



in height between 1.3-2m. This type of tumulus has been well documented in central Sudan at el-Hobagi and Gabati (Lenoble 1994, *passim*; Edwards 1998, *passim*).

B) A flat mound with a ring of stones. These were documented on the foothills of mountains and on the alluvial sediment on the banks of old depressions, and include sites such as SP04, SP14, SP29, SP40, and SP49. The diameter of this type was between 7-17m. Examples of this type of tumulus were tested by excavation, and revealed grave goods typical of late Meroitic cemeteries, such as found at Bauda and el-Kadada (Babiker 1984; Geus 1984, 34-38).

C) A small circular tumulus formed from a slab of black stone. These were found on the top of mountains and in rocky gullies. The diameter ranged between 5-15m, and in height between 0.3-1m. Some of these tumuli had similarities to forms found in later cemeteries – the box or rectangular superstructures built from stone found in Early Makurian and Christian necropoleis in central and northern Sudan (El-Tayeb 2012, 60).

Tumulus excavation at site SP29

Site SP29 was discovered in 2016 (Nassr 2016a). The site is located east of Hajar Al 'Asal in the area known as el-Kiniasat, between the el-Jebialat el-Homor Mountains and the Ab Gaidom depression, on an alluvial mound and sand dunes. The topography of the site was created by a river channel that cut through black sand and stone layers to sandy deposits. Over time, the mound was eroded by flooding and the site covered by sand. At present, the site is visible as a cluster of tumuli buried in a sandy mound on the edge of the mountain and the bank of a seasonal water channel.

Systematic survey was carried out to produce a GIS map of tumuli distribution across the site, and to measure the superstructures. Documentation and mapping show that the site has been affected by human factors, as well as being eroded by water. Ninety-seven tumuli were documented, including oval and circular tumuli, along with some box graves. The distribution map shows the cluster of tumuli in the small necropolis (Figure 2).

The site is a flat alluvial mound built on an extensive flood plain and eroded sand area. Its landscape is primarily flat, with the tumuli superstructures appearing as small mounds on the bank. Two tumuli were excavated in the 2017 season, and three more in the 2018 season. Two revealed intact grave goods of the late Meroitic period, while another had an extended skeleton similar in position to those found in medieval Christian burial traditions (Table 2).

Superstructure and shaft excavation

Many tumuli superstructures at the site have been partly destroyed by plundering, while others have been completely removed. The general shape of the superstructure was formed by single stones arranged in an egg-shaped pattern. In some cases, multiple rings of stones were observed, with one line formed from large stones surrounding the tumulus

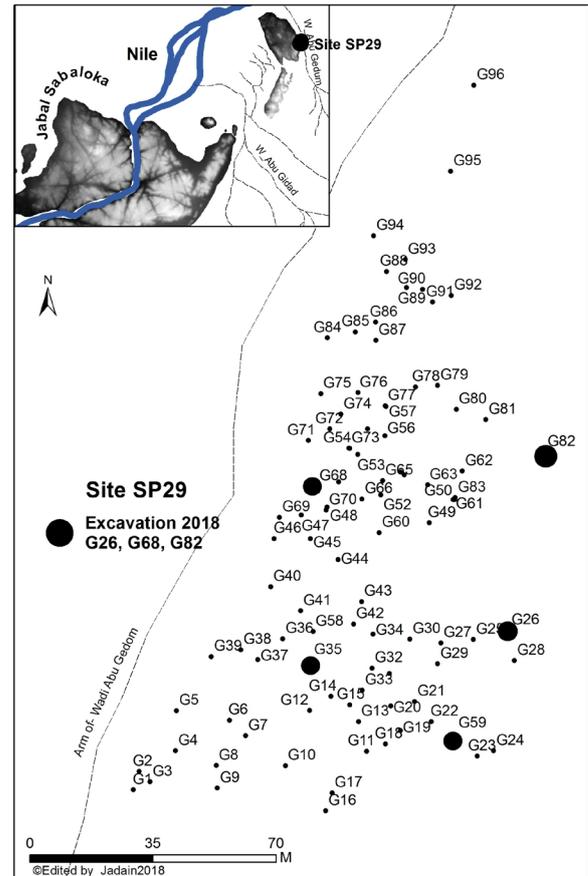
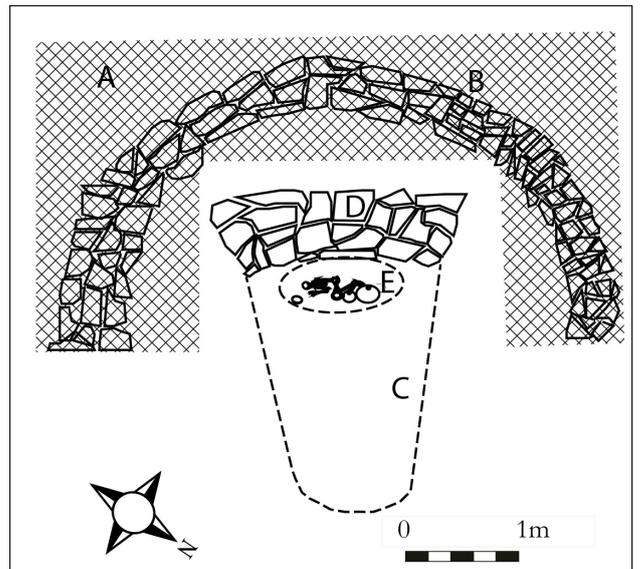


