]; the fifth, SM 23, stood alone about 85 m to the southeast. Two of these structures were burial mounds (SM 20, SM 23), one was a tumulus-like structure, either a deteriorated burial mound or a non-sepulchral structure (SM 21), the fourth was an elongated structure (SM 22) belonging to the same category as those excavated by the team in the last season (Rutkowski 2014: 433–436), and the fifth was a small auxiliary structure (SM 20A).

The cluster is exceptional among the stone mound sites investigated by the KPAM because of its unique nature and atypical location. Unlike most structures investigated earlier, which had usually been located at the edge of the natural rock terrace, the present cluster stood in a flat open field where rock outcrops (potential sources of building material) are relatively rare. It was also of interest because of the different structural and most likely functional properties. For the first time this season, for example, an elongated structure was explored next to a tumulus.

TUMULUS SM 20

SM 20 is a round stony mound with gently sloping flanks. It was erected on a subcircular plan, 6.90 m as measured along the two cardinal axes (however, the distance along the NE–SW and NW–SE axes is less regular, 6.50 m and 7.80 m respectively). In the highest preserved point, the structure stood 0.70 m above the ground (reaching 19.55 m a.s.l. at the highest point).

It was difficult to differentiate individual stones on the surface of the tumulus at the beginning of the exploration. One could see the tops of large slabs stuck vertically into the ground around the mound perimeter and a pile of disordered stones lying midway on the southwestern slope (most likely a recent superstructure erected upon the ancient monument and excluded from the height measurement). The coating, especially in the southern part of the structure, turned out to be a weathered rock mass that could not be cleaned with the same effect as in the case of other structures explored by the team. Similar problems were encountered in the case of SM 22 and SM 23 where the same kind of rock prone to erosion was used. It may have been due to a shortage of good quality stone material in the vicinity.

SM 20 represents a type of tumulus with a shallow grave chamber and regular edging constructed of vertical slabs. The chamber is subcircular in plan (1.15–1.28 m in diameter and 0.25 m in depth). Its solid bottom, raised above the ground, is paved with two layers of broken stones, compacted to form a relatively even, but fairly rough surface. It resembles a pavement, but most probably these slabs were placed during early stages of construction, before the

wall of the chamber was erected. The wall of the circular chamber was straight, but the inner ring is not evident all around the perimeter. It was erected of three to four layers of slabs, in most cases integrated with the surrounding mantle, while the entire southern part of the chamber was delimited by a huge block of stone (approximately

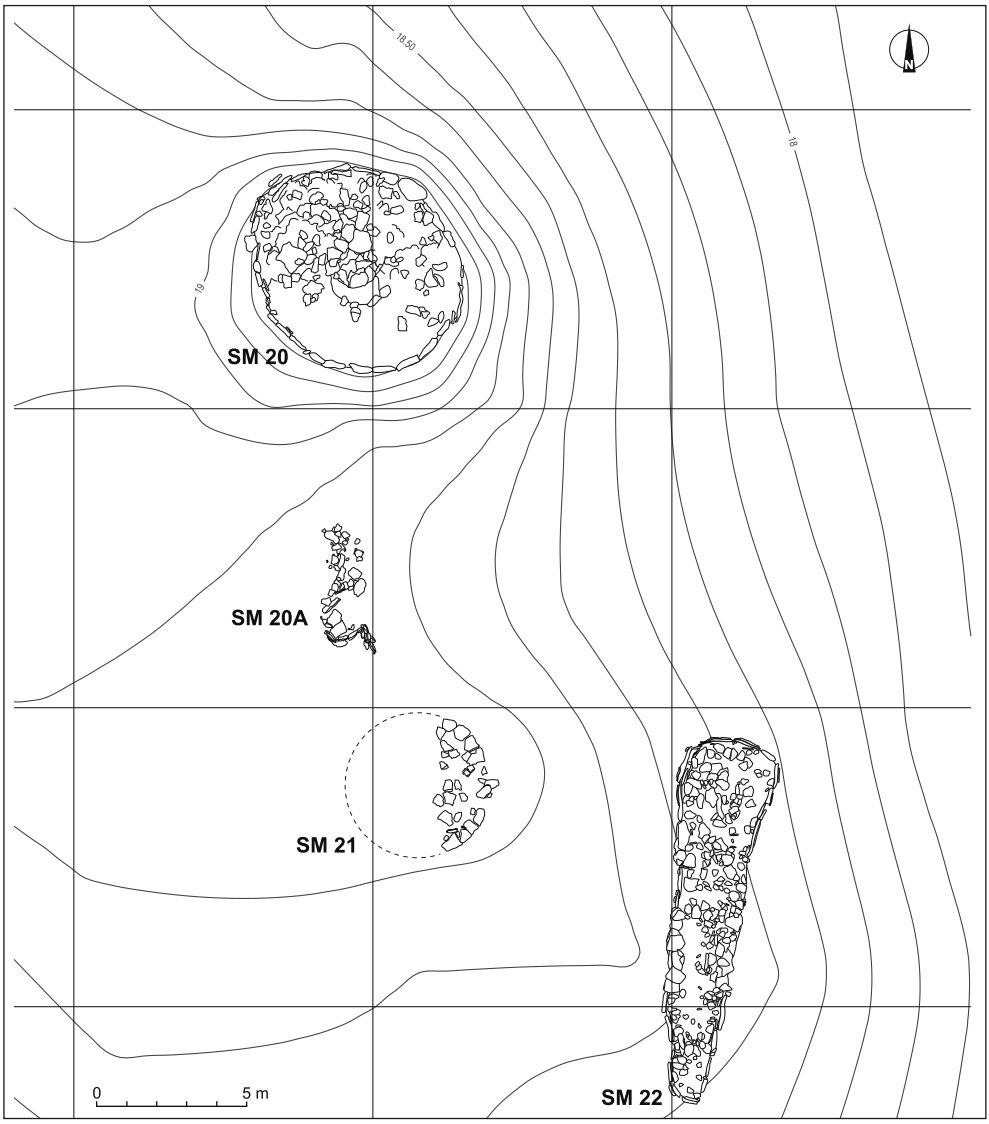

Fig. 2. Cluster SM 20–SM 22 in the Muhaita microregion, survey plan incorporating drawings of the structures after exploration (Mapping and digitizing J. Kaniszewski; drawing K. Hryniewicka, E. Mizak, K. Cieślak)

Fig. 2. Cluster SM 20–SM 22 in the Muhaita microregion: view of the cluster of structures during excavation, looking southeast; tumulus SM 20 in the foreground (Photo Ł. Rutkowski)

Fig. 3. SM 20 at the end of exploration, view from the southwest (Photo Ł. Rutkowski)

1.50 m in length). The chamber was filled with tamped reddish sand, gravel and stone rubble. There were no signs of any cover over the opening [see ***Fig. 3***].

