A Wadi Suq Necropolis in The Mountains Rescue Excavations at Bilad Ash Shuhum (Adh-Dhahira, Oman)

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ABSTRACT

Rescue excavations carried out at Bilad Sahum (adh-Dhahira) have identified a necropolis of the Middle Bronze Age (Wadi Suq period). The architectural characteristics of the 9 excavated subterranean cist graves, and the homogeneity of the archaeological material, especially the soft-stone vessels, suggest that the necropolis was used for a relatively short period, and - quite rarely - no evidence of later reuse was observed, although most of them had been looted.

This is the first Middle Bronze Age necropolis discovered in the mid-mountain region, at an altitude of nearly 1000 m above sea level, which attests to the occupation of this environment at the beginning of the 2nd millennium BCE.

KEYWORDS: Middle Bronze Age, Wadi Suq period, Necropolis, Soft-stone, Bilad Ash Shuhum

مقبرة وادي سوق في الجبال: التنقيبات الإنقاذية في بلاد الشهوم (محافظة الظاهرة، سلطنة عُمان)

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الملخص:

كشفت التنقيبات الإنقاذية التي أجريت في بلاد الشهوم (بمحافظة الظاهرة) عن مقبرة من العصر البرونزي الوسيط (فترة وادي سوق)، حيث تشير الخصائص المعمارية لتسعة قبور صندوقية تحت أرضية تم التنقيب عنها، وكذلك تجانس المواد الأثرية، خاصة أواني الحجر الأملس، إلى أن المقبرة استخدمت لفترة قصيرة نسبياً، وعلى الرغم من أن غالبية القبور قد تم نهبها إلا أنه كان من النادر جداً ملاحظة أي دليل على إعادة استخدامها لاحقاً.

تُعد هذه المقبرة هي الأولى من نوعها في العصر البرونزي الوسيط والتي يتم اكتشافها في المنطقة الجبلية الوسطى، وذلك على ارتفاع حوالي ١٠٠٠ متر فوق مستوى سطح البحر، وهو ما يؤكد وجود استيطان في هذ النظام البيئي في بداية الألف الثاني قبل الميلاد.

الكلمات المفتاحية: العصر البرونزي الوسيط، فترة وادي سوق، مقبرة، الحجر الأملس، بلاد الشهوم.

INTRODUCTION

For a long time, little was known about the Wadi Suq period, both for reasons of research orientation and because of the relative scarcity of settlement sites and necropolises. After the Early Bronze Age (3100-2000 BCE), when monumentality and innovation prevailed, and before the flourishing Iron Age (1300-300 BCE), it was defined above all as an intermediate period, if not a 'Dark Age' (Velde, 2003: 102; Cleuziou, and Tosi, 2020: 413). Even for its chronological definition, it took time for researchers to agree on a terminology and chronology (Velde 2003), but currently it is generally considered that the Wadi Suq period extends from 2000 to 1600 BCE, and that it is followed by the Late Bronze Age (1600-1300 BCE) where continuities and breaks have been observed (Yule, and Weisgerber 2015).

Among the major issues concerning this period, those of economic collapse and social change have often been discussed (Righetti, 2015: 38-69), and are based on material evidence such as a decrease in the number of funerary sites in central Oman and a contraction of human occupation towards the north of the peninsula (a gradual trend that reaches its climax at the LBA), a diversification of funerary monuments and the generalisation of individual burials in central Oman, and above all, increasingly rare and extremely simple habitat sites, more akin to camps or occasional reoccupations than to elaborate constructions (Cleuziou, and Tosi, 2020: 413-433). Such differences raise the question of a possible return to nomadism in the central regions, and the abandonment of oasis agriculture, linked to increasing aridification. Political and commercial problems may also have played a part in the changes observed (for a fuller review, see Döpper 2021: 2-3).

Over the four centuries of the Wadi Suq period, there was an evolution in material culture, but the scarcity of absolute dates and stratified sites poses a problem (de Vreeze, et al., 2020: 142). From a material point of view, one of the key elements is the typolochronology of shapes and especially decoration on soft-stone vases, supplemented by technological data (notably the fabric). While several authors have chosen to divide the Wadi Suq period into two parts (WS I and WS II) (Righetti, 2015: 27-28 and 283), the seriation recently published by C. Velde on the basis of material from Shimal makes it possible to distinguish three main phases for the northern region of the Oman Peninsula (Velde, 2018). This can also be compared effectively with other research on the subject (David, 1996; Yule, 2001: 124-136; Velde, 2003:107-110; Yule, and, Weisgerber, 2015a: 39-43; Righetti, 2015: 283-291). As we shall see in the discussion (see below), the material discovered at Bilal Shahum can be attributed to the end of phase 1 or the beginning of phase 2, probably around 1800 BCE, but by no means to phase 3.

Excavated necropolises from the Wadi Suq period are rare in central Oman: in his recently published comprehensive review, S. Döpper (2021:3-5) points out that, apart from certain isolated tombs and/or tombs excavated from a group of tombs that have only been prospected, only the necropolises of Samad Ash Shan, Adam and Khudra/Al Akhdar have so far been the subject of in-depth investigations. This is why, despite its poor state of preservation due to looting and its rapid excavation in the context of rescue archaeology, the Bilad Ash Shuhum necropolis provides new data on the Wadi Suq period. It also provides a few hypotheses about the circulation of products and contacts throughout the region, including central Oman and the north of the Oman peninsula.

Location of The Site

The necropolis of Bilad Sahum (also known as Bilad Ash Shuhum, بلاد الشهوم) (23°23'14.8" N 57°00'26.4" E) is located in the heart of the Hajar Mountains (**fig. 1**), in the hinterland of Ibri and Bat. The site is at the edge of Maqniyat Road, in an area where a few houses are built, about 1.5 km southeast from the center of the village of Bid'ah, near the place called Rumaylah. The dimensions of the site are not easy to determine: although the graves are mostly concentrated on an area measuring about 50 m x 30 m where 24 structures were identified, the

fact that they are very little visible on the surface makes it possible that there could have been some graves around. Others may have been destroyed by the construction of the road and the houses. In any case, according to the topographical characteristics and the usual layout of necropoles at this time, it is probably a small site in a narrow plain squeezed between the wadi and of the mountains.

Figure 1*: A: Map indicating the main Middle Bronze Age (Wadi Suq period) sites (map: NSA / G. Gernez).*

It is located near the Wadi Maqniyat, which separates the small mountain range in two and may have served as a secondary road between Ibri, Bat and al-Ayn.

No paleoenvironmental studies related to the excavation have been carried out in this area, so our knowledge of the natural environment is limited. No copper deposits have been found in the area. However, some geographical elements allow for some observations. The site benefits from three advantages favorable to human settlement: the altitude (930 m above see level) allowing milder temperatures during the hot season, the presence of a passageway allowing it to serve as a checkpoint, a stopover or even a toll or exchange zone, and the presence of the wadi (**fig. 2**) watered by the highest mountains to the east and other surrounding relief, making agriculture and livestock possible and thus a settlement at least partially sedentary. However, no evidence of ancient settlement has been identified so far. A pedestrian survey could be conducted to find out more about this issue.

Finally, it should be added that even today, despite the aridity, Wadi Maqniyat is occupied by numerous villages and small oases.

Figure 2: *Bilad Shahum. View from the necropolis, surrounded by mountains and close to Wadi Maqniyat (photo: G. Gernez).*

Excavations

Following the discovery of the site related to the roadworks between Bilad Ash Shuhum and Ibri, a rescue excavation campaign took place over ten days in June 2021 (from 16 to 28 June), followed by material documentation at the MHT on 26/07/2021, and a study of the bones in November 2021.

Although the time available for the excavation was short, a methodology was followed: 1) assessment of the boundaries of the site (based solely on the presence of concentrations of stones on the surface, as no sherds or other objects were found), 2) location (GPS) and numbering of probable structures, 3) photography and measurement of structures prior to excavation, 4) selection of an area containing

around ten possible tombs, 5) clearance of the area to delineate the tombs more precisely and locate other possible structures that had not been noticed on the surface, 6) excavation of each structure following a simple protocol (cleaning - clearing the walls of the burial chamber - stratigraphic excavation of the chamber), 7) measurement and photographic documentation at the various stages of the excavation of each tomb, including detailed views of the remarkable objects and architectural features, 8) collection and classification of the bones and artefacts, by tomb and by layer.

The difficulty of identifying the graves, linked to the absence of tumuli and clear markers at ground level, results in the strain of both locating the graves and of counting them. A surface cleaning was therefore carried out, followed by test pits. In total, 9 graves were excavated, and an indeterminate structure (G 1). These graves are concentrated in an area of about 25 m x 15 m (**fig. 3** and **fig. 4**), in the middle of a wider ensemble that includes 24 structures. As explained before, it is very likely that some graves were not identified. Moreover, the low terrace on which they were installed having been cut by the current road, several were probably destroyed by the work.

During the excavation of the chambers, stratigraphic units were determined taking into consideration the sedimentary differences. The filling, especially of the lower layers, was extremely compact, stony and hard. It could have been mistaken for substrate, and only the depth of the chamber walls indicated to archaeologists how far to dig to reach the bottom.

The numbering of the graves was defined according to the surface identifications. In two cases, (G 3, G 6), it turned out that they were two totally distinct graves (G 3-A and G 3-B ; G 6-A and G 6-B). Because of the short time available for this excavation, it was only possible to completely clear the chamber, and uncertainty remains about the outer limits and surroundings of the chamber, including the presence or absence of a stone circle.

Figure 3: *Aerial view of Bilad Shahum necropolis during the excavation (photo: W. al-Ghafri)*.

