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## Archaeological Survey in the Eastern As-Sabbiya (North Coast of Kuwait Bay), Season 2009-2010

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# ARCHAEOLOGICAL SURVEY IN THE EASTERN AS-SABBIYA (NORTH COAST OF KUWAIT BAY), SEASONS 2009–2010

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**Abstract:** An extensive survey of archaeological remains in the vicinity of the excavated zone in the eastern As-Sabbiya region (northern Kuwait) started in 2009 and was continued in 2010. The surveyed area covered approximately 18 square kilometers and identified nearly 140 stone features, mostly tumulus graves. The mounds belonged to an ancient cemetery stretching at least 10 km along the north coast of Kuwait Bay.

**Keywords:** Gulf archaeology, burial mound cemetery, Kuwait, tumuli, stone non-sepulchral structures

Archaeological investigations during the first three seasons of fieldwork (2007–2009) by a Kuwaiti–Polish Archaeological Mission (KPAM) from the PCMA UW, headed by Prof. Piotr Bieliński, in the region of the eastern As-Sabbiya (northern Kuwait) were expanded from the exploration of a cluster of stone mounds in the Mugheira sub-region (2007) to the excavation of a desert well site SM 12 (2008) and a large Ubaid-related settlement Bahra 1 (formerly code-named SBH 38)

in 2008 and 2009. The work was carried out concurrently with an intensive survey of the region in 2009. In 2010, two field teams were established; one excavated Bahra 1 in the autumn (Bieliński 2011: 32–37; see also *List of Projects* in this volume and Smogorzewska 2013 and Białowarczuk 2013, both in this volume), the other worked in the spring, directed in the field by the present author, surveying and excavating tumuli graves and other stone structures in the As-Sabbiya region.<sup>1</sup>

<sup>1</sup> In 2009, the investigations of the KPAM were directed by Prof. Piotr Bieliński. The survey was one of several independent tasks during that season. In the spring of 2010, most of the Polish team was focused on excavations (for details, see Rutkowski 2013: 493ff., in this volume) and the survey was continued briefly at the end of the season.

## RESEARCH GOALS

The area (also known as Al-Sabiyah or Al-Subiyah), is a terraced desert plateau and coastal *sabkha* plain stretching for about 60 km along the shores of Kuwait Bay, from Al-Jahra city in the west to Khor As-Sabiyah on the east (this being a tidal channel that separates the mainland from Bubiyan Island) and the Jal az-Zor escarpment on the north. The investigated tumuli constituted a small percentage of a vast ancient cemetery which is of hitherto uncertain chronological and cultural origin. An archaeological survey of the micro-region was a natural follow up to the initial excavations, leading

to a comprehensive mapping of stone structures for the purposes of quantitative analyses and relationship studies, establishing a distribution pattern and, if possible, cemetery boundaries.

The survey, which started in the fall of 2009 and was continued in the spring of the following year, focused first on the neighborhood of the Ubaid-related site of Bahra 1. All archaeological features were localized and recorded in order to create an archaeological map of the microregion. Site cluster SB 60–SB 73 was selected for excavation in the spring of 2010.

### Team

*Dates of work:* Season 2009: 26 October–4 December 2009 (including survey 2–4, 8–18 and 29–30 November); season 2010: 15 March–22 April 2010

*Directors:* Prof. Piotr Bieliński, archaeologist (Institute of Archaeology, University of Warsaw), Sultan Ad-Duweish (Department of Antiquities and Museums of the State of Kuwait)

*Field director (survey project 2009, tumuli research project 2010):* Dr. Łukasz Rutkowski, archaeologist (PCMA)

*Archaeologists:* Ewelina Mizak (independent) 2010, Dr. Franciszek Pawlicki (PCMA) both seasons, Agnieszka Pieńkowska (PCMA) 2009, Łukasz Wojnarowicz (independent) both seasons (survey team in 2010: Dr. Łukasz Rutkowski, Aleksander Leydo, Maciej Okulus, Piotr Zakrzewski)

*Archaeologists and archaeological team support:* Hamed Al-Mutairi, Ahmad Al-Mutairi, Mustafa Ansari, Khaled Salem and Talal Abdullah Shameri (Department of Antiquities and Museums of the State of Kuwait)

*Topographer:* Roman Łopaciuk (GEOMatic Company) 2009; Piotr Zakrzewski (Institute of Archaeology, University of Warsaw) 2010

*Archaeologist, archaeozoologist:* Katarzyna Hryniewicka (independent) 2010

*Student-trainees (2010):* Aleksander Leydo, Maciej Okulus, Izabela Sztuka (all Institute of Archaeology, University of Warsaw)

### Acknowledgments

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The combined results of two seasons of surveying are presented in this report, while

the excavation of the site cluster is treated separately (Rutkowski 2013: 493ff., below).

## SURVEY AREA AND DISTRIBUTION OF STONE STRUCTURES

The survey area extended south and north of the modern As-Sabbiya road running along the north coast of Kuwait. It was limited by the Jal az-Zor escarpment in the north and on the south by a power line running along the southern edge of a plateau, bordering on the coastal *sabkha* plain. Two side roads were chosen as arbitrary limits for the survey area, giving a total of approximately 18 square kilometers (more or less 6.5 km east–west by about 3 km north–south).

