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Metal Objects from El-Zuma Cemetery, 2011

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METAL OBJECTS FROM EL-ZUMA CEMETERY, 2011

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Independent

Abstract: The article documents and discusses metal artifacts discovered in three tombs explored by a joint Polish–Sudanese team from the PCMA UW and the NCAM in the tumuli field at el-Zuma in Sudan (Fourth Nile Cataract region). The site has been investigated since 2005 within the framework of the Early Makuria Research Project. The metal finds were in differing states of preservation. A thorough analysis, however, led to the identification and interpretation of most of the finds, contributing to how the site is perceived from a social and cultural point of view.

Keywords: el-Zuma, Nubia, graves, weapons, bronze

The el-Zuma archaeological site is located in the northern province of Sudan, on the right bank of the Nile. Karima, the nearest big city in the region, lies 20 km away. Excavations of the site began in 2005, having been preceded by a survey (Żurawski 2002). The work is carried out within the framework of the Early Makuria Research Project (El-Tayeb 2007; 2010) by a Polish–Sudanese archeological mission from the Polish Centre of Mediterranean Archeology, University of Warsaw, and the Sudanese National Corporation for Antiquities and Museums.

A tumulus cemetery from the Early Makuria period (mid 5th to mid 6th century AD) is situated in el-Zuma (El-Tayeb 2007: 399). The tombs (about 30) represent three different types based on superstructure and substructure (shape

of shaft, number of chambers and presence of tunnel) (El-Tayeb 2007; 2010). Fieldwork in 2011 uncovered further burials, including two, T.9 and T.16, with metal artifacts in the assemblage (see also El-Tayeb *et alii* 2014, in this volume). Interestingly, there is a clear difference in the quantity and quality of the equipment from the two graves. One possibility is that tomb T.9 was plundered more severely than T.16. It could also be that it was less rich in this class of artifacts from the start.

Weapons were the most numerous category among the metal objects. Arrowheads predominated in this category with pole weapons a close second, the latter including examples of single-bladed spears and javelins apart from the ordinary spears. Melee weapons were represented by a single long combat knife. Interestingly, all the

weapons came from one tumulus (T.16). The overall dating of these artifacts is post-Meroitic, although it should be taken into consideration that forms like the javelin and leaf-shaped spear were substantively timeless.

Nails and bed-frame fittings constituted another numerous category. They should be associated with bed frames, that is, the *angarebs*, which the body of the deceased was placed on. The few dozen nails and four external, and sometimes four internal fittings (not always used as a full set) all came from one bed. The results of earlier research at el-Zuma suggest that there was no more than one such object in a tumulus. Excavations in 2011 confirmed that the large number of fragments of nails and bed-frame fittings found in tumuli T.9 and T.16 belonged to single beds of the legless *angareb* frame variety.

Metal ornaments and jewelry were represented by singular finds: a pair of bronze bells from the burial in tumulus T.16 and a cross of iron, assuming it was ornamental and not imbued with religious meaning for its owner.

A certain group of objects from the 2011 season of excavations in the tumuli could not be identified because of poor preservation. Except perhaps for object Z16/16, these were rather smaller fragments of already known objects, such as splinters of arrowheads, nails, fittings, and perhaps also spears. Lacking joining surfaces, they could not be fixed to any of the parent objects and hence could not be securely identified.

ASSEMBLAGE FROM TUMULUS T.16

A large part of the numerous iron artifacts found in tumulus T.16 came from the

shaft fill, mainly from the area around the damaged blockage of burial chamber 1. Relics of the head of a bladed-spear were found here [Cat. 1; *Fig. 1*]. The spear belongs to type 2, the leaf being more than 50 cm long with fairly parallel cutting edges and strongly rounded at the base. Similar polearms were recorded at Ballaña, Qasr Ibrim and el-Hobagi (Emery, Kirwan 1938; Lenoble, Disseaux *et alii* 1994). Chippings of a ribbed sleeve [Cat. 2; *Fig. 2*], possibly part of this spearhead, were found inside the burial chamber, near one of the beer jars. Decorating sleeves with ribs, rings and profiling was common practice with regard to bladed-spear heads and is paralleled extensively in finds from other sites (e.g., Emery, Kirwan 1938; Török 1988). From the same context as the spearhead, that is, the fill of the shaft, came fragments of three smaller spears [Cat. 3–5; *Fig. 3*] with leaf-shaped spearheads, as well as pieces of a long combat knife (formerly referred to as a short sword) [Cat. 7; *Fig. 5*], which it proved possible to reconstruct.

The large number of spears in a single grave is not a surprise. At Ballaña (Emery, Kirwan 1938) and el-Hobagi (Lenoble, Disseaux *et alii* 1994: 61), single burials were accompanied by piles of weapons of different kinds, including several specimens of polearms and several quivers with arrows. Moreover, blades similar to the el-Zuma example were found on many sites of the post-Meroitic period, the most sophisticated ones being from Ballaña (Török 1988). Upon restoration, the specimen from el-Zuma measured 26 cm in length (this is the middle part of the blade without the cast handle). The preserved negative imprints of wood are probably the remains of a scabbard.

Accompanying the spearheads was a fragment of symmetrical leaf-shaped blade, which could come from a javelin to judge by the size and shape of the preserved fragment [Cat. 6; *Fig. 4*]. Unlike the spearheads, the blade was highly symmetrical, leaf-shaped but strongly elongated and very narrow. To reduce weight (which is so important for tossed weapons), but keep the hardness of the tip, a herringbone reinforcement was forged; it ran in the center of the side surface. The weight of the javelin head was reduced even more by collapsing the form (starting down from the herringbone reinforcement) instead of having a perfectly diamond cross-section curved surface (slightly concave).

The fill in the shaft as well as in burial chamber 1 yielded arrowheads, whereof seven pieces can be considered as more or less complete; 22 other fragments at this time have not been attributed but could still be fragments of the same arrowheads, meaning that the maximum number of arrowheads may still be less than 22. In his study of finds from el-Hobagi, Patrice Lenoble (1997) suggested that the average number of arrowheads in one quiver was approximately 30 pieces. The results from el-Zuma are similar: 22 fragmentary plus seven complete arrowheads, indicating that we could be dealing in fact with just one quiver filled with arrows in tumulus T.16.

The arrowheads [*Fig. 5, left*] represented types 1 (single-barbed triangle-shaped) [Cat. 8], 1a (single-barbed, hooked) [Cat. 9], 1b (single-barbed, leaf-shaped) [Cat. 11, 12]. In other tumuli also arrowheads of type 6 — barbless, leaf-shaped — were attested. These are types present on many post-Meroitic sites (Török 1988).

