## Early Makuria Research Project

# Beads and pendants from the tumulus cemetery in Nubian Tanqasi, Sudan

**Abstract**: An assemblage of 1687 beads and pendants was recovered from the excavation of five tumuli (16, 23, 46, 52, 179) in the cemetery of Tanqasi in Sudan. The assemblage is dominated by faience beads (n=920). The remaining beads and pendants are made of glass (n=422), stone (n=241), ostrich eggshell (n=102), and metal-in-glass (n=2). Morphological estimation based on material, technique of manufacture and shape provides a preliminary overview of types that are encountered at Tanqasi cemetery. In addition to beads made of locally available materials (ostrich eggshell, quartz and faience), glass beads of Mediterranean and Indo-Pacific provenance were found. In general, the assemblage is dated to the period between the late Meroitic and post-Meroitic. A few bead types: small faience, bichrome glass and gold-in-glass, are late Meroitic in date. One stone bead may be Napatan in origin.

**Keywords**: beads, pendants, ostrich eggshell, stone pendants, Meroitic beads, Indo-Pacific glass beads, Nubia, Sudan

Tanqasi lies in the Dongola Reach on the left bank of the Nile River, approximately opposite the tumulus cemetery at el-Zuma and the el-Kurru Royal Cemetery. The group of mounds at Tanqasi was published previously as late Meroitic or post-Meroitic in date (Shinnie 1954 and references). Some burial mounds were excavated in the past and some bead types were mentioned in the published reports (Shinnie 1954: Fig. 13 drawing of bead and pendant types from Tnq4/Mound I and Tnq5/Mound II; Godlewski 2008: Figs 12 pendants from Tnq87, 13 pendants found by Shinnie in Tnq4).

In the 2018 season five tumuli were excavated by the Polish Centre of Mediterranean Archaeology University of Warsaw and National Corporation of Antiquities and

**Joanna Then-Obłuska**

Polish Centre of Mediterranean Archaeology, University of Warsaw



Polish Archaeology in the Mediterranean 27/1
Then-Obłuska 2018: 303–316
DOI: 10.5604/01.3001.0013.2006

**Acknowledgments**
I wish to thank Prof. Mahmoud El-Tayeb, the director of the Early Makuria Research Project and the Tanqasi excavation, and Ewa Czyżewska-Zalewska for making the study possible. Special thanks go to Adam Kamrowski for his ever outstanding photography of Nubian ornaments and to Julia Górecka for drawing the beads. Prof. James A. Harrell and Dr. Gwendolyn Kelly kindly checked the stones and stone beadmaking techniques. Dr. Lisa A. Heidorn is appreciated for editing the manuscript.

All photos A. Kamrowski, arrangements J. Then-Obłuska and the PCMA UW Early Makuria Research Project.Figures are arranged by tumulus number and then by find number.

Museums (NCAM) as part of the Early Makuria Research Project, sponsored by the Qatar–Sudan Archaeological Project (Wyżgoł and El-Tayeb 2018, in this volume: Fig. 10 for a map with the localization of the tumuli). The tumuli are dated to Early Makuria Phases I and II, otherwise referred to as the post-Meroitic period, about AD 350–550 (Wyżgoł and El-Tayeb 2018, in this volume).

Almost 1700 (1687, to be precise) beads and pendants were found in five tumuli (16, 23, 46, 52, and 179). The vast majority was picked up from robbed contexts. In Tnq46, bead finds were associated with various parts of the body. They were found in the chamber fill near the skeleton's right hand (Tnq46/27–30 and Tnq46/46–48) and chest (Tnq46/37–45). In the latter case, the position suggests a necklace of beads among the funerary items.

Although heavily plundered, the tumuli provided a wide range of bead and pendant types that are paralleled by types found at other Nubian sites and are most probably locally made. These are ostrich eggshell beads (n=102), stone beads and pendants (n=241), and faience tubular beads. The latter dominate the Tanqasi bead assemblage (n=920). The remaining beads are made of glass (n=422) and metal-in-glass (n=2) and they appear to be imported items. One green bead is made of drawn and rounded glass, hinting at its South Asian provenance. Red, blue, dark green and turquoise glass beads are made of drawn and segmented glass, a technique known from bead workshops at Alexandria in Egypt. Additionally, a few Meroitic types have been collected from Tumulus 179. These are a white–banded blue cornerless cuboid, a large gold-in-glass bead and small rings of blue faience.

### BEAD AND PENDANT TYPOLOGICAL ESTIMATION

The material is presented below by tumulus number and then by material, both organic and non-organic. These are: ostrich eggshell, stone, faience, and glass. The subsequent division is by production technique and shape. The illustrations, presenting most of the types discussed, follow a division by tumuli [*Figs 1–5*].

