



# Early Makuria Research Project. The Results of Three Seasons of Excavation at El-Zuma Cemetery, 2013, 2014 and 2015

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## Introduction

The Early Makuria Project is a joint research program between the Polish Centre of Mediterranean Archaeology of Warsaw University (PCMA), and the National Corporation for Antiquities and Museum. The project is sponsored by Qatar-Sudan Archaeological Project and (PCMA).

The fifth season of excavations at el-Zuma cemetery was conducted during the period between 19<sup>th</sup> January and 10<sup>th</sup> March 2013.<sup>1</sup> Three tumuli were selected for exploration (Figure 1). Two of them (Tumulus 12 and Tumulus 15) are type II burials, represented by medium-size tumuli, while the third one (Tumulus 21) is attributable to type III the smallest variety of tumulus noted in the cemetery (for the tumulus classification see Obluski 2005; Mahmoud el-Tayeb 2012, 65-70). The mission also successfully explored an external shaft and discovered the entrance to a tunnel located on the southern fringes of Tumulus 4.

The sixth season was conducted during the period between 10<sup>th</sup> January and 15<sup>th</sup> March 2014.<sup>2</sup> The mission planned in

classified as Type I, while Tumulus 26 is related to Type II.

The seventh season took place between the 10<sup>th</sup> January and 15<sup>th</sup> March 2015.<sup>3</sup> The plan for this season comprised two parts. First to check the relationship between the main cemetery at el-Zuma and the small one at el-Detti located some 7km upstream (for el-Detti see Mahmoud el-Tayeb forth.). Second, to excavate a trial pit on the southern side of Tumulus 1 to locate the tunnel entrance. The main objective at el-Zuma, however, was to resume the excavation began in 2011. At the end of that season the mission succeeded in finding the external shaft and the entrance to the underground tunnel at Tumulus 7. Due to lack of time and more importantly financial shortages, the work was interrupted. Accordingly, at Tumulus 1 the external shaft and entrance to the tunnel were found as expected on the southern edge of the mound, but further work has been postponed to a future season (for Tumuli 1 and 7, see Figure 1). Both tumuli are classified as Type I.

## Tumulus 12 (Type II)

Tumulus 12 is located on the north-west side of the cemetery. In contrast to all of the other tumuli in this cemetery, the remains of its superstructure appeared to have been highly disturbed by robbers, or possibly it was never built to the standard height known from the other tumuli of type II on the site (The preserved height of type II is between 2-3m). The poorly discernible above-ground remains consist of a very low earth ring with a slight depression in the centre, which is usually taken as an indication of burial plundering. The maximum diameter of the superstructure is about 21m north-south and 23m east-west; the preserved height of the superstructure ranges from only 300mm to 600mm (Plate 1).



*Plate 1. Tumulus 12, view of the superstructure (photo: R. Mahler).*

this season to verify if underground tunnels also exist under Tumuli 3, 6 and 8. Excavation of Tumulus 26 was also planned as the last tumulus to be excavated. Tumuli 3, 6 and 8, which are located in different parts of the cemetery, are all

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The generally poor appearance of what is left of the superstructure suggested that it most probably represented a type III tomb (typically superstructures of type III tombs are a very low mound not exceeding 700mm). In order to verify this assumption a square measuring 6 x 6m was excavated in the centre of the superstructure. Removing and cleaning a layer of about 300mm of soil and Aeolian sand revealed the outline of a large shaft measuring approximately 5.75m north

<sup>3</sup> The mission consisted of Neamat Mohamed el-Hassan (Inspector NCAM), Ewa Czyżewska-Zalewska, Urszula Wicenciak, Urszula Iwaszczuk, Zofia Kowarska, Anna Jaklewicz, Justyna Niderla-Bielińska, Adam Kamrowski, Tomasz Wojtczak, Łukasz Zieliński and Mahmoud el-Tayeb (Project Director).

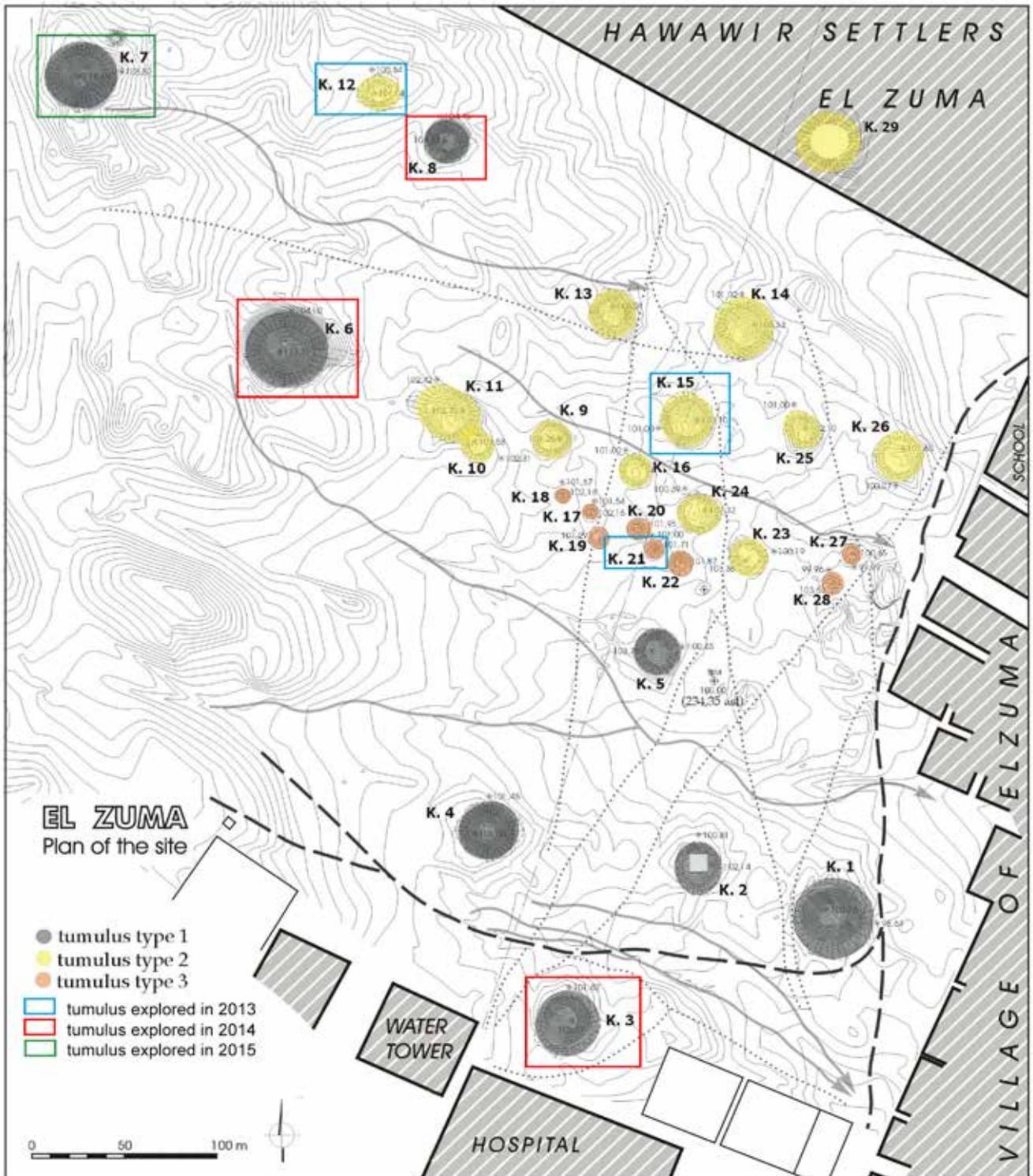


Figure 1. Plan of el-Zuma cemetery with explored tumuli in the 2013-2015 seasons (plan: Yasin Mohammed Saeed and W. Małkowski).

side, 5.85m east, 5.05m south, 5.75m west, with a maximum depth of 5.6m. The shaft tapered slightly towards the bottom. At floor level its dimensions were as follows: 5.69m (west wall), 4.77m (north wall), 4.8m (south wall), 1.6m (east wall of the northern wing) and 1.84m (east wall of the southern wing). The shaft featured an interesting architectural element in the form of a large pier abutting the eastern wall, giving the shaft a 'U'-shaped ground plan. The pier is so far

the largest to have been discovered at el-Zuma. The top of it measures 3m on the north side, 3.6m on the south and 2.4m on the west side, while at the bottom it measures about 3.8m on the north, 3.92m on the south and 2.69m on the west side (Figure 2). The upper north and west sides of the shaft's walls bear clear signs of destruction by grave robbers. In the south-east side of the shaft, at a depth of 3.2m from the original ground surface, about 30 vessels of various types