Assuming there was only one quiver buried with the burial in tumulus T.16, it

is striking that the assemblage of arrows represents three types and three different smithing techniques. Questions include whether they originated from a single manufacturer and what was their function and chronological coincidence. Arrows have a tendency to break and get lost, meaning that at some point it becomes necessary to refill an original set; this is usually accomplished on the spot at a local blacksmith. The arrowheads from tumulus T.16 may represent just such a situation.

The shaft fill yielded also numerous fragments of iron objects (about 29 of different size), which were for the most part unrecognizable due to their poor state of preservation, but which, despite no joining edges, may have belonged to some of the already identified objects, such as the arrowheads, fittings, nails etc.

Other metal artifacts, not necessarily of iron, were recorded in the context of burial chamber. There were, for example, two bronze bells [Cat. 16, 17; *Fig. 6*], both representing Emery's simplified type 1 of slightly smaller dimensions: 1.9 cm in diameter and 1.4–1.3 cm in height of sound cup) (Emery, Kirwan 1938). Similar bells are common in post-Meroitic contexts. In Ballaña, bells of a larger size were found (sometimes even five times bigger) in context with skeletons of pack animals (horses, donkeys and camels), near the neck. This interpretation does not hold for the T.16 finds as there were no pack animal skeletons discovered in the tumulus. Animal bones, including camel bones, found in el-Zuma are without exception post-consumptional (Osypińska 2010), suggesting that the bells did not serve a similar function as at Ballaña. A closer analogy is given by a bronze quiver with three bells on a chain belt,

found in grave W.122 in Meroe (Shinnie 1967: 164–165).

The iron cross [Cat. 18; *Fig. 6*] found in the vicinity of the skull is an important find, confirming the early Makurian dating of the burial. El-Zuma graves are generally dated from the mid 5th to mid 6th century (El-Tayeb 2005: 399), preceding the conversion of the kingdom of Makuria to Christianity in AD 569 (Żurawski 2012: 67). The presence in one of the tombs of an object culturally bound with Christianity may suggest Christian influence before the official adoption of this religion, as well as a nearing end of the post-Meroitic tradition in funerary equipment. On the other hand, one should exercise caution when formulating interpretations regarding a probably religious object occurring in what is an “officially pagan” burial. It should be remembered also that the cross is a very old ornamental motif. As regards its form of a Maltese cross, similar crosses were found, one per site, at El-Ar 4 (personal observation) and el-Sadda 34, Grave 25 (Osypiński 2010: 445). They were also of the Maltese form, but with rounded section and preserved holder on the upper arm for threading a thong. These two crosses were very similar to one another, while differing somewhat from the el-Zuma piece. The difference

can be explained by the difference between the excavators’ dating of the El-Ar 4 and el-Sadda 34 sites, which were more or less contemporaneous, and el-Zuma, which was of earlier date.

Fragments of an object found near the skeleton proved after gluing to be a rectangular loop [Cat. 19; *Fig. 7*]. The loop could have been an element of a belt, not necessarily used with clothing, but it may also have been a belt to hang a scabbard for a long knife or quiver.

Fragments of nails, nine in all, and iron fittings of a bed frame (19 fragments) found in burial chamber 1 suggested that originally the body of the deceased had rested on a wooden frame with features of an *angareb*-bed.

ASSEMBLAGE

FROM TUMULUS T.9

Iron objects found in T.9 included eight fragmentary nails and two fragments of fittings from a bed frame. They were found in the fill of the shaft as well as inside the burial chamber [Cat. 23–27; *Fig. 7*], indicating that the body of the deceased had been laid to rest on an *angareb* bed. The absence of other metal items in this burial could be the result of more extensive plundering of the grave and cannot be used to put forward far-reaching conclusions.

CATALOG OF FINDS

All the identified metal artifacts from the tumuli were catalogued in standard form: category classification by function (if determinable), field inventory number, findspot, description including material, technique measurements, state of preservation. Parallels are given where available.

The dating of the artifacts was précised by findspot, often narrowing down the broad chronologies for these objects, which tend to continue with little modification over several centuries (like the leaf-shaped spears appearing in the same form until the Mahdi era in the 19th century).

