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## Early Makuria Research Project : Excavation at El-Zuma : Preliminary Report

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# EARLY MAKURIA RESEARCH PROJECT EXCAVATIONS AT EL-ZUMA PRELIMINARY REPORT

Mahmoud El-Tayeb

The present excavation at el-Zuma constituted the first step in the Early Makuria Research Project<sup>1</sup> designed to contribute to a better understanding of a significant period in Nubian history between the 4th and 7th century AD. The first season lasted

from December 23, 2004 to January 27, 2005.<sup>2</sup>

The objective was to examine a number of burials with the purpose of identifying their cultural attribution and their place in Nubian chronology.

## THE CEMETERY AT EL-ZUMA

El-Zuma village lies on the right bank of the Nile, about 25 km downstream from Karima and Jebel Barkal (for a map of the Dongola Reach, cf. *Fig. 1* on p. 386 above). The cemetery, which occupies the higher ground on the western fringes of the village, was visited and recorded by a number of scholars since the 19th century, amongst them Lepsius,<sup>3</sup> Budge,<sup>4</sup> followed more recently by Żurawski.<sup>5</sup> Theirs were, however,

merely brief accounts, rough sketch plans, finally, ground and aerial photographs of the necropolis. Contrary to cemeteries with similar burials and chronology, at Ballana and Qustul in lower Nubia,<sup>6</sup> Hammur and Tanqasi in Dongola Reach,<sup>7</sup> or El-Hobagi in central Sudan,<sup>8</sup> which have witnessed some degree of investigation, the el-Zuma burial ground, apparently of equal importance, has seen little in the way of exploration.<sup>9</sup>

- 1 For an overview of the *MtoM* project and its program, see remarks by W. Godlewski in this volume, pp. 385-388.
- 2 The team was headed by Dr. Mahmoud El-Tayeb. It comprised: Ms Urszula Wicenciak, archaeologist-ceramologist; Mrs. Hanna Kozińska-Sowa, Mr. Artur Obluski, archaeologists, documentalists; Mr. Yassin Mohamed Saeed, surveyor (NCAM). Mrs. Nahla Hassan, archaeologist, represented the National Corporation for Antiquities and Museums. The animal bone assemblage was studied by Mrs. Marta Osypińska and her contribution is included in this volume.
- 3 R. Lepsius, *Brief aus Aegypten, Aethiopien und der Halbinsel Sinai* (Berlin 1852).
- 4 W. Budge, *The Nile. Notes for travellers in Egypt and the Egyptian Sudan* (12th edition) (London 1912), 866-867.
- 5 B. Żurawski, *Survey and Excavations between Old Dongola and Ez-Zuma* (Warszawa 2003), 380-381.
- 6 W. Emery & L. Kirwan, *The Royal Tombs of Ballana and Qustul* (Cairo 1938).
- 7 M. El-Tayeb, "Excavation at Hammur Abbassya", in Żurawski, op. cit., 130-139; P.L. Shinnie, "Excavations at Tanqasi 1953", *Kush* II (1954), 66-85.
- 8 P. Lenoble, "A New Type of Mound-Grave (continued): Le tumulus à enceinte d'Umm Makharoqa, pres d'el Hobagi." *Archéologie du Nil Moyen* 3 (1989), 93-120; id., R.P. Disseau. Abd El Rahman Ali Mohamed, B. Ronce and J. Bialais, "La fouille du tumulus à enceinte el Hobagi III," *Meroitic Newsletter* 25 (Paris 1994), 53-117.
- 9 The site has been the object of repeated plunder and destruction over the past centuries, but the recent rapid growth of the village population and corresponding construction development due west now constitutes a direct threat to its very existence.

The tumuli still visible on the surface today count 29 objects of different size and state of preservation as far as the super-structure is concerned. They are situated in groups, standing on higher ground,

between watercourses that run west to east, toward the river flood plain [Fig. 1]. Earlier reports had classified the tombs in the cemetery as being of a single type. Upon closer observation, however, it was possible

