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# Tumulus Burial Field on the North Coast of Kuwait Bay : Preliminary Excavation Report on the Spring Season in 2011

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# TUMULUS BURIAL FIELD ON THE NORTH COAST OF KUWAIT BAY. PRELIMINARY EXCAVATION REPORT ON THE SPRING SEASON IN 2011

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**Abstract**: Field research was concentrated on excavating burial mounds and non-sepulchral structures located in the area of Bahra (cluster of structures SB 60–SB 73, for which it was the second and final season of exploration) and on surveying and archaeological interventions in the Dubaij and Ras al-Subiyah areas located approximately 12 km further to the east, giving the opportunity for an archaeological comparison of two different parts of the coast. In total, 13 stone structures were explored, including six tumuli, four "elongated structures", and three representing the "other" category. New data emerged, especially regarding the typological classification of burial mounds and the limits of the cemetery. The prospection covered about 14.50 km$^2$, identifying altogether 35 archaeological features.

**Keywords**: Gulf archaeology, burial mounds (tumuli) in Kuwait, stone platforms

The exploration of burial mounds and other stone structures in the northeastern part of the Bahra subregion (cluster of structures SB 60–SB 73), continued from the previous season, was the prime objective of current fieldwork. The second task was further investigation of the Dubaij well site (SB 23), located approximately 12 km east-south-east of the cluster at Bahra (reported on separately by Franciszek Pawlicki, head of the desert-well project, see Pawlicki 2014, in this volume). The team also went on with a regular archaeological survey in the eastern part of the Al-Subiyah[1] region and carried out interventions wherever pending construction works have endangered historical substance.[2] Three task teams on the Polish side worked for the duration of the seven-week season in the

[1] Arab. اَلصَّبِيَّة ; the spelling of the term varies considerably when transcribed into Latin characters (i.a., As-Sabiyah, Al-Sabiyah, Al-Subbiyah) and the different versions are used sometimes inconsistently or interchangeably. Upon consultation with Assistant Secretary General of the National Council for Culture, Arts and Letters, Shehab A.H. Shehab, we have decided to change the form of transcription from "As-Sabbiya" (as previously used in accordance with the Kuwaiti–Polish concession agreement) to the current convention.

[2] The plan prior to the season was to continue a survey of the area between the already prospected zone in the Bahra/Radha region (see Rutkowski 2013a) and the area of Mughaira (location of the first excavations in 2007–2009). However, it turned out that there is an urgent need for archaeological investigations on the easternmost part of the coast.

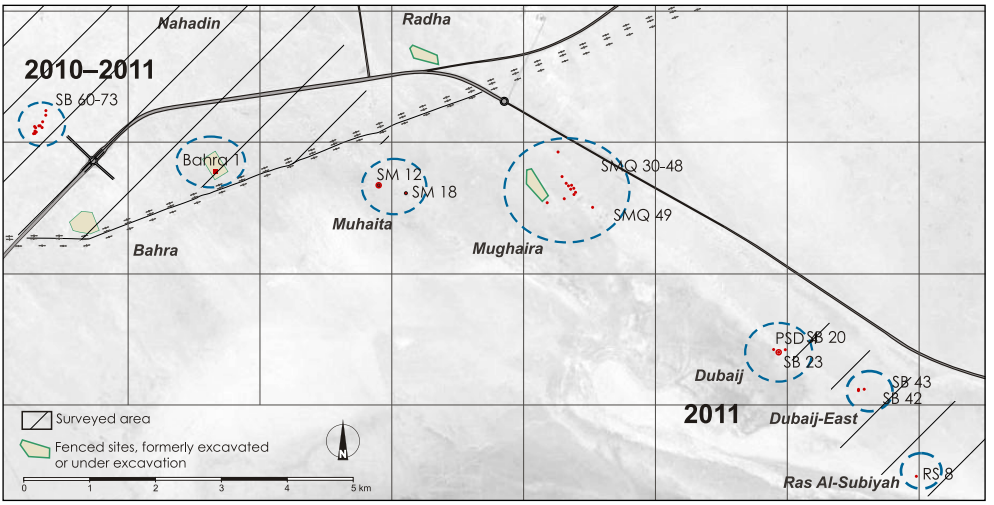


*Fig. 1. General plan of all sites investigated by the Kuwaiti–Polish Archaeological Mission in the Al-Subiyah region in 2007–2011 (Mapping based on Google Earth and GPS coordinates, drawing Ł. Rutkowski)*

## Team

*Dates of work*: 4 March–19 April 2011

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

*Co-director*: Sultan Ad-Duweish, archaeologist (Department of Antiquities and Museums of the State of Kuwait)

*Archaeologists*: Dr. Franciszek Pawlicki, well-sites project head (PCMA UW), Maciej Makowski (PhD candidate, Polish Academy of Sciences), Maciej Marciniak (independent), Ewelina Mizak (independent), Agnieszka Niemirka (National Heritage Board of Poland), Ahmad Al-Mutairi, Khaled Salem, Talal Abdullah Shameri and Faisal Al-Uteybi (archaeologists and archaeological team support from Department of Antiquities and Museums of the State of Kuwait)

*Archaeologist/archaeozoologist*: Katarzyna Hryniewicka (independent)

*Archaeologist/topographer*: Piotr Zakrzewski (independent)

*Anthropologist*: Dr. Arkadiusz Sołtysiak (Institute of Archaeology, University of Warsaw)

*Publishing/graphic specialist*: Barbara Górak (independent)

*Archaeology student-trainees*: Ireneusz Nazaruk, Olga Sabala (Institute of Archaeology, University of Warsaw)

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spring of 2011, one at Bahra, the other at the well site in Dubaij and the third on the survey and rescue excavation project; the first and last of these task forces were directed by the present author.

Apart from the well site SB 23, the team completed this season the exploration of 13 archaeological structures, including six stone mounds (SB 20, SB 42.1, SB 69, SB 70, SB 72, SB 73), four so-called elongated structures (SB 43, SB 63, SB 67, SB 68) and three small stone features (PSD 4, SB 42.2, SB 71), and probing one site (RS 8) [see ***Table 1***]. Excavations were carried out at four different locations (Bahra, Dubaij, "Dubaij-East", Ras al-Subiyah) lying up to 14.5 km apart as the crow flies [***Fig. 1***].

*Table 1. Sites excavated by the KPAM team in the Al-Subiyah region (Spring 2011)*

| Site code | Area | Type of site/structure | GPS coordinates |
|---|---|---|---|
| **SB 20** | Dubaij | Tumulus | N 29.610993° E 48.046158° |
| **SB 23** | Dubaij | Desert well site comprising several distinct features | N 29.610671° E 48.045118° |
| **PSD 4** | Dubaij | Small stone feature | N 29.611139° E 48.044389° |
| **SB 42.1** | Dubaij-East | Tumulus | N 29.604912° E 48.057254° |
| **SB 42.2** | Dubaij-East | Small stone feature | N 29.604766° E 48.057261° |
| **SB 43** | Dubaij-East | Elongated structure | N 29.604948° E 48.058221° |
| **RS 8** | Ras al-Subiyah | Sprawling site comprising several distinct features, i.e., stone mound, rubble, shell midden, potsherds | N 29.592722° E 48.065389° |
| **SB 63** | Bahra | Elongated structure | N 29.642187° E 47.928101° |
| **SB 67** | Bahra | Elongated structure | N 29.641584° E 47.926653° |
| **SB 68** | Bahra | Elongated structure | N 29.641421° E 47.926842° |
| **SB 69** | Bahra | Tumulus | N 29.640594° E 47.926973° |
| **SB 70** | Bahra | Tumulus | N 29.640627° E 47.926841° |
| **SB 71** | Bahra | Stone feature — unfinished tumulus (?) | N 29.640613° E 47.926901° |
| **SB 72** | Bahra | Tumulus | N 29.640263° E 47.926729° |
| **SB 73** | Bahra | Tumulus | N 29.640282° E 47.926808° |

# THE BAHRA CLUSTER — SECOND SEASON

The team continued excavation of a cluster of stone mounds in the northern part of the Bahra subregion. This season saw the exploration of four burial mounds (SB 69, SB 70, SB 72, SB 73), one flat (likely funerary) structure (SB 71), and three elongated structures (SB 63, SB 67, SB 68), with one exception located southwest of