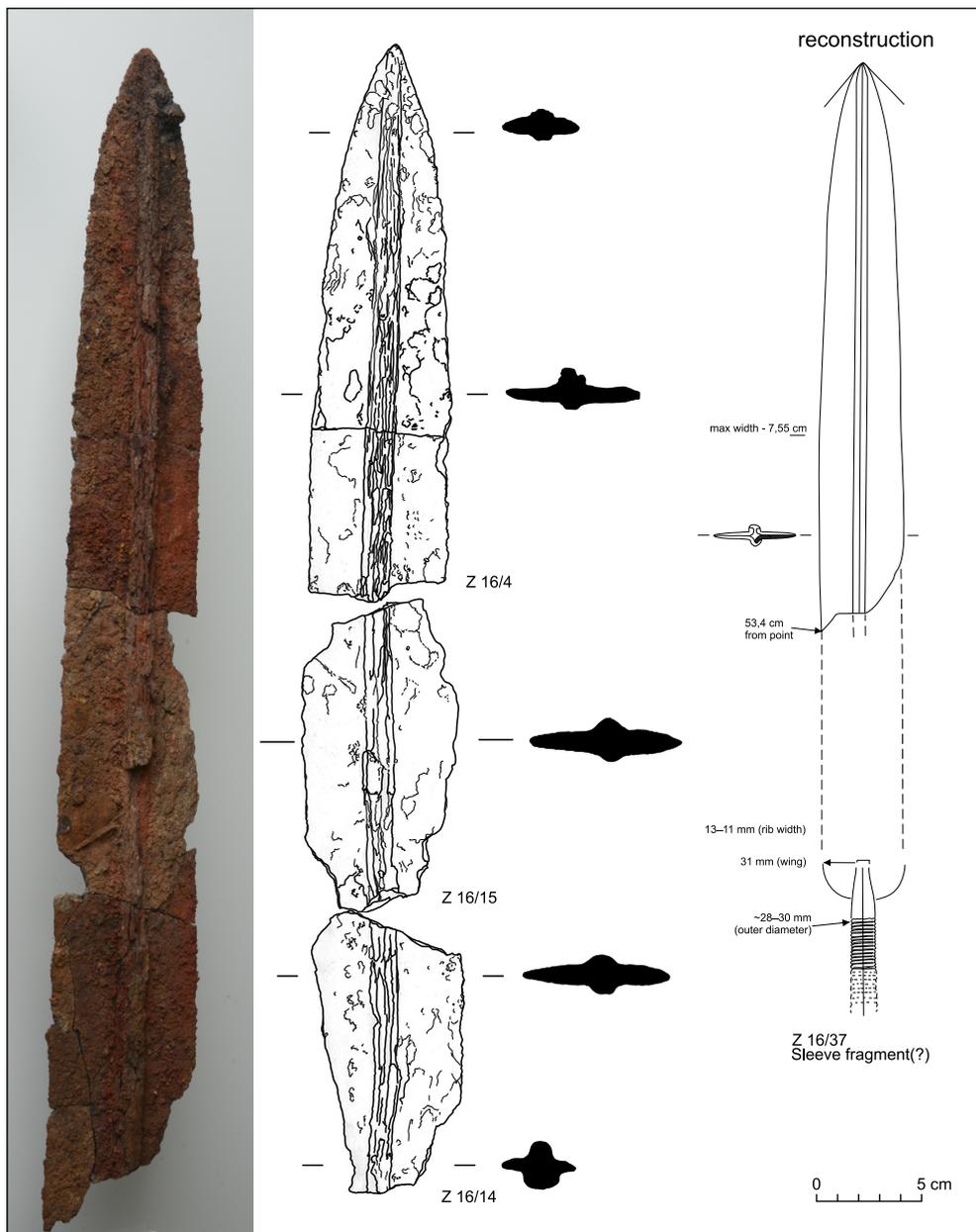


Fig. 1. Bladed spear (Cat. 1); reconstruction at right includes sleeve fragment (see Cat. 2; Fig. 2)

All photos in this article A. Kamrowski, all drawings K. Juszczyk, Ł. Zieliński, all digitizing E. Czyżewska, U. Iwaszczuk, Ł. Zieliński.

WEAPONS

1. Bladed-spear [Fig. 1]

Inv. No. Z16/4, Z16/7, Z16/14, Z16/15

Preservation: Incomplete, recomposed from several (about 14) smaller fragments.

Context: Tumulus 16, shaft, near blockage of burial chamber 1.

Dimensions: L. 53.4 cm, W. max. 7.55 cm (wing tip approximately 3 cm, ribs 1.1–1.3 cm), Th. wings on either side of the ribs 0.6–0.7 cm, rib 2.1 cm.

Material: Layer-forged iron, on both sides (one wing forged from two lobes of iron cuffed together on the ribs).

Description: Bladed-spear head of Emery's type 2, with ribs carried out not very symmetrically on both sides in the middle of the tip planes, heavily corroded and cracked.

Parallels: Bladed spearheads from Ballaña, Qasr Ibrim and el-Hobagi (Emery, Kirwan 1938: Figs. 83–85; Török 1988; Lenoble 1997: 61).

2. Sleeve [Fig. 2, see also Fig. 1]

Inv. No. Z16/37

Context: Tumulus 16, burial chamber 1 in the vicinity of a beer jar.

Preservation: Fragment recomposed from three smaller pieces.

Dimensions: Dia. inner, approximately 2.2–

2.4 cm, outer 2.6–2.8 cm, Th. wall 0.2 cm.

Material: Wavy pressed (forged) iron.

Description: Fraction of a transversely ribbed iron sleeve (corrugated sheet in section), glued from three smaller fragments, keeping more or less constant cross-section (on preserved section).

Parallels: Bladed-spear head finds from Ballaña, el-Hobagi and Qasr Ibrim (Emery, Kirwan 1938; Török 1988; Lenoble 1997)

Remarks: The sleeve was found relatively close to the bladed-spear head (Cat. 1). Analogous bladed-spears from other sites, preserved complete, demonstrate that sleeves with transverse ribbing occurred on bladed-spear heads. It therefore seems reasonable to recognize sleeve Z16/37 as part of a bladed-spear head, possibly the same as Cat. 1.

3–5. Spearhead [Fig. 3]

Inv. Nos Z16/8/2, Z16/8/3, Z16/8/4

Preservation: a–c) Three non-joining fragments (two may be from one object?), individually recomposed.

Context: Tumulus 16, shaft, near blockage of burial chamber 1.

Dimensions: a) 6.2 cm x 7 cm, Th. 1.2–1.5 cm on the axis of symmetry of the tip, Dia. spike 1.7 cm x 1.5 cm; b) 5.4 cm x 5.5 cm, Th. 0.9–1.2 cm on the axis of symmetry of the tip; c) 6 cm x 5.5 cm, Th. 0.9 cm on the axis of symmetry of the tip.

Material: Layer-forged iron (core and metal jacket layers).

Description: Small leaf-shaped spearhead fragment (Emery type 5), heavily corroded with broken point and fixing spike. No symmetry of the wings of the tip. Part of one wing glued. Blade spindle-shaped in cross-section, negative of fractured fixing spike rounded in cross-section (slightly flattened).

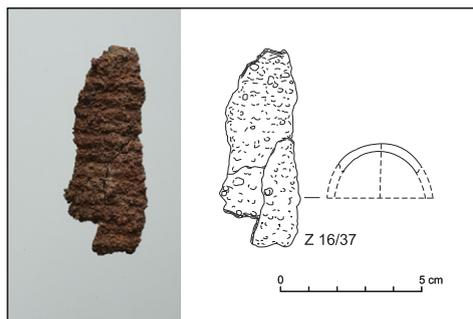


Fig. 2. Ribbed sleeve (Cat. 2)

