

TRADE AND FAITH IN NUBIAN EARLY MAKURIA (AD 450–550): MACROSCOPIC EXAMINATION OF PERSONAL ADORNMENTS FROM EL-ZUMA IN NUBIA

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Abstract: In the long history of the land between the Third and Fourth Cataracts on the Nile, the period corresponding to the times of Early Makuria is particularly well represented. The el-Zuma tumuli cemetery has been dated to the Early Makuria Phase II (AD 450–550). Although the graves were heavily robbed, the remains of personal adornments (beads, pendants, rings, and an earring) give a broad overview of materials (marine mollusk shell, coral, ostrich eggshell, stone, metal, faience, glass) and techniques applied in their production. A comparative synopsis of contemporary Nubian adornments shows parallels for the objects from el-Zuma. Moreover, the provenance of the materials and manufacturing techniques suggests el-Zuma's involvement in regional and long-distance exchange during this period. Finally, the presence of a Christian symbol and imported beads in the el-Zuma tumuli is meaningful in itself.

Keywords: beads, pendants, personal adornment, Nubia, AD 450–550, Early Makuria/late post-Meroitic, late antiquity

The cemetery field of el-Zuma has been dated to the late post-Meroitic period, otherwise called Early Makuria Phase II (AD 450–550) (El-Tayeb 2012: 61–75; El-Tayeb, Skowrońska, and Czyżewska 2016 and references). During seven excavation seasons in 2005, 2007, 2009 and 2011–2014, more than one thousand objects of personal adornment associated with 21 tumuli were uncovered at el-Zuma, a site excavated by a team run jointly by the Polish Centre of Mediterranean Archaeology University of Warsaw and the National Corporation of Antiquities

and Museums of Sudan. The adornments were found in the following tumuli: Nos 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 24, 25, 26, 27, 28 [*Fig. 1*], in the fill of chambers, shafts, tunnels, and in looters' pits. The latter, in particular, is responsible for the observable corrosion of much of the material. Rainwater entered freely graves that had been penetrated and ransacked by robbers. The same processes were going on at many other Fourth Cataract sites (Baker 2008).

Items of personal adornment comprised **beads, pendants, a scarab, two rings,**

an earring, and possibly a leather case fitting. They were made of organic (marine shell, coral, ostrich eggshell), stone, metal (bronze, copper alloy, silver, iron) and man-made materials (glazed composition, glass).

The presentation follows this classification by material and manufacturing techniques.¹

Likely parallels are given in close consideration of the consistent dating of the site to the Early Makuria period. The