## TUMULUS 16

Three beads were recorded from this tumulus. They are made of agate, faience, and metal-in-glass.

### AGATE

A large globular red agate bead, Tnq16/19 [*Fig. 1*], is drilled from one end without any traces of sawing across the hole opening (compare below). While one end of the bead is rounded, the other is truncated and slightly depressed, most probably to facilitate the drilling process. Both ends and sides are polished. It measures about 7 mm in diameter and 6 mm in thickness. Agate beads produced with a similar technique are recorded from a late Napatan tomb at Sedeinga (Then-Obłuska 2015: Fig. 3:c4/a). The Tanqasi specimen may be a reused late Napatan or early Meroitic bead.

### FAIENCE

A long tubular faience bead bearing traces of a blue-green glaze, Tnq16/9 [see *Fig. 1*]. Similar beads are also found in Tumulus 23 and Tumulus 46 at Tanqasi (compare below). In general, long tubular beads with coarse cores characterize bead assemblages in the Fourth Cataract region, where they are recorded in both the late Meroitic and post-Meroitic periods (e.g., Then-Obłuska 2014: Pl. 2.144).

### METAL-IN-GLASS

A heavily eroded metal-in-glass (two glass layers with a gold or silver foil sandwiched in between) bead, most probably silver-in-glass, Tnq16/18 [see *Fig. 1*], measures about 4 mm in diameter. Unlike gold-in-glass, silver-in-glass is a more common find between the Third and Fifth Nile Cataracts in the late Meroitic period and later (e.g., Then-Obłuska 2014: Pl. 2.169; 2016a: Fig. 3: J, L.6; 2017: Fig. 2:Z4/50.2)

## TUMULUS 23

The tumulus yielded 985 beads: 95 made of ostrich eggshell, 213 of stone, 663 of faience, and 14 of glass.

### OSTRICH EGGSHELL

The ostrich-eggshell beads are disk cylinders, e.g., Tnq23/12 [*Fig. 2a*], approximately 5 mm in diameter. Both disk cylinders and disks with retouched ends are present in Meroitic and post-Meroitic assemblages in the Fourth Cataract region (e.g., Then-Obłuska 2014: Pl. 2).

### STONE

The stone beads and pendants from Tanqasi are characterized by traces of a groove across the larger hole opening, a technique used to facilitate setting the drill. The objects are drilled from one end and they are left unpolished, most

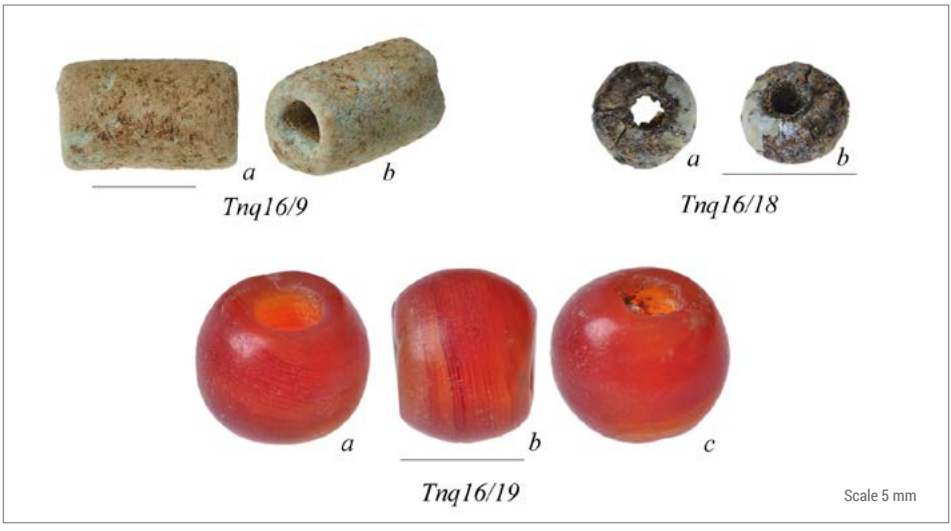


Fig. 1. Beads from Tumulus 16


Fig. 2A. Beads and pendants from Tumulus 23 (Tnq23/1 to Tnq23/12)