The already mentioned stone outer edging, made of substantial and tightly fitted upright slabs, is the second most characteristic feature of the mound. The length of these slabs varies from 0.40 m to 1 m and the height varies from 0.30 m to over 0.50 m. They were dug 0.20–0.30 m deep into the ground. Some of them were leaning against or fitted to their solid bedrock seat. In places, the main slabs were additionally stabilized by stones placed along their longer sides [***Fig. 3***]. Several tumuli graves having such a frame around their perimeter have already been excavated (SB 61 is the best example, see Rutkowski 2013b: 502–504), but it should be emphasized that the vertical outer ring of SM 20 is the best built.

Apart from a single cowry shell [see ***Fig. 10*** bottom left] that was found in the sand at the foundation level of the tomb (right below the lowermost layer of slabs within the dismantled quadrant), SM 20 did not yield any finds.

STRUCTURE SM 20A

SM 20A was the smallest structure within the excavated cluster. This freestanding stone alignment lay between tumulus SM 20 and structure SM 21. It resembled a rectangular stone bin (or an open polygonal figure), closed on three sides by vertical slabs and open-ended from the northeast [***Fig. 4***]. The structure was aligned ENE–WSW. Its internal dimensions were approximately 1.15 m by 1.10 m, and it stood about 0.30 m above the surrounding ground (19.00 m a.s.l. at the highest point).

Vertical slabs appeared to be dug at least 0.15 m deep into the ground. A single large slab (0.75 m long) formed the northwestern limit of the bin. Two large inward-tilted slabs of similar size (0.47 m by 0.74 m and 0.40 m by 0.67 m) constituted its eastern limit. Another stone was stuck vertically into the ground in front of the latter two, demonstrating that this side of the bin (front side?) originally might have consisted of two rows of upright slabs. In turn, the southeastern wall of the bin consisted of three slabs (around 1 m in length measured together). This side of the structure formed a corner with another 0.70-m-long row of upright stones which turned outward from the bin. There was no stone bottom inside the bin. The structure was filled with homogenous soil, that is, fine sand, reddish and beige in color, having the same consistency as the surrounding ground. Apart from two dozens of loose stones that were either scattered around or stuck to the vertical elements of the bin, there was also an irregular spread of stones adjoining the northern part of the structure. Some of these stones had probably fallen from the side of SM 20, sliding into the small depression in which SM 20A stood. SM 20A did not yield any finds.

Fig. 4. SM 20A after cleaning, view from the southeast (Photo Ł. Rutkowski)

A clear link between SM 20A and SM 20 could not be confirmed despite the nearness of the two structures. The bin is not, as would be expected, oriented toward the tumulus. Moreover, it appears to be much different from other bin structures. Firstly, structures of this type were usually incorporated into a larger, generally rounded stone layout. Secondly, their side walls were usually constructed of single stone slabs with tightly fitted corners (see SNG 1, excavated by a Kuwaiti team, Al-Duweish, Al-Mutairi, and Salim 2004: 13–14, 38; SMQ 44, an isolated rounded structure with a rectangular annex, excavated by the KPAM in 2008, Szymczak 2008; PSBH 34, PSRD 74 surveyed in 2009, Rutkowski 2013a; and SMQ 54, see below). Therefore, it cannot be excluded that such a simple stone alignment like SM 20A, merely sunk in loose ground, may have been built independently and possibly later. If so, its layout may suggest the foundation of a desert shelter. None of these theories can be either proved or disproved however.

STRUCTURE SM 21

Of the structures excavated in the cluster, SM 21 turned out to be the most difficult to identify and interpret. It was either an additional structure or a strongly deteriorated burial mound. No decisive evidence either way was discovered.

After cleaning, the structure turned out to be an irregular heap piled up of two to three layers of middle-sized stones in semicircular shape, or, more precisely, C-shape (approximately 6.00 m and 5.50 m on the N–S and E–W axes respectively, including a scatter of large stones in a band around the perimeter). It stood 0.40 m above the surrounding ground (reaching 19.10 m a.s.l. at the highest point). The pile of stones was concentrated in the eastern part of the

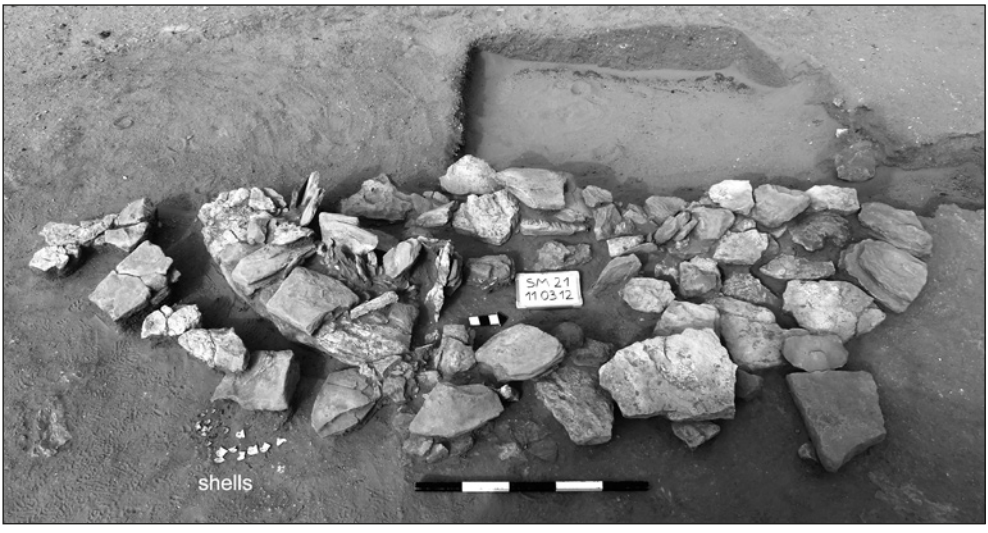

Fig. 5. SM 21 after the second phase of exploration (semicircular ring) showing the findspot of shells; view from the east (Photo Ł. Rutkowski)

structure, while the western part, apart from being partly encircled by loose stones, proved to be virtually empty. The mound looked as if it had been partly dismantled. In the second phase of exploration, once many loose and disordered stones were removed, a stone ring of regular semicircular shape was uncovered in the eastern half of the structure. It was constructed of flat and well-fitted slabs, arranged horizontally in two courses in the southern part of the ring. In addition, these slabs were at least partly dressed to keep the outer face of the ring smooth. The plan was presumably circular, the reconstructed diameter being about 4.70 m. The preserved sector measured 1.50 m by 4.50 m [***Fig. 5***]. Practically the entire western half of the structure appears to have been pulled down in the past, perhaps to provide stone material for the construction of another feature nearby, e.g., SM 20A or the stone marker on top of SM 20. In addition, there was a fairly large pit or ditch (more than 1.50 m across and approximately 0.45 m deep) in the northwestern part of the structure. The sandy fill of the pit, mixed with collapsed stones, was not very compact, suggesting that it may have been dug not that long ago.

Inside the ring, the preserved part of the structure was filled with undressed stones and stone debris. The stones were laid less carefully than those of the external band. There were several upright slabs that were placed randomly between the horizontal elements. No signs of the burial chamber or of any bones were detected inside SM 21. Thus, we can only conjecture about its role: a second tumulus most of which had been pulled down or an auxilliary structure constructed next to the burial mound designated as SM 20. Were the latter true, SM 21 may have been a small ring of stones fitted with a bin. A well matched low ring is one of the characteristics of this type [see ***Fig. 17***].