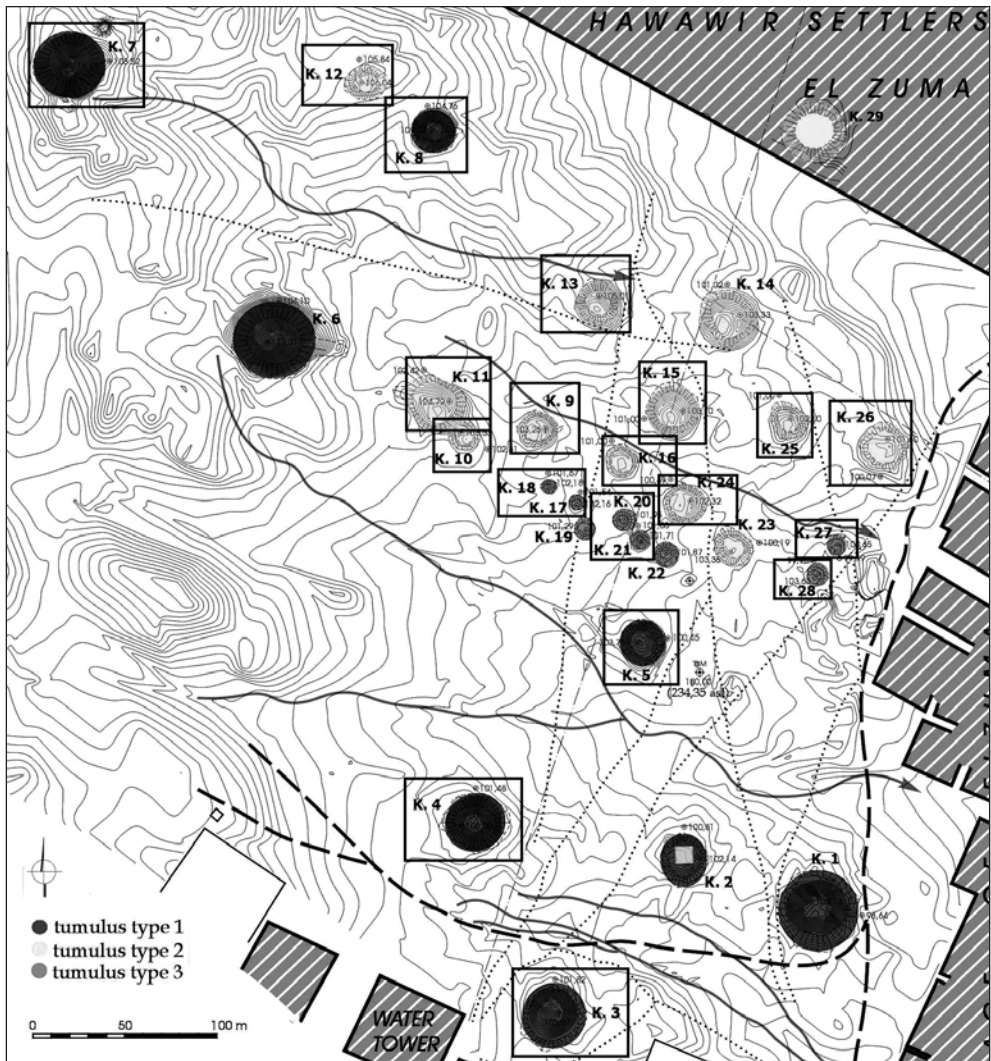


Fig. 1. The el-Zuma tumuli field; boxes mark tumuli with finds of personal adornments (Plan Yasin Mohammed Saeed, W. Matkowski)

¹ Bead shape identification follows the bead classification by H. Beck (1928).

potential function of the items from el-Zuma is analyzed within the indicated cultural and chronological contexts. The provenance of raw materials, the manufacturing techniques and ready-made products is suggested, laying the

groundwork for setting Early Makuria within a network of internal and external exchange routes. Last but not least, a study of the assemblage hints at the level of cultural complexity present in this region during the Early Makuria period.

THE ASSEMBLAGE

MARINE SHELLS

The five cowry shells in the assemblage are *Cypraea* sp., probably of Red Sea origin (Nos Z7/1, Z12/2, Z27/5). They were perforated by striking off the convex part of their bodies, which left a large hole opening [Fig. 2:Z27/5]. Similar specimens were discovered in the post-Meroitic Tumulus 4 on Uli Island (Godlewski, Obluski, and Zielińska 2005: Fig. 8).

Perforated *Cypraea annulus* sp. shells formed a well known part of personal adornment in ancient Nubia, the tradition of using shells of the *Monetaria moneta* sp. species started in the early Christian period (Adams 2001: Pl. 10c–d, Meinarti) and was continued later (Then-Obluska 2013a: 682, Fig. 1:142, 179, 190).



Fig. 2. Cowry beads with struck-off dorsal part

Photos A. Kamrowski and J. Then-Obluska; image processing and plate design J. Then-Obluska. Illustrated objects identified by site find inventory numbers.

CORAL

A single coral bead, not illustrated here, was recorded (No. Z25/35). Short-to-long cylinder beads made of *Coralium* sp. were common in late Roman/early Byzantine Egypt and post-Meroitic Nubia (e.g., Then-Obluska 2015: Fig. 2.2; Emery and Kirwan 1938: Pls 43–44). In the Fourth Cataract region, salmon-colored specimens, most probably of Red Sea origin, were found in burial T1.81 at Musa (National Museum in Warsaw, Inv. No. 239056, Then-Obluska forthcoming: Pl. 3) and in a grave at Tabo, where they formed part of a belt (Jacquet-Gordon and Bonnet 1971: 81).

OSTRICH EGGSHELL

Ostrich eggshell was an easily available material and yet only a dozen beads recorded from el-Zuma were made of it. Two general types were distinguished: **large disk** and **small disk to short cylinder**. The disks were cut from pieces of ostrich eggshell, perforated by pecking the center from one or both ends. The edges were retouched. The surface around the hole opening remained unworked. Beads measure about 15 mm in diameter [Fig. 5:Z28/17.1, Z28/15.1], compared to the 4.5 mm diameter of the other type

(Nos Z13/33, Z16/22, Z24/49) [see Fig. 7:Z24/49].

STONE

A few dozen adornments were made of different kinds of stone: agate, quartz, carnelian, black steatite and what is most probably sandstone.

Stone beads drilled from one end

Most of the beads were drilled from one end

and feature a truncated conical shape of the perforation. Small **long barrels** and **pear-shaped/truncated conical** beads, made of black steatite, white quartz, and red agate are the most characteristic types in the late post-Meroitic el-Zuma [Fig. 3:Z16/20a-c, Z16/21, Z16/23]. They are about 3–5 mm in diameter and 3–6 mm in length.

Beads of this type have been recorded in the Fourth Cataract region (Then-Obłuska 2014: Cat. 221–223). They