CATALOGUE OF GRAVES

The catalog below presents 9 excavated graves (**fig. 4**). Most of them are of a similar type: an elongated rectangular or oval chamber, sometimes dug to a depth of more than one meter, with a stone wall around the edges. Around the graves, a stone circle has been observed at least once, and possibly three times. The orientation of the chambers is variable, most often NW-SE,

sometimes N-S and one E-W. The filling of the chambers very consisted of an extremely compact and hard sediment of fine gravel mixed with pebbles similar to the substrate, or fallen stones. It was not silt nor windblown sand, so this could be an indication that the graves were deliberately filled by substrate found around after the body was deposited and before their closing with large slabs, but further studies on this issue are needed to make a more relevant argument.

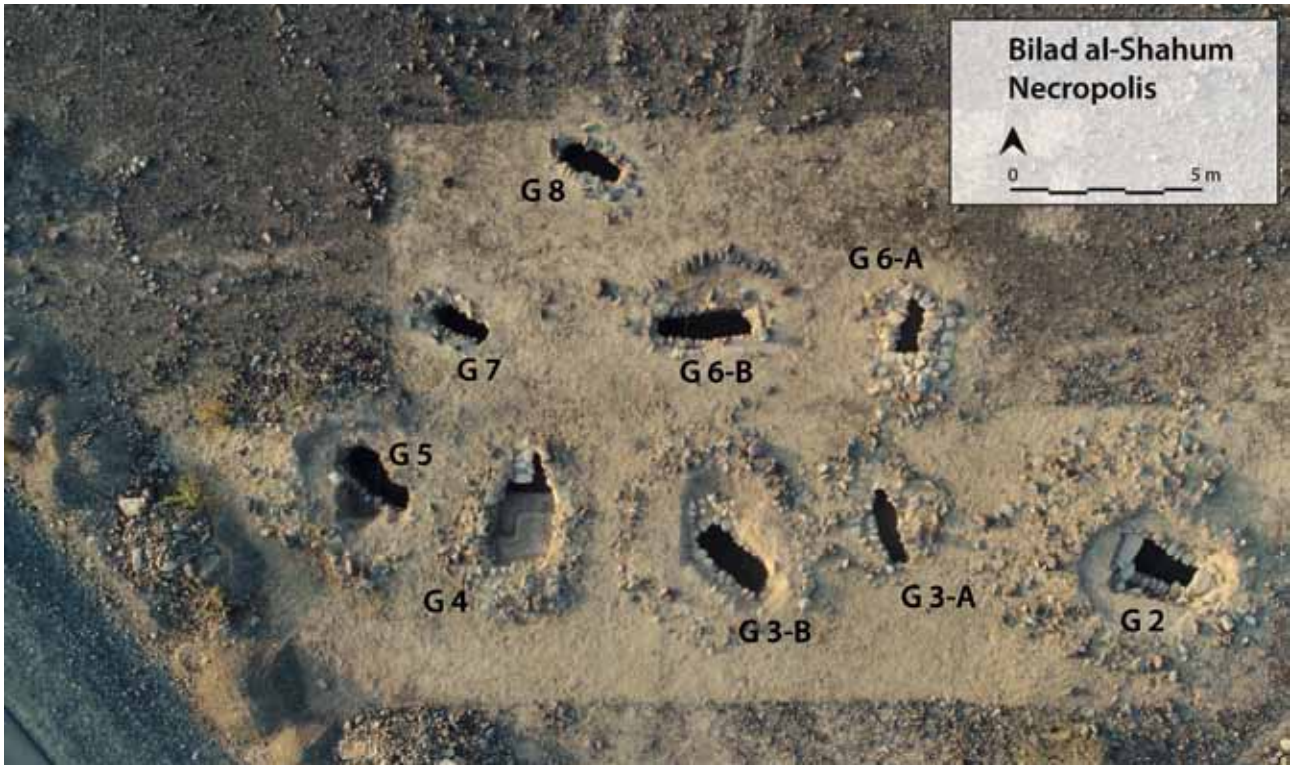

Figure 4: *Aerial view of Bilad Shahum necropolis after rescue excavations (photo: W. al-Ghafri, G. Gernez).*

Structure G 1

Stones forming approximately a circle were visible on the ground, although some were partially covered with sediment. The length of the structure was 4.2 m and its width 3.8 m. A 3 by 3 m test trench was made, revealing no other remains. It was probably not a grave.

Grave G 2

Before the excavation, only a wide (about 7 m in diameter) and low mound of disordered stones and pebbles, reaching a height of 0.3 m, was found.

The cleaning identified a burial chamber whose roof, made of large stones, had collapsed inside over a dense and hard filling of sediment. Two roof slabs were preserved on either side of the grave (fig. 5). The chamber is 2.5 m long, 1.15 m wide, 1.2 m deep. From the surface to the bottom layer, a total of seven layers were identified, the differences between which were mainly the hardness and compactness of the sediment. The wall of the chamber is preserved in four courses made of fairly large blocks (up to 82 x 51 cm). The elongated, almost rectangular chamber is oriented northwest/southeast. The total length of the grave, limited by an oval row of stones that could have been put on purpose or result of the destruction of the roof during the looting, is 7 m x 6.3 m.

The remains of one individual were identified (**Table 1**). Grave goods were abundant (**Table 2**): three soft-stone pots (**fig. 14.1, 14.2** and **14.3**), one

Table 1: *Bilad Shahum. List of artefacts (G. Gernez).*

Grave	N°cat	Type	DA Number	Material	Date	Figure
G 2	1	Sofstone giant pot	52528	Softstone	Wadi Suq	14.1
G 2	2	Sofstone lid	52519	Softstone	Wadi Suq	14.1
G 2	3	Sofstone pot	52516	Softstone	Wadi Suq	14.2
G 2	4	Sofstone lid	52527	Softstone	Wadi Suq	14.2
G 2	5	Softstone pot	52518	Softstone	Wadi Suq	14.3
G 2	6	Sofstone lid	52524	Softstone	Wadi Suq	14.3
G 2	11	Sofstone lid	52525	Softstone	Wadi Suq	15.1
G 2	13	Sofstone lid	52517	Softstone	Wadi Suq	15.3
G 2	10	Sofstone bowl	no	Softstone	Wadi Suq	14.6
G 2	22	Jar	no	Pottery	Wadi Suq	17.7
G 2	23	Pot	no	Pottery	Wadi Suq	17.8
G 2	30	Awl	no	Copper	Wadi Suq	18.3
G 2	39	Bead	no	Carnelian	Wadi Suq	18.12
G 3-A	24	Jar	no	Pottery	Wadi Suq	-
G 3-A	28	Socketed spearhead	52521a	Copper	Wadi Suq	18.1
G 3-A	29	Socketed spearhead	52521b	Copper	Wadi Suq	18.2
G 3-B	17	Gobelet	no	Pottery	Wadi Suq	17.2
G 3-B	20	Pot	no	Pottery	Wadi Suq	17.5
G 3-B	25	Jar	no	Pottery	Wadi Suq	-
G 3-B	26	Jar	no	Pottery	Wadi Suq	-
G 3-B	27	Jar	no	Pottery	Wadi Suq	-
G 3-B	31	Unknown	no	Copper	Wadi Suq	18.4
G 3-B	33	Flint tool	no	Flint	Wadi Suq	18.6
G 3-B	35	Bead	52520	Stone/Carnelian	Wadi Suq	18.8
G 3-B	36	Bead	52520	Carnelian	Wadi Suq	18.9
G 3-B	37	Bead	52520	Stone	Wadi Suq	18.10
G 3-B	38	Bead	52520	Stone	Wadi Suq	18.11
G 3-B	41	Shell fragment	no	Shell	Wadi Suq	18.14
G 3-B	42	Shell fragment	no	Shell	Wadi Suq	18.15
G 5	12	Sofstone lid	52515	Softstone	Wadi Suq	15.2
G 5	15	Sofstone lid	52514	Softstone	Wadi Suq	15.5
G 5	21	Jar	no	Pottery	Wadi Suq	17.6
G 5	40	Bead	no	Carnelian	Wadi Suq	18.13
G 6-B	14	Sofstone lid	52526	Softstone	Wadi Suq	15.4
G 6-B	16	Gobelet	no	Pottery	Wadi Suq	17.1
G 6-B	19	Gobelet	no	Pottery	Wadi Suq	17.4
G 7	7	Sofstone pot	52510	Softstone	Wadi Suq	14.4
G 7	8	Softstone pot	52511	Softstone	Wadi Suq	14.5
G 7	9	Softstone lid	52512	Softstone	Wadi Suq	14.5
G 7	18	Gobelet	no	Pottery	Wadi Suq	17.3
G 7	32	Ring	52513	Copper	Wadi Suq	18.5
G 7	34	Bead	no	Shell	Wadi Suq	18.7

of which was large, each with its associated lid. However, in two cases, the pots and lids were not in the same sedimentary layers, indicating that the contents were stirred up after deposition, probably after the chamber had been completely or partially filled in. Two other lids complete the corpus (**fig. 15.1** and **15.3**), which could indicate the presence of other pots that were removed during the looting. This fact is confirmed by two fragments of a fourth soft-stone pot (**fig. 14.6**). Sherds of painted pottery allow the reconstruction of at least two painted pots (**fig. 17.7** and **17.8**). A fragment of awl (**fig. 18.3**) and a carnelian bead complete the set (**fig. 18.12**).

Grave G 3-A

This simple stone-lined grave consists of a rectangular chamber, the two ends being curved, forming a sort of apses. The total length of the grave is 3.6 m and its width 2.9 m. The wall is preserved on 4 courses. The burial chamber was 2 m long and narrow (0.5 m) with a depth of 0.5 m, including 4 layers (**fig. 6**). It is oriented almost N-S.

