

Metal and Glass Small Finds from Yurta-Stroyno, Season 2016: Selected Finds

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ABSTRACT

The paper presents an overview of metal and glass small finds found during the final season of the Yurta-Stroyno Archaeological Project in 2016. The basic data of the collection are presented here, as well as a preliminary classification and interpretation of the selected finds. The most frequent metal from the site is iron – featuring mainly elements of construction and different types of fittings. During the final season, parts of iron knives, a saw and metal or wood working tools such as a punch or an awl were found. A rare find is a miniature bronze axe head shaped pendant.

The majority of the glass finds are body fragments of free-blown vessels. The best represented shapes are cups, beakers, wide bowls and flasks. The group of glass beads features two main types: hexagonal and flat round beads. Several new fragments of raw glass and glass production waste were found during the field survey to supplement the previous-year's findings.

KEYWORDS

Small finds; glass; beads; production waste; metals; axe head pendant; Roman period.

INTRODUCTION

The glass and metal objects presented in the text were found during the third and the final season of the Yurta-Stroyno Archaeological Project (TUŠLOVÁ - WEISSOVÁ - BAKARDZHIEV 2014; TUŠLOVÁ *et al.* 2015) and were retrieved both from the excavations and the field survey. Even though the majority of finds do not have a precise archaeological context, it is still possible to identify and classify a number of them based on their typology and/or known parallels from the area or other Roman provinces. In addition, samples of selected glass fragments uncovered this year were taken for chemical analysis; the results are still pending and will be presented in a separate study.

IRON OBJECTS

The most common finds within the assemblage are iron nails, followed by iron clamps and other metal fittings that could be used for wood structures or/and furniture. Less common finds include working tools and military equipment. A selection of the typologically more representative metal finds is described in the following text.

NAILS

The most often found objects are iron nails of different sizes, clamps and hooks. The excavation season 2016 enriched this collection with 39 nails and many more small iron fragments which were undoubtedly also parts of nails; now poorly preserved.

The survey revealed 129 iron nails, which were in the majority found by a metal detector survey, with the highest concentration recorded in the squares E09 (24 pcs.), G12 (23 pcs.), D13 (22 pcs.) and E12 (14 pcs.) (for the map of squares cf. TUŠLOVÁ - WEISSOVÁ - BAKARDZHIEV 2017; fig. 01). The majority of the nails, from both the survey and the excavations, vary between 40 and 75 mm in length and show various types of heads (as defined by GREINER 2010, 196). Based on the dimensions and shape, these nails were likely part of original wooden constructions and/or were meant to join roof timbers or to hold roof-tiles in place (POULTER 2007, 58). The longest nails within the assemblage vary between 95 and 210 mm (14 pcs. from the survey and four from the excavations). They are supposed to have been used for joining the beams. The majority of the nails have a shaft that is square or rectangular in section with an irregular head, round or rectangular in shape. Similar nails from different Roman settlements were in use throughout the Roman period till the 6th century AD (POULTER 2007, 56–58; GOMOLKA-FUCHS 1982, 158–159). However, a precise chronological identification of the iron nails due to the disturbed archaeological situation is problematic.

The smallest iron nails with a round shaped head should have been used as hobnails. The stem is short (from 8 to 17 mm), with a head diameter varying from 6 to 11 mm. This nail type is a common find from the 2nd century AD and continues to the Late Roman and early Byzantine periods (POULTER 2007, 56–58).

OTHER SMALL FINDS

The excavation and survey revealed a different assemblage of working tools, including parts of an iron saw (SF16_159), fragments of iron knives (SF16_D13_NW_22; SF16_D13_SE_14; SF16_F13_NE_08; SF16_I12_SE_02; SF16_J13_SE_06) and iron fragments that could be identified as parts of metal/iron/wood working tools such as a punch or an awl (SF16_D13_NW_35; SF16_D13_SE_23; SF16_E09_SW_11; cf. GREINER 2010, 185 and POULTER 2007, 34–35). The character of the finds (as their shape did not change a lot over the ages) and their uncertain chronological context does not allow us to identify whether the artefacts are dated to the Roman or later periods. From the better-preserved iron objects, we may list a tumbler-lock slide key with a toothed set-back plate and a handle which ends in a suspension loop (SF16_G12_SE_21). Similar keys are known from Roman urban contexts and are dated broadly between the 1st and 5th century AD (SCHMIDTS 2004, 67).