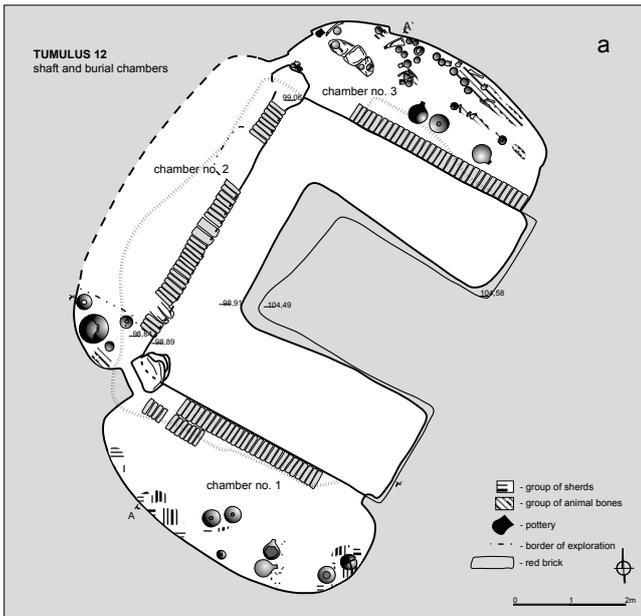


Plate 2. View of objects thrown on the south side of the shaft, facing east (photo: E. Skowrońska).

a number of small holes were observed in its walls. Holes about 150-250mm diameter and 100mm deep were recorded on the south side of the pier as well as in the south wall of the shaft. They were distributed in a zigzag pattern and the distance between them ranged from 0.4m to 1m. On the opposite (northern) wing small holes were noted in both the north wall of the shaft and the pier, but in no particular arrangement. The considerable depth of the shaft and the lack of steps suggest that these holes were most probably made to support a wooden framework (scaffold) that would have enabled the body and grave furnishings to be lowered into the burial chamber.

At the bottom of the shaft were three side chambers. Chamber 1, cut into the southern side of the shaft, was aligned east-west; Chamber 2, cut into the west wall, was aligned north-south and Chamber 3 was cut into the north wall, in an east-west alignment (see Figure 2a). Initially the three chambers had been sealed by walls built of re-used red bricks arranged in alternate courses of headers and stretchers, in a regular sequence, bonded with mud mortar. The red-brick walls were sealed on top by small, flat, rough stone slabs. To the best of our knowledge this type of blocking has never before been recorded in Early Makurian burials (Plates 3-5). The three chambers (south, west and north) were interconnected

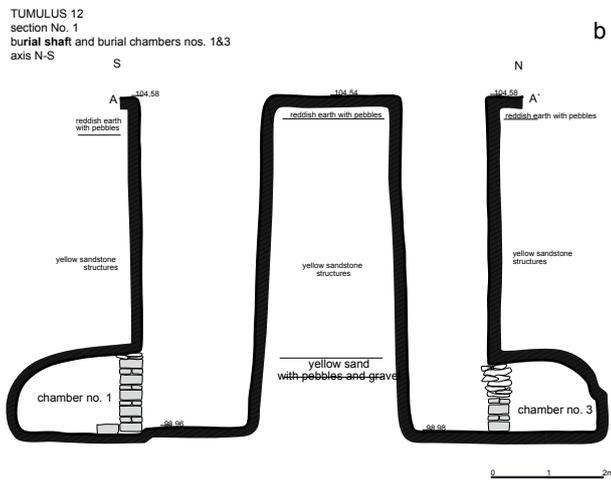


Figure 2., Tumulus 12. a. ground plan of the burial; b. Cross-Section (drawing: E. Skowrońska and E. Czyżewska).

(large beer jars, bottles, bowls and cups) as well as fragments of animal bones were unearthed in a layer about 1.2m thick. The vessels were found in different states of preservation, from complete to fragmentary. They appear to have been deposited in great disorder; no intentional arrangement was observed (Plate 2). Most probably, they had been taken out of the southern burial chamber (Chamber 1), which was found to be heavily looted. Nonetheless, in view of the fact that these objects were found 1.2m above the entrance of the chamber, it is tempting to put forward the hypothesis that they may attest to a funerary banquet. Yet, we should have in mind that funerary banquets as noted by Lenoble, usually take place after the end or during the inhumation process (for more on funerary banquets see Lenoble 1994).

The shaft of Tumulus 12 is the deepest of all shafts beneath tumuli types I and II known to date. Despite this, no steps affording easier access to its bottom were noted. However, on both the north and south wings of the shaft



Plate 3. Tumulus 12. View of the blocking wall in Chamber 1 (photo: R. Mahler).



Plate 4. Tumulus 12. View of the blocking wall in Chamber 2 (photo: A. Kamrowski).



Plate 5. Tumulus 12. View of the blocking walls in Chamber 3 (photo: R. Mahler).

by slightly irregular rectangular holes, measuring between 300mm and 400mm long, and 200-250mm wide. Usually such interconnecting holes were found cut at the floor level of the chamber. However, in this case for the first time the holes were cut about 500mm above the floor level (Plate 6).

Chamber 1 is a large niche measuring 5.3 x 2.36m and 1.4m in height. Thorough exploration of the southern wing of the shaft revealed that Chamber 1 had been penetrated by robbers from both the south east and south west. On the east side of the blocking wall the robbers dismantled the sealing slabs and destroyed from top to bottom six out of the nine brick courses, creating a hole about 1.3m wide and 1.4m high. A similar situation, resulting in a hole of approximately the same dimensions, was recorded at the south-west end of the blocking wall. The destruction of the blocking greatly weakened the soft sandstone into which the chamber was cut; dangerous, deep cracks appearing in the southern wall of the chamber, posing a real threat to the stability of the burial's structure. Additionally, some parts of the west and central portions of the roof had partially split off and collapsed. Subsequently loose earth and rough chunks of sandstone poured in through the dismantled south-west side of the



Plate 6. Tumulus 12. View of the interconnecting hole in Chamber 3, looking south west (photo: E. Skowrońska).

blocking and filled half of the chamber (Plate 7). About 11 vessels were noted in the central section and east side of the chamber. The whole assemblage was aligned east-west, along the rear wall of the burial chamber. It comprised eight beer jars, two storage jars and one bowl, either complete or fragmentary (Plate 8). Moreover, about 22 small beads, one made of faience and 21 made of greenstone, were collected from the east side of the burial chamber. Notably, not a single fragment of a human bone was found either in or directly outside the southern burial chamber.



Plate 7. Tumulus 12. Chamber 1, view before excavation (photo: R. Mahler).

Chamber 2 is hewn into the west wall of the shaft. It was similarly closed by a wall built of red bricks, sealed on top by stone slabs, measuring about 5m long and 1m high. Generally, the blocking wall was built using the same technique of headers and stretchers, but laid in a different sequence. In



Plate 8. Tumulus 12. Chamber 1, view of the grave goods, facing east (photo: R. Mabler).

this instance there were two courses of headers at the very bottom, followed by one stretcher course, followed again by another two header courses sealed by stone slabs. However, this wall was not as well built as the one in Chamber 1 (Plate 4).

Here again it appears that the robbers had tried to break in from two ends of the burial (south and north). Unfortunately, due to this fact and the attempt to force their way from the top west side of the shaft, the robbers caused great damage to the west wall and the roof of the burial chamber. In view of this severe state of destruction only a limited sondage was used to examine the disturbed sides. The southern side appeared to have been less affected by robber activity. The dense fill included some animal bones, a medium-size bowl and one fragment of a large beer jar in addition to a complete small bottle. Under this fill two further medium-size complete beer jars were found deposited next to the entrance of the chamber (Plate 9). At the northern end of the chamber only one fragment of a large beer jar was found among the



Plate 9. Tumulus 12. Pottery vessels in Chamber 2, facing west (photo: A. Kamrowski).

debris of the fallen roof. The devastation in this part made any further excavation impossible. Safety measures will be required before a thorough exploration of this chamber can be undertaken, therefore, work has been suspended until an adequate solution can be found which will enable the completion of this task (Plate 10).