A place with burnt sea shells was found unexpectedly outside the ring. This small spot (0.60 m across) was concealed under loose stones lying on the surface beyond the front edge of the ring, on its south-eastern side. There were two to three dozens of shells or their fragments weighing a total of 750 g, half burnt and the other half without traces of fire [***Fig. 10*** right]. Most were identified as Gulf pearl oyster (*Pinctada radiata*). The remains looked like a collection of post-consumer food waste. If so, it would be the first case where traces of food were found near a stone feature possibly related to sepulchral use. The alternative solution is that this discovery was unrelated to mortuary practices, in other words, not necessarily linked with the burial site.

ELONGATED STRUCTURE
SM 22

SM 22 was a stone structure of oblong shape with one of the shorter ends fairly wide and the other visibly narrower [***Fig. 6***]. It was 12.70 m long (or slightly less assuming that a couple of stones from its southern end may be in secondary position and might have been moved a little south). The structure was a maximum 3.20 m wide at its northern end, 2.40 m in the middle, and 1.20 m between the last vertical slabs delimiting its outline at the southern end. It was aligned N–S (slight deviation of 6.5 degrees counterclockwise from the north). Compared to other structures of this type excavated earlier (Rutkowski 2014: 433–436), it appeared to be lower

and flatter. The height was 0.35 m on average. It stood about 0.50 m above ground as measured at the upright slab in the highest middle part, reaching an elevation of 19.11 m a.s.l. Toward the shorter ends its height gradually decreased (around 0.20 m at the northern end, and flush with the surrounding surface on the south).

Like other elongated structures, the edges of SM 22 were delimited by large upright slabs. The frame occurred along almost the entire perimeter of the structure, excluding the very tip of the southern end and some parts in the middle of the long sides, especially where massive horizontal blocks formed solid masonry. Inside the frame, the structure consisted of three to four horizontal layers of thin slabs, which overlapped at times. There were only a few large slabs placed (or thrown) vertically along the long axis of the structure. Towards their ends the number of stone layers decreased, and finally only a single layer of stones could be observed close to both ends. Sand was used as bedding material for the structure. The surface of the topmost layer of the structure was strongly weathered, thus in most cases it was difficult to distinguish individual slabs. SM 22, like all the other elongated structures excavated by our team, did not yield any finds.

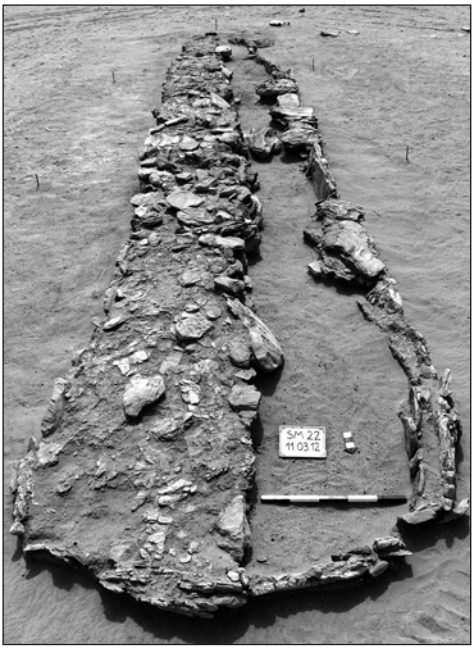

Fig. 6. SM 22: bird's-eye view after dismantling of the western half, looking south (Photo Ł. Rutkowski)

Having explored four structures of this type in the last season we noted a slight difference between the outline of the shorter sides, namely, one end was usually slightly wider than the other. The difference in the outline became particularly apparent in the case of SM 22 with its northern end fairly wide and rounded, and the southern one terminating in a pointed parabolic shape. On the whole, the plan of SM 22 resembled a long boat in shape (with "stern" and "bow" respectively).

STRUCTURE SM 23

SM 23 was a small mound with very gentle sides and strongly eroded surface, on which individual stones were mostly indistinguishable. It was almost circular in plan (5.80 m by 6.00 m) and stood only 0.50 m above the ground, reaching 18.55 m a.s.l. at the highest point. After initial clearance, there was no sign of the chamber. Only the regular shape of the mound could indicate that it was not natural rock. A subcircular chamber was finally delineated in the center of the mound (1.40 m by 1.70 m, 0.25 m deep). It was filled with hard-packed soil mixed with stone rubble that was hardly different from the stone coating. When a circle