An arrowhead (SF16_E12_NW_11) was found in the sector E12_NW. It consists of a pyramidal head with a rectangular section and closed socket. Similar arrowheads are known from numerous Roman provincial sites, for example from Rainau-Buch. The militaria from Rainau-Buch are mainly dated to the 3rd century AD (GREINER 2008, 94, 107).

BRONZE OBJECTS

Compared to the iron finds, the bronze objects are less frequent and mainly include alloys and different fragments of fittings. From the bronze objects found at Yurta-Stroyno two small bronze copper-alloy nails which are similar to the copper-alloy nail found during the 2015 season (TUŠLOVÁ *et al.* 2015, 253, fig. 2:4) should be mentioned. Finds of small bronze nails are relatively frequent in urban settlements; cf. for instance those known from the agora of Nicopolis ad Istrum which were probably rather used for decoration than for functional purposes (CRUMMY 1981, 115–119; GENCHEVA 2013, 201).

The shape of a miniature bronze axe head pendant (SF16_001; 8×21 mm; **Pl. 5/1:1**) is rather unusual for the territory of the Roman Empire. Some of the closest parallels to our example come from *Germania libera*. The so-called *axe head pendants* or *axtförmige Bronzanhänger* are well known from the funeral equipment of the Wielbark and Przeworsk Cultures and Sarmatian graves, found in the territories of present day Poland, northern Germany, Serbia, Hungary, Romania, western Ukraine and the Crimea (RODZIŃSKA-NOWAK 2001, 320–321).

The Yurta-Stroyno axe head shaped pendant most resembles the *type Kokowski 5*, which is an elongated triangle shaped pendant with a wedge shaped section (KOKOWSKI 1997, 102). Examples of this type are known from the area of Wielbark Culture along the Danube and Tisa Rivers; several pendants are also known from the area of the eastern Crimea. The appearance of this type correlates with the Late Roman period in Barbaricum – C2 phase. After the year 400 AD the number of the axe head shaped pendants started to grow and they spread to the Danubian area (KOKOWSKI 1997, 100–102; ZIEMLIŃSKA – ODOJOWA 1999, 130–131).

However, it is important to mention, that votive miniatures of the working implements are also known in the context of the north-western provinces, in the area of the so-called Romano-Celtic world. Most of the miniature axes were cast in a single piece which includes both haft and the axe head and were predominantly found in ritual contexts of the Romano-Celtic sanctuaries or ritual pits. The axe pendants were in use between 50 BC and 200 AD, with a peak in the 1st century AD (KIERNAN 2009, 114–151).

Based on the morphological specifics: the absence of the haft, shape and geographical context, the find from Yurta-Stroyno might be related to the *type Kokowski 5* – the first identified example of this type in Bulgaria.

GLASS OBJECTS

The glass finds discussed in the following text come both from the excavations and the survey. We shall first briefly describe the range of the finds and then discuss the individual categories within a broader context. The majority of the glass fragments are body fragments of free-blown vessels, either colourless or naturally coloured. The most frequent shapes are cups, beakers, wide bowls, bottles and flasks. Preserved rims of vessels are mainly fire-rounded, less often polished and just in several cases cracked without finishing. Several fragments have traces of wheel-cut decoration, mainly facets and lines, several examples have plastic – mould-blown decoration.

Glass beads are represented by two main types, one is hexagonal and elongated (**Pl. 5/1:2**), the other is flat and round (**Pl. 5/1:3**). This season one bead of a different type was added to our collection – an elongated white glass bead divided into two segments, probably decorated with gold foil (**Pl. 5/1:4**).

From the survey come two fragments of glass bracelets of different diameter (**Pl. 5/1:5** and **1:6**) and more finds of raw glass, from which some pieces had already been collected in the season 2015.

VESSELS

The majority of the glass vessels can be classed into a few main groups: wide beakers or bowls with an everted rim, beakers (with a pushed-in base and a flattened hollow tubular base ring), conical beakers with an everted rim, flasks with a round body and a cylinder neck, unguentaria and cups with a depressed bottom. The rims are mostly fire rounded, just several fragments

have cracked and polished rims. The morphological types, as well as the glass quality, correspond mostly to the finds from the previous seasons (see Tušlová *et al.* 2015). The majority of the glass has a blue-green colour or is colourless, some of the fragments feature an olive green or light-yellow tint. Several fragments in the assemblage represent however an exception. Three fragments are of an orange-brown colour (SF16_H13_NE_06; SF16_H13_NE_16; SF16_F13_SW_01), two others of cobalt blue (SF16_E12_SE_04; SF16_D13_NW_13) and one of a violet colour (SF16_D13_NW_14). The cobalt blue and the violet fragments are too small for typological identification; their chronology could be, however, established with XRF analyses.¹ The orange-brown and amber fragments (Pl. 5/2:4) have several parallels in the finds from the Late Antique or early Byzantine sites (REHREN – CHOLAKOVA 2014, 90; CHOLAKOVA 2009, 305).