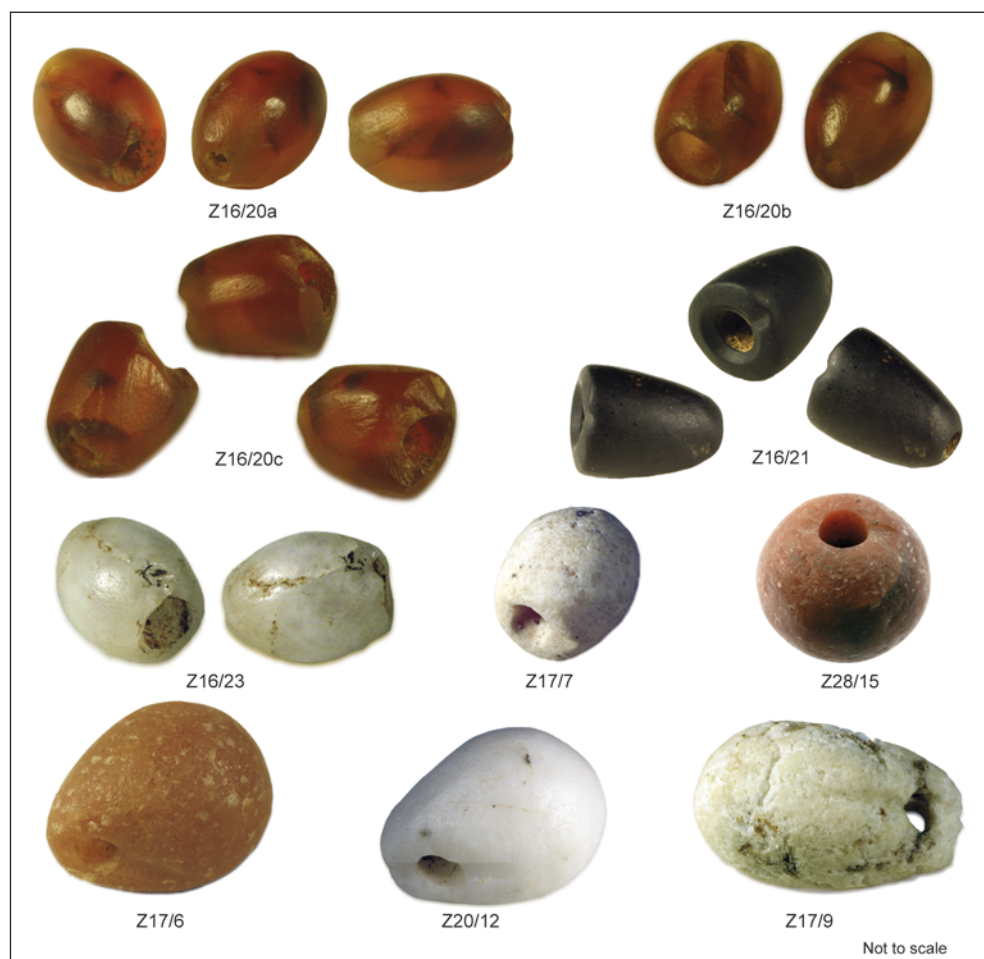


Fig. 3. Stone beads and pendants, drilled from one end

are also known from many post-Meroitic sites in Lower Nubia (Emery and Kirwan 1938: Pls 43, 53–54; Vila 1984: Fig. 219,92; Pellicer Catalán and Llongueras Campaña 1965: Fig. 41,114; Presedo Velo, Blanco y Caro, and Pellicer Catalán 1970: Fig. 215,158; Farid 1963: Fig. 58,11; Kirwan 1939: Pl. XX:14).

Larger objects are characterized by a truncated conical shape of the perforation and sawmarks next to the bigger hole opening. These are **spherical** beads of a diameter about 10 mm, made of red or white quartz [Figs 3:Z28/15; 5:Z28/15], **long barrels** of white stone [Fig. 3:Z17/7] and **teardrop pendants** with rounded bases [Fig. 3:Z17/6, Z17/9, Z20/12]. These types are commonly recorded in

late Meroitic to transitional late Meroitic/post-Meroitic graves in the Fourth Cataract region (Then-Obluska 2014: Pl. II, Cat. 148, 150, 151, 175 spherical, 173 teardrop, 220, 225 long barrels; Longa 2011: Fig. 4 spherical beads and teardrop pendants) and up to the Sixth Cataract (Pokorná et al. 2014: spherical beads).

Stone beads drilled from both ends

Long, square to rectangular, biconical carnelian beads were drilled from both ends, and are characterized by a double, parallel shape of the perforation [Fig. 4: Z9/10, Z9/17, Z24/55]. They measure about 9 mm in thickness and from 12 mm to 20 mm in length. They were recorded from early Byzantine Berenike, Egypt (see Then-