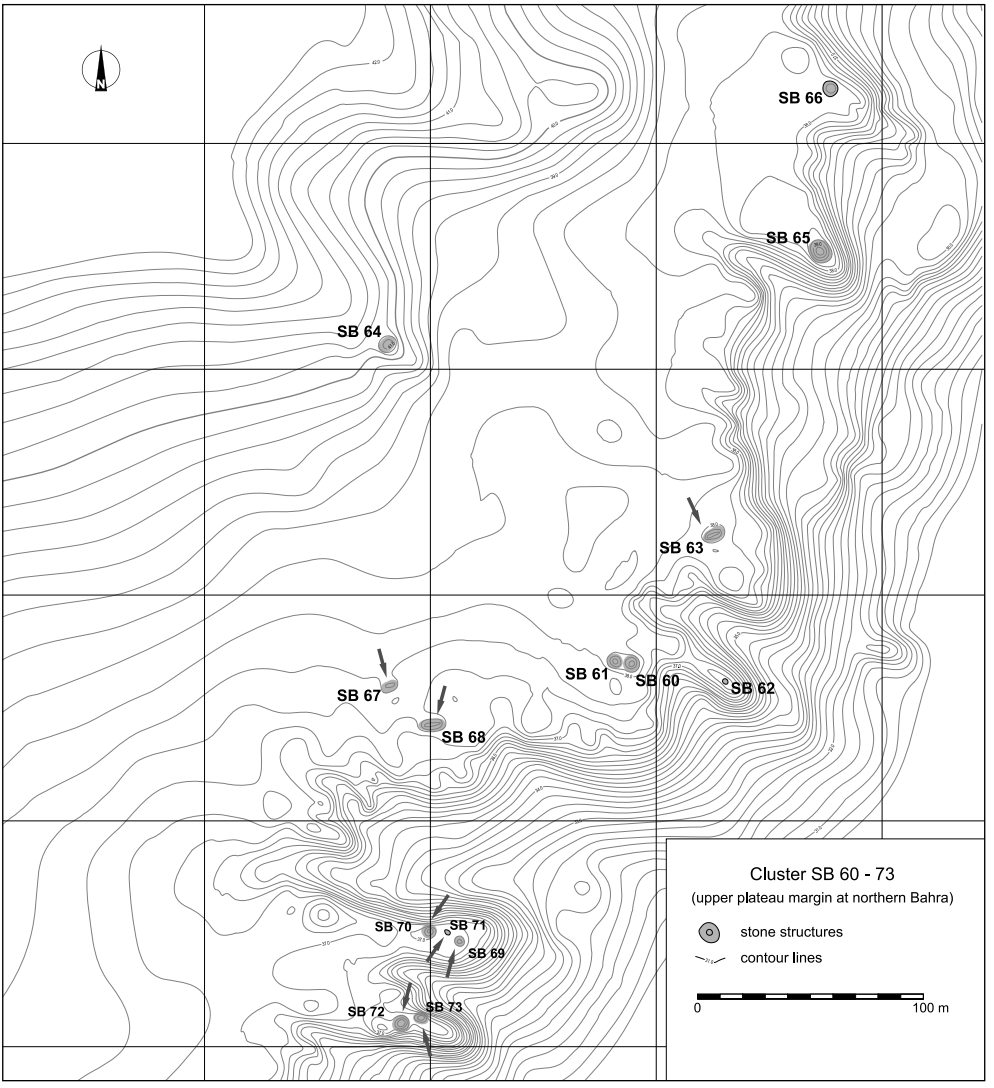


*Fig. 2. Structures excavated in northern Bahra; arrows indicate features explored in spring 2011 (Mapping and digitizing R. Łopaciuk; editing Ł. Rutkowski)*

the five structures previously excavated in this area (see Rutkowski 2013b). The tumuli excavated this season stood in pairs on two narrow ridges projecting from the main rim of the high Bahra plateau [*Fig. 2*]. As far as the location of the two main categories of structures, the burial mounds and the elongated structures, is concerned, it is evident that most of the burial mounds stood on the very edge of the terrace, while the elongated structures were situated on flat ground approximately 20–40 m away from the edge. Elongated structures SB 67 and SB 68 were about 20 m apart, while SB 63, the third structure of this type, stood alone about 150 m to the northwest. SB 64, the fourth elongated structure, located in isolation on a scant subsidiary ridge, was the only one left unexplored in this excavation area.

SB 69

Despite being in itself unusual, the mound SB 69 proved comparable to some extent with SB 60 excavated last year (Rutkowski 2013b: 496–502). It lacked a regular chamber, but was fitted with an internal stone frame ensconcing stone and rubble fill, which in this case was ring-shaped rather than square in plan, as had been the case with SB 60. A big horizontal slab (0.40 m by 0.50 m), exposed after removing some loose stones from the center of the mound, was another element making this mound resemble SB 60. At first glance it looked like a cover-stone over a presumed burial chamber, a false impression as it turned out [*Fig. 5*].

SB 69 was an oval mound, low and flat, for the most part constructed of medium-sized stones. Judging by the numerous loose

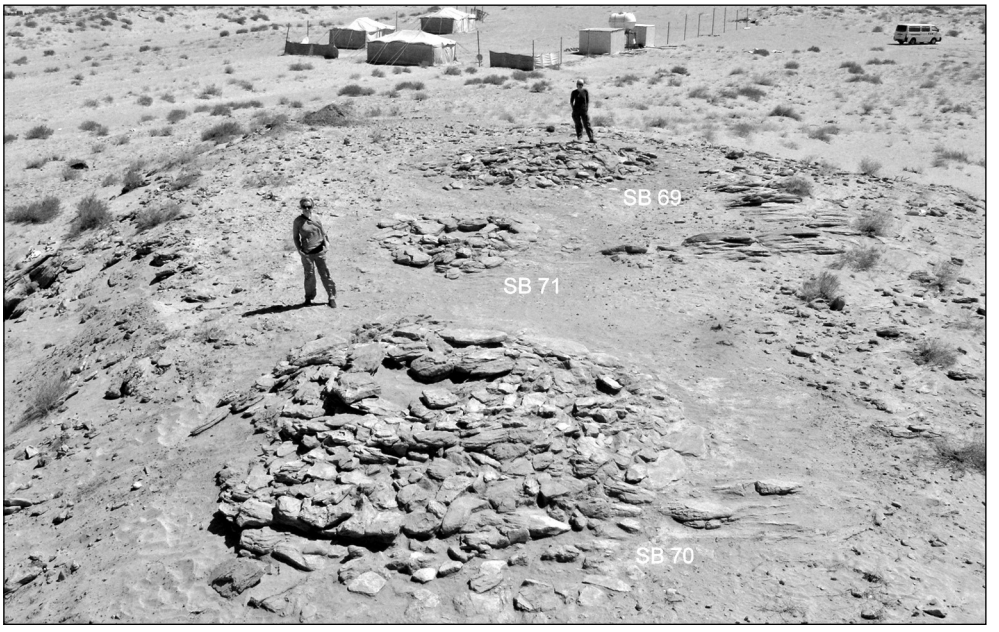


*Fig. 3. Cluster of structures SB 70, SB 71 and SB 69 on a narrow ridge in the Bahra area looking east (Photo Ł. Rutkowski)*

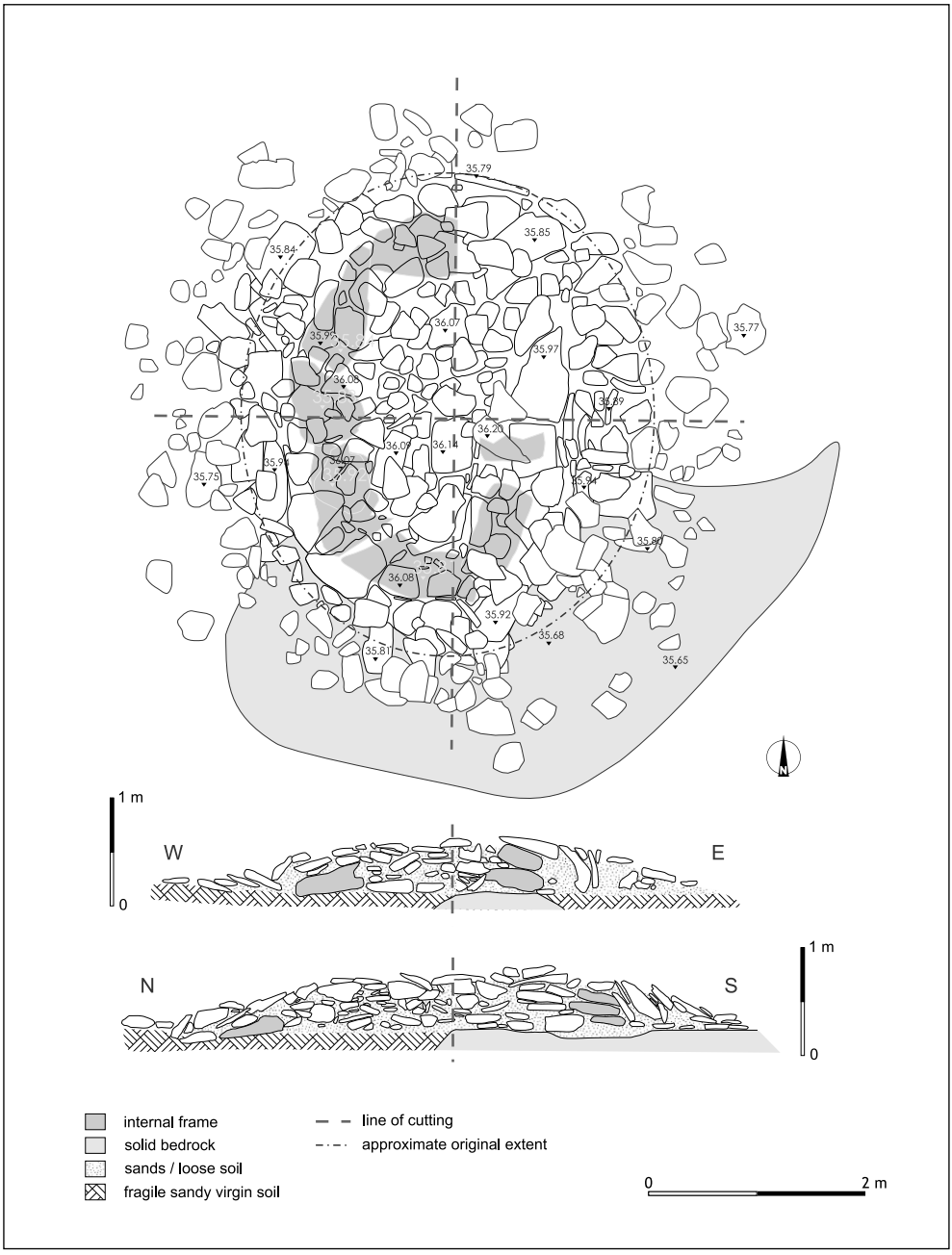


*Fig. 4. SB 69: general plan including outline of the inner kerb (inside dismantled quadrants); bottom, N–S and E–W cross-sections (Drawing and digitizing E. Mizak, editing Ł. Rutkowski)*


*Fig. 5. SB 69 after surface clearing, top view looking east; note flat slab in the slightly concave center of the structure (Photo E. Mizak)*


*Fig. 6. SB 69 during dismantling of opposite quadrants, looking east; in the foreground, large slabs of the inner kerb inside the northwestern quadrant (Photo E. Mizak)*

and crushed stones found scattered over and around its coat, the mound was heavily deteriorated, especially in the eastern part. It measured 4.50 m N–S by 3.80 m E–W and was approximately 0.50 m high (36.15 m a.s.l. at the highest point).