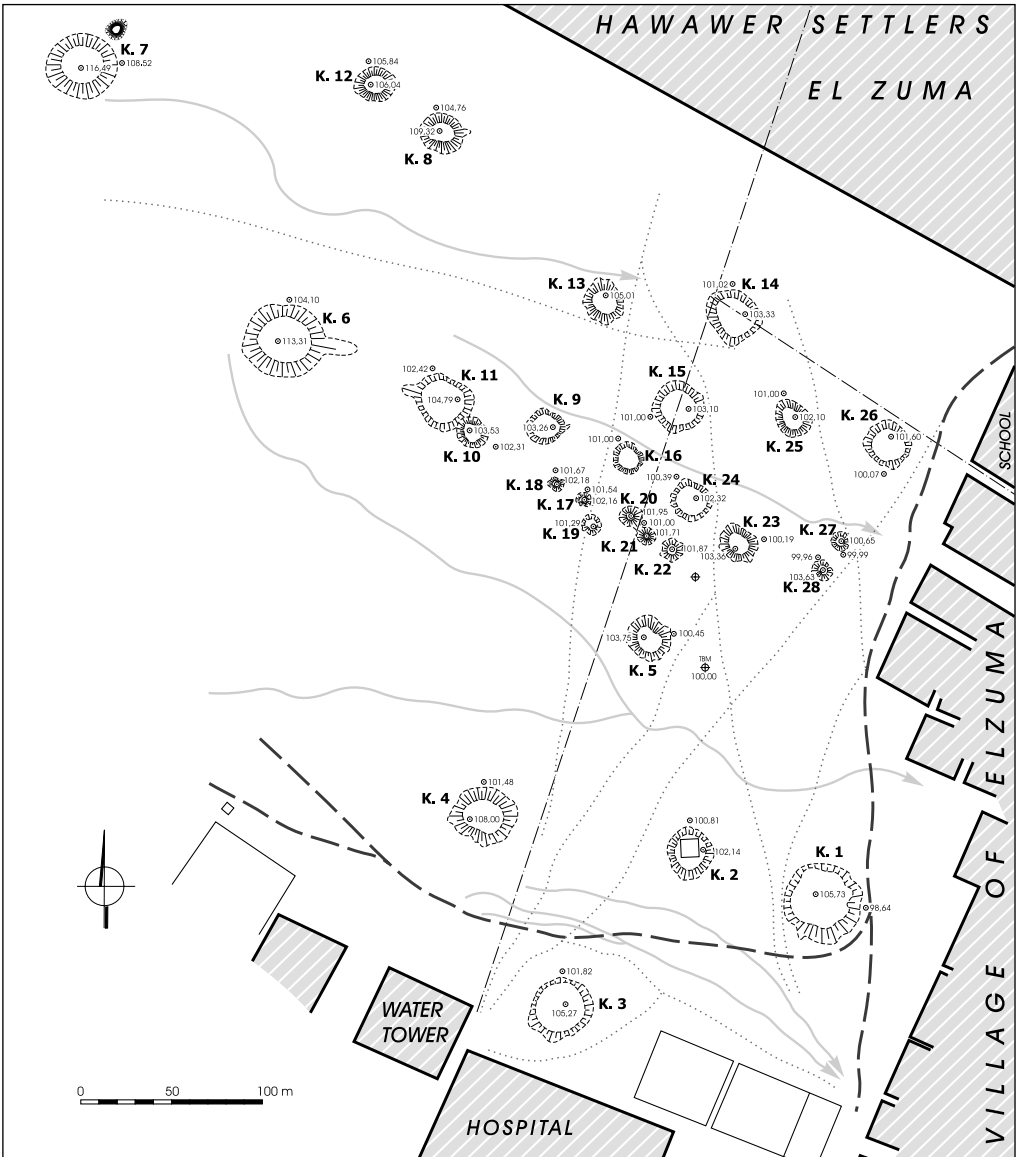


Fig. 1. Topographic plan of the cemetery in el-Zuma  
(Drawing Yassin Mohamed Saeed, computer drawing M. Puzkarski)

to distinguish three distinct types of superstructures (cf. appendix by A. Obłuski and *Figs. 9-12* below). The first, represented by a group of eight large tumuli, is an earth mound with rounded top, covered with small rough stones. It ranges in diameter from 25 to 53 m, attaining a height between 6 and 13.50 m. The second type is a medium-size flat-topped tumuli built of earth and gravel, its body riveted with rough stones. These are between 21 and 31 m in diameter and reach a height from 0.80 to 2.00 m. The third type is the

smallest of all. Also built of earth mixed with gravel, it is, however, devoid of any stone coat or skirt, having instead a row of sandstone blocks surrounding it on ground level. The outside diameter ranges from 9 to 20 m, with a height not exceeding 0.70 m.

To verify the preliminary classification of tumuli types, three different structures were chosen for excavation. It should be noted that all the burials appeared to be plundered, the characteristic depressions in the top of the second and third kinds of tumuli being evident signs of robbing.

## TYPE I: TUMULUS 2

Tumulus 2 lies in the southeastern part of the cemetery, surrounded by another four of the large tumuli (nos. 1, 3, 4 and 5) constituting our first type. Together, they appear to form a separate group in the cemetery [cf. *Fig. 1*].

The tumulus was about 24 m in diameter with an estimated original height of not less than 6 m; however, the actual preserved height is no more than 2 m at the highest point above the surrounding ground level. The superstructure is heavily disturbed with most of the top having disappeared, by way of yielding ready building material rather than actual grave plundering. This kind of destruction is fairly common today and does not mean that the substructure was penetrated.

A test pit 6 x 6 m was dug in the top center of the superstructure, reaching the original filling of the burial shaft at a depth of between 0.70 and 1.00 m below the surface. The shaft was a rough rectangle (4.50 x 4.40 x 3.50 x 2.40 m, narrowing toward the bottom) aligned N-S, with a substantial buttress-like projection of earth extending from the middle of the east wall about 1.50 m into the shaft and dividing it into two halves [*Fig. 2*]. Its real function –

for it was certainly no buttress – remains obscure. The filling, which consisted of crushed white sandstone, appeared to be intact except for a pit not exceeding 1 m in diameter, located in the southwestern corner. It may be witness to an aborted robbing attempt. The shaft proved to be about 2.50 m deep. A step was left in the northeastern corner about 1.30 m below the natural surface level, allowing easy descent to the bottom. Another small step, about 0.30 m high, existed at the base of the earth pier on the other side, in the southwestern corner.