The study area encompassed a number of traditional sub-regions: Bahra (western and most of the southern part of the inspected area), Nahdin (mid-northern sector), Radha (stretch along the eastern border) and Muheita (southeastern corner), but the exact divisions are blurred. For ease of reference (and because of some coding system incoherencies<sup>2</sup>), the surveyed region was divided arbitrarily into two main units: “Bahra” on the north side of the As-Sabbiya

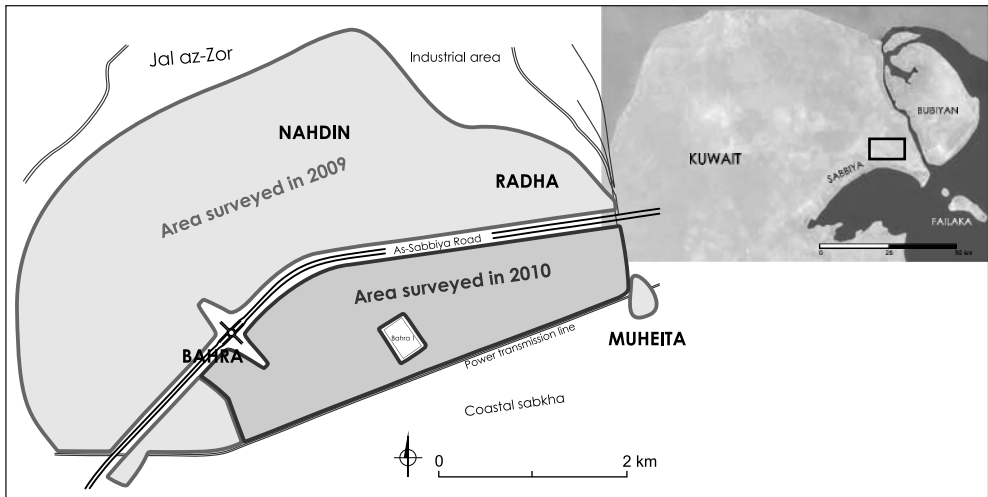


Fig. 1. Sketch plan of the location and extent of the 2009–2010 survey (Drawing E. Rutkowski)

<sup>2</sup> At least two different coding systems have been used up till now. One is based on the names of traditional sub-regions and applied only for excavated structures: SBH=Sabbiya Bahra, SNG=Sabbiya Nahdin, SM=Sabbiya Muhaita, SMQ=Sabbiya Mugheira, SRG=Sabbiya Radha. The other was initiated by the British team surveying the eastern part of the region: SB=Sabbiya. The SB code has been continued by the Kuwaiti archaeological authorities for certain structures excavated already after that survey, which consequently received current numbers within this system. Only later were they correlated with the pre-existing excavation codes [see Table 1]. For excavated structures, the excavation codes, rather than the PSBH/PSRD survey codes, will be used in further references.

Table 1. Provisional classification of stone structures surveyed by the KPAM in 2009–2010

| Category   | Subcategory                              | List of structures by survey region (PSBH, PSRD, SM); excavation site codes in parentheses, including sites chosen for future excavations; excavated sites in bold   | Total (number excavated) |
|--|--|--|--------------------------|
| Stone mounds (most likely tumuli graves)                                     | Common tumuli                            | PSBH: 1 (=SBH 2), 6, 7, 10, 13 (=SB 61), 14 (=SB 60), 17 (=SB 65), 18 (=SB 66), 22 (=SB 69), 23 (=SB 70), 24 (=SB 72), 25 (=SB 73), 26, 29, 31, 32, 35, 37, 38, 40, 41, 42, 44, 45, 47;<br>PSRD: 1 (=SBH 19), 2 (=SBH 18), 3, 5, 7, 8, 9, 10, 11 (=SNG 2), 13 (=SNG 4), 16 (=SNG 7), 18, 20, 22, 23, 24, 25 (=SBH 10), 26 (=SBH 8), 28 (=SBH 7), 29 (=SBH 6), 30 (=SBH 5), 33, 34 (=SBH 17), 35 (=SBH 16), 37, 39, 41, 42, 44, 45, 46, 47, 50, 51, 53, 55 (=SRG 9), 56 (=SRG 13), 57 (=SRG 12), 58, 60 (=SRG 11), 61(?) (=SRG 14), 62, 63, 64, 66 (=SRG 7), 67 (=SRG 10), 70, 71, 72? (=SRG 8), 73, 75, 79 (=SBH 13), 81 (=SBH 15), 82<br>SM: 20, 23 | 86 (30)                  |
|  | Tumuli with outer ring wall              | PSRD: 6, 17 (=SNG 6), 65 (=SRG 6), 80 (=SBH 14)  |                          |
| Small structures located beside burial mounds or in the surrounding vicinity | Burial-related features                  | PSBH: 22A (=SB 71)<br>PSRD: 27 (=SBH 9), 52, 60 (=SRG 11A), 79 (=SBH 13A)<br>SM 21   |                          |
|  | “Bin” structures                         | PSBH: 34, 42A<br>PSRD: 54, 74, 76 (=SNG 1), 77 (=SNG 8), 78 (=SBH 12)<br>SM 20A  | 19 (6)                   |
|  | Low heaps of stone or stone scatters     | PSBH: 36, 44A<br>PSRD: 40, 43, 79 (=SBH 13B?)<br>SM 23<br>+unlabeled features accompanying SBH 16; PSRD 42, 61, 64, 72   |                          |
| Small isolated features  | Simple alignments and uncertain features | PSBH: 8, 11, 12, 15 (=SB 62), 28, 43A–B, 48<br>PSRD: 15 (=SNG 5), 19, 21, 31, 32, 36, 38, 48, 49, 59, 68, 83   | 20 (2)                   |
| Elongated structures   |  | PSBH: 16 (=SB 63), 19 (=SB 64), 20 (=SB 67), 21 (=SB 68), 27, 30, 33, 46<br>PSRD: 4, 12 (=SBH 1), 69<br>SM 22  | 12 (1)                   |
| Long linear structures   |  | PSBH 9 (=SBH 34)<br>PSRD 14 (=SNG 3)   | 2 (1)                    |
| TOTAL  |  |  | 139 (40)                 |