The mound was disassembled starting with two opposite quadrants, northwestern and southeastern, and then the third (southwestern) quadrant was removed. An oval ring made of outsized horizontal slabs (the biggest exceeding 1 m in length), stacked in two or three layers, was discerned inside the structure, just below the topmost layer of stones. This kerb was shifted a little westward from the assumed central point of the tumulus, elongated on the N–S axis, measuring 3.60 m by 2.30 m [*Fig. 4*]. It outlined an oblong inner space (2.50 m by 1 m), tightly packed with smaller slabs and stone rubble. Slabs arranged obliquely leaned against the outer face of the ring. Some of these slabs, especially those overlapping in domino fashion, may have slipped down from the upper part of the coating, but others should be regarded as a deliberate stone lining still in its original position. The tumulus stood partly on sandy, culturally sterile soil (the northern half) and partly on flat solid bedrock (the southern half). There is a single slab (0.50 m long and 0.20 m high) stuck vertically in the ground at the northern edge of the structure, clearly to prevent stones from slipping down from the coating [*Fig. 6*]. However, there is no trace of a regular outer kerb of upright slabs, as known from SB 61 and SB 66 (Rutkowski 2013b: 502–506).

The funerary purpose of SB 69 was confirmed indirectly by a few tiny bone fragments (which could not be identified with certainty as human), found between the stones in the upper middle part of the coating. Also three tusk shell segments — remains of simple adornments — were found in sieving [see *Fig. 20*].

Judging by the fact that the only skeletal remains with the scant accompanying finds were detected in the upper part of the structure, it is reasonable to suppose that the present top, with its slightly concave surface in the center, was in fact the bottom of the original internment. Thus SB 69 would be an example of a burial situated on a raised stone-packed "podium", presumably in a shallow cavity covered with stones. An alternative interpretation based on a comparable layout of neighbouring structure SB 71 (see below) would have the entire internal oval frame as a sort of burial chamber.

SB 70

Unlike SB 69, tumulus SB 70 proved to be of regular and homogeneous construction. Located on the very edge of the terrace, nearly 10 m west of SB 69, it was a mid-sized, oval stone mound (presently measuring 5.25 m N–S by 5.85 m E–W). Originally it was circular in plan, but the northern edge of the structure had tumbled down the slope [*Fig. 7*]. The mound was erected directly on the bedrock shelf and stood approximately 0.70 m high (36.38 m a.s.l. at the highest point, excluding the jumbled stones on top).

Three concentrically arranged rings could be distinguished on the surface: 1) inner ring encircling the chamber (i.e., chamber wall), 2) so-called "middle ring", slightly raised middle part of the stone coat, 3) outer ring or, more precisely, the well-structured outer edge of the tumulus [*Fig. 8*]. The inner ring (outer diameter 1.85 m) was clearly distinguishable, being

constructed of roughly dressed stone slabs (unlike the rest of the stones in the coat which were mostly unworked), mainly rectangular in shape (the largest measuring up to roughly 0.50 m by 0.70 m by 0.15 m). The "middle ring" (3.10–3.40 m in outer diameter) was composed of tightly fitted natural stones encircling the inner ring. The outer ring was formed of outsized, flattish stone blocks, placed horizontally directly on bedrock around the perimeter of the tumulus and covered with successive

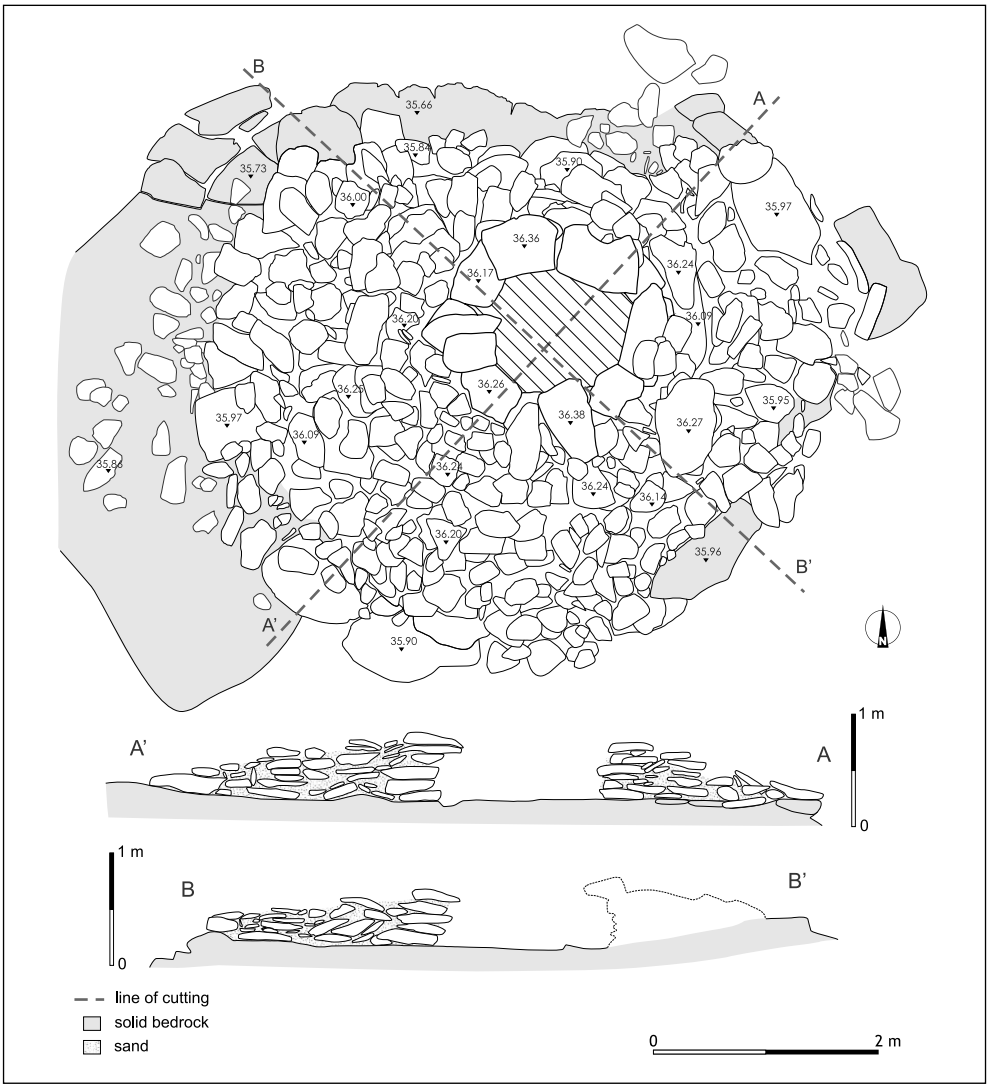


*Fig. 7. SB 70: plan and cross-sections (Drawing and digitizing E. Mizak)*

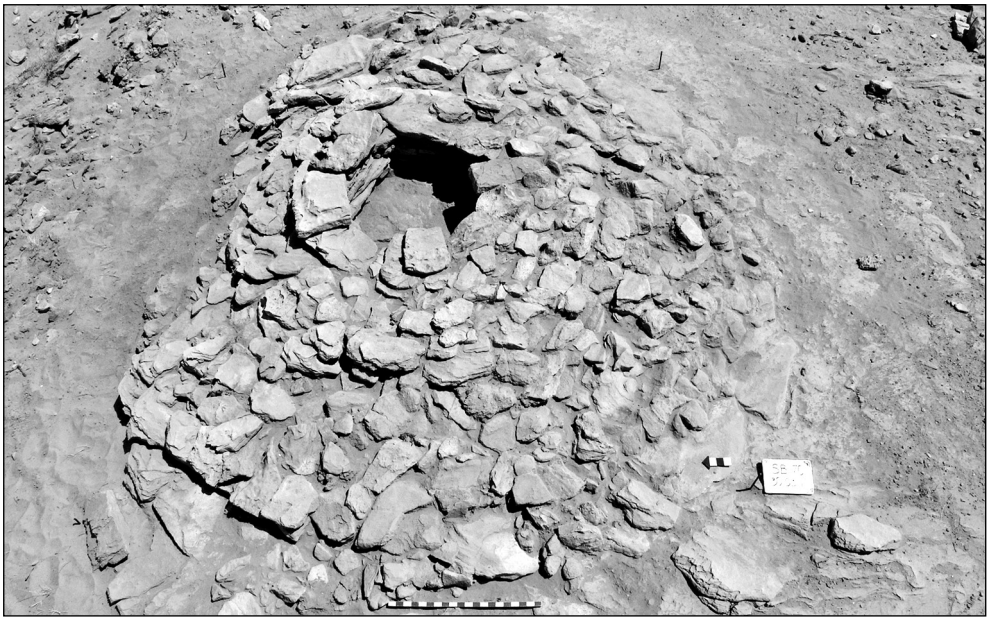

*Fig. 8. SB 70: general view with fully exposed grave chamber (Photo Ł. Rutkowski)*

*Fig. 9. SB 70: side view of the burial chamber after exploration, looking north (Photo E. Mizak)*

layers of smaller stones. In some cases it was hard to ascertain whether the blocks were actually laid this way or were natural projections of bedrock incorporated into the ground layout of the monument.