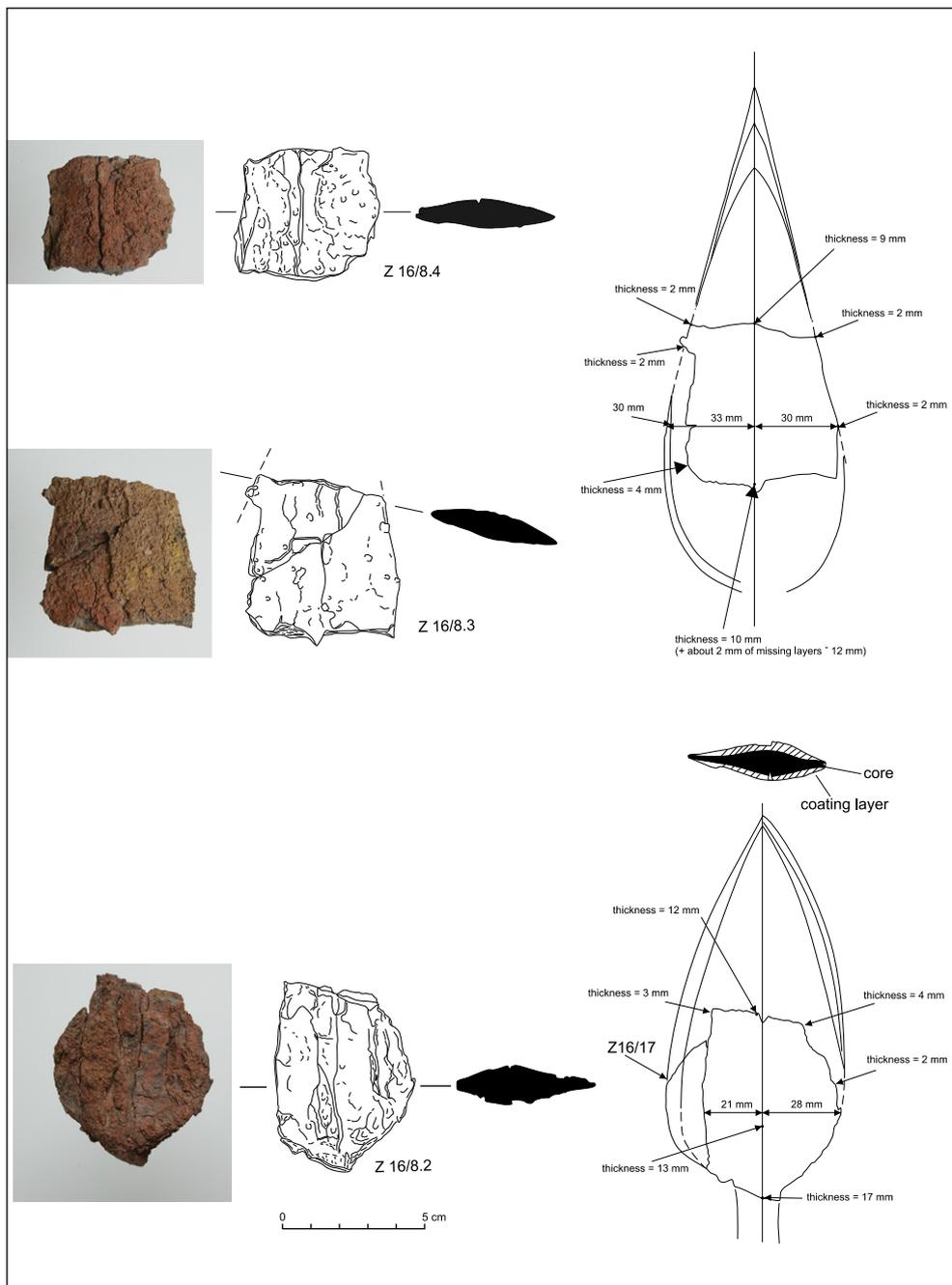


Fig. 3. Spearheads (Cat. 3–5)

Parallels: Type 5 (leaf-shaped, simple) spearhead finds from Qustul (Emery, Kirwan 1938: 223); similar spearheads are known to have been used in the Mahdi era and by the Nilotic tribes Dinka, Nuer, Shilluk (also Masai), the Bedouini tribe Baggara and Kushitic Bedja. Walter B. Emery even likened type 5 to Masai spears (Emery, Kirwan 1938: 223).

6. Javelin blade [Fig. 4]

Inv. No. Z16/6

Preservation: Broken fragment of point.

Context: Tumulus 16, shaft, near blockage of burial chamber 1.

Dimensions: L. 7.8 cm, W. max. 2.3 cm, Th. 0.4–0.5 cm on the axis of symmetry of the tip.

Material: Layer-forged iron (core and metal jacket layers).

Description: Two-edged, leaf-shaped blade fragment (in elongate variant). On the grounds of technological parallels (herringbone) and the small dimensions of the blade, this fragment can be identified as a javelin head. The herringbone is visible on one side on the axis of symmetry (planes are slightly concave), but not on

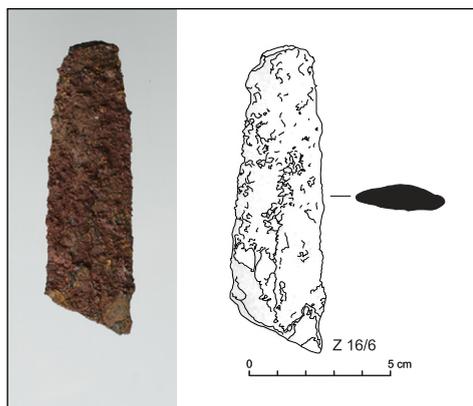


Fig. 4. Javelin blade (Cat. 6)

the other (perhaps due to heavy corrosion of all surfaces of the blade).

Parallels: Javelin finds from el-Hobagi (Lenoble, Disseaux *et alii* 1994: 61) and javelin heads of types 7, 8 and 9 from Ballaña and Qustul (Emery, Kirwan 1938: 223) and ethnographic parallels (Mahdi era and the Nilotic tribes of Dinka, Nuer and Shilluk, and the Kushitic Bedja).

7. Long combat knife [Fig. 5 left]

Inv. No. Z16/8/1

Preservation: Recomposed from smaller fragments (incomplete blade).

Context: Tumulus 16, shaft, near blockage of burial chamber 1.

Dimensions: L. 26 cm (after glueing), W. max. 3.8 cm (without original cutting edge), Th. original, approximately 1.0–1.1 cm.

Material: Layer-forged iron (core and metal jacket layers).

Description: Single-edged blade with triangular cross-section and slightly rounded back edge (original rounded back edge preserved on small fragment of blade). Original cutting edge not preserved. Blade heavily cracked, corroded and in many places delaminated. Wood imprint still visible in delaminated piece of thick rust coating from a lateral surface and back edge (remains of scabbard).

Parallels: Long combat knife known from post-Meroitic sites: Ballaña, Qustul (Emery, Kirwan 1938: 219) and Missiminia (Török 1988: Pl.162).

Remarks: Formerly referred to incorrectly as short swords; the similarity to Viking seax or Przeworska Culture cleavers prompts a change of terminology.