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road and west of a newly constructed overpass also including lowland zone stretching south of the road, and “Radha” extending north-east of the overpass and onto an elevated stretch of land on the south side of the As-Sabbiya road [Fig. 1]. Site registration thus used the respective survey codes, PSBH for “Prospection Sabbiya Bahra” and PSRD for “Prospection Sabbiya Radha”. During the survey all the registered sites received a code-name within this system (with the exception of sites in the Muheita region, where an existing SM code was retained and newly registered sites received numbers in continuation of an earlier site count).

As many as 139 stone structures (PSBH 1–48, PSRD 1–84, SM 20–23) were

recorded in the study area [Fig. 2], the number rising to 150, which included different substructures (i.e., unlabelled minor features accompanying some of the burial mounds) (see Table 1 for a full list of the recorded structures). Of these, 35 structures have already been excavated (since 2004) by the Kuwaiti or Gulf Cooperation Council (GCC) archaeological expeditions. The decision to resurvey these structures was taken for consistency, as much as statistical and comparative study reasons.

The surveyed area comprises a crescent-shaped, terraced plateau stretching south of the Jal az-Zor foothills and descending southward to the sea. Most of the preserved structures were located in

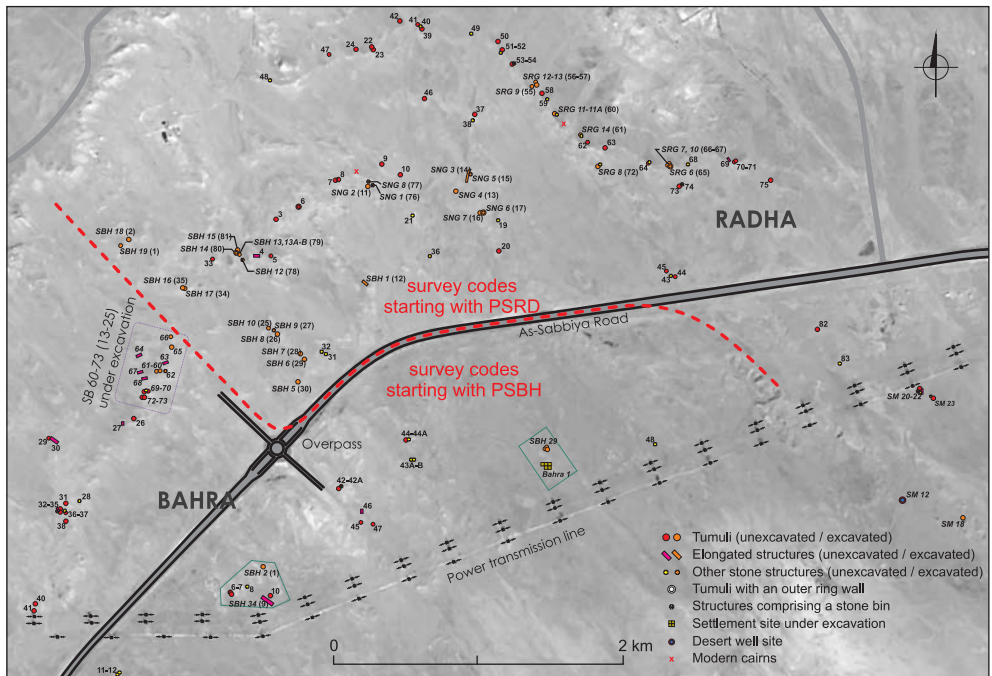


Fig. 2. General plan of the 2009–2010 survey area showing the location of all recorded structures, omitting PSBH/PSRD from survey codes; for double-coded sites the excavation code name appears in parenthesis (Mapping based on Google Earth and GPS coordinates E. Rutkowski)

the upper, northern part of the plateau, distributed rather evenly along the edges of two prominent, crescent-shaped terraces running roughly parallel to the Jal az-Zor hills. The ridge of the first terrace (counting from the Jal az-Zor) runs across Radha (features PSRD 48–75 along the way from west to east). The ridge of the other terrace runs across Bahra and Nahdin (features PSBH 41–18 and PSRD 1–20 along the way from west to east). Some structures were situated also along secondary ridges (e.g. features SBH 5–10). It is obvious

that the terrace rims, where stone building material was easily accessible, were regarded as the best spot for the location of stone structures. Conversely, burial mounds and other features were sparsely distributed on the south, where the plateau descends to merge with the coastal *sabkha* plain with only minor rocky outcrops protruding from the sand. Modern highway construction in this area, involving heavy bulldozing in a zone 200 m wide, may have resulted in some structures being destroyed before they could be recorded.