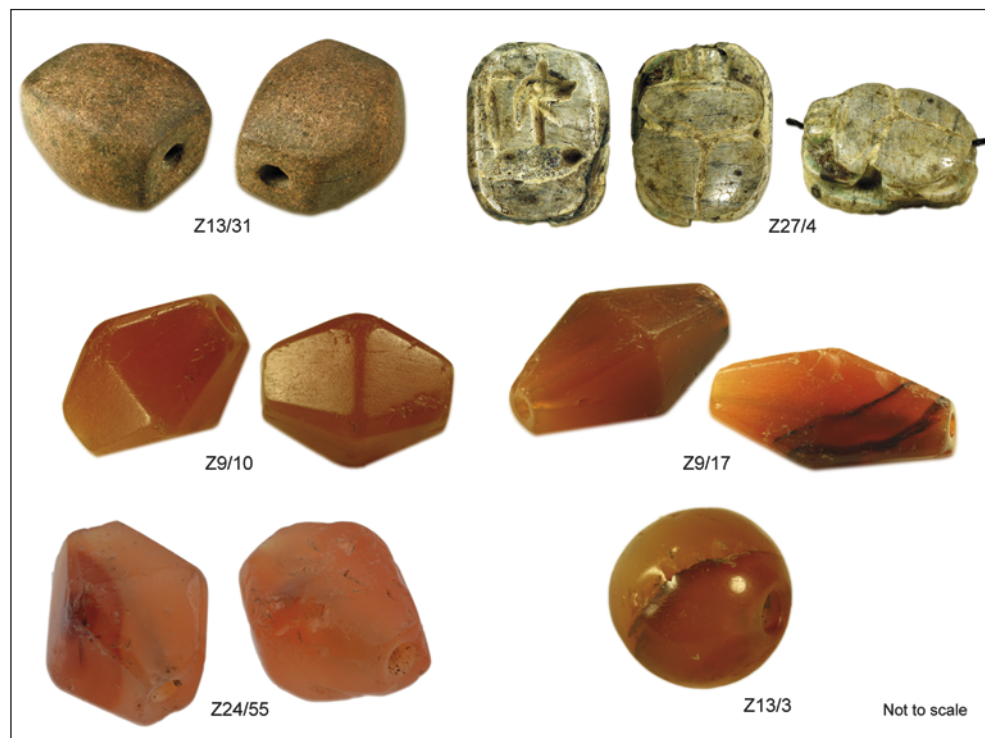


Fig. 4. Stone beads, drilled from both ends

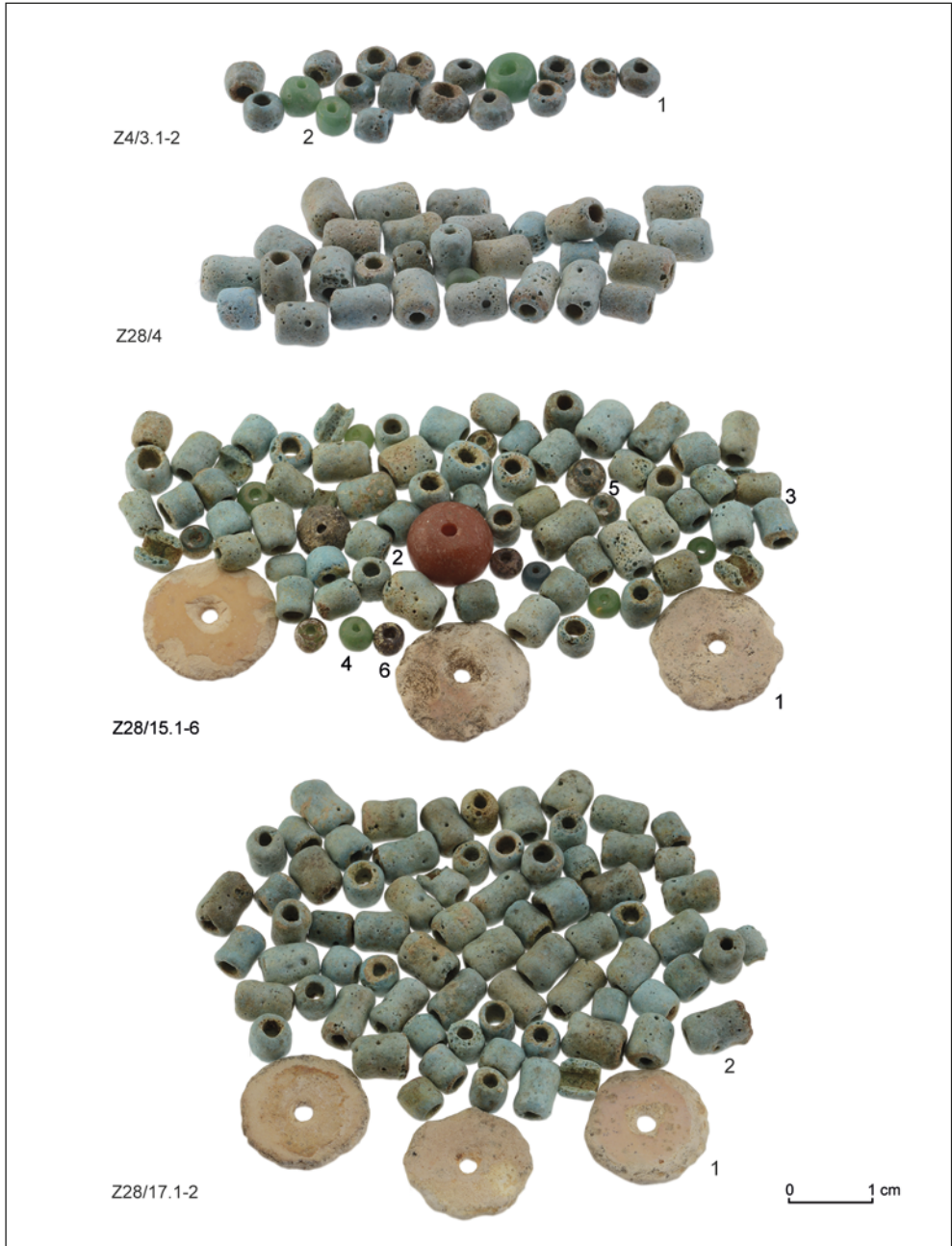


Fig. 5. Sets of faience beads, together with glass beads (top), red quartz bead (center) and ostrich eggshell beads (center and bottom)