8. Arrowheads, two rusted together [Fig. 5, top right]

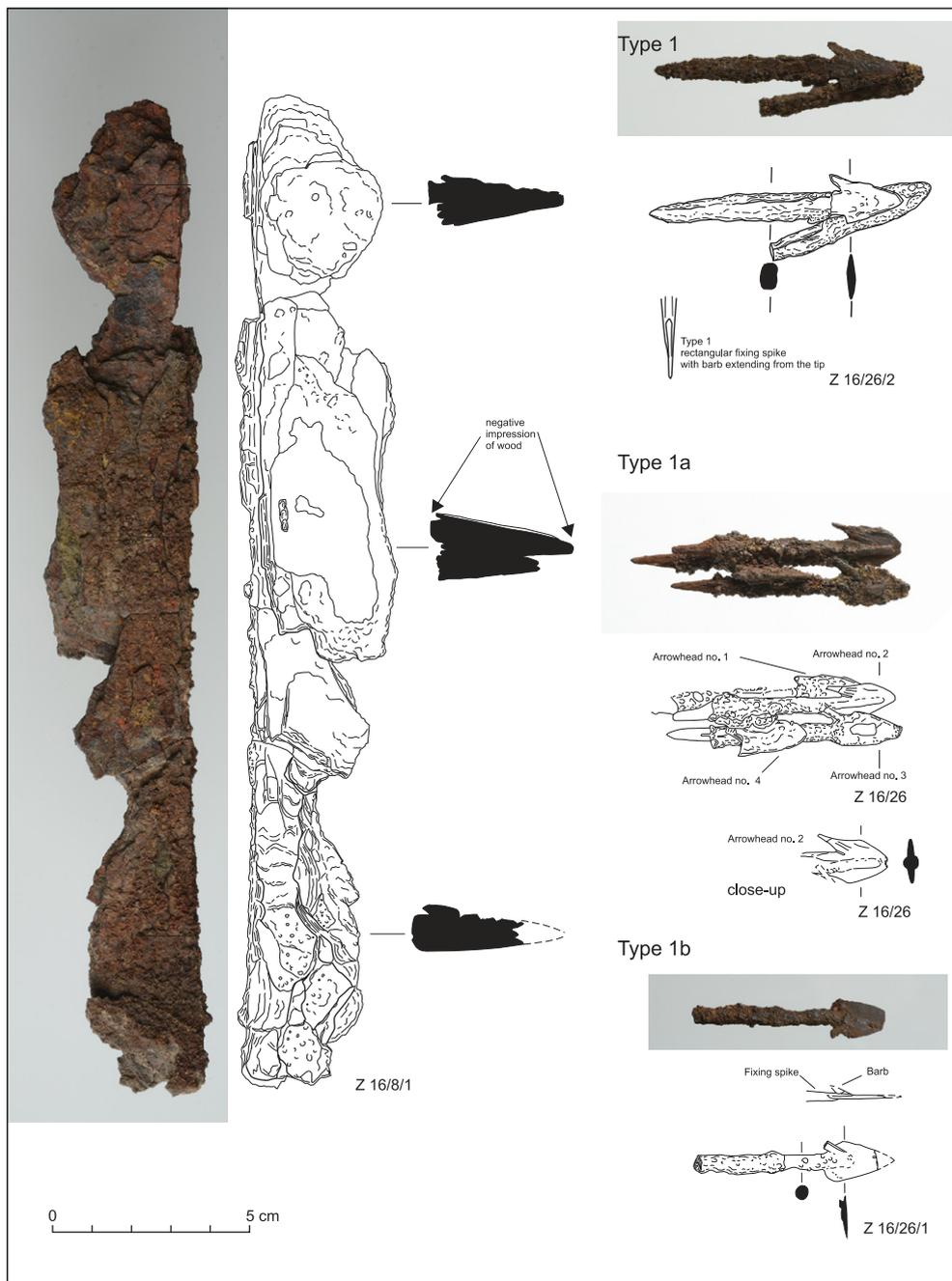


Fig. 5. Long combat knife (Cat. 7), left, and assorted arrowheads (Cat. 8, 9 and 10)

Inv. No. Z16/26/2

Preservation: Heavily corroded and cracked, fragment recomposed.

Context: Tumulus 16, burial chamber 1, north part near the blockage.

Dimensions: L. 6.2 cm, W. 1.1 cm, Th. blade 0.2 cm, rectangular fixing spike 0.4 cm x 0.7 cm.

Material/technique: Two-sides forged iron, from one piece. Typical and simple smithing technique. Lateral surfaces of blade, barb and fixing spike overlap, indicating their simultaneous working by the blacksmith.

Description: Single barbed, slightly triangular arrowheads, with spindle-shaped cross section of the blade and rectangular cross section of fixing spike. Typical post-Meroitic form (type 1).

Parallels: Similar arrowheads from different late Meroitic and post-Meroitic sites (e.g., Fourth Cataract sites of El-Ar 1, El-Ar 2 and SH-5) (personal observation).

9. Arrowhead

Inv. No. Z16/27

Preservation: Blade fragment, heavily corroded surface.

Context: Tumulus 16, burial chamber 1, northern part near beer jar.

Dimensions: W. blade 1.2 cm, Th. 0.3 cm.

Material/technique: Forged iron.

Description: Broken point, spindle-shaped cross section. Poorly diagnostic (measurements and shape suggest a single-barbed(?), post-Meroitic arrowhead).

Parallels: See Cat. 8.

10. Arrowheads, four rusted together [Fig. 5, bottom right]

Inv. No. Z16/26

Preservation: Three almost complete and one blade fragment.

Context: Tumulus 16, burial chamber 1, north part near the blockage.

Dimensions: L. 5.8 cm, W. blade 1.1 cm, Th. blade 0.1 cm, ribs 0.4 cm; other three arrowheads, L. 6–6.1 cm.

Material/technique: Iron. Blade forged and tempered probably separately and wedged between the forks of the ribs as a continuation of the fixing spike. Unique smithing technique; typically arrowheads of this type are forged from one iron piece and have spindle-shaped cross-section of the blade.

Description: Single barbed, hooked arrowhead, typical of post-Meroitic forms (type 1a). The blade is a flat lamina, 1 mm thick, with semicircular ribs on both sides. Fixing spike probably rounded in section, although too corroded to be cleaned. Blade cleaned to healthy metal, showing traces of smithing under magnification: uncut furrows on the barb resulting from chiseling at base of barb where it joins the fixing spike.