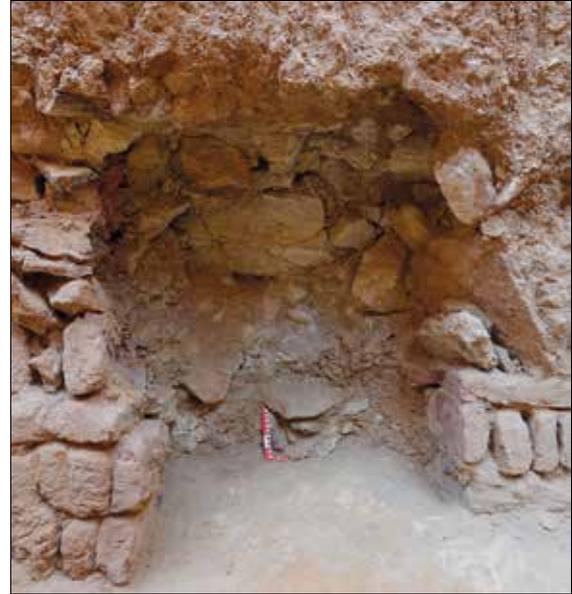


Plate 10. Tumulus 12. View of the fallen ceiling in the northern side of Chamber 2 (photo: A. Kamrowski).

Chamber 3 is cut into the northern wall of the shaft. It is of similar dimensions to Chamber 1, measuring 5.08 x 1.85m and 1.2m in height. The same construction technique for building the blocking wall had been used. The blocking wall is composed of four courses of red-brick headers and stretchers in random order, reaching 600mm high. Then a space of about 400mm is filled by a combination of large chunks of sandstone and black ferruginous stones, bonded with a mixture of mud and lime mortar (Plate 5).

Tectonic movements appear to have affected the soft sandstone structure, as the north-west side of the chamber's roof had partially fallen destroying the stone seal and leaving a wide hole about 1m high. Nonetheless, this chamber, which was intended exclusively for grave offerings, was certainly never penetrated or looted by robbers. Thirty-nine pottery vessels were found deposited all over the chamber. These comprise 24 bowls (only two of them broken) and 11 cups, of which five are complete, in addition to two beer jars, two storage jars, one piece of ceramic scraper and some large fragments of cattle bones. The majority of the small vessels and the animal bones were arranged along the rear wall of the chamber, while the storage and beer jars were located near the entrance, just behind the blocking wall. As noted above, Chamber 3 is interconnected with Chamber 2 (see Plate 4).

### Tumulus 15 (Type II)

Tumulus 15 lies in the central part of the necropolis. It is a circular mound built from a mixture of earth and gravel with

a diameter of about 30m. The mound measures 1.87m high on the north side, 1.7m on the south and 1.17m on the west, reaching its maximum height of about 2.25m on the east side. The superstructure of Tumulus 15 identifies it as a variant of type II burials because its top is not flat as characteristic of this category (Plate 11). The substructure features a vertical



Plate 11. Tumulus 15. View of the superstructure (photo: R. Mabler).

shaft with a 'U'-shaped ground plan and a pier abutting the east wall. The top of the shaft measures 5.8m on the west side, 5.7m on the east, 3.7m on the north and 3.5m on the south. The upper part of the pier measures 1.75m on the north side, 1.55m on the west and 1.55m on the south side. At the bottom, the shaft is slightly narrower, measuring 3.14m on its north side, 3.1m on the south, and 5.05m on the west side, while the pier dimensions reach 1.4m on the north side, 2.2m on the west and 2.1m on the south side. The depth of the shaft ranges from 3.1m at the south-east end to 3.25m at the south-west end. Access to the bottom of the shaft was provided by two steps. The first was cut in the south-east corner of the northern wing of the shaft, about 2m below the original ground surface, while the second was cut on the south-west corner of the pier, at about 1.5m below the original ground surface (Figure 3).

Once more at this necropolis there was further confirmation that the existence of a crater on top of a mound attests to looting. Exploration of the fill in the south wing of the shaft revealed fragments of mud and red bricks from the dismantled blocking walls of the burial. Towards the bottom, amongst the earth, wind-blown sand and debris, pottery vessels comprising one small table amphora, a locally-made bottle, cups and fragmented footed bowls, as well as some large fragments of animal bones, were recorded. In the north wing, at a depth of about 700mm below the original ground surface, some fragments of mud and red bricks appeared. Traces of blue paint on white plaster were discernible on some of the red bricks, while others had been specially shaped with rounded ends or angular cuts to fulfil certain structural needs (Juszczak 2011, 120-123; Plates 17-19). At the bottom of the shaft three side burial chambers were noted in the south, west and north sides of the shaft. Mainly mud bricks were used to build the chamber blocking walls, but some red bricks were also noted.

Chamber 1, the main burial niche, was cut into the south wall of the shaft. It has a maximum length of about 5.25m

and measures about 1.95m in width and 1m in height at the entrance. The chamber was sealed by a mud-brick wall about 950mm high, which appeared to have been built in successive phases, in unbonded sections. Although it consisted of courses of headers and stretchers similar to those noted in other graves, it exhibited a total lack of building skills (Plate

12). Robbers had destroyed the east side of the blocking wall. As a result, the chamber was badly damaged, its roof having partially collapsed, and it was found filled with debris. On the east side of the chamber a concentration of pottery vessels

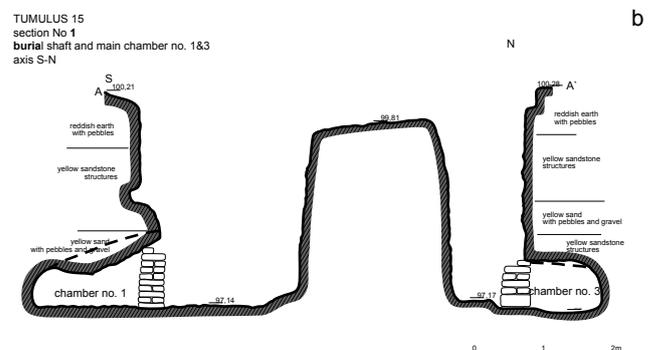
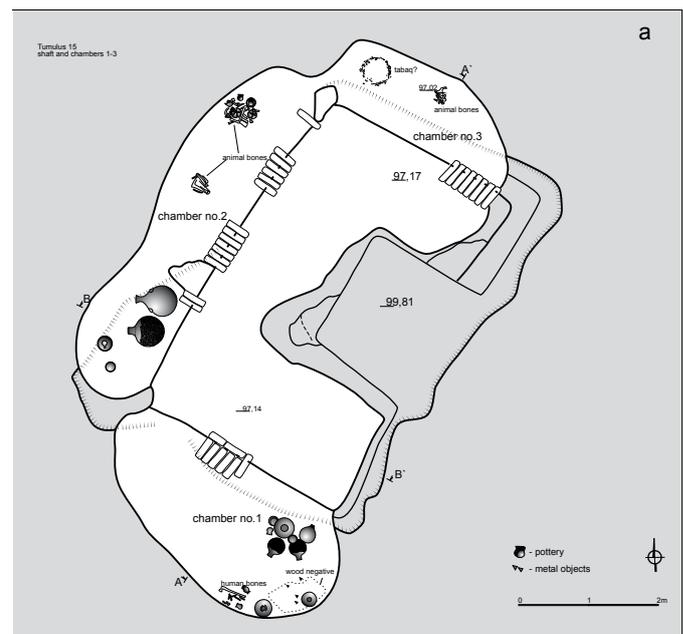


Figure 3. Tumulus 15. a. ground plan; b. cross-section (drawing: E. Skowrońska and E. Czyżewska).



Plate 12. Tumulus 15. View of the blocking wall in Chamber 1 (photo: R. Mahler).



Plate 14. Tumulus 15. View of the blocking wall in Chamber 2 (photo: R. Mahler).

was recorded, consisting of five beer jars, four hemispherical bowls, one finely-made footed bowl, one neckless storage pot with a rounded body, three cups and a small table amphora. Jumbled fragments of human and animal bones were also found in the same area (Plate 13). Other finds recorded in this eastern part of the chamber included fragments of iron nails and traces of decayed organic material (wood) forming a rectangle on the floor of the chamber – traces of what could have been a wooden bier. The discovery of these three elements in one place indicates that the body had been placed on a bier located on the east side of the burial chamber, a practice which has been repeatedly noted in several burials at el-Zuma.



Plate 13. Tumulus 15. View of the grave offerings in Chamber 1 (photo: E. Skowrońska).