Figure 2. GIS Distribution map of tumuli at the site of SP29 (drawing Jadain 2018).

superstructure, and additional lines formed from small stones, with the intervening space infilled with small quartz pebbles, fragments of stone and sediments. The systematic survey of the site revealed the three types of tumuli superstructure discussed above.

Excavations were carried out to clean the superstructures for documentation, and to allow excavation of selected superstructures to be undertaken. Typically, the superstructure consisted of irregular rocks extending to a depth of 0.3-0.5m. In some cases they covered the centre of the tumulus, where the shaft could be found. At a depth of 0.7-0.9m, the burial shaft could be observed, and was either rectangular in shape, or semi-circular at the top, sloping inward towards the bottom. Usually, the general outline of the grave shaft could be observed through the appearance of yellow sand backfill. In some cases, a stone slab was positioned to support the superstructure, and a stone core placed to support the substructure of the chamber. The superstructure was separated from the shaft by fine sand and stones that had been laid over the descending shaft (Figure 3, Plates 1-3).

The architectural features of these superstructures are also known from late Meroitic necropoleis in the region, with parallels found, for example, at the sites of Bauda (Babiker 1984), Gabati (Edwards 1998), Jebel Umm Marrihi (El-Hassan 2006) and Jebel Sabaloka (Suková *et al.* 2015).



Plates 1-3, Figure 3. Excavation stages of tumulus superstructure at site SP29. A. Unexcavated area. B. Superstructure. C. Burial Shaft. D. Stone blocking. E. Burial niche.

Excavation of the burial niche

Below the superstructure, a rectangular, vertical shaft with solid edges was cut into the compact alluvial sediments beneath the sandy ground and rocks, and at a depth of 1.6-1.8m, the burial niche was situated in the side of the shaft at its base, behind an oval-shaped stone blockage.

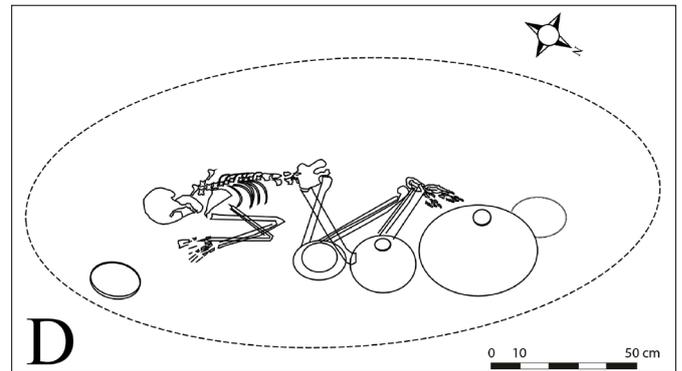
In some cases there were plundered rocks on one side of the shaft. In the lower part of these rock layers the niche (burial chamber), formed from compacted clay (mortar), can usually be found. A step separated the shaft from the niche, which in some cases was supported by a layer of stone and mortar. In four tumuli, the skeletons were found in a contracted position, laid on their right side. Overall, the skeletons did not face in a uniform direction. In the box burial, however, the skeleton was found in an extended position and, rather than having a step separating the shaft from the niche supported by stones, this was supported by large wooden beams.

