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Middle Eastern painted glass vessels from Yaroslavl

Ekaterina K. Stolyarova[a], Asya V. Engovatova[a]

The paper studies fragments of gilded and enameled glass vessels of Middle Eastern origin from a building dated to the pre-Mongolian period, excavated in Yaroslavl in 2006 by researchers from the Institute of Archaeology, of the Russian Academy of Sciences. The fragments seem to be parts of three beakers. Two of them bear inscriptions in *Naskh* script and had a fragment showing a human face in three-quarter view. Parallels support the contextual dating. A fragment bearing the image of the lower part of a man standing on the bank of water probably belonged to the third beaker. Discrepancy between dating it to the third quarter of the 13th century based on parallels and archaeological context evidence enables dating the emergence of vessels of this kind to the first half of the 13th century instead of the mid-13th century.

KEY-WORDS: glass vessels, gold-painted, enameled, Middle Eastern origin, Yaroslavl, pre-Mongolian period

INTRODUCTION

Archaeological excavation in the city of Yaroslavl, by an expedition directed by A.V. Engovatova from the Department of Rescue Archaeology, Institute of Archeology, of the Russian Academy of Sciences, has been carried out since 2004 (Fig. 1), bringing to light a large number of finds. Not the least of these are glass objects – currently numbering more than 2,000. About 70% of these artifacts are bracelets – a common situation at Russian urban sites – whereas one-fourth are beads. The remaining items are vessels, stained glass and fine jewelry, such as buttons, rings and inserts.

Some of the most interesting finds from Yaroslavl are glassware items decorated with gold and enamel. These are Middle Eastern imports – recognized by Soviet historiography as Oriental and by Western science as Islamic in origin. In ancient Russia, such products were luxury items. The Yaroslavl collection of Middle Eastern vessel fragments decorated with painted enamel and gold is quite extensive and may be

[a] Institute of Archaeology, Russian Academy of Sciences, 19 Dm. Ulyanova St., 117036 Moscow, Russia; kath.stoliarova@gmail.com; engov@mail.ru

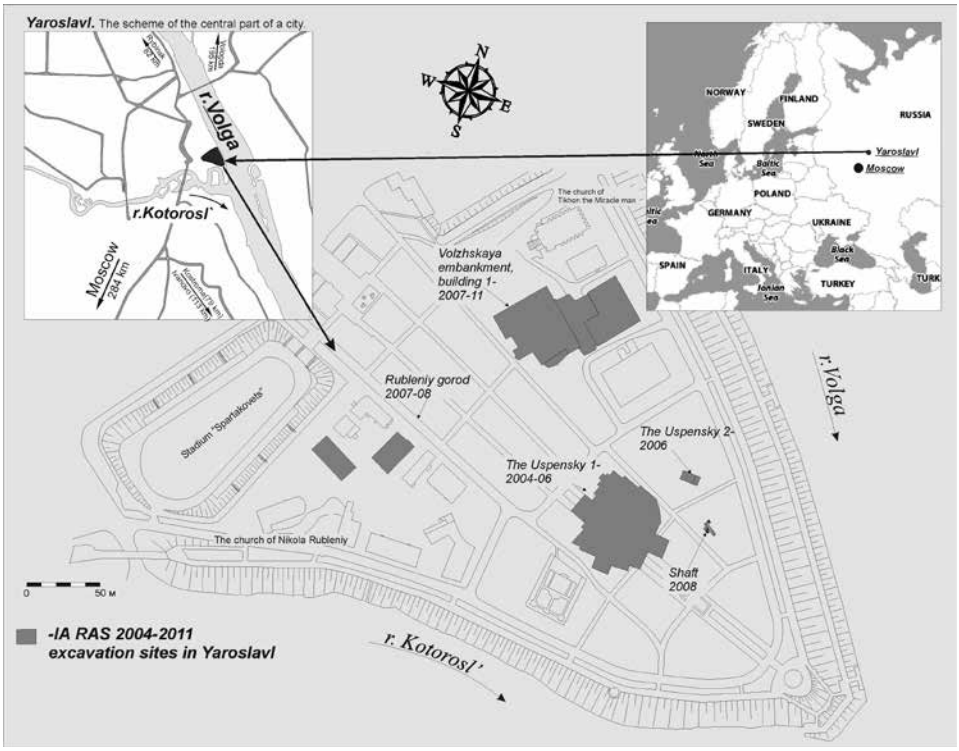

Fig. 1. Yaroslavl Kremlin (plan). Institute of Archaeology, Russian Academy of Sciences excavation sites in Yaroslavl (2004–2011)

compared to known finds from Novogrudok, where eight vessels with similar ornamentation were found (Gurevich *et al.* 1968).