The round and regular shape of the chamber opening was visible in the center of the mound, despite the jumbled stones capping the southeastern part [see ***Fig. 3***], which indicated that the grave had been penetrated, possibly even in recent times. The burial chamber (1.10–1.15 m in diameter, as measured at the top) proved to be nearly straight-sided along most of its perimeter, but flaring downwards on the E–W axis (1.15 m N–S by 1.65 m E–W, as measured at the bottom). Its wall consisted of five to seven layers of fairly large and well-fitted slabs (the largest being 0.75 m by 0.40 m, 6 cm to 20 cm thick), set largely with their longer, narrow and straight sides facing the inside of the chamber [***Fig. 9***].

Flat bedrock constituted the bottom of the chamber [***Fig. 10***]. This is yet another variant of a chamber floor alongside variations like "hewn in the rock/ground" (i.a., SB 60, SMQ 49; Rutkowski 2013b; Makowski 2013), "raised podium" (e.g., SB 61, SB 66; Rutkowski 2013b) and "inlaid with paving slabs on the level of the ground" (SMQ 30; Reiche 2013: 532). This type has already appeared in the large tumulus SMQ 35A, excavated in 2008 in the Mughaira area (Szymczak [ed.] 2008). The latter also had a circular and straight-sided chamber, so these two instances likely fall into the same architectural type.

The loose sand from the chamber produced nine beads: two of stone (carnelian), five small, simple disk-shaped beads of shell, one cylinder-shaped bead of shell, and one of a plastic material, perhaps frit or bitumen(?), as well as seven seashells of the *Olividae* or *Strombidae* family, with their apexes cut off (most likely simple adornments or semi-finished products buried as grave goods) [see ***Fig. 20***]. No skeletal remains were found inside the tomb.

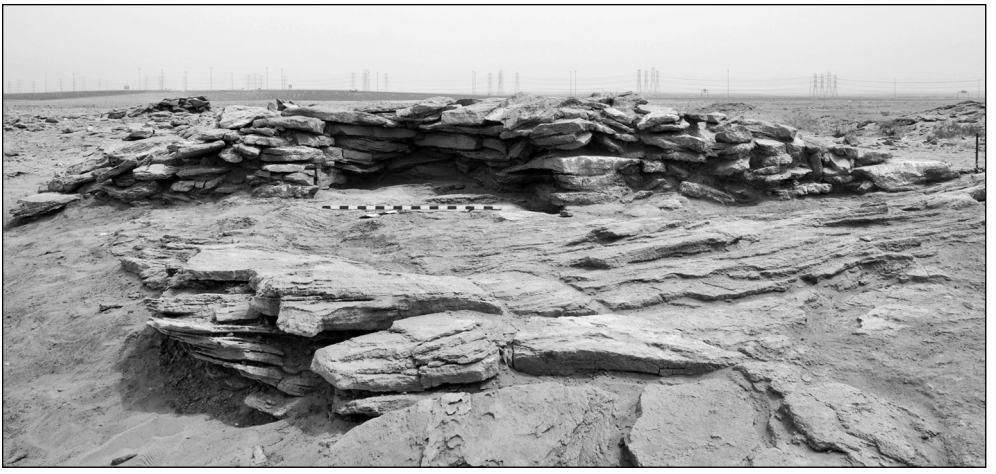

*Fig. 10. SB 70 after dismantling of the western half of the mound, looking east; note the use of a flat solid bedrock shelf as a foundation (Photo E. Mizak)*

SB 71

SB 71, situated nearly halfway between tumuli SB 69 and SB 70 (2.50 m to the west of the former) [see ***Fig. 2***], was a flat and very low structure that escaped notice during the first visit on the site in 2009. Its barely distinguishable form was observed only after heavy rainfall. The oval shape (3 m by 3.90 m, and approximately 0.20 m high reaching a maximum elevation of 35.93 m a.s.l.) was elongated E–W, the west end being narrower than the eastern one [***Fig. 11***].

The relic was composed of two concentric rows of fairly large and well-fitted stone slabs (average dimensions 0.80 m by 0.60 m) surrounding a shallow empty space. The slabs were arranged almost exclusively in a single course, lying directly on soft culturally sterile soil (or rather powdery rock in this place). Most slabs in the outer row were bigger than those in the inner one. Some smaller stones were packed between the rows, especially in the western part of the structure. This double ring varied in width between 1 m in the eastern part and 1.80 m in the western part. The empty space in the middle was oblong (0.80 m by 1.30 m, approximately 0.15 m deep) and aligned northwest–southeast. It looked as if it had been intended as a place of interment [***Fig. 12***]. It was filled with wind-blown sand that held no finds, just like the rest of the structure.

Thus, SB 71 appeared to be either an unfinished burial structure or a remnant of a tumulus that had naturally deteriorated or been pulled down to the foundation

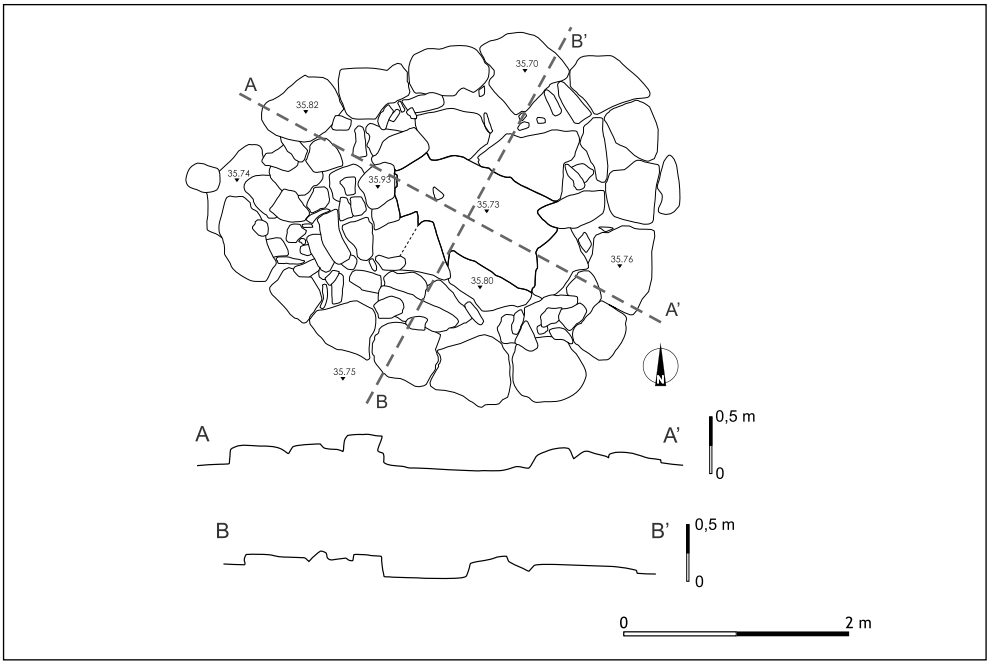


*Fig. 11. SB 71: plan and profiles*
*(Drawing and digitizing E. Mizak, editing Ł. Rutkowski)*

level. Moreover, taking into account the similarity between its outline and the inner frame of tumulus SB 69, it would seem that SB 71 represented a kind of tumulus base-plan, restricted to a single layer of stones and lacking the stone coat.

It cannot be ruled out that we are dealing here with a sort of additional burial structure sometimes encountered in the vicinity of tumuli. In size and shape, SB 71 resembled SMQ 3A, an oblong or elliptical, flat and low structure with a rectangular cist-like hollow in the central part, accompanying tumulus SMQ 3, both excavated by a Kuwaiti team in the area of Mughaira in 2004–2005 (Ad-Duweish, Al-Mutairi 2006: 20–21, 89). None of these interpretations can be ruled out for lack of conclusive evidence.

SB 72

The largest of the stone mounds excavated this season, SB 72, resembled in size and details of construction tumulus SB 65 excavated in 2010 (see Rutkowski 2013b: 507–511). Both tumuli had a sizeable flattened top surface around a relatively small chamber opening [*Fig. 13*]. Both had asymmetrical layouts, with some parts constructed differently than others, as seen in the cross-sections [*Fig. 14*].

SB 72 was erected on a subcircular plan (6.70 m by 7.20 m), directly on solid bedrock, with its southern side on the very edge of the terrace. It stood approximately 1 m above the surrounding ground (reaching 36.57 m a.s.l. at the highest point).

On removing a few loose stones from the top of the mound, the outline of the

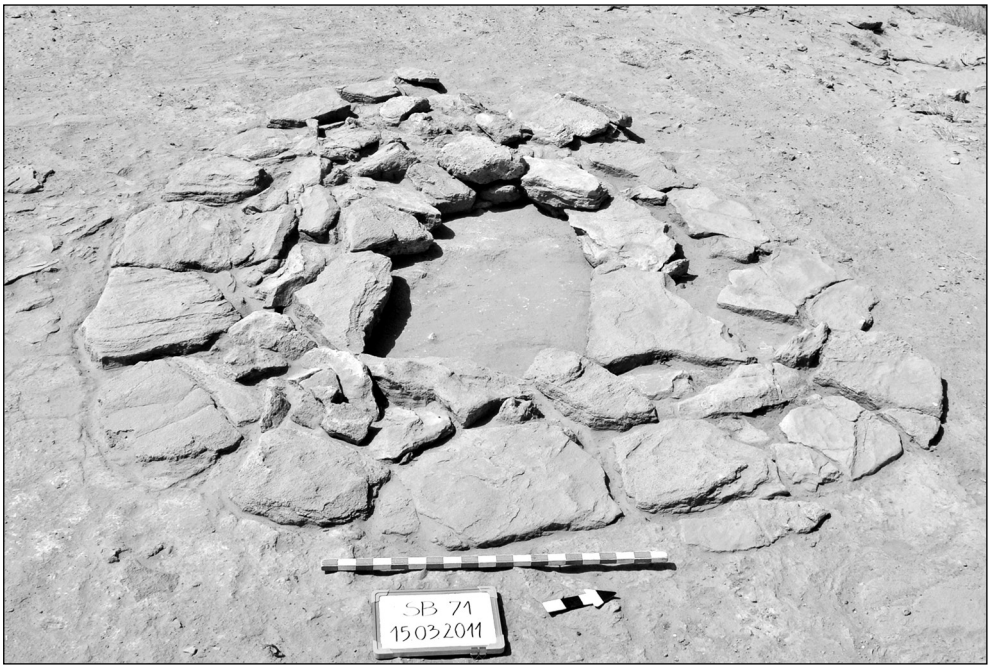


*Fig. 12. SB 71 after exploration, looking west (Photo E. Mizak)*

chamber was exposed. The chamber, situated in the slightly concave center, was bordered by eight thin and flat stone plates (4–8 cm thick). It was elliptical in shape (0.60 m by 1.05 m at the top), elongated east–west. It may have originally been covered by one or two large slabs of stone. The chamber widened toward the bottom, especially along the shorter axis, which reached nearly 1 m in width at ground level. A peculiarity of the chamber was that the bottom was divided into two parts. Its greater part was flat, solid bedrock (found approximately 0.60 m below the top of the chamber). In contrast, along the entire northern side of the chamber there was a narrow, elongated gap hewn in the rock [*Fig. 15*]. It may have been intended as an additional place for interment, i.e., a kind of niche cut into the ground. Alternately, it was dug by treasure hunters.