Overall, the grave structures, including the superstructure, and substructures including the rectangular shaft and side niche chambers, show similarities with other tumuli from sites documented in the Sabaloka area (Suková *et al.* 2015; Nassr 2016b), as well as to those in a cemetery at Akad in the ed-Damer area (Abdelrahman 2009).

Grave goods

Grave goods were found at a depth of 0.5-0.7m, situated to the side of the burial chamber. All the burial chambers contained preserved adult skeletons in contracted and semi-contracted (flexed) positions, with grave goods arranged around the skeleton. Furniture, pottery vessels and ornaments were found around the body, mainly close to the head and legs or beside the skeleton (Figure 4, Plates 4-6).

Large handmade jars, red or brown in colour, with long narrow necks, oval bodies and semi-circular bases were the main diagnostic finds in these burials. These characteristic vessels are well known from late Meroitic cemetery traditions in the region (Babiker 1984; Geus 1984, 48-49, figs 78 and 102; Edwards 1998, 53, pls 2 and 4). Other pottery vessels included large red jars with surface treatment such as a simple decoration of bands; brown bottles with a long neck; black basins; and fine red or black bowls. Apart from pottery vessels, different types of small stone beads of various shape and colour were found close to the pelvis and around the skull, arms and legs of the skeletons. An archer's loose in fine granite was found on the right thumb of one skeleton. Small personal ornaments were identified in most of the graves. Other small finds collected on the surface in the vicinity of



Plates 4-6, Figure 4. Burial chambers of the tumuli at site SP29.

the tombs included a stone bracelet, stone kohl stick, iron arrow head, iron cross and small iron ring and appear to range in date from the late Meroitic to the Medieval period (Plates 7-10).

The ceramic traditions and ornamental characteristics are typical of grave goods of the late Meroitic and early post-Meroitic at Bauda, with parallels found in tumuli Bauda 80, and Bauda 109 (Babiker 1984, 29, 72). The finds are also similar to those from other late Meroitic tumuli in the Shendi Reach, such as el-Misiaktab, Shaqalu and Gabati, with particular parallels to tumuli GBT40, GBT41, GBT42 at the site of Gabati (Edwards 1998, 24, 106, 210, 214). Artefacts from tumuli at site SP29 provided sufficient data to reconstruct the various funerary equipment deposited at the site, and indicate Meroitic, post-Meroitic and medieval Christian practices.

Conclusion

The recorded tumuli sites show the importance of the Sabaloka area from the late Meroitic through to the medieval periods. The archaeological survey yielded significant evidence for necropoleis distributed along the mountains and on the banks of wadis in the area. The surveys and excavations at the tumuli sites show many differences in superstructure, position, and shape. Tumuli monuments at most sites can be observed as ring cairns of unworked local black stone, aggregated in clusters or alone. Generally, tumuli were visible

as heaps of stone, sometimes very compacted with clay and sometimes covered with sand. Excavation of the tumuli from site SP29 revealed well-preserved grave goods, while the agglomeration of tumuli within this small area illustrates a dense occupation of late Meroitic communities in the region, shedding further light on late Meroitic, post-Meroitic and Christian occupation south of the Meroitic heartland. The discovery of such tombs and grave goods supports a deeper study of late Meroitic burial customs in the Khartoum province. The area still requires a more systematic survey in its northern part to complete the map of site distribution in the region, and excavation of more tumuli should be conducted as soon as possible, with absolute dating and anthropological analyses of human and paleo-environmental remains conducted if possible. Charcoal for radiocarbon dating and bones sampled for DNA from previous seasons have been sent for analysis. The intact burials from site SP29 further document the tumuli characteristics and distribution, and offer rich scope for future anthropological study.



Plates 7-10. Tumuli grave goods from the site of SP29.

Tables

Site ID	Height above sea level (m)	Size (m)	Local Name	Location (Section)	Number of tumuli	Location of tumuli	Description of tumuli
SP03	383	2 × 1.5	El-dankoj 1	Wadi Ab-Jadad depression	12	Gentle flat plain	Mound tumuli extending from a large village with a ring of stones filled with sediment.
SP04	388	8 × 2	Umm Marabiek	Sabaloka Gorge	217	Foot of mountain	Large oval tumuli extending from the mountaintops to the flat area with some small tumuli.
SP06	379	6 × 6	El-Gibialat El-Humor 1	El-Gibialat El-Humor	76	Top of mountain	Mound tumuli on mountaintops, clusters and singles extending to the foot of the mountain.