-Obłuska 2015: Fig. 3.6–7), Tell al-Sin and Deir el-Zor, Syria (Montero Fenollós and Al-Shbib 2008: Pl. LX:1), Lower Nubian Qustul, dated between AD 370/380–410 (Then-Obłuska forthcoming), the Fourth Cataract sites dated to the Transitional LM/PM (Then-Obłuska 2014: Pl. II, Cat. 215, 216) and up the Nile at Gabati (Edwards 1998: Fig. 10:74). Whether copper drills and abrasive or single and double diamond drills were used is not clear. The latter method would indicate their Asian origin (Kenoyer 2003).

A slightly reddish, rectangular truncated biconical bead, perforated from both ends, was most probably made of sandstone [Fig. 4:Z13/31]. It measures 10 mm in width and 11 mm in length.

GLAZED STEATITE

The sole scarab bead, carved of soapstone, preserved traces of green glazing in a few places [Fig. 4:Z27/4]. It measures 10.2 mm in width and 13 mm in length.

FAIENCE

Faience, otherwise called glazed composition beads, constitute the overwhelming majority of the assemblage. More than one thousand beads were preserved.

Post-Meroitic faience beads are characterized by the porosity of their quartzite bodies. It is probably due to the large share of natron used in faience production in the post-Meroitic period in the Fourth Cataract region (Then-Obłuska 2014: 1070). Beads were produced by segmenting hand-folded long tubes into shorter and longer parts. Since the whitish parts of the cores can be discerned in broken objects, they seem to be glazed with an application technique. Blue glaze covers the outside surface of the exterior of the

body and the interior perforation surface, indicating they were glazed while being dipped into the slurry. Because of the high core porosity, the glaze went deeply into the bodies and sometimes results in bluish bead sections. Due to their position during glazing, some beads are flattened on the side where they lack the glaze.

Short, standard and long faience beads form a few different shapes according to their length. **Short, standard and long tubular beads** dominate the assemblage. Short and standard beads measure about 3–6 mm in diameter and 2–4 mm in length [Fig. 5:Z4/3]. Longer examples measure about 3.5–7 mm in diameter and up to 9 mm in length [Fig. 5:Z28/4, Z28/17, Z28/15]. Beads like these are all common finds at Fourth-Cataract transitional late Meroitic–post-Meroitic and post-Meroitic sites (e.g., Then-Obłuska 2014: Pl. II; Longa 2011: Fig. 4) and reach south to the Sixth Cataract region (Pokorná et al. 2014), to Botri, south of Khartoum (Bashir 2007: Pl. 5), and to the west of the White Nile in Al Khiday (Maritan et al. 2014: Fig. 3).

GLASS

All glass beads from el-Zuma are monochrome in color. They were made and finished with only a few techniques.

Drawn glass beads

Many monochrome beads were made from **drawn** glass tubes. Such tubes could be segmented on grooved molds or with a tool that resulted in the beads having constricted ends. They often appear covered with yellowish patina. The smaller specimens measure about 3.3–5 mm in diameter and 2–3.5 mm in length. At el-Zuma they are represented by

opaque red glass [Fig. 7:Z17/10] and dark blue beads [Fig. 5:Z28/15.6].

In other cases, drawn glass tubes were **cut up** and the ends of the beads were **more or less rounded**. These examples are made of semi-translucent green [Figs 5:Z4/3.2, Z28/15.4; 6:Z12/82.2; 7:Z24/49] and translucent blue [Fig. 5:Z28/15.5]. They measure about 3–5 mm in diameter. Other drawn beads have simply cut-off ends, like in the case of a yellow short barrel bead (No. Z9/9).

Drawn beads with both constricted and rounded ends are also common at

Qustul and Ballaḥa in Lower Nubia, dating to AD 370/380–410 (Then-Obłuska forthcoming). In the Fourth Cataract region constricted beads were recognized at late Meroitic–transitional late Meroitic/post-Meroitic sites (Then-Obłuska 2014: Pl. II, Cat. 145, 202–203 opaque red; Longa 2011: Fig. 4:4, 6 translucent dark blue and green). Small beads with rounded ends come from the late Roman trash dump and the Harbor Temple in the southwestern bay of Berenike, dating from the 4th through the beginning of the 6th century AD (see Then-Obłuska 2015: Fig. 4:33–41).



Fig. 6. Glass beads (and one faience bead in the topmost set)

Other glass beads

An outstanding bead of wound glass in translucent green was also found at el-Zuma [Fig. 6:Z13/32]. Fragments of blue and yellow beads were recorded among the glass remains [Fig. 7:Z24/49].

METAL

Four small metal bells were found in the tumuli graves at el-Zuma; they were made of silver [Fig. 8:Z4/11] and bronze [Fig. 8:Z15/9, Z16/24]. The better preserved specimen was cast with a half-elliptical profile and outlined rim [Fig. 8:Z4/11]. On the top of the bell was a hole, both for the passage of the wire forming the handle and the hook for the clapper. The clapper is made of wire bent at its extremity to catch the handle.