As far as the stone arrangement is concerned, SB 72 was not a uniform structure. The two halves of the tumulus were entirely different. The northern half proved to be much more regularly structured, compared to the chaotic nature of the southern half. Several distinct elements could be discerned inside the former, such as, starting from the inside: the chamber wall of horizontal slabs stacked in diminishing courses, the "chamber casing" made of obliquely placed slabs at the sides, stone rubble in the middle sector, row of large horizontal slabs around the perimeter of the mound ("outer


*Fig. 13. SB 72 and SB 73 after surface cleaning, the former also during exploration inside the chamber, looking east (Photo Ł. Rutkowski)*

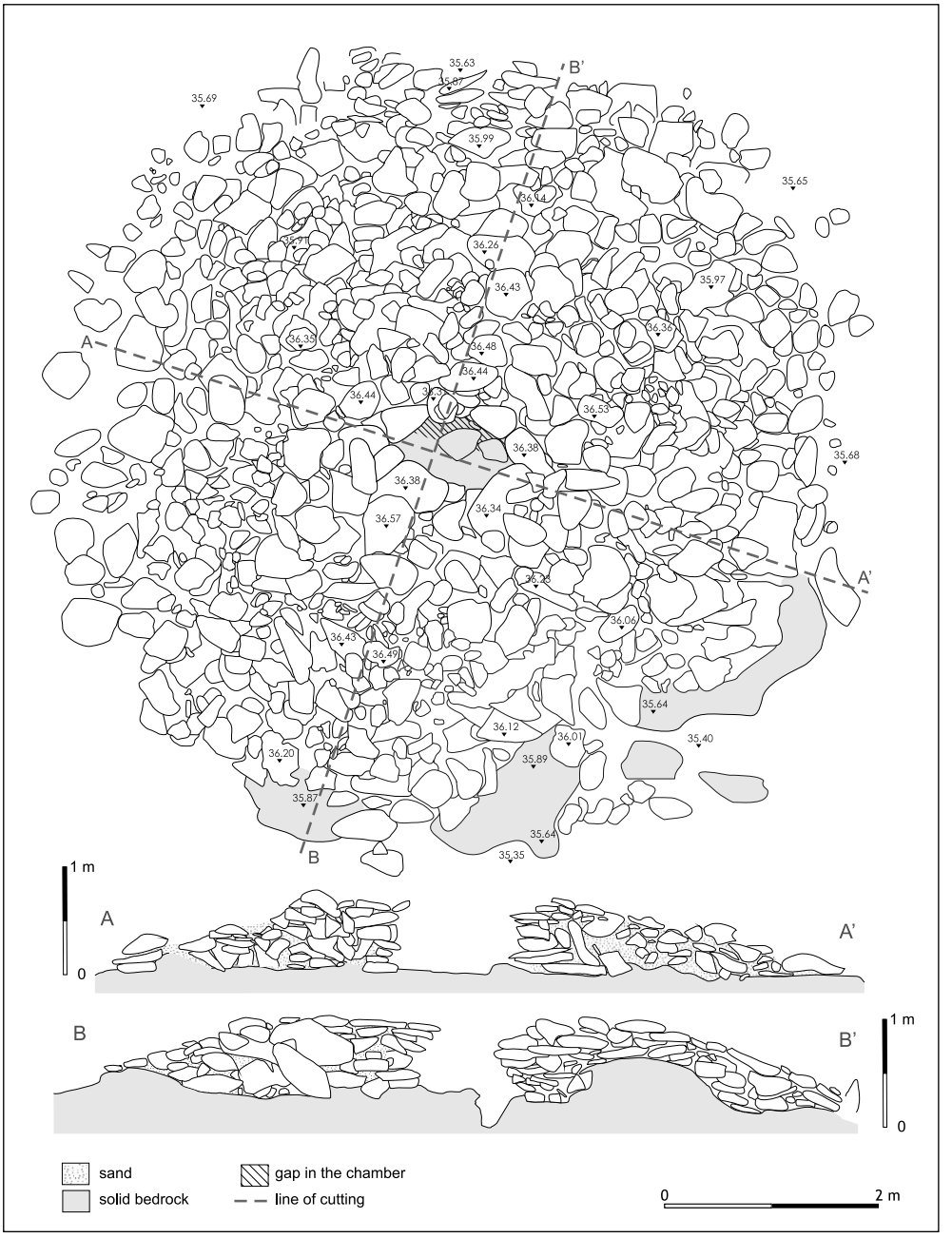


*Fig. 14. SB 72: plan and cross-sections*
*(Drawing and digitizing K. Hryniewicka, editing Ł. Rutkowski)*

*Fig. 15. SB 72: top view of the burial chamber after exploration (Photo I. Nazaruk)*

*Fig. 16. SB 72 with diagonally opposite quadrants dismantled; note jutting bedrock in the northwestern quadrant (Photo E. Mizak)*

ring"), in places retained by slabs stuck upright into the ground. In contrast, the southern half looks as if it had been made in a hurry, carelessly, with many outsized blocks of stone thrown loosely into the body of the structure, mixed with stone rubble and sand/silt. These differences in the manner of construction were partly due to the run of the bedrock surface rising fairly high here, especially under the well-built, northwestern quadrant of the mound, where it reached only 0.20–0.30 m below the mound surface [*Fig. 16*]. Thus, it is certain that ancient builders took advantage of a natural projection of bedrock and matched their stonework to the contour of the ground in order to save the time and effort required to build a tumulus.

The topmost 30 cm inside the chamber consisted of loose sand, while the fill below was more compact. Only a few tiny fragments of bone (unidentifiable) were found in the fill. SB 72 produced 25 adornments, including 21 tusk-shell beads (ranging in length from 5 mm to 21 mm), two disk-shaped pendants with centrally drilled holes (23 mm and 26 mm in diameter), one miniature bobbin-shaped carnelian bead (2 mm by 4 mm) and one cylinder-shaped bead (4 mm by 12 mm) made of a grey plastic material of the same kind as the one found in SB 70 [see *Fig. 20*]. Similarly as in the case of tumulus SMQ 30, excavated in 2007–2008 (see Reiche 2013), 11 of these ornaments turned up not in the burial chamber itself, but between the stones of the coating. However, as most were discovered in the upper part of the coating, close to the center of the mound, it cannot be ruled out that they were dropped when the grave was plundered.

SB 73

SB 73 was an oval stone mound (4.20 m N–S by 5.90 m E–W), approximately 0.65 m high (reaching 36.27 m a.s.l. at the highest point). It was situated just 2.50 m to the east of SB 72, on the very edge of the ridge, which resulted in the northern part of the mantle tumbling down into the gully [*Fig. 17*; see also *Fig. 13*]. Upon discovery, the top of the tomb was capped by jumbled stones, which could indicate secondary penetration and/or the raising of a small cairn on top of it in recent times.

Once these stones were removed, a rough oval opening made into the burial chamber was exposed. The chamber, elongated E–W (0.95 m by 0.50 m at the top), widened toward the bottom, especially along the N–S axis (1 m by 0.77 m at the bottom) where it became more rectangular in plan. The bottom was reached slightly below the level of the surrounding ground (0.70–0.90 m down from the mouth of the chamber). It was composed of uneven, fractured bedrock resembling paving blocks [*Fig. 17*]. There was a hollow in the center, either intentionally hewn or a negative of a removed stone block (evidence of plunder?). In general, the bottom was prepared similarly as in the case of SB 65. The chamber was filled with sandy silt (first 35 cm more loose and sterile, with a level of loose stones observed at 0.60 m below the surface).