Opening off this shaft were three chambers. The southern chamber was sealed with a solid wall of unbonded mud bricks [*Fig. 3*], about 3.03 m long and 0.50 m wide, built to a height of about 0.75 m. The size of the bricks averaged 37-50 x 22-25 x 9-12 cm. Evidence of breaking in was noted immediately in relation to the above-described pit observed in the shaft filling. The second chamber on the west side of the shaft appeared to have an intact blockage, which was 2.00 m long and was partly inserted into the chamber's entrance, the height ranging between 0.55 and 0.65 m. The third blockage, in the northwestern

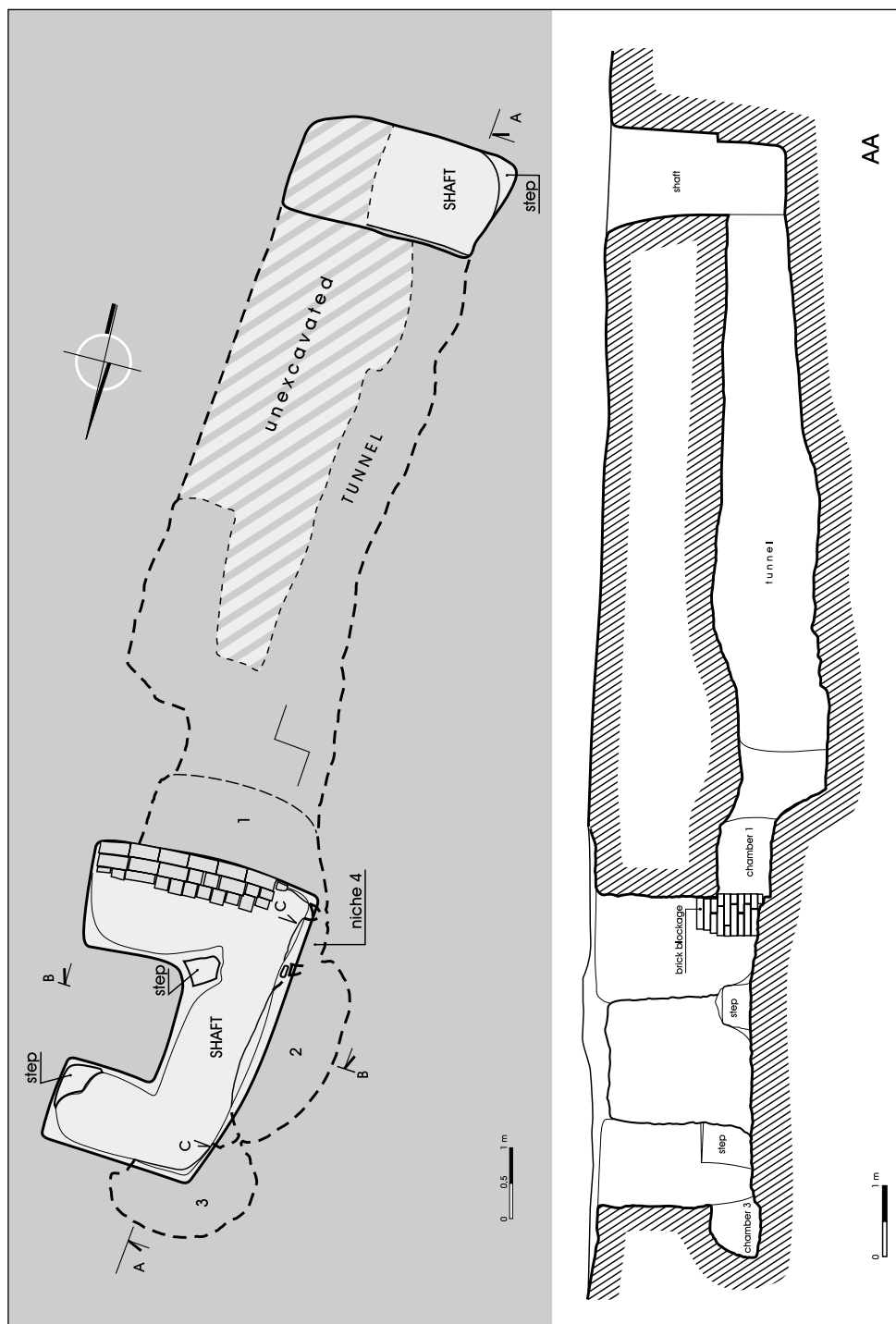


Fig. 2. Tamulus 2. Plan and cross-section looking east (Drawing H. Kozłowska-Sowa, A. Obłuski; computer drawing M. Puszczarski)

corner of the shaft, was built of six rows of bricks and was found untouched as well. Mud bricks were also found covering the entire area of the shaft at the bottom (to a height of about 0.30 m).