In one case the bells were found in a burial chamber next to a human skull, but it is not clear whether they were associated with a necklace [Fig. 8:Z16/24]. These bells parallel an object known from the Napatan site of Hillat-el-Arab, although also associated with some post-Meroitic objects (Vincentelli 2006: A.18:857).

They also recall two bells from post-Meroitic graves T1 and T300 in Nag el-Arab (Pellicer Catalán and Llongueras Campaña 1965: 89, 98, 177, Fig. 33:5²). A very similar bronze specimen was found among beads from grave S56/T2 on Saffi Island in the Fourth Cataract region. Similar iron or bronze bells were also excavated at post-Meroitic cemeteries in Qustul (Williams 1991: 326, Fig. 158b, Pl. 83f; 356, Fig. 168f, Pl. 83a).

A bell could have been part of a copper-alloy necklace dated to the late Roman period (Petrina 2014: Fig. 8), but the small metal bells from Nubia may have been used in different forms of adornment originating from the period in question (compare below).

A bronze **cupola** with the rim bent inwards was most probably a fitting for the leather case next to which it was found [Fig. 8:Z13/29].

A highly corroded iron **cross** [Fig. 9:Z16/25] has flared arms. It measures about 50 mm in height. No possible loop fitting could be seen at either end of the longer arms. A smaller iron cross (32 mm



Fig. 7. Sets of glass beads, the one on the right with a small ostrich eggshell bead

² Madrid, The National Archaeological Museum, personal observation (MAN Inv. Nos 1980/95/20bis and 206bis).



Fig. 8. Metal bells made of bronze and of silver (top left)

in height, 19 mm in width and 2 mm in thickness) with flared arms and attached cylindrical loop comes from Firka (SNM 24259, excavation number 3-6-15/1/1).

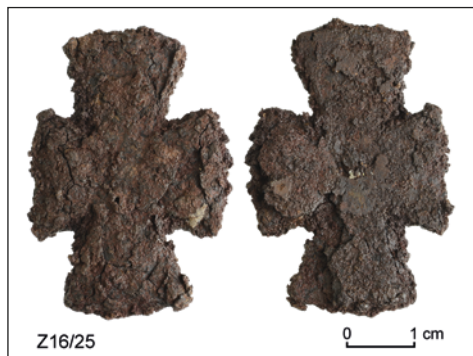


Fig. 9. Iron cross

A similar, but smaller copper pendant was found in a post-Meroitic grave at Qustul (Williams 1991: 305, Fig. 145c). Large crosses found in conjunction with beads are known from contemporary contexts in Egypt (Petrie 1914: 32, Pl. XXIII, 137a bronze), and from a Byzantine grave in Syria (Montero Fenollós and Al-Shbib 2008: Pl. L:3 iron).³

A fine copper-alloy earring, most probably brass, was preserved from Tumulus Z4 at el-Zuma, found together with the silver bell pendant [Fig. 10:Z4/12]. It measures about 12 mm in width and about 22 mm in height. It consists of a hoop and pendant, soldered with an alloy.



Fig. 10. Copper-alloy earring

³ Lead crosses with flared arms, albeit decorated, have been recorded from late antique sites, 6th–8th century AD (O'Connell 2014: Cat. 35; Stolz 2007: No. 123; Bénazeth 1992: 179, E 15466).

The **hoop** is a crescent-shaped penannular ring with circular section. It is made of bent and soldered sheet metal.⁴ One terminal is markedly thinner than the other. Crescent-shaped earrings⁵ have been found in Nubia (Allason-Jones 1991: Cat. 17–18, and references given there) and in Aksum (Phillipson 2000: 344, Fig. 299e; Munro-Hay 1989: Fig. 15.189). Such hoops are known from Nubia from the period under discussion as the upper part of pendant earrings, such as the example from el-Zuma (e.g., Emery and Kirwan 1938: Pl. 41.B 47; Farid 1963: Fig. 57, 4, 5; Williams 1991: Fig. 61b,c,e, Pl. 76e–g; Török 1988: 121, Pl. 77; Strouhal 1984: 229, Figs P3051, P3061; Kołosowska and Borcowski 2014: 52, Fig. 43d, tin, Kassinger Bahri, HP 45.1; Phillips 1987: 36, 38, Jebel Ghaddar). Lunate hoops with soldered pendant(s) have been observed already in the Meroitic period (e.g., Dunham 1963: W27 (45–50)?, Figs 79f, 80f).⁶

The wire **pendant** attached to the hoop has two rolled up spiral terminals

with thin ends. A segment beaded by a rolling technique is bent, so that half of a spherical boss/button made of sheet metal can be soldered onto it, projecting presumably to the outside of the earring. Loops with spiral ends constitute a very common element of ancient jewelry and they are also known from Nubia and Egypt (e.g., Dunham 1963: W16 [4–5], 23-M-230, Fig. 178.6 early Napatan; Williams 1991: 329, Fig. 65h post-Meroitic; Tait 2006: No. 191 early Roman), as well as from pre-Aksumite Aksum (Phillipson 2000: 342–343, Fig. 298c). Beaded wires appeared in the Mediterranean world about the 7th century BC and became a common decorative motif in Byzantine jewelry, spreading to India by, or during, the Sasanian period (Williams and Ogden 1994; Ogden 1994: 166; 2003: 4–5, Fig. 5).