In the course of excavation, the southeastern quadrant of the tumulus was dismantled down to the lowermost layer of stones. The mound proved to be divided into three main structural elements: chamber wall ("inner ring") made of horizontal slabs laid one on top of another, stone rubble fill between the chamber wall and the last component, a ring of fairly large

and well fitted stones delimiting the outer edge of the tumulus. The latter was the most conspicuous element of SB 73 (best visible on the southeastern side of the mound). This outer border of the monument was composed of square slabs and rectangular blocks (the largest measured 0.60 m by 0.55 m, 1 m by 0.50 m), set horizontally and lengthwise along the perimeter of the mound and stacked in two or three courses. The bottommost course rested directly on bedrock (or, as in the case of SB 70, some

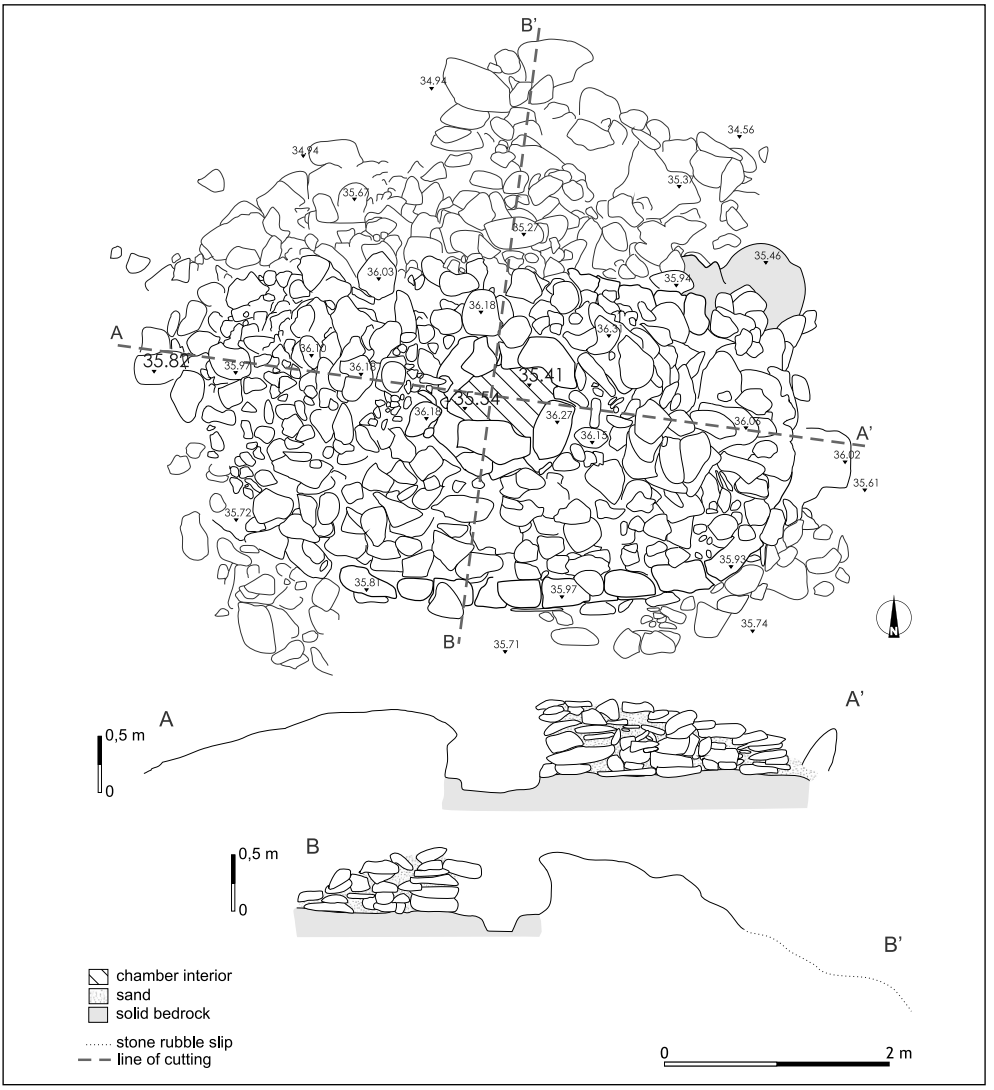


*Fig. 17. SB 73: plan and cross-sections (Drawing and digitizing K. Hryniewicka)*


*Fig. 18. SB 73: top view of the burial chamber after exploration (Photo K. Hryniewicka)*


*Fig. 19. SB 73: general view with the southeastern quadrant dismantled, looking northwest; note the "outer edge" in the foreground and the angled slab on the right (Photo K. Hryniewicka)*

of the blocks could be a natural projection of the bedrock) [*Fig. 18*]. SB 73 had one peculiar feature: a large slab angled out to the east from the outer perimeter of the mound (being a kind of directional marker or single retaining stone dislodged from its original position?). The slab was 0.80 m long and was jutting 0.40 m up from the ground [*Fig. 19*].

SB 73 produced only three personal adornments, sieved from the burial chamber fill: two almost identical drum-shaped beads of carnelian (11–12 mm in diameter and 8 mm in height) and a small, broken shell of the *Strombidae* family (7 mm by 11 mm) [*Fig. 20*]. The site also yielded dozens of tiny, badly-eroded bone fragments, which could not be identified.

Despite the fact that the neighboring burial mounds differ in details of construction technique, such as the shape of the chamber, its depth and alignment of stones in the coating, their proximity and the similar nature of the grave goods (shells/shell beads and carnelian items) could indicate that the structures were roughly contemporary. Precise dating remains an open issue for lack of datable criteria.


*Fig. 20. Simple adornments and finds from the stone mounds excavated in 2011: SB 42.1 – three rings of Strombus shells and recut pottery disk; SB 69 – three tusk shell fragments; SB 70 – two carnelian beads, five disk-shaped shell beads, one cylinder-shaped shell bead, one bead of frit or bitumen, seven Olividae or Strombidae seashells with cut-off apexes; SB 72 – 21 tusk-shell beads, two disk-shaped pendants, one miniature bobbin-shaped carnelian bead, one frit or bitumen bead; SB 73 – two drum-shaped carnelian beads and one Strombidae shell (Photos A. Niemirka)*

# ELONGATED STONE STRUCTURES

Long stone structures are the second most conspicuous archaeological feature within the study area (Rutkowski 2013a: 487–489). The team excavated four structures of this type, three in the area of Bahra (SB 63, SB 67, SB 68) and the fourth (SB 43) in "Dubaij East" (see below), adding to the two other structures of the same type,

*Fig. 21. SB 63: view after clearing, looking south; note breach in the eastern part of the platform (Photo Ł. Rutkowski)*


*Fig. 22. SB 43: general view after dismantling diagonally opposite quadrants, looking southwest; SB 42.1 in the background (Photo M. Makowski)*

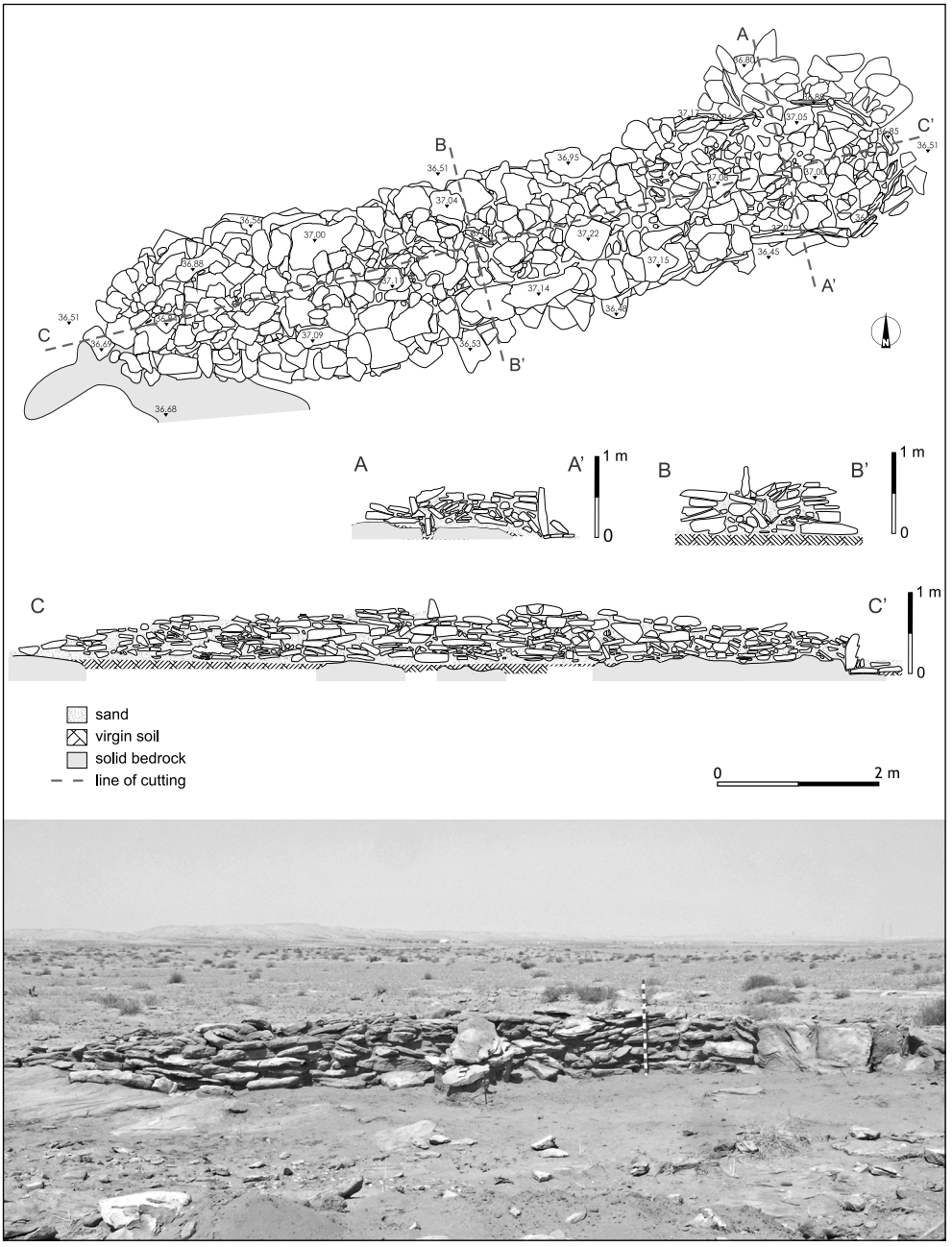


*Fig. 23. SB 68: plan and cross-sections; bottom, side view of the platform after excavation, looking north (Drawing and digitizing M. Marciniak; photo Ł. Rutkowski)*

SMQ 36 and SMQ 37, already excavated in the Mughaira region (Szymczak [ed.] 2008). Previous excavations have produced extensive data on the manner of their construction, but due to a complete lack of finds, their function remains obscure. However, their location in the vicinity of burial mounds may suggests an association with the sepulchral structures, making their ritual character a distinct possibility.