Chamber 2 adjoins Chamber 1 from the west but they are not interconnected. The blocking built along the west wall was about 600mm high and reinforced from the outside by an additional layer of bricks (Plate 14). The removal of these bricks revealed that a 5.4m-long chamber had been cut into the west wall. It had two entrances separated by a pillar cut in the bedrock (Plate 15). The south side is about 1.1m wide, while the north side is about 2.7m wide. The narrowest part is in the middle of the chamber, between the pillar and the



Plate 15. Tumulus 15. View of the pillars and north part of the Chamber 2 (photo: R. Mahler).

inner west edge of the niche, which does not exceed 700mm. One chamber with two entrances separated by a pillar cut on the rock rather than being built is a practice although rare nonetheless it is quite well known in this period not only in the Dongola Reach, but even from other regions such as the Atbara–Berber district. The nearest analogy for this type was excavated in Berber by Lenoble (1991, 167-169, figs 1 and 2) and at el-Akad near Atbara dug by Mohamed Faroug (Mohamed Faroug *et al.* 2007, 62-71, fig. 2; Mohamed Faroug 2009, 98-106, figs 1 and 2).

At el-Zuma cemetery it is the first time that such a construction was noted in a type II burial. The only parallel to this case is Tumulus 87 at Tanqasi on the opposite bank of the Nile, excavated by Godlewski in 2006. The only difference between the two burials, is that the chamber in el-Zuma is a secondary one located on the west side, while at Tanqasi the double entrance led to the main burial chamber, cut in the south wall of the shaft (Godlewski 2008).

Although, the chamber was found untouched, nature had contrived to destroy parts of the roof, from which some blocks had fallen onto the grave offerings. Beneath the fallen debris, two beer jars, one bowl and one jug were uncovered

*in situ* at the south side of the chamber (Plate 16). In the middle of the chamber, a pile of animal bones was noted. At the north side three bowls and two cups were recorded along with some animal bones.



Plate 16. Tumulus 15. View of the grave offerings in Chamber 2 (photo: E. Skowrońska).

Chamber 3, which occupies the north side of the shaft, is interconnected with Chamber 2 by a small hole about 400mm in height and about 250mm in width, dug out at ground level through the wall which separates the two chambers. This is the first time that such a practice has been observed at the el-Zuma burial ground (a common practice is the interconnection of all the niches in the burial, mainly between the main burial chamber and the one directly adjacent to it).

The chamber was sealed by a mud-brick wall built in analogous fashion to the walls of the other two chambers (Plate 17). The 700mm-high blocking was found intact, as was the chamber. This is comparable, for example to the situation in Tumulus 2 in the same cemetery, where both chambers 2 and 3, were untouched by the tomb robbers (Mahmoud el-Tayeb, 2007). The maximum length of the chamber reaches 2.7m, while its width is only 1.05m, with a height of about 750mm. The modest offerings inside the chamber comprised some fragments of animal bones deposited on the east side, while on the opposite side there were traces of what could have



Plate 17. Tumulus 15. View of the blocking wall in Chamber 3 (photo: R. Mahler).

been a decayed organic object probably a basket containing an unidentified material.

### Tumulus 21 (Type III)

Tumulus 21 is located in the central part of the cemetery, within a group of the smallest variety of tumuli type III. It is a circular, flat-topped mound built of a mixture of earth and gravel. The mound has a diameter of about 12.5m and a preserved height not exceeding 600mm (Plate 18). Exploration revealed that the mound had originally been surrounded by a stone ring of about 11.5m in diameter (the actual diameter on the ground, the original diameter is delimited by the stone ring as it appears in the photograph) and was about 2m wide on the original ground surface. This form of construction has repeatedly been noted in all type III tumuli at el-Zuma. Moreover, as with the type II and III burials excavated in previous seasons, the existence of a depression in the top centre of the mound indicates that the burial was plundered sometime in the past. In making their way to the bottom of the burial the robbers dug a large hole of roughly square shape measuring about 2.6 x 2.55m (Figure 4). Further cleaning

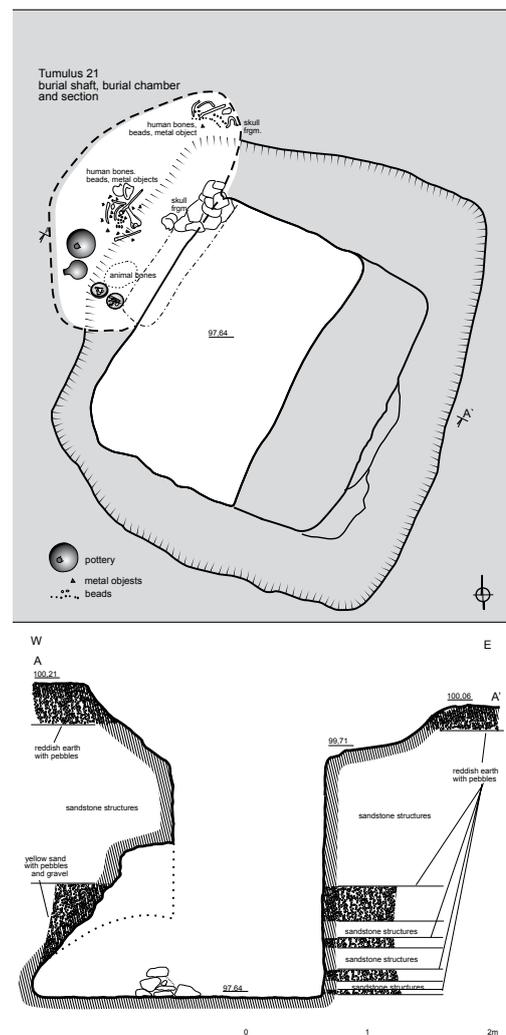


Figure 4. Tumulus 21. Ground plan and cross-section (drawing: E. Skowrońska and E. Czyżewska).



Plate 18. Tumulus 21. View of the superstructure (photo: R. Mabler).

revealed the original shape of the burial shaft. It appeared that the burial shaft had a rectangular ground plan with an uncommon arrangement, the long axis having a north east-south west alignment, its short sides measuring 1.85m north east-north west and 1.9m south west-south east, while the long sides measure 2.2m (north west-south west) and 2.15m (north east-south east). At a depth of 600mm, a single step (in the form of a long bench) of about 700mm wide was cut along the full length of the north east-south east side of the shaft. The maximum depth of the shaft was 2.6m. During the course of the shaft's exploration, sandstone blocks of various sizes were noted at different levels. Amongst the debris one complete vessel was found, confirming that the burial had been looted.

The shaft gave access to only one burial chamber, a practice which is consistently recorded in type III tombs. It appeared to have a very unusual location at the bottom of the shaft, where it was hewn into the north side of the north east-south west wall in a south west-north east alignment (usually the burial chamber in this tumulus type is located in the central part of the western wall of the shaft). The burial chamber measured a maximum of 2.2m long, 1.15m wide and about 650mm in height.

Sandstone blocks of different sizes had been used to seal the burial chamber. However, the grave robbers dismantled the south-west side of the blocking wall, subsequently rifling through and destroying the burial. Affected by the robbers' devastation and rising degree of humidity, the southern and central parts of the roof collapsed onto the remains of the burial. Removal of the debris from the disturbed southern side of the burial led to the discovery of two complete wheel-made, red-slipped, undecorated bowls, located near the entrance to the chamber. This type of red bowl is quite common in the Dongola Reach and represents local production (more examples were found in earlier excavations at Jebel el-Ghaddar, Jebel Kulgeili and el-Kassinger Bahry, see Mahmoud el-Tayeb 1994; Abdel Rahman Ali and Kabashy Hussein 1999; Mahmoud el-Tayeb and Kolosowska 2007). One of the bowls contained some fragments of animal bones. At the very end of the southern side of the chamber, two

medium-size beer jars one a handmade, dark ware and the other a wheel-made, red-slipped ware were found beneath the debris. Both vessels are undecorated. All four vessels were found *in situ* (Plate 19). Disarticulated and broken human bones mixed with earth and debris were noted in two heaps located in the centre and at the northern end of the burial chamber. Amongst the bone fragments recovered from both



Plate 19. Tumulus 21. View of pottery vessels in the chamber (photo: R. Mabler).

parts of the burial chamber a number of small finds were observed. These comprise objects made of iron: about ten arrowheads and fragments of two rings, all of them badly corroded. Two small rings made of copper-alloy, were also noted amongst the finds, one of them was found on a toe. The finds included approximately 110 small beads made of different materials, such as faience, agate and quartz. The poor condition of the human skeleton made it difficult to determine the original position of the body. However, according to the burial customs of the period, one would assume that the body would have been laid in a contracted position, on its left or right side, with head to the south. In this case however, the disarticulated head was found to the south east. The aforementioned assumption stems from the fact that the smashed skull and some fragments of the upper limbs were noted in the centre, while long bones from

the lower limbs and feet were found at the northern end of the chamber. The deposition of vessels containing offerings of food and drink at the south end of the chamber, usually above or around the head area, is a practice consistent with a well-known tradition of this period.