Two **rings** are preserved from one el-Zuma tumulus [Fig. 11:Z21/18–19]. They were cast as open circles and measure about 20 mm in diameter, 2 mm in thickness and 4 mm in width. Their terminals are not soldered. One of them has rounded terminals [Fig. 11:Z21/18]. The terminals of the toe ring are slightly flattened [Fig. 11:Z21/19]. In the latter example, a button protruding from the plain strip might have been the bezel for a stone setting. Both decorated and undecorated rings have been recorded from post-Meroitic Nubian assemblages (e.g., Säve-Söderbergh 1981: 48 and references given there; Williams 1991: Pl. 77).



Fig. 11. Bronze rings

⁴ Details of production technique are lacking and illustrations insufficient in the available archaeological literature; hence all comparative analysis in the case of metal objects is based on a similarity of shapes.

⁵ For late Meroitic metal lunate nose-rings with pointed ends, which are much larger in size, see Żurawski 2010: Fig. 43.

⁶ Unlike the el-Zuma specimen, the Meroitic hoop and pendant earrings are described as cast-gold examples (Markowitz and Doxey 2014: 132, Figs 42, 60).

BEADS AND PENDANTS FROM NUBIAN CONTEXTS IN LATE ANTIQUITY

The el-Zuma graves were heavily looted, hence the need for a brief overview of burial contexts of beads and pendants, as well as bells and crosses, coming from late antiquity in Nubia.

Beads and pendants were usually found adorning the human body in the following threaded forms: necklaces, bracelets, armllets, anklets, belts, circlets, earrings, and beaded pendants (e.g., Then-Obłuska 2014; Żurawski 2010: 211, Fig. 42; Jacquet-Gordon and Bonnet 1971: 81, Fig. 4 bead adornments from intact tomb No. 72). The bead was found threaded into the individual's hair (Habachi 1967: 68, 70; Madrid, The National Archaeological Museum, Inv. 1980/91/305.58 Argin, personal observation). Beads were found also sewn to textiles or leather headbands, wristbands, and garments (Williams 1991; Żurawski 2010: Fig. 40; Longa 2011: 503).

In Lower Nubia, strings of beads were used as decoration of leather scabbards (e.g., Emery and Kirwan 1938: Pl. 49; Lenoble 2004a: Cat. 131). They were found placed in basketry boxes (Emery and Kirwan 1938: Pl. 107. D; Török 1988: 56, Cat. 164), wooden boxes (Williams 1991: 335, Fig. 161d, Pl. 83h), a linen bag (Strouhal 1984: 223, Pl. 73, object P 3010), leather bags or wraps (Säve-Söderbergh 1981: 38, Object 19/1:15; Pellicer Catalán and Llongueras Campaña 1965: 61–62, Fig. 36:6, 17, Pl. XIX:3) or leather containers with metal fittings

(Bates and Dunham 1927: 37–38, Nos 6, 15a–e, Pl. LXVII).⁷

Beads could also be associated with pots or anthropomorphic figures deposited in subsidiary grave pits (Then-Obłuska 2014: Cat. 199–204, 210–212; Żurawski 2005: 216; Fig. 22; 2008: 159).

Beads as part of grave deposits were found with a cow burial in the Fourth Cataract region (Welsby and Welsby Sjöström 2011). Together with bell pendants, beads adorned animal harnesses and trappings in royal tombs of Qustul and Ballaña (Emery and Kirwan 1938).

Small metal bells reach back to at least the Late Period Egyptian, and Napatan Nubian traditions (Vincentelli 2006: 168–169; Petrie 1914: Pl. XV:124a, b). In the Roman period, they were believed to protect against the evil eye and were given to children (Vincentelli 2006: 168; Petrie 1914: 28; Haerinck 2001: 27, Pl. 44:8, 46:8).⁸ Decorated bells were associated with animals in Meroitic graves, e.g., horse and cattle sacrifices (Näser 1998).

In post-Meroitic Nubian graves, metal bells were found associated with both child and adult burials (Hofmann 1967: 408; Säve-Söderbergh 1981: 49, 153, Pl. 103; Pellicer Catalán and Llongueras Campaña 1965: 89, 98, 177, Fig. 33:5; Mills 1982: 43, Pl. XLVII:9.8), as well as with horse, camel and donkey leads and harnessing (Bates and Dunham 1927: Pl. XXXIV:4; Lenoble 2004a: 190, Cat. 137; 2004b: 196,

⁷ For beads in a basket and a wooden box placed in it and found on top of the coffin lid in a grave of a woman in her late forties in Meroitic Sedeinga, see Francigny and David 2013: 107, 111, Fig. 7, 9 and Color Fig. 3.

⁸ A bronze bell with an iron clapper was found in an undisturbed early Roman tomb (Area N, tomb 16) of two children in Ed-Dur, Oman (Haerinck 2001: 27).