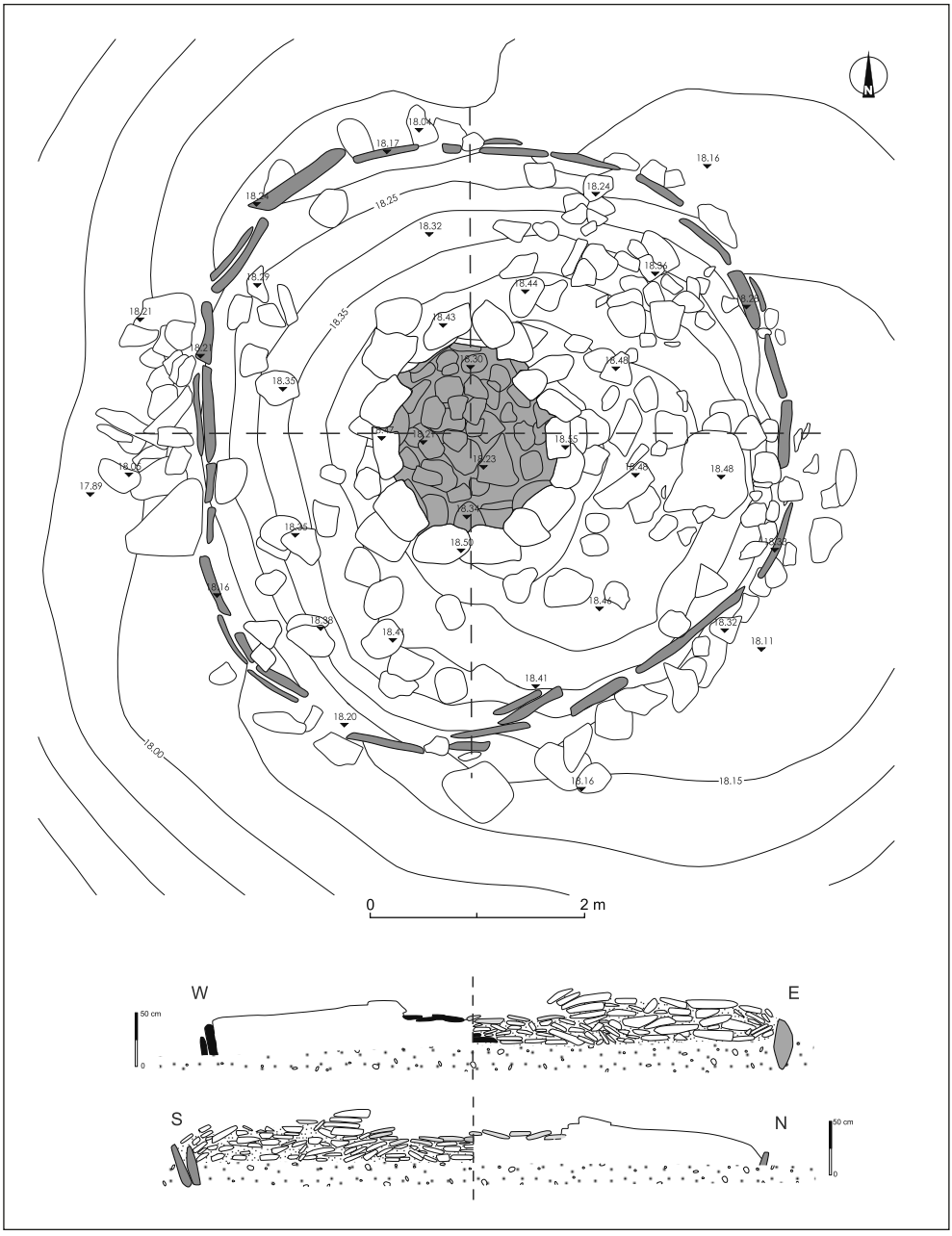

Fig. 7. SM 23: plan and cross-sections through the tumulus (Drawing and digitizing E. Mizak)

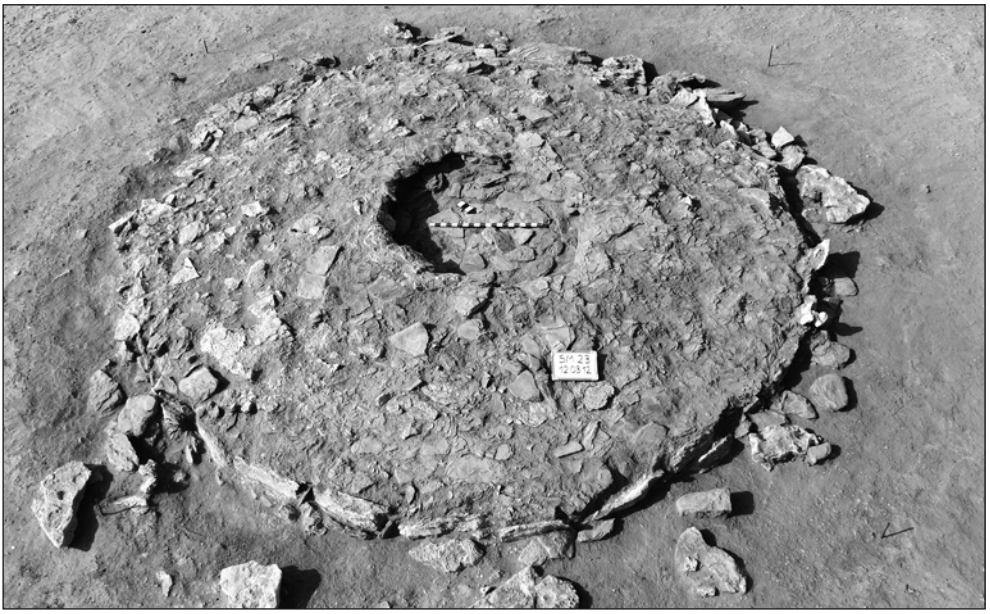

Fig. 8. SM 23: bird's-eye view after cleaning of the chamber bottom (Photo Ł. Rutkowski)

Fig. 9. SM 23: side view after dismantling of the southeastern quadrant, looking west (Photo Ł. Rutkowski)

of vertical slabs was unearthed along its perimeter, it became clear that SM 23 represented the same architectural type as SM 20, that is, a tumulus with a retaining kerb of upright stones with a shallow burial chamber [*Fig. 7*].

The bottom of the chamber was situated on a stone platform rising 0.20–0.25 m above the ground. The platform proved to be made of several stacked layers of horizontal slabs, split into thin plates, giving the impression of a dense mass of stone covering the central part of the mound. The podium and the chamber wall built on top of it were enclosed by a mantle constructed of less tightly packed stones. The structure was secured by a continuous vertical kerb consisting of flat and thin slabs varying in length from 0.40 m to 1.20 m, and usually about 0.45 m high. These slabs were buried in the ground to a depth of half their height [*Fig. 8*].

Apart from a few badly eroded bone pieces (identification impossible), SM 23 yielded only three finds: one broken *Strombus* shell and one small *Oliva* shell that had the apex ground off, found in the fill of the chamber, while a fragmentarily preserved stone implement (most likely a pestle) was found on the surface of the mantle (close to the frame on the southern side) [*Fig. 10* top left]. This discovery follows previous finds of similar items, which were retrieved from SMQ 49 (at Mughaira) and SB 60 (at Bahra), excavated by the KPAM team in the

Fig. 10. Finds from the cluster SM 20–SM 23: top left, stone pestle and shells (SM 23); bottom left, cowry shell (SM 20); right, burnt shells (SM 21) (Photos M. Karolak)

previous seasons (see Makowski 2013: 523–524; Rutkowski 2013b: 501–502). A further example comes from SMQ 11 excavated by a Kuwaiti team in 2004–2005 (Al-Duweish and Al-Mutairi 2006: 28). Interestingly, all these stone implements were found outside the chamber, among the stones of the mantle, which could suggest that similar practices (by implication, associated with funeral or ancestor rituals) took place at all these sites. This connection is particularly thought-provoking, especially in the light of the fact that each of these tumuli falls into a different architectural type and is located in a different area, even several kilometers away from one another.

THE BAHRA/NAHDAIN MICROREGION

Three burial mounds (SB 100–SB 102) were excavated in the border zone between Bahra (to the east) and Nahdain (to the west). The tombs were located on the edge of the same natural rock terrace (high plateau) as the cluster of structures SB 60–SB 73 excavated in the previous two seasons, but about 1500 m further northeast. Tumulus SB 100 was selected for exploration as an example of a mound with the tomb proper enclosed by a separate circular wall [***Fig. 11*** left]. The mound was surveyed in 2009 as the only unexcavated example of this kind (Rutkowski 2013a: 485–487), all the remaining examples (i.e., SRG 1, SRG 6, SNG 6, SMQ 1, SMQ 11, SBH 14) having been excavated by Kuwaiti/GCC teams and known only from short reports (see Al-Duweish, Al-Mutairi, and Salim 2004; Al-Duweish and Al-Mutairi 2006).