The structures were relatively narrow and elongated, often delimited by vertical slabs and packed with stones on the inside, giving the impression of long, flat, solid platforms. Formerly, based on surface inspection, they had been believed to be quite low, rising from the ground not more than 0.20–0.30 m. Those excavated this season proved to be as high as the burial mounds. It turned out that sand


*Fig. 24. SB 67: plan and cross-sections (Drawing and digitizing M. Marciniak)*

dunes accumulated along their sides made them seem much lower than they really were. The highest platform, SB 68, was 0.70 m high with a length of 10.30 m; SB 43 measured 0.60 m and 10.50 m, respectively; the sizes of SB 63 were 0.60 m and 9.70 m; and SB 67, the shortest one, measured 0.50 m in height with a length of 6.30 m. The width did not exceed 2 m, averaging around 1.70 m.

All the structures of this type excavated this season were built of several layers of large, tightly fitted horizontal slabs (up to seven layers in the highest part of SB 68) [*Fig. 23*, top]. The height of the structures and the number of stone layers gradually decreased towards their shorter ends. The edges of the structures were lined with large slabs (up to 0.80 m high and 1.15 m long), set up on end. They were partly dug into the ground, some kept in place by slabs leaning against them from the outside. A casing of this kind occurred along almost the entire perimeter of SB 63 and SB 43 [*Figs 21, 22*], while SB 67 and SB 68 were bordered only around one of the shorter ends (up to one-fifth of their length) [*Figs 23, 24*]. Another peculiar feature of the long structures is that their shorter sides were rounded (usually one end was wider with rounded corners and the other was slightly tapering and bow-shaped). SB 63 and SB 43 bore traces of destruction (in the form of irregular voids left by stones removed from the inside of the structures), but no traces of constructional shafts or chambers/cists were detected inside and below the platforms.

## STONE STRUCTURES ON THE DUBAIJ PLATEAU AND DUBAIJ EAST

Upon request from the Department of Antiquities and Museums, the team revised its plans to include a survey of the easternmost part of Al-Subiyah, covering a strip of land parallel to the coastal *sabkha* plain extending from the currently investigated area of Dubaij to the Al-Subiyah power plant. The construction of a new highway intersection leading to a planned bridge linking the southern and northern parts of Kuwait Bay (Sheikh Jaber Bridge) had endangered sites, requiring urgent intervention. An archaeological prospection of the nearest vicinity of the well-site at Dubaij was carried out, including the area above the cliff stretching over the site (see below).

Two small structures were excavated on the edge of the cliff [*Fig. 25*]: SB 20, a small stone mound of subcircular shape, known from the Kuwaiti–British survey (Carter 2010: 232), and PSD 4, a very small circular stone feature, first registered by our team this year. SB 20 (3.35–3.75 m in diameter, 0.30 m in height), proved to be constructed of two regular rings of stones. The inner one encircled a round grave chamber (approx. 0.85 m in diameter) [*Fig. 26*]. PSD 4 consisted of a single layer of stones lying directly on solid bedrock. The stones were arranged in a regular ring (1.10 m in diameter, 0.07 m in height) [*Fig. 27*]. The function of the structure is unknown (bottom part of a deteriorated cairn?). Neither structure yielded any finds.

Three stone structures were excavated in Dubaij East, an area where the Dubaij plateau gradually merges into a sandy coastal plain, about 1300–1400 m to the east of the well site SB 43 [*Fig. 28*]. SB 42.1,

a small stone mound with subcircular plan (3.75 m by 4.30 m, 0.40 m in height), consisted of two concentric rings of stones (inner ring 1.50 m in diameter). However, as in the case of SB 69, there were no clear remains of a grave chamber [*Fig. 29*]. Moreover, exploration here did not yield any human bones. The center of the mound was filled with tightly packed, medium-sized stones, some of which were partly overlapped by slabs of the inner ring. Three rings made of *Strombus* shell [see *Fig. 20*] and several dozens of broken shells of the same family were found in the sand cover and between the stones inside the structure. It cannot be excluded that these shell rings were produced in the immediate vicinity of the tumulus and the broken shells were the remains of a small provisional workshop (a large concentration of shells was traced inside an adjacent structure, SB 42.2, which proved to be a pile of loose stones).

SB 42.1 also produced a recut, pierced pottery disc — the first pottery find ever discovered by the KPAM team inside a tumulus-like structure [see *Fig. 20*]. The sherd is of the common ware, light yellowish-beige slipped. At first sight, it looks similar to some of the sherds picked up during the survey and dated to the Parthian–early Islamic period. In view of this, SB 42.1 has proved difficult to compare with other mounds. SB 43, an elongated structure (see the section on long structures above) was situated approximately 90 m east of SB 42.1–2 [see *Fig. 24*].

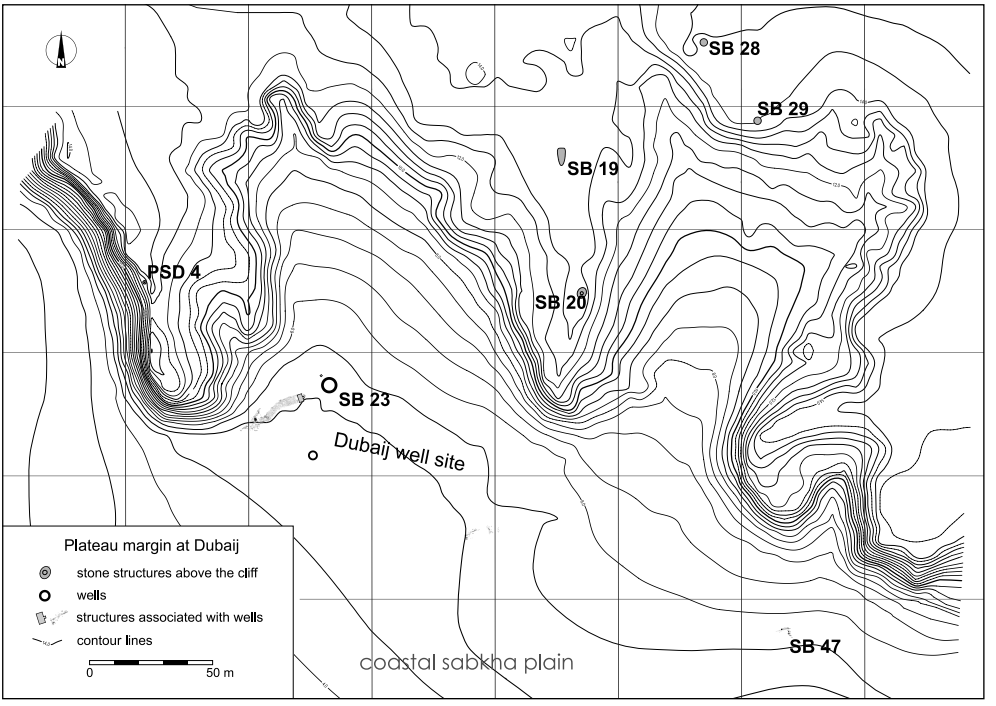


*Fig. 25. Structures excavated or surveyed on the edge of the plateau over the Dubaij well site (Mapping and digitizing P. Zakrzewski; editing Ł. Rutkowski)*


*Fig. 26. SB 20: bird's eye view with the burial chamber after exploration, looking east (Photo A. Niemirka)*


*Fig. 27. PSD 4 after cleaning, looking southwest at the coastal sabkha plain (Photo A. Niemirka)*

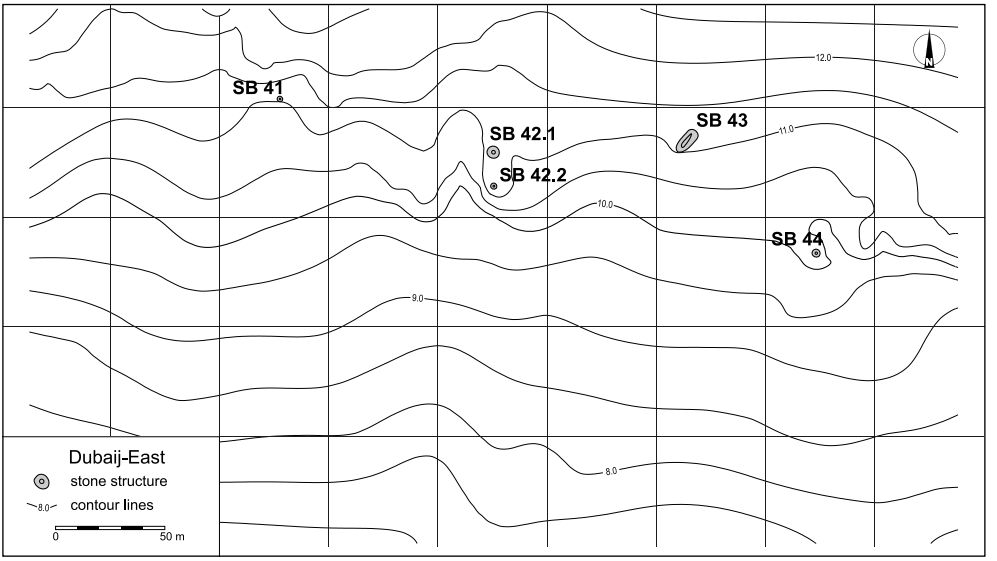


*Fig. 28. Structures excavated (or surveyed) at the Dubaij East site (Mapping and digitizing P. Zakrzewski)*