### Tumulus 3 (Type I)

Tumulus 3 is located at the south-east part of the cemetery, just a few metres from the northern wall of el-Zuma hospital. As mentioned, the tumulus is attributed to Type I, as are those adjacent to it. These are Tumulus 4, located at a short distance due north west, and Tumulus 1, also located at a short distance from Tumulus 3, in north-east direction (see Figure 1). These three tumuli are identified as a group and representing the smallest size of Type I tumuli.

The actual diameter at the time of study ranges between 30-35m with a maximum preserved height of about 3.5m (Figure 5). The conical-shaped mound (although its top is disturbed), is built out of a mixture of earth and gravel,

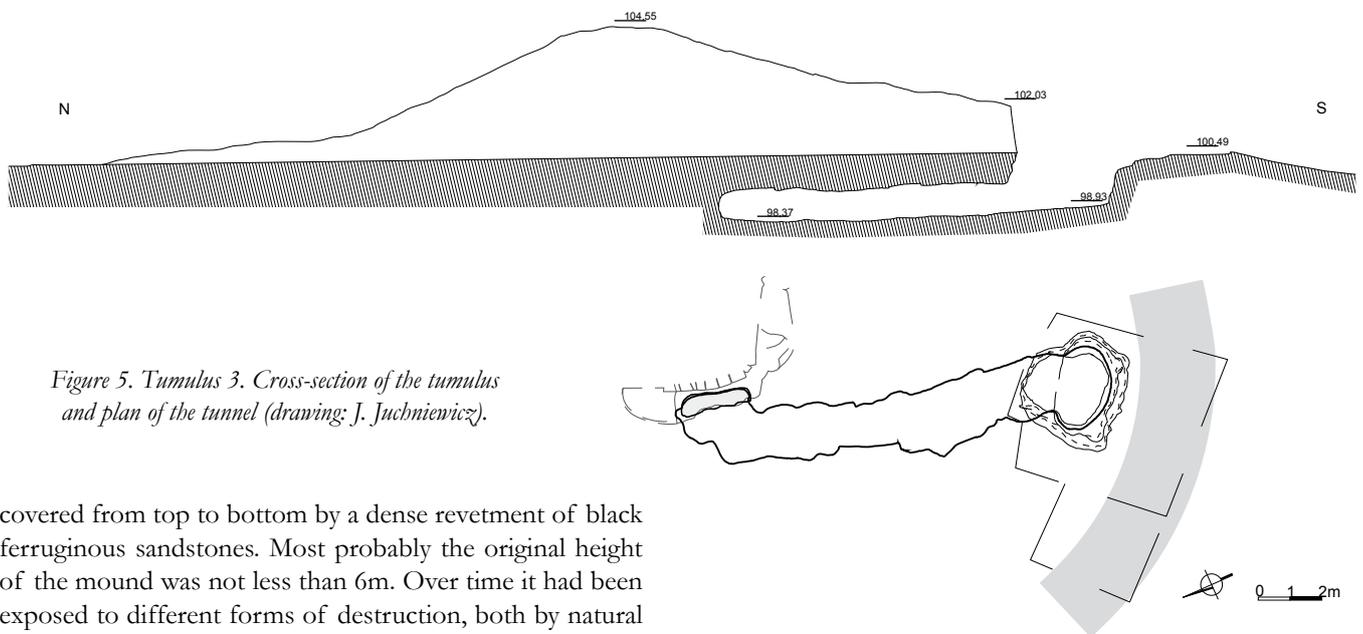


Figure 5. Tumulus 3. Cross-section of the tumulus and plan of the tunnel (drawing: J. Juchniewicz).

covered from top to bottom by a dense revetment of black ferruginous sandstones. Most probably the original height of the mound was not less than 6m. Over time it had been exposed to different forms of destruction, both by natural factors, such as wind and rain water erosion, and human factors, such as grave robbing through the centuries and the activities of those seeking building materials, that have caused much damage to the tumulus (the same thing can be said about the other tumuli in the cemetery).

Since the site is registered on the UNESCO list of International Heritage, hence the mission received from NCAM approval for the work on the condition that the large eight tumuli be excavated in a way so as not to destroy them. Therefore, only limited trials were allowed to enable us to gain some data which can help in understanding the nature, function and date of these enigmatic monuments. In accordance with these constraints, investigations were directed to the southern side of Tumulus 3, where some traces of whitish sandstone were noted. So far, based on previous experience, the existence of whitish sandstone remains at the foot of the mound on its south side usually pinpoint the exact location of

the external shaft of the searched for tunnel. Consequently, a large rectangular pit of about 8 x 4m was set on the selected spot. After removal of accumulated sediment to a depth of about 500mm, the cleaning area was reduced to form a square of about 5 x 5m when the outlines of the external shaft became visible on the ground surface. The shaft had a rectangular ground plan measuring 2.72 x 1.6m with a depth of 1.4m. Access to the bottom of the shaft was made easy by two steps cut into the opposite corners, south east and south west, at a depth of about 650mm. In their search for the tunnel apparently the robbers missed the right place, as they broke through the top of the tunnel's entrance causing some damage in its ceiling.

The external shaft and the tunnel were both found filled with earth and sand, indicating that the passage to the burial chambers had been left open for a long period. The tunnel was about 11.81m long, and 1.88m wide with a height ranging from 930mm at the entrance to 1.06m further in. Constructed in a north-west direction, terminating on top of the

west chamber, it looks as if the tunnel went astray. Previous experiences from tumuli 2 and 5 in this cemetery provided evidence that the tunnel was cut from south to north to reach the main chamber hewn into the southern side of the main shaft of the burial (Mahmoud el-Tayeb 2006-2007, 73-80, figs 3b and 5; 2010, 2-14, fig. 6). However, detailed examination of the fill in the tunnel led to a significant discovery. Near the hole leading down to Chamber 2, some broken mud bricks were found. Undoubtedly, these fragments in this specific location strongly attest to the existence of a wall that blocked the way down to the burial chambers. Repeated plundering of the burial had a severe impact, not only on the mud-brick blockage which was completely destroyed, but in the all the burial chambers as well. Stratigraphy of the filling sediment profile shows at least three phases of plundering activity. The importance of this find stems from the fact that it is the first



time such a discovery in el-Zuma burials of Type I has been made. Consequently, this discovery – although the evidence is incomplete due to the high scale of destruction – again raises the question of the tunnel’s function.

As previously mentioned, the tunnel (Plate 20) opens directly into the west chamber no. 2, underneath. The chamber



Plate 20. Tumulus 3. View along the tunnel (photo: A. Kamrowski).

measured about 4.5m in length, 1.2m in width and about 670mm in height. Most probably this burial was constructed similarly to the other ones of the same type, consisting of a ‘U’-shaped vertical shaft and a number of lateral niches hewn into its side walls. This is attested by two holes of about 600 x 400mm, interconnecting with chambers located on the southern and northern sides of Chamber 2 (Plate 21). The



Plate 21. Tumulus 3. View of the western Chamber 2 looking north (photo: A. Kamrowski).

southern chamber no. 1 (Plate 22) measured 3 x 1m and was 600mm high. All three chambers were found completely filled with sediment that had poured in through the tunnel. Due to the poor condition of the ceiling in the northern chamber no. 3, no attempt to explore it was undertaken. However, cleaning the two other chambers, western and northern, of sand and debris revealed that both chambers had been thoroughly plundered and badly devastated. Only some fragments of human and animal bones were found scattered in the tunnel and



Plate 22. Tumulus 3. View of the southern Chamber 1 looking east (photo: A. Kamrowski).