Two other burial mounds, standing side by side (SB 101 and SB 102), were excavated in the nearby area, approxi-

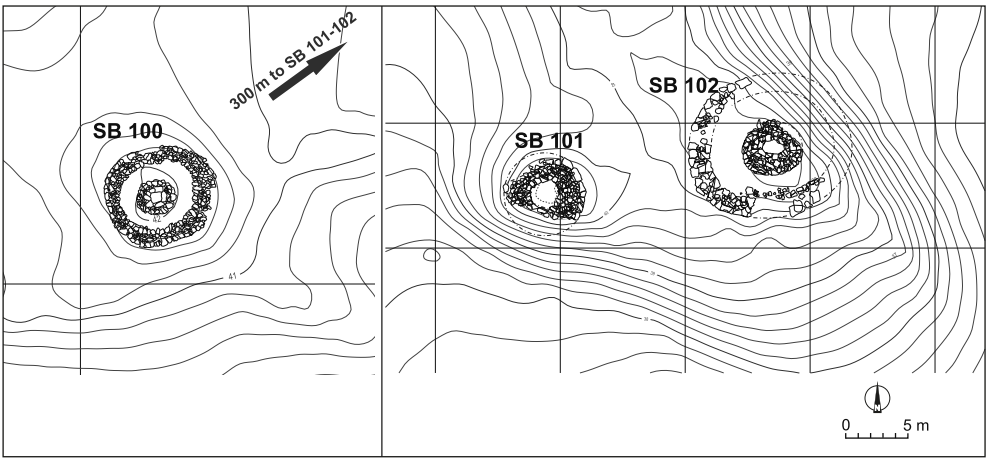

Fig. 11. Survey plans showing the location of SB 100 (left) and SB 101–SB 102 (right) in the Bahra/Nahdain and Nahdain microregions respectively, including plans of the structures after exploration (Mapping and digitizing J. Kaniszewski; drawing K. Hryniewicka, M. Marciniak, E. Mizak)

mately 300 m northeast of SB 100. They were chosen for exploration partly for logistic reasons and partly in hope of finding an "atypical" tomb with semicircular enclosure, as initially expected. SB 102 proved to be another tomb of the outer ring wall type. Slightly more than a third of the structure was eroded [***Fig. 11*** right]. SB 101, which was 8 m away, appeared to be an ordinary type of tumulus. This repeated an arrangement already known to be frequent in the Al-Subiyah region with tombs standing side by side representing two different types of construction. Assuming that neighboring burial mounds were erected more or less at the same time and were thus potentially owned by the same family, it can be concluded that there was no uniform model of grave, and the differences that can observed are not necessarily of a chronological origin.

Important chronological benchmarks were supplied by the first pottery vessel recovered in context since the beginning of fieldwork in the Al-Subiyah region in 2007 and the shell beads *in situ*, which could be radiocarbon-dated. The rich and diversified evidence from these three tombs, disproportionate in quantity and substance to what has been found in other structures, will be summarized here briefly, the reader being referred to a full publication published recently (Rutkowski 2015).

TUMULUS SB 100

Tumulus SB 100 consisted of three structural elements: the tomb proper in the center, the outer ring wall surrounding it and the so-called void ring between them [***Fig. 12***]. SB 100 proved to be built on a subcircular plan with the diameter ranging from 8.10 m to 9.20 m, slightly elongated in a NE–SW direction. The present height of the mound was around 1.00 m above the ground (reaching 42.24 m a.s.l. at the highest point). The central structure, directly enclosing the burial chamber, was also subcircular in plan, elongated NE–SW (3.00 m by 3.50 m). It rested directly on a solid bedrock surface, which was at the same time the chamber floor. The sub-rounded chamber (1.20 m by 1.60 m) was slightly narrowed upward and on the top it was reduced to a smaller size and almost square in shape (approximately 0.90 m wide), which was probably intended to support the original cover.

The presence of loose stones piled over the chamber, the missing skeleton and the fact that the beads were found dispersed throughout the sandy fill attested to penetration of the chamber in the past. The outer ring had a core of stone rubble, faced inside and outside with fairly large and well-fitted slabs, stacked three to five courses high (maximum 1.70 m wide and 0.60 m high). The void ring, from 0.90 m to 1.50 m wide, turned out surprisingly to be filled with packed fine sand and stones flush with the outer ring wall.

Tumulus SB 100 yielded a collection of 393 beads, 170 of which were found inside the chamber and 223 outside it, for the most part dispersed throughout the fill of the void ring (195 items). Dismantling operations yielded 28 beads from the central structure wall and the outer ring wall. The collection consisted almost exclusively of tusk shells, perforated *Engina mendicaria* shells and microbeads [***Fig. 13***]. The fourth type was represented by two tubular beads made of *Strombus/ Conus* shells. All four types were attested