Cat. 172; Williams 1991: 126, Pl. 83 a,f,g; Emery and Kirwan 1938: 108, 262–271, Fig. 94; Kirwan 1939: Pl. XVI).⁹ Last but not least, bronze bell pendants, although without clappers, decorated a metal bowl from post-Meroitic el-Hobagi (Lenoble 1994: 228, No. 315; Wildung 1996: 385, Cat. No. 458).

At el-Zuma, bell pendants, diverse beads, and the iron cross formed an

assemblage found next to a human skull in one of the burials (Z16/19–25). A single cross, for example, was a central pendant in early medieval necklaces (Khairidinova 2012: 432).¹⁰ Finally, two small bells and a cross are depicted as part of Makurian royal regalia. The bells hang from both sides of the Byzantine crown and a cross tops it (Godlewski 2008: 271–274; 2013: 671, Fig. 7).

SUMMARY AND CONCLUSIONS

Although found in robbed contexts, and often in eroded state, the Early Makuria beads from the el-Zuma tumuli present a wide range of materials and types, recognized at other contemporary Nubian sites from the Second through the Sixth Cataract region. However, the percentage share of any given material from which the objects were made (ostrich eggshell, stone, faience, glass) differs according to region and time period (Then-Obłuska 2014: Pl. III).

It would seem that the exceptionally meager evidence for ostrich eggshell disks in late post-Meroitic el-Zuma was either due to robbery or the outstanding character of the el-Zuma cemetery. For example, two wristlets with strings of hundreds of ostrich eggshell beads sewn to them have been recorded from the Fourth Cataract tomb (4) in El Ar 3, which was described as being of 5th–6th century date (Żurawski 2010: 210, Fig. 40).

At some post-Meroitic Nubian sites, faience beads constitute less than 30 percent of the collections, their place taken by glass and ostrich eggshell (Then-

Obłuska 2014: Pl. III). On the contrary, the late post-Meroitic assemblage from el-Zuma is distinctive by its overwhelming share of faience beads. The vast quantity of low quality faience beads is probably due to easy access to desert sources of natron and trona in the Western Desert and Bayuda (Maliński 2014), and possibly also local production in Early Makuria.

Many beads and pendants from el-Zuma preserve sawmarks next to the hole opening, reflecting on a manufacturing tradition known already in the late Meroitic period.

The long, faceted carnelian beads, perforated from both ends, might be an Asian import or at least they might have been crafted using Indian methods (Kenoyer 2003). The long distance contacts of Early Makuria are already demonstrated by the presence of an ‘etched’ faceted carnelian bead, made in Asia, found with the Fourth Cataract burial at El Ar (Then-Obłuska 2013b). The presence of Red Sea cowries and a coral bead is especially meaningful in light of the intensified links between the Red Sea and the Arabian

⁹ At medieval Soba East, copper-alloy bells were also suggested as parts of horse harness (Welsby and Daniels 1991: 126, No. 7, 128, Nos 11–12, 163, No. 468).

¹⁰ In early medieval southwestern Crimea crosses were found only in burials of females and girls (Khairidinova 2012: 435).

Sea coasts via late Roman Berenike and Adulis. While many monochrome glass beads were made of drawn glass, the ones with rounded ends might have been long distance Indo-Pacific imports (Francis 2002; Then-Obluska 2015).

Although the presence of the iron cross in a tumulus at el-Zuma may be a personal souvenir of the owner's and buried with him or her, it is seen elsewhere as a result of the spreading influence of Christian ideology (Khairedinova 2012: 436). Even if the iron cross was a looting trophy, its presence together with the metal bell pendants is typical of early Byzantine personal adornment. Bells are commonly found in early Byzantine graves (e.g., Montero Fenollós and Al-Shbib 2008: Pl. LI: 1 Tall al-Sin, Deir el-Zor, Syria; Chéhab 1986: Fig. 3.5 Tyre; Tait 2006: 68, Cat. 151 Pasargade; Winter 1996: 112, Fig. 7.2:3–5; 2013: Fig. 4 'En Ya'al; Higuchi and Saito 2001: 117, Fig. 77:161–3 Palmyra, Syria).¹¹

A gold cross pendant came from one of the tombs at the royal cemetery of Ballaña (Emery and Kirwan 1938: object B. 2-7, Pl. 48F). In Nubia, some Nobadian elites appear to have been Christians (Welsby 2002: 31). Looking for archaeological traces of Christian conversion in the areas south of the Second Cataract, David Edwards (2001) has suggested distinguishing between religious conversion and cultural conversion, questioning the

extent to which Christianity transformed societies in the Middle Nile region. Taking under consideration the portable character of adornments, it could be that cultural conversion as seen from the evidence of the small finds may have preceded all other archaeological pointers of Christianity.

The spread of Byzantine style adornments, Christian symbols, and overseas imports would have followed traditional trade routes (Seland 2012: 81; 2014; Zazzaro 2013: V). This merchandise was also clearly passing through the territory of Early Makuria.

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¹¹ Small bells, probably for animals and for apotropaic use, have also been recorded from Byzantine domestic contexts (Ferrazzoli 2012: 292, Pl. 2,21–22; Russel 1995: 42–43).

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