The first discovery in 2006 comprised 35 gilded and enameled fragments (Fig. 1; 2) from building 36 at the Uspensky 1 site[1]. All of them appear to have been part of open vessels, such as beakers, which make up one of the largest groups of Middle Eastern painted glassware. Most fragments were from the upper part of vessels (Fig. 2, No. 1987), and only two pieces can be reliably attributed to middle and lower parts (Fig. 2: Nos 1989 and 1958).

Building 36, where these pieces were discovered, is located in squares 248, 249, 258, 259 (sections 12–13) from the 280 cm level (Figs 3; 4) (Osipov and Faradzheva 2006). It was a cellar buried 120 cm in the ground, the walls constructed of vertically

[1] The fieldwork was headed by N.N. Faradzheva and D.O. Osipov (2006).

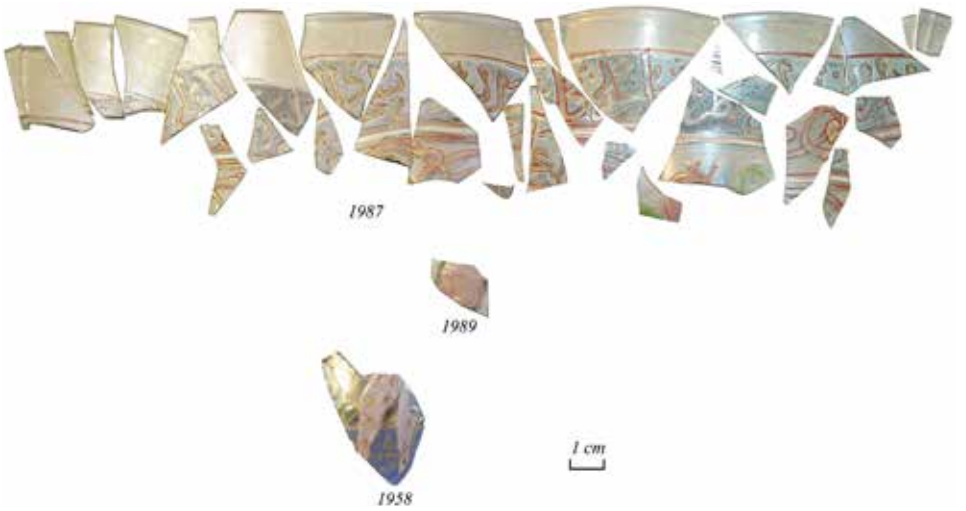

Fig. 2. Gilded and enameled glass fragments from residential building 36

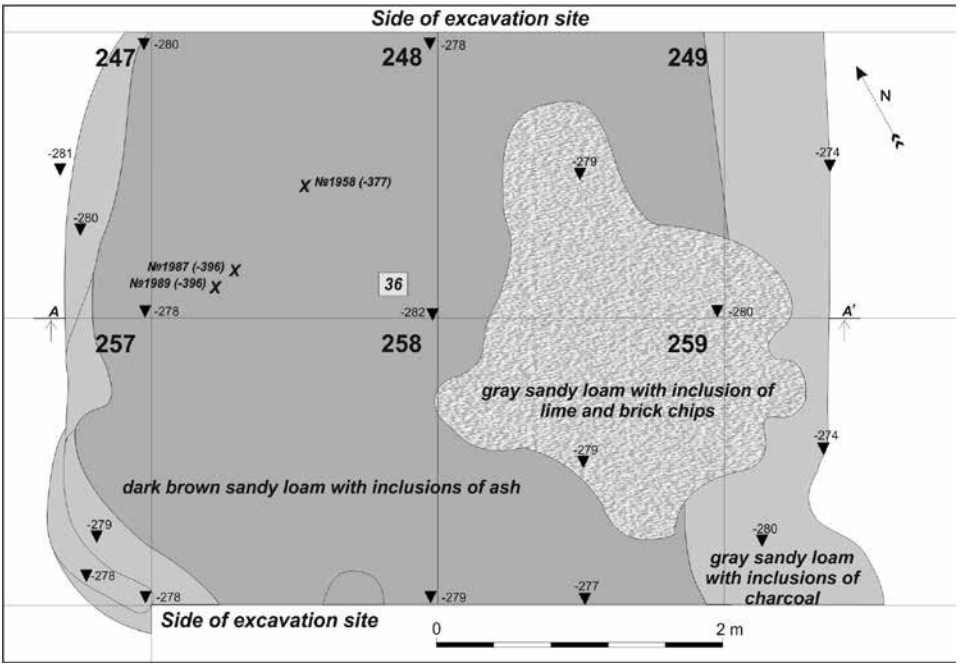

Fig. 3. Residential building 36. Plan × – find locations of enameled glass fragments

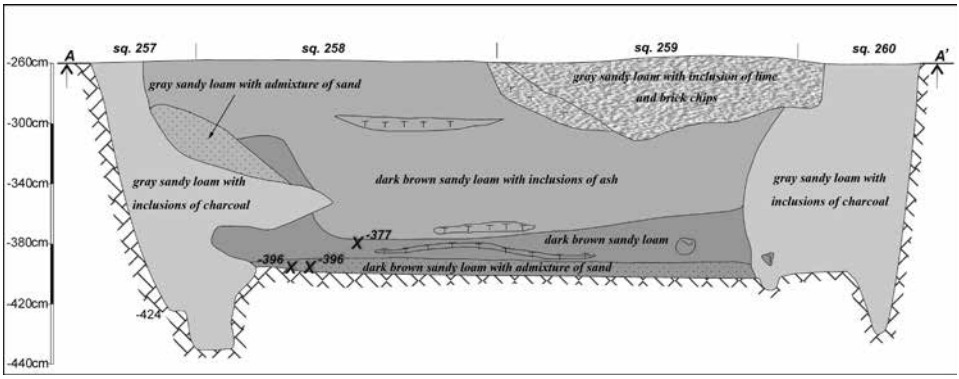

Fig. 4. Residential building 36. Cross-section A-A'. View from the West × – find locations of enameled glass fragments

embedded whole tree-trunk sections with filed lower ends recessed 30–40 cm into ground. Traces of larger support pillars can be seen in the corners and in the middle of the walls. The building measures 400×420 cm on the outside and 340×350 cm internally. The backfill of the walls (gray sandy loam with charcoal inclusions) was noted along the northern and southern limits of the building. A layer of dark brown sandy loam filled the interior. A pit in the southern part of the building contained gray sandy loam with lime and brick chips.

Fragments of painted glass vessels were found at the bottom part of the cellar fill, in a layer of dark brown sandy loam with extensive sand. The fragment considered as lower part of a vessel was found at a depth of 377 cm, while pieces from the upper and middle parts were found below that, at 396 cm. The bulk of the ceramics from the fill is composed of ancient Russian pottery of 12th and early 13th century date (Tab. 1). Overall, the assemblage of all finds and pottery dates building 36 to the second half of the 12th or the first half of the 13th century.

A study of the shapes and proportions of Islamic beakers has led researchers to distinguish five basic types (Fig. 5; Kenesson 1998: 46, Tab. I). In terms of shape there are two forms of beakers: cylindrical and conical. One theory is that both forms emerged simultaneously in the mid-12th century, their popularity waning towards the end of the 13th century (Carboni 2001: 329, 332, 334). A different view holds that the conical vessels should be attributed to the end of the Ayyubid period (1225–1250), whereas the cylindrical vessels are thought to pertain to 1250–1380 (Kenesson 1998: 46–48).