Two of the three chambers appeared to be devoted to holding grave goods. Both were found intact. The northwestern chamber (no. 3, cf. plan in *Fig. 2*), which is the smallest of all, is of a rare type. It was hewn into the northwestern corner of the shaft and accessed through an opening about 1.10–1.50 m wide and about 0.70 m high. The grave offerings appeared to be arranged in a specific order, presumably reflecting a local rite so far unknown in the region. Two large animal bones (identified as camel)<sup>10</sup> were found at the far eastern side of the chamber, followed by three beer-jars (two of which were large-sized with cups covering their mouths). Some seven small red bowls and fragments of small and large animal bones were placed together next to the beer-jars. The last group comprised one

small red bowl and fragments of large animal bones. This specific arrangement has never been observed in graves of the period elsewhere in Nubia.<sup>11</sup>

The other chamber containing grave goods, Chamber 2, was hewn into the longest, west side of the shaft. Its maximum length was about 2.60 m and it was 1.20 m wide and up to 0.70 m high. The entrance measured 2.17 m in length, the height attaining between 0.55 and 0.65 m. A certain order in the deposition of the grave goods appears to have been followed here as well. Two large beer jars were placed as one group in the northern part of the chamber. Then came nine small red bowls, another two beerjars next to them, a medium-sized table amphora, and a group of 13 small red bowls, which occupied the area at the southern end of the chamber. Animal bones from both large and small animals (identified as camel and goat/sheep) were found near the first group of bowls in the middle of the chamber, and they were also



*Fig. 3. Tumulus 2. Mud-brick blockage of chamber 1, looking south  
(Photo M. El-Tayeb)*

<sup>10</sup> Cf. contribution by M. Osypińska in this volume, p. 404–408

<sup>11</sup> The pottery assemblage from the el-Zuma graves will be the object of a separate study by the author (in preparation).

associated with the second group of bowls at its southern end. Interestingly, chambers 2 and 3 were connected through a hole, c. 0.15-0.20 m large, pierced in the wall between them.

Chamber 2 was also indirectly connected via an external niche with chamber 1, which was the main burial. This chamber was cut in the south side of the shaft. It was of about the same size as chamber 2 (maximum length 2.30 m; width 1.20 m; height c. 0.78 m). Unfortunately, it was found totally robbed. A dark brown/black trace of what might have been the leather straps of a bier was the sole evidence still visible on the eastern side. Many white and blue tubular faience beads were found in the same general area. The back of the chamber opened on a wide N-S tunnel, its floor running about 0.70 m below that of the chamber. It could not be

explored thoroughly as the soft sandstone of the roof threatened to collapse due to water penetration and changes in interior environment. However, nothing of value was found in the section that was cleared of the sediments filling it: part of a human skull, camel bone, some pottery sherds and small rusted iron fragments – a nail and probably arrowheads. The tunnel was about 9.00 m long, 2.00-3.20 m wide and about 0.70-1.30 m high. It terminated in an external shaft (3.00 x 1.20 x 2.00 m) at the southern edge of the tumulus superstructure.

The devastation of the burial and the tunnel, not to mention the huge quantities of sediment, suggested repeated plundering and long periods of being open. The break-in could have occurred through the robber's hole from above as well as through the side tunnel.

## TYPE II: TUMULUS 23

Tumulus 23 lies about 100 m due north of Tumulus 2. It was classified as a Type II superstructure with a flat-topped body constructed of earth and gravel, the sides riveted with rough stones [cf. *Fig. 11*]. Its external diameter reached 20 m and the maximum preserved height did not exceed 0.80 m. The large depression in the middle of the tomb no doubt indicated plundering and this assumption was corroborated when the plunderer's hole appeared in the northern trench wall once exploration began.

The unearthed shaft appeared to be of the same type as the one in tumulus 2. While sharing a similar plan, orientation and dimensions, this tumulus differed from the preceding one in that it had only two side chambers cut at the bottom of the shaft [*Fig. 4*, cf. also *Fig. 11*]. The main chamber (no. 1), measuring 2.00 x 1.50 x 0.60 m, was cut into the south wall of the

shaft, and the other chamber was cut into the west one. Chamber 1, supposedly containing the main burial, had been plundered; the mud-brick blocking had been removed and the contents left upturned inside. Excavations were hindered by a hard and compact reddish soil that filled the chamber at a later date. Only one human leg bone was discovered amongst disturbed and partly smashed pottery vessels, 18 in all, comprising cups, bowls, beer-jars, a table amphora and pot-stand [*Fig. 5*]. Characteristically, most of the beer-jars were of medium size. The number and diversity of the vessel forms points to the richness of the burial chamber. Even if we cannot form an idea of what the grave furnishings were as a whole originally, the absence of weapons, personal adornment and metal objects should be noted.