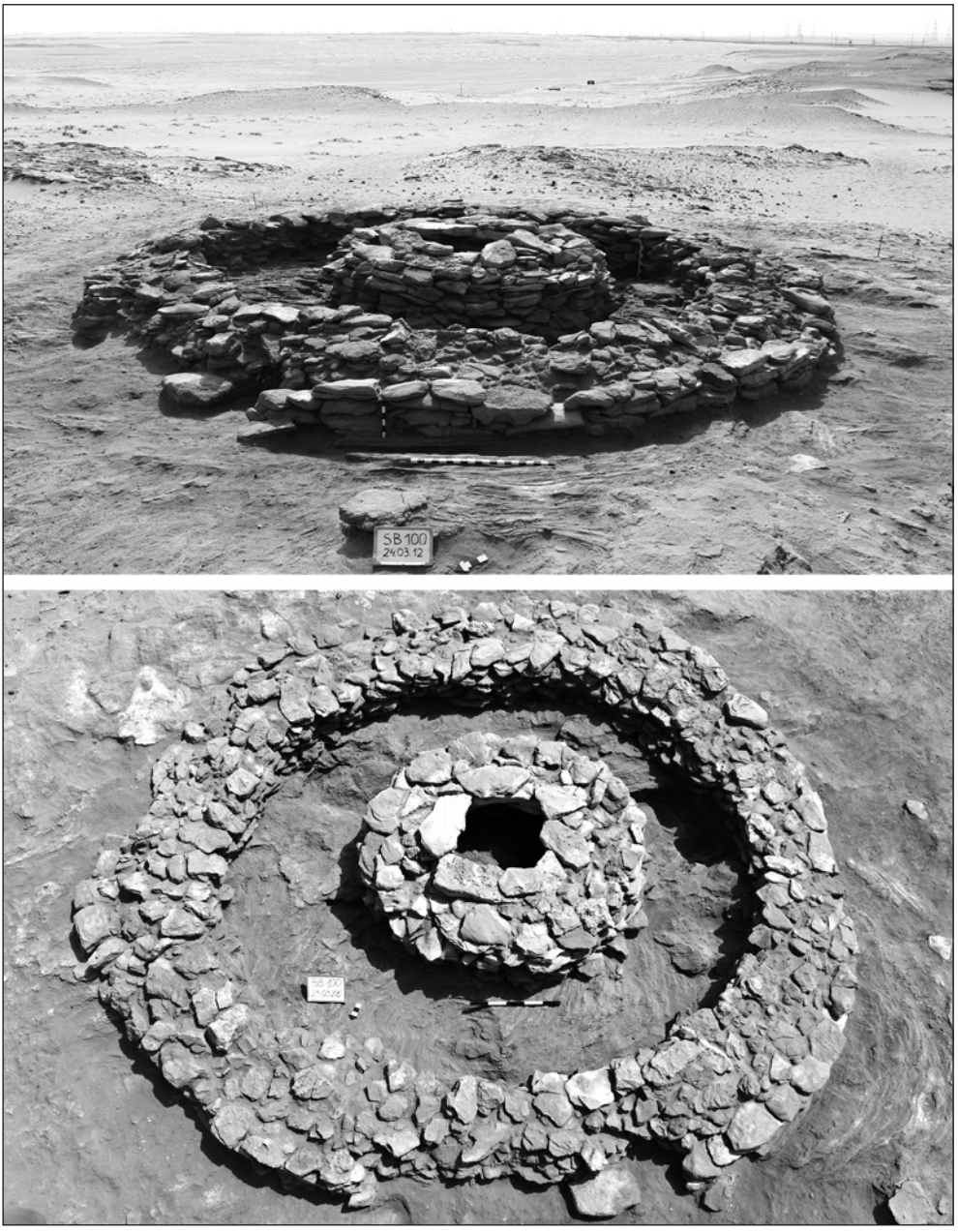

Fig. 12. SB 100: top, general view from the northwest, view at the end of the excavation; bottom, top view after exposing the bottom in the void ring and the chamber (Photos M. Makowski, Ł. Rutkowski)

Fig. 13. Beads from SB 100: top and bottom left, selection of Engina mendicaria, tusk shell and shell microbeads; bottom right, hypothetical necklace reconstructed from all but three beads found in the structure (Photos K. Karolak, M. Makowski; drawing M. Marciniak)

in the assemblage coming from tumulus SMQ 30 (for a catalogue of all beads from the tumuli and discussion, see Wygnańska 2015).

The uneven distribution of beads within individual quadrants confirmed a funeral custom that was first observed in SMQ 30 (excavated in 2007–2008 at

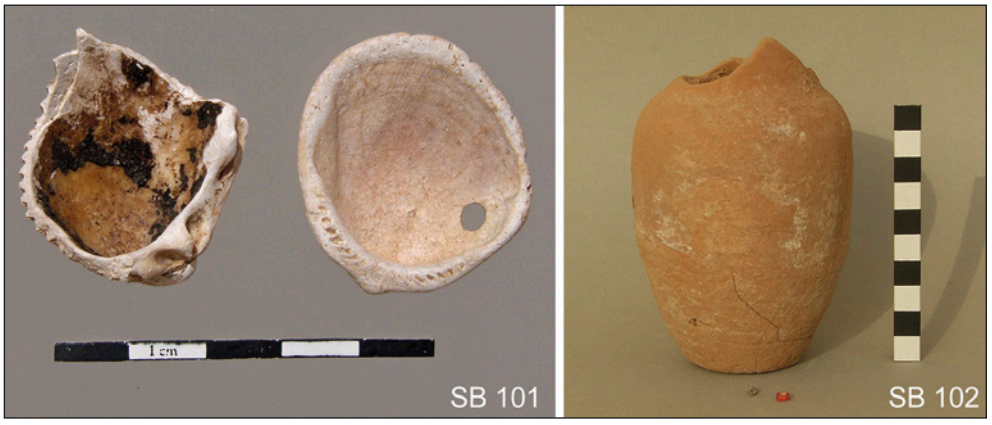

Fig. 14. Finds retrieved from the tumuli: left, cosmetic container (SB 101); right, pottery vessel (SB 102)(Photos M. Karolak)

Fig. 15. SB 101: view with the burial chamber almost fully exposed, looking southwest (Photo E. Mizak)

Mughaira, see Reiche 2013; 2015), calling for adornments to be placed inside the tomb structure, not only in the chamber but also outside. This was done most probably by strewing beads (possibly from broken necklaces) over the structure while the empty spaces were being filled.

A radiocarbon determination (obtained for samples of tusk shells found inside the void ring) indicated a date in the mid-3rd millennium BC.

TUMULUS SB 101

Although nearly one fourth of the mound had collapsed down the scarp, it was still possible to reconstruct the circular plan of SB 101 (6.50 m in diameter). It proved to belong to the same type as SB 70 excavated in the previous season (Rutkowski 2014: 420–423). This particular type is best characterized by two features. It was constructed on bare rock making the flat bottom of the chamber and consisted of a mound of regular construction, having the outer ring (or more precisely distinct edging) formed of outsized, flattish stone blocks, stacked in horizontal courses directly on bedrock [***Fig. 15***].

The burial chamber, sub-rounded in shape, proved to be relatively large (approximately 2.30 m in diameter) compared with the overall size of the tumulus. The uppermost stone courses of the chamber wall were tilted inward and downward toward the center of the tumulus. Penetration of the chamber by grave robbers likely caused the partial collapse. Probably in an attempt to hide

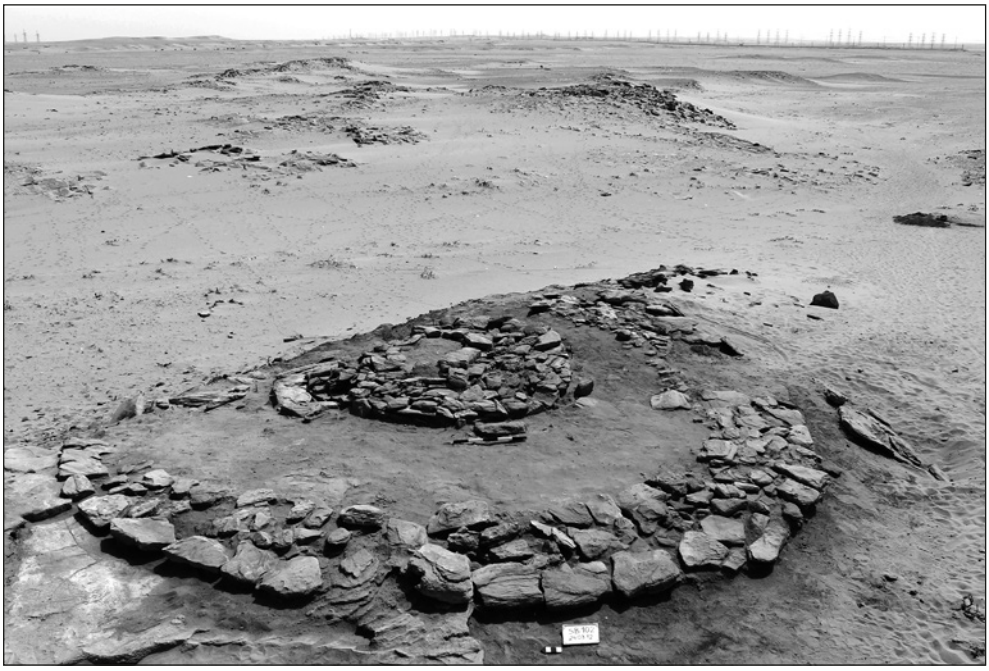

Fig. 16. SB 102: general bird's-eye view after cleaning, looking east (Photo Ł. Rutkowski)

the robbery, the opening to the chamber was intentionally blocked by a pile of jumbled stones on top. A human skull and some bones were found in the southern part of the chamber, but most parts of the skeleton (or skeletons) were missing. The skull survived by having been sheltered under the overhang of the chamber wall. Only two items were discovered inside the chamber, a perforated pendant of cockle shell (family *Limopsidae*) and a broken shell fragment (family *Cardiidae*) bearing traces of a dark substance on the inner side, which may have been the remnant of a cosmetic container with remnants of its content [see ***Fig. 14***]. Such containers are occasionally found in burial contexts of a wide spatial and chronological distribution; in Central and Lower Mesopotamia, however, they were popular in the late 3rd millennium BC (Moorey 1994: 134).