Parallels: Finds of similar arrowheads on different late Meroitic and post-Meroitic sites (e.g., Fourth Cataract sites of El-Ar 1, El-Ar 2) and Qustul (Williams 1991: Pl. 64).

11. Arrowhead [Fig. 5, center right]

Inv. No. Z16/26/1

Preservation: Recomposed (almost complete).

Context: Tumulus 16, burial chamber 1, north part near the blockage.

Dimensions: W. max. 1 cm, Th. 0.1 cm, barb with square cross-section 0.2 cm, fixing spike slightly oval 0.4 cm x 0.3 cm.

Material/technique: Iron forged from one side from one piece, other side flat (uncommon smithing technique).

Description: Leaf-shaped, single-barbed

arrowhead with fixing spike, typical post-Meroitic form (type 1b, short variant). One side completely flat; barb and fixing spike derived on the other side. Traces of smithing visible under magnification upon slight cleaning of the surface.

Parallels: Similar arrowheads known from different post-Meroitic sites (e.g., el-Hobagi) (Lenoble, Disseaux *et alii* 1994: 61, Pl. 11), Qustul (Williams 1991: Pl. 64).

12. Arrowheads, two fragments

Inv. No. Z16/11

Preservation: Heavily corroded.

Context: Tumulus 16, shaft, central and southern part near damaged blockage.

Dimensions: a) L. blade 1.7 cm, W. 1.1 cm, Th. 0.3 cm; b) L. blade 1.4 cm, W. 1.1 cm, Th. 0.3 cm.

Material/technique: Iron forged on both sides, from one piece (simple technique).

Description: Two leaf-shaped, single barbed arrowheads, with fixing spikes and spindle-shaped blade section (type 1b).

Parallels: See Cat. 11.

13. Arrowhead

Inv. No. Z16/12

Preservation: Fragment with broken point, heavily corroded.

Context: Tumulus 16, shaft, near burial chamber 1.

Dimensions: W. blade 1.3 cm, Th. 0.3 cm, 3.8 cm what is preserved of length of lower shelf, rectangular cross section of fixing spike 0.4 cm by 0.7 cm.

Material: Forged iron, from one piece (probably simple technique).

Description: Fixing spike fragment with asymmetrical longitudinal lower shelf, broken point and broken barb. Probably

elongate variant (or less probably type 1 arrowhead) based on shape and measurements.

Parallels: See Cat. 11.

14. Arrowheads, 14 fragments

Inv. No. Z16/10

Preservation: 11 fragments of fixing spikes, three other fragments heavily corroded.

Context: Tumulus 16, shaft, central and southern parts near the damaged blockage.

Dimensions: Fragments no longer than 3.0–3.5 cm.

Material/technique: Forged iron.

Description: Fixing spike and other indeterminate iron splinters from arrowheads.

15. Fragments: 1 arrowhead, 2 probable arrowheads, 1 probable iron nail

Inv. No. Z16/31

Preservation: Heavily corroded.

Context: Tumulus 16, chamber 1, southern part near the skeleton.

Dimensions: L. less than 3 cm; Dia. nail(?) 0.6 cm.

Material/technique: Forged iron.

Description: Fragment with characteristic negative imprint of wood where the arrow shaft would have been. Nail with negative imprint of wood on one lateral surfaces (driven sideways into a plank).

JEWELRY AND CLOTHING PARAPHERNALIA

16–17. Bells [Fig. 6]

Inv. No. a) Z16/24/1; b) Z16/24/2

Preservation: Heavily patinated on surface (green verdigris of copper compounds); sound cup slightly deformed under pressure of soil (b); clapper corroded and clumped to inside wall (a) or missing (b).

Context: Tumulus 16, chamber 1, southern side, near the skull.

Dimensions: Dia. sound cup a) 1.9 cm, b) 1.9 cm x 1.8 cm (deformed), H. a) 1.4 cm, b) 1.3 cm, Th. wall a–b) 0.2 cm; wire on the top of sound cup (b) 0.6 cm long.

Material/technique: Bronze (sound cup probably blown or cast in a mold, lack of solder seam).

Description: a) Bell with the antenna of a wire broken off at the base of the sound cup and clapper inside; b) bell with antenna wire at base of sound cup and well preserved fixing hook for clapper inside. Simplified (and smaller) type 1 bell after W. B. Emery's typology.

Parallels: Finds of similar bells at different post-Meroitic sites (Meroe W.122) (Shinnie 1967: 164), especially type 1 bells from Ballaña (Emery, Kirwan 1938: Fig. 94).

18. Cross [Fig. 6]

Inv. No. Z16/25

Preservation: Complete; heavily corroded, cracked, and delaminated.

Context: Tumulus 16, chamber 1, southern side near the skull and skeleton.

Dimensions: L. arms 3.4 cm x 5 cm, Th. lamina 0.4 cm–0.7 cm.

Material/technique: Iron (probably forged from one piece).

Description: Iron cross in the form of a Maltese cross with flaring arm (two shorter, two longer). Flat (rectangular sections). Thickness may be due to accumulation of corrosion layers and delamination.

Dating and parallels: The dating of the site, from mid 5th to mid 6th century AD suggests a date for the cross. Importantly, two crosses of the same type (Maltese) but slightly different form (rounded sections and preserved suspension loop for threading a thong) were found at the archeological sites of El-Ar 4 (personal observation) and el-Sadda 34 (Osypiński 2010: Fig. 8) (one per site), which are of

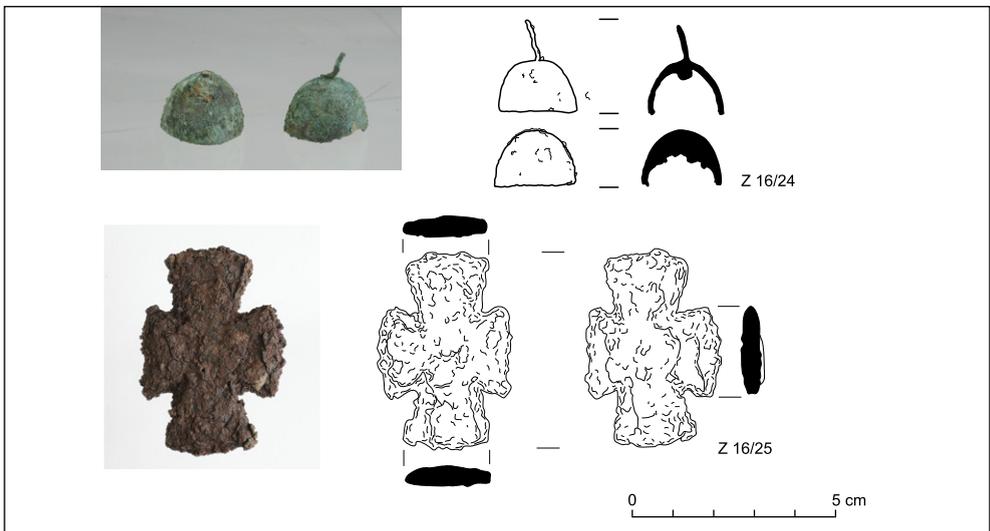


Fig. 6. Copper-alloy bells (Cat. 16, 17) and iron cross (Cat. 18)

later date. Caution should be exercised, however, with regard to the cultural and religious interpretation of this find as a Christian item (before the official conversion of Makuria to Christianity at the very end of the 6th century).