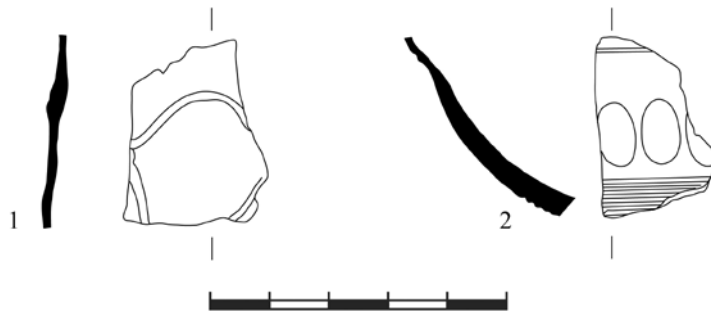


Fig. 1: Drawings of the glass vessels. 1: bowl decorated with facets and cut line motif; 2: vessel decorated by the so-called honey comb ornament. Drawn by V. Doležalková and H. Havlíková.

Several new types of vessels and decoration techniques, not known from the previous years of excavations, were detected during the field survey. The fragment SF16_D13_SE_18 has signs of the so-called honey comb ornament (Fig. 1:2). This type of decoration appeared in the first half of the 4th century AD, when mould blown vessels started to be popular again. At that time, the entire surface of a vessel was covered with different geometrical ornaments (DOPPELFELD 1966, 46). The vessels are consequently dated to the first half of the 4th century AD, with one later example from Pannonia dated to the turn of the 4th and 5th century AD (STERN 1977, 92).

Several pieces of the vessels with the honey comb ornament are known from the Near East (Damascus, Tyre, etc.), more examples from the territories of the present-day Germany and Hungary. Just a few examples are known from the Black Sea area, for example from Radensk and Panticapaeum (STERN 1977, 90). Fragments of a beaker with a honey-comb decoration were also found in Nicopolis ad Istrum. According to Shepherd (1999, 336), the beaker could already be dated to the 3rd, possibly also to the 4th century AD.

Another new vessel shape from the site is represented by a fragment of a bowl SF16_D13_SW_30 (Fig. 1:1) decorated with facets and a cut line motif. The wheel-cut decorated vessels are considered the highest specialization of glass production. The decoration could combine the vertical or horizontal ovals, circular engraved grooves and elongated vertical grooves,

¹ XRF analysis with an ARL 9400 XP sequential WD-XRF spectrometer was used for the determination of the glass chemical composition. All peak intensity data were collected by the software WinXRF in a vacuum. To validate the analytical procedure, the reference standard (Corning Glass B) was measured. XRF analyses of the Yurta-Stroyno material were provided by Ing. Zuzana Zlámálová Čílová, Ph.D. from the Department of Glass and Ceramics Institute of Chemical Technology in Prague.

usually together with engraved lines. The bowls or beakers with a wheel-cut facet decoration were widely distributed across the Roman Empire. A large number of these vessels appeared in Dura Europos during the late 2nd century AD and a similar style of engraved decoration was produced in the Cologne workshops in the 4th century AD. Bowls with this type of decoration are numerous in towns from the northern Black Sea littoral where they are dated between the 2nd half of the 2nd and the mid. 3rd century AD (STAWIARSKA 2014, 83–84; WHITEHOUSE 1997, 257–267). The group of wheel-cut faceted vessels was also found in Nicopolis ad Istrum and includes pieces dated from the late 1st to the 3rd centuries AD (SHEPHERD 1999, 359).

Yet another fragment SF16_D13_SW_06 (**Pl. 5/2:3**) features special characteristics. It is too small to allow identification of the original vessel shape, but the deep cut geometrical decoration in wide lines points to the 3rd and 4th centuries AD (DOPPELFELD 1966, 64–65, pl. 148–153). This type of decoration was applied mainly on the exterior of deep bowls, plates, or shallow dishes (WHITEHOUSE 1997, 261).