Chamber 1 (for more about the bone remains see Iwaszczuk forth.; Mahler forth.). In Chamber 1, the nature of some small niches is still ambiguous. One is cut into the south wall and another of shelf-like form is cut into the east side of the chamber, and appears to contain some long fragments of bone (probably cattle scapula). Further exploration to verify the form of these two small niches was difficult due to the threat of ceiling collapse, and the uncomfortable situation inside the chamber, mainly for a lack of space and fresh air. It is worth mentioning, comparing the dimensions of the uncovered part of the burial substructure with the ones beneath Tumuli 2, 5 or 6, that we see a great difference in size and quality of workmanship. No explanation for such observations can be given without full excavation of the tumuli.

### Tumulus 8 (Type I)

Tumulus 8 is located in the north part of the cemetery (see Figure 1). The mound which is built of a mixture of earth, sand and gravel is covered by small black ferruginous sandstones. It has a diameter of about 28.6m and a maximum height of 4.91m. Although no indications of earlier activity was observed on the surface around the lower part of the tumulus nevertheless, a rectangular pit of about 8 x 4m was discovered on the southern side of the mound. At a depth of between about 100-400mm, appeared the outline of a large robber hole measuring 5 x 3.6m. The uncovered external shaft is approximately of rectangular plan aligned east-west, measuring north side 2m, south 2.05m, east 1.25m, west 1m, and reaching a depth of 1.95m in the southern side and 2.3m in the north (Figure 6). Access to the bottom of the shaft was facilitated by a single step cut into its south-east corner at a depth of about 900mm from the ground surface, while there was another step of about 400mm from the bottom of the shaft to the entrance of the tunnel (Plate 23). Here again, on their way down the robbers missed the centre of the external shaft, thus they partially destroyed the ceiling of the tunnel at its entrance. The relatively narrow entrance to the tunnel has almost a rectangular shape measuring about 1.26m in width and 1.36m in height. So far the tunnel of

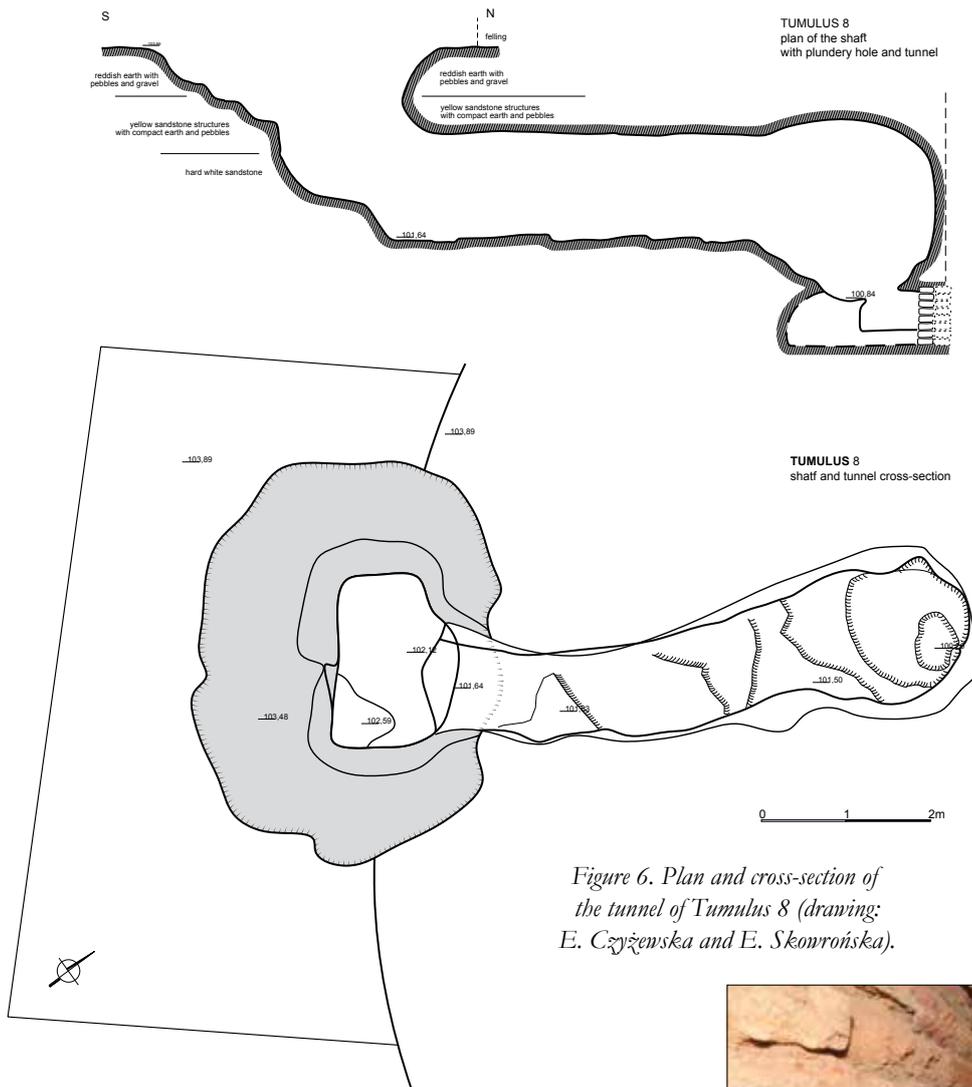


Figure 6. Plan and cross-section of the tunnel of Tumulus 8 (drawing: E. Czyżewska and E. Skowrońska).

Tumulus 8 is the narrowest and the most irregular in shape; it is the most poorly constructed of the four tunnels explored to date in the cemetery. Its maximum length reaches 6.4m, while its width ranges from the entrance to the end from 1.26m to 1.58, ending at 2.05m. The last 2m of the tunnel feature a gradual incline of about 500mm towards the hole that descends to the west side of the main burial chamber no. 1 (on the south side). The hole which perforated the ceiling



Plate 23. Tumulus 8. View of the external shaft and the entrance to the tunnel (photo: A. Kamrowski).

of Chamber 1, has an elongated, irregular shape measuring 630 x 460mm (Plate 24). The southern chamber no. 1 has dimensions of about 2 x 1.2m and 650mm high, while Chamber 2 measures 3.4m in length, and only 650mm wide with the highest point of about 650mm (Plate 25). Both chambers have strongly inclined ceilings towards their rear, a construction practice which is so far noted only in this burial and that beneath Tumulus 3. Red bricks bearing traces of white plaster, were reused in building the seven rows blocking wall of the burial chambers. As mentioned in previous works, these bricks were most probably brought from nearby ruins of an old Meroitic official building, the location of which remains unknown.

Apparently, the substructure of the tomb had been a subject for repeated penetration and plundering. As a result the two chambers, the tunnel and the external shaft, were all found filled with compact brownish earth. Exploration in

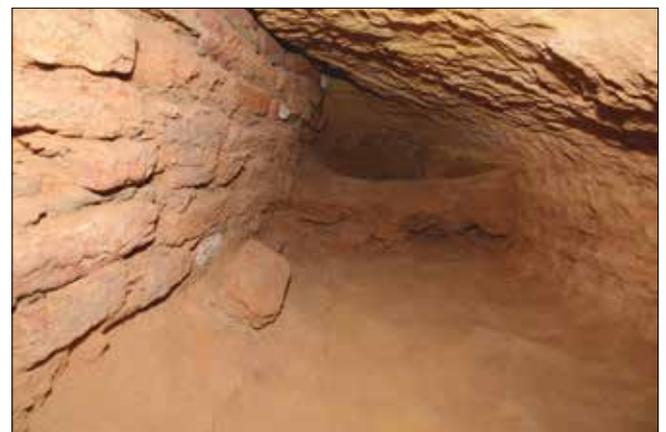


Plate 24. Tumulus 8, view of the southern Chamber 1 looking east (photo: A. Kamrowski).

Chamber 1 brought to light a pile of broken human and animal bones mixed together in the centre of the chamber, while only one small light brown bowl was noted near the red-bricks blockage. Fragments of cattle bones were also found in the fill of the tunnel and the external shaft.

For the same reasons as seen in Tumulus 3, no further works were conducted. Nonetheless, the results of this quite limited trial no doubt have added more strong evidence for the origin and function of the underground tunnels.