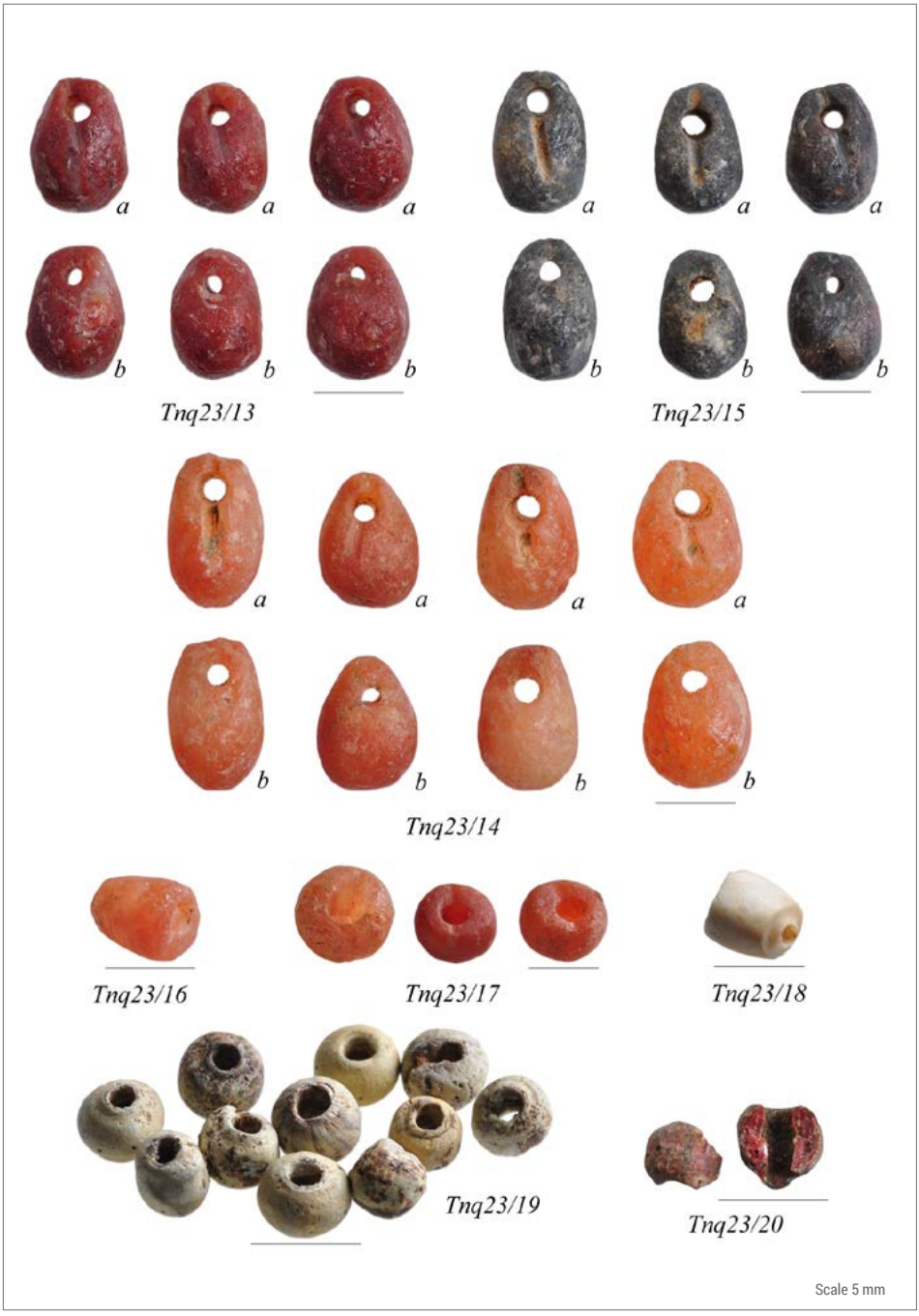


Fig. 2в. Beads and pendants from Tumulus 23, continued (Tnq23/13 to Tnq23/20)

probably using combination of pecking and grinding. Unpolished stone specimens with traces of saw marks appeared already in the late Meroitic period in the region between the Third and the Fifth Nile Cataracts (e.g., Then-Obłuska 2014).

A few types of quartz beads were recorded in Tumulus 23. These are truncated cone beads, ellipsoid beads, and globular beads. Also a few types of tear-drop pendants are distinguished in the assemblage. These are large, small and very small pendants with rounded bases, as well as pendants with pointed bases.

◖ **Truncated cone** beads, about 5 mm in length, made of white quartz (Tnq23/7) and light orange quartz (Tnq23/16) [*Fig. 2b*]. The white specimen may be of quartz as well (Tnq23/18 [see *Fig. 2b*]).

◖ **Truncated ellipsoid** beads, about 10 mm in length, made of white quartz (Tnq23/8). Similar beads are observed at other post-Meroitic sites in the region (e.g., Then-Obłuska 2014: Pl. 2.225; 2016a: Fig. 3.B1; 2016c: Fig. 3:Z17/7).