## TYPES OF STRUCTURES

Most of the stone features [Table 1] in the surveyed area were identified as stone tumuli (86 in total, making up 62% of all the recorded structures, Fig. 3). It can be assumed with reasonable certainty that most of them represented sepulchral structures. A dozen or so almost completely deteriorated structures, barely rising above

the ground, but still retaining their circular shape with a noticeable hollow, often at the center, were also included provisionally in this category of graves. Another easily distinguishable group comprised 12 elongated structures, that is, low stone platforms of oblong shape. The remaining relics recorded in the survey (41 in total) fell into a broad category of structures that were difficult to classify in the field.

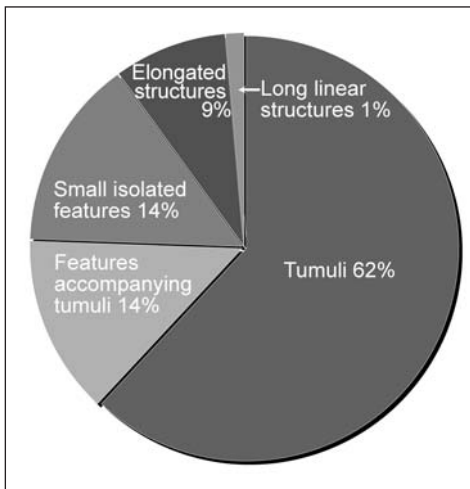


Fig. 3. Frequency of occurrence of each category of recorded structures

## TUMULI GRAVES

Tumuli are the most common archaeological structures recognized during the survey. These conical stone mounds, easily recognizable in the field, are of circular or sub-circular outline [Fig. 4]. They occurred in clusters of several structures, in pairs or as single mounds. Some were accompanied by smaller subsidiary stone structures (see below). Most of the tumuli were located on the terrace edges, some were scattered along narrow stone ridges protruding from the main escarpment or standing on solitary prominences. Seldom were they encountered on flat ground in the middle of a plateau.

In terms of construction, the category of tumuli with an outer ring wall is conspicuous [Fig. 5]. Four mounds of this kind were recognized during the survey. With one exception (PSRD 6), they have been excavated by Kuwaiti archaeologists (see Ad-Duweish, Al-Mutairi 2006: 35, 97). Two semicircular stone enclosures,

resembling outer ring walls, were noted at a distance from tumuli PSBH 6 and PSRD 8 [see Fig. 5].

Peculiarities concerning the manner of construction included a tumulus with side opening (SBH 17), two subsidiary chambers adjacent to the tumulus mantle (SBH 16), an elongated stone protrusion



Fig. 4. Common tumuli: PSRD 20 being surveyed, view from the east (top) and PSRD 10, view from the west (Photo Ł. Wojnarowicz)



on one side of the mantle (PSBH 35), possible double burial chamber (PSRD 10), possible stone “bin” at the edge of the mantle (PSBH 29), tumuli with stone alignments within the mantle forming a quadrilateral outline or right-angled corners (PSRD 45, PSRD 47, PSRD 82) (compare tumulus SB 60 in Rutkowski 2013: 496–502, in this volume) [Fig. 6].

Most of the tumuli occurred in one of two sizes: smaller structures up to 6 m in diameter (usually under 1 m high) and larger ones, over 6 m in diameter (about 1 m high); a few of the tumuli have diameters exceeding 10 m. The biggest one, PRSD 10, measured approximately 14 m in diameter and nearly 2 m in height (although estimating height can