Fig. 17. SB 102: bird's-eye view of the burial chamber with the fully exposed skeleton (Photo M. Makowski)

TUMULUS SB 102

Before excavation, SB 102 appeared as a rather low (approximately 0.45 m high) and badly dilapidated mound, having a low and relatively wide stone semicircular barrier, as if it had been meant to separate the tomb from the neighboring SB 101. After cleaning and removing of some of the jumbled stones from the surface, it was possible to trace the regular oval outline of the chamber close to the scarp edge on which the mound was built. It proved to be a central structure in the same category as SB 100, that is, a tumulus with an outer ring wall. It was characterized by a massive central structure, a flat stone circle surrounding it, and an empty intervening space between these two elements [***Fig. 16***].

The central structure was a freestanding unit of cylindrical shape resembling a pill box. It was erected on a suboval plan, slightly elongated E–W (4.40 m by 4.85 m). Its preserved height was approximately 0.70 m (40.74 m a.s.l. at the highest point), but it was originally no more than about a meter high (assuming a flat roof). Its solid double-skinned masonry wall, the thickness of which varied from 1.50 m to 1.70 m, was built of stacked rough-hewn stone slabs. The burial chamber was oval in plan (1.10 m by 1.70 m). The wall had straight sides and was made of well-fitted slabs, stacked six to seven courses high.

Apart from a dozen loose and fallen stones superimposed on the sandy fill of the chamber, there was no cover of any kind, which indicates that it must have been exposed in recent times, and without

doubt, plundered in the past. A human skeleton was found under a large flat horizontal slab in the western part of the chamber. Except for the skull, which was separated from the rest of the skeleton, the body was in anatomical position, oriented E–W, lying on its right side with the head pointing to the west and the face probably turned towards the south, the arms bent at the elbows. The leg bones were missing. The skeleton was accompanied by two beads and a pottery vessel [*Fig. 17*]. The burial pit was dug into the original ground surface about 0.10–0.20 m below the foundation of the central structure.

The outer ring wall of SB 102, having an external diameter of 12–13 m, was a low structure (0.20–0.30 m high), consisting of no more than two courses of irregular stones, set in two to three rows per course (1.70 m in average width). The void ring was larger than in SB 100. It varied in width from 2.05 m to 2.55 m. There was a 0.20–0.30-m-thick layer of loose sand mixed with fallen stones, which was deposited directly on bedrock.

The tomb yielded a ceramic vessel [see *Fig. 14*], found lying on its side in front of the lower part of the skeleton (near the pelvis). It was a small, barrel-shaped, flat-based and straight-necked jar (upper part of the neck and rim missing: 8.70 cm in maximum diameter and 12.80 cm in preserved height). Keeping in mind the limitations of estimating a date based on a single plain vessel without rim and virtually without comparative ceramic material from the region, it is still possible to draw some chronological conclusions. The closest parallel is constituted by small jars of Type S10 at Saar in Bahrain (Carter 2005: 243), popular there in the local Pottery Period 2 (about 2000–1950 BC). As for the shape and proportions, close parallels exist also with jars from Tell Yelkhi (Mesopotamia, Hamrin region), found in layers dated to the Isin-Larsa period (2000–1800 BC) (Gabutti 2003: Pl. 90:5–6). Interestingly, burial mounds with an outer ring wall are also known from Bahrain, where they are considered as tombs of elite members of society and dated to the Early Dilmun period (about 2200–1750 BC) (Højlund et al. 2008; Laursen 2008: 155). It could additionally corroborate the dating of SB 102 to the turn of the 3rd millennium BC.

A bead of carnelian was found under the rib cage, whereas the other bead, of a material identified recently as bitumen, lay by the neck. The former was a flat disk with sides cut into a roughly octagonal shape (Diam. 5 mm, Th. 2 mm). The latter was cylinder-shaped (Diam. 5 mm, L. 3 mm) with a rough surface, possiby once covered with a different material (Wygnańska 2015: Cat. 1079). Interestingly, a similar pair of beads was turned up in tumulus SB 72 (see Rutkowski 2014: 429, 432).

CLOSING REMARKS

Together with eight stone structures excavated this season, the total number of stone structures excavated since the beginning of the project was brought up to 40, including 26 tumuli graves, seven elongated structures and seven miscellaneous structures. On morphological grounds, a type of tumulus with outer ring wall (with two variants) can be added to previously recognized

forms (Rutkowski 2013b: 513). SB 70 and SB 101 appear to be architecturally identical ("flat bedrock foundation type"). The nearness of SB 101 and SB 102 suggests that these two types of burial mounds should be considered as contemporaneous. Judging from the topography, it is reasonable to suppose that SB 101 was built later, fitted as it were to the unoccupied space on the promontory on which SB 102 was founded, possibly as a satellite tumulus. In turn, a similar practice of "strewing" beads may reflect a chronological relation between SB 100 and SMQ 30, two tumuli which were located far apart. Generally, the findings suggest a date between the mid-3rd and early 2nd millennium BC for the construction of these tombs.

SM 20 and SM 23 illustrate well the type of tomb with a shallow chamber and retaining kerb, better than the formerly explored specimens of similar type (SB 61, SB 66, SMQ 34). In addition, when we compare two groups of burial mounds investigated this season (i.e., SM 20 and SM 23 at Muhaita and SB 100–SB 102 at Bahra/Nahdain) the differences seem obvious. This would favor a chronological difference between these two groups.

SURVEY

The main goal of the prospection this season was to fill the gaps in the record and integrate all the surveyed areas into one unit. An area of approximately 5 km² was covered, encompassing southeastern Radha, northern Muhaita, and western Mughaira. Moreover, the survey was extended in a less systematic manner to