The bones of one individual were identified (**Table 1**). Despite the looting, a few objects were discovered (Table 2), including sherds of a jar, and a pair of copper/bronze spearheads in the N-E corner of the grave (fig. 7 and fig. 18.1-2), which is typical of the Wadi Suq period (see below).

Grave G 3-B

This grave, is wider than the previous one. On the north side, a pile of stones may have come from an almost completely destroyed circle (which is attested on the site, see grave G 6-B), unless it was the roof removed during the looting. The burial chamber is 2.3 m long, 1 m wide and 0.95 m deep. It is oriented NW-SE. Its double wall is preserved on seven courses. One of the roof blocks was found planted in the bottom of the chamber (**fig. 8**).

A few bones indicate the presence of an individual (**Table 1**). Like the other graves, this one was almost completely looted, leaving only fragments of pottery found in all the layers of fill (**fig. 17-2** and **17.5**), a flat copper broken piece (**fig. 18.4**), a fragment of flint tool (**fig. 18.6**), two broken shells (**fig. 18.14-15**) and four stone beads (**fig. 18.8-11**) at the bottom of the chamber (**Table 2**).

Grave G 4

Grave G 4 was very poorly preserved, consisting of a concentration of stones. On the surface, its total length was 4.80 m and its width 3 m. The excavation revealed an oval chamber 0.5 m deep, with badly damaged walls on the south side. No bone or material remains were identified inside. According to the bad state of preservation of this grave, it is highly possible that the stone concentration comes from its almost full destruction (**fig. 9**).

Grave G 5

Although it is only 0.4 m high, the mound is the highest in the entire necropolis. It consisted of a layer of stones on the surface, and a mixture of stones and eolian sediment below the surface. It seems to be a mound due to the destruction of the grave rather than a mound erected voluntarily. While the mound extends to about 6 m in diameter, the grave itself is smaller (**fig. 4**): it is a rectangular burial chamber, elongated and oriented NW-SE. The walls of the chamber, made of medium-sized blocks, are preserved over 11 courses, which corresponds to a greater depth than for most other graves (apart from G 2 and G 6-B): nearly 1.3 m.

The grave was almost completely emptied of its contents, but a few bones were found (**Table 1**), as well as several artifacts (**Table 2**): two small soft-stone lids (**fig. 15.2** and **15.5**), shards of a painted jar (black-on-red) (**fig. 17.6**) and a fragment of a carnelian bead (**fig. 18.13**).

Grave G 6-A

Prior to excavation, grave G 6-A was remarkable for the large concentration of stones on about 4 m in diameter, suggesting a large, well-preserved grave. However, the excavation revealed only a small chamber, similar to grave G 3-A in size (1.4 m x 0.5 m), shape (rectangular), direction (N-S), and depth (0.3 m) (**fig. 4**). Only one course was preserved, and no bone remains or material were found in the fill.

Figure 5: *Bilad Shahum. Grave G 2, with two softstone pots under the preserved roof slab (photo: W. al-Ghafri).*

Figure 6: *Bilad Shahum. Grave G 3-A, chamber (photo: W. al-Ghafri).*

Figure 7: *Bilad Shahum. Grave G 3-A, chamber: two copper spearheads near the wall (photo: W. al-Ghafri).*

Figure 8: *Bilad Shahum. Grave G3-B during the excavation, roof stone fallen inside the chamber (photo: W. Al-Ghafri).*

Grave 6-B

This grave, located in the center of the excavated area, is characterized by the presence of an oval row of stones, well preserved on the north side, but destroyed elsewhere (**fig. 10**). The chamber, oriented east-west, is rectangular with two short sides slightly curved. It is 2.4 m long, 0.75 m wide and 1.3 m deep. The walls are made up of two rows of stones and pebbles of medium size, and are preserved in 13 courses. Several large blocks from the corbelling were found fallen into the chamber.

This grave was also looted, but some bone remains attest to the presence of an individual (**Table 1**). Fragments of two painted beakers were found (**fig. 17.1** and **17.4**), as well as a soft-stone lid (**fig. 15.4**) (**Table 2**).

Grave G 7

The grave was visible by a very low mound, 0.2 m high and about 3 m in diameter. The excavation revealed a small rectangular chamber (1.5 m x 0.65 m), 1 m deep and oriented NW-SE. The wall of the chamber consists of a single row of stones, and is preserved in 10 courses. The beginning of the corbelling is visible (**fig. 11**).

Like the other graves, G 7 (recorded during the excavation as G 7-A) was looted, but with less attention than the others, as evidenced by the number of bones collected (**Table 1**). The bone inventory is compatible with an individual in anatomical logic, indicating a probable primary individual burial. Grave goods are also present (**Table 2**), including a copper ring (**fig. 18.5**), a shell bead (**fig. 18.7**), and soft-stone pots (**fig. 14.4-5**) in the grave fill (layer 3) and at the bottom of the grave (layer 4). One example is pot DA 52511, whose lid was found separated from its cover (DA 52512), indicating that the contents of the grave were stirred during the looting.

Table 2: *Bilad Shahum*. *Bone inventory (E. Ciesielski)*.

Grave	Bone inventory
G 2	Skull fragment: vault, occipital (towards base), right temporal
G 2	Diaphysis fragment of several long bones: small or immature? including tibia, humerus?, radius? and various fragments
G 2	Fragments of diaphysis (probable femur)
G 3-A	3 skull fragments
G 3-A	Fragments of diaphysis (femur/tibia size)
G 3-A	2 humerus-sized portions of diaphysis
G 3-A	Femur/tibia/humerus size shaft fragments
G 3-A	1 portion of fibula shaft
G 3-B	Some diaphysis fragments (humerus? or femur/tibia gracile)
G 3-B	3 crown fragments: 1 M, 1 superior P or M, 1 P. Adult size, no wear (maybe young adult).
G 5	2 diaphysis fragments (humerus, femur and tibia size)
G 6-B	Various cranial vault fragments including at least parietal and occipital.
G 6-B	One fragment of mandible body and 3 tooth fragments (inferior M roots + 2 crown fragment from inferior M1?) => 1 tooth
G 6-B	2 or 3 fragments of cervical vertebrae
G 6-B	Fragment of navicular
G 6-B	Various fragments of long bones: 1 fragment epiphysis (type humerus/femur/tibia), fragments of radius shaft, fragments of humerus/femur shaft, 2 fragments of a left clavicle, 2 or 3 fragments of metatarsal/metacarpal, fragments of undetermined diaphysis
G 7	1 distal end of right fibula + 1 diaphysis fragment
G 7	1 tibia (left?)
G 7	Fragments of a femoral shaft
G 7	Distal half of 1 humerus right (without ext.)
G 7	2 proximal ends of metacarpal (2 and 3 left)
G 7	1 shaft fragment (radius or ulna?)
G 7	1 left metatarsal 2 (without head)
G 7	1 head of metatarsal 1
G 7	Tarsal fragments including 1 left talus, 1 proximal end of metatarsal, 2 fragments of calcaneus
G 7	Coxal fragments of with at least 1 upper portion of greater sciatic notch with angle of left auricular surface.
G 7	Diaphysis fragments (femur or tibia)
G 7	Ulna fragments including one proximal end of right fibula, 2 portions of (2?) diaphyses, 1 fragment of the horizontal portion of the olecranon of left? fibula.
G 7	1 left patella and one right patella
G 7	Fragments of hip bone, including a portion of acetabulum
G 7	Fragments of the distal end of a femur
G 7	Foot fragments including: 2 fragments of calcaneus including 1 medial portion of left calcaneus which is compatible (articular contiguity with the talus of the other bag), 1 fragment of right talus, 1 cuboid fragment, 2 proximal foot phalanx, 2 proximal phalanx of hallux, 1 metatarsal body radius

Figure 9: *Bilad Shahum. Grave G 4 before excavation (photo: W. al-Ghafri).*

Figure 10: *Bilad Shahum. Grave G 6-B after excavation (photo: G. Gernez).*

Figure 11: *Bilad Shahum. Grave G 7 after excavation (photo: G. Gernez).*

Grave G 8

Grave G 8 (recorded during the excavation as G 7-B) is similar to the previous one: it consists of a small rectangular stone-lined chamber (1.5 m x 0.55 m), 1.15 m deep and also oriented NW-SE. The wall of the chamber is preserved on 12 courses. A large slab of the corbel or roof is in place on the NW side (**fig. 12**). However, unlike the previous one, no remains were found inside.

Figure 12: *Bilad Shahum. Grave G 8 after excavation (photo: G. Gernez).*

Burials and Funerary Material

To sum up, we recall the overall homogeneity of the graves (construction materials, shape, dimensions) and their concentration.

According to the identification, all individuals are adult or mature size. All burials seem individual.

Anatomical representation and bone preservation are very poor. Despite the lack of field indication, they seem to be primary burials as attested by the post-excavation study, especially with part of hand or feet (even if the small bones of the hands and feet are not present).

There is no certainty as to whether the chamber was left empty, or partially (or even totally) filled with sediment before it was closed. We can only observe that the looting left some objects (the pots and lids, though originally associated) in different layers, which tends to show that the chamber was at least partially filled with sediment at the time the looting took place. We have no information concerning the date and speed of this filling, nor whether it was anthropogenic, eolian or alluvial.

Despite the general looting, funerary offerings (pottery, soft-stone vessels, weapons, ornaments) were discovered in 6 graves. This suggests the presence of more weapons, ornaments and vessels at the time of the deposition. The funerary offerings are fairly homogeneous: the types of soft-stone vessels are similar, as are the painted ceramics.

MATERIAL STUDY

The graves at Bilad Sahum yielded a very homogeneous material culture, which echoes the homogeneity of the graves in the cemetery.