19. Rectangular loop [Fig. 7]

Inv. No. Z16/36

Preservation: Recomposed from two fragments; distorted rhomboid shape; corroded surface.

Context: Tumulus 16, chamber 1, southern side near the skeleton.

Dimensions: 3.7 cm x 2.4 cm (inside 2.6 cm x 1.4 cm), section changing (0.4 cm square on the short sides, rectangular 0.4 cm x 0.5 cm on the longer sides).

Material/technique: Forged iron (from one piece).

Description: Loop, initially rectangular. Possibly from a buckle, which could have been used with a belt: either to strap a combat knife scabbard or quiver.

NAILS AND BED FRAME FITTINGS

20a–c. Bed frame fitting [Fig. 7]

Inv. Nos: a) Z16/29, Z16/33a; b) Z16/30/1, Z16/33b; c) Z16/30/2

Preservation: Recomposed, heavily corroded.

Context: Tumulus 16, burial chamber 1, northern part near beer-jar.

Dimensions: a) Th. tape 0.3 cm, W. approx. 3 cm (L. approx. 12 cm), nail section 0.4 cm square; b) Th. tape 0.4 cm, W. 1.6–2.6 cm

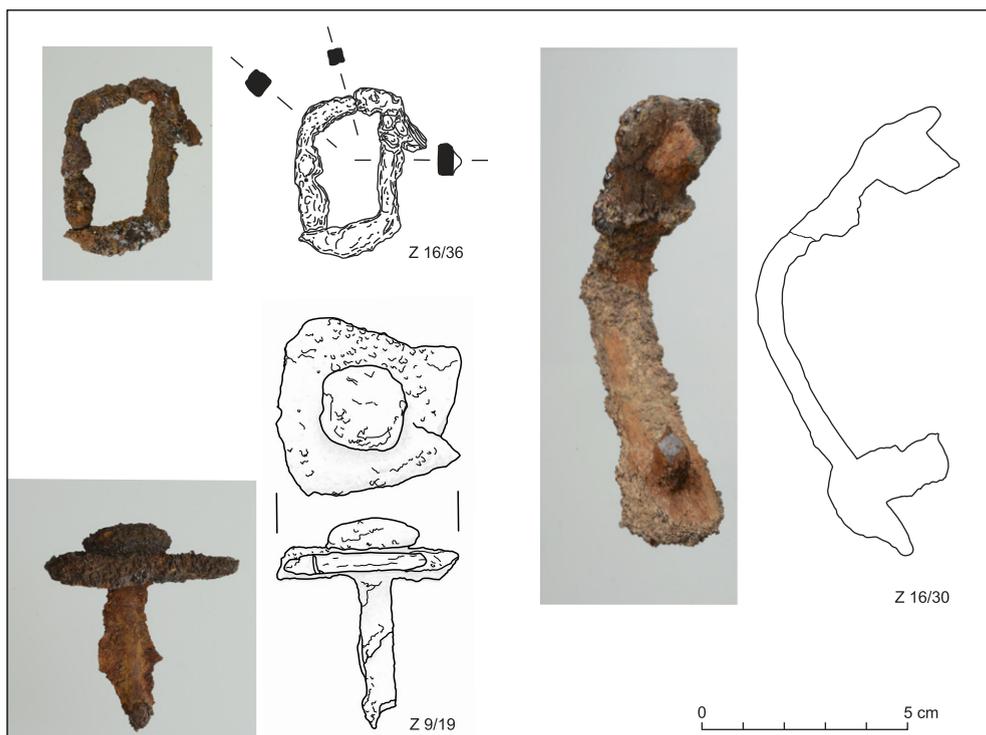


Fig. 7. Loop (Cat. 19), bed frame fitting (Cat. 20) and nail (Cat. 26)

near nails (L. approx. 13 cm), nail section 0.6 cm square; c) Th. tape 0.8 cm, 0.5 cm near nail, W. 2.1 cm–2.5 cm near nails (L. approx. 5 cm), nail section 0.7 cm square, rectangular nail head 1.6 cm x 1.1 cm.

Material/technique: Forged iron.

Description: Bed frame fragment, flaring ends preserving nail heads and broken nail shanks. Strips (a), (b) bent at mid-length (at frame edge). On the outer (a) or inner (b) sides, impressions and actual remains of a double-weave fabric stretched over the frame. On the inside, impression of wooden planks used for the bed frame.

Parallels: Finds from Hammur T.1 (El-Tayeb, personal communication) and el-Hobagi VI (Żurawski 2003: 130).

21. Nails, seven fragments

Inv. No. Z16/32

Preservation: Heavily corroded and broken.

Context: Tumulus 16, burial chamber 1, southern part near the skeleton.

Dimensions: Nail head rectangular 0.7 cm x 1.4 cm; square-section shanks 0.7 cm, 0.7 cm, 0.6 cm, 0.5 cm; L. no more than 3 cm.

Material/technique: Forged iron.

Description: Nails with square-section shanks and impressions of wood on the sides.

22. Bed frame fittings, 14 fragments

Inv. Nos a) Z16/33; b) Z16/34, Z16/33

Preservation: Heavily corroded and broken; recomposed (some pieces joined to Cat. 20a–b).

Context: Tumulus 16, burial chamber 1, southern part near the skeleton.

Dimensions: a) Th. tape 0.3–0.8 cm, W. 1.6–approx. 3 cm, shank square section typically from 0.4 cm to 0.9 cm); b) Th. tape 0.3 cm, W. 1.4 cm, typical square section of nail 0.5 cm.

Material/technique: Forged iron.