The western chamber measured 3.00 m in length, 1.50 m in width and not more

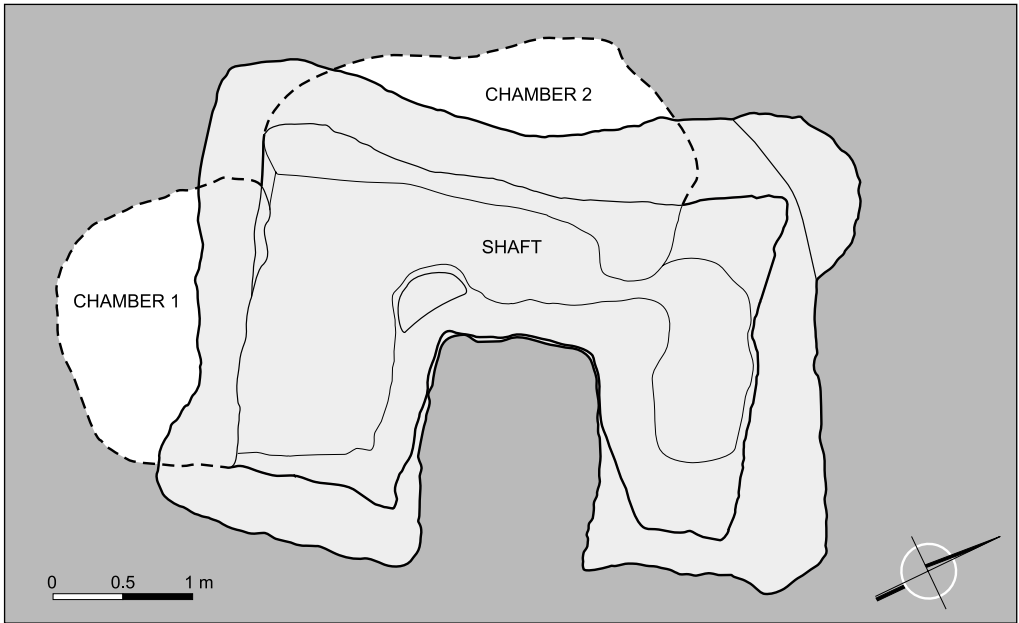


Fig. 4. Ground plan of the shaft and burial chambers of Tumulus 23  
(Drawing H. Kozińska-Sowa; computer drawing M. Puzkarski)



Fig. 5. Grave goods in the main burial chamber of Tumulus 23  
(Photo M. El-Tayeb)



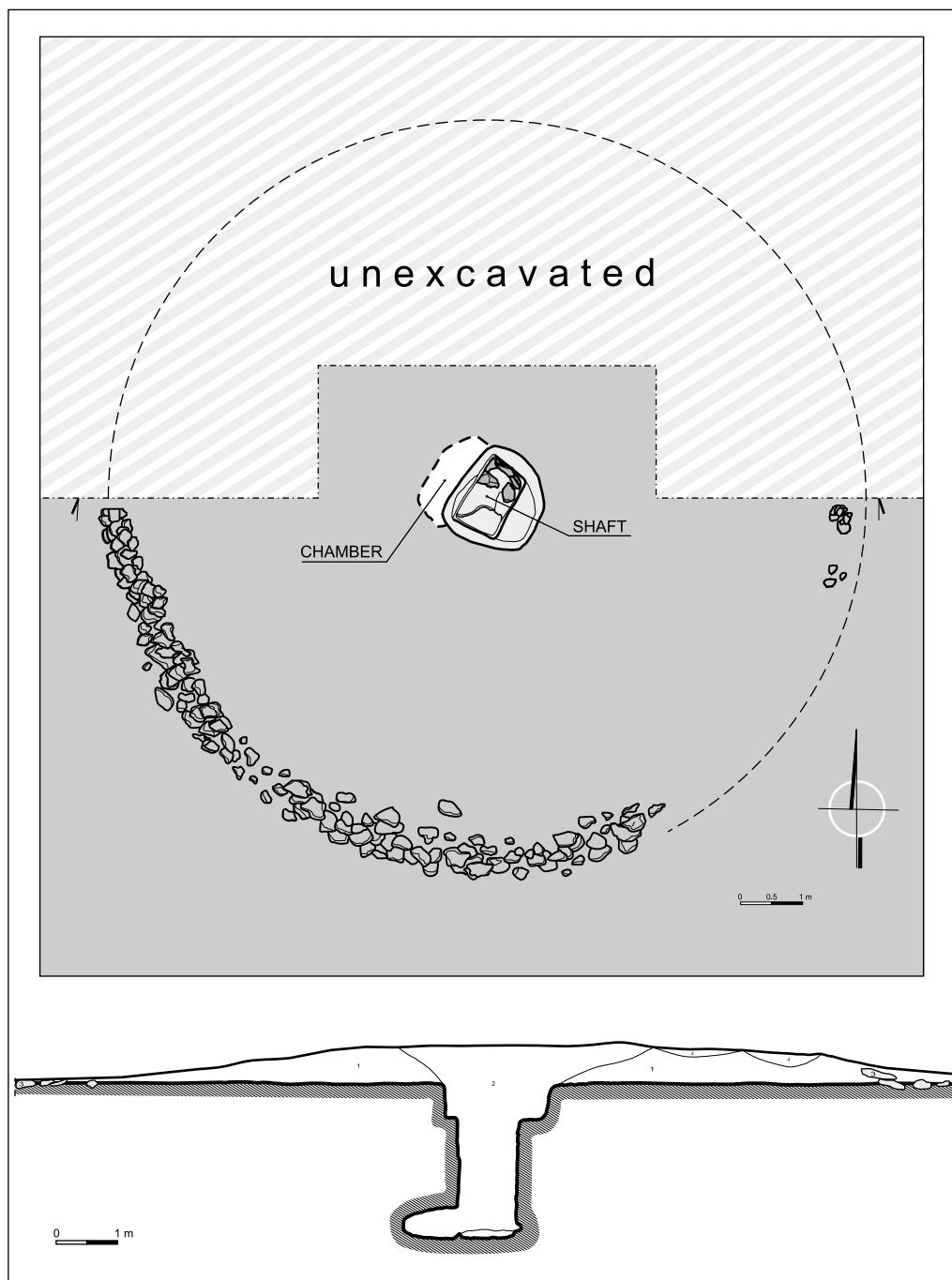


Fig. 6. *Tumulus 22. Ground plan and cross-section looking north*  
(Drawing Nabla Hassan, H. Kozińska-Sowa, A. Obłuski; computer drawing M. Puzkarski)

than 0.50 m in height. The sandstone blocks sealing the chamber were intact except for a small hole at the southern end, through which the robbers apparently surveyed the chamber in search for the main burial where more precious goods were to be expected. Some of the vessels were broken, others apparently moved from their original position. Upon exploration, chamber 2 proved to be a repository for

grave goods alone. The offerings consisted of vessels of various shape, mainly cups and bowls, and animal bones, the arrangement following that already recorded in Tumulus 2. Eleven vessels were arranged in one group and four other vessels in another group, both associated with animal bones. The third group consisted of three vessels. Another three vessels, making up a total of 21, were found broken and misplaced.