The small glass fragment SF16_163 (**Pl. 5/2:5**) is secondarily re-worked into the shape of a token or a gaming piece. The presence of the secondarily reworked glass items is not rare in the Roman provincial settlement contexts; however, it is sometimes difficult to recognize the tool marks on the glass sherds (FÜNFSCHILLING 2014, 170–172). The Yurta-Stroyno glass fragment was formed into a round token with clearly visible marks of secondary working. Moreover, it is possible that many other glass fragments from the site could be secondarily re-used as working tools or gaming pieces.

BEADS AND PERSONAL DECORATION

The glass beads found in Yurta-Stroyno represent common types known throughout the Roman Empire. The first type found on the site is a 9–14 mm long polygonal bead with a hexagonal section (d. 3 mm; **Pl. 5/1:2**) the second type is a flat round bead (d. 9 mm; **Pl. 5/1:3**). Both types are widespread over the territory of the Roman provinces during the 2nd and 3rd centuries AD, and they remained popular, and even in growing numbers, until the Late Antiquity (to the turn of the 4th and 5th century AD) (SWIFT 2000, 90–94). These types of beads are also known from other Roman sites in the Yambol Region. Several of them, found in a funeral context dated between the 2nd and the 3rd century AD, are exhibited in the permanent exposition of the Regional Historical Museum in Yambol. The hexagonal type and the bead decorated with a gold foil were also found in the tumulus necropolis (2nd–3rd c. AD) near Straldzha in Yambol Region (CHOLAKOV *et al.* 2016, 90–96, 168, 06p. 64). The hexagonal and rounded types are exhibited in the Regional History Museum of Stara Zagora, with a chronological span reported as 2nd–3rd/4th c. AD. Similar finds are also known from the settlements in the western Roman provinces, where they are dated to the 2nd–5th centuries AD (ROBERTS 2007, 81–86).

A newly identified type is the elongated white glass bead enclosing gold foil, divided in two segments (**Pl. 5/1:4**, dimensions 8×3 mm). This type of bead appeared in the territory of the provinces Thracia and Moesia between the 2nd and the 3rd century AD and continued to be in use until the Late Antiquity (GOMOLKA-FUCHS 1991, 184; ROBERTS 2007, 80–83). Similar examples were found in the Late Roman period graves in Altenstadt, Germany (2nd half of the 4th century AD) and Burgheim, also Germany (mid. 4th century AD), with a precise chronology not yet established (KELLER 1971, 91, 156, 164).

BRACELETS

Two fragments of glass bracelets with a D-shape section (**Pl. 5/1:5** and **5/1:6**) were found during the field survey (in squares E12 and F13). According to the results of the chemical analyses, their most probable date is the early medieval period (10th–12th centuries AD). Very similar bracelets are exhibited in the permanent exposition of the Kabyle Museum, marked as early Medieval; other – similar ones – were found in Nicopolis ad Istrum, classed to the post-Medieval period (ROBERTS 2007, 83).

PRODUCTION WASTE

The finds of three fragments of raw glass and a few glass threads published previously (see TUŠLOVÁ *et al.* 2015) were considerably enriched through 72 new fragments of raw glass and glass production waste found this year during the survey. The raw glass fragments were found merely in the squares D13 (66 fragments), E12 (2 fragments), F13 (3 fragments) and G12 (1 fragment); most of them are of small dimensions and a blue-green colour, with a cumulative weight of 107 g (**Pl. 5/2:1**). The field survey also brought to light several finds of the so-called moils (4 fragments), which are the small cylinders of glass left on the blowing pipe after the vessel was detached (SHEPHERD – WARDLE 2009, 39). The finds of moils indicate the use of the blowing pipe. We have also found a number of other production indicators, namely drops (**Pl. 5/2:2**), trails, and burned and deformed glass from various stages of the glass-working processes (ANTONARAS 2014, 107–108; PRICE 2005, 168; SHEPHERD – WARDLE 2009, 39). Even though we are not able to reconstruct the structure of the glass-workshop, these fragments are sufficient evidence of glass production taking place directly on the site of Yurta-Stroyno.²

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² The presence of the glass production waste as an indicator of the local glass workshop is well documented on the Late Roman and Early Byzantine site of Dichin, Bulgaria (ЧОЛАКОВА 2008, 471).

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Pl. 5/1: Selection of small finds. 1: bronze axe head pendant; 2-4: Glass beads with the first two representing the most common types found at Yurta-Stroyno; 5-6: fragments of glass bracelets (10th-12th c. AD).



Pl. 5/2: Selection of glass finds. 1: pieces of raw glass; 2: example of the production indicators - drops; 3: fragment with deep cut geometrical decoration in wide lines; 4: the amber coloured fragment; glass fragment secondarily worked into a token.