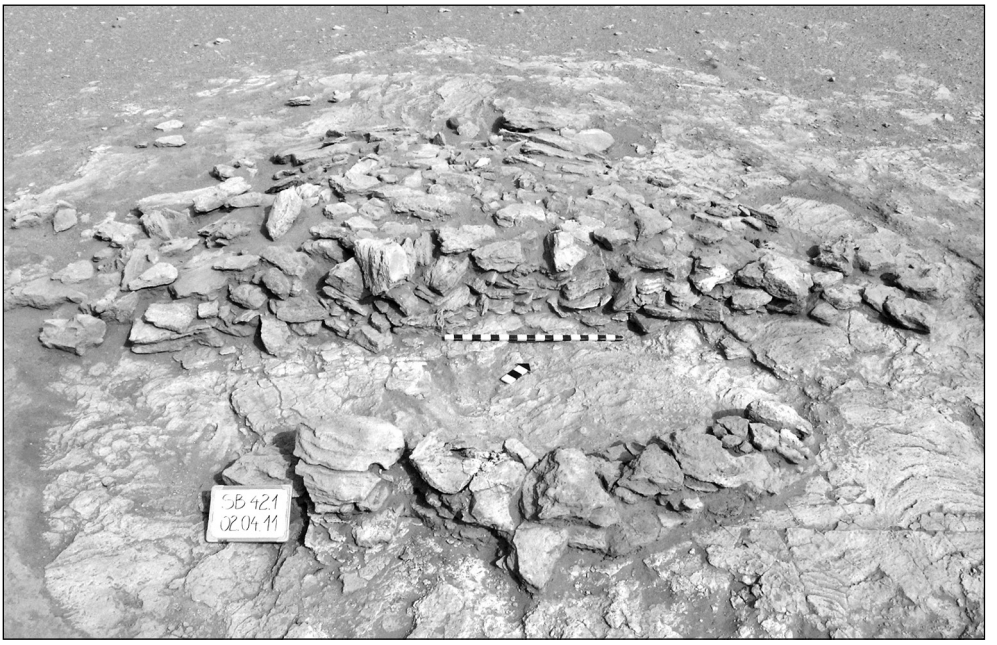


*Fig. 29. SB 41.1: view after dismantling of the southeastern half; note dense fill of stones with no signs of a burial chamber in the mound interior (Photo M. Makowski)*

# ARCHAEOLOGICAL SURVEY

An extensive survey was carried out in the easternmost part of Al-Subiyah, covering a strip of land approximately 10 km long and only about 1.30 km wide on average, extending southeast from the Dubaij well site to the Al-Subiyah power plant [*Fig. 30*]. The total inspected area covered roughly 12 square kilometers. The study area was limited on the north by a road construction work zone, the power plant and its adjacent industrial area on the east and a *sabkha* coastal plain on the south. The western limit of the survey was set arbitrarily on a plateau right above the SB 23 well site. The western part of the surveyed area comprises a flat plateau, situated in the Dubaij subregion, which becomes progressively lower towards the southeast and merges into the coastal sandy plain in the lowland of the Ras al-Subiyah subregion. These differences in the local landscape proved to be reflected in the distribution and character of the spotted sites. In general, fewer stone structures were encountered the further southeast the survey team went. The entire eastern half of the prospected zone proved to be void of archaeological remains, most probably due to the low elevation of land, lack of rock outcrops, and postindustrial damage associated with the construction of the power plant.

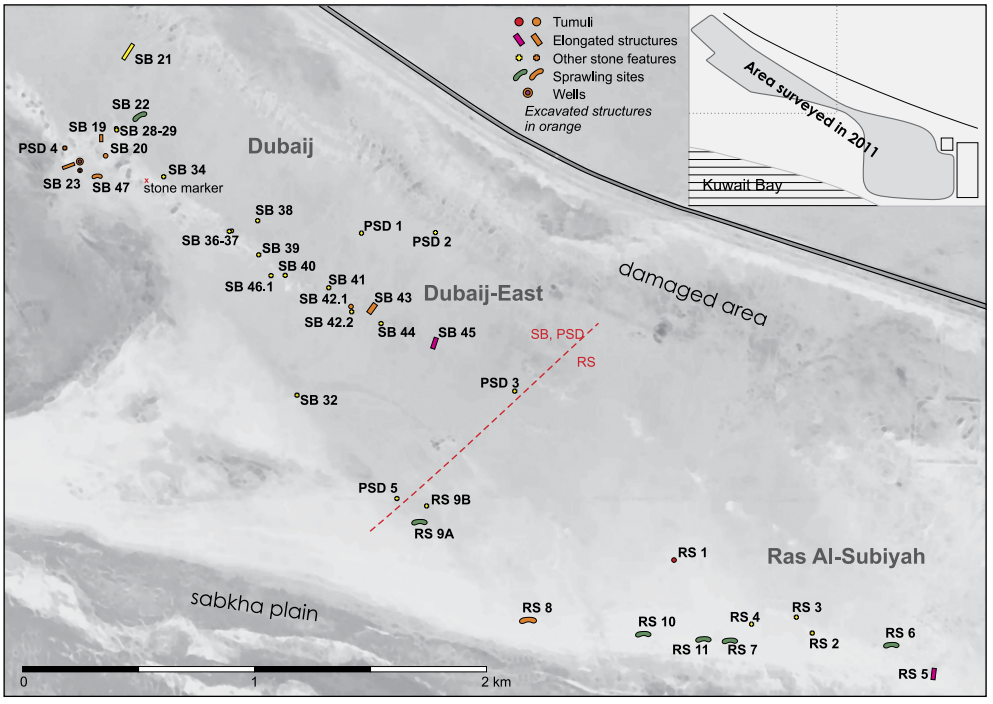


*Fig. 30. General plan of the 2011 survey area showing the location of all recorded structures (Mapping based on Google Earth and GPS coordinates; drawing M. Makowski, Ł. Rutkowski)*

The survey began from the plateau above the Dubaij well site and moved toward the east. The first inspected sector, extending up to 2 km between sites SB 21 and SB 45, covered an area surveyed by the Kuwaiti–British team in 2004 (Carter 2010). Features recognized by the British team were located and in several cases new information was added, photos and sketches made in order to record the current state of preservation of individual relics. Five new sites were recorded in the Dubaij region (PSD 1–PSD 5, the code "PSD" standing for Prospection Subiyah Dubaij).

Within the second sector of the surveyed area, extending 2.60 km east and southeast of SB 45 (site at the eastern limits of the British survey), 12 new sites were recorded (RS 1–RS 12, acronym for Ras (al-)Subiyah). No sites were recognized in the easternmost sector, extending roughly 6 km east of RS 5.

The total number of identified sites was brought up to 35, including 18 resurveyed and 17 newly recognized sites. A modern stone marker (cairn) was spotted on the edge of the Dubaij plateau. A large site (RS 8), consisting of a low mound with a long spread of stones and shell middens, was spotted nearly 3 km to the southeast of SB 23. The site, which yielded a potsherd during the survey, was thus considered promising, but three test trenches dug at the end of the season did not confirm the presence of any ancient settlement of substance there. Only one trench revealed a manmade stone feature.

Few stone mounds were recorded this year, in contrast to the previous seasons. Sites representing the "other" category were more frequent among the prospected sites than in the previously surveyed and investigated regions (Bahra/Radha and Mughaira). Moreover, a number of the recorded sites turned out to represent hitherto unrecognized types. Apart from features which could not be positively identified as manmade or those which were difficult to identify, there were remnants

*Table 2. Provisional classification of stone features and their frequency (only sites surveyed by the team in the Dubaij and Ras al-Subiyah regions in 2011)*

| Category | Comments | Number of features | Sites in the category (excavated sites in bold) |
|---|---|---|---|
| Stone mounds | Tumuli or likely tumuli graves | 3 | **SB 20**, **SB 42.1**, RS 1 |
| Linear structures | Mainly elongated stone structures | 5 | SB 21, SB 38?, **SB 43**, SB 45, RS 5 |
| Small isolated features | Low, short oblong or circular alignments of stone | 10 | SB 32, SB 34, SB 46.1, PSD 1, PSD 2, PSD 3, **PSD 4**, RS 2, RS 3, RS 4 |
| Sprawling sites of diverse nature | Potsherd scatters and findspots (early Islamic), shell middens, stone spreads or clusters of small stone features; mainly former shoreline sites | 9 | SB 22, **SB 47**, RS 6, RS 7, **RS 8**, RS 9A, RS 9B, RS 10, RS 11 |
| Uncertain features | Doubtfully identified features or badly deteriorated structures | 8 | SB 28-29, SB 36-37, SB 39, SB 40, SB 41, **SB 42.2**, SB 44, PSD 5 |
| | Total | 35 | |

of temporary camps (e.g., SB 22), several small, flat linear stone alignments assumed to be "Islamic graves" (e.g., SB 32), and several potsherd scatters and shell middens. Five findspots of potsherds are of special interest (RS 6, RS 7, RS 8, RS 10, RS 11), representing the "sprawling sites" category. They are located in flat terrain on the coastal plain, close to the supposed former shoreline. The presence of shell scatters or shell middens and the absence of architecture are a common feature of these sites. Three sites: RS 7, RS 10 and RS 11, can be securely dated on the basis of pottery to pre-Islamic or early Islamic times.[3] A site, most likely of recent date, dubbed as SB 47 was excavated by our team in 2010 and 2011 as part of the SB 23 well complex.

From the point of view of tumuli graves research, it can be concluded that in the easternmost section of northern Kuwait coast we are dealing with a different archaeological landscape compared to the area extending to the west, where the tumuli burial field is concentrated. Thus, one can assume that the eastern limits of the tumulus cemetery can be traced in the Mughaira area, and that burial mounds occur only sporadically east of tumulus SMQ 49.

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