### TYPE III: TUMULUS 22

The third type of tumuli examined in the cemetery is represented by Tumulus 22. It lies about 20 m to the west of Tumulus 23 and is also flat-topped, but definitely smaller at only 15 m in diameter and preserved height of up to 0.50 m. The low

mound is made of sandy earth and gravel, bordered around the perimeter with a row of relatively small chunks of sandstone [Fig. 6; cf. also Fig. 12]. Like the tumuli of the second and third type, this one, too, had been penetrated from the top. It has



Fig. 7. *The plundered burial chamber and shaft of Tumulus 22*  
(Photo M. El-Tayeb)

a simple vertical shaft which was quite common in the Dongola Reach; it was rectangular in plan and oriented north-south, measuring c. 2.00 x 1.00 m and 2.30 m deep, and equipped with only one chamber hewn into the west wall of the shaft. It was found plundered as expected. The rough stone blockage had been dismantled and piled up against the east wall at the bottom of the shaft. The body must have been pulled out of the chamber while some of the long limbs were still articulated

[Fig. 7]. Six pottery vessels were recovered from the tomb. Two beer jars of medium size and two red cups were found in situ in the chamber, while another two cups, one broken, were found at the bottom of the shaft. The body appears to have been deposited originally in the southern part of the burial chamber, on its right side in contracted position with the head to the south. Thus, the grave goods would have been located at the feet in the northern end of the chamber.

## CONCLUDING REMARKS

Some, if not all of the questions concerning the date and cultural horizon of the cemetery appear to have found an answer during this first season of excavations. Even in the face of the limited evidence, it can be safely said that the local community was apparently class-oriented and well-organized. There is also much to confirm the homogeneity of early Makurian culture in the Dongola Reach.

The rectangular vertical shaft with side niche, which is a standard in burials in the region between the third and fourth cataracts, is represented by Tumulus 22. The general rule for shafts of this type is an E-W orientation with burial niche hewn into the south wall.<sup>12</sup> Nonetheless, different shaft orientation and niche location were also noted in other cemeteries.<sup>13</sup> Tumuli 2 and 23 belong to a rare type of burial that originated from a simple rectangular shaft. So far the only parallel to be noted are the

tumuli T1 and T4 from the cemetery of Hammur-Abbassyia, located about 150 km downstream from el-Zuma.<sup>14</sup>

The mysterious tunnels in the Hammur and el-Zuma burials are still a moot point. Although in three cases the burials were entered through them either for plunder or reuse, their original function remains obscure. Tomb plundering through tunnels was a common practice in northern Nubia, e.g. Gammai and Qustul,<sup>15</sup> but the size of the tunnels in Hammur and el-Zuma, totally different from those at the above-mentioned sites, leaves no room for doubt that they were not dug by robbers. It has been assumed in recent research that these tunnels were constructed intentionally for some ritual purpose connected with the main burial. Further excavations at el-Zuma and Hammur may throw more light on some of these unresolved questions.

12 M. El-Tayeb, "Excavation in El-Ghaddar, Old Dongola", in: ed. Ch. Bonnet, *Études Nubiennes II* (Geneva 1994), 65-82; id., "Burial customs of Post-Meroitic Makuria", in: *British Museum Occasional Paper* No. 131, *Recent Research in Kushite History and Archaeology, Proceedings of the 8th International Conference for Meroitic Studies* (London 1998), 219-222.

13 H. Paner, "The Hamdab Dam Project. Preliminary report of results from work in the Fourth Cataract region, 1996-1997", in: *GAMAR 1* (1998), 116-129.

14 El-Tayeb, *Excavation at Hammur Abbassyia*, op. cit., 130-139.

15 O. Bates, D. Dunham, "Excavation at Gammai", in *Harvard African Studies* 8 (1927), 30-32; Emery & Kirwan, op. cit., Figs. 46 tomb 13, 47 tomb 14.

Meanwhile, the main goal of the first campaign has been achieved through a study of grave typology, burial traditions and the highly distinctive red wheel-made pottery, namely cups and bowls [Fig. 8*a,b*].<sup>16</sup> A con-

sideration of these factors has given a date for the three examined tumuli between the end of the 5th century and the first half of the 6th century AD. The entire cemetery is most likely from this period as well.