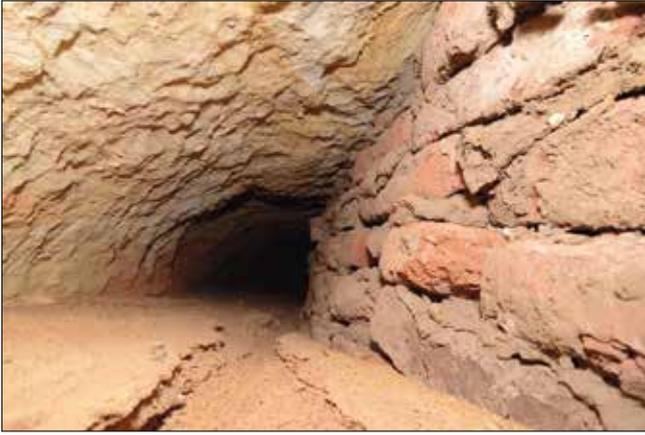


Plate 25. Tumulus 8. View of Chamber 2 (photo: A. Kamrowski).

### Tumulus 6 (Type I)

Tumulus 6 lies in the west side of the cemetery (see Figure 1). The mound is built out of material similar to that used in the other tumuli of Type 1. It has a diameter of about 52m and height reaches up to 8.5m. Accordingly, amongst the tumuli at el-Zuma cemetery Tumulus 6 is the highest and the largest in size (see Figure 1).

Efforts to detect the existence of a subterranean tunnel were directed to the southern side of the tumulus. A narrow rectangular vertical shaft was unveiled, measuring 4m in length by 1.75m in width, and 4m deep. At a depth ranging

between 1.82m and 1.9m from the ground surface, the shaft is provided with two steps cut into the south-east and south-west corners (Figure 7). It appeared that the tunnel has an entrance of a unique type, to the best of our knowledge, in late antique Nubia.

The entrance to the tunnel has a regular rectangular shape, with a central pillar cut in the bedrock. The east side measures about 1.7m in width and is 1.76m high, while the west side is about 1.6m wide and 1.96m high. Both sides were found filled with compact sediment and stone slabs, the latter were especially noted on top of the east side entrance. Apparently, these stone slabs were arranged as an additional blocking after the partial removal of the sediment fill in the east part of the tunnel (Plate 26). The removal of the stone slabs and the earth fill from the east entrance, revealed that the tunnel itself is divided from south to north by three pillars cut into rock. Thus two passageways were formed in the tunnel (Plate 27). The west passage which is about 9.7m long and 1.6m wide, appeared to be a cul-de-sac. The east wing is about 1.7m in width, and 19.3m in length. At its north end it is divided into two east and west niches interconnected with each other by a small hole of unknown function. For the second time in this cemetery the burial chamber was penetrated through its roof, where an irregular hole was dug in the floor of the west niche allowing a descent of about 1.4m down to the main burial chamber. For safety reasons no attempt was made to explore the chamber which appeared to be have been disturbed and

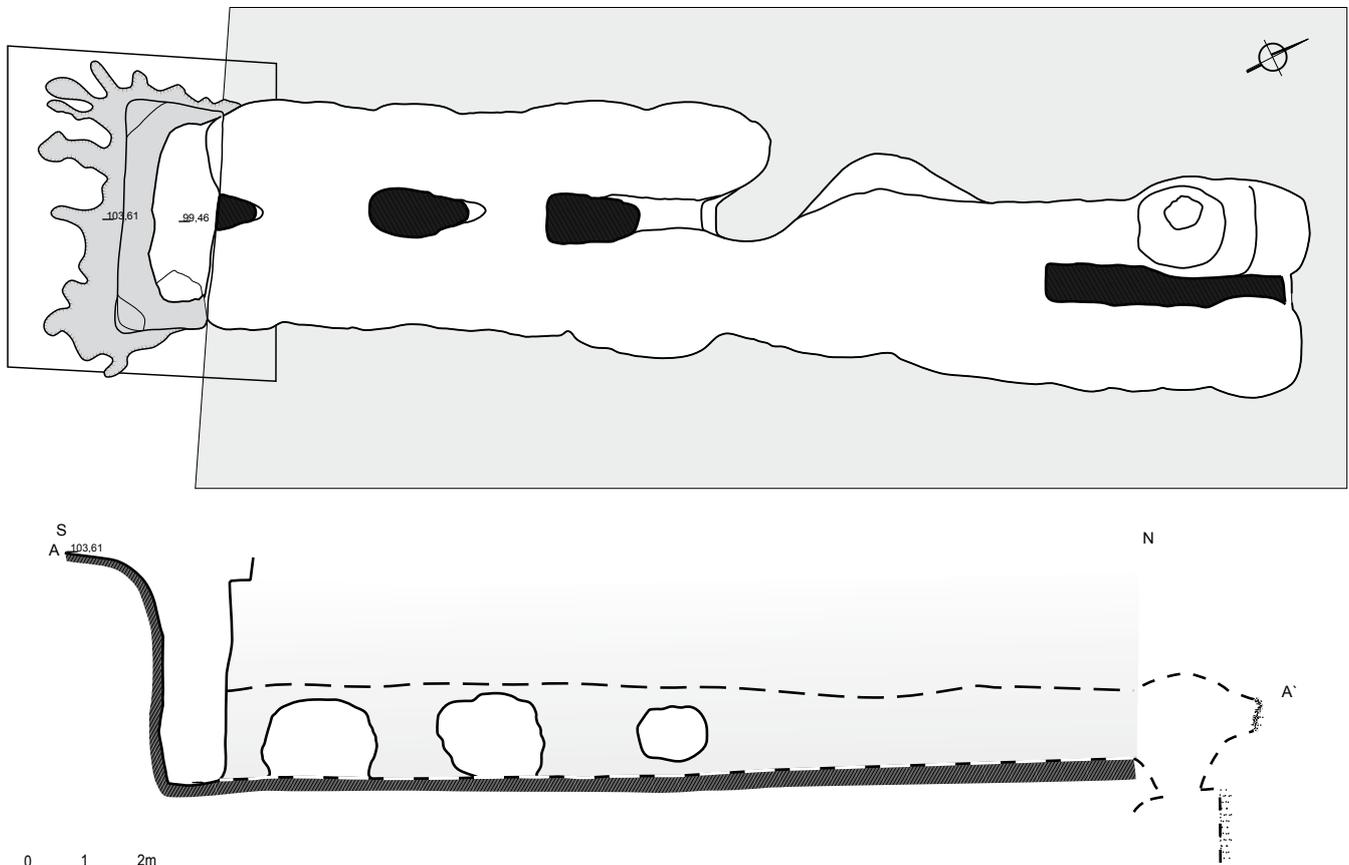


Figure 7. Plan of the tunnel under Tumulus 6 and cross-section of the pillars and wall of the tunnel (drawings: E. Czyżewska and E. Skowrońska).



Plate 26. Tumulus 6. View of the external Shaft and the entrance to the tunnel (photo: A. Kamrowski).



Plate 27. Tumulus 6. View of the tunnel (photo: A. Kamrowski).

devastated several times. Devastation of the burial is attested by several broken pottery vessels and fragments of animal bones which were found within the fill of the tunnel and the external shaft. Strong evidence for tomb penetration is seen in the straight cut of the fill that covered the east wing of the tunnel and the maintenance of the entrance by stone slabs. A small oil lamp, probably of Early Christian date was found placed on top of the fill near the second pillar. This lamp and the removal of the fill from the east passage of the tunnel remain without a reasonable explanation (Plate 28).

The southern burial chamber is a large niche finely cut into the soft sandstone formation, with a roof gently inclined from the entrance due south to its rear. Its dimensions reach about 5m x 1.2m and 1.4m in height. The chamber is blocked by a well-built wall, constructed of 15 rows of reused red bricks bonded with lime mortar. On its west side the chamber is interconnected with the west chamber by a rectangular hole with rounded top, measuring *c.* 600mm in length and 400mm in width (Plate 29). The plundered but archaeologically unexplored chamber – as seen from above – still contained a number of pottery vessels, comprising cups, beer jars, one



Plate 28. Tumulus 6. View of the lamp on the tunnel fill (photo: A. Kamrowski).



Plate 29. Tumulus 6. View of Chamber 1 showing the contents, looking west. Note the objects and the vessel to the right near the blockage (photo: A. Kamrowski).

dish and one unidentified ceramic object. More enigmatic is the existence of what seems to be two bodies, laid on biers supported by stones at the corners. The bodies are wrapped in what may be now decayed linen material (see Plate 29).

So far nothing more can be said about this tomb, for much depends on the identification of the wrapped objects in particular and the other contents of the entire chamber.