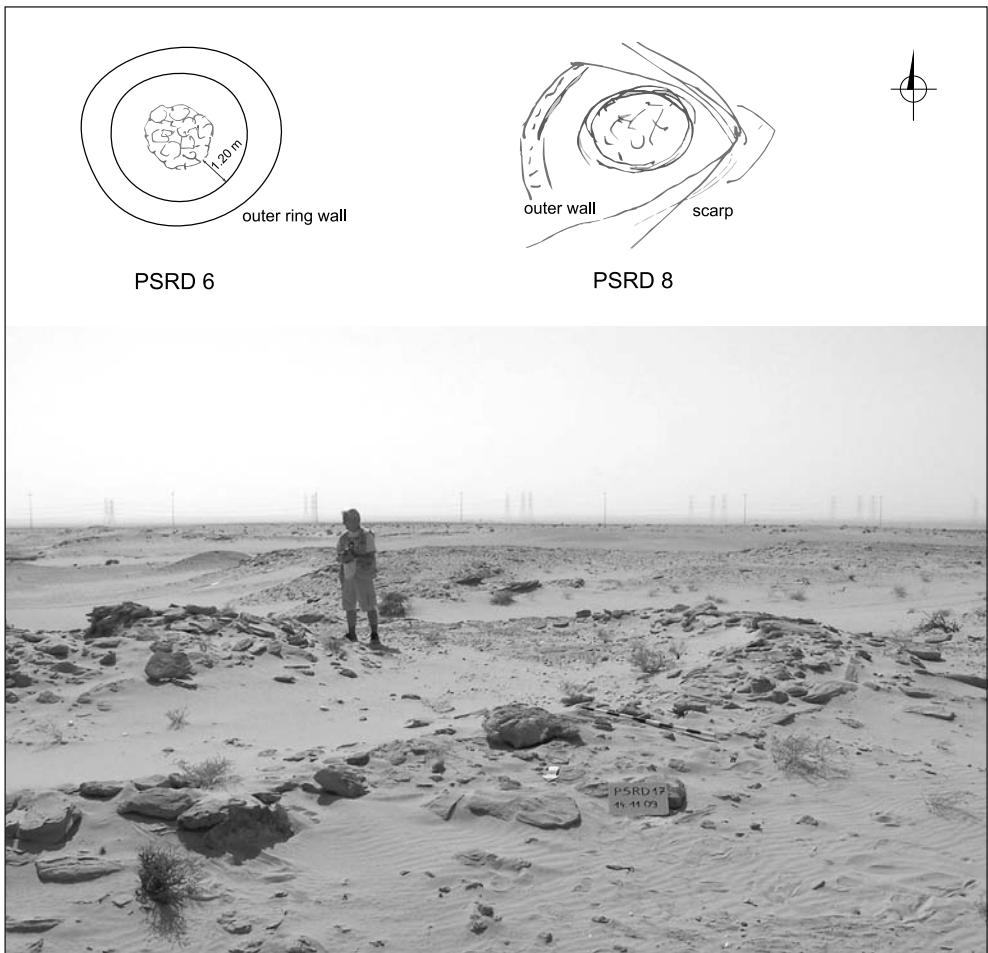


Fig. 5. Tumulus with outer ring wall PSRD 17 (=SNG 6), view of the western half from the north; top, examples of tumuli with outer walls PSRD 6 and 8 (Photo E. Wojnarowicz; field sketches E. Rutkowski)

be ambiguous especially with regard to mounds on natural rocky prominences) [see *Fig. 4*]. Finally, two tumuli with outer ring walls (SNG 6, SRG 6) featured external diameters of approximately 16 m.

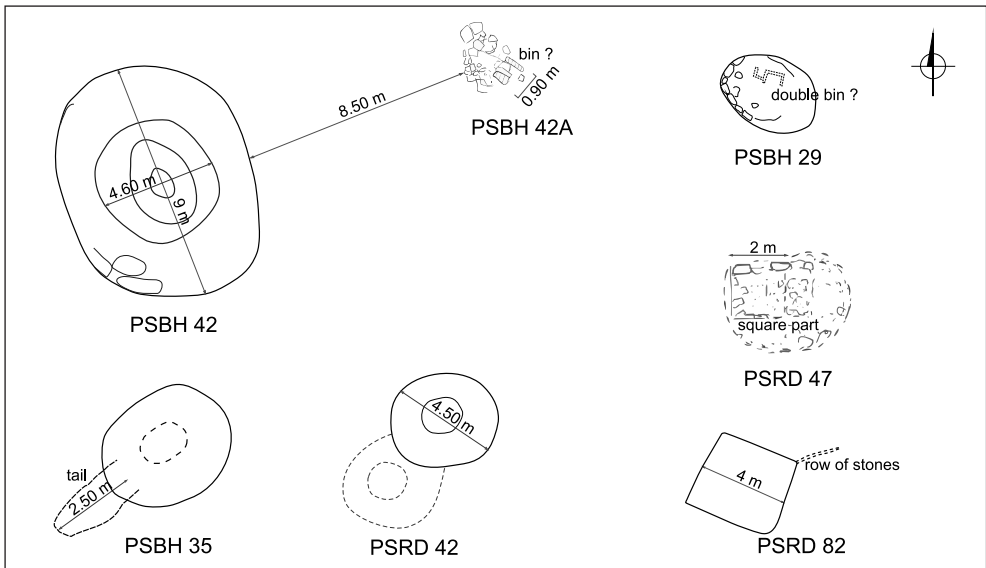
### ELONGATED STONE STRUCTURES

The low stone platforms rising no more than 0.50 m above ground (9% of all the surveyed features) are intriguing in nature. Their length ranges from 7 m to 12 m and most are up to 2 m wide; PSBH 30 is exceptionally long, measuring 21.50 m [*Fig. 7, top*]. The shorter ends are curved, the longer sides straight. Slabs wedged into the ground in vertical position usually mark the outlines, whereas the core is built of stones stacked in flat courses. PSBH 46 is an exceptional case, featuring only the vertical frame while lacking the

stones inside. Since one of the shorter ends is missing as well, the stone fill can be assumed to have been eroded away, leaving only rows of upright stones bordering the longer sides. Three different alignments could be distinguished for the structures: roughly east–west (SB 63, SB 64, SB 67, PSBH 21=SB 68 [*Fig. 7, bottom*], PSRD 4), northwest–southeast (PSBH 30, PSBH 33, SBH 1, PSRD 69) and north–south (PSBH 27, PSBH 46, SM 22).

PSBH 46 appeared to be empty inside, that is, without the inner stone packing. It consisted of two roughly parallel rows of upright stones bordering its longer sides [*Fig. 7, top left*]. The shorter sides seemed to be incomplete, especially the southern end, which may have been eroded away.