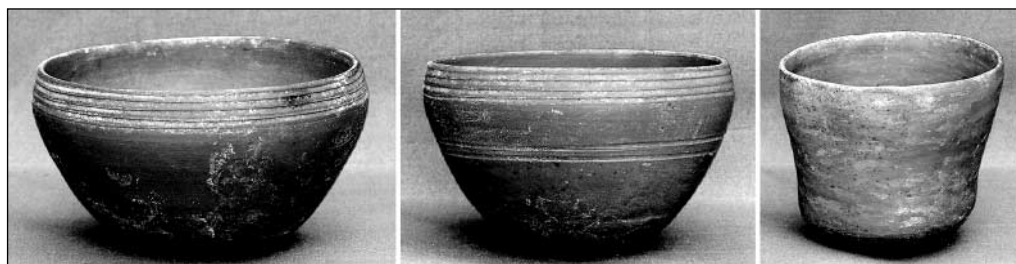
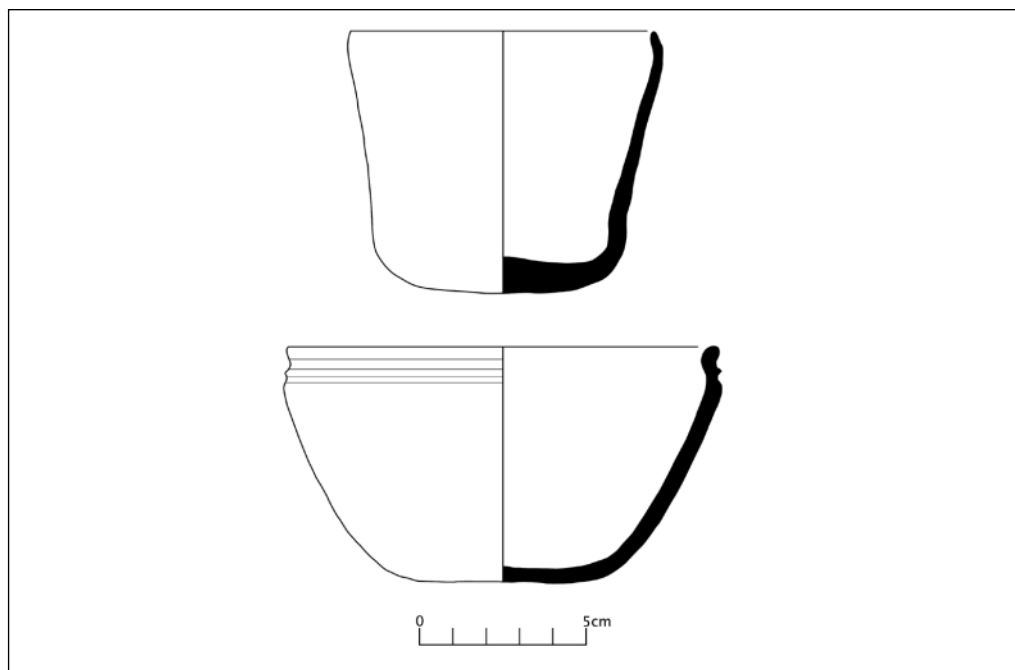


Fig. 8. Red wheel-made bowls and cups from el-Zuma  
(Drawing & photo U. Wicenciak)

<sup>16</sup> Cf. El-Tayeb, "Excavation at El-Ghaddar", op. cit., 65-82; id., "The Fourth Cataract Archaeological Survey Project, Kareima-Abu Hamed Section. Comments on the Ceramic Assemblage of the First Season (1996)", *Sudan & Nubia 2* (London 1998), 35-41; J. Phillips, M. El-Tayeb, "The pottery assemblage from the Hammur-Abbassya tumulus field", in B. Żurawski, *Survey and Excavations...*, op. cit., 458-62; M. Daszkiewicz et al., "Composition and technology of pottery from Neolithic to Christian periods from Jebel Ghaddar and from the Karima-Abu Hamed region, Sudan", *Archéologie Du Nil Moyen 9* (Lille 2002), 65-87.

## APPENDIX

REMARKS ON A SURVEY  
OF THE TUMULI FIELD AT EL-ZUMA

Artur Obłuski

The site was first described, or better to say mentioned by Lepsius,<sup>17</sup> who thought that the tumuli were ruined pyramids resembling those at Kurru. His opinion was revised by Reisner.<sup>18</sup> Based on a trial pit ("a cut" as he called it), he stated that the structures at el-Zuma were of the same character as those at Tanqasi: "circular grave-tumuli composed of earth held in place by an outer layer of small rough stones". He also pointed out that they were similar to the tumuli excavated by Bates and Dunham at Gammai.<sup>19</sup> Further similar sites at Bal-lana, Qustul, el-Hobagi and Hammur can be added to the dossier today.<sup>20</sup>

The tumuli field in Zuma now lies on the western fringe of the village, stretching westward on a sandstone plateau overlooking the Middle Nile valley, approximately 25 km downstream from Karima. The plateau rises gently toward the northwest. The sandstone of which it is made takes on

three different forms differing in color: yellowish-beige commonly found on the surface, white when found further below and a reddish-brown ferrocrete occurring in the northern and northwestern part of the site.

Traces of a seasonal stream splitting into two creeks can be observed on the plateau (cf. map in *Fig. 1* on p. 390 above), one of the creeks flows between tumuli 2 and 5, the other one between tumuli 7 and 8. The tumuli are spread out over an area roughly triangular in shape, the most westward tomb being tumulus 7 at the peak of the triangle.

Closer observation and analysis of the tumuli led to their classification into three separate groups. The following remarks are based on archaeological testing of one tumuli of each kind,<sup>21</sup> therefore all conclusions concerning the inner structures should be considered with caution.

17 H. Lepsius, *Denkmäler aus Aegypten und Aethiopien*, <http://edoc3.bibliothek.uni-halle.de/books/2003/lepsiuss/>, Abth.I.B1.122 - Situationsplan des pyramidenfeldes von Zuma.