◖ **Globular** beads, less than 7 mm, made of light red stone (Tnq23/17) [see *Fig. 2b*]. Such quartz red, white and black beads are recorded already in late Meroitic assemblages and the type continued into the post-Meroitic period (e.g., Then-Obłuska 2014: Pl. 2.148, 150, 151).

◖ **Large tear-drop pendants with rounded bases** measuring more than 10 mm in length, made of white quartz (Tnq23/11.1).

◖ **Small tear-drop pendants with rounded bases**, about 10 mm in length, made of white quartz (Tnq23/2.1) (Then-Obłuska 2014: Fig. 2.171; Gammai, Cemetery E, Grave 85=Peabody Number: 24-24-50/B4054.1), light orange to red carnelian or ferruginous quartz (Tnq23/4 [*Fig. 2a*], Tnq23/5.1) (Then-Obłuska 2014: Fig. 2.173), and black granite (Tnq23/3 [see *Fig. 2a*], Tnq23/15.1).

◖ **Very small tear-drop pendants with rounded bases**, less than 10 mm in length. They are made of white quartz (Tnq23/2.2, Tnq23/11.2), these being about 7 mm in length, red (Tnq23/13 [see *Fig. 2b*]) and light orange quartz (Tnq23/5.2, Tnq23/14 [see *Fig. 2b*]), and black granite (Tnq23/15 [see *Fig. 2b*]).

◖ Some **tear-drop pendants feature pointed bases**. They are large and measure about 20 mm in length. They are made of white quartz (Tnq23/6 and Tnq23/9 [see *Fig. 2a*]). Similar pendants, also small, are among the remains from Tnq.87 (Godlewski 2008: Fig. 12, no scale given) and T4 (Mound I) (Shinnie 1954: Fig. 13.14).

## FAIENCE

Faience beads are made of tubular quartzite cores segmented into single- and double-segments that were subsequently glazed (Tnq23/1 [see *Fig. 2b*], Tnq23/10). As noted above, long faience beads with coarse cores are known from late Meroitic to post-Meroitic assemblages in the Fourth Cataract region.

## GLASS

Glass beads are segments of drawn opaque red tubes. They are covered with a whitish patina (Tnq23/19 and Tnq23/20 [*Fig. 2b*]). Such beads, also blue in color (compare below), are the most common finds in post-Meroitic bead assemblages (e.g., Then-Obłuska 2014: Fig. 2, Cat. 203; 2016a; 2016c).

# TUMULUS 46

The collection from Tumulus 46 consists of 694 beads and pendants, as well as four finger rings. Six beads are made of ostrich eggshell, 27 of stone, 254 of faience, and 407 of glass.

## OSTRICH EGGSHELL

Ostrich-eggshell beads, about 5 mm in diameter, are all shaped into disk cylinders (e.g., Tnq46/31 [*Fig. 3a*]).

## STONE

◖ **Small tear-drop pendants have rounded bases and almost tapered tops**. The type measures about 12 mm in length or less and comes usually in white quartz (Tnq46/17 [see *Fig. 3a*], Tnq46/19, Tnq46/25, Tnq46/41), red quartz/carnelian (Tnq46/21, Tnq46/26 [see *Fig. 3a*], Tnq46/43) and black granite (Tnq46/20 [see *Fig. 3a*], Tnq46/42).

◖ **Tabular tear-drop pendants with pointed bases,** about 10 mm long. The type could be made of white (Tnq46/39 [*Fig. 3b*]) and red quartz (Tnq46/38 [see *Fig. 3b*]) and black granite (Tnq46/37 [see *Fig. 3b*]). Similar tabular pendants are recorded from graves in the Fourth Cataract region and dated to the Transitional late Meroitic/post-Meroitic period (Then-Obłuska 2014: Fig. 2.172 white quartz).

## FAIENCE

Two small faience beads, about 3 mm in diameter (Tnq46/40 [see *Fig. 3b*], Tnq46/47), are most probably Meroitic types (compare beads from Tumulus 179 below).

Long tubular faience beads have a faded turquoise color. Some might be the glazed parts of a cut up tubular core. Other beads bear traces of segmenting and they appear as single-segments (Tnq46/15, Tnq46/16, Tnq46/18 [see *Fig. 3a*], Tnq46/30, Tnq46/32 [see *Fig. 3a*], Tnq46/45, Tnq46/46) and double-segments (Tnq46/36).

Some double- and multiple-segmented beads are characterized by short intervals (Tnq46/33, Tnq46/35 [see *Fig. 3a*]).

## GLASS

Single- and double-segments of drawn glass were found in the following colors: red (Tnq46/27.1, Tnq46/29.1, Tnq46/44.1, Tnq46/48.1), green (Tnq46/27.2), blue (Tnq46/27.3, Tnq46/29.2, Tnq46/44.2, Tnq46/48.2), and turquoise (Tnq46/44.3) [see *Figs 3a,3b*].