Survey observations and the results of the investigation of two structures of this category in Mugheira (SMQ 37 and



*Fig. 6. Examples of tumuli revealing peculiar characteristics: PSRD 42, PSBH 35, PSRD 47, PSRD 82; top, tumulus with additional feature PSBH 42 and 42A (Field sketches E. Rutkowski)*

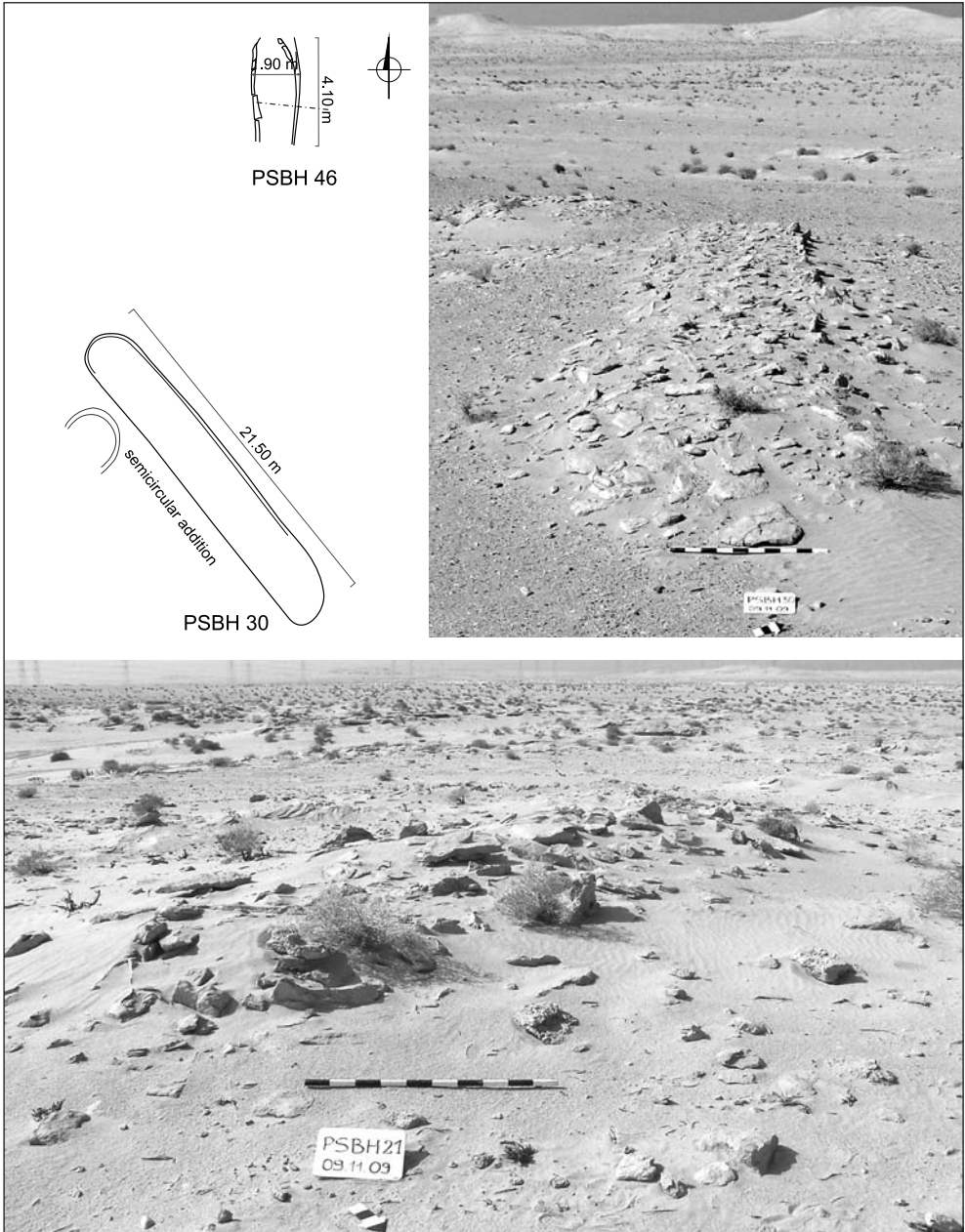


Fig. 7. Elongated structure PSBH 30 with tumulus or “bin structure” PSBH 29 in the background (top right); plan of structures PSBH 30 and PSBH 46 (top left); bottom, PSBH 21 (excavation code SB 68), view from the north (Photo Ł. Wojnarowicz; drawing and digitizing Ł. Rutkowski)

incomplete feature SMQ 36) in 2008 (Szymczak [ed.] 2008) have demonstrated that they did not contain burials. They were located often in the vicinity of burial mounds or between clusters of tumuli, although this is not the rule; for instance, SBH 1 stood alone, at a considerable distance from the nearest stone mounds. An association between these enigmatic structures and burial mounds has been suggested, but for the time being its precise nature remains obscure.

#### OTHERS

Concentrations of stones encountered during the survey were registered as archaeological features, if a deliberate alignment could be recognized. This included curved or straight rows of stones, unlikely to have been arranged by the forces of nature. Features of evidently recent date, such as apparent camping remains, modern fencing, hearth settings, Bedouin marks etc., were excluded from registration.

The category is problematic as it encompasses a wide spectrum of stone features, varying from burial-related structures (presumably including poorly preserved tumuli) to simple stone alignments of minor interest. Nevertheless, a provisional classification of these features can be proposed. The features can be divided into two broad groups:

- structures accompanying burial mounds, that is, located directly beside them or in their vicinity, singly or in groups,
- isolated features occurring singly and at a distance from burial mounds.

Structures accompanying burial mounds can be subdivided into at least three categories:

- a) Burial-related structures: low, circular alignments, virtually without a mantle;

probably intended as secondary burials in the vicinity of a main grave; some may be unfinished features or, conversely, features dismantled for some reason (e.g., SB 71, SBH 13A, PSRD 52, SRG 11A). A few are adjacent to a main tomb, which may suggest their role as subsidiary chambers (two unlabelled chambers at SBH 16 and probably one at PSRD 42).