The fragments from Yaroslavl belonged most probably to the conical type, the shape being reconstructed based on fragments came from the upper part of the vessel. These fragments were decorated with a frieze consisting of an Arabic inscription in *Naskh*

Table 1. The collection of ceramics from the bottom fill of the building 36

Part of the vessel **Type of ceramics**	**Upper part**	**Body**	**Base**	**Total**	**%**
Ancient Russian circular (early 13th c.)	14	80	7	101	86.33
Ancient Russian circular (12th c.)	2	9	2	13	11.11
Molded		3		3	2.56
Total	16	92	9	117	100.00

script (only the word 'cup' could be distinguished)[2] (Fig. 2: No. 1987). The inscription was rendered with gold paint, contoured with red-brown, the interstitials filled with applied indigo enamel. The frame around the inscription is a simple red-brown line on top and a strip of yellow enamel sandwiched between red-brown paint below. Under the inscription there is another frieze with an interwoven pattern of arabesques. The ornament is wrought in gold outlined with red-brown.

The varying space between the frieze with the inscription and the vessel edge suggests that there were at least two beakers with the same ornament (Fig. 2: No. 1987). The rim diameter of one of them is 11 cm; the other one could not be determined due to the small size of the fragments. Both vessels were of conical type A with a rim diameter ranging from 9 to 14 cm, whereas in type B rim diameters ranged from 8.4 to 10.5 cm (Fig. 5; Kenesson 1998: 46, Tab. I).

The closest parallel to the Yaroslavl fragments with inscription is the Palmer Cup from the British Museum (Fig. 6). The Cup features an inscription near the top edge; it is in the same style and bordered by the same kind of frame. There is, however,

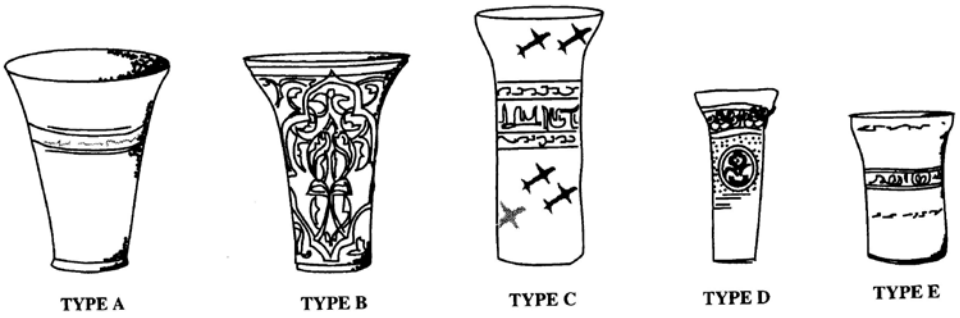

Fig. 5. Types of Islamic beakers (after Kenesson 1998: 46, Tab. I)

[2] Anatoly Ivanov, Head of Oriental Department, State Hermitage Museum

Fig. 6. The Palmer Cup. Syria, Raqqa, early 13th century. H. 13 cm. The British Museum, London (after Tait 1998: Col. pl. J. Fig. 13: 5)

no ornamental frieze like the one on the Yaroslavl pieces. The Cup's shape and proportions classify it as a type A conical vessel. According to C.J. Lamm, the Cup represents Raqqa-ware dated 1170–1270 (Lamm 1929–1930: Tab. 96: 6). Lamm attributed the Palmer Cup to the 1230s (Tait 1998: 51). Even though Lamm's chronology has been significantly revised, no new dating for the Palmer Cup has been proposed. Modern scholars of the Cup suggest that such inscriptions can be found in Arabic manuscripts of the 13th century, while inscriptions in gold outlined with black or red occur in manuscripts from the turn of that century (Contadini 1998: 56).

Fragments with a similar inscription on a indigo background and a gold ornament of arabesques encircled with a red-brown line have been found in the Rurik settlement excavations. Some were found during the dismantling of structures dated from the late 13th to the 15th century (Plokhov 2007: 167, 173, Tables 6, 10, 11, 18).