### Tumulus 7 (Type I)

Tumulus 7 lies at the far north-west fringes of the cemetery. It is the second largest of the Type I group of tumuli, standing up to 7.87m above the surrounding ground level, and with a diameter of about 50m. Like all the tumuli of Type I, it is built from a mixture of earth, sand and gravel, and is covered with rough chunks of black ferruginous sandstones. As mentioned above, the external shaft had been partially explored in 2011. Resuming the exploration, the whole shaft was unearthed and appeared to be of about 3.6m long by 1.3m wide and 3.9m deep, with one step cut into its south-west corner at a depth of 1.6m. The destruction of the upper part of the tunnel's entrance is an obvious indication of the robbers' break-in. The tunnel was found filled with compact sediment consisting of three different layers. At the very bottom accumulated a layer of whitish-grey sandstone debris about



500mm thick, covered by another two layers of light brown sediment 500mm thick and on the top about 600mm thick layer of dark brown sediment (Plate 30). No doubt such fill accumulation in the tunnel is a result of repeated penetration of the tunnel in different periods with long interval between.



Plate 30. Tumulus 7. View of the sediment layers in the west side of the tunnel, facing north (photo: A. Kamrowski).

Cleaning out the fill revealed that the tunnel, 17m long, 3.6m wide and 1.75m in height, was divided into two east and west passageways by seven pillars cut in the sandstone bedrock, while the northern end was shaped into the form of two niches (Figure 8). A hole in the east niche opened into the west side of the south chamber (Plate 31).

The main burial chamber, which is hewn into the south side of the main shaft, is a large lateral niche of about 5m



Plate 31. Tumulus 7. View of the northern end of the tunnel with the hole leading to the main burial chamber, looking north (photo: A. Kamrowski).

was found closed by a wall of reused red bricks on both sides of the pillar. The blockage on the east side is well built in regular courses, with one header at the bottom, followed by 14 courses of stretcher bonded in lime mortar. The west wall is poorly constructed, as if it had suffered destruction after which it was built again in a hurry. However, the real reason behind its poor state remains unknown, or is at least a matter of conjecture (Plate 32).

The main burial chamber appeared to be subjected to severe plundering and devastation. Remains of a broken bier and disarticulated human skeleton, scattered over the east side of the chamber, attest to an adherence to the well-established canon of the burial practice of the period; inhumation usually in a contracted position, body laid on a bier located on the

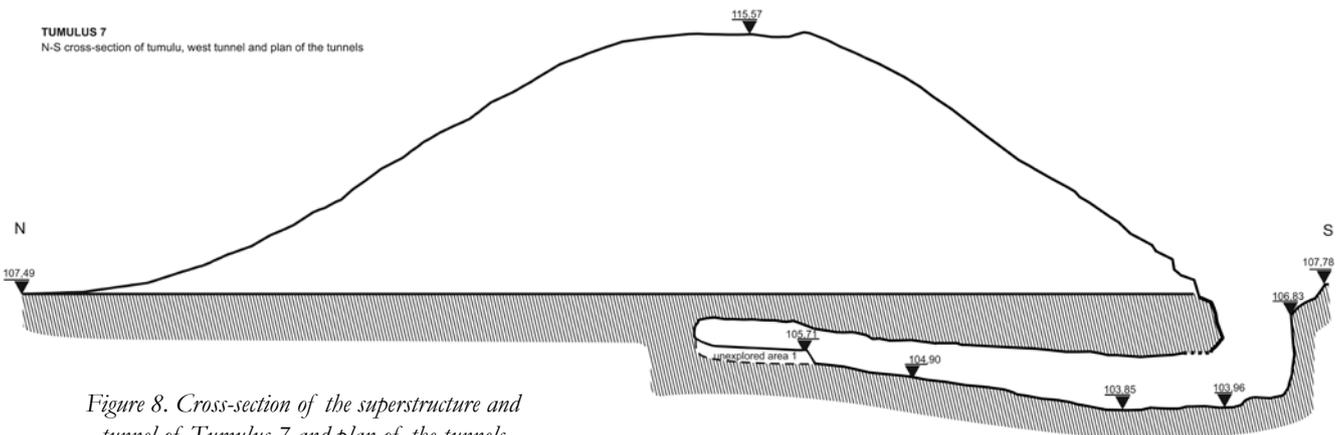
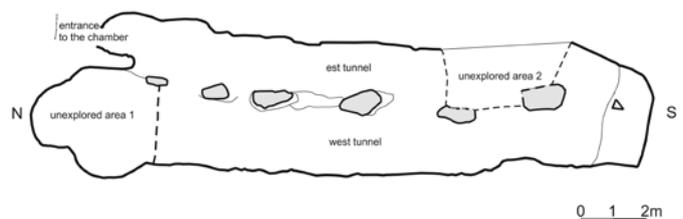


Figure 8. Cross-section of the superstructure and tunnel of Tumulus 7 and plan of the tunnels (drawings: K. Juchniiewicz and Z. Kowarska).

long and 1.57m wide with 1.3m in height. The chamber has a wide entrance divided in the middle by a pillar cut from the sandstone bedrock, most probably to support the whole construction. On the west side another pillar separates the southern and western chambers. Generally the east side of the south chamber is more finely cut than the west side, with an almost flat roof and straight rear wall. The south chamber



east side of the chamber with head due east, facing north (Plate 33). The west side of the chamber contained part of



Plate 32. Tumulus 7. View of the blockage of the chamber (photo: A. Kamrowski).

the grave offerings that had been left behind by the robbers. These comprised complete and broken beer jars, small red bowls and cups. Large fragments of animal bones, probably of cattle, were also amongst the offerings. The location of



Plate 34. Tumulus 7. View towards Chamber 2 looking north (photo: A. Kamrowski).

that the excavations of the tunnels beneath Tumuli 3, 6, 7 and 8 have shed much light on the origin and function of these enigmatic structures, yet still many issues are awaiting definite answers.



Plate 33. Tumulus 7. View the east side of Chamber 1, with the bier and human bones (photo: A. Kamrowski).

these offerings near the blockage of the entrance, should not be taken as their original place of deposition, due to the fact that the chamber was visited by some intruders (Plate 32). Using a camera on the end of a long post, it was possible to have an idea about the construction of the western chamber and of its contents. The chamber appeared to be approximately of the same length as the southern chamber, but far narrower, with a sharply inclined roof. Its blockage was also roughly built of re-used red bricks. The deposition of the offerings, which consisted of about five large beer jars and several small vessels, mainly red bowls and cups, lined the rear wall and the blockage, indicating that the robbers totally ignored this type of offering, a phenomenon which has been repeatedly observed in the burials of this period (Plate 34). However, exact and more data and information which could enrich our understanding of the origin of this culture should await further detailed investigations of these unexplored burials. At this stage of research one could say

### Conclusion

The above results of three seasons of excavations at el-Zuma cemetery confirmed the correctness of the earlier established tumuli classification into three types, based on the construction of the super- and substructure of the burials. More light has been shed on the mortuary practices which offers reasonable possibilities for a better understanding of Early Makuria society. In the meantime, still there are many ambiguous aspects which raise more questions than they solve. One of these concerns the origin of Tumulus 12. Tumulus 12 is the most enigmatic burial dated to the Early Makuria period excavated thus far in the Dongola Reach. When analysing the essential elements that characterize the established classification of each of the three burial types and their variants, namely the shape, dimensions and construction of both the super- and substructure, it is quite hard to precisely determine to which category it belongs (for burial types I, II, III, see Mahmoud el-Tayeb 2012, 65-74).

Since the beginning of the project, the underground tunnels discovered beneath the eight largest tumuli of Type I, constituted a debatable subject concerning the origin and function of these tunnels. The debates raised on whether these tunnels were dug by robbers to penetrate the burial chambers, or they were constructed as part of the main burial for specific function, hitherto remained unknown to us, or was merely a matter of conjecture. However, the excavation of the two tunnels of Tumuli 6 and 7, described above, leaves no room for doubt that the construction of these tunnels



cannot have been done by robbers. The excavation provided a definite answer for the first part of the debate, yet what their function was must await further investigations (if we will be able to explore the burial chambers of both Tumulus 6 and Tumulus 7).

As usual in burials of this period, pottery constitutes the majority of the finds, evidencing that pottery production was quite abundant and widespread. In consequence, only the highly valuable pieces attracted the attention of grave robbers, while the common ware was usually totally ignored. However, pottery is a significant element in the study of the period's culture, hence a separate article devoted to the pottery assemblage recovered from the excavations of the 2013 season is under preparation at the moment (for more information on pottery of the fifth season see Czyżewska-Zalewska forth.). The rest of the ceramic material, beads and metal objects are also being prepared for publication in the near future.

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