SP08	384	3 × 2.5	Eid Wad Jamra	Wadi Ab-Jadad depression	25	Top of mountain	Small circular tumuli with black stone superstructure as a kom.
SP09	384	2 × 3	El-Gibialat El-Humor 12	El-Gibialat El-Humor	26	Top of mountain	Mound tumuli extending from the mountaintops.
SP13	363	3 × 2	Hajar Bashier	Wadi Ab-Jadad depression	44	Rocky mound	Large mound graves at the foot of the rocky mound, small mound grave at the top.
SP14	392	3 × 3	Elidiat	Wadi Ab-Jadad depression	32	Rocky mound	High superstructure tumuli of sandstone, scattered over a large rocky mound.
SP15	391	4 × 4	El-Gibialat El-Humor 1	El-Gibialat El-Humor	35	Top of mountain	Complex superstructure tumuli found at the foot of the mountains on the west side, and some circular on the top.
SP16	392	3 × 3.5	El-Gibialat El-Humor 2	El-Gibialat El-Humor	17	Top of mountain	Rocky mound tumuli along the mountaintops.
SP17	400	3 × 3	El-Gibialat El-Humor 3	El-Gibialat El-Humor 1	7	Top of mountain	Oval tumuli cluster in the northern part of the mountain.
SP21	391	1 × 1.5	El-Gibialat El-Humor 5	El-Gibialat El-Humor	8	Foot of mountain	Mound tumuli west of the mountain with stone ring superstructure and oval mound.
SP22	390	2 × 2	El-Gibialat El-Humor 6	El-Gibialat El-Humor	15	Gentle gully	Circular tumuli of black stone.
SP23	392	3 × 2.5	El-Gibialat El-Humor 7	El-Gibialat El-Humor	13	Gully	Mound tumuli scattered on the large gully.
SP24	385	1 × 1.5	El-Maslaba	Hajar Elasal	14	Gentle gully	Mound tumuli with complex stone superstructure.
SP28	378	1.5 × 1	Jebel Karkar	Hajar Elasal	18	Top of Mountain	Mound tumuli extending on mountaintop and into the agricultural area.
SP29	389	3 × 2.5	El-Kiniasat	Hajar El- Asal	97	Flat alluvial plain	Oval mound tumuli with stone rings on the high sediment elevation on the bank of the Ab Gaidom depression.
SP30	397	4.5 × 3.5	Qalaat Omer	Hajar El- Asal	83	Foot of mountain	Large mound tumuli, close to the mountains on the rocky area.
SP31	394	2.5 × 2	Hilaat El- Sadab	Hajar El- Asal	47	Top of mountain	Mound tumuli covered in black stone. Some very large and high.
SP32	376	2 × 1.5	Jebel Elba- blos	Hajar Elasal	34	Top of mountain	Mound tumuli at the curved line of the Elgibialat Elbomor extension.

SP34	389	6 × 3	Qalaat Homiad 2	Hajar Al- Asal	33	Gulley	Mound tumuli with rocky superstructure.
SP35	400	8 × 2	Qalaat Homiad 3	Hajar Al- Asal	17	Top of mountain	Cluster of mound tumuli with rock superstructures.
SP36	390	5 × 3	Qalaat Homiad 4	Hajar Al- Asal	47	Foot of rocky mound	Large tumuli mounds over the rocky mound, some of them disturbed.
SP39	366	8 × 6	Elkafonja 2	Hajar Al- Asal	9	Gulley	Tumuli mounds over the large rocky area.
SP40	375	5 × 5	Jebel El- Miliak	Hajar Al- Asal	6	Top of mountain	Circular tumuli scattered over the mountain.
SP45	381	1.5 × 1.5	El-Bankari 4	Hajar Al- Asal	14	Top of mountain	Circular tumuli found over the mountains, most of them robbed.
SP46	400	1.7 × 1.5	El-Bankari 5	Hajar Al- Asal	5	Foot of rocky mound	Box tumuli found on the rocky mound east of El-Bankari village.
SP47	381	4 × 3.5	El-Bankari 6	Hajar Al- Asal	7	Top of small rocky mound	Cluster of tumuli on the mountain with some settlement remains close to the depression.
SP49	399	2 × 1.5	El-Bankari 8	Hajar Al- Asal	16	Foot of mountain	Large oval tumuli on the mountain with some circular tumuli, different in size and superstructure elevation from the surrounding examples.