The fragment with an image of a human face in three-quarter view was located probably in the middle section of the beaker (Fig. 2: No. 1989). The silhouette is in gold-plated pale pink enamel, while facial features and the contour are rendered with a red-brown color. Pieces of clothing, that is, the headgear and outer garments (purportedly, a turban and a collar, respectively), are executed in indigo paint outlined with gold. The face is done in a manner characteristic of Islamic miniature painting, including features such as a rounded chin and a distinctive portrayal of the neck. Rounded eyes and arched eyebrows are similar to the features of individuals depicted on the Palmer Cup, the closest among which is the facial image of a musician standing to the right of the figure of the ruler on the throne (Fig. 7).

Fig. 7. Drawing of part of the decoration of the Palmer Cup (after Contadini 1998: Fig. 14: 3)

Another fragment comes from the lower part of the vessel to judge by its thickness (Fig. 2: No. 1958). One can see the legs of a standing man turned to the right, one of them is bent. The man is dressed in tight-fitting red-brown trousers decorated with gold flecks. In the background there is a pond outlined with a red-brown line and yellow-green grass. The pond is done in indigo enamel with lines representing the ripples in the water.

The fragment is paralleled by the decoration on a vessel from the National Museum in Kuwait City (Kuwait) (Fig. 8; Carboni 2001: 330–331, Cat. 86a). The vessel depicts two men surrounded by tall bushes: one is standing on the lakeshore and the other is knee-deep in water. With their raised right hands, the men point to birds (herons or cranes) flying above them. The images of birds girdle the cup's upper part. This story is interpreted by researchers as a hunting scene. One of the hunters is a man clad in

Fig. 8. Beaker, 1250–1275. H. 12 cm, max. D. 8 cm. The National Museum, Kuwait City (Kuwait; after Carboni 2001: 330, Cat. 86a)

the same kind of trousers, only with a golden cross-shaped pattern. His legs are bent at the knees and turned to the left. The man stands on the waterfront with characteristic ripples, outlined by yellow-green grass in the background. This part of the image is almost completely identical with that on our fragment.

In addition to the Kuwaiti Cup, birds of the same kind were depicted on the upper part of nine other whole and fragmented vessels (Carboni 2001: 332–333). Lamm dated them to the 13th century, placing them in the Aleppo group (Lamm 1929–1930: Taf. 120, 126, 127). Researchers have narrowed down the chronological range of these cups to the second half of the 13th century (Baumgartner and Krueger 1988: 121).

The nearest parallels to the Kuwaiti Cup are two vessels with an image of men at a waterfront (Carboni 2001: 331). One of them is a glass from the Grünes Gewölbe museum in Dresden. One side of the glass shows a male figure submerged in water; on the other there is a large spreading tree instead of a human figure. Cranes flying in two rows are placed above the figure of a man, who seems to be wanting to grab one of the birds by its wing. Two fragments of glass from the Berlin Museum of Islamic Art also feature a preserved image of one man sitting in water, while the other man is shown standing. The men do not point towards the birds; their hands are raised close to their faces. The images on these vessels are not identical, but they seem to be united by a single storyline. This suggests that they are illustrative of some unknown literary work. In the researchers' opinion, these cups should be considered together with the beaker from the Museum of Hessen History (Hessisches Landesmuseum) in Kassel, featuring an image of flying birds and two human figures sitting in a thicket of plants and playing musical instruments (Carboni 2001: 331). Unlike the scenes on the Dresden and Berlin beakers, the group of flying cranes encircling the upper part of the Kassel beaker is enclosed in a frame, as is the central composition, bounded by two thin enamel lines. Despite the scene depicted on this beaker being different (not a hunting scene), the similarity of some features (e.g., the shape of cranes and the drawing on the musician's garments) suggest that the Kassel beaker should be regarded in conjunction with the three other vessels and that they were manufactured in a single workshop during a short period of time. According to Stefano Carboni, cups with images of birds and human figures standing on the waterfront with characteristic ripples on the water were popular in the third quarter of the 13th century (Carboni 2001: 331). A fragment of a vessel with the same image unearthed in a Yaroslavl building dating from the pre-Mongolian period may suggest that such vessels existed at an earlier time. This in turn is supported by the wider dating proposed by Lamm.