Description: Bed frame fittings, sometimes with preserved nail shanks. Occasionally impressed wood on the inside and impression of double- and single-weave fabric on the outside.

23. Nail and other unidentified fragments

Inv. No. Z9/11

Preservation: Nail shank recomposed from three fragments.

Context: Tumulus 9, shaft, southern part near the damaged blockage of burial chamber 1.

Dimensions: Square section 0.4 cm.

Material/technique: Forged iron.

Description: Nail shank with preserved impression of wood (grain going across); two pieces of heavily corroded laminas.

24. Bed frame fitting, one fragment

Inv. No. Z9/12

Context: Tumulus 9, shaft, southern part near the damaged blockage of burial chamber 1.

Preservation: Heavily corroded.

Dimensions: Th. tape originally 0.4 cm, W. 2.8 cm.

Material/technique: Forged iron.

Description: Bed frame fitting, bent (at frame edge) and broken. On outer side preserved fragment of a textile in single weave.

25. Nails, four fragments

Inv. No. Z9/18

Context: Tumulus 9, burial chamber 1, central part.

Preservation: Heavily corroded and broken; some recomposed.

Dimensions: Square section 0.7 cm, one preserved rounded nail head 1.4 cm x 2.6 cm.

Material/technique: Forged iron.

Description: Nails, two with shanks bent to the underside of a plank (negative imprint of wood preserved on the bent side).

26. Bed frame fitting, 1 fragment [Fig. 7]

Inv. No. Z9/19

Preservation: Heavily corroded.

Context: Tumulus 9, burial chamber 1, central part.

Dimensions: Th. tape 0.45 cm, W. 2.9 cm flaring to 3.9 cm at one end, nail with square cross section 0.7 cm, head rounded 2 cm x 2.1 cm.

Material/technique: Forged iron.

Description: Bed frame fitting. Preserved wood and impression of wood on the inner side.

27. Nail, one shank fragment

Inv. No. Z9/20

Preservation: Recomposed from two small pieces.

Context: Tumulus 9, burial chamber 1, central part.

Dimensions: Square cross section 0.6 cm.

Material/technique: Forged iron.

Description: Nail shank fragment, bent at tip. Preserved negative imprint of wood.

28. Nails and unidentified, 25 fragments

Inv. No. Z16/9

Preservation: Heavily corroded.

Context: Tumulus 16, shaft, southern and central parts, near the damaged blockage

Dimensions: Square cross section 0.5 cm.

Material/technique: Forged iron.

Description: Numerous small iron pieces, a couple could be nails (typical wood impressions different than those on arrowhead fixing spikes)

UNIDENTIFIED OBJECTS

29. Unidentified, two fragments

Inv. No. Z16/35

Preservation: Heavily corroded (corrosion in the form of tubers and blooms on the surface).

Context: Tumulus 16, burial chamber 1, near the skeleton.

Dimensions: L. approximately 5 cm.

Material: Iron.

Description: Object of indefinite shape. Fabric fragments still visible, suggesting that both fragments had something in common with bed frame construction; however, they are not typical bed frame fittings.

30. Unidentified, fragments

Inv. Nos a) Z16/16; b) Z16/17

Preservation: Heavily corroded and cracked; a) two fragments recomposed from four pieces.

Context: Tumulus 16, shaft, central part near the damaged blockage.

Dimensions: a) Dia. inner approximately 2.1–2.5 cm, Th. 0.4 cm, W. 0.9 cm; b) no more than 5 cm.

Material: Iron.

Description: a) Two non-joining fragments of a single object(?), curved, spindle-shaped cross section, flattened on the outer side; on one fragment transverse impression of wood(?) on the inside; b) iron splinter without preserved original edges, probably also from a spearhead.

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REFERENCES

- El-Tayeb, M.
2005 Early Makuria Research Project. Excavations at el-Zuma. Preliminary report, *PAM* 16 (*Reports* 2004), 389–399
2010 Early Makuria Research Project. El-Zuma excavations, preliminary report on the second season, 2007, *PAM* 19 (*Reports* 2007), 467–479
- Emery, B., Kirwan, L.P.
1938 *The Royal Tombs of Ballana and Qustul I. Text*, Cairo: Government Press
- Lenoble, P.
1997 Enterrer les flèches, enterrer l'empire I: Carquois et flèches des tombes impériales à el-Hobagi [in:] *Actes de la VIII^e Conférence Internationale des Études Nubiennes II, Découvertes archéologiques* [=CRIPEL 17/2], Villeneuve d'Ascq: Université Charles-de-Gaulle–Lille III, 137–152
- Lenoble, P., Disseaux, R.P., Mohamed, A.A., Ronce, B., Bialais, J.
1994 La fouille du tumulus à enceinte el Hobagi III, A.M.S.NE 36-017-N-3, *Meroitic Newsletter* 25, 53–88
- Osypińska, M.
2010 Animal bone remains from the cemetery in el-Zuma (2007 season), *PAM* 19 (*Reports* 2007), 488–492
- Osypiński, P.
2010 El-Sadda. Excavation on the Polish concession (Hamadab Dam Rescue Project), January–February 2007, *PAM* 19 (*Reports* 2007), 435–447
- Shinnie, L.P.
1967 *Meroe. A Civilization of the Sudan* [=Ancient Peoples and Places 55], London: Thames and Hudson
- Török, L.
1988 *Late Antique Nubia. History and Archaeology of the Southern Neighbor of Egypt in the 4th–6th c. A.D.* [=Antaeus 6], Budapest: Archaeological Institute of the Hungarian Academy of Sciences
- Williams, B.B.
1991 *Noubadian X-Group Remains from Royal Complexes in Cemeteries Q and 219 and from Private Cemeteries Q, R, V, W, B, J and M at Qustul and Ballana* [=Oriental Institute Nubian Expedition 9], Chicago: Oriental Institute, University of Chicago
- Żurawski, B.
2002 Survey and excavations between Old Dongola and Ez-Zuma, *Sudan & Nubia* 6, 73–85
2003 *Southern Dongola Reach Survey and Excavations Between Old Dongola and Ez-Zuma* [=Nubia 2; Southern Dongola Reach Survey 1], Warsaw: ZAŚ PAN; Neriton
2012 *St. Raphael Church 1 at Baganarti. Mid-sixth to Mid-eleventh Century. An Introduction to the Site and the Epoch* [=GAMAR 10; Monograph Series 2], Gdańsk: Gdańsk Archaeological Museum