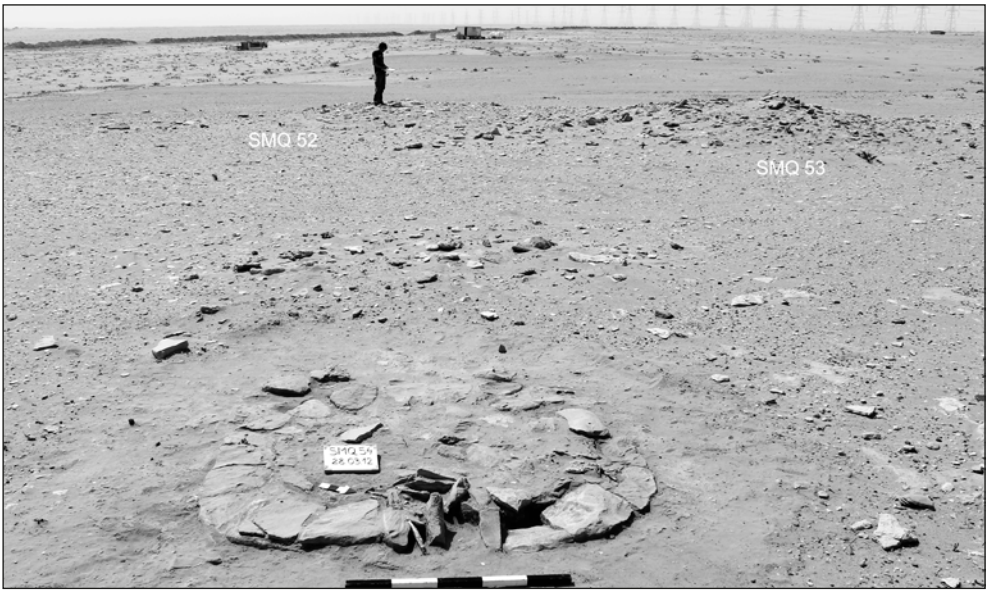

Fig. 18. SMQ 54: bin structure spotted during the survey, looking southwest; neighboring tumuli SMQ 52 and SMQ 53 in the background (Photo Ł. Rutkowski)

verify the existence of tumuli graves in an area which lies immediately to the east of the main surveyed zone at Radha (to the north of the fence surrounding the cluster of structures SR A–SR I excavated by a Kuwaiti team).

A total of 11 new structures was identified during the survey, including six structures at Mughaira (SMQ 50–SMQ 55), two at Radha (PSRD 86, SR G[A]), and three, which were overlooked during the earlier survey, at Bahra (PSRD 85, PSBH 49, PSBH 50). They included eight tumuli, two elongated structures, and one structure containing a stone "bin".

As far as the number of structures in the main and well-defined categories is concerned, including the results of this year's survey, the total number of tumuli, elongated structures and bin structures (or alike) in the study area was brought to 128, 21, and 10, respectively.

A small isolated cluster SMQ 52–SMQ 54, consisting of three structures, spotted on the same plateau as cluster SM 20–SM 23, but 1500 m further to the east, proved to be an interesting parallel to the excavation results reported here.

Two low-sloped burial mounds (SMQ 52, SMQ 53) were found to be adjoining, one with a conspicuous outer ring (or edging) constructed of large slabs laid horizontally and in places secured by vertical slabs. More remarkable was a subcircular, low structure, containing a bin (SMQ 54), situated 15 m to the east of the pair of tumuli. In this specific context, it looks like a kind of additional structure, but the theory suggesting another type of grave cannot be ruled out. The structure consists of a regular ring of middle-sized, well-fitted slabs laid flat in one course (Diam. 2.20–2.40 m). On the east side of the ring, there was an almost square bin (0.55 m by 0.65 m) delimited by upright slabs and open-ended at the front [***Fig. 18***]. The bin was aligned almost E–W, towards one of the tumuli. The space inside the ring was filled with packed stones and soil. The manner of construction resembled that of SM 21.

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Cover: Tumulus SB 100 from the Al-Subiyah region of Kuwait during exploration (Photo M. Makowski)

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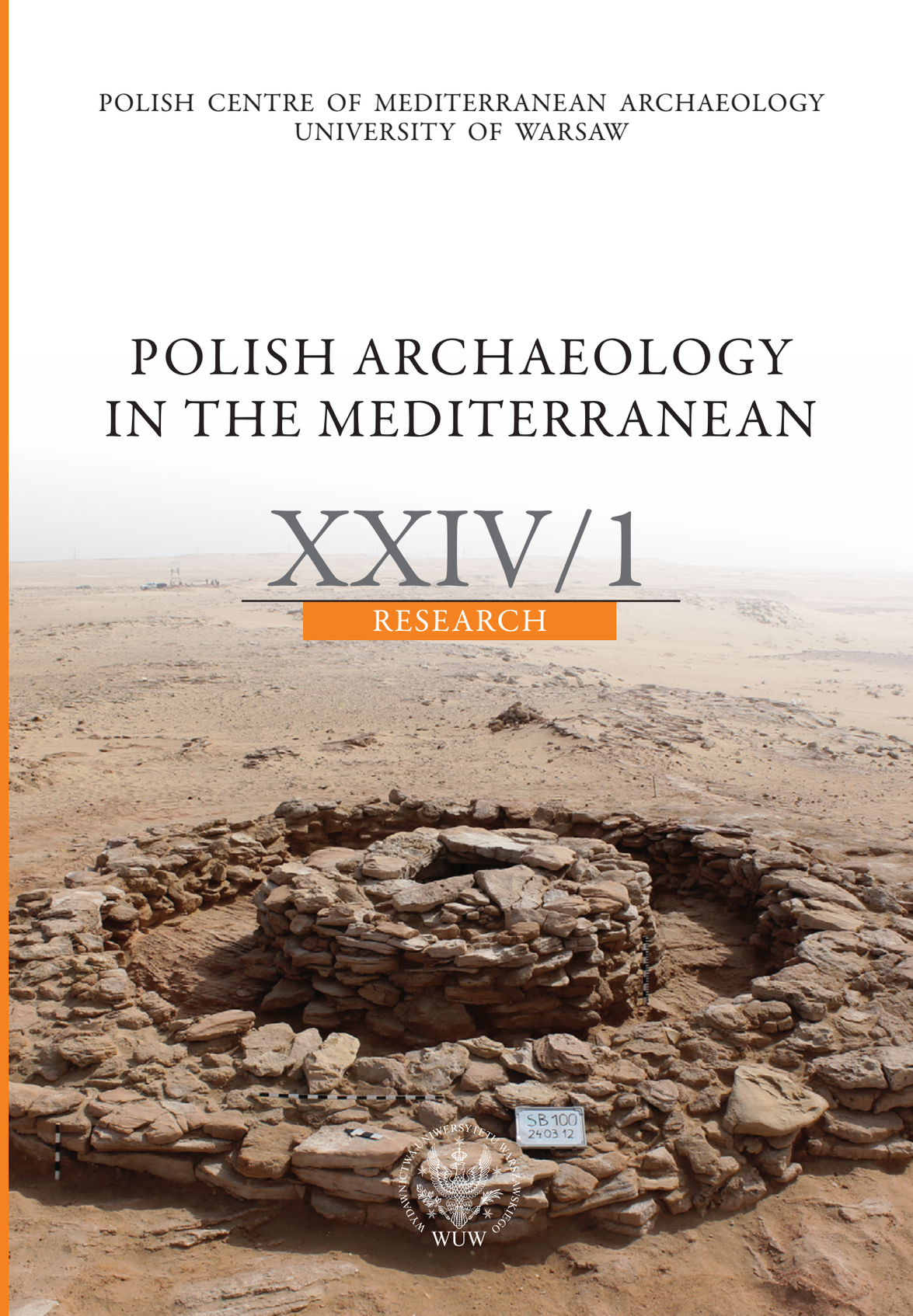

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