As well as some observations made in the field, the material suggests a probable very early plundering, judging by the extreme scarcity of metal in the assemblage, by some of the graves emptied or almost emptied, by the presence of broken objects (a soft-stone pot and ceramic vases) or even incomplete objects (e.g., pot lids without the associated pot, or the reverse). The very poor preservation of the bones and pottery may be related to this looting, although it may also be due to the characteristics of the sediment.

A total of 42 objects came from 6 graves. Graves G 1, G 4 and G 8 did not yield any material. One of the most remarkable points, as we pointed out earlier, is the absence of later reuse. Therefore, all of the material dates to the Wadi Suq period.

Concerning the materials (**fig. 13**), the most frequent is soft-stone (15 objects, 14 of which are whole and intact) followed by ceramics (12 objects, very fragmentary), stone (6 carnelian and other beads), copper or bronze (5 miscellaneous objects), shell (one bead and 2 fragments) and finally a small flint flake that does not seem to be part of the assemblage, but may have been contained in the pebble.

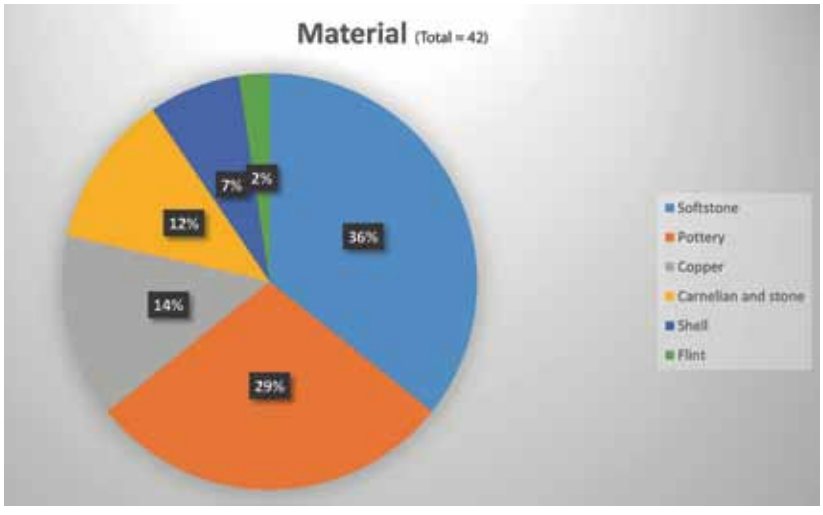

Figure 13: *Bilad Shahum. Proportion of materials in the corpus (42 objects) (graphic: G. Gernez).*

Although it may seem surprising, the over-representation of soft-stone material is not uncommon: it is also the case at Adam North, with graves also dated to the Wadi Suq period. This is probably related to the fact that it is a typical funerary offering of the protohistoric period in Southeastern Arabia, both by the quality of the object itself, and by the product it contained, which is unknown. It is also possible that, unlike objects made of precious materials, these stone objects often escaped looting, either because they were not considered valuable or because they were placed so close to the walls that the looters did not see them.

The rarity of the ceramics is more difficult to understand: it is obvious that some pots were broken, during the collapse of the graves and/or episodes of looting, but most of the sherds were no longer in the filling. This fact has already been observed at Adam North.

From the functional point of view, in addition to soft-stone and ceramic vessels, the funerary offerings include elements of ornaments (beads, ring), two shells that may have contained cosmetics, two weapons (spearheads) and a tool fragment.

Soft-Stone Vessels

Fifteen soft-stone – probably chlorite, according to raw material known in Hajar mountains (David, 1996:32; Harrower, et al. 2016:199) – pots and lids were found in the graves (**see index**).

Some pots are associated with lids, others are not, and several lids are isolated. This element again raises the question of looting: should a lid without a pot be taken as an indication that the associated pot has been taken away? It is also possible that in some cases only the lid was deposited as a funerary offering, symbolizing a complete vessel.

There is a total lack of standardization in terms of dimensions and volumes: for example, pot 52528 is three times larger than pot 52511 (**fig. 14.1** and **14.5**). From the morphological point of view, the corpus is a little more homogeneous: the pots are globular (**fig. 14.1-2**) or truncated conical (**fig. 14.3-5**), and all have 4 small lugs and the lids are all provided with the same constitutive elements: a discoid base adjusted to the opening of the pot, and a convex surface finished by a more or less protruding lug. Finally, from the point of view of decoration, despite a variety in the number and organization of motifs, there is also a homogeneity: the pots have one or two rows of pointed circles framed by horizontal lines near the top, and groups of oblique lines in their lower part. The lids also often have a row of dotted circles, dashes and oblique lines on the domed face and/or rim, as well as dashes along the lug and a pattern (cross, plant) at its tip. The main exception is pot 52518 (cat. 3, **fig. 14.3**) which is completely devoid of decoration, and whose lid is decorated only with a row of dotted circles.

From a technical point of view, traces of the shape making, especially hollowing, are sometimes still visible on the interior surfaces, when they have not been finished to erase them. On the two pots with the most legible traces, a difference in the technical gesture is noticeable: in the case of pot 52516, the chisel - probably metallic - was used in short, sharp strokes, forming splinters traces of a few millimeters (**fig. 16.1**). In contrast, the traces visible in pot 52510 are longer (**fig. 16.2**) and suggest that the end of the hollowing process and curving was made by pressure or stronger blows. It is also possible that these are two successive steps usually carried out, but that in the case of pot 52510, the second step intended to attenuate the deep traces a little was not carried out. Great care was taken in the finishing of the objects, notably the polishing, of which traces occasionally remain (e.g., on pot 52518 (cat. 3, **fig. 14.3**) and on the surface of large pot 52528 (**fig. 16.3**), and on the decorations, which were carefully incised. While the lines and dashes are sometimes irregular, the dotted circles are extremely well traced (**Fig. 16.3-4**), supporting the idea that the tool was precisely designed to form this pattern, and used in a rotational move.

We do not know the product originally contained in these small containers. They could have been perfumes or ointments, considered to have a magical or at least particular significance, linked to beliefs about the world of the dead. It

is very likely that this product had a precious character. The pots also had a value in themselves, perhaps because of their materials, but especially because of their aesthetic qualities. Content and container could be exchanged, which could explain the looting if it took place shortly after the burial when the populations were aware of what the graves contained.

Figure 14: *Bilad Shahum. Softstone pots from graves G 2 and G 7 (photos: G. Gernez).*

The two main types of attested forms are lugged globular – especially the two largest vessels DA 52528 (cat. 1, **fig. 14.1**) and DA 52516 (cat. 2, **fig. 14.2**) – ("shape type 6" of Yule, and Weisgerber (2015a:15, fig. 2) = "type D" of Velde (2018:115, fig. 2)) and lugged truncated cone-shaped (DA 52518, cat. 3, **fig. 14.3** and DA 52511, cat. 5, **fig. 14.5**) ("shape type 15" / "type A"). The DA 52510 pot (cat. 4, **fig. 14.4**) has an intermediate shape between the two previous ones. Finally, the broken hemispherical bowl cat. 10 is an exception (shape type 14), but its decoration is identical to that of the lugged globular. While the truncated conical forms are typical of the Wadi Suq period and persist thereafter, the globular forms are considered more archaic, dating back to the end of the 3rd millennium BCE (ibid, p. 39, fig.11).

The incised decorations, consisting of friezes of dotted circles and horizontal and oblique lines are typical of the Wadi Suq period, although they may survive, often with greater complexity, into the LBA (e.g., at Al Wasit (ibid)). Most of them belong to pattern types A 1 and B defined by Velde (2018: 116, table 1), mentioned as the "basic pattern". Velde explains that this pattern as: "a combination of the three most common elements of horizontal lines, dotand-circle and oblique lines. All vessels show a strict division into two panels. The upper panel is filled with alternating bands of rows of dot-and-circle and bundles of two or more horizontal lines. The only difference between the various patterns is the number of occurring bands and the use of either dot-and-circle 1 or dot-and-circle 2. The horizontal lines are often doubled in the lowest occurrence and are used at the same time as dividers between both panels. The lower part is decorated with oblique lines between knobs or lugs (…)" (ibid, p .117)[1].

The simple pattern on 52516 (cat. 2, **fig. 14.2**) is reminiscent of the Adam North pots (Gernez, and Giraud, 2015:116, fig. 10) and an object from al-Mukhailif (Yule, and Weisgerber, 2015b:103, pl. 47:13) although in both cases the lugs are perforated, which is not the case in the Bilad Sahum corpus.

The more elaborate decoration of large pot 52528 (cat. 1, **fig. 14.1**), consisting of two friezes of dotted circles, and oblique lines finds a parallel at Hadhib al-Suwaiq (Yule, and Weisgerber, 2015a:103, pl. 47:13), but even more closely related specimens, both in form and in decoration and lugs characteristics, are attested at Al Akhdar (Yule, and Weisgerber, 2015b:164, pl. 18). From the known examples at Kalba (K 3) (Phillips, 2018:28, fig. 13) and Shimal, it appears that these productions were distributed throughout the Wadi Suq cultural area (see for example Sh 103 (Vogt, and Franke-Vogt, 1987:fig. 25-28)).

Even more striking is the resemblance between the small pot DA 52511 (cat, 5, **fig. 14.5**) and a small example also from the Al Akhdar necropolis (Yule, and Weisgerber, 2015b, p. 164, pl. 18:5) whose size, morphology, and organization of the decorative pattern is almost exactly the same. Another parallel is a pot from Al Buhais BHS 37 (Jasim, 2012: 120, fig. 148.3).

Good morphological and decorative parallels to those of pot 52510 from grave G 7 (cat. 4, **fig. 14.4**) are also present at Al Akhdar (ibid, p. 164, pl. 18:7-8) despite some differences in the diameter and spacing of the dotted circles, and at Al Buhais BHS 66 (Jasim, 2012: 179, fig. 215.7) and BHS 68 (ibid, p. 193, fig. 229.1).