- b) “Bin” structures: rectangular compartment or “bin”, made up of upended stone slabs, of uncertain function (e.g., PSBH 34, SNG 1, PSRD 74). They may not have been intended specifically as burial places or else they represent a rare type of burial. Bins were observed most often as component features incorporated into circular alignments [*Fig. 8*]. Feature SMQ 44 at Mugheira, investigated by the team in 2008, exemplified this kind of structure (Szymczak [ed.] 2008). It did not yield any finds. SNG 8, excavated by a Kuwaiti team, differed a little from other structures of this type. It had an elongated rectangular compartment (4.30 m by 0.65 m) running across the whole structure (Ad-Duweish, Al-Mutairi 2006: 37, *Fig. 19*).

- c) Stone scatters: small low piles of stones accompanying tumuli (e.g., PSBH 36, SBH 13B and most of the unlabelled features accompanying burial mounds). Some of these features found near excavated or penetrated structures may simply be dumps of stones removed during exploration or grave-robbery.

The second group, that of isolated features, was represented by minor stone piles or simple stone alignments of uncertain purpose, mostly far too small to represent human burials [*Fig. 9*], found either alone or in pairs. Most of them do not seem to be of archaeological importance.

Some of them, however, especially those of fairly regular plan or featuring upright stones, could be deteriorated burials or “bin” structures (e.g., PSRD 31, PSBH 32, SNG 5).

A couple of low, clustered stone spreads comprising several roughly rounded features, give the impression of the outlines of multiple chambers lacking a stone mantle (PSBH 28, PSRD 68).

Two long linear structures were found to be entirely different from the other recorded features. The large, straight-line structure PSBH 34 (aligned NW–SE) was 46 m long and irregular in height (with an average height not exceeding half a meter, but with some upright standing stones in the middle sector rising about a meter aboveground). It consisted of three segments of different width (ranging

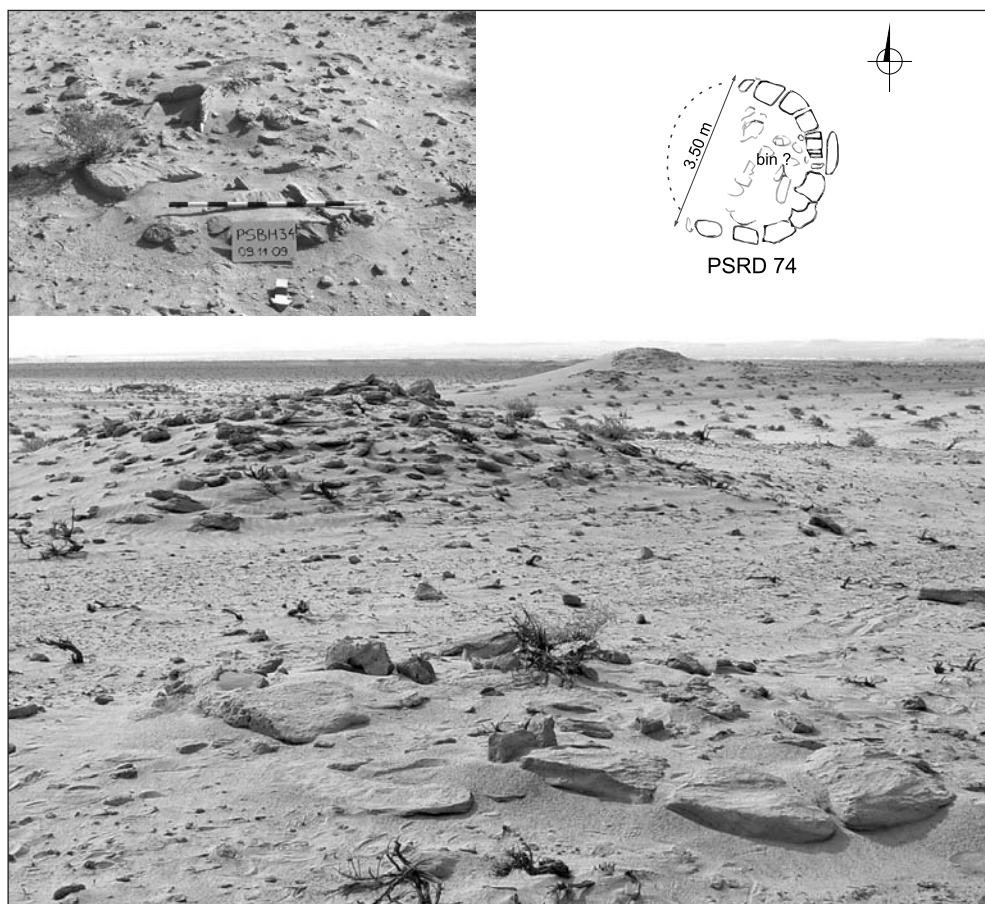


Fig. 8. Tumulus grave PSRD 73 and the accompanying secondary/subsidiary structures including most likely a stone bin (PSRD 74) in the foreground, view from the northeast; top left, “bin structure” PSBH 34; top right, plan of “bin structure” PSRD 74 (Photos Ł. Rutkowski, E. Wojnarowicz; field sketches Ł. Rutkowski)