Could the pieces from Yaroslavl be part of the same vessel? Presumably, fragments with the inscription and the face of a man may have been part of the same beaker. The lower part of a male figure is likely to belong to another vessel as demonstrated by the cited parallels and the fact that the fragment with the male figure was discovered separately from the rest of the fragments within the building.

Researchers have suggested that vessels of the same shape with similar painting but different dimensions (height and diameter) could have been placed one inside the other and thus be part of a set of nesting cups for different purposes (Fig. 9; Carboni 2001: 331, 334; Gibson 2005: 278–279). Such a set of cups was purportedly intended for different beverages to be consumed by one person during a meal, for example, wine, water, koumiss and others. In addition, cups nested one inside the other were easier to transport (Kenesson 1998: 47; Carboni 2001: 334). Several such sets are known. One set includes four cups with an ornamental image: three come from the collection of Nasser D. Khalili in London, while the fourth cup is from the National Museum in Kuwait City (collection of Sheikh Nasser Al-Sabah). Another set, according to Carboni, was made up of three vessels with images of birds and male figures standing on the waterfront: from Kuwait, Grünes Gewölbe museum in Dresden and the Museum of Islamic Art in Berlin (Carboni 2001: 331).

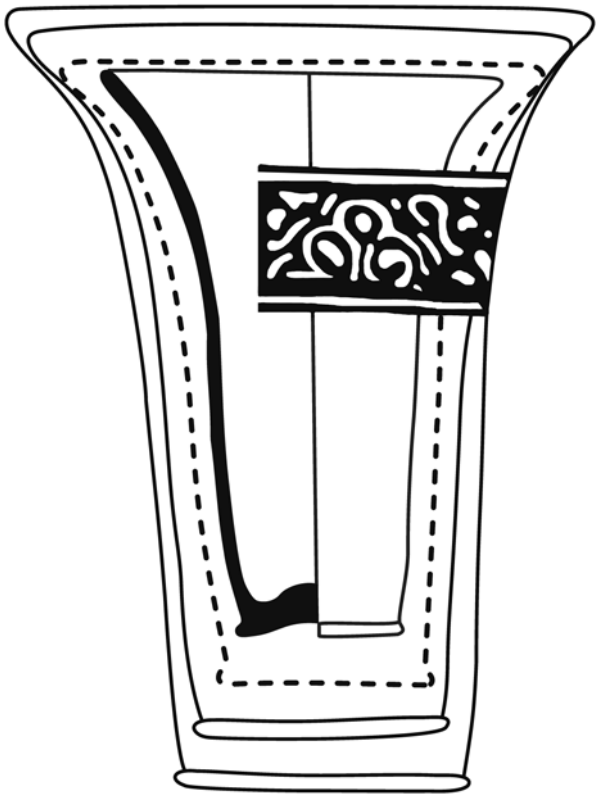

Fig. 9. Glass cups comprising a set (after Gibson 2005: 278)

The Yaroslavl vessels with an inscription made in the same style, of which there may have been at least two, presumably formed a set of beakers or part of such a set, brought in from the East as a gift or souvenir. Note that many of the finds of Middle Eastern glasses from the territory of Russia consist, as in our case, of at least two identical vessels. One example are the two beakers with ornamentation in the same style from Novogrudok (the publication unfortunately records the height of only one vessel) (Fig. 10, 11; Gurevich *et al.* 1968: 12); another are the two beakers from Vladimir (in this case, losses prevent the height and rim diameter from being identified) (Kuzina 2011: 92).