Also on this site good comparisons with the broken bowl (cat. 10, **fig. 14.6**) are found, both in form and decoration (ibid, p. 164, pl. 15:5, 17:4), but they are widespread as far as Al Buhais grave BHS 2 (Jasim, 2012:22, fig. 12.5). It is noted that complete examples usually have a pouring spout.

The nine lids are of varying sizes, adapted to each jar either from the design of the jar based on the perfect fit to the shape and size of (e.g. DA 52519), or by being re-cut and reused (DA 52526) (cat. 14, **fig. 15.4**) on another smaller jar. Their design is identical: they are circular, with a larger or smaller lug, and the lower part having a smaller diameter than the surface in order to enter the opening and be held there.

The lids are decorated all over the outside, including the sides and the top of the lug (**fig.**

1 One can note that terminology vary between authors: "dotted circle" (David, 1996), "dot and circle" (Harrower, et al. 2016), "dot-and-circle" (Velde, 2018), or "dot-in-circle" (Ziolkowski, and Al-Sharqi, 2006).

15). On the lower part of the lid, there are usually one or two rows of dotted circles, sometimes supplemented by oblique lines and dashes (see DA 52517, cat. 13, **fig. 15.3**). The edges of the lug are decorated with horizontal dashes, giving the impression that it is not cylindrical but has faces. Finally, the tip of the lug is usually decorated with a geometric design (one or more pointed circles, a cross or a stylized vegetal motif). Lids similar in shape and decorative motifs are widespread throughout the Wadi Suq culture area, at Al Wasit (Yule, and Weisgerber, 2015a:88-93, pl. 32-37), Al Akhdar (Yule, and Weisgerber 2015b:166, pl. 20), in central Oman, but as far south as the confines of the Oman Peninsula at Ghalilah (Donaldson, 1984:303-305, figs. 23-25), Shimal (ibid, p. 291-293, figs. 11-13), e.g. Sh 6 (de Cardi, 1988:67-69, figs. 12-13) and Sh 103 (Vogt, 1987:figs. 25-28). More specifically, there are similarities between DA 52514 (cat. 15, **fig. 15.5**) and a lid from Al Buhais grave BHS 33 (Jasim, 2012:112, fig. 139), as well as between DA 52527 (cat. 4, fig. **14.2**) and Al Buhais BHS 8 (ibid, p. 49, fig. 57) or DA 52519 (cat. 2, **fig. 14.1**) and lids from Al Buhais BHS 60 (ibid, p. 162, fig. 193.1) and Adam North (Gernez, and Giraud, 2015:116, fig. 10).

The vegetal motif seen on DA 52525 (cat. 11, **fig. 15.1**) and DA 52517 (cat. 13, **fig. 15.3**) although rarer, is known at Al Akhdar, Qorin es-Sahhaimah (Yule, and Weisgerber, 1996: 148, fig. 7), and al Buhais BHS 68 (ibid, p. 193, fig. 229.4) and BHS 89 (ibid, p. 275, fig. 329).

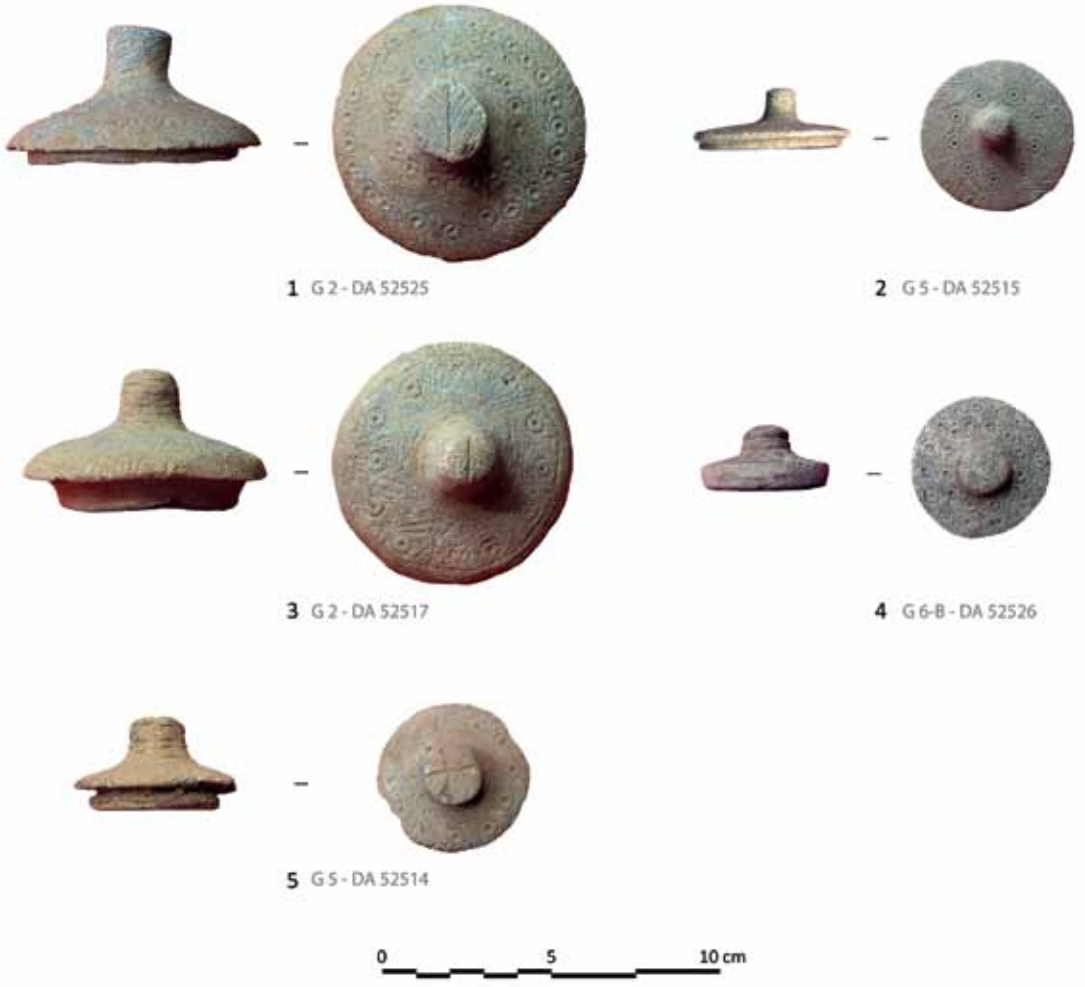

Figure 15: *Bilad Shahum. Softstone lids from graves G 2, G 5 and G 6-B (photos: G. Gernez).*

Figure 16: *Bilad Shahum. Manufacturing traces: 1 - long curving traces (DA 52516). 2 - short curving traces (DA 52510). 3 - polishing, engraved lines and dotted circles (DA 52528). 4 - regular dotted circles (DA 52516). (photos: G. Gernez).*

Although it is difficult to offer great precision, the relative simplicity of the forms, reminiscent of those observed at Adam North, and the homogeneity of the decorations, which finds parallels in some graves at Al Buhais and other northern sites such as Ghalilah and Shimal, indicate that the necropolis may have been used during the first half of this period (Wadi Suq I) (Righetti, 2015(2):fig. 115). Indeed, the complexification of the decorations and the multiplicity of forms seems rather characteristic of the later Wadi Suq period (Wadi Suq II), and are not attested here. However, the decorative motifs are already more complex and varied than those of the pots and lids from Adam North and Samad Ash Shan, so we can assume that the Bilad Ash Shuhum site is slightly later. According to the parallels, the two types (the simpler one as at Adam and the more elaborate one as at Bilad Sahum) are attested in various regions, and sometimes on the same sites, which is hardly compatible with a regional difference. The latter seems to be more chronological.

Pottery

Although rare, sherds were found in all the graves except for graves 1, 4 and 6-A, which were completely empty. It was possible to reconstruct 8 objects whose shape and/or decoration were identifiable. The ceramics have a fine paste of light color, beige or pinkish, and seem to be turned. The surface, also pinkish, is often painted black with geometric patterns. The main forms are beakers and pots and jars. All these technological, morphological and decorative elements are characteristic of the Wadi Suq period.

The poor conservation of the ceramics, both in terms of the very small number of objects found and their erosion, recalls an observation made at Adam North. That looting was the main reason is probable. But it is also possible that the characteristics of the sediment and its humidity, acidity, and/or salinity may have led to some shards almost turning to dust over time. For these reasons, the chrono-cultural contribution of the pottery is minimal if not non-existent.

Painted beakers with fairly simple geometric patterns painted in black (e.g. cat. 16, **fig. 17.1**) are the most typical pottery type known during the Wadi Suq period. Very similar objects (shape and decoration) are known at Al Buhais BHS 1 (Jasim, 2012:19, fig. 8). Truncated beakers (cat. 19, **fig. 17.4**) are unusual, but known at Al Buhais BHS 1 (ibid).