One bead was made of drawn and rounded green glass (Tnq46/28 [see *Fig. 3a*]). While the production of beads made of drawn and segmented glass tubes has been attested in early Roman and early Byzantine contexts from Alexandria, Egypt (Rodziewicz 1984; Kucharczyk 2011), production of beads made of drawn, cut and heat-rounded glass tube sections is known from South Asia (Francis 2002). Recently, chemical compositional studies confirmed the South Indian/Sri Lankan origin of the glass of which the green glass beads from late antique Nubia were made (Then-Obłuska and Wagner 2017). Similar beads were identified at the early Makurian sites of el-Zuma and el-Detti (Then-Obłuska 2016a; 2016c).

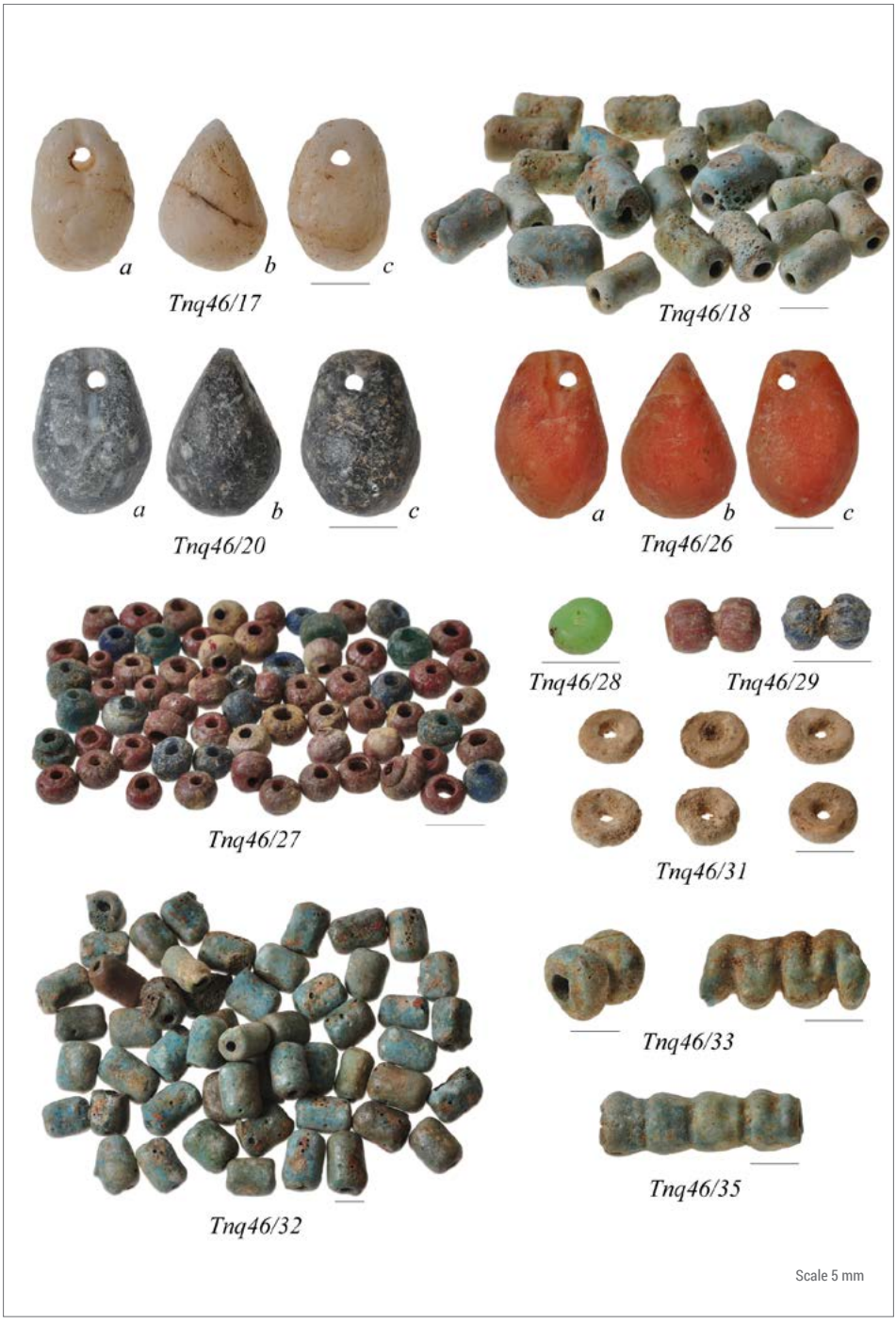


Fig. 3A. Beads and pendants from Tumulus 46 (Tnq46/17 to Tnq46/35)