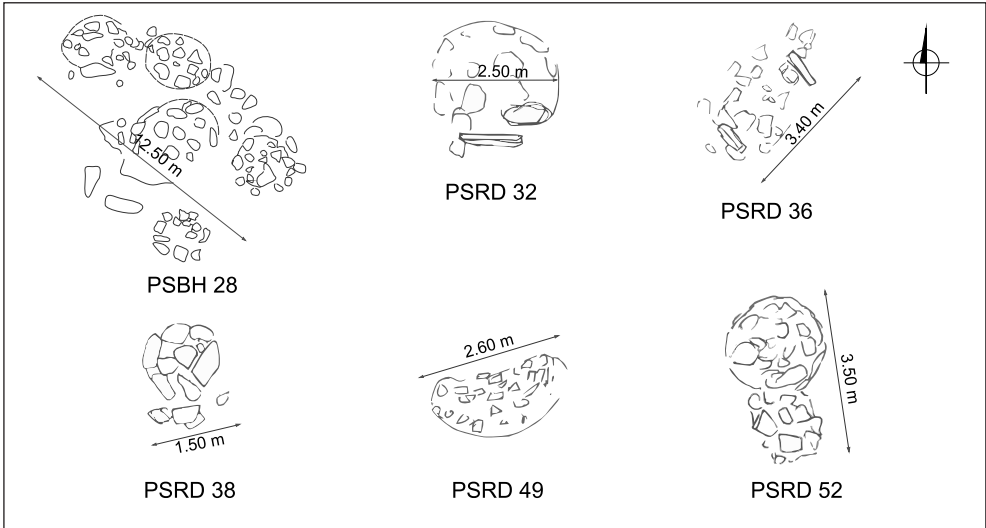


Fig. 9. Small isolated features, possible tombs: PSBH 28, PSRD 32, PSRD 36, PSRD 38, PSRD 49, PSRD 52 (Field sketches E. Rutkowski)

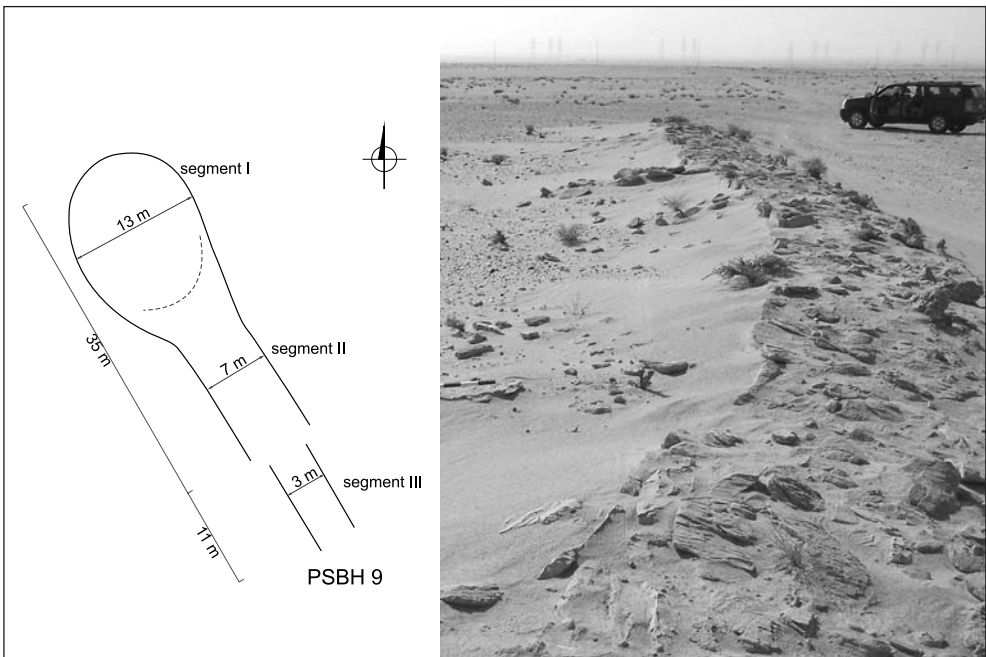


Fig. 10. Long fence-like structure SNG 3, view from the north and plan of three-segment linear structure SBH 34 (Photo E. Wojnarowicz; field sketch E. Rutkowski)

from 3 to 13 m) [Fig. 10]. The other structure (SNG 3, explored by a Kuwaiti team, see Ad-Duweish, Al-Mutairi 2006: 30) is low, 1.50 m wide, and fence-like, running for a length of 43.50 m. It runs a straight

course for the most part (aligned roughly N–S). It is slightly curved eastward at the northern end. At least two thin and short side walls abutted its eastern face [see Fig. 10].

## CLOSING REMARKS

As a result of the survey, a new cluster of stone structures at Bahra was selected for exploration (receiving code-names: SB 60–SB 73; excavations were commenced in 2011). We have found evidence that the tumulus cemetery extends along the coast to at least 9 km in a straight line between SMQ 49 — the easternmost tumulus excavated in Mugheira (Makowski 2013: 518–527 in this volume) — and PSBH 41, the westernmost construction spotted during the survey. It was also noted that, apart from definite burial mounds, the plateau was relatively rich in additional stone structures, some of them probably of a non-sepulchral character. However,

cleaning is needed in most cases to verify these observations.

As for the future, the intent is to extend the survey to the east, in order to link the already prospected area with the excavated zone around the Mugheira sub-region [see Fig. 1], which is now known to be barely a small part of the ancient cemetery. The aim will be to check, whether burial mounds are evenly distributed throughout the entire sector of the plateau. The overall objective in effect is to make a territorial survey of the eastern As-Sabbiya region, linking several areas until now explored separately into one large, archaeologically prospected zone.

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