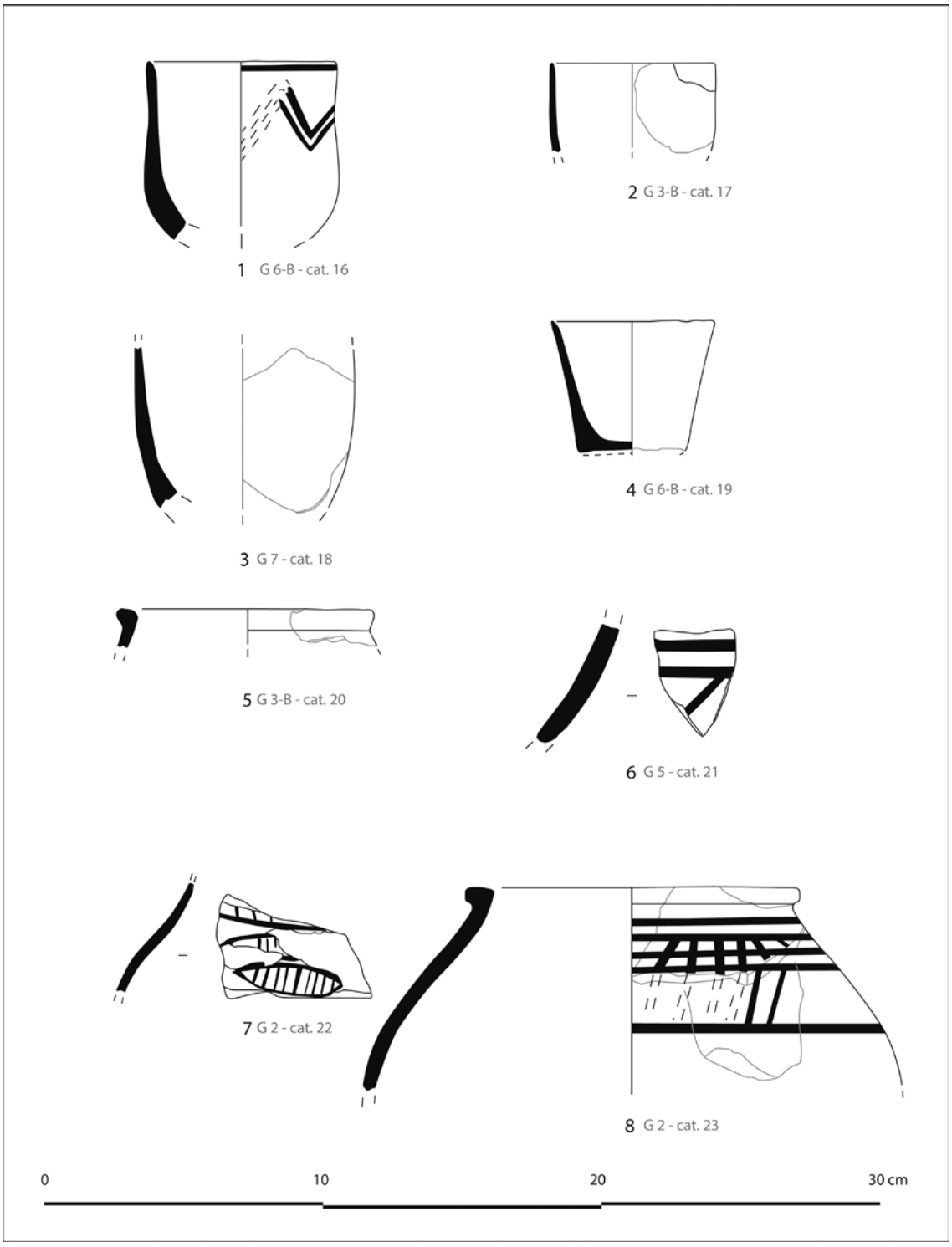

Figure 17: *Bilad Shahum. Pottery from graves G 2, G 3-B, G 5, G 6-B and G 7 (plate: G. Gernez).*

At best, the globular shape with very short necks of the painted jars seems to confirm a date in the first half of the Wadi Suq period (see, for example, the painted jar found in G 2 (**fig. 17.8**), which is reminiscent of a jar from Shimal, tomb Sh 404 (B) where chlorite jars similar to those from Bilad Sahum were also found) (Velde, 2003:103-105, figs. 2-5). Another black-on-red painted jar (cat. 22, **fig. 17.7**) is of a common type during the Wadi Suq period, for instance at Al Buhais BHS 8 (ibid, p. 46, fig. 53). The pattern with dashes surrounded by longer and wider lines is known, but is usually vertical (Cleuziou, and Tosi, 2020:420, fig. 243) while here it is horizontal.

Metal Objects

As no elemental analysis was carried out, we do not know whether these objects are made of copper or an alloy (polymetallic or tin bronze).

As we observed earlier, the very great scarcity of copper/bronze objects in the graves (only five objects/fragments) seems to be an indication of looting. Metal furniture is one of the main targets of looters after burial, because of the value of copper and the possible recycling of objects, a possible secondary use, or their symbolic value (weapons and other objects of prestige, for example).

The corpus includes two spearheads, one point, one flat fragment and one ring (**see index, cat. 28-32**).

Socketed spearheads are known throughout Southeastern Arabia from the beginning of the 2nd millennium BC, and are typical of the Wadi Suq period. The best examples are known at Adam North (Gernez, and Giraud, 2015), Al Buhais hoards and grave BHS 60 (Jasim, 2012:26, fig. 21 and p. 32, fig. 29 ; p. 162, fig. 193.8), and also Samad Ash Shan S 2146 or S 21103 (Yule, 2001:pl. 361-362). The two discovered in Grave G 3-A (cat. 28 and 29, **fig. 18. 1-2**) are characteristic of the early Wadi Suq period in the region, both in morphology, size and association. Moreover, the deposition of socketed spears in pairs in funerary contexts extends well beyond the Wadi Suq cultural zone. In Southeastern Arabia, it for example attested at Adam North (Gernez, and Giraud, 2015:117), Al Buhais BHS 32 (ibid, p. 125, fig. 153), Jebel Faya (Jasim, and Yousif, 2018:18, fig. 17), and Asimah (Vogt, 1994:54-57), as far as Mesopotamia and the Levant. This is reminiscent of the phenomenon of warrior graves (Gernez, 2006). It should be noted that in Mesopotamia (Tell Songor A, Baghouz) and in the Levant (Hama, Tell Arqa), the association of two spears is only proven at the very beginning of the 2nd millennium BC and does not seem to be later than 1750 BC according to absolute dating and the typology of associated objects. If the same is true in Southeastern Arabia, this could be an additional clue to the dating of the Bilad Ash Shuhum necropolis to the first half of the Wadi Suq period.

The presence of small tools as the point from Grave G 2 (cat. 30, **fig. 18.3**) in graves is quite rare, but not unknown: for example, grave BHS 1 from Al Buhais yielded a small adze and a needle (Jasim, 2012, p. 18, fig. 7). Points were also discovered in grave Qo 1 at Qorin es Sahhaimah (Yule, and Weisgerber, 1996: fig. 7.5-6).

The flat fragment found in grave G 3-B (cat. 31, **fig. 18.4**) could be a part of a large bucket, similar to an object discovered at Al Buhais (Hoard 2) (Jasim, 2012:32, fig. 31).

Finally, the ring from grave G 7 (cat. 32, **fig. 18.5**) is very common. Good parallels are attested at Al Buhais BHS 1 (ibid, p. 18, fig. 7), BHS 37 (ibid, p. 121, fig. 149.2-9) and BHS 60 (ibid, p. 162, fig. 193.6-7).

Flint Tool

A single small, light brown, fine flint tool was found in grave G 3-B. There are traces of retouching and small removals. It could be a small scraper according to the retouching on the edge. The heel is thinned, and forms a kind of tang (**fig. 18.6**).

It is not possible to know whether this tool was deliberately placed among the funerary material, which does not correspond to the funerary practices of the Wadi Suq period, or whether it is an older tool picked up among the sediment during the construction of the grave.

Beads and Other Small Ornaments

Only seven beads were found, which constitutes a new argument in favor of looting the graves. The corpus is typical of that known in the region, with an original influence of types from the Indus, but objects that may have been worked locally. Studies of these objects show that they are made with elaborate tools, including very fine metal drills (Frenez, 2020:391, fig. 35.8). The most remarkable point, given the chronological homogeneity of the necropolis and the absence of older or more recent burials, is that these beads can be dated unambiguously to the Wadi Suq period, making them good references, at least a terminus ante quem[2].

The discoid shell bead/pendant from grave G 7 (cat. 34, **fig. 18.7**) has good parallels at Qorin es Sahhaimah grave Qo 1 (Yule, and Weisgerber 1996: fig. 7.4) and Al Buhais BHS 37 (Jasim, 2012:121, fig. 149.10). The long cylindrical biconvex agate (or carnelian) bead from grave G 3-B (cat. 35, **fig. 18.8**) belongs to a type originally known in the Indus valley (Kenoyer, Frenez, 2020:400), and can be found during the Wadi Suq period at Al Buhais BHS 2 (Jasim, 2012:23, fig. 15).

The other small biconvex stone (including carnelian) beads are very common (cat. 36-40, **fig. 18.9-13**). Good parallels exist at Al Buhais BHS 37 (Jassim, 2012, p. 121, fig. 149.1) and BHS 3 (ibid, p. 35, fig. 36.5).

Shell Fragments

Two shell fragments (cat. 41, cat. 42), probably of the species Anadara sp. or Trachycardium sp. were found in grave G 3-B (**fig. 18.14-15**). They could have served as containers for cosmetic items (a kind of kohol), as attested in graves of the Wadi Suq period at Adam North (Gernez, and Giraud, 2015:117), and even as early as the 3rd millennium (Borgi, and Maini, 2020:133, fig. 10.4).

2 Although beads may have been passed down from generation to generation from the Early Bronze Age (Umm an-Nar period), or even looted from a tomb of that period, this is quite unlikely.

DISCUSSION

The Necropolis

Even if only a part of the necropolis has been excavated so that it is difficult to estimate its original size and the total number of graves, several conclusions are possible from the first results.