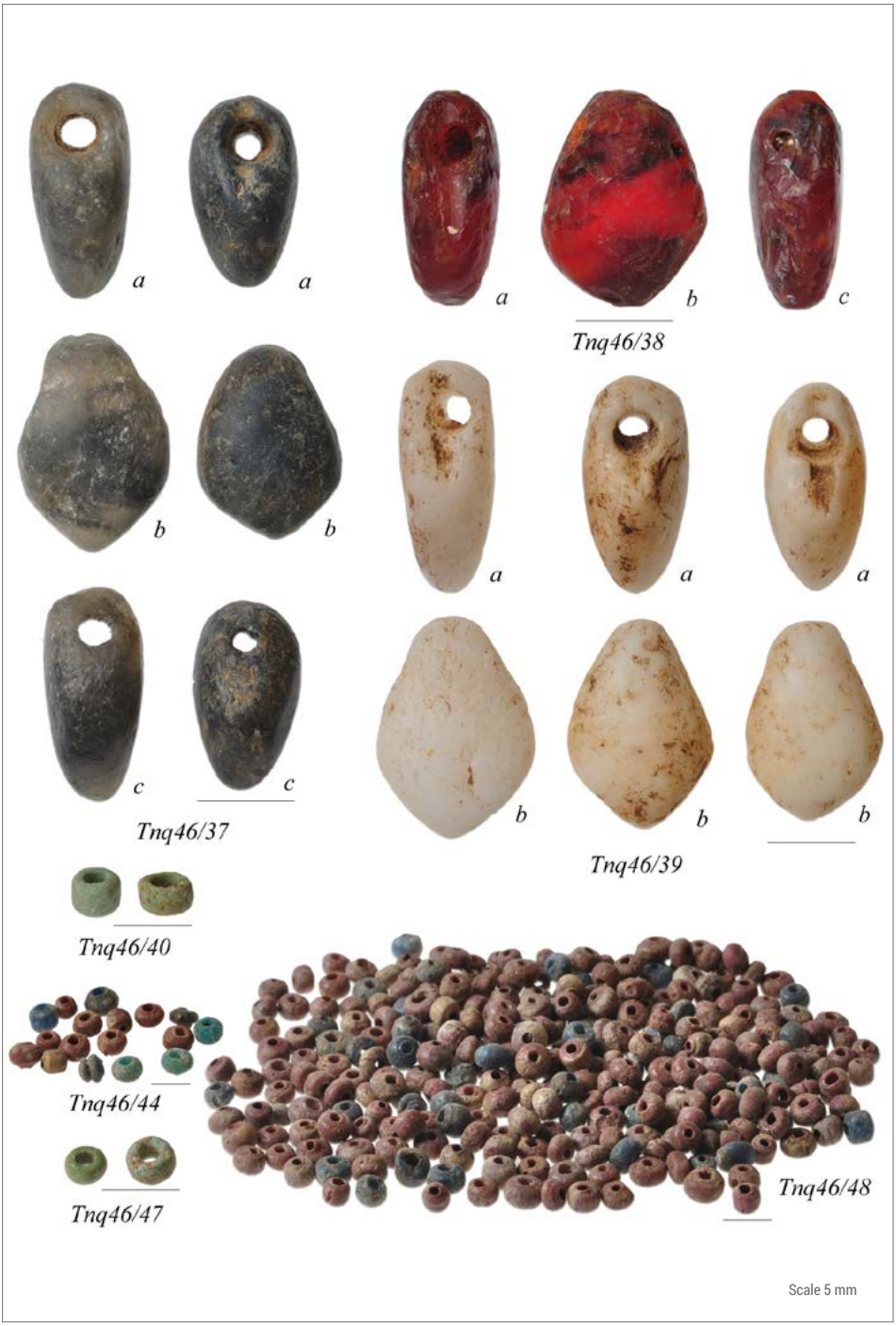


Fig. 3в. Beads and pendants from Tumulus 46, continued (Tnq46/38 to Tnq46/48)

## TUMULI 52 AND 179

One bead, made of ostrich eggshell, was collected from Tumulus 52. It measures about 7 mm in diameter. The shell was perforated from one end (Tnq52/10 [*Fig. 4*]).

Four beads were collected from Tumulus 179. Two are made of faience, one is gold-in-glass, and one bichrome glass.

### FAIENCE

Faience beads are very small, about 3 mm in diameter (e.g., Tnq179/5 [*Fig. 5*]). Similar beads have been observed at Meroitic cemeteries (e.g., Then-Obłuska 2016a; 2016c; 2018).