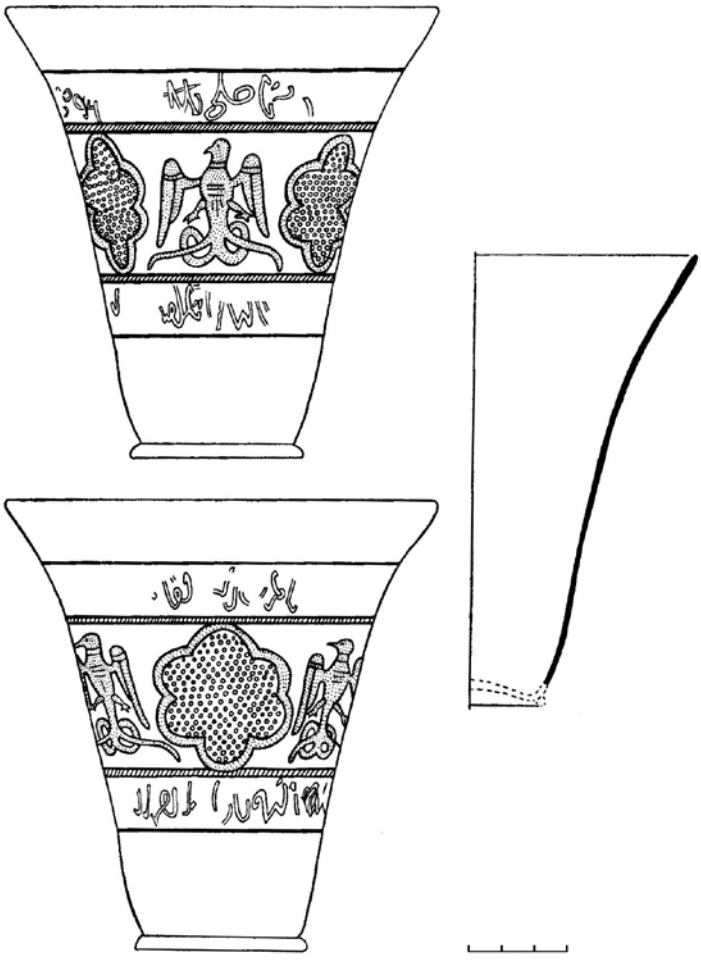

Fig. 10. One of two beakers with ornamentation in the same style from Novogrudok (after Gurevich *et al.* 1968: Tab. 8)

Fig. 11. One of two beakers with ornamentation in the same style from Novogrudok (after Gurevich *et al.* 1968: Tab. 9)

The chemical composition of two glass fragments from vessels with inscriptions was studied (Tab. 2). Both glasses were found to belong to the sodium-calcium-silicon (Na_2O–CaO–SiO_2) chemical class. The ratio of sodium and potassium (Na/K=6.1 and 6.3) in both instances suggest that they were melted of sodium raw materials with a small addition of potassium (3<Na/K≤13). The calculation of the potassium fraction in the alkaline raw material (C=100 × K_2O / Na_2O + K_2O = 13.7 and 14.1) shows that the ash of the air-borne parts of annual plants from the desert zone, *Kalidium caspicum*, were used as alkaline raw material (Stawiarska 1984: 24–27). Fusible fractions (R_2O = Na_2O + K_2O; RO = CaO + MgO) of Yaroslavl glass (test 839–1) are mixed according to recipe 3 (N = R_2O / RO). The second analysis (test 839–2) revealed that recipe 2.5 was used. A similar recipe was traditionally used in Middle Eastern glass-making from the first centuries of our era (Sčapova 1983: 127).

Table 2. Optical emission spectral analysis data for glass vessels from the city of Yaroslavl

Laboratory test code	**839–1**	**839–2**
Color	**colorless**	**colorless**
SiO_2	base	base
Na_2O	14	15
K_2O	2.3	2.4
CaO	4.3	5.8
MgO	1.0	1.2
Al_2O_3	0.3	0.4
Fe_2O_3	0.03	0.03
MnO	0.3	0.4
TiO_2	0.06	0.07
PbO	-	-
SnO_2	-	-
CuO	-	-
CoO	-	-
Sb_2O_5	-	-
Ag_2O	-	-
NiO	-	-

Thus we can assume that the fragments of painted glass of Middle Eastern origin from Yaroslavl belonged to three beakers, two of which, decorated with inscriptions, could have made up a set. Parallels for fragments with Arabic inscription and a fragment with the image of a human face confirm their dating to the pre-Mongol period, as determined from the archaeological context. Discrepancies in the dating of the fragment with the image of the lower part of a male figure derived from the archaeological context and the various parallels push back the first occurrence of vessels with similar paintings from the middle to the first half of the 13th century.

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