First of all, the homogeneity of the graves is very clear (**fig. 4**): they are stone-lined graves, all built with the same materials and dug into the ground at comparable depths. Only the size of the chambers and their orientation vary. Only one grave (G 6-B) (at most three (G 2, G 3-B)) was surrounded by a circular or oval row of stones at ground level, perhaps to support a tumulus of which nothing or almost nothing remains, which could indicate that it was made of earth rather than stones. This is - along with the size of the chamber - the only perceptible distinguishing feature within this necropolis. Is this an element related to the status of the buried individual? This is a possibility, but it is not possible to demonstrate it. The simplest graves belong to the IS1a type defined by Righetti (2015), and the one with a stone circle to the IS1b type.

One also notices the very large concentration of graves, all of them located close to each other, at about 2m to 4m. This choice does not seem to be fortuitous, but planned: was it for lack of space on this low terrace very close to the wadi, or so that the graves occupy the least space possible? We cannot, at this stage, offer a definite interpretation. It could also be a choice linked to beliefs, to the wish to gather the deceased in a very small space.

It should also be noted that despite their proximity and the fact that they are below ground level, the graves do not overlap, which seems to prove that there was a visibility marker at the time the necropolis was used. Did the stone roof (or corbelling) of the grave protrude from the ground? Was there a stone indicating the presence of a grave? Was there a small mound of earth, pebbles or stones? We cannot know with the elements from this excavation alone, but necropolises of the same period always show the absence of overlapping, and therefore a certain visibility of each grave. Despite

Figure 18: *Bilad Shahum. Copper, stone and shell objects from the graves (plate: G. Gernez).*

Figure 19: *Bilad Shahum. Softstone pot and lid from grave G 7. DA 52511 and 52512 (photo: G. Gernez).*

the systematic (and presumably very early) looting of the graves, there is no evidence of later reuse (in contrast to what has been observed at other sites, including Adam North (Gernez and Giraud 2015), Adam South (Gernez 2019), or Samad Ash Shan (Yule 2001). This may support the idea that the graves were very inconspicuous, and that the mound - if it existed - was quickly eroded and not seen by the Iron Age inhabitants. It is also possible that the site was never reoccupied, either as a place of habitation or as a place of passage, although this seems unlikely given the favorable environmental conditions and the presence of the wadi. Thus, we prefer to conclude that these graves were of a very specific type among Wadi Suq graves: stone-lined chamber, quite deep, with a roof at ground level or barely exceeding it, and with at best a small mound probably made of earth.

The homogeneity of the structures is echoed in the content of the graves: they are individual burials that are a priori primary according to the bone evidence. This means that the body was deposited in the grave shortly after death, without having spent time in another grave or container. This could be an indication of sedentarity, but it is also possible that semi-nomadic populations regularly stayed in the same places, and thus used the same necropolis when one of the group members died.

Finally, all the material is characterized by a great homogeneity: ceramic pots, chlorite dishes and other objects are all typical of the Wadi Suq period. They are present without any particular distinction in quality. Quantitative differences (e.g., the number of chlorite vessels in Grave 2 and the absence of any material in other graves) cannot be interpreted as social differentiation, since

systematic looting does not allow us to know the original contents of the graves.

If the Wadi Suq necropolis of Bilad Sahum is the first found at such an altitude in the mountains, it is not unique in Oman. It belongs to a group of graves - homogeneous or less homogeneous - containing individual burials well dated to the Wadi Suq period. While some are only identified by surveying (e.g. Manah, Ra's al-Jebel), others have been the subject of more extensive excavations, such as at Samad Ash Shan (Yule, 2001), Adam North (Gernez, and Giraud, 2015), Adam South (Gernez, 2019), and Al Akhdar (Yule, and Weisgerber, 2015b). It should be added that while these individual burial necropolises are concentrated in central Oman, they are known beyond, for example at Bawshar (Costa, 1999) and Wadi Suq (Frifelt, 1975), and as far as Sachrut al Hadri on Masirah Island (al-Shanfari, 1987). Further north on the peninsula, graves of the same type (simple or with a ring) are also attested, for example at Jebel Buhais (BHS 3, 6, 20, 68, 70, 91) (Jasim, 2012), Asimah (A1A2, A1A3, 4, 5, 9, 13, 15, 22) (Vogt, 1994), Shimal (Sh 93, 94, 96, 97, 401, 402, 403) (Kästner, 1989), and Ghalilah (Grave 4) (Donaldson, 1985, p. 139: fig. 2), but the necropolises of this region are characterized above all by the presence of collective graves with varied forms, which testifies to a diversity of practices within the same culture.

What characterizes the Bilad Sahum necropolis is that it is both the only one to present such a homogeneity of graves, and also the only one to date exclusively to the Wadi Suq period (no earlier or later graves were seen in the area). The graves have not been reopened (except for looting) nor have they been reused subsequently.

Dating

According to their type and content, all graves can be dated from the Wadi Suq period, possibly the first phase (2000-1800 BCE) according to typological evidence: the forms and decoration of the chlorite ware, the ceramic types and the copper/bronze spears correspond rather to the early Wadi Suq period (WS I), as observed at Adam North (Gernez, and Giraud, 2019: 133-135). However, based on the variety of forms and elaboration of decoration (**fig. 19**), it appears that the Bilad Sahum graves are somewhat later than those at Adam North and Samad Ash Shan necropolises, where the chlorite pots have a form and decoration considered to be the earliest, if not transitional to the Umm an-Nar period (Yule, and Weisgerber, 2015a:39, fig. 11; David, 1996). Thus, a date around 1800 BCE can be proposed.

The evidence for looting is numerous, but it should be recalled that no later reutilization is attested, unlike many cases observed at Al Buhais (Jasim, 2012), Samad Ash Shan (Yule, 1999) or Adam (Gernez, and Giraud, 2015). The main reason seems to be that at Bilad Sahum, all the graves were underground, and therefore not very visible - or even not visible - unlike at other sites where some graves were made up of a partly underground chamber and a tumulus.

Bilad Sahum Necropolis in the Context of Southeastern Arabia

The graves at Bilad Sahum belong to the simplest type of the Wadi Suq period: stone-lined graves, almost rectangular. Only one of them has a circle of stones on the surface. These are individual burials, characteristic of the Wadi Suq culture in Central Oman, and whose grouping in necropolis is attested at other sites in the region, notably Adam, Samad Ash Shan and Al Akhdar.

The specificity of this necropolis is not only the altitude of the site or the absence of reuse. It is also one of the only necropolis to date exclusively from the final period of "WS I", around 1800 BCE: indeed, as we have mentioned, the graves of Adam North, Samad Ash Shan, Bawshar and Sachrut al Hadri date from the very beginning of the period. They differ in the regular presence of higher chambers, with thicker walls rising above ground level, and a mound, which no longer seems to be the case at Bilad Sahum.

From the point of view of archaeological material, the site with the most similarities to this

necropolis in Oman is that of Al Akhdar, where some of the material comes from graves that have been very poorly documented, and whose use has gone through several phases. Other graves belonging to necropolises located in the north of the region have yielded material very similar to that of Bilad Sahum, especially chlorite ware: similar or even identical forms and decorations are known as far away as Ghalilah (Grave 4), al-Buhais (e.g. BHS 68) and Shimal (e.g. Sh 103). They have been found in individual stone-lined graves, but also in larger graves of various shapes and collectives (50 individuals in Sh 103). This attests not only to the diversity of funerary practices in this period, but also to the circulation of identical chlorite objects throughout the Wadi Suq culture area.

It is known that transformations, even a decline, took place at the beginning of the 2nd millennium BCE, with the lower occupancy of large oasis sites and the complete abandonment of many smaller settlements (Cleuziou, and Tosi, 2020: 413-416). The causes are multiple and interconnected (environmental, economic, social and even political). While it is likely that the way of life changed and human occupation gradually concentrated towards the north of the peninsula, the necropolis of Bilad Sahum attests to the presence of human groups in the region in the first part of the Wadi Suq period, around 1800 BCE. Perhaps they were concentrated in the mountainous areas, where living conditions were still good. The occupation does not seem to be related to copper mining, which is absent from the area, but the place could have been a relay on the copper trade routes, from the valleys leading to Ar Rustaq.

In any case, it should be noted that, as observed at Adam and other sites, the collapse of the Umm an-Nar way of life and culture does not seem to have profoundly affected the production and circulation of copper and chlorite at a regional scale. For example, in the case of chlorite vessels, there are continuity, changes and diversification in shapes and decoration (David, 1999: 43-44), in connection with the fragmentation of production, but the materials, techniques (despite less care given to finishing) and regional distribution remain mostly similar, as well as their use in funerary contexts. Bilad Sahum, therefore, was part of this regional network extending from Masirah to Musandam.

The site of Bilad Sahum thus provides new and valuable data to better understand this period of history. After this preventive excavation campaign, if the road construction work were to continue, it would be essential to excavate the entire necropolis, and to protect at least a part of it.

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APPENDIX: CATALOG OF GRAVE GOODS

Soft-Stone

1 – Sof-stone pot 52528 (**fig. 14.1**) from grave G 2 - layer 4 is a globular big pot with four pyramidal lugs. Its incised decoration is formed by (from top to bottom): one horizontal line, one row of 19 dotted circles, one horizontal line, one row of 28 dotted circles, one horizontal line, four series of three and three converging oblique lines. This pot is coupled with lid 52519.

height=12.5 cm ; diameter bottom=15.2 cm; diameter top=7.2 to 8 cm (oval shape) 2 – Soft-stone lid 52519 (**fig. 14.1**) from grave G 2 - layer 7 is a large lugged lid decorated with (from bottom to top): one row of oblique dashes, one row of 15 dotted circles, one row of 9 dotted circles and two horizontal lines on the lug (base and middle). This lid is coupled with pot 52528. Its discoid base is oval-shaped to fit this pot, so it is highly probable that it was made after it.

height=4 cm ; diameter=9 cm (and 7.2 to 7.7 inside, oval shape).