### GOLD-IN-GLASS

A large gold-in-glass bead measures about

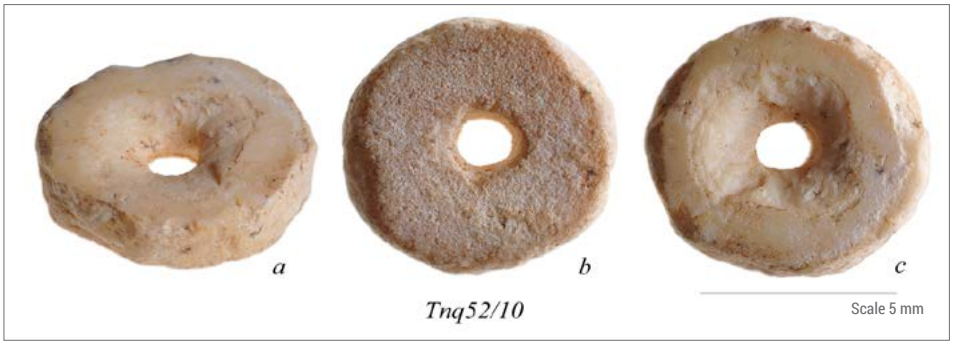


Fig. 4. Ostrich-eggshell bead from Tumulus 52

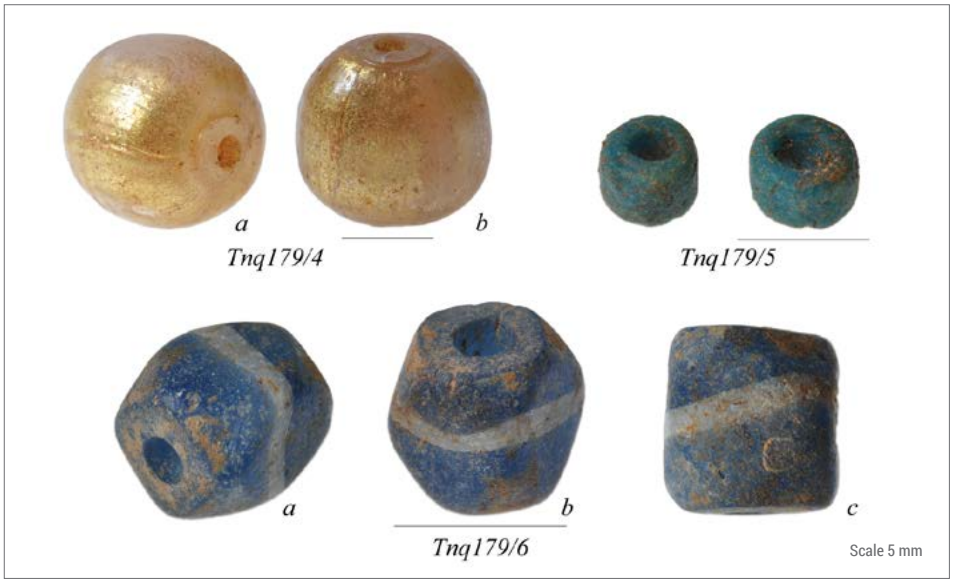


Fig. 5. Beads from Tumulus 179: gold-in-glass, faience and bichrome glass

10 mm in diameter (Tnq179/4 [see *Fig. 5*]). It belongs to a type commonly found at Meroitic sites, e.g., Saï and Berber (Then-Obłuska 2016b: Fig. 9.10; 2018). Such beads were also used in early Roman jewelry from Egypt. Earrings with large gold-in-glass bead pendants were in fashion in the 1st century AD (MET 10.130.1521).

### GLASS

A blue bead with a white band, shaped like a cornerless cuboid, is also known from Meroitic sites downstream from the Third Nile Cataract (Tnq179/6 [see *Fig. 5*]). A faceted bead of translucent dark blue with a white central band was discovered in tomb T34 at the Meroitic cemetery 8-B-52.Bat Saï (Then-Obłuska 2016b: Fig. 8:7–8). Parallels are known from a private cemetery at Ballaña, a cemetery starting in the second half of the 2nd century AD (Williams 1991/I: 137–138, Phase IIIB, OIM 22665; OIM 22753, personal observation).

## SUMMARY

Almost 1700 beads and pendants were recovered during the excavation of five tumuli: 16, 23, 46, 52, and 179, at the cemetery in Tanqasi, Sudan, in the 2018 season. The materials represented include ostrich eggshell, stone, faience, glass, and metal-in-glass. Arranging the beads and pendants by material, technique and shape gives a preliminary typological estimation of the ornaments from the five tumuli graves.