Table 1. Archaeological sites of tumuli documented in the Sabaloka East from 2013-2018.

Grave No and season	Diameter m	Height m	Shaft size m	Niche size m	Depth m	Skeleton position	Skeleton gender	Furniture
G32-2017	9×7.3	0.4	3.16× 8.3	1.6×1.2	2.32	Contracted position (flexible)	Male (Adult)	Big red jar, brown bottle with long neck, two black basins, fine red jar, stone beads and archer's loose from fine granite.
G35-2017	5.3×3.7	0.3	2.8×1.2	1.5× 1.15	2.5	Typical contracted position	Female (Adult)	Three red jars with long neck, small mouth, fine black bowl and beads.
G26-2018	5.8×5.3	0.1	3.65× 2.2	1.4×6.3	2.18	Semi-contracted position	Male (Adult)	Three big jars, small black basin and bowl with a fine surface.
G68-2018	6×4.8	2.5	2.35× 1.8×0.5	1.5×5.6	2.38	Semi-contracted position	Female (Adult)	Small differently coloured and shaped beads, nose clip.
G82-2018	2.9×1.3	0.5	2.7×1	2.35× 3.6	2.4	Extended position	Male (Adult)	Large red jar.

Table 2. Tumuli excavated from the site of SP29.



Bibliography

- Adams, W.Y. 1977. *Nubia: Corridor to Africa*. London-Princeton.
- Abdelrahman, M. F. 2009. 'Akad Rescue Project Season 2008', *Sudan & Nubia* 13, 103-106.
- Ahmed, K. A. 1984. *Meroitic Settlement in the Central Sudan. An Analysis of Sites in the Valley and the Western Butana*. Oxford.
- Babiker, F. 1984. *Research into Mortuary Practices in Sudanese Prehistory and Early History*. University of Reading (unpublished Ph.D. thesis).
- Edwards, D. N. 1998. *Gabati. A Meroitic, Post-Meroitic and Medieval Cemetery in Central Sudan. Vol. 1*. Sudan Archaeological Research Society Publication No. 3. London.
- El-Hassan, A. A. 2006. 'Jebel Um Marrihi. A Late Post-Meroitic and Early Medieval Site (c. 325-650 AD) in Khartoum Province (Sudan)', *Adumatu* 13, 15-38.
- El-Sanjak, A. H. 1978. *An Archaeological Survey Between Raw'an and Jebel Qarri station from the Railway line to the Nile*. University of Khartoum (unpublished BA thesis).
- El-Tayeb, M. 2012. *Funerary traditions in Nubian Early Makuria*. Gdańsk.
- Geus, F. 1984. *Rescuing Sudan's Ancient Culture*. Khartoum.
- Hintze, F. 1959. 'Preliminary report of the Butana expedition', *Kush* 7, 171-196.
- Khalid, B. A. 2013. *Settlement Pattern of the area between Hajar Alasal and Geili*. Shendi University (unpublished MA thesis in Arabic).
- Lenoble, P., 1994 'A propos des tumulus d'El Hobagi et de Ballana-Qustul', *Meroitic Newsletter. Bulletin d'informations méroïtiques* 25, 51-88.
- Nassr, A. H. 2016a. 'Sennar Capital of Islamic Culture 2017 Project. Preliminary results of archaeological survey in Sennar East and Sabaloka East', *Sudan & Nubia* 20, 146-153. London.
- Nassr, A. H. 2016b. 'Late prehistoric sites from the Sabaloka province north of Khartoum on the eastern bank of the Nile, Sudan', *Afrique: Archéologie & Arts* 12, 21-42.
- Suková, L. and V. L. Varadzin. 2012. 'Preliminary report on the exploration of Jebel Sabaloka (West Bank), 2009-2012', *Sudan & Nubia* 16, 118-131.
- Suková, L., V. L. Varadzin, P. Havelková, J. Novák, A. Pokorná and P. Pokorný. 2015. 'Rané postmerojský pohřeb lučičníka z pohoří Sabaloka', *Pražské egyptologické studie* 14, 72-77.