3 – Sofstone pot 52516 (**fig. 14.2**), from grave G 2 – layer 4, is a globular pot with rounded bottom and four dashed lugs. The decoration, located between the rim and the lugs, is formed by (from top to bottom): one horizontal line, 24 dotted circles and a second horizontal line. It is coupled with lid 52527. Traces of tool – probable copper/bronze chisel – are still visible on the inner surface.

heitht=9.3 cm; diameter bottom= - ; diameter top=7 cm

4 – Soft-stone lid 52527 (**fig. 14.2**), from grave G 2 – layer 8 is a high lid with a large and biconcave lug. It is decorated with (from bottom to top): one row of 16 large dotted circles, 5 series of horizontal dashes on the lug and 4 dotted circles on its top. It is coupled with pot 52516, accorded to its size and design.

heitht=5.6 cm; diameter=7.4 cm

5 – Soft-stone pot 52518 (**fig. 14.3**) from grave G 2 – layer 7 is a truncated cone-shaped pot with four lugs. It has no decoration, but traces of tools or thin lines due to polishing are visible on its surface. It is coupled with lid 52524. height=5.7 cm; diameter bottom=7.5 cm; diameter top=3.5 cm

6 – Soft-stone Lid 52524 (**fig. 14.3**) from grave G 2 – layer 7 is small with a low lug. Its decoration only consists of a row of 14 double dotted circles. It is coupled with pot 52518.

height=1.7 cm; diameter=4.1 cm

7 – Soft-stone pot 52510 (**fig. 14.4**) from grave G 7-A – layer 3 is a globular pot with four lugs. It is decorated with (from top to bottom): two horizontal lines, 21 dotted circles, 3 horizontal lines, 26 dotted circles, 2 horizontal lines, then series of oblique lines near the base. The inner surface is marked by traces of tools.

8 – Soft-stone pot 52511 (**fig. 14.5**) from grave G 7-A – layer 3 is a small truncated cone-shaped pot with four lugs. Its incised decoration is formed by (from top to bottom): three horizontal lines, 18 dotted circles, 3 other horizontal lines then 8 series of 4-6 oblique lines. It is coupled with lid 52512.

height=3.8 cm; diameter bottom=5.7 cm; diameter top=3.5 cm

9 – Soft-stone lid 52512 (**fig. 14.5**) from grave G 7A – layer 4 is a small lid decorated with cross dashes and 10 dotted circles on the base, and 5 series of horizontal dashes on the lug. One single dotted circle is located on the top of the lug. This lid is coupled with pot 52511.

height=2.3 cm; diameter=3.4 cm

10 – Soft-stone bowl (**fig. 14.6**) from G 2 – layer 6 is a broken hemispheric bowl (2 sherds). It is decorate with two rows of dotted circles between three horizontal lines, and series of 5 converging oblique lines. It is noticeable that even if the type differs, this decoration is very similar to the one observed on globular pots. The main difference come from the rim, decorated with oblique dashes.

heitht=6.7 cm; diameter top=17 cm

11 – Sofstone lid 52525 (**fig. 15.1**) from grave G 2 – layer 7 is decorated with (from bottom to top) one row of oblique dashes, one row of 25 dotted circles, another row of 18 dotted circles, series of oblique dashes on the lug and a stylized tree on its top.

height=4 cm; diameter=7.5 cm

12 – Soft-stone lid 52515 (**fig. 15.2**) from grave G 5 – layer 3 is a low lid decorated with (from bottom to top) one row of tightened long oblique dashes, one row of 9 double dotted circles, 5 series of 6 slightly oblique dashes on the lug.

height=1.7 cm; diameter=4.6 cm

13 – Soft-stone lid 52517 (**fig. 15.3**) from grave G 2 – layer 7 has a quite complex decoration pattern: from bottom to top, we can see one row of oblique dashes, two horizontal lines (with some dashes between when there is space), one row of 11 dotted circles and crosses long dashes in between, horizontal irregular series of dashes on the lug, and one transversal line with oblique dashes forming a "tree design" on its top.

height=5 cm; diameter=7 cm

14 – Soft-stone lid 52526 (**fig. 15.4**) from grave G 6B – layer 7 is a small lid that seems blunt or reshaped, maybe to fit another pot in a secondary use. It is decorated with (from bottom to top): one row of 16 dotted circles and one row of 12 dotted circles, then two deep horizontal lines on lug sides.

Height=1.8 cm; diameter=3.8 cm

15 – Soft-stone lid 52514 (**fig. 15.5**) from grave G 5 – layer 5 is a small lid decorated with (from bottom to top): one row of oblique dashes, one row of 12 dotted circles, 6 series of 4 horizontal dashes on the lug sides and one cross on its top.

Height=2.3 cm; diameter=4.8 cm

Pottery

16 – Beaker from G 6-B – layer 5 (**fig. 17.1**) is a painted with one horizontal line and double converging oblique lines. The base is missing.

height=6.4 cm; diameter mouth=7 cm

17 – Beaker from G 3-B – layer 6 (**fig. 17.2**) is small and not decorated. Only the upper part is preserved.

height=3.2 cm; diameter mouth=6 cm

18 – Beaker from G 7-A – layer 3 (**fig. 17.3**) is a undecorated and incomplete: both the base and the rim are missing.

height=6 cm; diameter body=8 cm

19 – Beaker from G 6-B – layer 5 (**fig. 17.4**) is a very small, thin and truncated.

height=4.8 cm; diameter mouth=6 cm

20 – Pot from G 3-B – Layer 2 (**fig. 17.5**) has an outwardly curled rim.

Diameter mouth=9 cm

21 – Jar/pot from G 5 – Layer 4 (**fig. 17.6**) is badly preserved: 4 sherds allow us to identify a decoration that includes 2 horizontal lines close to the rim and oblique lines below.

22 – Thin globular jar/pot from G 2 – Layer 5 (**fig. 17.7**) is also fragmented, and the surface is damaged by erosion. However, it is possible to see three horizontal lines in the middle of the body, and a geometric decor with curved and oblique lines on the shoulder.

23 – Also bad preserved, the second jar from G 2 (**fig. 17.8**) seems globular, with an outwardly curled rim. One horizontal black-painted line is close to the rim, and crossed oblique and horizontal lines under it are barely visible on the surface.

Diameter mouth=12 cm

24 – 15 small sherds (jar), from Grave 3-A – Layer 2.

25 – 3 sherds (jar), from Grave 3-B – Layer 2.

26 – 5 sherds (jar), from Grave 3-B – Layer 5.

27 – 6 sherds (jar/pot), from Grave 3-B – Layer 6.

Metal

28 – Copper/bronze short socketed spearhead 52521a (**fig. 18.1**) from grave G 3A – layer 3 is formed by a triangular thick and small head with midrib. The socket itself is long compared to the head and tubular.

length=12.6 cm; width=2.1 cm; point thickness=0.8 cm; socket diameter=1.9 cm; socket thickness=0.15 cm

29 – Copper/bronze short socketed spearhead 52521b (**fig. 18.2**) from grave G 3A – layer 3 is almost similar to the previous one, but slightly smaller. They were found together in the chamber. length=11.6 cm; width=2.7 cm; point thickness=0.7 cm; socket diameter=1.7 cm; socket thickness=0.15 cm

30 – A copper/bronze broken awl (**fig. 18.3**) was found in grave G 2 – layer 7. Only the point is preserved. This tool is thin, square-sectioned, and was used to perforate (or engrave) leather, shell, stone, wood or other materials.

Length=2.5 cm; thickness=0.4 cm

31 – A fragment of copper/bronze flat object (**fig. 18.4**) was found in grave G 3B – layer 6. The "rim" seems folded. Its function cannot be determined, but it could have been a part of a large bucket.

height=3.1 cm; thickness=0.2 cm

32 – The thin copper/bronze ring 52513 (**fig. 18.5**) from grave G 7A is circular and formed from a coiled rod whose ends are pointed. According to its size and shape, it can be either a finger ring or an earring. diameter=2.4 cm; thickness=0.2 cm

Flint

33 – Flint tool (broken) from grave G 3-B (**fig. 18.6**).

height=2 cm; thickness=0.4 cm

Shell and stone beads

34 – Discoid shell bead (or pendant) (**fig. 18.7**) from grave G 7 – layer 4 is larger and thicker than the other beads.

height=0.5 cm; diameter=1.8 cm; thickness=0.3 cm

35 – Long cylindrical biconvex agate or carnelian bead 52520a (**fig. 18.8**) from grave G 3-B – layer 6 is also unique on the site. It was found with smaller cylindrical beads.

height=2.1 cm; diameter=0.7 cm

36 – Small biconvex carnelian bead 52520b (**fig. 18.9**) from grave G 3-B – layer 6 is a very common type.

height=0.4 cm; diameter=0.5 cm

37 – Small biconvex agate bead 52520c (**fig. 18.10**) from grave G 3-B – layer 6 is rounded with a small hole.

height=0.6 cm; diameter=0.6 cm

38 – Small biconvex agate bead 52520d (**fig. 18.11**) from grave G 3-B – layer 6 is similar to the previous one.

height=0.6 cm; diameter=0.6 cm

39 – Small biconvex carnelian bead (**fig. 18.12**) from grave G 2 – layer 6 is almost similar to n°24, but more elongated.

height=0.6 cm; diameter=0.4 cm

40 – Toric carnelian bead (**fig. 18.13**) from grave G 5 – layer 5 is broken.

height=0.3 cm; diameter=0.4 cm

Shell fragments

41 – Shell fragment (**fig. 18.14**) from grave G 3-B – layer 3.

height=2.2 cm; thickness=0.2 cm

42 – Shell fragment (**fig. 18.15**) from grave G 3-B – layer 5.

height=3 cm; thickness=0.2 cm

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