Large tubular faience beads dominate the Tanqasi assemblage. However, the white, red and black unpolished stone beads and pendants in the collection demonstrate the largest variety. Traces of sawing across a larger hole opening characterizes most of them. The groove facilitated setting the drill and it typifies the Egyptian and Nubian technique of beadmaking in Meroitic and post-Meroitic times.

Pendants with both rounded and pointed bases have also been distinguished next to the globular, truncated cone and ellipsoid beads. Tabular pendants with pointed bases are also found. Ostrich-eggshell beads are shaped into disk cylinders. They all have parallels in late Meroitic and later assemblages from the Fourth Cataract region.

One stone bead is apparently late Napatan in date and must be a reused item in Tumulus 16. Small faience beads, beads made of bichrome glass and gold-in-glass are late Meroitic specimens in Tumulus 179 and are recognized at Nubian sites downstream from the Third and upstream from the Fifth cataracts. Moreover, drawn glass beads of Mediterranean and Indo-Pacific origin are present as well.

**Dr. Joanna Then-Obłuska**
ORCID 0000-0002-4690-0069
Polish Centre of Mediterranean Archaeology,
University of Warsaw
00-497 Warszawa, Poland, ul. Nowy Świat 4
j.then-obluska@uw.edu.pl

**How to cite this article:** Then-Obłuska, J. (2018). Early Makuria Research Project. Beads and pendants from the tumulus cemetery in Nubian Tanqasi, Sudan. Polish Archaeology in the Mediterranean, 27/1, 303–316. *https://doi.org/10.5604/01.3001.0013.2006*

## References

Francis Jr., P. (2002). *Asia's maritime bead trade: 300 B.C. to the present*. Honolulu: University of Hawaii Press

Godlewski, W. (2008). MtoM. Early Makuria Research Project, season 2006. *PAM*, 18, 463–476

Kucharczyk, R. (2011). Glass from Area F on Kom el-Dikka (Alexandria). Excavations 2008. *PAM*, 20, 56–69

Rodziewicz, M. (1984). *Les habitations romaines tardives d'Alexandrie: à la lumière des fouilles polonaises à Kôm el-Dikka* [=*Alexandrie* 3]. Warsaw: Éditions Scientifiques de Pologne

Shinnie, P.L. (1954). Excavations at Tanqasi, 1953. *Kush*, 2, 66–85

Then-Obłuska, J. (2014). The code of the hidden beads – From the Kerma to the Islamic Period according to the Fourth Cataract material from the Gdańsk Archaeological Museum Expedition excavations. In J.R. Anderson and D.A. Welsby (eds), *The Fourth Cataract and beyond: Proceedings of the 12th International Conference for Nubian Studies* [=*British Museum Publications on Egypt and Sudan* 1] (pp. 1069–1090). Leuven: Peeters

Then-Obłuska, J. (2015). Beads and pendants from Sedeinga, Nubia. *BEADS: The Journal of the Society of Bead Researchers*, 27, 29–45

Then-Obłuska, J. (2016a). Early Makuria Research Project. Late antique beads and a Napatan amulet from the Early Makuria Phase II tumuli cemetery at El-Detti (about AD 450–550), season 2015. *Der Antike Sudan*, 27, 139–145

Then-Obłuska, J. (2016b). Meroitic beadwork: an overview based on finds from Saï in ancient Nubia. *PAM*, 25, 691–724

Then-Obłuska, J. (2016c). Trade and faith in Nubian Early Makuria (AD 450–550): macroscopic examination of personal adornments from el-Zuma in Nubia. *PAM*, 25, 741–760

Then-Obłuska, J. (2017). Royal ornaments of a late antique African kingdom, Early Makuria, Nubia (AD 450–550): Early Makuria Research Project. *PAM*, 26/1, 687–718

Then-Obłuska, J. (2018). Beyond the Nubian gold: Meroitic beads between the Fifth and Sixth Nile Cataract. *BEADS: The Journal of the Society of Bead Researchers*, 30, 31–43

Then-Obłuska, J. and Wagner, B. (2017). Glass bead trade in northeast Africa in the Roman period. A view according to the Museum of Archaeology University of Stavanger assemblage. In S. Wolf and A. de Pury-Gysel (eds), *Annales du 20e congres de l'association internationale pour l'histoire du verre, Fribourg/Romont, 7–11 septembre 2015* (pp. 248–256). Rahden/Westf.: Verlag Marie Leidorf

Williams, B.B. (1991). *Meroitic remains from Qustul cemetery Q, Ballana cemetery B, and a Ballana settlement* [=*Oriental Institute Nubian Expedition* 8]. Chicago: Oriental Institute of the University of Chicago

Wyżgoł, M. and El-Tayeb, M. (2018). Early Makuria Research Project. Excavations at Tanqasi: first season in 2018. *PAM*, 27/1, 273–288