18 G. Reisner, "Note on the Pyramids of Tangassi, Zuma, and Kurru", *JEA* V (1918), 67.

19 See O. Bates, D. Dunham, "Excavations at Gammai", in: E.A. Hooton, N.I. Bates, *Harvard African Studies*, vol. VIII, *Varia Africana* IV (Cambridge, Mass. USA 1927), 1-123.

20 See M. El-Tayeb in this volume, notes 1-8. For Firka, cf. J. Burckhardt, *Travels in Nubia* (1822), 52 (the book is available at Gallica, [bibliothèque numérique de la Bibliothèque nationale de France, http://gallica.bnf.fr/](http://gallica.bnf.fr/)); L.P. Kirwan, *The Oxford University Excavations at Firka* (Oxford 1939), XII-XIII, 1-12; XIII, 12-17; XIII, 18 and 33-34; L. Török, *Late Antique Nubia. History and Archeology of the Southern Neighbour of Egypt in the 4th to 6th c. AD* (Budapest 1988), 191; A. Vila, *La prospection archéologique de la vallée du Nil au Sud de la Cataracte de Dal*, 3 (Paris 1976), 23ff., Fig.1; Waddington and Hanbury, *Journal of a Visit to Some Parts of Ethiopia*, I (London 1822) 14 (after Vila); for Kosha, cf. Kirwan, op. cit., XIII, 24-7, Figs. 18,19; Török, op. cit., 1

21 The excavations are reported by M. El-Tayeb in this volume, see above. 94; A. Vila, *La prospection archéologique de la vallée du Nil au Sud de la Cataracte de Dal*, 4 (Paris 1977), Fig. 29-31.



*Fig. 9. Example of a conical stone-covered tumulus (GI group) (Photo A. Obłuski)*



*Fig. 10. Concentration of flat-topped tumuli representing groups II and III (Photo A. Obłuski)*

## GROUP I

Huge conical tumuli completely covered with stones. Their diameters range from 25 to 53 m and height from 6 to 13.5 m. [Fig. 9]. The stones do not exceed 35 x 25 x 15 cm in size, most of them measuring 25 x 20 x 15 cm. They vary from black and gray to red and brown, as far as color is concerned. Each of the tumuli from this group, except for tumulus 8, has a sandstone rubble heap at the southern side. These the SDRS team identified as "remnants of a structure made of articulated sandstone blocks",<sup>22</sup> but our investigations failed to confirm the presence of any such structure. To my mind, the rubble heaps seem to be evidence of robbery. All of them occurred on the south side of the tumuli where it is now believed that the main burial chambers were located.

Tumuli of this group were scattered around the perimeter of the cemetery.

## GROUP II

Medium size tumuli without stone coat. They are between 21 and 31 m in diameter and reach a height from 0.80 to 2.00 m [Fig. 10]. The mounds were made of sand with a large quantity of gravel.

A ring of stones held the mound in place, but the center of the tumulus was probably left uncovered [Fig. 11; for a ground plan, cf. Fig. 4]. The shaft is M-shaped with two chambers, the southern one with the actual burial and the western one with the grave offerings. These tumuli were concentrated more to the center of the burial ground, as were the also tumuli representing the next and last group.

## GROUP III

Flat-topped mounds built of sand and finely-grained, but less abundant gravel [cf. Fig. 10]. Their diameter is between 9

and 20 m, height rises up to 0.70 m. Stone rings were constructed at ground level only around the perimeter of the mound [Fig. 12; for a ground plan, cf. Fig. 6]. The shaft is rectangular in shape with a single burial chamber situated on the west side of the shaft.

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All of the tumuli were evidently robbed, either burrowing straight to the main burial chamber from the southern end, as in the case of the Group I tumuli, or through vertical pits dug into the center of a tumulus (as evidenced by hollows in the central part of the Group II and III tumuli).

According to Mahmoud el-Tayeb, tumulus 7 was penetrated sometime in the past four years. A square pit was dug in its southern flank and the contents – sand, sandstone and several dozen pieces of mud brick, as well as big flat stones – dumped nearby. The bricks can be divided by size into three groups: 27 x 17 x 7.5 cm; 38-40 x 18 x 7.5 cm; 40 x 12 x 7.5 cm. They bear traces of building mortar containing mostly reddish, crushed sandstone. Two bricks merit interest. One has a round cut, 13 cm in diameter, another a square cut in its face. The stone blocks, as can be inferred from their size (55 x 33 x 8 cm; 75 x 65 x 15 cm; 45 x 35 x 23 cm), probably came from the blockage of the burial chamber.

Apart from the tumuli the team documented several stone structures, which appeared to be graves. Most of them were aligned E-W, but there were some that were oriented N-S (in a few cases the orientation was impossible to ascertain). This feature permits them to be regarded as either Christian (E-W) or Muslim (N-S) burials. All of these structures were located in the northern part of the site, in the vicinity of tumuli 6, 7, 8 and 11.

22 B. Żurawski et al., Survey and Excavations between Old Dongola and Ez-Zuma (Warsaw 2003), 380.



*Fig. 11. Tumulus 23 representing tumuli of Group II at Zuma, during excavation (Photo U. Wicenciak)*



*Fig. 12. Tumulus 22 representing tumuli of Group III at Zuma, during excavation (Photo A. Obluski)*